

August 11, 2008

Mr. Robert Kennedy  
ENSR  
2 Technology Park Drive  
Westford, MA 01886

Re: Tronox Phase B Investigation Project #04020-023-4312  
Submission # R2844768

Dear Mr. Kennedy:

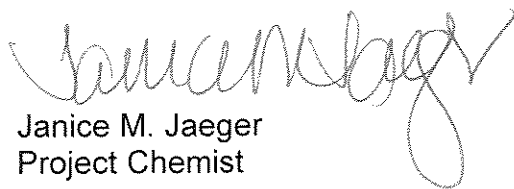
Enclosed is the analytical data report for the above referenced facility. A total of nine samples were received by our laboratory on July 1, 2008.

Any problems encountered with this project are addressed in a case narrative section which is presented later in this report.

This report consists of two (2) packages: the sample data package and the sample data summary package. All data presented in this package has been reviewed prior to report submission. If you should have any questions or concerns, please contact me at (585) 288-5380.

Thank you for your continued use of our services.

Sincerely,  
COLUMBIA ANALYTICAL SERVICES



Janice M. Jaeger  
Project Chemist

Enc.



1 Mustard ST.  
Suite 250  
Rochester, NY 14609  
(585) 288-5380

**THIS IS AN ANALYTICAL TEST REPORT FOR:**

Client : ENSR International  
Project Reference: TRONOX PHASE B INVESTIGATION PROJ# 04020-023-4312  
Lab Submission # : R2844768  
Project Manager : Janice Jaeger  
Reported : 07/30/08

Report Contains a total of 1366 pages

The results reported herein relate only to the samples received by the laboratory. This report may not be reproduced except in full, without the approval of Columbia Analytical Services.

This package has been reviewed by Columbia Analytical Services' QA Department/Laboratory Director to comply with NELAC standards prior to report submittal. Michael K. Perry



# SDG NARRATIVE

## **CASE NARRATIVE**

COMPANY: ENSR  
Tronox Phase B Investigation Project #04030-023-4312  
SUBMISSION #: R2844768

ENSR samples were collected on 06/29-30/08 and received at CAS on 07/01/08 in good condition. All Hexavalent chromium samples were filtered in the field and then placed in sample bottles preserved with Ammonium sulfate and Sodium hydroxide.

### **INORGANICS**

Five water samples were analyzed for a site specific list of inorganics. Please see attached data pages for method numbers.

Site specific QC was not requested for these samples. All Blank spike recoveries were within limits.

### **VOLATILE ORGANICS**

Nine water samples were analyzed for a site specific list of Volatiles by Methods 5030/8260B from SW-846.

All the initial and continuing calibration criteria were met for all analytes.

All internal standard areas were within QC limits.

All surrogate standard recoveries were within QC limits.

Site specific QC was not requested for these samples. All Reference spike recoveries were within Tronox limits except Acetone, Chloroethane, Dibromochloromethane, Dichlorodifluoromethane, 1,1-Dichloroethene, Methylene chloride and Trichlorofluoromethane were outside limits on the 07/10/08 LCS and have been flagged with an "\*". The outliers were within 60-140%.

The Laboratory blanks associated with these samples were free of contamination.

TB062908GW1 and TB063008GW3 had a low level hit for Acetone. TB063008GW3 also had a low level hit for Methylene chloride.

All samples were analyzed within required holding times.

No other analytical or QC problems were encountered.

### **SEMIVOLATILE ORGANICS**

Five water samples were analyzed for a site specific list of Semivolatiles by method 8270C low level from SW-846.

All the initial and continuing calibration criteria were met for all analytes.

All internal standard areas were within QC limits.

All surrogate standard recoveries were within limits.

Site specific QC was not requested for these samples. Various Blank spike/Blank spike duplicate recoveries were outside limits. At least one of the recoveries was within 10-150% except for Di-n-butyl phthalate on the 07/02/08 LCS/LCSD was outside limits high. No data was affected. All RPD's were within limits except the Octachlorostyrene and Pyridine. All outlying QC has been flagged with an "\*\*".

The Laboratory Blanks associated with these analyses were free of contamination except the 07/02/08 blank contained low level hits for Naphthalene. All affected data has been flagged with a "B".

All samples were extracted and analyzed within holding times.

No other analytical or QC problems were encountered.

### PESTICIDES

Five water samples were analyzed for a site specific list of Pesticides by method 8081 from SW-846.

All the initial and continuing calibration criteria were met for all analytes.

All surrogate standard recoveries were within Tronox limits.

Site specific QC was not requested for these samples. All Blank spike/Blank spike duplicate recoveries were within limits. All RPD's were within limits.

Various compounds for M-126B have been flagged with an "E" as being outside the calibration range of the instrument. The sample was repeated at a dilution and both sets of data have been reported out.

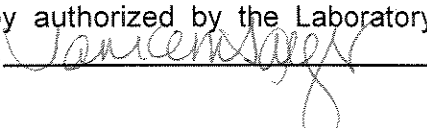
The Laboratory Blanks associated with these analyses were free of contamination.

All samples were extracted and analyzed within required holding times

No other analytical or QC problems were encountered.

### PERCHLORATE, CHLORATE & METALS

Water samples were subcontracted to CAS-Kelso for Chlorate, Perchlorate and Metals analysis. Their complete data package has been included.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the details conditioned above. Release of the data contained in this hard copy data package have by authorized by the Laboratory Manager or his designee, as verified by the following signature. 





## ORGANIC QUALIFIERS

- U - Indicates compound was analyzed for but not detected. The sample quantitation limit must be corrected for dilution and for percent moisture.
- J - Indicates an estimated value. The flag is used either when estimating a concentration for tentatively identified compounds, or when the data indicate the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit and greater than the MDL. This flag is also used for DoD instead of "P" as indicated below.
- N - Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search.
- P - This flag is used for a pesticide/Aroclor target analyte when there is a greater than 40% (25% for CLP) difference for detected concentrations between the two GC columns. The concentration is reported on the Form I and flagged with a "P" ("J" for DoD).
- Q - for DoD only – indicates a pesticide/Aroclor target is not confirmed. This flag is used when there is  $\geq$  100% difference for the detected concentrations between the two GC columns.
- C - This flag applies to pesticide results where the identification has been confirmed by GC/MS.
- B - This flag is used when the analyte is found in the associated blank as well as in the sample.
- E - This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
- D - This flag identifies all compounds identified in an analysis at a secondary dilution factor. If a sample or extract is re-analyzed at a higher dilution factor, as in the "E" flag above, the "DL" suffix is appended to the sample number on the Form I for the diluted sample, and ALL concentration values reported on that Form I are flagged with the "D" flag.
- A - This flag indicates that a TIC is a suspected aldol-condensation product.
- X - As specified in Case Narrative.
- \* - This flag identifies compounds associated with a quality control parameter which exceeds laboratory limits.

### **CAS/Rochester Lab ID # for State Certifications**

NELAP Accredited  
Delaware Accredited  
Connecticut ID # PH0556  
Florida ID # E87674  
Illinois ID #200047  
Maine ID #NY0032  
Massachusetts ID # M-NY032  
Navy Facilities Engineering Service Center Approved

Nebraska Accredited  
New Jersey ID # NY004  
New York ID # 10145  
New Hampshire ID # 294100 A/B  
Pennsylvania ID# 68-786  
Rhode Island ID # 158  
West Virginia ID # 292



## INORGANIC QUALIFIERS

### C (Concentration) qualifier –

- B - if the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL) but was greater than or equal to the Instrument Detection Limit (IDL). This qualifier may also be used to indicate that there was contamination above the reporting limit in the associated blank. See Narrative for details.
- U - if the analyte was analyzed for, but not detected

### Q qualifier - Specified entries and their meanings are as follows:

- D - Spike was diluted out
- E - The reported value is estimated because the serial dilution did not meet criteria.
- J - Estimated Value
- M - Duplicate injection precision not met.
- N - Spiked sample recovery not within control limits.
- S - The reported value was determined by the Method of Standard Additions (MSA).
- W - Post-digestion spike for Furnace AA Analysis is out of control limits (85-115), while sample absorbance is less than 50% of spike absorbance.
- \* - Duplicate analysis not within control limits.
- + - Correlation coefficient for the MSA is less than 0.995.

### M (Method) qualifier:

- "P" for ICP
- "A" for Flame AA
- "F" for Furnace AA
- "PM" for ICP when Microwave Digestion is used
- "AM" for Flame AA when Microwave Digestion is used
- "FM" for Furnace M when Microwave Digestion is used
- "CV" for Manual Cold Vapor AA
- "AV" for Automated Cold Vapor AA
- "AF" for Automated Cold Vapor Atomic Fluorescence Spectrometry
- "CA" for Midi-Distillation Spectrophotometric
- "AS" for Semi-Automated Spectrophotometric
- "C" for Manual Spectrophotometric
- "T" for Titrimetric
- " " where no data has been entered
- "NR" if the analyte is not required to be analyzed.

## CAS/Rochester Lab ID # for State Certifications

NELAP Accredited  
Delaware Accredited  
Connecticut ID # PH0556  
Florida ID # E87674  
Illinois ID #200047  
Maine ID #NY0032  
Massachusetts ID # M-NY032  
Navy Facilities Engineering Service Center Approved

Nebraska Accredited  
New Jersey ID # NY004  
New York ID # 10145  
New Hampshire ID # 294100 A/B  
Pennsylvania ID # 68-786  
Rhode Island ID # 158  
West Virginia ID # 292

# **CHAINS OF CUSTODY**

## **INTERNAL CHAINS**



# Water & Soil - Chain of Custody Record & Analytical Service Request

Columbia Analytical Services, Inc.  
 1 Mustard Street, Suite 250  
 Rochester, NY 14609  
 Phone (585) 288-5380

Rochester, NY

Requested Turnaround Time in Business Days (Surcharges) please circle  
 1 Day (100%) 2 Day (75%) 3 Day (50%) 4 Day (35%) 5 Day (25%) 10 Day-Standard

CAS Project No.

CAS Contact: Janice Jaeger

Project Name

Tronox Phase B Investigation

Project Number: 04020-023-9312

P.O. # / Billing Information

Project Manager: Robert Kennedy

Phone: 978-589-3324

Fax: 978-589-3100

Email Address for Result Reporting: rkennedy@ensr.aecom.com

Sampler (Print & Sign): Tom Shock/Son Bud

Laboratory ID Number

Date Collected

Time Collected

Matrix

Number of Containers

Client Sample ID

M-79B

M-79B

M-79B

M-79B

M-79B

M-79B

M-79B

M-79B

M-79B

M-79B

M-79B

M-79B

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M-79B

M-79B

M-79B

M-79B

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M-79B

## Analysis Method and/or Analytes

Preservative Code

8 0 1 5 0 0 0

TPH - diesel-range organics/oil-range organics (8015B)

Hexavalent Chromium (218.6)

Wet Chemistry (Except chlorate & perchlorate)

Organochlorine Pesticides (OCPs) (8081A)

Semi-Volatile Organics (8270C)

Formaldehyde (8315A)

TPH - gasoline-range organics (8015B)

Preservative Key

0 1

0 0

0 0

0 0

0 0

0 0

0 0

0 0

0 0

0 0

0 0

0 0

0 0

0 0

0 0

0 0

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0 0

0 0

0 0

0 0

0 0

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0 0

0 0

0 0

0 0

0 0

0 0

0 0

0 0

None

HCL

HNO<sub>3</sub>

H<sub>2</sub>SO<sub>4</sub>

NaOH

various

Asc Acid

Other

buffer +

NaOH

Remarks

TOT ALK

TPO<sub>4</sub>, NH<sub>3</sub>

TOT CN

TSS

TOC

PH

MBA/surfactant

Project Requirements (MRLs, QAPP)

(See Contractual Specifications)

Chain of Custody Number:

0629086W4-1

Cooler / Blank / Ice / No Ice

Temperature 24 °C

Report Tier Levels - please select

Tier I - (Results/Default if not specified)

Tier II (Results + QC)

Tier III (Data Validation Package) 10% Surcharge

Tier V (client specified) X

MRL required: Yes

MDL / PQL / J required: Yes

EDD required: Yes

Type: ENSR-specific

Date: 7/1/08

Time: 9:40

Received by: (Signature)

Received by: (Signature)

Received by: (Signature)

Received by: (Signature)

Received by: (Signature)

Received by: (Signature)

Received by: (Signature)

Received by: (Signature)





Columbia Analytical Services, Inc.  
 1 Mustard Street, Suite 250  
 Rochester, NY 14609  
 Phone (585) 288-5380

# Water & Soil - Chain of Custody Record & Analytical Service Request

Rochester, NY

*Short Hold Time*

<b>Company Name &amp; Address (Reporting Information)</b> ENSR 2 Technology Park Drive Westford, MA 01886-3140		<b>Project Name</b> Tronox Phase B Investigation Project Number: 04020-023-4312		<b>Requested Turnaround Time in Business Days (Surcharges) please circle</b> 1 Day (100%) 2 Day (75%) 3 Day (50%) 4 Day (35%) 5 Day (25%) 10 Day-Standard		<b>CAS Project No.</b>	
<b>Project Manager</b> Robert Kennedy Phone 978-589-3324 Email Address for Result Reporting rkennedy@ensr.aecom.com		<b>P.O. # / Billing Information</b> Tom Shari/Son		<b>Analysis Method and/or Analytes</b> Preservative Code 8 0 1 5 0 0 0		<b>CAS Contact:</b> Janice Jaeger	
<b>Client Sample ID</b> M-79B TB0629086W4		<b>Laboratory ID Number</b>		<b>Date Collected</b> 6-29-08 14:31 6-29-08 14:31		<b>Matrix</b> W W	
<b>Number of Containers</b> 1 3		<b>TPH - diesel-range organics/oil-range organics (8015B)</b> TPH - gasoline-range organics (8015B)		<b>Formaldehyde (8315A)</b> <b>Semi-Volatile Organics (8270C)</b> <b>Organochlorine Pesticides (OCPs) (8081A)</b> <b>Wet Chemistry (Except chlorate &amp; perchlorate) (8260)</b> <b>VOCs (8260)</b> <b>Hexavalent Chromium (2186)</b>		<b>Preservative Key</b> 0 None 1 HCL 2 HNO <sub>3</sub> 3 H <sub>2</sub> SO <sub>4</sub> 4 NaOH 5 various 6 Asc Acid 7 Other 8 buffer + NaOH	
<b>Remarks</b> Short Hold Time CL, NO <sub>3</sub> , NO <sub>2</sub> , SQ, RP, TDS		<b>TPH - diesel-range organics/oil-range organics (8015B)</b> <b>Formaldehyde (8315A)</b> <b>Semi-Volatile Organics (8270C)</b> <b>Organochlorine Pesticides (OCPs) (8081A)</b> <b>Wet Chemistry (Except chlorate &amp; perchlorate) (8260)</b> <b>VOCs (8260)</b> <b>Hexavalent Chromium (2186)</b>		<b>TPH - diesel-range organics/oil-range organics (8015B)</b> <b>Formaldehyde (8315A)</b> <b>Semi-Volatile Organics (8270C)</b> <b>Organochlorine Pesticides (OCPs) (8081A)</b> <b>Wet Chemistry (Except chlorate &amp; perchlorate) (8260)</b> <b>VOCs (8260)</b> <b>Hexavalent Chromium (2186)</b>		<b>Remarks</b> Short Hold Time CL, NO <sub>3</sub> , NO <sub>2</sub> , SQ, RP, TDS	

**Report Tier Levels - please select**  
 Tier I - (Results/Default if not specified) \_\_\_\_\_  
 Tier II (Results + QC) \_\_\_\_\_  
 Tier III (Data Validation Package) 10% Surcharge \_\_\_\_\_  
 Tier V (client specified) X \_\_\_\_\_

MRL required: Yes  
 MDL / PQL / J required: Yes  
 EDD required: Yes  
 Type: ENSR-specific

Chain of Custody Number:  
 0629086W4-1

Cooler / Blank / Ice / No Ice  
 Temperature 24 °C

Date: 6-30-08 14:00  
 Date: 7/1/08 9:40  
 Date: \_\_\_\_\_  
 Date: \_\_\_\_\_

Received by: (Signature)  
 Son Shari  
 Received by: (Signature)  
 Received by: (Signature)



# Water & Soil - Chain of Custody Record & Analytical Service Request

Rochester, NY

Columbia Analytical Services, Inc.  
 1 Mustard Street, Suite 250  
 Rochester, NY 14609  
 Phone (585) 288-5380

**Requested Turnaround Time in Business Days (Surcharges) please circle**  
 1 Day (100%) 2 Day (75%) 3 Day (50%) 4 Day (35%) 5 Day (25%) 10 Day-Standard

CAS Project No. \_\_\_\_\_  
 CAS Contact: Janice Jaeger

Company Name & Address (Reporting Information)				Analysis Method and/or Analytes										Preservative Key	Remarks		
<b>ENSR</b> 2 Technology Park Drive Westford, MA 01886-3140  Project Manager <b>Robert Kennedy</b> Phone 978-589-3324 Fax 978-589-3100 Email Address for Result Reporting <a href="mailto:rkennedy@ensr.aecom.com">rkennedy@ensr.aecom.com</a>				<b>Tronox Phase B Investigation</b> Project Number: 04020-023-4312 P.O. # / Billing Information										0 None 1 HCL 2 HNO <sub>3</sub> 3 H <sub>2</sub> SO <sub>4</sub> 4 NaOH 5 various 6 Asc Acid 7 Other 8 buffer + NaOH			
Project Name				Preservative Code										Preservative Key	Remarks		
Sampler (Print & Sign)				Date Collected	Time Collected	Matrix	Number of Containers	Hexavalent Chromium (218.6)	TPH - diesel-range organics/oil-range organics (8015B)	VOCs (8260)	Wet Chemistry (Except chlorate & perchlorate)	Organochlorine Pesticides (OCPs) (8081A)	Semi-Volatile Organics (8270C)	Formaldehyde (8315A)	TPH - gasoline-range organics (8015B)	Preservative Key	Remarks
SARA WANG / RW				6/29/08	14:49	WATER	3			X						0	
TB062908GW1				6/29/08	14:49	WATER	3			X						1	
M-126B				6/29/08	14:49	WATER	2				X				0		
M-126B				6/29/08	14:44	WATER	1			X					0		
M-126B				6/29/08	14:44	WATER	2			X					0		
M-126BF				6/29/08	14:44	WATER	1	X							0		
M-126B				6/29/08	14:44	WATER	1			X					0		
M-126B				6/29/08	14:44	WATER	1		X						0		
M-126B				6/29/08	14:44	WATER	1		X						0		
M-126B				6/29/08	14:44	WATER	3		X						0		
M-126B				6/29/08	14:44	WATER	1		X						0		

**Report Tier Levels - please select**  
 Tier I - (Results/Default if not specified) \_\_\_\_\_  
 Tier II (Results + QC) \_\_\_\_\_  
 Tier III (Data Validation Package) 10% Surcharge \_\_\_\_\_  
 Tier V (client specified) X \_\_\_\_\_

MRL required: Yes \_\_\_\_\_  
 MDL / PQL / J required: Yes \_\_\_\_\_  
 EDD required: Yes \_\_\_\_\_  
 Type: ENSR-specific \_\_\_\_\_

Chain of Custody Number: 062908GW1-1  
 Cooler / Blank / Ice / No Ice  
 Temperature 24 °C

Relinquished by: (Signature) \_\_\_\_\_  
 Relinquished by: (Signature) \_\_\_\_\_  
 Relinquished by: (Signature) \_\_\_\_\_

Date: 6/30/08 14:30  
 Date: \_\_\_\_\_  
 Date: \_\_\_\_\_

Time: \_\_\_\_\_  
 Time: \_\_\_\_\_  
 Time: \_\_\_\_\_

Received by: (Signature) \_\_\_\_\_  
 Received by: (Signature) \_\_\_\_\_  
 Received by: (Signature) \_\_\_\_\_

Date: 7/1/08  
 Date: \_\_\_\_\_  
 Date: \_\_\_\_\_

Time: 9:40  
 Time: \_\_\_\_\_  
 Time: \_\_\_\_\_







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 Rochester, NY 14609  
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# Water & Soil - Chain of Custody Record & Analytical Service Request

Rochester, NY

SHORT HOLD TIME

<b>Company Name &amp; Address (Reporting Information)</b> ENSR 2 Technology Park Drive Westford, MA 01886-3140		<b>Project Name</b> Tronox Phase B Investigation Project Number: 04020-023-4312 P.O. # / Billing Information		<b>Requested Turnaround Time in Business Days (Surcharges) please circle</b> 1 Day (100%) 2 Day (75%) 3 Day (50%) 4 Day (35%) 5 Day (25%) 10 Day-Standard		<b>CAS Project No.</b>	
<b>Project Manager</b> Robert Kennedy Phone: 978-589-3324 Fax: 978-589-3100 Email Address for Result Reporting: rkennedy@ensr.aecom.com		<b>Sampler (Print &amp; Sign)</b> See Tronox/G-2		<b>Analysis Method and/or Analytes</b> Preservative Code 8 0 1 5 0 0 0 0 0 0		<b>CAS Contact:</b> Janice Jaeger	
<b>Client Sample ID</b> M-84B TB062803		<b>Laboratory ID Number</b>		<b>Date Collected</b> 6/29/08 1500		<b>Matrix</b> WATER WATER 3	
<b>Number of Containers</b> 1 3		<b>TPH - diesel-range organics/oil-range organics (8015B)</b> <input type="checkbox"/>		<b>VOCs (8260)</b> <input checked="" type="checkbox"/>		<b>Wet Chemistry (Except chlorate &amp; perchlorate) (8081A)</b> <input checked="" type="checkbox"/>	
<b>Hexavalent Chromium (218.6)</b> <input type="checkbox"/>		<b>Semi-Volatile Organics (8270C)</b> <input type="checkbox"/>		<b>Formaldehyde (8315A)</b> <input type="checkbox"/>		<b>TPH - gasoline-range organics (8015B)</b> <input type="checkbox"/>	
<b>Remarks</b> 0 MBA SHORT HOLD TIME TRIP BLANK		<b>Preservative Key</b> 0 None 1 HCL 2 HNO <sub>3</sub> 3 H <sub>2</sub> SO <sub>4</sub> 4 NaOH 5 various 6 Asc Acid 7 Other 8 buffer + NaOH		<b>Project Requirements (MRLs, QAPP)</b> (See Contractual Specifications)		<b>Chain of Custody Number:</b> 0629086W3-1 Cooler / Blank / Ice / No Ice Temperature 2-4 °C	

**Report Tier Levels - please select**  
 Tier I - (Results/Default if not specified) \_\_\_\_\_  
 Tier II (Results + QC) \_\_\_\_\_  
 Tier III (Data Validation Package) 10% Surcharge \_\_\_\_\_  
 Tier V (client specified)  \_\_\_\_\_

MRL required: Yes  
 MDL / PQL / J required: Yes  
 EDD required: Yes  
 Type: ENSR-specific

Relinquished by: (Signature) \_\_\_\_\_ Date: 6/29/08 Time: 1600  
 Received by: (Signature) \_\_\_\_\_ Date: 7/1/08 Time: 940  
 Relinquished by: (Signature) \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Received by: (Signature) \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_











### Cooler Receipt And Preservation Check Form

Project/Client ENSR Submission Number R2844768

Cooler received on 7/11 by: AP COURIER: CAS UPS ~~FEDEX~~ VELOCITY CLIENT

1. Were custody seals on outside of cooler? YES ~~NO~~
  2. Were custody papers properly filled out (ink, signed, etc.)? ~~YES~~ NO
  3. Did all bottles arrive in good condition (unbroken)? ~~YES~~ NO
  4. Did any VOA vials have significant\* air bubbles? YES ~~NO~~ N/A
  5. Were **Ice** or **Ice packs** present? ~~YES~~ NO
  6. Where did the bottles originate? ~~CAS/ROC~~ CLIENT
  7. Temperature of cooler(s) upon receipt: 4° 4° 4° 2°
- Is the temperature within 0° - 6° C?: ~~Yes~~ ~~Yes~~ ~~Yes~~ ~~Yes~~ Yes
- If No, Explain Below No No No No No

Date/Time Temperatures Taken: 7/11/08 9:45

Thermometer ID: 161 / ~~IR GUN#2~~ / IR GUN#3 Reading From: Temp Blank / Sample Bottle

If out of Temperature, note packing/ice condition, Client Approval to Run Samples: \_\_\_\_\_

PC Secondary Review: JMJ 7/11/08

Cooler Breakdown: Date: 7/11/08 by: AP

1. Were all bottle labels complete (i.e. analysis, preservation, etc.)? ~~YES~~ NO
2. Did all bottle labels and tags agree with custody papers? ~~YES~~ NO
3. Were correct containers used for the tests indicated? ~~YES~~ NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated N/A

Explain any discrepancies: \_\_\_\_\_

pH	Reagent			Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH	Yes = All samples OK No = Samples were preserved at lab as listed
		YES	NO							
≥12	NaOH			<u>WC850729</u>	<u>11/10</u>					
≤2	HNO <sub>3</sub>									
≤2	H <sub>2</sub> SO <sub>4</sub>			<u>WC85132D</u>	<u>04/09</u>					
Residual Chlorine (-)	For TCN and Phenol			If present, contact PM to add ascorbic acid						PM OK to Adjust: _____
	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	-	-			*Not to be tested before analysis – pH tested and recorded by VOAs or GenChem on a separate worksheet				
	Zn Aceta	-	-							
	HCl	*	*	<u>71047-01-0</u>	<u>04/09</u>					

Bottle lot numbers: 031457, 051908-2, 050508-1, 8-116-002

Other Comments: \_\_\_\_\_

PC Secondary Review: JMJ 7/3/08 \*significant air bubbles are greater than 5-6 mm

# Chain of Custody

**Submission:** R2844768 **Client:** ENSR International

**Lab ID:** 1113695 **Matrix:** WATER

Received into CAS-Rochester Custody: 7/1/2008

**Container:** 11136951

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:01	hpundt	Sample Management	Cooler 1	Storage	<input type="checkbox"/>

**Container:** 111369510

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:01	hpundt	Sample Management	Cooler 2	Storage	<input type="checkbox"/>
07/02/08 11:29	ewolfe	Wet Chemistry	Cooler 2	Analysis	<input type="checkbox"/>
07/02/08 16:49	ewolfe	Wet Chemistry	Cooler 2	Storage	<input type="checkbox"/>
07/30/08 7:40	gesmeria	Wet Chemistry	LTS	Storage	<input type="checkbox"/>

**Container:** 111369511

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:02	hpundt	Sample Management	Cooler 3	Storage	<input type="checkbox"/>

**Container:** 111369512

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:02	hpundt	Sample Management	Cooler 3	Storage	<input type="checkbox"/>

**Container:** 111369513

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:02	hpundt	Sample Management	Cooler 3	Storage	<input type="checkbox"/>
07/02/08 7:15	dmurphy	Organic Extractions	Analyst	Analysis	<input checked="" type="checkbox"/>

**Container:** 111369514

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:02	hpundt	Sample Management	Cooler 3	Storage	<input type="checkbox"/>
07/01/08 14:02	dmurphy	Organic Extractions	Analyst	Analysis	<input checked="" type="checkbox"/>

**Container:** 11136952

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:02	hpundt	Sample Management	Cooler 2	Storage	<input type="checkbox"/>
07/17/08 16:24	cschrade	Wet Chemistry	Cooler 2	Storage	<input type="checkbox"/>
07/17/08 17:11	cschrade	Wet Chemistry	Cooler 2	Storage	<input type="checkbox"/>
07/18/08 16:30	cschrade	Wet Chemistry	Cooler 2	Analysis	<input type="checkbox"/>
07/18/08 17:24	cschrade	Wet Chemistry	Cooler 2	Storage	<input type="checkbox"/>

# Chain of Custody

Submission: R2844768 Client: ENSR International

Container: 11136953

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 16:21	dbond	Metals	Cooler 2	Storage	<input type="checkbox"/>
07/24/08 15:25	kcCook	Sample Management	Dumpster	Storage	<input type="checkbox"/>

Container: 11136954

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:02	hpundt	Sample Management	Cooler 2	Storage	<input type="checkbox"/>
07/07/08 7:52	kreynold	Wet Chemistry	Cooler 2	Analysis	<input type="checkbox"/>
07/07/08 16:10	kreynold	Wet Chemistry	Cooler 2	Storage	<input type="checkbox"/>
07/22/08 18:39	cwoods	Wet Chemistry	Cooler 2	Analysis	<input type="checkbox"/>
07/22/08 19:05	cwoods	Wet Chemistry	Cooler 2	Storage	<input type="checkbox"/>

Container: 11136955

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:02	hpundt	Sample Management	Cooler 2	Storage	<input type="checkbox"/>
07/30/08 7:40	gesmeria	Wet Chemistry	LTS	Storage	<input type="checkbox"/>

Container: 11136956

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:02	hpundt	Sample Management	Cooler 2	Storage	<input type="checkbox"/>
07/03/08 7:43	nmead	Wet Chemistry	Cooler 2	Analysis	<input type="checkbox"/>
07/03/08 14:30	nmead	Wet Chemistry	Cooler 2	Storage	<input type="checkbox"/>
07/30/08 7:40	gesmeria	Wet Chemistry	LTS	Storage	<input type="checkbox"/>

Container: 11136957

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:02	hpundt	Sample Management	Cooler 2	Storage	<input type="checkbox"/>
07/01/08 14:01	cwoods	Wet Chemistry	Cooler 2	Analysis	<input type="checkbox"/>
07/01/08 20:34	cwoods	Wet Chemistry	Cooler 2	Storage	<input type="checkbox"/>
07/02/08 14:50	cwoods	Wet Chemistry	Cooler 2	Analysis	<input type="checkbox"/>
07/03/08 8:30	ewolfe	Wet Chemistry	Cooler 2	Analysis	<input type="checkbox"/>
07/03/08 16:44	ewolfe	Wet Chemistry	Cooler 2	Storage	<input type="checkbox"/>
07/08/08 19:42	cwoods	Wet Chemistry	Cooler 2	Storage	<input type="checkbox"/>
07/15/08 12:38	cwoods	Wet Chemistry	Cooler 2	Analysis	<input type="checkbox"/>

# Chain of Custody

**Submission:** R2844768 **Client:** ENSR International

**Container:** 11136958

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:02	hpundt	Sample Management	Cooler 2	Storage	<input type="checkbox"/>
07/02/08 8:04	gnita-jo	Wet Chemistry	Cooler 2	Analysis	<input type="checkbox"/>
07/02/08 13:08	gnita-jo	Wet Chemistry	Cooler 2	Storage	<input type="checkbox"/>
07/30/08 7:40	gesmeria	Wet Chemistry	LTS	Storage	<input type="checkbox"/>

**Container:** 11136959

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:02	hpundt	Sample Management	Cooler 2	Storage	<input type="checkbox"/>
07/01/08 14:43	cwoods	Wet Chemistry	Cooler 2	Analysis	<input type="checkbox"/>
07/01/08 20:34	cwoods	Wet Chemistry	Cooler 2	Storage	<input type="checkbox"/>
07/30/08 7:40	gesmeria	Wet Chemistry	LTS	Storage	<input type="checkbox"/>

# Chain of Custody

**Submission:** R2844768    **Client:** ENSR International

**Lab ID:** 1113696    **Matrix:** WATER

Received into CAS-Rochester Custody: 7/1/2008

**Container:** 11136961

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:02	hpundt	Sample Management	Cooler 2	Storage	<input type="checkbox"/>
07/17/08 16:24	cschrade	Wet Chemistry	Cooler 2	Storage	<input type="checkbox"/>

**Container:** 111369610

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:01	hpundt	Sample Management	Cooler 2	Storage	<input type="checkbox"/>
07/02/08 11:29	ewolfe	Wet Chemistry	Cooler 2	Analysis	<input type="checkbox"/>
07/02/08 16:49	ewolfe	Wet Chemistry	Cooler 2	Storage	<input type="checkbox"/>
07/30/08 7:40	gesmeria	Wet Chemistry	LTS	Storage	<input type="checkbox"/>

**Container:** 111369611

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:02	hpundt	Sample Management	Cooler 3	Storage	<input type="checkbox"/>

**Container:** 111369612

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:02	hpundt	Sample Management	Cooler 3	Storage	<input type="checkbox"/>
07/02/08 7:15	dmurphy	Organic Extractions	Analyst	Analysis	<input checked="" type="checkbox"/>

**Container:** 111369613

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:02	hpundt	Sample Management	Cooler 3	Storage	<input type="checkbox"/>

**Container:** 111369614

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:02	hpundt	Sample Management	Cooler 3	Storage	<input type="checkbox"/>
07/01/08 14:02	dmurphy	Organic Extractions	Analyst	Analysis	<input checked="" type="checkbox"/>

**Container:** 11136962

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:01	hpundt	Sample Management	Cooler 1	Storage	<input type="checkbox"/>

# Chain of Custody

**Submission:** R2844768 **Client:** ENSR International

**Container:** 11136963

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:02	hpundt	Sample Management	Cooler 2	Storage	<input type="checkbox"/>
07/01/08 14:43	cwoods	Wet Chemistry	Cooler 2	Analysis	<input type="checkbox"/>
07/01/08 20:34	cwoods	Wet Chemistry	Cooler 2	Storage	<input type="checkbox"/>
07/30/08 7:40	gesmeria	Wet Chemistry	LTS	Storage	<input type="checkbox"/>

**Container:** 11136964

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:02	hpundt	Sample Management	Cooler 2	Storage	<input type="checkbox"/>
07/07/08 7:52	kreynold	Wet Chemistry	Cooler 2	Analysis	<input type="checkbox"/>
07/07/08 16:10	kreynold	Wet Chemistry	Cooler 2	Storage	<input type="checkbox"/>
07/21/08 12:01	cwoods	Wet Chemistry	Cooler 2	Analysis	<input type="checkbox"/>
07/21/08 15:44	cwoods	Wet Chemistry	Cooler 2	Storage	<input type="checkbox"/>
07/22/08 17:25	cwoods	Wet Chemistry	Cooler 2	Analysis	<input type="checkbox"/>
07/22/08 18:27	cwoods	Wet Chemistry	Cooler 2	Storage	<input type="checkbox"/>
07/30/08 7:40	gesmeria	Wet Chemistry	LTS	Storage	<input type="checkbox"/>

**Container:** 11136965

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 16:21	dbond	Metals	Cooler 2	Storage	<input type="checkbox"/>
07/30/08 7:40	gesmeria	Wet Chemistry	LTS	Storage	<input type="checkbox"/>

**Container:** 11136966

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:02	hpundt	Sample Management	Cooler 2	Storage	<input type="checkbox"/>
07/01/08 14:01	cwoods	Wet Chemistry	Cooler 2	Analysis	<input type="checkbox"/>
07/01/08 20:34	cwoods	Wet Chemistry	Cooler 2	Storage	<input type="checkbox"/>
07/02/08 14:50	cwoods	Wet Chemistry	Cooler 2	Analysis	<input type="checkbox"/>
07/03/08 8:30	ewolfe	Wet Chemistry	Cooler 2	Analysis	<input type="checkbox"/>
07/03/08 16:44	ewolfe	Wet Chemistry	Cooler 2	Storage	<input type="checkbox"/>
07/08/08 19:42	cwoods	Wet Chemistry	Cooler 2	Storage	<input type="checkbox"/>
07/15/08 12:38	cwoods	Wet Chemistry	Cooler 2	Analysis	<input type="checkbox"/>

# Chain of Custody

**Submission:** R2844768 **Client:** ENSR International

**Container:** 11136967

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:02	hpundt	Sample Management	Cooler 2	Storage	<input type="checkbox"/>
07/02/08 8:05	gnita-jo	Wet Chemistry	Cooler 2	Analysis	<input type="checkbox"/>
07/02/08 13:08	gnita-jo	Wet Chemistry	Cooler 2	Storage	<input type="checkbox"/>
07/30/08 7:40	gesmeria	Wet Chemistry	LTS	Storage	<input type="checkbox"/>

**Container:** 11136968

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:02	hpundt	Sample Management	Cooler 2	Storage	<input type="checkbox"/>
07/01/08 12:09	hpundt	Sample Management	Sink	Disposal	<input type="checkbox"/>

**Container:** 11136969

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:02	hpundt	Sample Management	Cooler 2	Storage	<input type="checkbox"/>
07/03/08 7:43	nmead	Wet Chemistry	Cooler 2	Analysis	<input type="checkbox"/>
07/03/08 14:30	nmead	Wet Chemistry	Cooler 2	Storage	<input type="checkbox"/>
07/18/08 16:30	cschrade	Wet Chemistry	Cooler 2	Analysis	<input type="checkbox"/>
07/18/08 17:22	cschrade	Wet Chemistry	Cooler 2	Storage	<input type="checkbox"/>

# Chain of Custody

Submission: R2844768 Client: ENSR International

Lab ID: 1113697 Matrix WATER

Received into CAS-Rochester Custody: 7/1/2008

Container: 11136971

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:01	hpundt	Sample Management	Cooler 1	Storage	<input type="checkbox"/>

Container: 111369710

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 16:21	dbond	Metals	Cooler 2	Storage	<input type="checkbox"/>
07/24/08 15:25	kcook	Sample Management	Dumpster	Storage	<input checked="" type="checkbox"/>

Container: 111369711

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:02	hpundt	Sample Management	Cooler 3	Storage	<input type="checkbox"/>
07/02/08 7:14	dmurphy	Organic Extractions	Analyst	Analysis	<input checked="" type="checkbox"/>

Container: 111369712

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:02	hpundt	Sample Management	Cooler 3	Storage	<input type="checkbox"/>

Container: 111369713

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:02	hpundt	Sample Management	Cooler 3	Storage	<input type="checkbox"/>

Container: 111369714

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:02	hpundt	Sample Management	Cooler 3	Storage	<input type="checkbox"/>
07/01/08 14:01	dmurphy	Organic Extractions	Analyst	Analysis	<input checked="" type="checkbox"/>

Container: 11136972

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:02	hpundt	Sample Management	Cooler 2	Storage	<input type="checkbox"/>
07/17/08 16:24	cschrade	Wet Chemistry	Cooler 2	Storage	<input type="checkbox"/>
07/17/08 17:11	cschrade	Wet Chemistry	Cooler 2	Storage	<input type="checkbox"/>
07/18/08 16:30	cschrade	Wet Chemistry	Cooler 2	Analysis	<input type="checkbox"/>
07/18/08 17:23	cschrade	Wet Chemistry	Cooler 2	Storage	<input checked="" type="checkbox"/>



# Chain of Custody

**Submission:** R2844768 **Client:** ENSR International

**Container:** 11136973

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:02	hpundt	Sample Management	Cooler 2	Storage	<input type="checkbox"/>
07/01/08 14:43	cwoods	Wet Chemistry	Cooler 2	Analysis	<input type="checkbox"/>
07/01/08 20:34	cwoods	Wet Chemistry	Cooler 2	Storage	<input type="checkbox"/>
07/30/08 7:40	gesmeria	Wet Chemistry	LTS	Storage	<input type="checkbox"/>

**Container:** 11136974

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:02	hpundt	Sample Management	Cooler 2	Storage	<input type="checkbox"/>
07/02/08 8:05	gnita-jo	Wet Chemistry	Cooler 2	Analysis	<input type="checkbox"/>
07/02/08 13:08	gnita-jo	Wet Chemistry	Cooler 2	Storage	<input type="checkbox"/>
07/29/08 7:38	gesmeria	Wet Chemistry	LTS	Storage	<input type="checkbox"/>

**Container:** 11136975

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:01	hpundt	Sample Management	Cooler 2	Storage	<input type="checkbox"/>
07/03/08 8:30	ewolfe	Wet Chemistry	Cooler 2	Analysis	<input type="checkbox"/>
07/03/08 16:44	ewolfe	Wet Chemistry	Cooler 2	Storage	<input type="checkbox"/>

**Container:** 11136976

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:01	hpundt	Sample Management	Cooler 2	Storage	<input type="checkbox"/>
07/07/08 7:52	kreynold	Wet Chemistry	Cooler 2	Analysis	<input type="checkbox"/>
07/07/08 16:10	kreynold	Wet Chemistry	Cooler 2	Storage	<input type="checkbox"/>
07/22/08 18:39	cwoods	Wet Chemistry	Cooler 2	Analysis	<input type="checkbox"/>
07/22/08 19:05	cwoods	Wet Chemistry	Cooler 2	Storage	<input type="checkbox"/>

**Container:** 11136977

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:02	hpundt	Sample Management	Cooler 2	Storage	<input type="checkbox"/>
07/01/08 14:01	cwoods	Wet Chemistry	Cooler 2	Analysis	<input type="checkbox"/>
07/01/08 20:35	cwoods	Wet Chemistry	Cooler 2	Storage	<input type="checkbox"/>
07/02/08 14:50	cwoods	Wet Chemistry	Cooler 2	Analysis	<input type="checkbox"/>
07/03/08 9:57	rpawl	Wet Chemistry	Cooler 2	Analysis	<input type="checkbox"/>
07/30/08 7:39	gesmeria	Wet Chemistry	LTS	Storage	<input type="checkbox"/>

# Chain of Custody

**Submission:** R2844768 **Client:** ENSR International

**Container:** 11136978

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:02	hpundt	Sample Management	Cooler 2	Storage	<input type="checkbox"/>
07/03/08 7:43	nmead	Wet Chemistry	Cooler 2	Analysis	<input type="checkbox"/>
07/03/08 14:30	nmead	Wet Chemistry	Cooler 2	Storage	<input type="checkbox"/>
07/18/08 16:43	cschrade	Wet Chemistry	Cooler 2	Analysis	<input type="checkbox"/>
07/18/08 17:22	cschrade	Wet Chemistry	Cooler 2	Storage	<input type="checkbox"/>

**Container:** 11136979

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:01	hpundt	Sample Management	Cooler 2	Storage	<input type="checkbox"/>
07/02/08 11:29	ewolfe	Wet Chemistry	Cooler 2	Analysis	<input type="checkbox"/>
07/02/08 16:49	ewolfe	Wet Chemistry	Cooler 2	Storage	<input type="checkbox"/>
07/30/08 7:40	gesmeria	Wet Chemistry	LTS	Storage	<input type="checkbox"/>

# Chain of Custody

**Submission:** R2844768 **Client:** ENSR International

**Lab ID:** 1113698 **Matrix:** WATER

Received into CAS-Rochester Custody: 7/1/2008

**Container:** 11136981

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 16:21	dbond	Metals	Cooler 2	Storage	<input type="checkbox"/>
07/30/08 7:40	gesmeria	Wet Chemistry	LTS	Storage	<input type="checkbox"/>

**Container:** 111369810

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:01	hpundt	Sample Management	Cooler 2	Storage	<input type="checkbox"/>
07/02/08 11:29	ewolfe	Wet Chemistry	Cooler 2	Analysis	<input type="checkbox"/>
07/02/08 16:49	ewolfe	Wet Chemistry	Cooler 2	Storage	<input type="checkbox"/>
07/30/08 7:40	gesmeria	Wet Chemistry	LTS	Storage	<input type="checkbox"/>

**Container:** 111369811

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:02	hpundt	Sample Management	Cooler 3	Storage	<input type="checkbox"/>

**Container:** 111369812

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:02	hpundt	Sample Management	Cooler 3	Storage	<input type="checkbox"/>
07/01/08 14:01	dmurphy	Organic Extractions	Analyst	Analysis	<input checked="" type="checkbox"/>

**Container:** 111369813

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:02	hpundt	Sample Management	Cooler 3	Storage	<input type="checkbox"/>

**Container:** 111369814

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:02	hpundt	Sample Management	Cooler 3	Storage	<input type="checkbox"/>
07/02/08 7:15	dmurphy	Organic Extractions	Analyst	Analysis	<input checked="" type="checkbox"/>

**Container:** 11136982

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:01	hpundt	Sample Management	Cooler 1	Storage	<input type="checkbox"/>

# Chain of Custody

**Submission:** R2844768 **Client:** ENSR International

**Container:** 11136983

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:02	hpundt	Sample Management	Cooler 2	Storage	<input type="checkbox"/>
07/17/08 16:24	cschrade	Wet Chemistry	Cooler 2	Storage	<input type="checkbox"/>
07/17/08 17:11	cschrade	Wet Chemistry	Cooler 2	Storage	<input type="checkbox"/>
07/18/08 16:30	cschrade	Wet Chemistry	Cooler 2	Analysis	<input type="checkbox"/>
07/18/08 17:23	cschrade	Wet Chemistry	Cooler 2	Storage	<input type="checkbox"/>

**Container:** 11136984

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:01	hpundt	Sample Management	Cooler 2	Storage	<input type="checkbox"/>
07/03/08 7:43	nmead	Wet Chemistry	Cooler 2	Analysis	<input type="checkbox"/>
07/03/08 14:30	nmead	Wet Chemistry	Cooler 2	Storage	<input type="checkbox"/>
07/30/08 7:40	gesmeria	Wet Chemistry	LTS	Storage	<input type="checkbox"/>

**Container:** 11136985

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:01	hpundt	Sample Management	Cooler 2	Storage	<input type="checkbox"/>
07/07/08 7:52	kreynold	Wet Chemistry	Cooler 2	Analysis	<input type="checkbox"/>
07/07/08 16:10	kreynold	Wet Chemistry	Cooler 2	Storage	<input type="checkbox"/>
07/30/08 7:40	gesmeria	Wet Chemistry	LTS	Storage	<input type="checkbox"/>

**Container:** 11136986

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:01	hpundt	Sample Management	Cooler 2	Storage	<input type="checkbox"/>
07/30/08 7:40	gesmeria	Wet Chemistry	LTS	Storage	<input type="checkbox"/>

**Container:** 11136987

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:01	hpundt	Sample Management	Cooler 2	Storage	<input type="checkbox"/>
07/01/08 14:42	cwoods	Wet Chemistry	Cooler 2	Analysis	<input type="checkbox"/>
07/01/08 20:34	cwoods	Wet Chemistry	Cooler 2	Storage	<input type="checkbox"/>
07/30/08 7:40	gesmeria	Wet Chemistry	LTS	Storage	<input type="checkbox"/>

# Chain of Custody

**Submission:** R2844768    **Client:** ENSR International

**Container:** 11136988

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:01	hpundt	Sample Management	Cooler 2	Storage	<input type="checkbox"/>
07/01/08 14:01	cwoods	Wet Chemistry	Cooler 2	Analysis	<input type="checkbox"/>
07/01/08 20:35	cwoods	Wet Chemistry	Cooler 2	Storage	<input type="checkbox"/>
07/02/08 14:50	cwoods	Wet Chemistry	Cooler 2	Analysis	<input type="checkbox"/>
07/03/08 8:30	ewolfe	Wet Chemistry	Cooler 2	Analysis	<input type="checkbox"/>
07/03/08 16:44	ewolfe	Wet Chemistry	Cooler 2	Storage	<input type="checkbox"/>
07/08/08 19:42	cwoods	Wet Chemistry	Cooler 2	Storage	<input type="checkbox"/>
07/30/08 7:40	gesmeria	Wet Chemistry	LTS	Storage	<input type="checkbox"/>

**Container:** 11136989

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:01	hpundt	Sample Management	Cooler 2	Storage	<input type="checkbox"/>
07/02/08 8:05	gnita-jo	Wet Chemistry	Cooler 2	Analysis	<input type="checkbox"/>
07/02/08 13:08	gnita-jo	Wet Chemistry	Cooler 2	Storage	<input type="checkbox"/>
07/30/08 7:40	gesmeria	Wet Chemistry	LTS	Storage	<input type="checkbox"/>

# Chain of Custody

**Submission:** R2844768 **Client:** ENSR International

**Lab ID:** 1113699 **Matrix:** WATER

Received into CAS-Rochester Custody: 7/1/2008

**Container:** 11136991

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:01	hpundt	Sample Management	Cooler 2	Storage	<input type="checkbox"/>
07/30/08 7:40	gesmeria	Wet Chemistry	LTS	Storage	<input type="checkbox"/>

**Container:** 111369910

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:01	hpundt	Sample Management	Cooler 2	Storage	<input type="checkbox"/>
07/02/08 11:29	ewolfe	Wet Chemistry	Cooler 2	Analysis	<input type="checkbox"/>
07/02/08 16:49	ewolfe	Wet Chemistry	Cooler 2	Storage	<input type="checkbox"/>
07/30/08 7:41	gesmeria	Wet Chemistry	LTS	Storage	<input type="checkbox"/>

**Container:** 111369911

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:02	hpundt	Sample Management	Cooler 3	Storage	<input type="checkbox"/>
07/01/08 14:01	dmurphy	Organic Extractions	Analyst	Analysis	<input checked="" type="checkbox"/>

**Container:** 111369912

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:02	hpundt	Sample Management	Cooler 3	Storage	<input type="checkbox"/>
07/02/08 7:15	dmurphy	Organic Extractions	Analyst	Analysis	<input checked="" type="checkbox"/>

**Container:** 111369913

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:02	hpundt	Sample Management	Cooler 3	Storage	<input type="checkbox"/>

**Container:** 111369914

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:02	hpundt	Sample Management	Cooler 3	Storage	<input type="checkbox"/>

**Container:** 11136992

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:01	hpundt	Sample Management	Cooler 1	Storage	<input type="checkbox"/>

# Chain of Custody

**Submission:** R2844768 **Client:** ENSR International

**Container:** 11136993

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:02	hpundt	Sample Management	Cooler 2	Storage	<input type="checkbox"/>
07/17/08 16:24	cschrade	Wet Chemistry	Cooler 2	Storage	<input type="checkbox"/>
07/17/08 17:11	cschrade	Wet Chemistry	Cooler 2	Storage	<input type="checkbox"/>
07/18/08 16:30	cschrade	Wet Chemistry	Cooler 2	Analysis	<input type="checkbox"/>
07/18/08 17:23	cschrade	Wet Chemistry	Cooler 2	Storage	<input type="checkbox"/>

**Container:** 11136994

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 16:21	dbond	Metals	Cooler 2	Storage	<input type="checkbox"/>
07/30/08 7:40	gesmeria	Wet Chemistry	LTS	Storage	<input type="checkbox"/>

**Container:** 11136995

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:01	hpundt	Sample Management	Cooler 2	Storage	<input type="checkbox"/>
07/01/08 14:42	cwoods	Wet Chemistry	Cooler 2	Analysis	<input type="checkbox"/>
07/01/08 20:34	cwoods	Wet Chemistry	Cooler 2	Storage	<input type="checkbox"/>
07/30/08 7:40	gesmeria	Wet Chemistry	LTS	Storage	<input type="checkbox"/>

**Container:** 11136996

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:01	hpundt	Sample Management	Cooler 2	Storage	<input type="checkbox"/>
07/02/08 8:05	gnita-jo	Wet Chemistry	Cooler 2	Analysis	<input type="checkbox"/>
07/02/08 13:08	gnita-jo	Wet Chemistry	Cooler 2	Storage	<input type="checkbox"/>
07/30/08 7:40	gesmeria	Wet Chemistry	LTS	Storage	<input type="checkbox"/>

**Container:** 11136997

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:01	hpundt	Sample Management	Cooler 2	Storage	<input type="checkbox"/>
07/01/08 14:01	cwoods	Wet Chemistry	Cooler 2	Analysis	<input type="checkbox"/>
07/01/08 20:35	cwoods	Wet Chemistry	Cooler 2	Storage	<input type="checkbox"/>
07/02/08 14:50	cwoods	Wet Chemistry	Cooler 2	Analysis	<input type="checkbox"/>
07/03/08 8:30	ewolfe	Wet Chemistry	Cooler 2	Analysis	<input type="checkbox"/>
07/03/08 16:44	ewolfe	Wet Chemistry	Cooler 2	Storage	<input type="checkbox"/>
07/08/08 19:42	cwoods	Wet Chemistry	Cooler 2	Storage	<input type="checkbox"/>
07/30/08 7:40	gesmeria	Wet Chemistry	LTS	Storage	<input type="checkbox"/>

# Chain of Custody

**Submission:** R2844768 **Client:** ENSR International

**Container:** 11136998

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:01	hpundt	Sample Management	Cooler 2	Storage	<input type="checkbox"/>
07/07/08 7:52	kreynold	Wet Chemistry	Cooler 2	Analysis	<input type="checkbox"/>
07/07/08 16:10	kreynold	Wet Chemistry	Cooler 2	Storage	<input type="checkbox"/>
07/30/08 7:40	gesmeria	Wet Chemistry	LTS	Storage	<input type="checkbox"/>

**Container:** 11136999

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:01	hpundt	Sample Management	Cooler 2	Storage	<input type="checkbox"/>
07/03/08 7:43	nmead	Wet Chemistry	Cooler 2	Analysis	<input type="checkbox"/>
07/03/08 14:30	nmead	Wet Chemistry	Cooler 2	Storage	<input type="checkbox"/>
07/30/08 7:40	gesmeria	Wet Chemistry	LTS	Storage	<input type="checkbox"/>

**Lab ID:** 1113700 **Matrix** WATER

Received into CAS-Rochester Custody: 7/1/2008

**Container:** 11137001

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:01	hpundt	Sample Management	Cooler 1	Storage	<input type="checkbox"/>

**Lab ID:** 1113701 **Matrix** WATER

Received into CAS-Rochester Custody: 7/1/2008

**Container:** 11137011

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:01	hpundt	Sample Management	Cooler 1	Storage	<input type="checkbox"/>

**Lab ID:** 1113705 **Matrix** WATER

Received into CAS-Rochester Custody: 7/1/2008

**Container:** 11137051

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:01	hpundt	Sample Management	Cooler 1	Storage	<input type="checkbox"/>



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# Chain of Custody

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**Submission:** R2844768    **Client:** ENSR International

**Lab ID:** 1113707    **Matrix:** WATER

Received into CAS-Rochester Custody: 7/1/2008

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**Container:** 11137071

Date of Custody	User	Dept	Storage Location	Purpose	Empty
07/01/08 12:01	hpundt	Sample Management	Cooler 1	Storage	<input type="checkbox"/>

# **VOLATILE ORGANICS**

## **QC SUMMARY**

COLUMBIA ANALYTICAL SERVICESVOLATILE ORGANICS  
METHOD: 8260B.DODLABORATORY CONTROL SAMPLE SUMMARY

REFERENCE ORDER #: 1118605

ANALYTICAL RUN #: 164135

ANALYTE	TRUE VALUE	% RECOVERY	QC LIMITS
DATE ANALYZED	: 07/10/08		
ANALYTICAL DILUTION:	1.0		
ACETONE	20.0	66 *	75 - 125
BENZENE	20.0	109	75 - 125
BROMOBENZENE	20.0	99	75 - 125
BROMOCHLOROMETHANE	20.0	103	75 - 125
BROMODICHLOROMETHANE	20.0	98	75 - 125
BROMOFORM	20.0	99	75 - 125
BROMOMETHANE	20.0	85	75 - 125
2-BUTANONE (MEK)	20.0	87	75 - 125
TERT-BUTYL ALCOHOL	400	111	75 - 125
METHYL-TERT-BUTYL ETHER	20.0	79	75 - 125
ETHYL-TERT-BUTYL ETHER	20.0	87	75 - 125
TERT-BUTYLBENZENE	20.0	97	75 - 125
SEC-BUTYLBENZENE	20.0	105	75 - 125
N-BUTYLBENZENE	20.0	105	75 - 125
CARBON TETRACHLORIDE	20.0	75	75 - 125
CHLOROBENZENE	20.0	103	75 - 125
CHLOROETHANE	20.0	71 *	75 - 125
CHLOROFORM	20.0	96	75 - 125
CHLOROMETHANE	20.0	85	75 - 125
1,2-DIBROMO-3-CHLOROPROPANE	20.0	82	75 - 125
2-CHLOROTOLUENE	20.0	99	75 - 125
4-CHLOROTOLUENE	20.0	105	75 - 125
DIBROMOCHLOROMETHANE	20.0	92	75 - 125
1,2-DIBROMOETHANE	20.0	74 *	75 - 125
DIBROMOMETHANE	20.0	96	75 - 125
1,2-DICHLOROBENZENE	20.0	102	75 - 125
1,4-DICHLOROBENZENE	20.0	98	75 - 125
1,3-DICHLOROBENZENE	20.0	100	75 - 125
DICHLORODIFLUOROMETHANE	20.0	131 *	75 - 125
1,1-DICHLOROETHANE	20.0	103	75 - 125
1,2-DICHLOROETHANE	20.0	89	75 - 125
1,1-DICHLOROETHENE	20.0	72 *	75 - 125
TRANS-1,2-DICHLOROETHENE	20.0	93	75 - 125
CIS-1,2-DICHLOROETHENE	20.0	95	75 - 125
2,2-DICHLOROPROPANE	20.0	79	75 - 125
1,2-DICHLOROPROPANE	20.0	106	75 - 125
1,3-DICHLOROPROPANE	20.0	84	75 - 125
1,1-DICHLOROPROPENE	20.0	86	75 - 125
TRANS-1,3-DICHLOROPROPENE	20.0	78	75 - 125
CIS-1,3-DICHLOROPROPENE	20.0	93	75 - 125
ETHYLBENZENE	20.0	105	75 - 125



## VOLATILE METHOD BLANK SUMMARY

VBLK1

Lab Name: CAS/ROCH Contract: ENSR  
 Lab Code: 10145 SUBM.# R8-44768 SAS No.: \_\_\_\_\_ SDG No.: M-79B  
 Lab File ID: Z2770.D Lab Sample ID: 1118603 1.0  
 Date Analyzed: 7/10/2008 Time Analyzed: 14:44  
 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N  
 Instrument ID: MS#8

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LCS1	1118605 1.0	Z2764.D	11:53
02	M-79B	1113695 1.0	Z2771.D	15:12
03	M-84B	1113697 1.0	Z2772.D	15:40
04	M-14ADBF	1113698 1.0	Z2773.D	16:07
05	M-14ABF	1113699 1.0	Z2774.D	16:35
06	M-126B	1113696 50	Z2775.D	17:03
07	TB629GW4	1113700 1.0	Z2777.D	17:58
08	TB629GW1	1113701 1.0	Z2778.D	18:26
09	TB62803	1113705 1.0	Z2779.D	18:54
10	TB630GW3	1113707 1.0	Z2780.D	19:22

COMMENTS:

5A  
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

Lab Name: CAS/ROCH Contract: ENSR  
 Lab Code: 10145 SUBM.# R8-44768 SAS No.: \_\_\_\_\_ SDG No.: M-79B  
 Lab File ID: Z2743.D BFB Injection Date: 07/08/08  
 Instrument ID: MS#8 BFB Injection Time: 11:36  
 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.8
75	30.0 - 60.0% of mass 95	43.6
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.2
173	Less than 2.0% of mass 174	0.0 ( 0.0)1
174	50.0 - 120.0% of mass 95	75.1
175	5.0 - 9.0% of mass 174	6.1 ( 8.1)1
176	95.0 - 101.0% of mass 174	72.3 ( 96.3)1
177	5.0 - 9.0% of mass 176	4.8 ( 6.6)2

1-Value is % mass 174

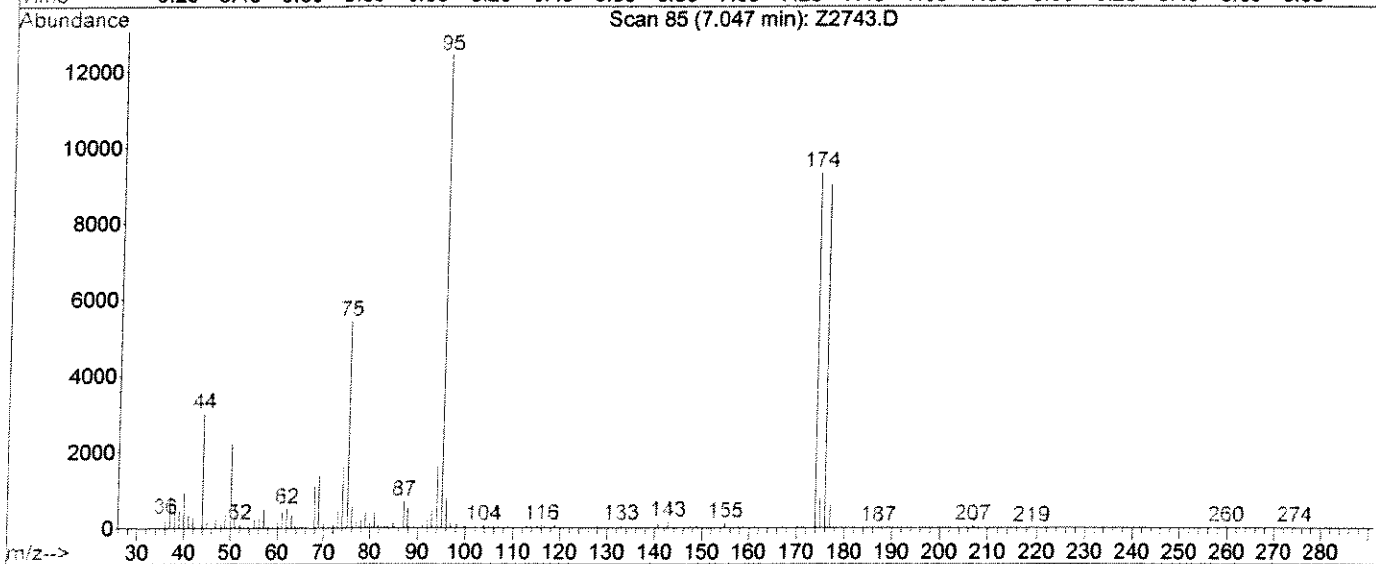
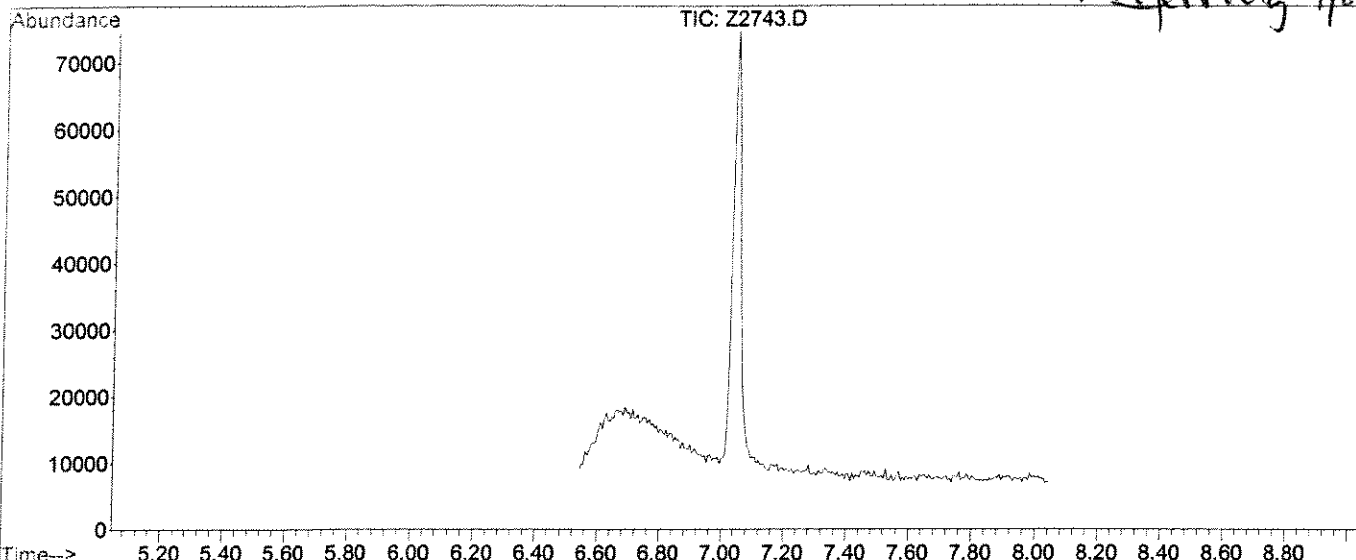
2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	0.5PPB	0.5PPB	Z2746.D	07/08/08	12:59
02	1.0PPB	1.0PPB	Z2747.D	07/08/08	13:27
03	2.0PPB	2.0PPB	Z2748.D	07/08/08	13:55
04	5.0PPB	5.0PPB	Z2749.D	07/08/08	14:23
05	10PPB	10PPB	Z2750.D	07/08/08	14:50
06	50PPB	50PPB	Z2751.D	07/08/08	15:18
07	100PPB	100PPB	Z2752.D	07/08/08	15:46
08	200PPB	200PPB	Z2753.D	07/08/08	16:14

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2743.D Vial: 5  
 Acq On : 8 Jul 2008 11:36 am Operator: Herring  
 Sample : TUNE CHECK Inst : MS #8  
 Misc : Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa

*Herring 7/8/08*



Spectrum Information: Scan 85

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.8	2215	PASS
75	95	30	60	43.6	5425	PASS
95	95	100	100	100.0	12444	PASS
96	95	5	9	6.2	772	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	75.1	9342	PASS
175	174	5	9	8.1	757	PASS
176	174	95	101	96.3	9000	PASS
177	176	5	9	6.6	596	PASS

5A  
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

Lab Name: CAS/ROCH Contract: ENSR  
 Lab Code: 10145 SUBM.# R8-44768 SAS No.: \_\_\_\_\_ SDG No.: M-79B  
 Lab File ID: Z2761.D BFB Injection Date: 07/10/08  
 Instrument ID: MS#8 BFB Injection Time: 10:14  
 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.7
75	30.0 - 60.0% of mass 95	42.7
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.4
173	Less than 2.0% of mass 174	0.0 ( 0.0)1
174	50.0 - 120.0% of mass 95	72.7
175	5.0 - 9.0% of mass 174	5.5 ( 7.6)1
176	95.0 - 101.0% of mass 174	71.0 ( 97.7)1
177	5.0 - 9.0% of mass 176	5.9 ( 8.4)2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

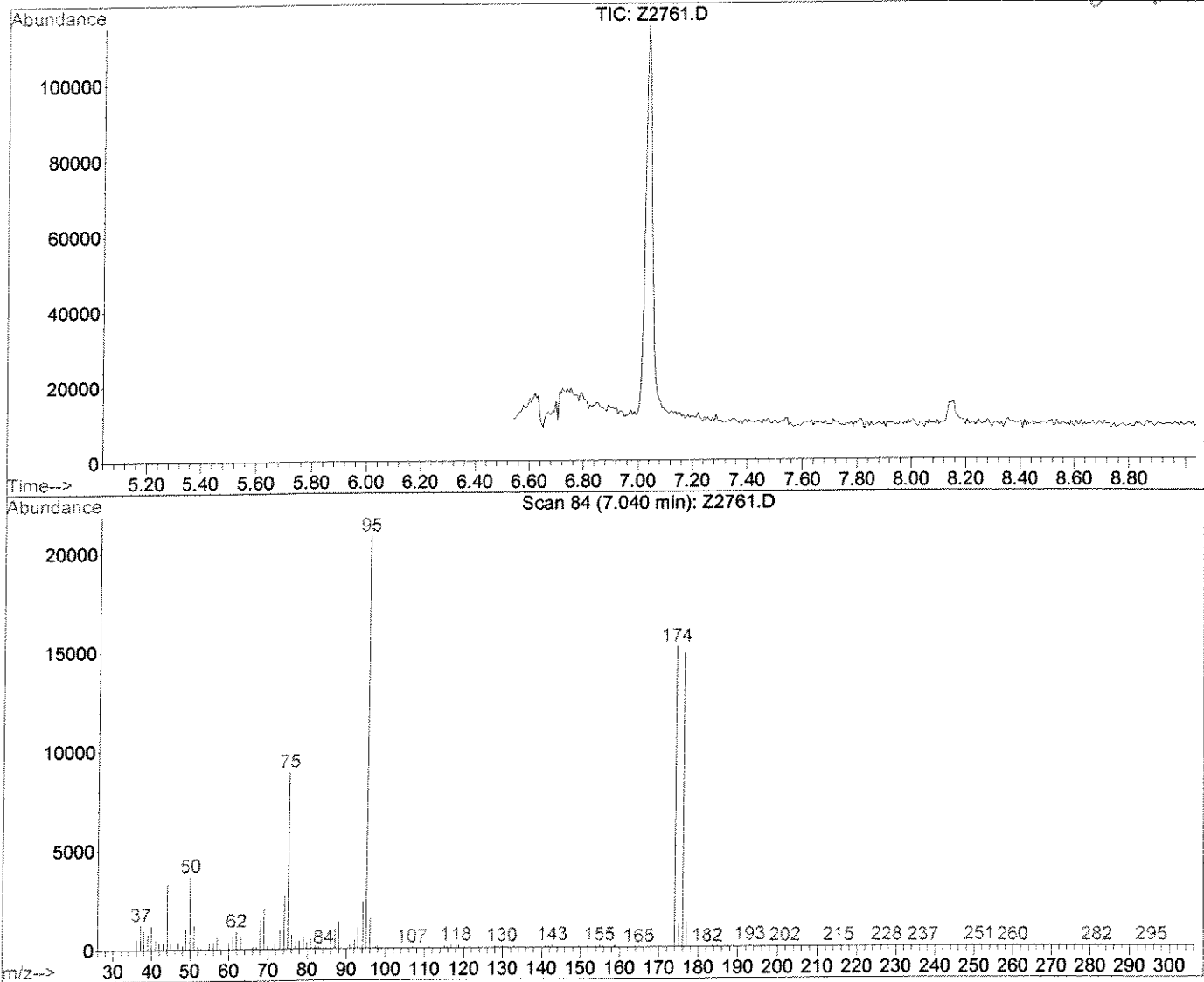
	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD1	CCV	Z2763.D	07/10/08	11:26
02	LCS1	1118605 1.0	Z2764.D	07/10/08	11:53
03	VBLK1	1118603 1.0	Z2770.D	07/10/08	14:44
04	M-79B	1113695 1.0	Z2771.D	07/10/08	15:12
05	M-84B	1113697 1.0	Z2772.D	07/10/08	15:40
06	M-14ADBF	1113698 1.0	Z2773.D	07/10/08	16:07
07	M-14ABF	1113699 1.0	Z2774.D	07/10/08	16:35
08	M-126B	1113696 50	Z2775.D	07/10/08	17:03
09	TB629GW4	1113700 1.0	Z2777.D	07/10/08	17:58
10	TB629GW1	1113701 1.0	Z2778.D	07/10/08	18:26
11	TB62803	1113705 1.0	Z2779.D	07/10/08	18:54
12	TB630GW3	1113707 1.0	Z2780.D	07/10/08	19:22



BFB

Data File : J:\ACQUDATA\MSVOA8\DATA\071008\Z2761.D Vial: 4  
Acq On : 10 Jul 2008 10:14 am Operator: Herring  
Sample : TUNE CHECK Inst : MS #8  
Misc : Multiplr: 1.00  
MS Integration Params: RTEINT.P  
Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
Title : 8260voa

RJA 7/10



Spectrum Information: Scan 84

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.7	3700	PASS
75	95	30	60	42.7	8911	PASS
95	95	100	100	100.0	20856	PASS
96	95	5	9	7.4	1545	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	72.7	15166	PASS
175	174	5	9	7.6	1151	PASS
176	174	95	101	97.7	14812	PASS
177	176	5	9	8.4	1237	PASS

## VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CAS/ROCH Contract: ENSR  
 Lab Code: 10145 SUBM.# R8-44768 SAS No.: \_\_\_\_\_ SDG No.: M-79B  
 Lab File ID (Standard): Z2763.D Date Analyzed: 7/10/2008  
 Instrument ID: MS#8 Time Analyzed: 11:26  
 GC Column: DB-624 ID: 0.18 (mm) Heated Purge (Y/N): N

		IS1		IS2		IS3	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD		405960	3.15	702945	3.65	614547	5.97
UPPER LIMIT		811920	3.65	1405890	4.15	1229094	6.47
LOWER LIMIT		202980	2.65	351473	3.15	307274	5.47
EPA SAMPLE NO.							
01	LCS1	336297	3.15	611446	3.65	589289	5.96
02	VBLK1	424050	3.15	744987	3.65	674155	5.97
03	M-79B	411572	3.15	724218	3.65	626467	5.96
04	M-84B	419502	3.15	738107	3.65	629018	5.96
05	M-14ADBFB	424362	3.15	751282	3.65	651097	5.97
06	M-14ABF	426324	3.15	747034	3.65	645251	5.97
07	M-126B	397115	3.15	670477	3.65	607009	5.97
08	TB629GW4	424366	3.15	756633	3.65	651225	5.97
09	TB629GW1	402127	3.15	687414	3.65	656989	5.97
10	TB62803	402469	3.15	693093	3.65	621578	5.96
11	TB630GW3	428041	3.15	732257	3.65	657857	5.97

IS1 = Pentafluorobenzene  
 IS2 = 1,4 - Difluorobenzene  
 IS3 = d5 - Chlorobenzene  
 IS4 = d4 - Dichlorobenzene

AREA UPPER LIMIT = +100% of internal standard area  
 AREA LOWER LIMIT = - 50% of internal standard area  
 RT UPPER LIMIT = +0.50 minutes of internal standard RT  
 RT LOWER LIMIT = -0.50 minutes of internal standard RT

# Column to be used to flag values outside QC limit with an asterisk.  
 \* Values outside of contract required QC limits

8A  
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CAS/ROCH Contract: ENSR  
 Lab Code: 10145 SUBM.# R8-44768 SAS No.: \_\_\_\_\_ SDG No.: M-79B  
 Lab File ID (Standard): Z2763.D Date Analyzed: 07/10/08  
 Instrument ID: MS#8 Time Analyzed: 11:26  
 GC Column: DB-624 ID: 0.18 (mm) Heated Purge (Y/N): N

		IS4					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	290066	8.15				
	UPPER LIMIT	580132	7.65				
	LOWER LIMIT	145033	8.65				
EPA SAMPLE NO.							
01	LCS1	276361	8.15				
02	VBLK1	293681	8.15				
03	M-79B	281885	8.15				
04	M-84B	293503	8.14				
05	M-14ADBF	290559	8.15				
06	M-14ABF	298385	8.15				
07	M-126B	283197	8.15				
08	TB629GW4	298354	8.15				
09	TB629GW1	302221	8.15				
10	TB62803	295216	8.15				
11	TB630GW3	303759	8.15				

IS1 = Pentafluorobenzene  
 IS2 = 1,4 - Difluorobenzene  
 IS3 = d5 - Chlorobenzene  
 IS4 = d4 - Dichlorobenzene

AREA UPPER LIMIT = +100% of internal standard area  
 AREA LOWER LIMIT = - 50% of internal standard area  
 RT UPPER LIMIT = +0.50 minutes of internal standard RT  
 RT LOWER LIMIT = -0.50 minutes of internal standard RT

# Column to be used to flag values outside QC limit with an asterisk.  
 \* Values outside of contract required QC limits

Columbia Analytical Services

APR 25 2008

MDL Study Report

*R. Herring*

Analytical Method: 8260B  
 Extraction Method: EPA 5035  
 Matrix: WATER (10mL)  
 Instrument: MS #8

MDL Study ID: MDL266

Column: MS

Analyte Name	True Value	Mean	Standard Deviation	T-Value	MDL Value	Units	%RSD	Average Recovery	MDL Qualifier notes
1,1,1,2-Tetrachloroethane	0.500	0.453	0.0309	3.143	0.097	ug/L	7	91	Valid MDL Data
1,1,1-Trichloroethane (TCA)	0.500	0.419	0.0426	3.143	0.13	ug/L	10	84	Valid MDL Data
1,1,2,2-Tetrachloroethane	0.500	0.479	0.0441	3.143	0.14	ug/L	9	96	Valid MDL Data
1,1,2-Trichloroethane	0.500	0.459	0.0677	3.143	0.21	ug/L	15	92	Valid MDL Data
1,1-Dichloroethane	0.500	0.419	0.0241	3.143	0.076	ug/L	6	84	Valid MDL Data
1,1-Dichloroethene	0.500	0.424	0.0310	3.143	0.097	ug/L	7	85	Valid MDL Data
1,1-Dichloropropene	0.500	0.470	0.0258	3.143	0.081	ug/L	5	94	Valid MDL Data
1,2,3-Trichlorobenzene	0.500	0.474	0.0315	3.143	0.099	ug/L	7	95	Valid MDL Data
1,2,3-Trichloropropane	0.500	0.499	0.0919	3.143	0.29	ug/L	18	100	Valid MDL Data
1,2,4-Trichlorobenzene	0.500	0.467	0.0468	3.143	0.15	ug/L	10	93	Valid MDL Data
1,2,4-Trimethylbenzene	2.00	1.72	0.0878	3.143	0.28	ug/L	5	86	Valid MDL Data
1,2-Dibromo-3-chloropropane (DBCP)	2.00	1.42	0.260	3.143	0.82	ug/L	18	71	Valid MDL Data
1,2-Dibromoethane (EDB)	0.500	0.486	0.0602	3.143	0.19	ug/L	12	97	Valid MDL Data
1,2-Dichloro-1,1,2-trifluoroethane (C)	0.500	0.383	0.0442	3.143	0.14	ug/L	12	77	Valid MDL Data
1,2-Dichlorobenzene	0.500	0.444	0.0207	3.143	0.065	ug/L	5	89	Valid MDL Data
1,2-Dichloroethane (EDC)	0.500	0.437	0.0350	3.143	0.11	ug/L	8	87	Valid MDL Data
1,2-Dichloropropane	0.500	0.517	0.0678	3.143	0.21	ug/L	13	103	Valid MDL Data
1,3,5-Trimethylbenzene	2.00	1.73	0.0902	3.143	0.28	ug/L	5	87	Valid MDL Data
1,3-Dichlorobenzene	0.500	0.454	0.0244	3.143	0.077	ug/L	5	91	Valid MDL Data
1,3-Dichloropropane	0.500	0.443	0.0229	3.143	0.072	ug/L	5	89	Valid MDL Data
1,4-Dichlorobenzene	0.500	0.486	0.0412	3.143	0.13	ug/L	8	97	Valid MDL Data
1,4-Dioxane	40.0	40.9	9.42	3.143	30	ug/L	23	102	Valid MDL Data
2,2-Dichloro-1,1,1-trifluoroethane (C)	0.500	0.410	0.0408	3.143	0.13	ug/L	10	82	Valid MDL Data
2,2-Dichloropropane	0.500	0.439	0.0406	3.143	0.13	ug/L	9	88	Valid MDL Data
2-Butanone (MEK)	2.00	1.87	0.197	3.143	0.62	ug/L	11	94	Valid MDL Data
2-Chloro-1,3-butadiene	0.500	0.387	0.0403	3.143	0.13	ug/L	10	77	Valid MDL Data
Chloroethyl Vinyl Ether	0.500	0.553	0.128	3.143	0.40	ug/L	23	111	Valid MDL Data
Chlorotoluene	2.00	1.69	0.102	3.143	0.32	ug/L	6	85	Valid MDL Data
Hexanone	2.00	2.03	0.270	3.143	0.85	ug/L	13	102	Valid MDL Data
2-Nitropropane	4.00	3.36	0.291	3.143	0.91	ug/L	9	84	Valid MDL Data
Propanol	40.0	35.7	5.88	3.143	18	ug/L	16	89	Valid MDL Data

Supervisor Approval: \_\_\_\_\_

Supervisor Approval: \_\_\_\_\_

*R. Herring*

APR 25 2008

MDL Study Report

Analytical Method: 8260B  
 Extraction Method: EPA 5035  
 Matrix: WATER  
 Instrument: MS #8

MDL Study ID: MDL266

Column: MS

Analyte Name	True Value	Mean	Standard Deviation	T-Value	MDL Value	Units	%RSD	Average Recovery	MDL Qualifier notes
4-Chlorotoluene	0.500	0.436	0.0270	3.143	0.085	ug/L	6	87	Valid MDL Data
4-Isopropyltoluene	0.500	0.430	0.0173	3.143	0.054	ug/L	4	86	Valid MDL Data
4-Methyl-2-pentanone (MIBK)	0.500	0.584	0.0541	3.143	0.17	ug/L	9	117	Valid MDL Data
Acetone	2.00	2.74	0.397	3.143	1.2	ug/L	15	137	Valid MDL Data
Acetonitrile	10.0	9.06	2.90	3.143	9.1	ug/L	32	91	Valid MDL Data
Acrolein	2.50	2.55	0.438	3.143	1.4	ug/L	17	102	Valid MDL Data
Acrylonitrile	2.50	2.11	0.107	3.143	0.34	ug/L	5	84	Valid MDL Data
Allyl Chloride	0.500	0.423	0.0716	3.143	0.22	ug/L	17	85	Valid MDL Data
Benzene	0.500	0.450	0.0245	3.143	0.077	ug/L	5	90	Valid MDL Data
Bromobenzene	0.500	0.427	0.0591	3.143	0.19	ug/L	14	85	Valid MDL Data
Bromochloromethane	0.500	0.439	0.0449	3.143	0.14	ug/L	10	88	Valid MDL Data
Bromodichloromethane	0.500	0.437	0.0206	3.143	0.065	ug/L	5	87	Valid MDL Data
Bromoform	2.00	1.64	0.106	3.143	0.33	ug/L	6	82	Valid MDL Data
Bromomethane	0.500	0.520	0.0440	3.143	0.14	ug/L	8	104	Valid MDL Data
Carbon Disulfide	0.500	0.494	0.0336	3.143	0.11	ug/L	7	99	Valid MDL Data
Carbon Tetrachloride	0.500	0.466	0.0506	3.143	0.16	ug/L	11	93	Valid MDL Data
Chlorobenzene	0.500	0.466	0.0282	3.143	0.089	ug/L	6	93	Valid MDL Data
Chloroethane	0.500	0.383	0.0345	3.143	0.11	ug/L	9	77	Valid MDL Data
Chloroform	0.500	0.426	0.0257	3.143	0.081	ug/L	6	85	Valid MDL Data
Chloromethane	0.500	0.441	0.0453	3.143	0.14	ug/L	10	88	Valid MDL Data
cis-1,2-Dichloroethene	0.500	0.430	0.0316	3.143	0.099	ug/L	7	86	Valid MDL Data
cis-1,3-Dichloropropene	0.500	0.434	0.0412	3.143	0.13	ug/L	9	87	Valid MDL Data
Cyclohexane	0.500	0.420	0.0271	3.143	0.085	ug/L	6	84	Valid MDL Data
Cyclohexanone	10.0	9.24	2.29	3.143	7.2	ug/L	25	92	Valid MDL Data
Dibromochloromethane	0.500	0.481	0.0195	3.143	0.061	ug/L	4	96	Valid MDL Data
Dibromomethane	0.500	0.549	0.0543	3.143	0.17	ug/L	10	110	Valid MDL Data
Dichlorodifluoromethane	0.500	0.373	0.0407	3.143	0.13	ug/L	11	75	Valid MDL Data
Dichlorofluoromethane (CFC 21)	0.500	0.394	0.0341	3.143	0.11	ug/L	9	79	Valid MDL Data
Diethyl Ether	0.500	0.439	0.0389	3.143	0.12	ug/L	9	88	Valid MDL Data
Diisopropyl Ether	0.500	0.416	0.0207	3.143	0.065	ug/L	5	83	Valid MDL Data
DETB	2.00	1.62	0.0965	3.143	0.30	ug/L	6	81	Valid MDL Data

Supervisor Approval: \_\_\_\_\_

Supervisor Approval: \_\_\_\_\_

APR 25 2008

Columbia Analytical Services

MDL Study Report

*P. Herring*

Analytical Method: 8260B  
Extraction Method: EPA 5035  
Matrix: WATER  
Instrument: MS #8

MDL Study ID: MDL266

Column: MS

Analyte Name	True Value	Mean	Standard Deviation	T-Value	MDL Value	Units	%RSD	Average Recovery	MDL Qualifier notes
Ethyl Methacrylate	0.500	0.499	0.0521	3.143	0.16	ug/L	10	100	Valid MDL Data
Ethylbenzene	0.500	0.454	0.0223	3.143	0.070	ug/L	5	91	Valid MDL Data
Hexachlorobutadiene	0.500	0.473	0.0528	3.143	0.17	ug/L	11	95	Valid MDL Data
Iodomethane (Methyl Iodide)	0.500	0.457	0.0535	3.143	0.17	ug/L	12	91	Valid MDL Data
Isobutyl Alcohol	10.0	12.9	1.91	3.143	6.0	ug/L	15	129	Valid MDL Data
Isopropylbenzene	0.500	0.439	0.0186	3.143	0.059	ug/L	4	88	Valid MDL Data
m,p-Xylenes	1.00	0.904	0.0479	3.143	0.15	ug/L	5	90	Valid MDL Data
Methacrylonitrile	2.00	1.58	0.191	3.143	0.60	ug/L	12	79	Valid MDL Data
Methyl Acetate	0.500	0.653	0.0912	3.143	0.29	ug/L	14	131	Valid MDL Data
Methyl Methacrylate	0.500	0.541	0.0873	3.143	0.27	ug/L	16	108	Valid MDL Data
Methyl tert-Butyl Ether	0.500	0.419	0.0453	3.143	0.14	ug/L	11	84	Valid MDL Data
Methylcyclohexane	0.500	0.440	0.0503	3.143	0.16	ug/L	11	88	Valid MDL Data
Methylene Chloride	0.500	0.534	0.0282	3.143	0.089	ug/L	5	107	Valid MDL Data
Naphthalene	0.500	0.424	0.0526	3.143	0.17	ug/L	12	85	Valid MDL Data
n-Butylbenzene	0.500	0.399	0.0241	3.143	0.076	ug/L	6	80	Valid MDL Data
n-Heptane	0.500	0.481	0.0488	3.143	0.15	ug/L	10	96	Valid MDL Data
n-Propylbenzene	0.500	0.431	0.0234	3.143	0.074	ug/L	5	86	Valid MDL Data
o-Xylene	0.500	0.450	0.0311	3.143	0.098	ug/L	7	90	Valid MDL Data
Propionitrile	2.50	1.77	0.196	3.143	0.62	ug/L	11	71	Valid MDL Data
sec-Butylbenzene	0.500	0.426	0.0199	3.143	0.062	ug/L	5	85	Valid MDL Data
Styrene	0.500	0.420	0.0200	3.143	0.063	ug/L	5	84	Valid MDL Data
TAME	0.500	0.423	0.0298	3.143	0.094	ug/L	7	85	Valid MDL Data
tert-Butyl Alcohol	10.0	9.43	0.611	3.143	1.9	ug/L	6	94	Valid MDL Data
tert-Butylbenzene	2.00	1.74	0.0984	3.143	0.31	ug/L	6	87	Valid MDL Data
Tetrachloroethene (PCE)	0.500	0.487	0.0198	3.143	0.062	ug/L	4	97	Valid MDL Data
Tetrahydrofuran	2.00	2.58	0.234	3.143	0.74	ug/L	9	129	Valid MDL Data
Toluene	0.500	0.467	0.0160	3.143	0.050	ug/L	3	93	Valid MDL Data
trans-1,2-Dichloroethene	0.500	0.421	0.0324	3.143	0.10	ug/L	8	84	Valid MDL Data
trans-1,3-Dichloropropene	0.500	0.434	0.0251	3.143	0.079	ug/L	6	87	Valid MDL Data
trans-1,4-Dichloro-2-butene	2.00	1.62	0.288	3.143	0.90	ug/L	18	81	Valid MDL Data
Trichloroethene (TCE)	0.500	0.493	0.0359	3.143	0.11	ug/L	7	99	Valid MDL Data

Supervisor Approval:

QA/QC Approval:

APR 25 2008

*R. Henry*

MDL Study Report

Analytical Method: 8260B  
 Extraction Method: EPA 5035  
 Matrix: WATER  
 Instrument: MS #8

MDL Study ID: MDL266

Column: MS

Analyte Name	True Value	Mean	Standard Deviation	T-Value	MDL Value	Units	%RSD	Average Recovery	MDL Qualifier notes
Trichlorofluoromethane	0.500	0.439	0.0324	3.143	0.10	ug/L	7	88	Valid MDL Data
Trichlorotrifluoroethane	2.00	1.63	0.0941	3.143	0.30	ug/L	6	82	Valid MDL Data
Vinyl Acetate	2.00	1.29	0.250	3.143	0.79	ug/L	19	64	Valid MDL Data
Vinyl Chloride	0.500	0.373	0.0345	3.143	0.11	ug/L	9	75	Valid MDL Data

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Supervisor Approval: \_\_\_\_\_

QA/QC Approval: \_\_\_\_\_

# **VOLATILE ORGANICS**

## **SAMPLE DATA**



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS  
 METHOD 8260B.DOD  
 Reported: 07/30/08

ENSR International

Project Reference: TRONOX PHASE B INVESTIGATION PROJ# 04020-023-4312

Client Sample ID : M-79B

Date Sampled : 06/29/08 14:31 Order #: 1113695 Sample Matrix: WATER  
 Date Received: 07/01/08 Submission #: R2844768 Analytical Run 164135

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 07/10/08		
ANALYTICAL DILUTION:	1.00		
ACETONE	20	20 U	UG/L
BENZENE	1.0	1.0 U	UG/L
BROMOBENZENE	2.0	2.0 U	UG/L
BROMOCHLOROMETHANE	2.0	2.0 U	UG/L
BROMODICHLOROMETHANE	1.0	1.0 U	UG/L
BROMOFORM	1.0	1.0 U	UG/L
BROMOMETHANE	2.0	2.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
TERT-BUTYL ALCOHOL	100	100 U	UG/L
METHYL-TERT-BUTYL ETHER	1.0	1.0 U	UG/L
ETHYL-TERT-BUTYL ETHER	1.0	1.0 U	UG/L
TERT-BUTYLBENZENE	2.0	2.0 U	UG/L
SEC-BUTYLBENZENE	2.0	2.0 U	UG/L
N-BUTYLBENZENE	5.0	5.0 U	UG/L
CARBON TETRACHLORIDE	1.0	1.0 U	UG/L
CHLOROBENZENE	1.0	1.0 U	UG/L
CHLOROETHANE	2.0	2.0 U	UG/L
CHLOROFORM	1.0	4.5	UG/L
CHLOROMETHANE	2.0	1.5 J	UG/L
1,2-DIBROMO-3-CHLOROPROPANE	5.0	5.0 U	UG/L
2-CHLOROTOLUENE	5.0	5.0 U	UG/L
4-CHLOROTOLUENE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	1.0	1.0 U	UG/L
1,2-DIBROMOETHANE	1.0	1.0 U	UG/L
DIBROMOMETHANE	1.0	1.0 U	UG/L
1,2-DICHLOROBENZENE	2.0	2.0 U	UG/L
1,4-DICHLOROBENZENE	2.0	1.0 J	UG/L
1,3-DICHLOROBENZENE	2.0	2.0 U	UG/L
DICHLORODIFLUOROMETHANE	1.0	1.0 U	UG/L
1,1-DICHLOROETHANE	1.0	1.0 U	UG/L
1,2-DICHLOROETHANE	1.0	1.0 U	UG/L
1,1-DICHLOROETHENE	1.0	1.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	1.0	1.0 U	UG/L
CIS-1,2-DICHLOROETHENE	1.0	1.0 U	UG/L
2,2-DICHLOROPROPANE	2.0	2.0 U	UG/L
1,2-DICHLOROPROPANE	1.0	1.0 U	UG/L
1,3-DICHLOROPROPANE	2.0	2.0 U	UG/L
1,1-DICHLOROPROPENE	2.0	2.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	1.0	1.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	1.0	1.0 U	UG/L
ETHYLBENZENE	1.0	1.0 U	UG/L
HEXACHLOROBUTADIENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
DI-ISOPROPYL ETHER	1.0	1.0 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS  
METHOD 8260B.DOD  
Reported: 07/30/08

ENSR International

Project Reference: TRONOX PHASE B INVESTIGATION PROJ# 04020-023-4312

Client Sample ID : M-79B

Date Sampled : 06/29/08 14:31 Order #: 1113695 Sample Matrix: WATER  
Date Received: 07/01/08 Submission #: R2844768 Analytical Run 164135

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 07/10/08		
ANALYTICAL DILUTION:	1.00		
ISOPROPYLBENZENE	2.0	2.0 U	UG/L
P-ISOPROPYLTOLUENE	2.0	2.0 U	UG/L
TERT-AMYL-METHYL ETHER	1.0	1.0 U	UG/L
METHYLENE CHLORIDE	2.0	0.31 J	UG/L
NAPHTHALENE	2.0	2.0 U	UG/L
4-METHYL-2-PENTANONE	10	10 U	UG/L
N-PROPYLBENZENE	2.0	2.0 U	UG/L
STYRENE	1.0	1.0 U	UG/L
1,1,1,2-TETRACHLOROETHANE	1.0	1.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	1.0	1.0 U	UG/L
TETRACHLOROETHENE	1.0	1.0 U	UG/L
TOLUENE	1.0	1.0 U	UG/L
1,2,4-TRICHLOROBENZENE	2.0	2.0 U	UG/L
1,2,3-TRICHLOROBENZENE	2.0	2.0 U	UG/L
1,1,1-TRICHLOROETHANE	1.0	1.0 U	UG/L
1,1,2-TRICHLOROETHANE	1.0	1.0 U	UG/L
TRICHLOROETHENE	1.0	1.0 U	UG/L
TRICHLOROFLUOROMETHANE	1.0	1.0 U	UG/L
1,2,3-TRICHLOROPROPANE	2.0	2.0 U	UG/L
1,3,5-TRIMETHYLBENZENE	2.0	2.0 U	UG/L
1,2,4-TRIMETHYLBENZENE	2.0	2.0 U	UG/L
VINYL CHLORIDE	1.0	1.0 U	UG/L
M+P-XYLENE	2.0	2.0 U	UG/L
O-XYLENE	1.0	1.0 U	UG/L

SURROGATE RECOVERIES

QC LIMITS

BROMOFLUOROBENZENE	(70 - 130 %)	110	%
TOLUENE-D8	(70 - 130 %)	109	%
DIBROMOFLUOROMETHANE	(70 - 130 %)	106	%

Data File : J:\ACQUATA\MSVOA8\DATA\071008\Z2771.D Vial: 14  
 Acq On : 10 Jul 2008 3:12 pm Operator: Herring  
 Sample : 1113695 1.0 Inst : MS #8  
 Misc : ENSR R-44768 8260B.DODO Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 10 15:24 2008 Quant Results File: W070808.RES

Quant Method : J:\ACQUATA\M...\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 16:13:36 2008  
 Response via : Initial Calibration  
 DataAcq Meth : W070808

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	3.15	168	411572	50.00	ppb	0.00
42) 1,4 - Difluorobenzene	3.65	114	724218	50.00	ppb	-0.01
63) d5 - Chlorobenzene	5.96	117	626467	50.00	ppb	-0.01
85) d4 - Dichlorobenzene	8.15	152	281885	50.00	ppb	-0.01

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) surr4, Dibrflmethane	3.14	113	220628	52.99	ppb	-0.01
Spiked Amount 50.000			Recovery =	105.98%		
48) surr1, 1,2-Dicethane	3.36	65	211486	48.42	ppb	0.00
Spiked Amount 50.000			Recovery =	96.84%		
69) surr3, Toluene-d8	4.75	98	872744	54.34	ppb	-0.01
Spiked Amount 50.000			Recovery =	108.68%		
70) surr2, bfb	7.03	95	347804	54.99	ppb	-0.01
Spiked Amount 50.000			Recovery =	109.98%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
4) Chloromethane	1.18	50	8341	1.48	ppb	96 J
<del>16) Acetone</del>	<del>1.85</del>	<del>43</del>	<del>548</del>	<del>0.77</del>	<del>ppb</del>	<del># 65</del>
<del>22) Methyl Acetate</del>	<del>2.08</del>	<del>43</del>	<del>603</del>	<del>0.23</del>	<del>ppb</del>	<del># 90</del>
23) Methylene Chloride	2.11	84	1299	0.31	ppb	# 74 J
<del>36) Propionitrile</del>	<del>2.89</del>	<del>54</del>	<del>73</del>	<del>0.31</del>	<del>ppb</del>	<del># 1</del>
39) Chloroform	3.03	83	28641	4.46	ppb	99
<del>40) Tetrahydrofuran</del>	<del>3.03</del>	<del>42</del>	<del>513</del>	<del>0.79</del>	<del>ppb</del>	<del># 35</del>
<del>44) cyclohexane</del>	<del>3.14</del>	<del>56</del>	<del>8116</del>	<del>1.04</del>	<del>ppb</del>	<del># 1</del>
<del>60) 2-Nitropropane</del>	<del>4.41</del>	<del>43</del>	<del>1195</del>	<del>1.83</del>	<del>ppb</del>	<del># 99</del>
<del>61) 2-Chloroethylvinyl Ether</del>	<del>4.39</del>	<del>63</del>	<del>765</del>	<del>0.40</del>	<del>ppb</del>	<del># 48</del>
<del>64) 4-Methyl-2-Pentanone</del>	<del>4.59</del>	<del>43</del>	<del>738</del>	<del>0.27</del>	<del>ppb</del>	<del># 91</del>
<del>72) 2-Hexanone</del>	<del>5.30</del>	<del>43</del>	<del>1001</del>	<del>0.58</del>	<del>ppb</del>	<del># 50</del>
<del>84) Cyclohexanone</del>	<del>7.02</del>	<del>55</del>	<del>1126</del>	<del>5.29</del>	<del>ppb</del>	<del># 96</del>
<del>88) 1,2,3-Trichloropropane</del>	<del>7.26</del>	<del>110</del>	<del>103</del>	<del>Below Cal</del>		<del>85</del>
<del>99) 1,3-Dclbenz</del>	<del>8.17</del>	<del>146</del>	<del>6643</del>	<del>1.03</del>	<del>ppb</del>	<del># 89</del>
100) 1,4-Dclbenz	8.17	146	6963	1.05	ppb	# 87 J

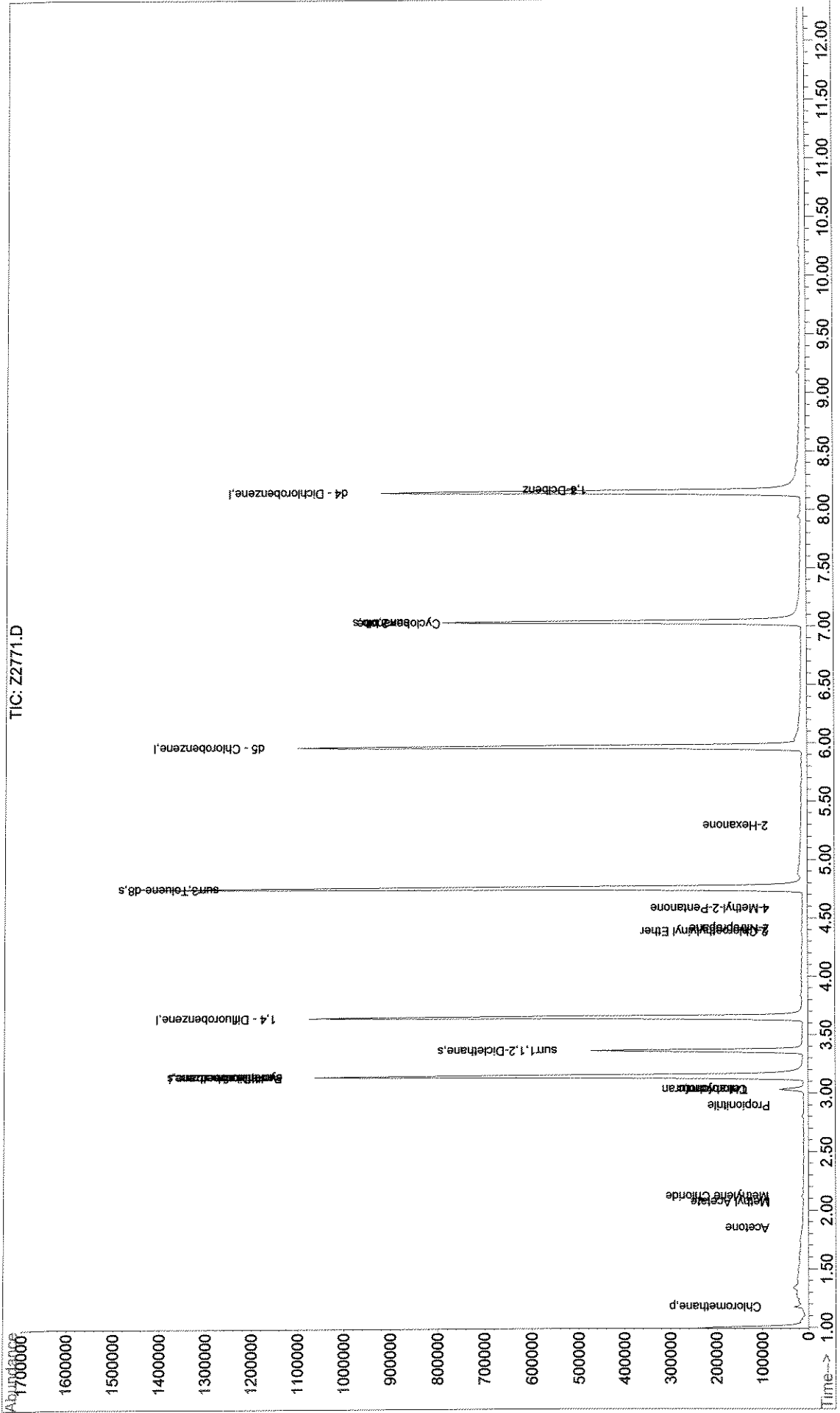
*PJH  
7/16*

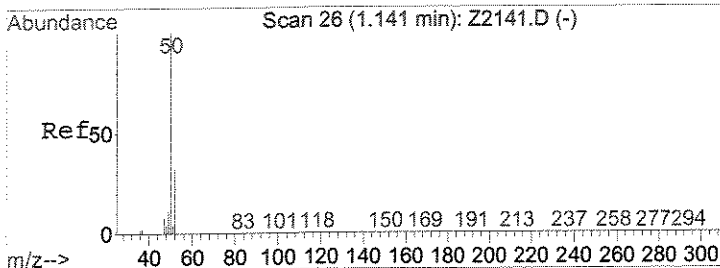
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 Sample : 1113695 1.0  
 Misc : ENSR R-44768 8260B.DODO  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 10 15:24 2008

Vial: 14  
 Operator: Herring  
 Inst : MS #8  
 Multiplr: 1.00

Quant Results File: W070808.RES

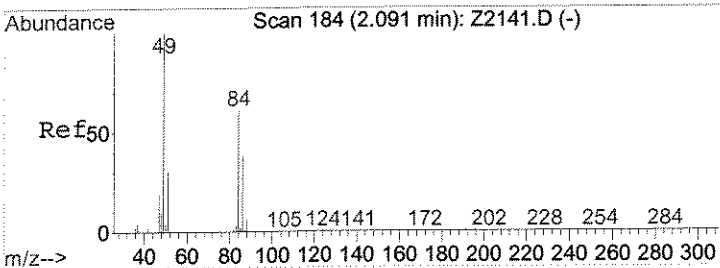
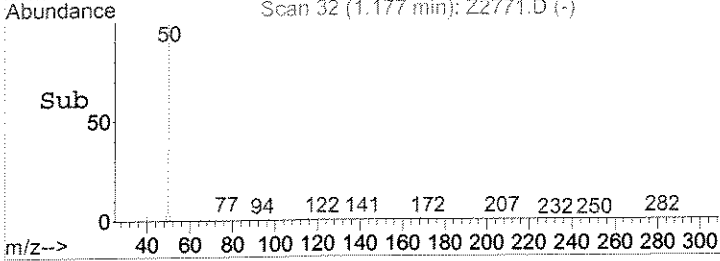
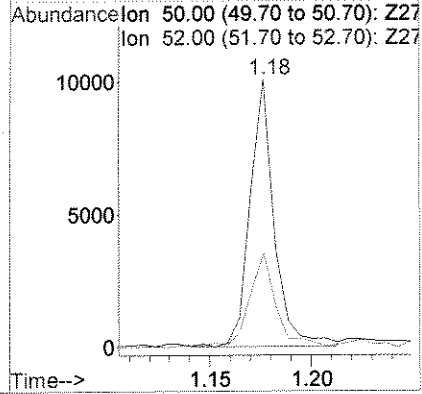
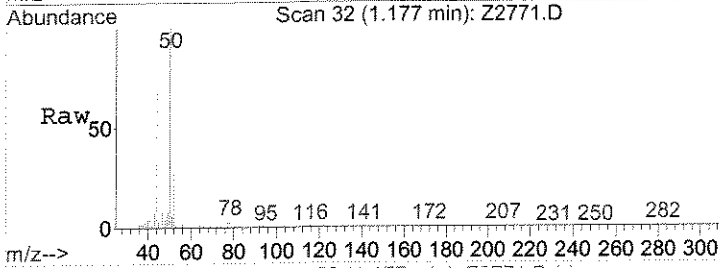
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 Title : 8260vov  
 Last Update : Wed Jul 09 16:13:36 2008  
 Response via : Initial Calibration





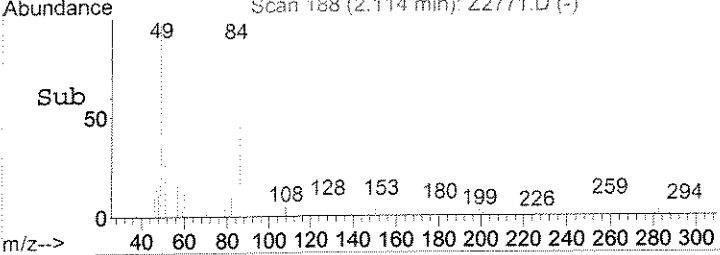
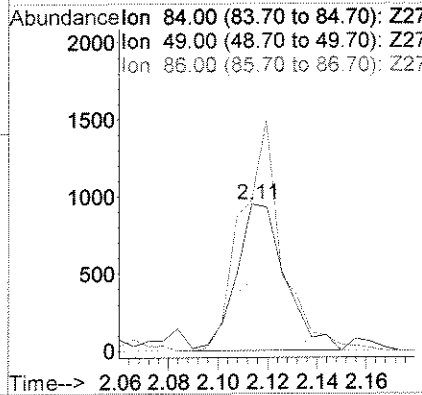
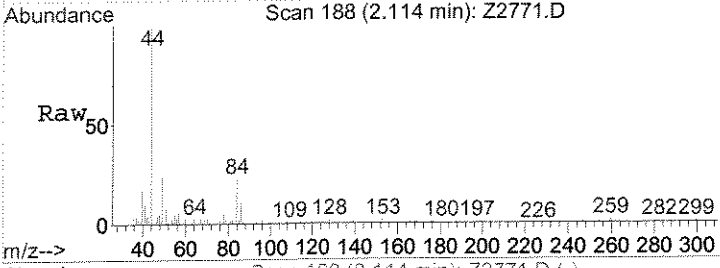
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 Chloromethane  
 Concen: 1.48 ppb  
 RT: 1.18 min Scan# 32  
 Delta R.T. -0.00 min  
 Lab File: Z2771.D  
 Acq: 10 Jul 2008 3:12 pm

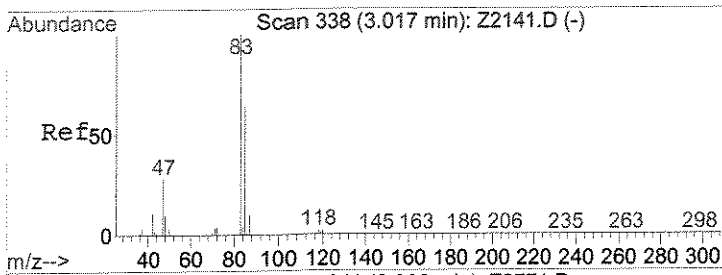
Tgt Ion: 50 Resp: 8341  
 Ion Ratio Lower Upper  
 50 100  
 52 35.3 26.4 39.6



#23  
 Methylene Chloride  
 Concen: 0.31 ppb  
 RT: 2.11 min Scan# 188  
 Delta R.T. -0.01 min  
 Lab File: Z2771.D  
 Acq: 10 Jul 2008 3:12 pm

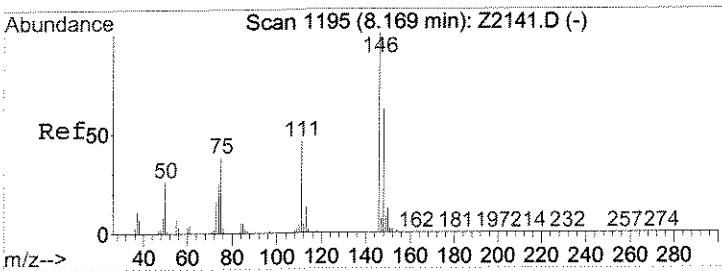
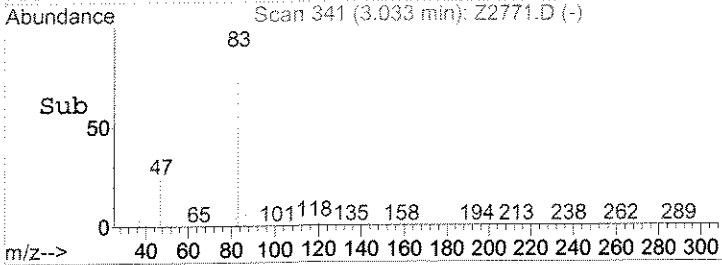
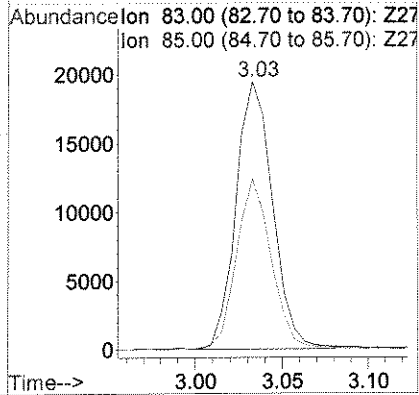
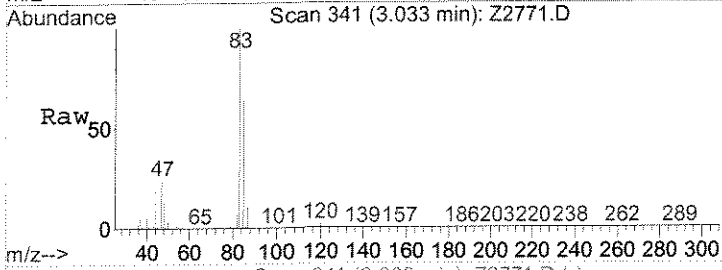
Tgt Ion: 84 Resp: 1299  
 Ion Ratio Lower Upper  
 84 100  
 49 102.6 110.6 165.8#  
 86 47.9 50.4 75.6#





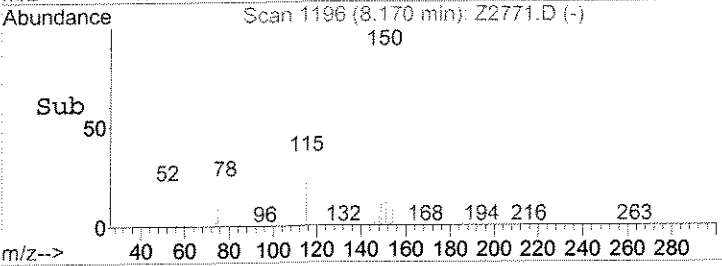
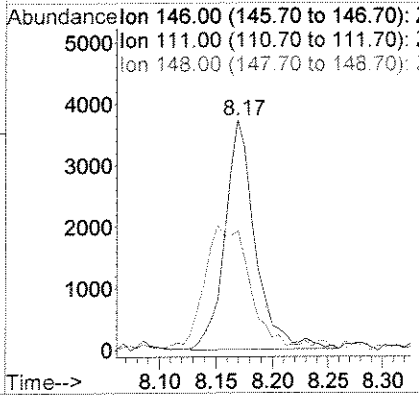
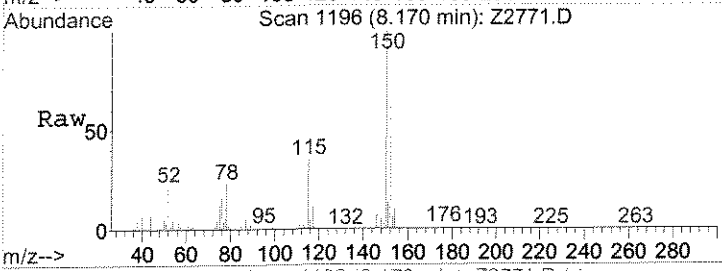
#39  
 Chloroform  
 Concen: 4.46 ppb  
 RT: 3.03 min Scan# 341  
 Delta R.T. -0.01 min  
 Lab File: Z2771.D  
 Acq: 10 Jul 2008 3:12 pm

Tgt Ion	Resp	Lower	Upper
83	28641	100	
85	63.8	50.6	75.8



#100  
 1,4-Diclbz  
 Concen: 1.05 ppb  
 RT: 8.17 min Scan# 1196  
 Delta R.T. -0.01 min  
 Lab File: Z2771.D  
 Acq: 10 Jul 2008 3:12 pm

Tgt Ion	Resp	Lower	Upper
146	6963	100	
111	51.8	30.6	46.0#
148	68.6	50.7	76.1



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS  
 METHOD 8260B.DOD  
 Reported: 07/30/08

ENSR International

Project Reference: TRONOX PHASE B INVESTIGATION PROJ# 04020-023-4312

Client Sample ID : M-126B

Date Sampled : 06/29/08 14:44 Order #: 1113696 Sample Matrix: WATER  
 Date Received: 07/01/08 Submission #: R2844768 Analytical Run 164135

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 07/10/08		
ANALYTICAL DILUTION:	50.00		
ACETONE	20	1000 U	UG/L
BENZENE	1.0	120	UG/L
BROMOBENZENE	2.0	100 U	UG/L
BROMOCHLOROMETHANE	2.0	100 U	UG/L
BROMODICHLOROMETHANE	1.0	50 U	UG/L
BROMOFORM	1.0	50 U	UG/L
BROMOMETHANE	2.0	100 U	UG/L
2-BUTANONE (MEK)	10	500 U	UG/L
TERT-BUTYL ALCOHOL	100	5000 U	UG/L
METHYL-TERT-BUTYL ETHER	1.0	50 U	UG/L
ETHYL-TERT-BUTYL ETHER	1.0	50 U	UG/L
TERT-BUTYLBENZENE	2.0	100 U	UG/L
SEC-BUTYLBENZENE	2.0	100 U	UG/L
N-BUTYLBENZENE	5.0	250 U	UG/L
CARBON TETRACHLORIDE	1.0	50 U	UG/L
CHLOROBENZENE	1.0	190	UG/L
CHLOROETHANE	2.0	100 U	UG/L
CHLOROFORM	1.0	6100	UG/L
CHLOROMETHANE	2.0	100 U	UG/L
1,2-DIBROMO-3-CHLOROPROPANE	5.0	250 U	UG/L
2-CHLOROTOLUENE	5.0	250 U	UG/L
4-CHLOROTOLUENE	5.0	250 U	UG/L
DIBROMOCHLOROMETHANE	1.0	50 U	UG/L
1,2-DIBROMOETHANE	1.0	50 U	UG/L
DIBROMOMETHANE	1.0	50 U	UG/L
1,2-DICHLOROBENZENE	2.0	540	UG/L
1,4-DICHLOROBENZENE	2.0	680	UG/L
1,3-DICHLOROBENZENE	2.0	34 J	UG/L
DICHLORODIFLUOROMETHANE	1.0	50 U	UG/L
1,1-DICHLOROETHANE	1.0	50 U	UG/L
1,2-DICHLOROETHANE	1.0	50 U	UG/L
1,1-DICHLOROETHENE	1.0	50 U	UG/L
TRANS-1,2-DICHLOROETHENE	1.0	50 U	UG/L
CIS-1,2-DICHLOROETHENE	1.0	50 U	UG/L
2,2-DICHLOROPROPANE	2.0	100 U	UG/L
1,2-DICHLOROPROPANE	1.0	50 U	UG/L
1,3-DICHLOROPROPANE	2.0	100 U	UG/L
1,1-DICHLOROPROPENE	2.0	100 U	UG/L
TRANS-1,3-DICHLOROPROPENE	1.0	50 U	UG/L
CIS-1,3-DICHLOROPROPENE	1.0	50 U	UG/L
ETHYLBENZENE	1.0	50 U	UG/L
HEXACHLOROBUTADIENE	5.0	250 U	UG/L
2-HEXANONE	10	500 U	UG/L
DI-ISOPROPYL ETHER	1.0	50 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS  
 METHOD 8260B.DOD  
 Reported: 07/30/08

ENSR International

Project Reference: TRONOX PHASE B INVESTIGATION PROJ# 04020-023-4312

Client Sample ID : M-126B

Date Sampled : 06/29/08 14:44 Order #: 1113696 Sample Matrix: WATER  
 Date Received: 07/01/08 Submission #: R2844768 Analytical Run 164135

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 07/10/08		
ANALYTICAL DILUTION:	50.00		
ISOPROPYLBENZENE	2.0	100 U	UG/L
P-ISOPROPYLTOLUENE	2.0	100 U	UG/L
TERT-AMYL-METHYL ETHER	1.0	50 U	UG/L
METHYLENE CHLORIDE	2.0	19 J	UG/L
NAPHTHALENE	2.0	100 U	UG/L
4-METHYL-2-PENTANONE	10	500 U	UG/L
N-PROPYLBENZENE	2.0	100 U	UG/L
STYRENE	1.0	50 U	UG/L
1,1,1,2-TETRACHLOROETHANE	1.0	50 U	UG/L
1,1,2,2-TETRACHLOROETHANE	1.0	50 U	UG/L
TETRACHLOROETHENE	1.0	50 U	UG/L
TOLUENE	1.0	50 U	UG/L
1,2,4-TRICHLOROBENZENE	2.0	100 U	UG/L
1,2,3-TRICHLOROBENZENE	2.0	100 U	UG/L
1,1,1-TRICHLOROETHANE	1.0	50 U	UG/L
1,1,2-TRICHLOROETHANE	1.0	50 U	UG/L
TRICHLOROETHENE	1.0	50 U	UG/L
TRICHLOROFLUOROMETHANE	1.0	50 U	UG/L
1,2,3-TRICHLOROPROPANE	2.0	100 U	UG/L
1,3,5-TRIMETHYLBENZENE	2.0	100 U	UG/L
1,2,4-TRIMETHYLBENZENE	2.0	100 U	UG/L
VINYL CHLORIDE	1.0	50 U	UG/L
M+P-XYLENE	2.0	100 U	UG/L
O-XYLENE	1.0	50 U	UG/L

SURROGATE RECOVERIES

QC LIMITS

BROMOFLUOROBENZENE	(70 - 130 %)	110	%
TOLUENE-D8	(70 - 130 %)	104	%
DIBROMOFLUOROMETHANE	(70 - 130 %)	103	%



Data File : J:\ACQUDATA\MSVOA8\DATA\071008\Z2775.D Vial: 18  
 Acq On : 10 Jul 2008 5:03 pm Operator: Herring  
 Sample : 1113696 50 Inst : MS #8  
 Misc : ENSR R-44768 8260B.DODO Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 10 17:15 2008 Quant Results File: W070808.RES

Quant Method : J:\ACQUDATA\M...\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 16:13:36 2008  
 Response via : Initial Calibration  
 DataAcq Meth : W070808

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	3.15	168	397115	50.00	ppb	0.00
42) 1,4 - Difluorobenzene	3.65	114	670477	50.00	ppb	-0.01
63) d5 - Chlorobenzene	5.97	117	607009	50.00	ppb	-0.01
85) d4 - Dichlorobenzene	8.15	152	283197	50.00	ppb	-0.01

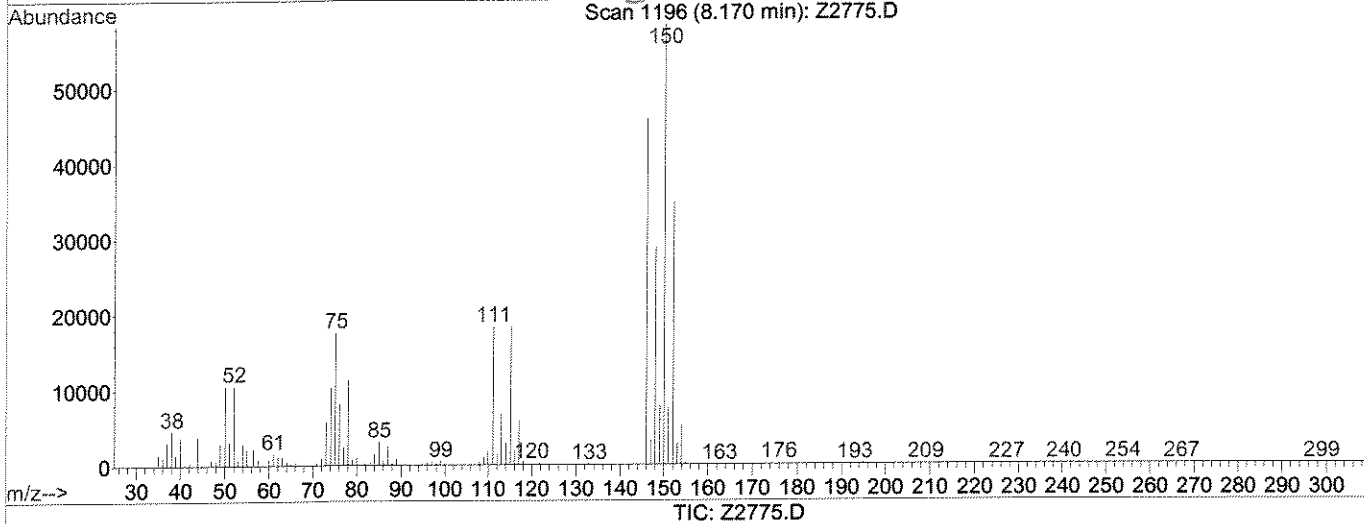
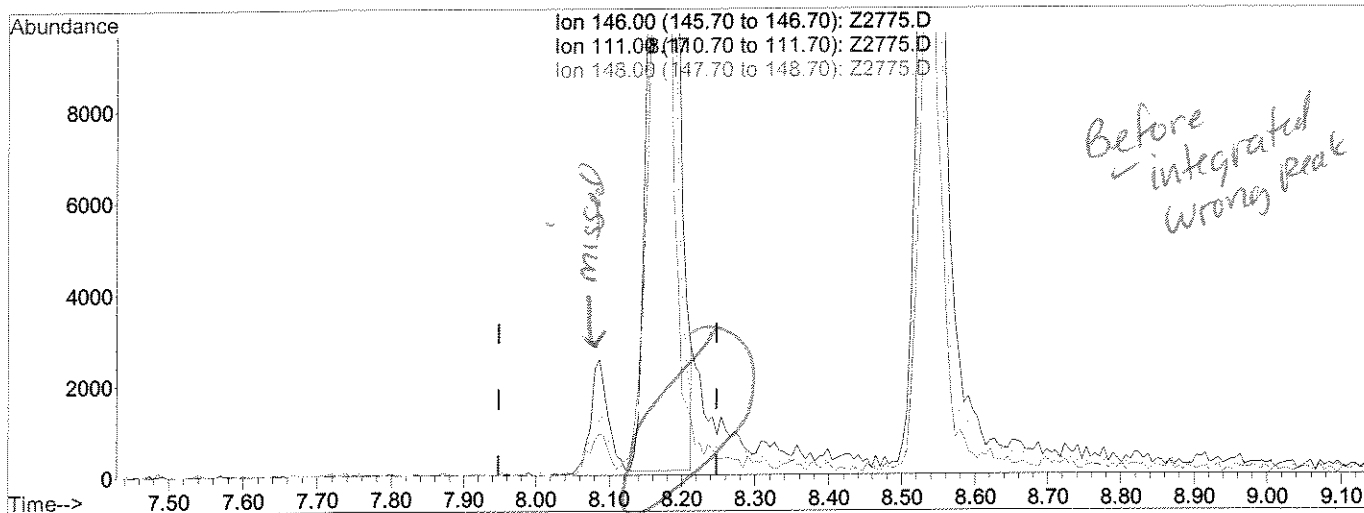
System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) surr4, Dibrflmethane	3.14	113	198013	51.38	ppb	-0.01
Spiked Amount 50.000			Recovery =	102.76%		
48) surr1, 1,2-Dicethane	3.36	65	167247	41.36	ppb	0.00
Spiked Amount 50.000			Recovery =	82.72%		
69) surr3, Toluene-d8	4.75	98	812070	52.19	ppb	-0.01
Spiked Amount 50.000			Recovery =	104.38%		
70) surr2, bfb	7.03	95	336814	54.96	ppb	-0.01
Spiked Amount 50.000			Recovery =	109.92%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
<del>10) Diethyl Ether</del>	<del>1.74</del>	<del>59</del>	<del>895</del>	<del>0.35</del>	<del>ppb</del>	<del># 76</del>
<del>16) Acetone</del>	<del>1.88</del>	<del>43</del>	<del>1398</del>	<del>2.03</del>	<del>ppb</del>	<del>92</del>
<del>23) Methylene Chloride</del>	<del>2.11</del>	<del>84</del>	<del>1523</del>	<del>0.38</del>	<del>ppb</del>	<del># 72</del>
<del>36) Propionitrile</del>	<del>2.88</del>	<del>54</del>	<del>55</del>	<del>0.24</del>	<del>ppb</del>	<del># 1</del>
<del>39) Chloroform</del>	<del>3.03</del>	<del>83</del>	<del>760537</del>	<del>122.74</del>	<del>ppb</del>	<del>98</del>
<del>40) Tetrahydrofuran</del>	<del>3.03</del>	<del>42</del>	<del>2592</del>	<del>4.16</del>	<del>ppb</del>	<del># 1</del>
<del>44) cyclohexane</del>	<del>3.14</del>	<del>56</del>	<del>6955</del>	<del>0.96</del>	<del>ppb</del>	<del># 1</del>
<del>49) Benzene</del>	<del>3.41</del>	<del>78</del>	<del>36894</del>	<del>2.47</del>	<del>ppb</del>	<del>91</del>
<del>58) Dibromomethane</del>	<del>4.10</del>	<del>93</del>	<del>470</del>	<del>0.27</del>	<del>ppb</del>	<del># 18</del>
<del>60) 2-Nitropropane</del>	<del>4.39</del>	<del>43</del>	<del>879</del>	<del>1.45</del>	<del>ppb</del>	<del># 52</del>
<del>76) Chlorobenzene</del>	<del>5.99</del>	<del>112</del>	<del>34524</del>	<del>3.84</del>	<del>ppb</del>	<del>98</del>
<del>84) Cyclohexanone</del>	<del>7.04</del>	<del>55</del>	<del>460</del>	<del>2.23</del>	<del>ppb</del>	<del>86</del>
88) 1,2,3-Trichloropropane	7.21	110	35	Below Cal		88
99) 1,3-Dclbenz	8.09	146	4353 87981 0.67	13.60	ppb m	99 ← RJA J 7/16
100) 1,4-Dclbenz	8.17	146	91110	13.65	ppb	99
103) 1,2-Dclbenz	8.54	146	61916	10.72	ppb	97

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\071008\Z2775.D Vial: 18  
 Acq On : 10 Jul 2008 5:03 pm Operator: Herring  
 Sample : 1113696 50 Inst : MS #8  
 Misc : ENSR R-44768 8260B.DODO Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 16 15:17 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 16:13:36 2008  
 Response via : Multiple Level Calibration



(99) 1,3-Dicibenz

8.17min 13.60ppb

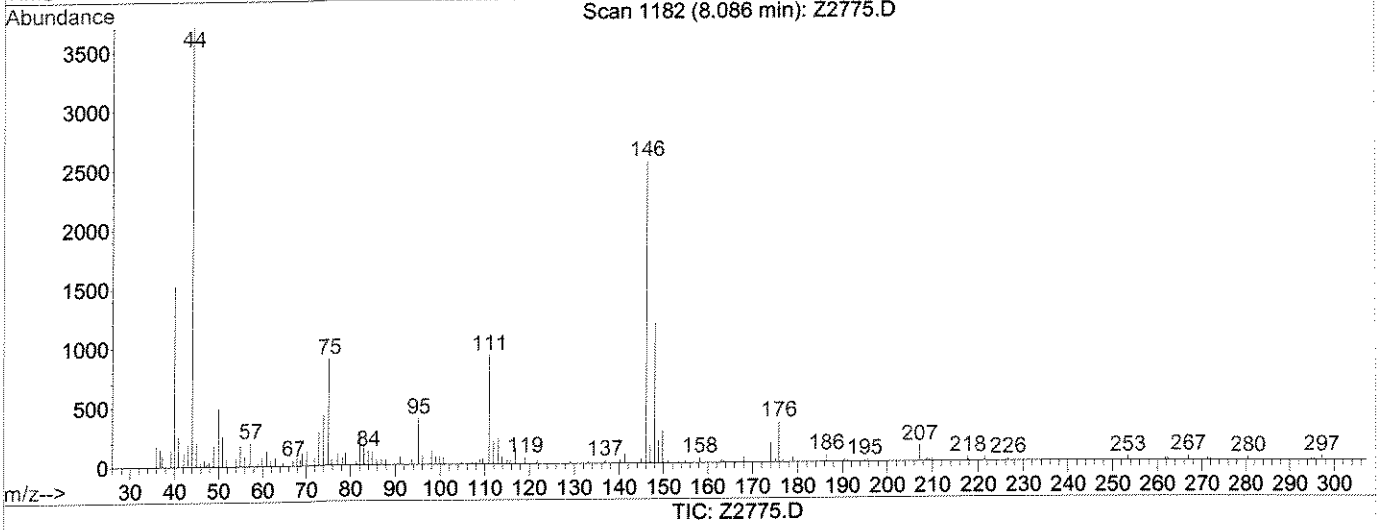
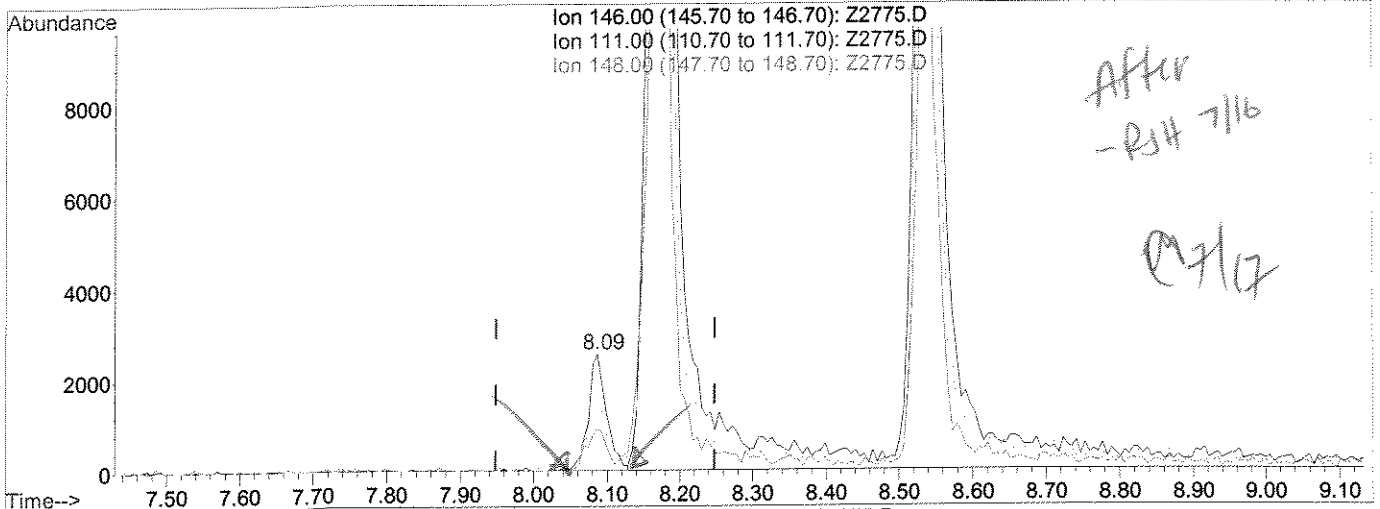
response 87981

Ion	Exp%	Act%
146.00	100	100
111.00	39.90	40.04
148.00	64.10	62.96
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\071008\Z2775.D Vial: 18  
 Acq On : 10 Jul 2008 5:03 pm Operator: Herring  
 Sample : 1113696 50 Inst : MS #8  
 Misc : ENSR R-44768 8260B.DODO Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 16 15:18 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 16:13:36 2008  
 Response via : Multiple Level Calibration



(99) 1,3-Dclbenz

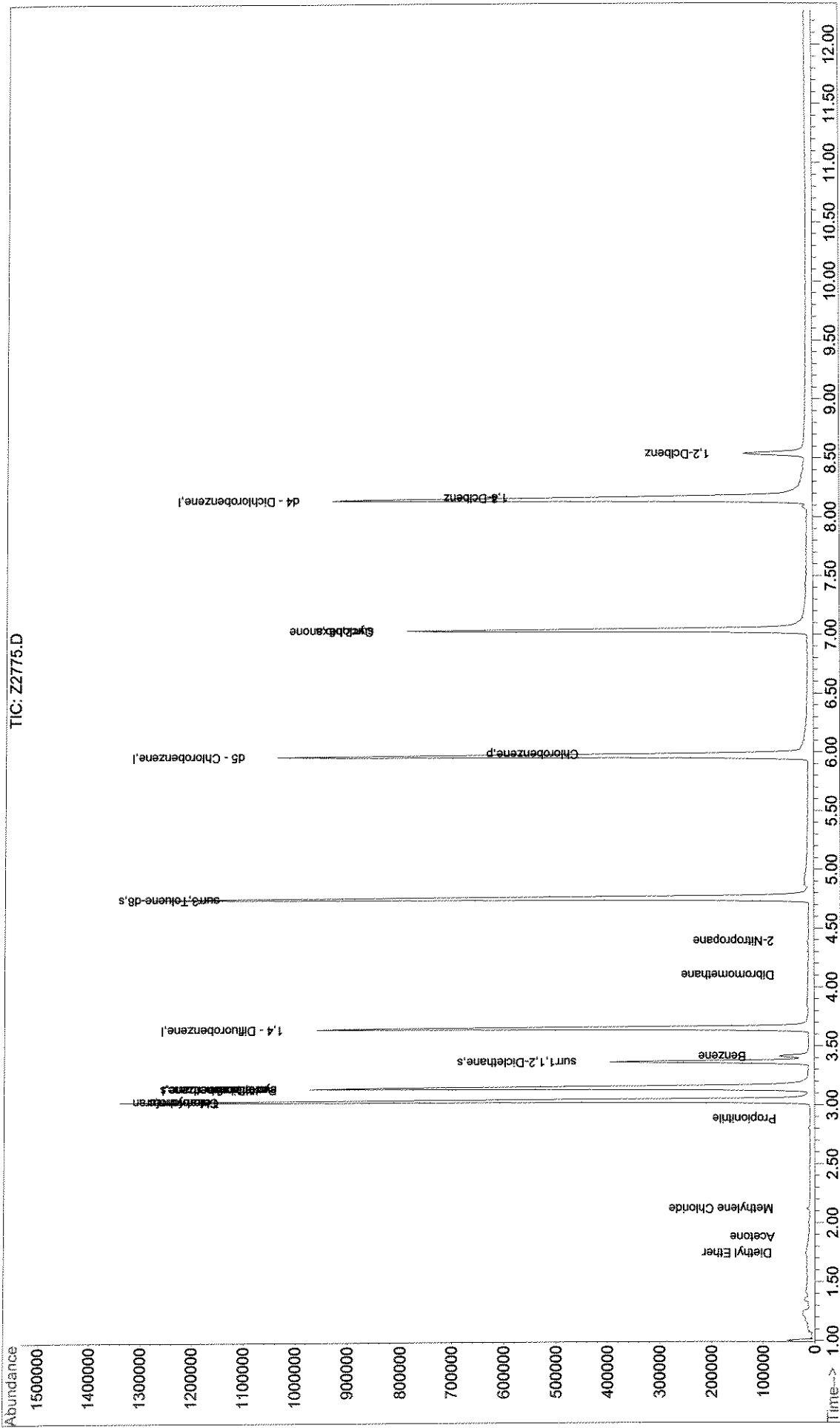
8.09min 0.67ppb m

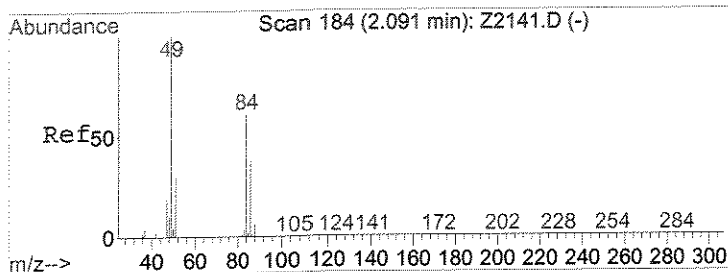
response 4353

Ion	Exp%	Act%
146.00	100	100
111.00	39.90	36.07
148.00	64.10	46.55#
0.00	0.00	0.00

Data File : J:\ACQDATA\MSVOA8\DATA\071008\Z2775.D Vial: 18  
 Acq On : 10 Jul 2008 5:03 pm Operator: Herring  
 Sample : 1113696 50 Inst : MS #8  
 Misc : ENSR R-44768 8260B.DODO Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 10 17:15 2008 Quant Results File: W070808.RES

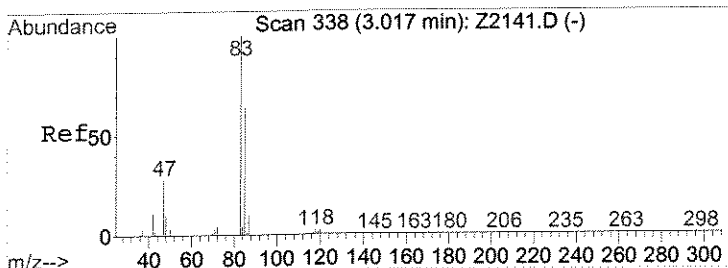
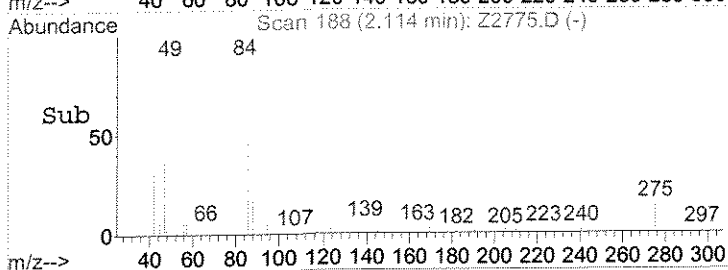
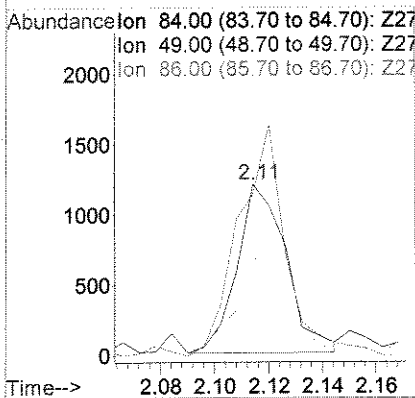
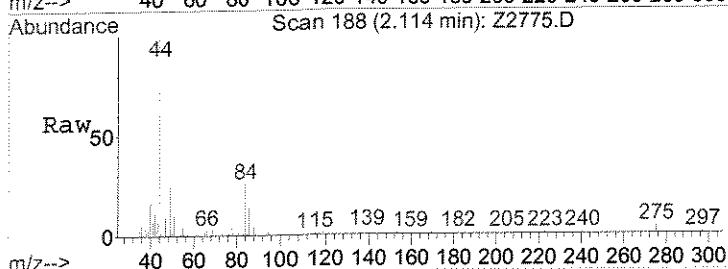
Method : J:\ACQDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260vova  
 Last Update : Wed Jul 09 16:13:36 2008  
 Response via : Initial Calibration





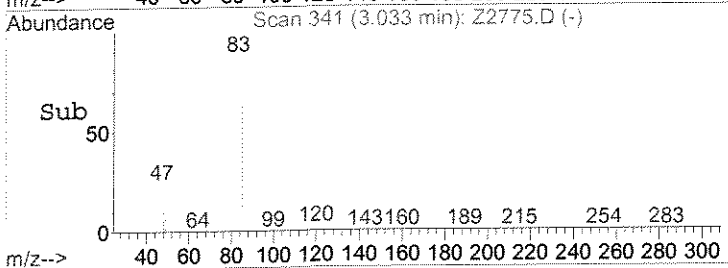
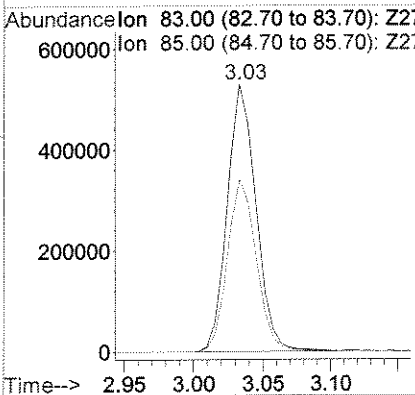
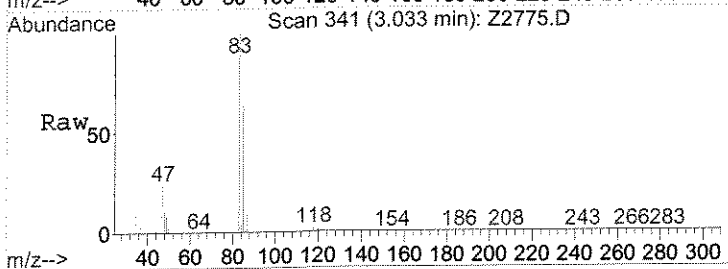
#23  
 Methylene Chloride  
 Concen: 0.38 ppb  
 RT: 2.11 min Scan# 188  
 Delta R.T. -0.01 min  
 Lab File: Z2775.D  
 Acq: 10 Jul 2008 5:03 pm

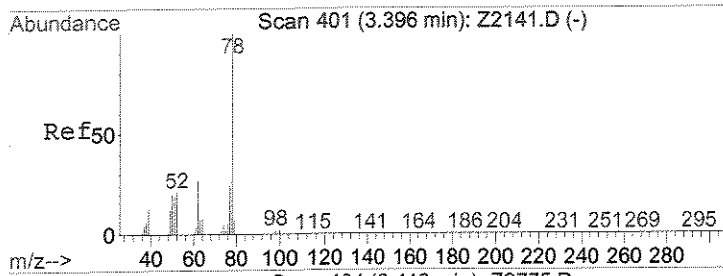
Tgt Ion	Resp	Lower	Upper
84	1523		
49	94.3	110.6	165.8#
86	54.6	50.4	75.6



#39  
 Chloroform  
 Concen: 122.74 ppb  
 RT: 3.03 min Scan# 341  
 Delta R.T. -0.01 min  
 Lab File: Z2775.D  
 Acq: 10 Jul 2008 5:03 pm

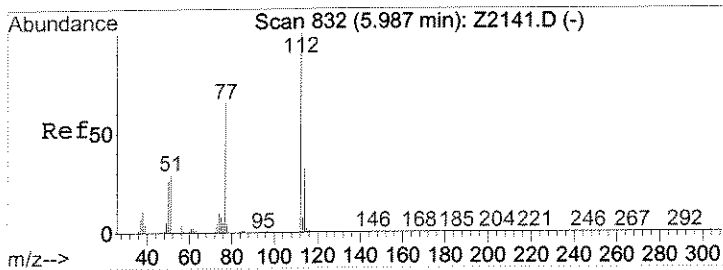
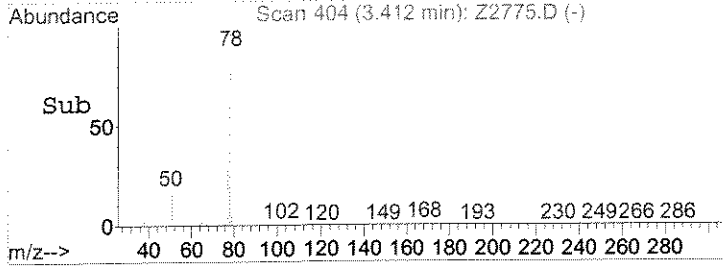
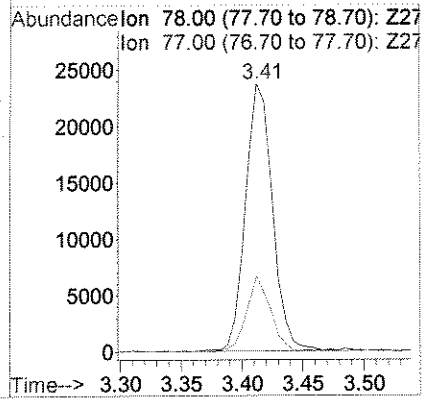
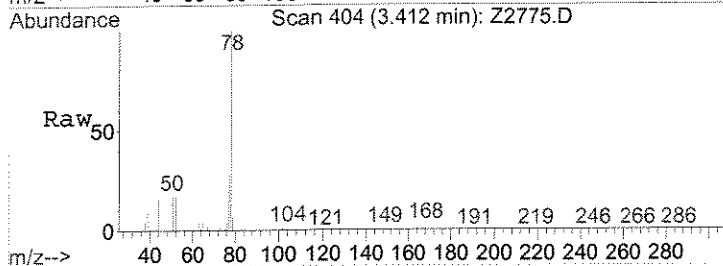
Tgt Ion	Resp	Lower	Upper
83	760537		
85	64.5	50.6	75.8





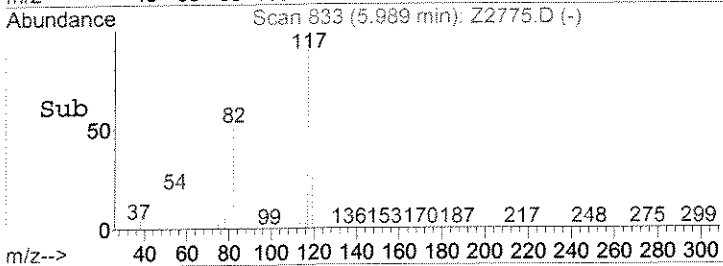
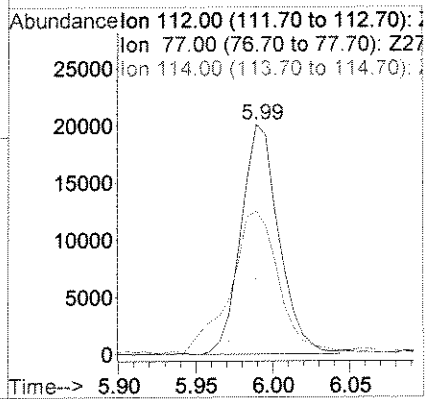
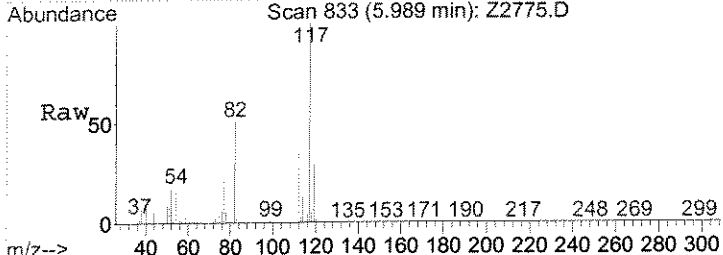
#49  
Benzene  
Concen: 2.47 ppb  
RT: 3.41 min Scan# 404  
Delta R.T. -0.01 min  
Lab File: Z2775.D  
Acq: 10 Jul 2008 5:03 pm

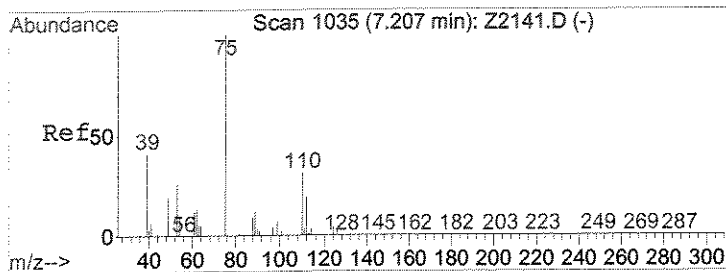
Tgt Ion	Resp	Lower	Upper
78	100		
77	28.2	16.7	30.9



#76  
Chlorobenzene  
Concen: 3.84 ppb  
RT: 5.99 min Scan# 833  
Delta R.T. -0.01 min  
Lab File: Z2775.D  
Acq: 10 Jul 2008 5:03 pm

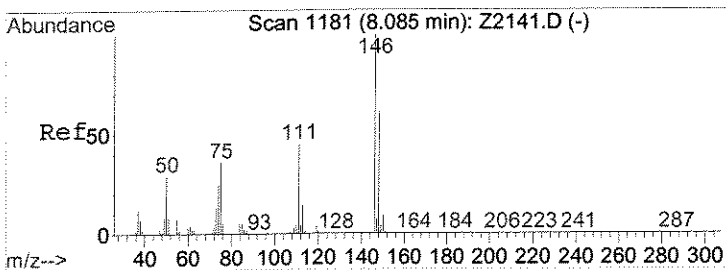
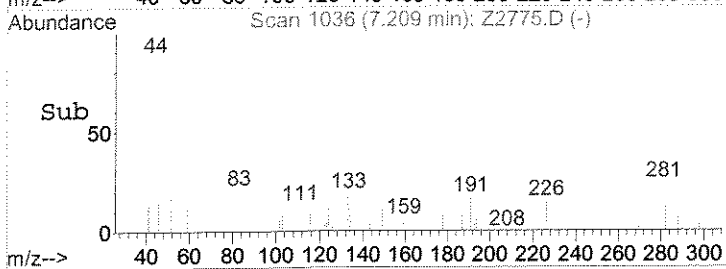
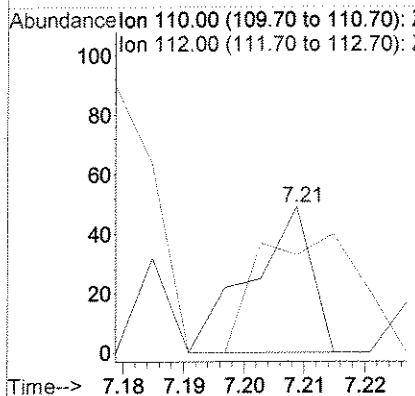
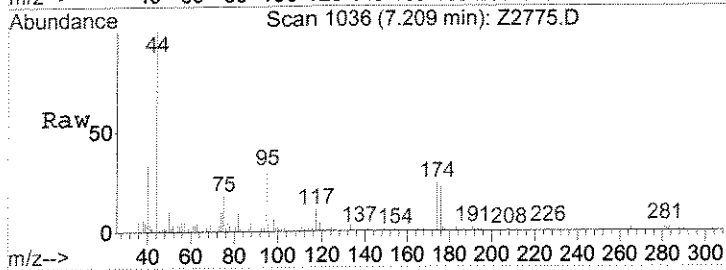
Tgt Ion	Resp	Lower	Upper
112	100		
77	62.1	51.1	76.7
114	33.6	26.1	39.1





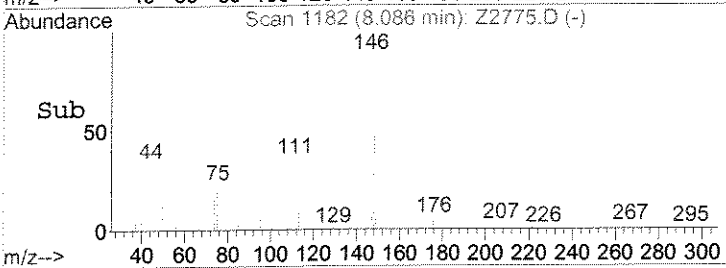
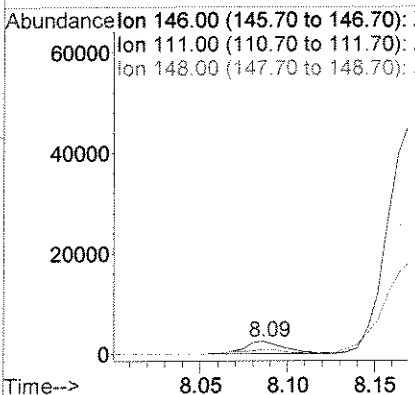
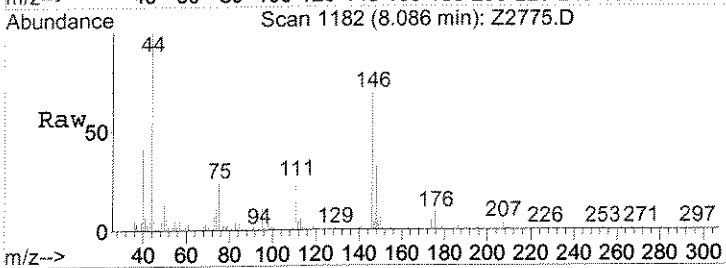
#88  
 1,2,3-Trichloropropane  
 Concen: Below Cal  
 RT: 7.21 min Scan# 1036  
 Delta R.T. -0.01 min  
 Lab File: Z2775.D  
 Acq: 10 Jul 2008 5:03 pm

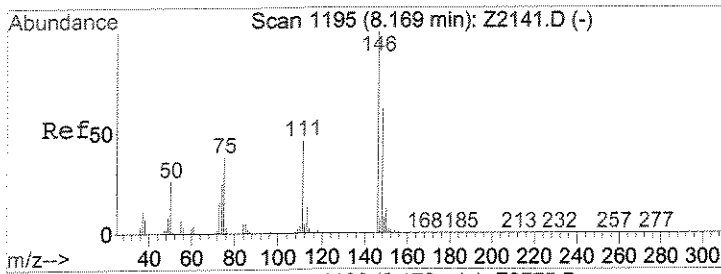
Tgt Ion	Resp	Lower	Upper
110	35		
110	100		
112	67.3	47.0	70.4



#99  
 1,3-Diclbz  
 Concen: 0.67 ppb m  
 RT: 8.09 min Scan# 1182  
 Delta R.T. -0.01 min  
 Lab File: Z2775.D  
 Acq: 10 Jul 2008 5:03 pm

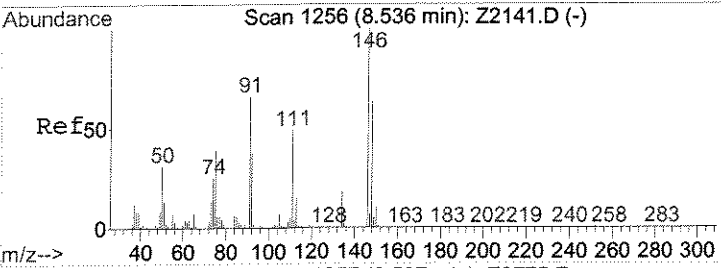
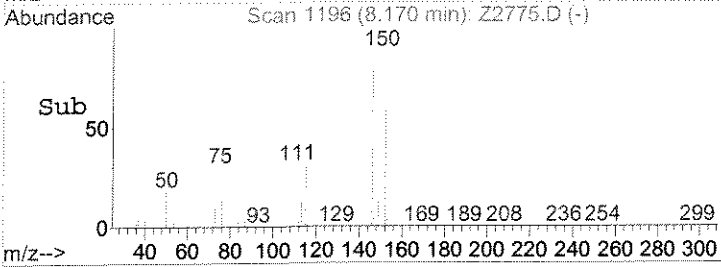
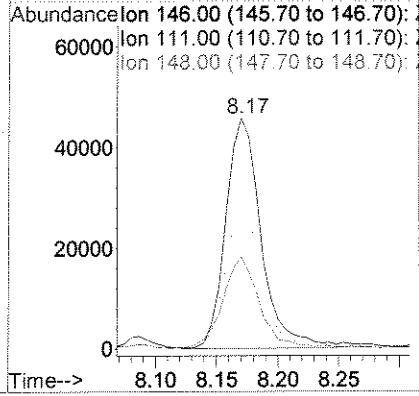
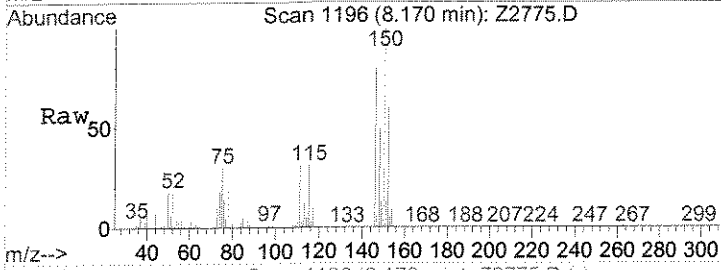
Tgt Ion	Resp	Lower	Upper
146	4353		
146	100		
111	36.1	31.9	47.9
148	46.5	51.3	76.9#





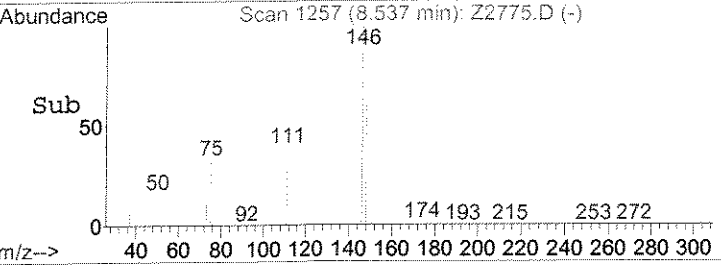
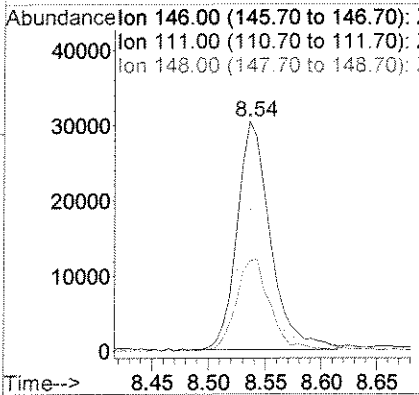
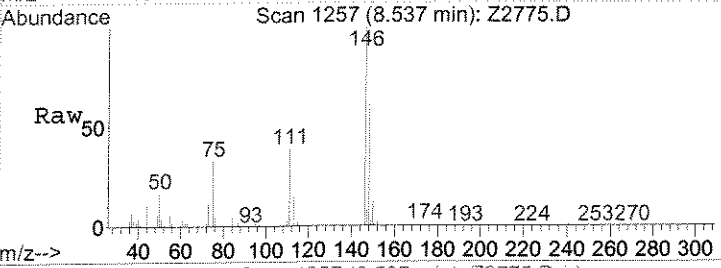
#100  
 1,4-Dclbenz  
 Concen: 13.65 ppb  
 RT: 8.17 min Scan# 1196  
 Delta R.T. -0.01 min  
 Lab File: Z2775.D  
 Acq: 10 Jul 2008 5:03 pm

Tgt Ion	146	Resp	91110
Ion	Ratio	Lower	Upper
146	100		
111	40.0	30.6	46.0
148	63.0	50.7	76.1



#103  
 1,2-Dclbenz  
 Concen: 10.72 ppb  
 RT: 8.54 min Scan# 1257  
 Delta R.T. -0.01 min  
 Lab File: Z2775.D  
 Acq: 10 Jul 2008 5:03 pm

Tgt Ion	146	Resp	61916
Ion	Ratio	Lower	Upper
146	100		
111	39.4	33.9	50.9
148	61.7	50.6	75.8





COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS  
 METHOD 8260B.DOD  
 Reported: 07/30/08

ENSR International

Project Reference: TRONOX PHASE B INVESTIGATION PROJ# 04020-023-4312

Client Sample ID : M-84B

Date Sampled : 06/29/08 15:00 Order #: 1113697 Sample Matrix: WATER  
 Date Received: 07/01/08 Submission #: R2844768 Analytical Run 164135

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 07/10/08		
ANALYTICAL DILUTION:	1.00		
ACETONE	20	20 U	UG/L
BENZENE	1.0	1.0 U	UG/L
BROMOBENZENE	2.0	2.0 U	UG/L
BROMOCHLOROMETHANE	2.0	2.0 U	UG/L
BROMODICHLOROMETHANE	1.0	1.0 U	UG/L
BROMOFORM	1.0	1.0 U	UG/L
BROMOMETHANE	2.0	2.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
TERT-BUTYL ALCOHOL	100	100 U	UG/L
METHYL-TERT-BUTYL ETHER	1.0	1.0 U	UG/L
ETHYL-TERT-BUTYL ETHER	1.0	1.0 U	UG/L
TERT-BUTYLBENZENE	2.0	2.0 U	UG/L
SEC-BUTYLBENZENE	2.0	2.0 U	UG/L
N-BUTYLBENZENE	5.0	5.0 U	UG/L
CARBON TETRACHLORIDE	1.0	0.25 J	UG/L
CHLOROBENZENE	1.0	1.0 U	UG/L
CHLOROETHANE	2.0	2.0 U	UG/L
CHLOROFORM	1.0	11	UG/L
CHLOROMETHANE	2.0	1.4 J	UG/L
1,2-DIBROMO-3-CHLOROPROPANE	5.0	5.0 U	UG/L
2-CHLOROTOLUENE	5.0	5.0 U	UG/L
4-CHLOROTOLUENE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	1.0	1.0 U	UG/L
1,2-DIBROMOETHANE	1.0	1.0 U	UG/L
DIBROMOMETHANE	1.0	1.0 U	UG/L
1,2-DICHLOROBENZENE	2.0	0.26 J	UG/L
1,4-DICHLOROBENZENE	2.0	0.28 J	UG/L
1,3-DICHLOROBENZENE	2.0	0.32 J	UG/L
DICHLORODIFLUOROMETHANE	1.0	1.0 U	UG/L
1,1-DICHLOROETHANE	1.0	1.0 U	UG/L
1,2-DICHLOROETHANE	1.0	1.0 U	UG/L
1,1-DICHLOROETHENE	1.0	1.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	1.0	1.0 U	UG/L
CIS-1,2-DICHLOROETHENE	1.0	1.0 U	UG/L
2,2-DICHLOROPROPANE	2.0	2.0 U	UG/L
1,2-DICHLOROPROPANE	1.0	1.0 U	UG/L
1,3-DICHLOROPROPANE	2.0	2.0 U	UG/L
1,1-DICHLOROPROPENE	2.0	2.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	1.0	1.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	1.0	1.0 U	UG/L
ETHYLBENZENE	1.0	1.0 U	UG/L
HEXACHLOROBUTADIENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
DI-ISOPROPYL ETHER	1.0	1.0 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS  
METHOD 8260B.DOD  
Reported: 07/30/08

ENSR International

Project Reference: TRONOX PHASE B INVESTIGATION PROJ# 04020-023-4312

Client Sample ID : M-84B

Date Sampled : 06/29/08 15:00 Order #: 1113697 Sample Matrix: WATER  
Date Received: 07/01/08 Submission #: R2844768 Analytical Run 164135

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 07/10/08		
ANALYTICAL DILUTION:	1.00		
ISOPROPYLBENZENE	2.0	2.0 U	UG/L
P-ISOPROPYLTOLUENE	2.0	2.0 U	UG/L
TERT-AMYL-METHYL ETHER	1.0	1.0 U	UG/L
METHYLENE CHLORIDE	2.0	0.25 J	UG/L
NAPHTHALENE	2.0	2.0 U	UG/L
4-METHYL-2-PENTANONE	10	10 U	UG/L
N-PROPYLBENZENE	2.0	2.0 U	UG/L
STYRENE	1.0	1.0 U	UG/L
1,1,1,2-TETRACHLOROETHANE	1.0	1.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	1.0	1.0 U	UG/L
TETRACHLOROETHENE	1.0	1.0 U	UG/L
TOLUENE	1.0	1.0 U	UG/L
1,2,4-TRICHLOROBENZENE	2.0	2.0 U	UG/L
1,2,3-TRICHLOROBENZENE	2.0	2.0 U	UG/L
1,1,1-TRICHLOROETHANE	1.0	1.0 U	UG/L
1,1,2-TRICHLOROETHANE	1.0	1.0 U	UG/L
TRICHLOROETHENE	1.0	1.0 U	UG/L
TRICHLOROFLUOROMETHANE	1.0	1.0 U	UG/L
1,2,3-TRICHLOROPROPANE	2.0	2.0 U	UG/L
1,3,5-TRIMETHYLBENZENE	2.0	2.0 U	UG/L
1,2,4-TRIMETHYLBENZENE	2.0	2.0 U	UG/L
VINYL CHLORIDE	1.0	1.0 U	UG/L
M+P-XYLENE	2.0	2.0 U	UG/L
O-XYLENE	1.0	1.0 U	UG/L

SURROGATE RECOVERIES

QC LIMITS

BROMOFLUOROBENZENE	(70 - 130 %)	108	%
TOLUENE-D8	(70 - 130 %)	108	%
DIBROMOFLUOROMETHANE	(70 - 130 %)	104	%

Data File : J:\ACQUDATA\MSVOA8\DATA\071008\Z2772.D  
 Acq On : 10 Jul 2008 3:40 pm  
 Sample : 1113697 1.0  
 Misc : ENSR R-44768 8260B.DODO  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 10 15:51 2008

Vial: 15  
 Operator: Herring  
 Inst : MS #8  
 Multiplr: 1.00

Quant Results File: W070808.RES

Quant Method : J:\ACQUDATA\M...\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 16:13:36 2008  
 Response via : Initial Calibration  
 DataAcq Meth : W070808

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	3.15	168	419502	50.00	ppb	0.00
42) 1,4 - Difluorobenzene	3.65	114	738107	50.00	ppb	0.00
63) d5 - Chlorobenzene	5.96	117	629018	50.00	ppb	-0.01
85) d4 - Dichlorobenzene	8.14	152	293503	50.00	ppb	-0.01

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) surr4,Dibrflmethane	3.13	113	220379	51.94	ppb	-0.01
Spiked Amount 50.000			Recovery =	103.88%		
48) surr1,1,2-Dicethane	3.36	65	218222	49.02	ppb	0.00
Spiked Amount 50.000			Recovery =	98.04%		
69) surr3,Toluene-d8	4.75	98	867881	53.82	ppb	-0.01
Spiked Amount 50.000			Recovery =	107.64%		
70) surr2,bfb	7.03	95	341818	53.83	ppb	-0.01
Spiked Amount 50.000			Recovery =	107.66%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
4) Chloromethane	1.18	50	7875	1.37	ppb	98 J
<del>16) Acetone</del>	<del>1.90</del>	<del>43</del>	<del>1769</del>	<del>2.43</del>	<del>ppb</del>	<del># 55</del>
23) Methylene Chloride	2.11	84	1053	0.25	ppb	# 77 J
<del>34) 2-Butanone</del>	<del>2.85</del>	<del>43</del>	<del>1235</del>	<del>1.11</del>	<del>ppb</del>	<del># 67</del>
<del>36) Propionitrile</del>	<del>2.88</del>	<del>54</del>	<del>91</del>	<del>0.38</del>	<del>ppb</del>	<del># 1</del>
39) Chloroform	3.04	83	70137	10.72	ppb	# 99
<del>40) Tetrahydrofuran</del>	<del>3.03</del>	<del>42</del>	<del>809</del>	<del>1.23</del>	<del>ppb</del>	<del># 30</del>
<del>44) cyclohexane</del>	<del>3.15</del>	<del>56</del>	<del>9220</del>	<del>1.16</del>	<del>ppb</del>	<del># 1</del>
45) Carbontetrachloride	3.27	117	967	0.25	ppb	# 98 J
<del>57) 1,4-Dioxane</del>	<del>4.15</del>	<del>88</del>	<del>265</del>	<del>1.88</del>	<del>ppb</del>	<del># 19</del>
<del>72) 2-Hexanone</del>	<del>5.37</del>	<del>43</del>	<del>1646</del>	<del>0.95</del>	<del>ppb</del>	<del># 62</del>
<del>84) Cyclohexanone</del>	<del>7.03</del>	<del>55</del>	<del>1434</del>	<del>6.71</del>	<del>ppb</del>	<del># 89</del>
<del>88) 1,2,3-Trichloropropane</del>	<del>7.23</del>	<del>110</del>	<del>84</del>	<del>Below Cal</del>	<del>#</del>	<del>21</del>
99) 1,3-Dclbenz	8.08	146	2167	0.32	ppb	# 83 J
100) 1,4-Dclbenz	8.17	146	1937	0.28	ppb	# 55 J
103) 1,2-Dclbenz	8.53	146	1551	0.26	ppb	# 88 J

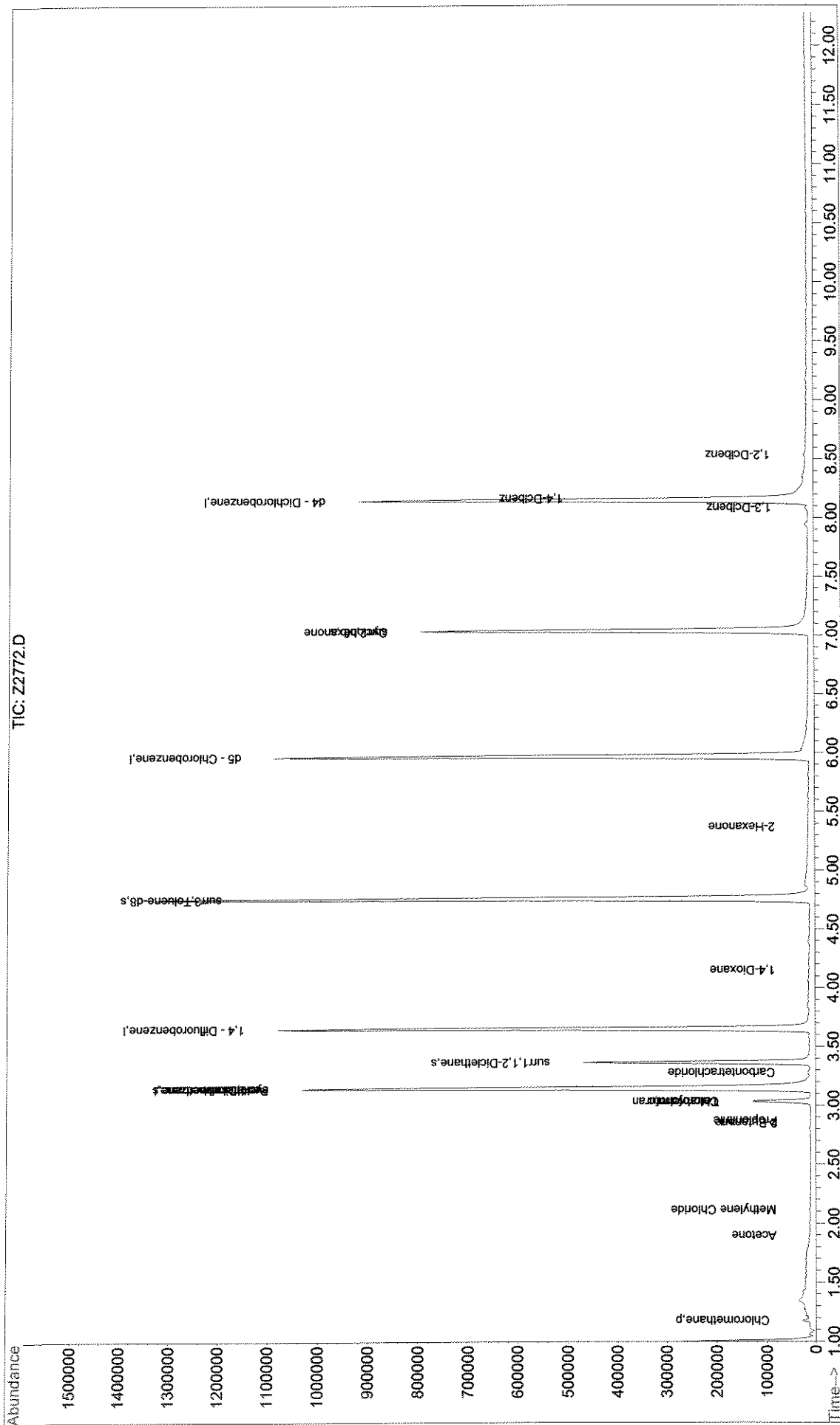
*Handwritten:* PJH 7/16

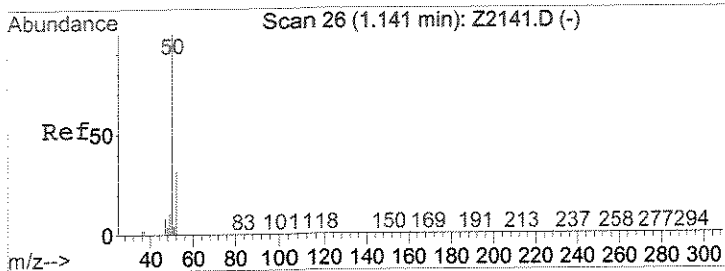
(#) = qualifier out of range (m) = manual integration  
 Z2772.D W070808.M Thu Jul 10 15:52:40 2008



Data File : J:\ACQDATA\MSVOA8\DATA\071008\Z2772.D Vial: 15  
 Acq On : 10 Jul 2008 3:40 pm Operator: Herring  
 Sample : 1113697 1.0 Inst : MS #8  
 Misc : ENSR R-44768 8260B.DODO Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 10 15:51 2008 Quant Results File: W070808.RES

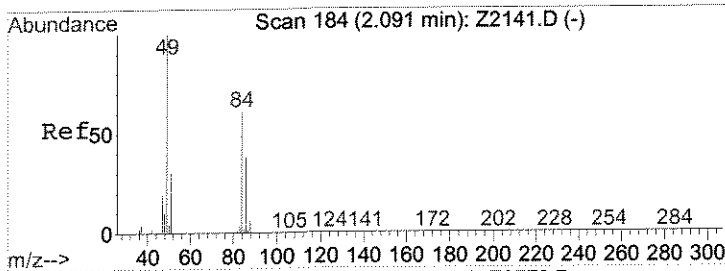
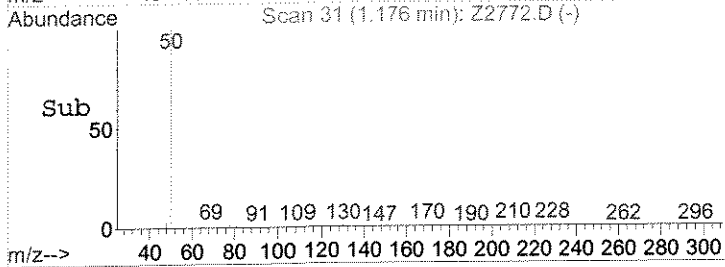
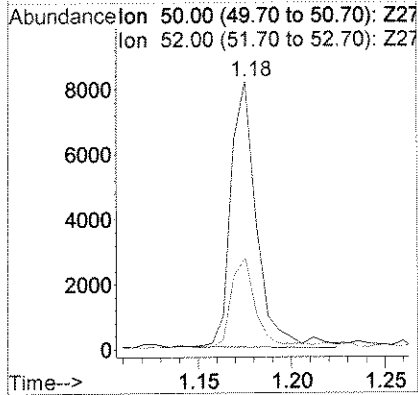
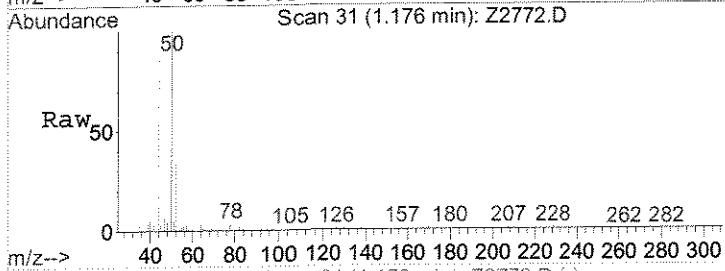
Method : J:\ACQDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260vov  
 Last Update : Wed Jul 09 16:13:36 2008  
 Response via : Initial Calibration





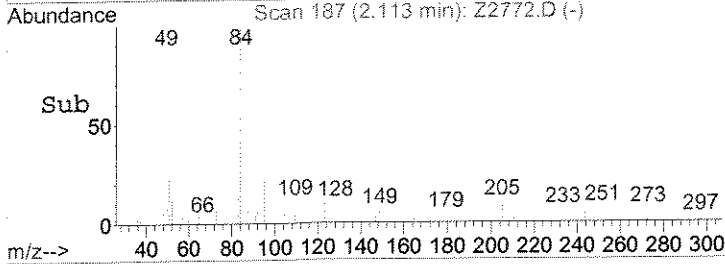
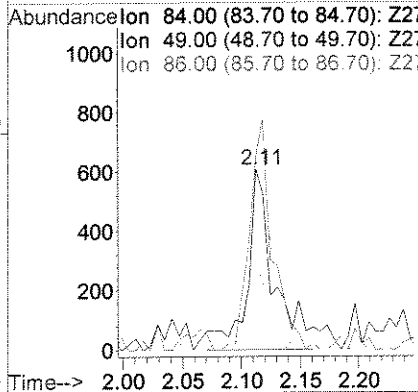
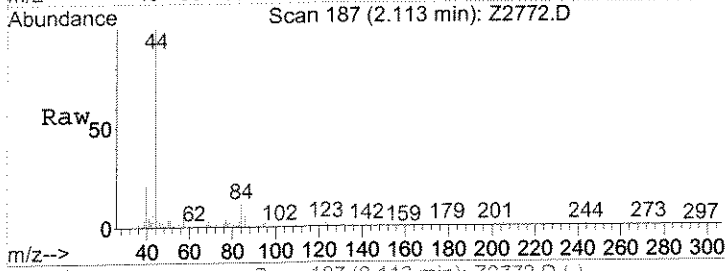
#4  
 Chloromethane  
 Concen: 1.37 ppb  
 RT: 1.18 min Scan# 31  
 Delta R.T. -0.00 min  
 Lab File: Z2772.D  
 Acq: 10 Jul 2008 3:40 pm

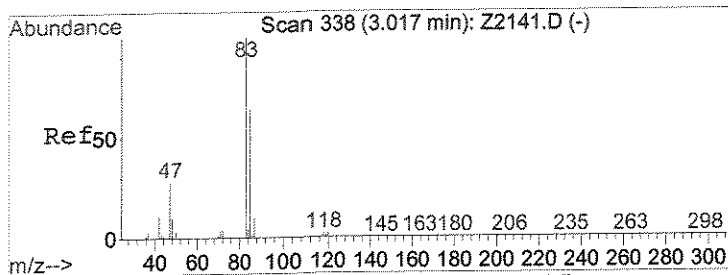
Tgt Ion	Resp	Lower	Upper
50	100		
52	33.9	26.4	39.6



#23  
 Methylene Chloride  
 Concen: 0.25 ppb  
 RT: 2.11 min Scan# 187  
 Delta R.T. -0.01 min  
 Lab File: Z2772.D  
 Acq: 10 Jul 2008 3:40 pm

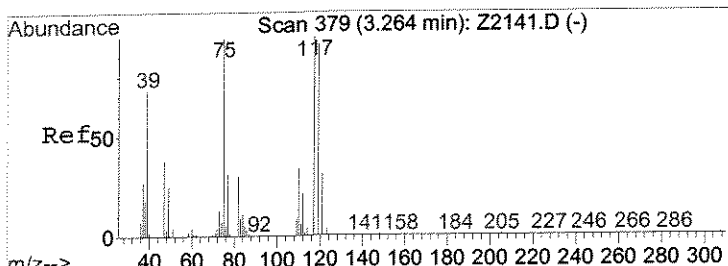
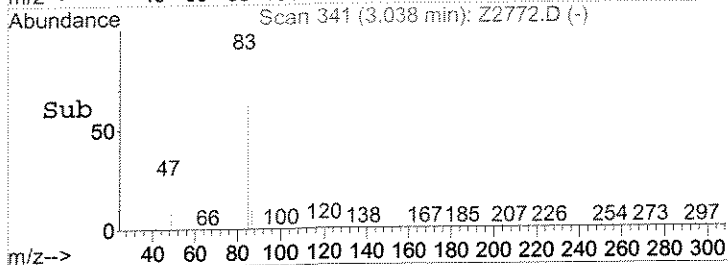
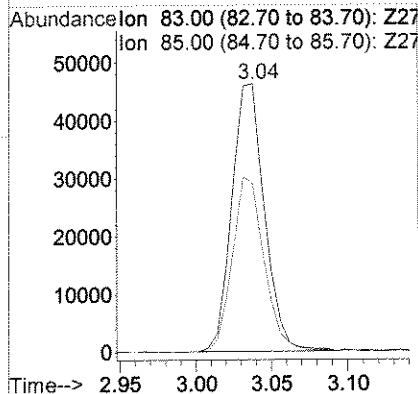
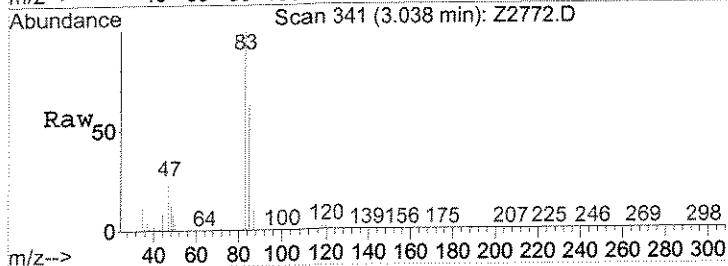
Tgt Ion	Resp	Lower	Upper
84	100		
49	106.6	110.6	165.8#
86	49.3	50.4	75.6#





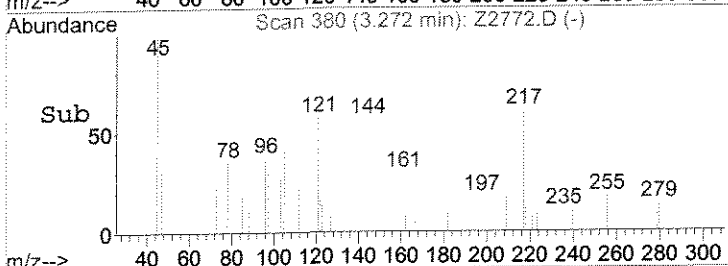
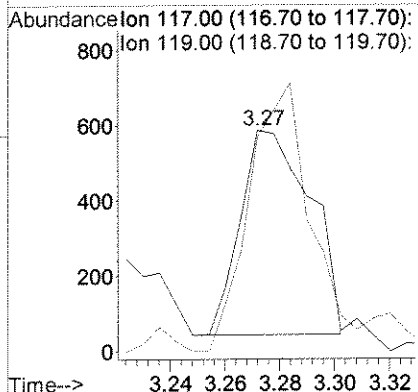
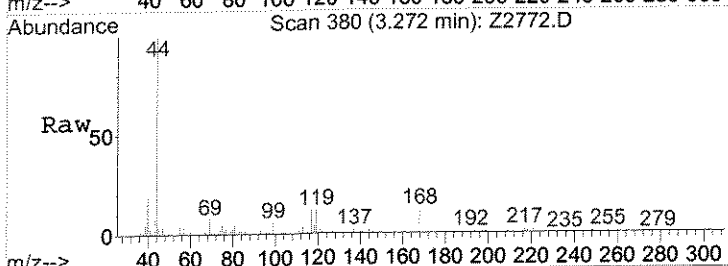
#39  
 Chloroform  
 Concen: 10.72 ppb  
 RT: 3.04 min Scan# 341  
 Delta R.T. -0.01 min  
 Lab File: Z2772.D  
 Acq: 10 Jul 2008 3:40 pm

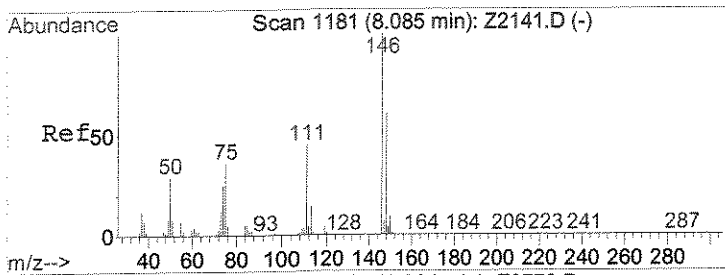
Tgt Ion: 83 Resp: 70137  
 Ion Ratio Lower Upper  
 83 100  
 85 62.7 50.6 75.8



#45  
 Carbontetrachloride  
 Concen: 0.25 ppb  
 RT: 3.27 min Scan# 380  
 Delta R.T. -0.02 min  
 Lab File: Z2772.D  
 Acq: 10 Jul 2008 3:40 pm

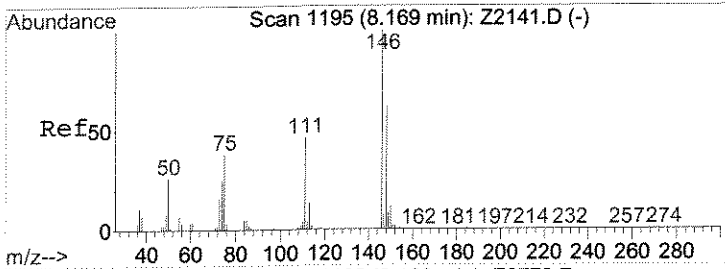
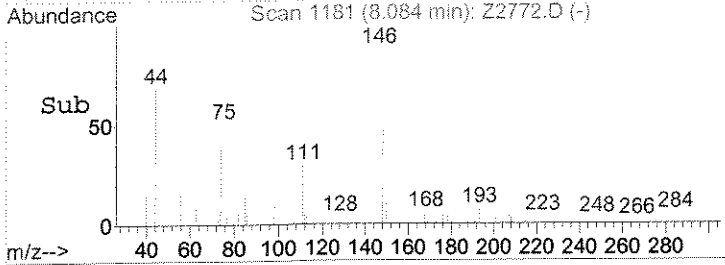
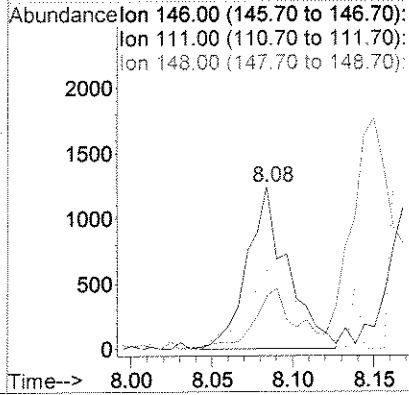
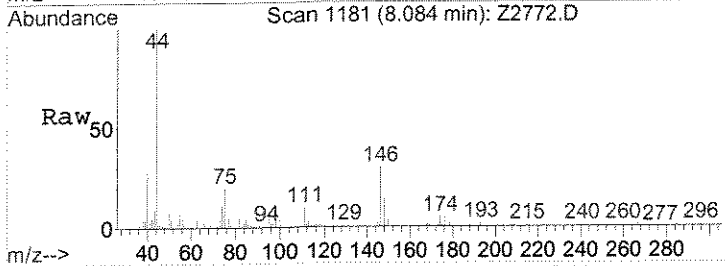
Tgt Ion: 117 Resp: 967  
 Ion Ratio Lower Upper  
 117 100  
 119 96.8 79.4 119.0





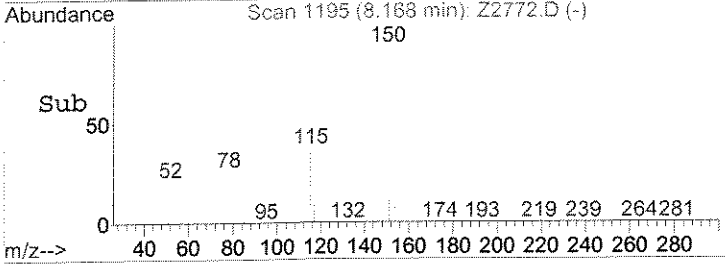
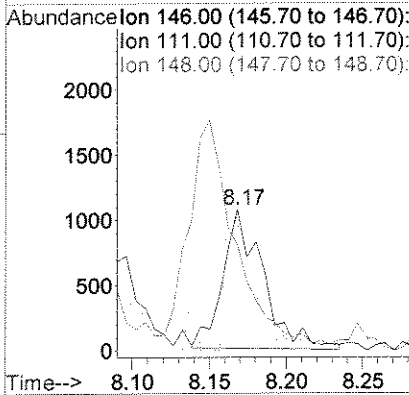
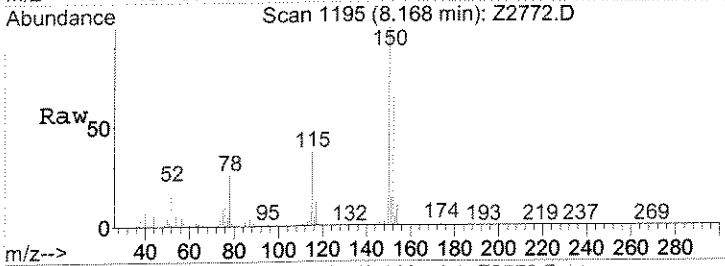
#99  
 1,3-Dclbenz  
 Concen: 0.32 ppb  
 RT: 8.08 min Scan# 1181  
 Delta R.T. -0.01 min  
 Lab File: Z2772.D  
 Acq: 10 Jul 2008 3:40 pm

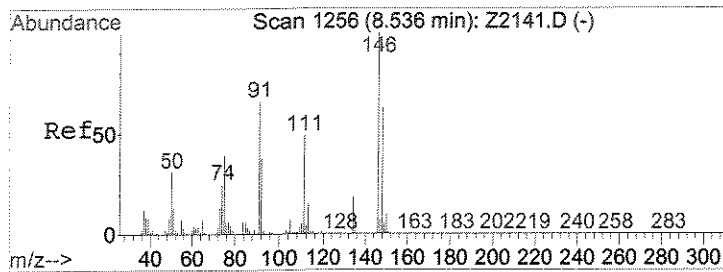
Tgt Ion	Ratio	Lower	Upper
146	100		
111	32.8	31.9	47.9
148	48.3	51.3	76.9#



#100  
 1,4-Dclbenz  
 Concen: 0.28 ppb  
 RT: 8.17 min Scan# 1195  
 Delta R.T. -0.01 min  
 Lab File: Z2772.D  
 Acq: 10 Jul 2008 3:40 pm

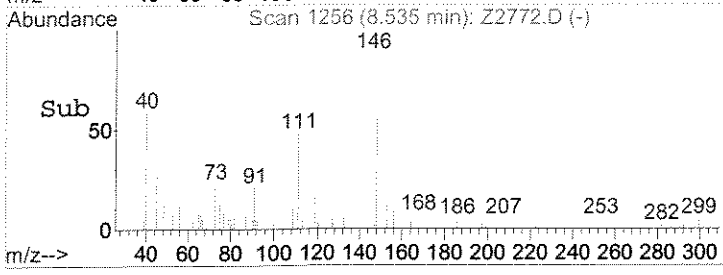
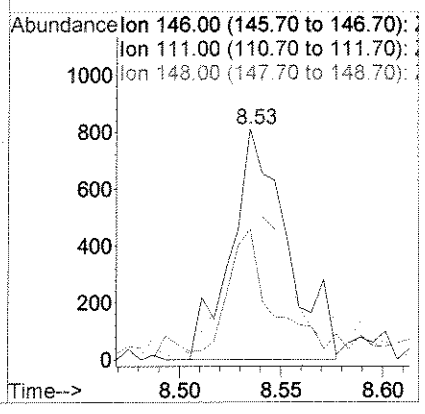
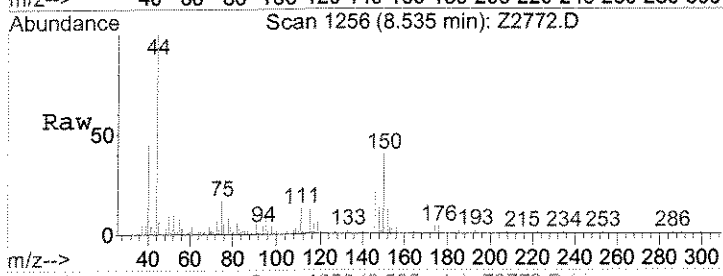
Tgt Ion	Ratio	Lower	Upper
146	100		
111	74.8	30.6	46.0#
148	91.7	50.7	76.1#





#103  
 1,2-Dclbenz  
 Concen: 0.26 ppb  
 RT: 8.53 min Scan# 1256  
 Delta R.T. -0.01 min  
 Lab File: Z2772.D  
 Acq: 10 Jul 2008 3:40 pm

Tgt Ion	Ratio	Lower	Upper
146	100		
111	56.5	33.9	50.9#
148	59.3	50.6	75.8





COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS  
 METHOD 8260B.DOD  
 Reported: 07/30/08

ENSR International

Project Reference: TRONOX PHASE B INVESTIGATION PROJ# 04020-023-4312

Client Sample ID : M-14ADBF

Date Sampled : 06/30/08 Order #: 1113698 Sample Matrix: WATER  
 Date Received: 07/01/08 Submission #: R2844768 Analytical Run 164135

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 07/10/08		
ANALYTICAL DILUTION:	1.00		
ACETONE	20	20 U	UG/L
BENZENE	1.0	1.0 U	UG/L
BROMOBENZENE	2.0	2.0 U	UG/L
BROMOCHLOROMETHANE	2.0	2.0 U	UG/L
BROMODICHLOROMETHANE	1.0	0.32 J	UG/L
BROMOFORM	1.0	1.0 U	UG/L
BROMOMETHANE	2.0	2.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
TERT-BUTYL ALCOHOL	100	100 U	UG/L
METHYL-TERT-BUTYL ETHER	1.0	1.0 U	UG/L
ETHYL-TERT-BUTYL ETHER	1.0	1.0 U	UG/L
TERT-BUTYLBENZENE	2.0	2.0 U	UG/L
SEC-BUTYLBENZENE	2.0	2.0 U	UG/L
N-BUTYLBENZENE	5.0	5.0 U	UG/L
CARBON TETRACHLORIDE	1.0	1.2	UG/L
CHLOROBENZENE	1.0	1.0 U	UG/L
CHLOROETHANE	2.0	2.0 U	UG/L
CHLOROFORM	1.0	150	UG/L
CHLOROMETHANE	2.0	0.58 J	UG/L
1,2-DIBROMO-3-CHLOROPROPANE	5.0	5.0 U	UG/L
2-CHLOROTOLUENE	5.0	5.0 U	UG/L
4-CHLOROTOLUENE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	1.0	1.0 U	UG/L
1,2-DIBROMOETHANE	1.0	1.0 U	UG/L
DIBROMOMETHANE	1.0	1.0 U	UG/L
1,2-DICHLOROBENZENE	2.0	2.0 U	UG/L
1,4-DICHLOROBENZENE	2.0	0.64 J	UG/L
1,3-DICHLOROBENZENE	2.0	2.0 U	UG/L
DICHLORODIFLUOROMETHANE	1.0	1.0 U	UG/L
1,1-DICHLOROETHANE	1.0	1.0 U	UG/L
1,2-DICHLOROETHANE	1.0	0.20 J	UG/L
1,1-DICHLOROETHENE	1.0	1.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	1.0	1.0 U	UG/L
CIS-1,2-DICHLOROETHENE	1.0	1.0 U	UG/L
2,2-DICHLOROPROPANE	2.0	2.0 U	UG/L
1,2-DICHLOROPROPANE	1.0	1.0 U	UG/L
1,3-DICHLOROPROPANE	2.0	2.0 U	UG/L
1,1-DICHLOROPROPENE	2.0	2.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	1.0	1.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	1.0	1.0 U	UG/L
ETHYLBENZENE	1.0	1.0 U	UG/L
HEXACHLOROBUTADIENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
DI-ISOPROPYL ETHER	1.0	1.0 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS  
 METHOD 8260B.DOD  
 Reported: 07/30/08

ENSR International

Project Reference: TRONOX PHASE B INVESTIGATION PROJ# 04020-023-4312

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 Date Received: 07/01/08                      Submission #: R2844768                      Analytical Run 164135

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 07/10/08		
ANALYTICAL DILUTION:	1.00		
ISOPROPYLBENZENE	2.0	2.0 U	UG/L
P-ISOPROPYLTOLUENE	2.0	2.0 U	UG/L
TERT-AMYL-METHYL ETHER	1.0	1.0 U	UG/L
METHYLENE CHLORIDE	2.0	0.24 J	UG/L
NAPHTHALENE	2.0	2.0 U	UG/L
4-METHYL-2-PENTANONE	10	10 U	UG/L
N-PROPYLBENZENE	2.0	2.0 U	UG/L
STYRENE	1.0	1.0 U	UG/L
1,1,1,2-TETRACHLOROETHANE	1.0	1.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	1.0	1.0 U	UG/L
TETRACHLOROETHENE	1.0	0.24 J	UG/L
TOLUENE	1.0	1.0 U	UG/L
1,2,4-TRICHLOROBENZENE	2.0	2.0 U	UG/L
1,2,3-TRICHLOROBENZENE	2.0	2.0 U	UG/L
1,1,1-TRICHLOROETHANE	1.0	1.0 U	UG/L
1,1,2-TRICHLOROETHANE	1.0	1.0 U	UG/L
TRICHLOROETHENE	1.0	0.90 J	UG/L
TRICHLOROFLUOROMETHANE	1.0	1.0 U	UG/L
1,2,3-TRICHLOROPROPANE	2.0	2.0 U	UG/L
1,3,5-TRIMETHYLBENZENE	2.0	2.0 U	UG/L
1,2,4-TRIMETHYLBENZENE	2.0	2.0 U	UG/L
VINYL CHLORIDE	1.0	1.0 U	UG/L
M+P-XYLENE	2.0	2.0 U	UG/L
O-XYLENE	1.0	1.0 U	UG/L

SURROGATE RECOVERIES

QC LIMITS

BROMOFLUOROBENZENE	(70 - 130 %)	102	%
TOLUENE-D8	(70 - 130 %)	104	%
DIBROMOFLUOROMETHANE	(70 - 130 %)	103	%

Data File : J:\ACQUDATA\MSVOA8\DATA\071008\Z2773.D  
 Acq On : 10 Jul 2008 4:07 pm  
 Sample : 1113698 1.0  
 Misc : ENSR R-44768 8260B.DODO  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 10 16:19 2008

Vial: 16  
 Operator: Herring  
 Inst : MS #8  
 Multiplr: 1.00

Quant Results File: W070808.RES

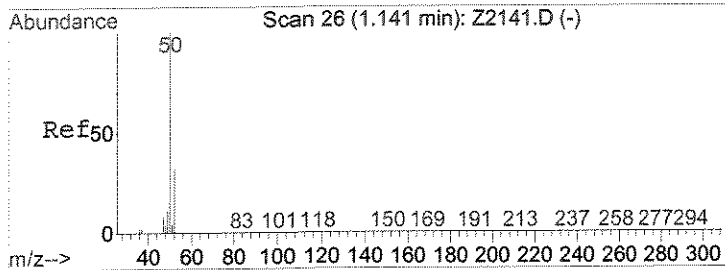
Quant Method : J:\ACQUDATA\M...\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 16:13:36 2008  
 Response via : Initial Calibration  
 DataAcq Meth : W070808

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	3.15	168	424362	50.00	ppb	0.00
42) 1,4 - Difluorobenzene	3.65	114	751282	50.00	ppb	0.00
63) d5 - Chlorobenzene	5.97	117	651097	50.00	ppb	0.00
85) d4 - Dichlorobenzene	8.15	152	290559	50.00	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) surr4,Dibrflmethane	3.14	113	222472	51.51	ppb	0.00
Spiked Amount 50.000			Recovery =	103.02%		
48) surr1,1,2-Diclcethane	3.37	65	219401	48.42	ppb	0.00
Spiked Amount 50.000			Recovery =	96.84%		
69) surr3,Toluene-d8	4.75	98	864523	51.80	ppb	0.00
Spiked Amount 50.000			Recovery =	103.60%		
70) surr2,bfb	7.04	95	335020	50.97	ppb	0.00
Spiked Amount 50.000			Recovery =	101.94%		

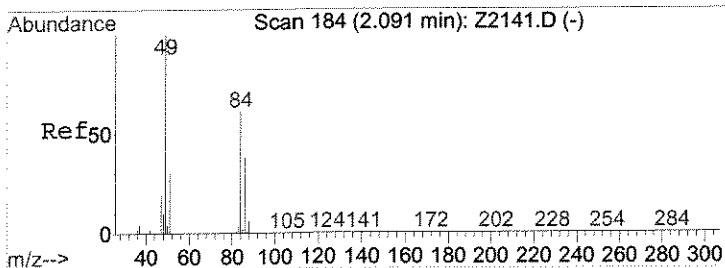
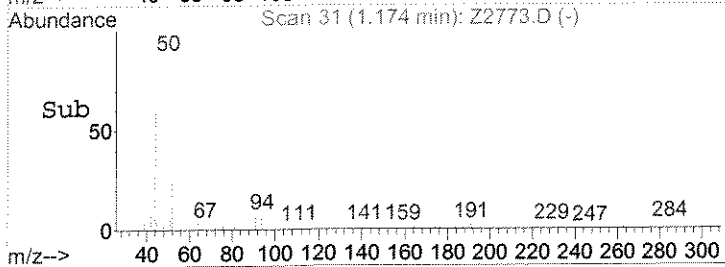
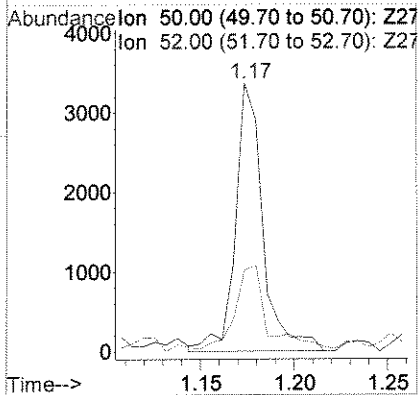
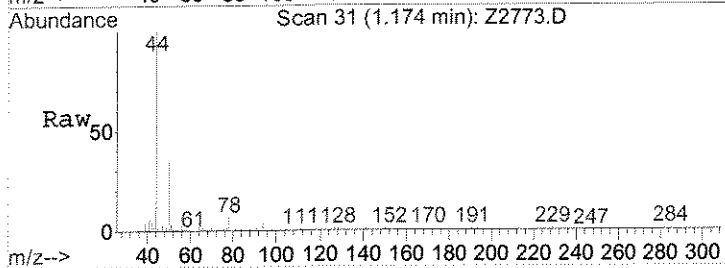
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
4) Chloromethane	1.17	50	3400	0.58	ppb	96 J
<del>16) Acetone</del>	<del>1.89</del>	<del>43</del>	<del>1319</del>	<del>1.79</del>	<del>ppb</del>	<del>90</del>
<del>22) Methyl Acetate</del>	<del>2.05</del>	<del>43</del>	<del>813</del>	<del>0.29</del>	<del>ppb</del>	<del>100</del>
23) Methylene Chloride	2.12	84	1042	0.24	ppb #	82 J
<del>34) 2-Butanone</del>	<del>2.85</del>	<del>43</del>	<del>826</del>	<del>0.74</del>	<del>ppb #</del>	<del>63</del>
<del>36) Propionitrile</del>	<del>2.88</del>	<del>54</del>	<del>83</del>	<del>0.34</del>	<del>ppb #</del>	<del>1</del>
39) Chloroform	3.04	83	1008429	152.30	ppb	100
<del>40) Tetrahydrofuran</del>	<del>3.04</del>	<del>42</del>	<del>2593</del>	<del>3.90</del>	<del>ppb #</del>	<del>1</del>
<del>44) cyclohexane</del>	<del>3.15</del>	<del>56</del>	<del>8960</del>	<del>1.11</del>	<del>ppb #</del>	<del>1</del>
45) Carbontetrachloride	3.28	117	4864	1.24	ppb	81
<del>47) Iso-Butyl Alcohol</del>	<del>3.34</del>	<del>43</del>	<del>1017</del>	<del>16.89</del>	<del>ppb</del>	<del>63</del>
50) 1,2-Dichloroethane	3.42	62	868	0.20	ppb #	91 J
53) Trichloroethene	3.84	95	3447	0.90	ppb #	78 J
<del>57) 1,4-Dioxane</del>	<del>4.18</del>	<del>88</del>	<del>362</del>	<del>12.61</del>	<del>ppb #</del>	<del>28</del>
59) Bromodichloromethane	4.19	83	1563	0.32	ppb #	60 J
<del>60) 2-Nitropropane</del>	<del>4.33</del>	<del>43</del>	<del>1173</del>	<del>1.73</del>	<del>ppb #</del>	<del>42</del>
<del>61) 2-Chloroethylvinyl Ether</del>	<del>4.38</del>	<del>63</del>	<del>516</del>	<del>0.26</del>	<del>ppb #</del>	<del>65</del>
71) Tetrachloroethene	5.26	166	844	0.24	ppb #	79 J
<del>72) 2-Hexanone</del>	<del>5.32</del>	<del>43</del>	<del>1118</del>	<del>0.62</del>	<del>ppb #</del>	<del>40</del>
<del>84) Cyclohexanone</del>	<del>7.04</del>	<del>55</del>	<del>1335</del>	<del>6.03</del>	<del>ppb</del>	<del>92</del>
<del>88) 1,2,3-Trichloropropane</del>	<del>7.21</del>	<del>110</del>	<del>321</del>	<del>Below Cal</del>		<del>89</del>
100) 1,4-Dclbenz	8.17	146	4377	0.64	ppb	99 J





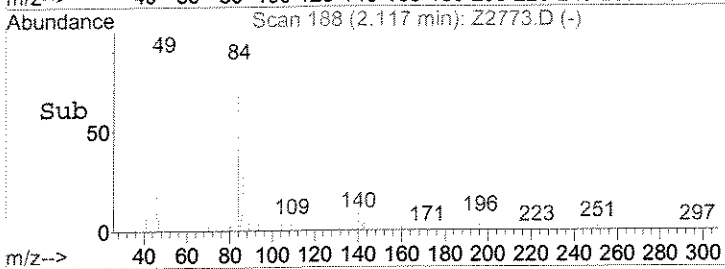
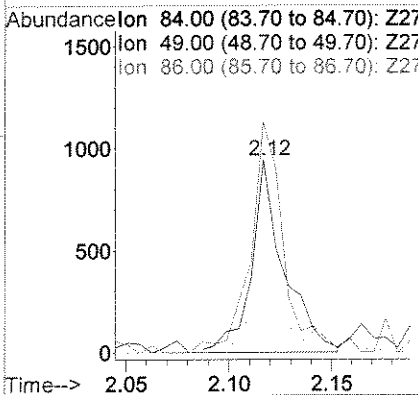
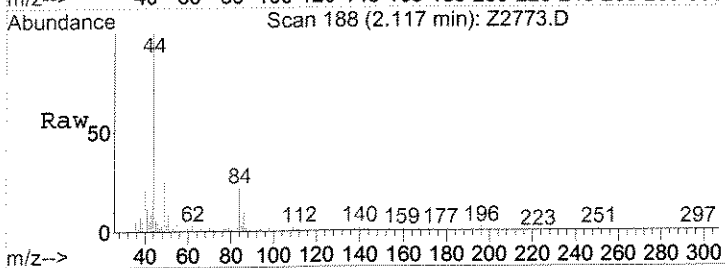
#4  
 Chloromethane  
 Concen: 0.58 ppb  
 RT: 1.17 min Scan# 31  
 Delta R.T. -0.00 min  
 Lab File: Z2773.D  
 Acq: 10 Jul 2008 4:07 pm

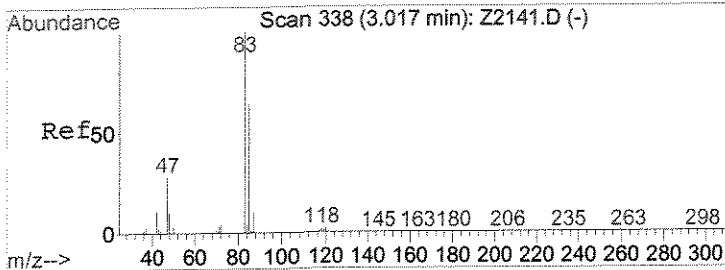
Tgt Ion	Resp	Lower	Upper
50	100		
52	30.5	26.4	39.6



#23  
 Methylene Chloride  
 Concen: 0.24 ppb  
 RT: 2.12 min Scan# 188  
 Delta R.T. -0.01 min  
 Lab File: Z2773.D  
 Acq: 10 Jul 2008 4:07 pm

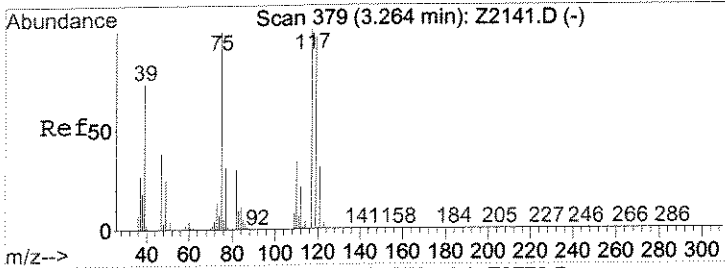
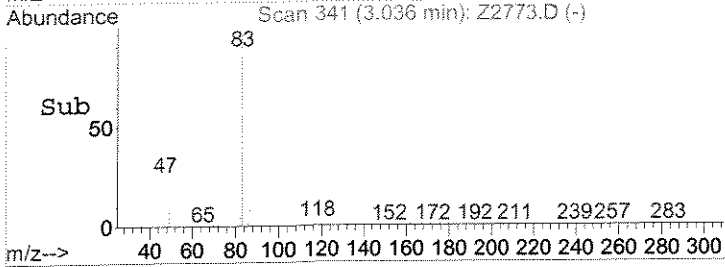
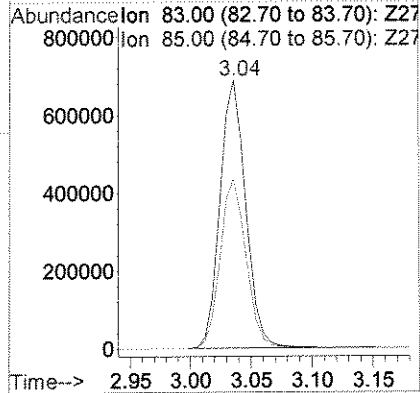
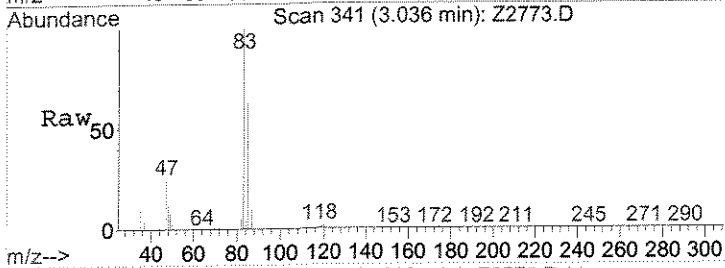
Tgt Ion	Resp	Lower	Upper
84	100		
49	119.6	110.6	165.8
86	45.6	50.4	75.6#





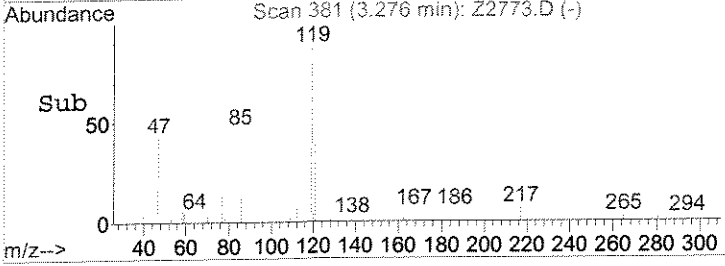
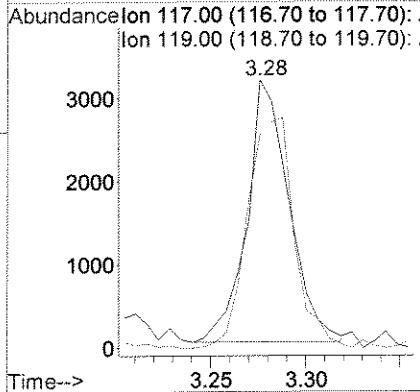
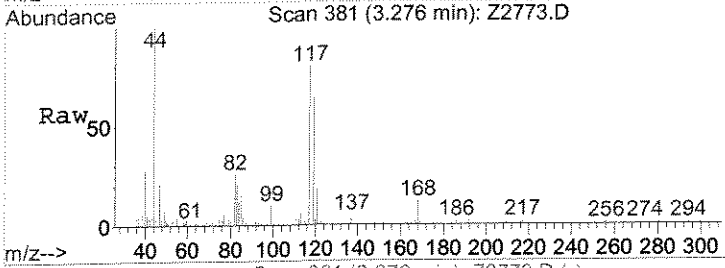
#39  
 Chloroform  
 Concen: 152.30 ppb  
 RT: 3.04 min Scan# 341  
 Delta R.T. -0.01 min  
 Lab File: Z2773.D  
 Acq: 10 Jul 2008 4:07 pm

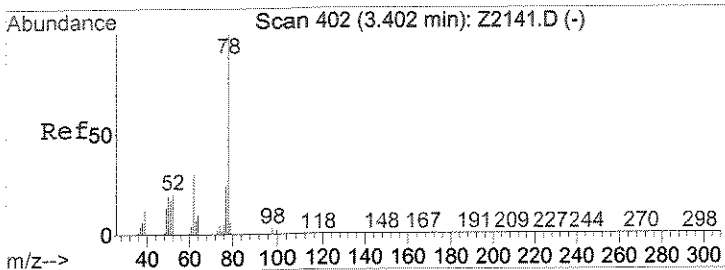
Tgt Ion: 83 Resp: 1008429  
 Ion Ratio Lower Upper  
 83 100  
 85 63.2 50.6 75.8



#45  
 Carbontetrachloride  
 Concen: 1.24 ppb  
 RT: 3.28 min Scan# 381  
 Delta R.T. -0.02 min  
 Lab File: Z2773.D  
 Acq: 10 Jul 2008 4:07 pm

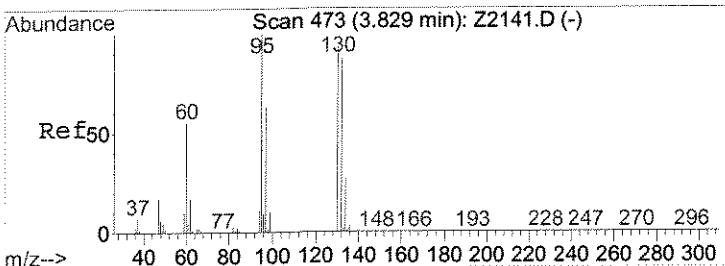
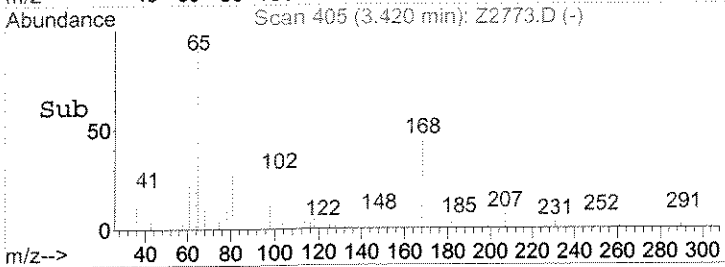
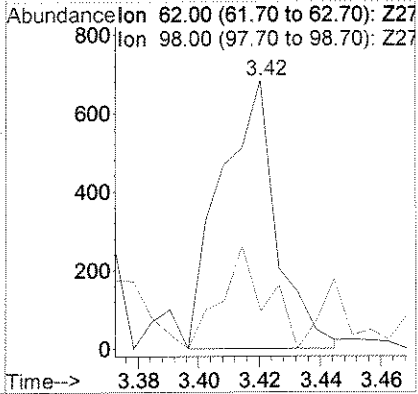
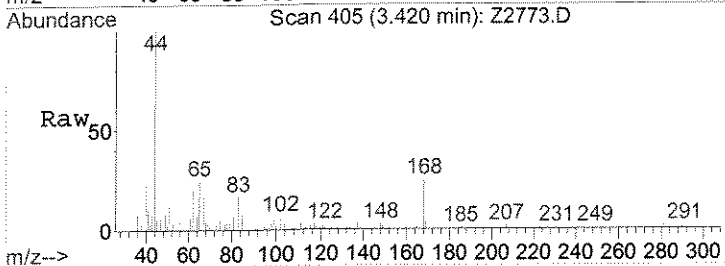
Tgt Ion: 117 Resp: 4864  
 Ion Ratio Lower Upper  
 117 100  
 119 80.1 79.4 119.0





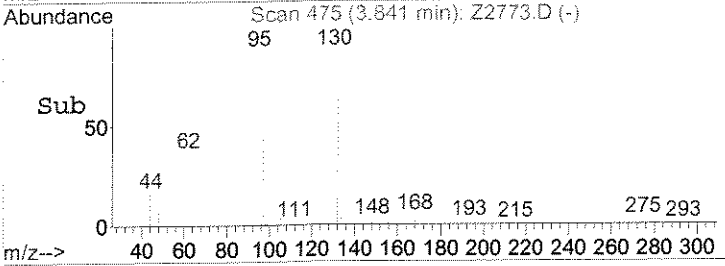
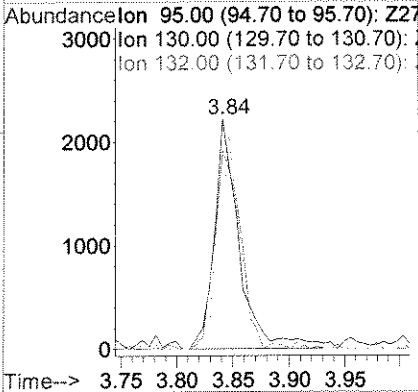
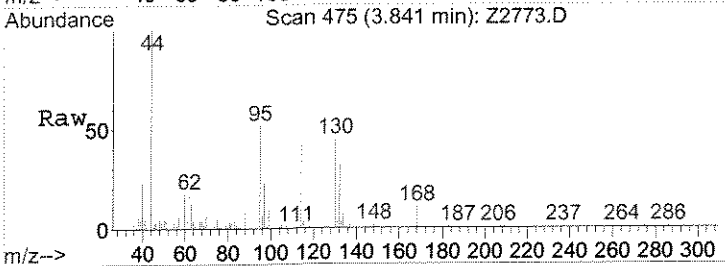
#50  
 1,2-Dichloroethane  
 Concen: 0.20 ppb  
 RT: 3.42 min Scan# 405  
 Delta R.T. -0.00 min  
 Lab File: Z2773.D  
 Acq: 10 Jul 2008 4:07 pm

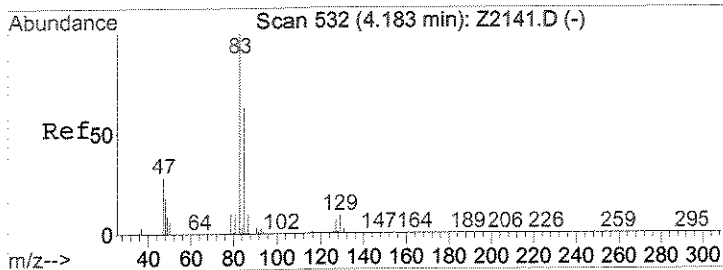
Tgt Ion	Resp	Lower	Upper
62	100		
98	13.9	8.5	12.7#



#53  
 Trichloroethene  
 Concen: 0.90 ppb  
 RT: 3.84 min Scan# 475  
 Delta R.T. -0.01 min  
 Lab File: Z2773.D  
 Acq: 10 Jul 2008 4:07 pm

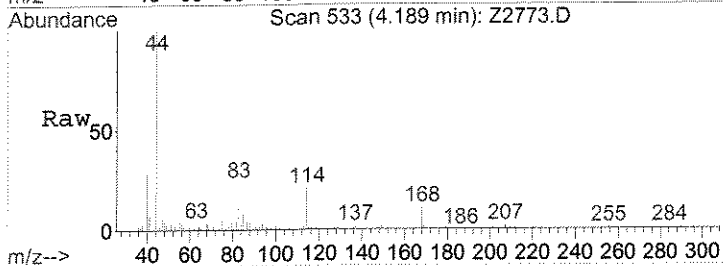
Tgt Ion	Resp	Lower	Upper
95	100		
130	86.2	77.8	116.6
132	61.2	74.9	112.3#



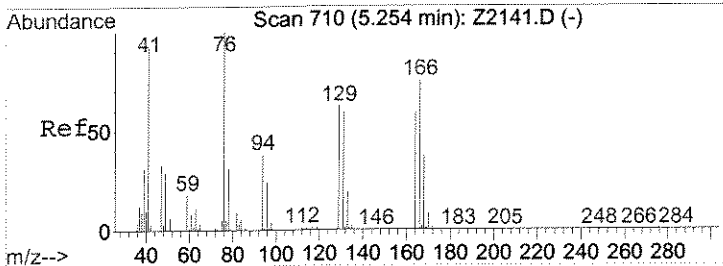
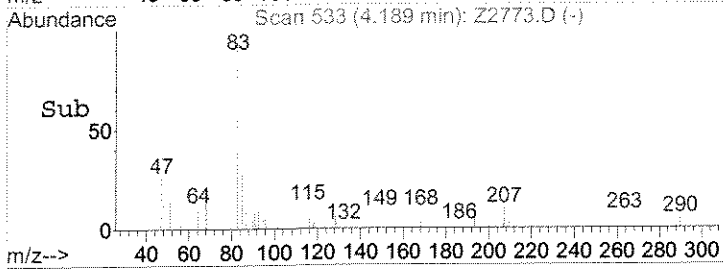
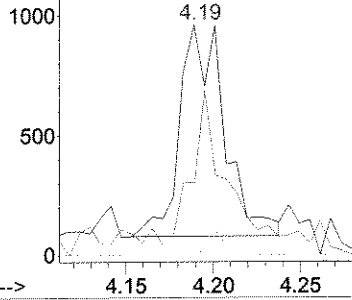


#59  
 Bromodichloromethane  
 Concen: 0.32 ppb  
 RT: 4.19 min Scan# 533  
 Delta R.T. -0.02 min  
 Lab File: Z2773.D  
 Acq: 10 Jul 2008 4:07 pm

Tgt Ion	Resp	Lower	Upper
83	1563		
85	31.4	52.9	79.3#
127	3.2	5.9	8.9#

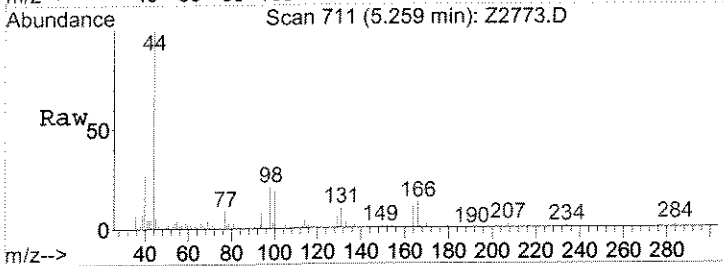


Abundance Ion 83.00 (82.70 to 83.70): Z27  
 Ion 85.00 (84.70 to 85.70): Z27  
 Ion 127.00 (126.70 to 127.70):

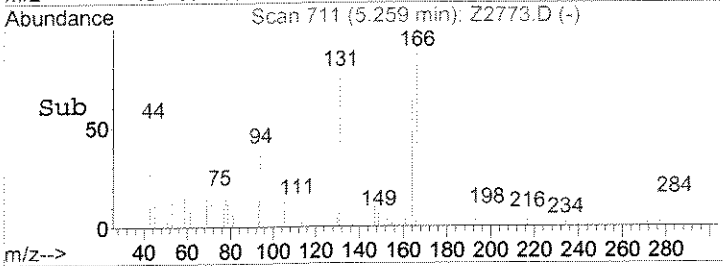
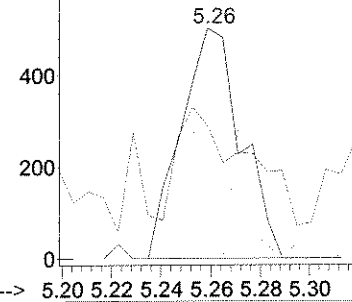


#71  
 Tetrachloroethene  
 Concen: 0.24 ppb  
 RT: 5.26 min Scan# 711  
 Delta R.T. -0.01 min  
 Lab File: Z2773.D  
 Acq: 10 Jul 2008 4:07 pm

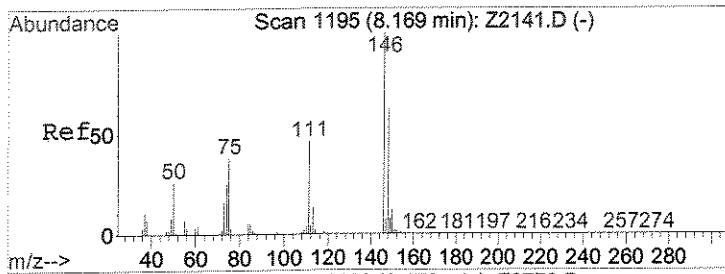
Tgt Ion	Resp	Lower	Upper
166	844		
168	57.5	39.0	58.4
129	50.7	58.6	87.8#



Abundance Ion 166.00 (165.70 to 166.70):  
 Ion 168.00 (167.70 to 168.70):  
 Ion 129.00 (128.70 to 129.70):

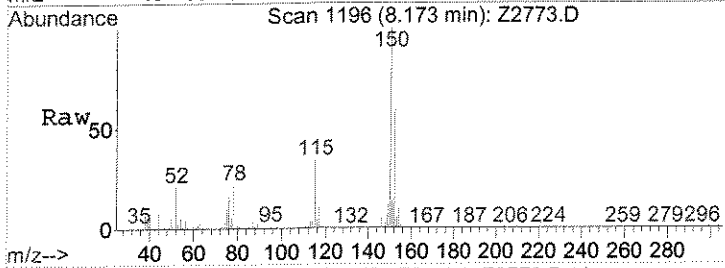




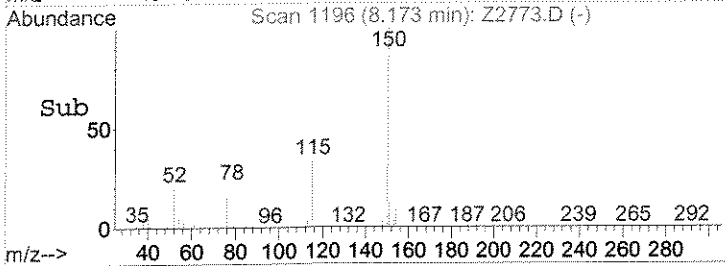
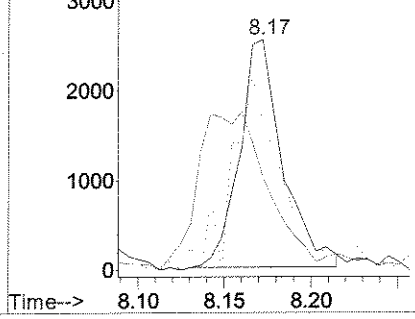


#100  
 1,4-Dclbenz  
 Concen: 0.64 ppb  
 RT: 8.17 min Scan# 1196  
 Delta R.T. -0.01 min  
 Lab File: Z2773.D  
 Acq: 10 Jul 2008 4:07 pm

Tgt Ion	146	Resp	4377
Ion	Ratio	Lower	Upper
146	100		
111	39.8	30.6	46.0
148	63.7	50.7	76.1



Abundance Ion 146.00 (145.70 to 146.70):  
 Ion 111.00 (110.70 to 111.70):  
 Ion 148.00 (147.70 to 148.70):



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS  
METHOD 8260B.DOD  
Reported: 07/30/08

ENSR International

Project Reference: TRONOX PHASE B INVESTIGATION PROJ# 04020-023-4312

Client Sample ID : M-14ABF

Date Sampled : 06/30/08 10:38 Order #: 1113699 Sample Matrix: WATER  
Date Received: 07/01/08 Submission #: R2844768 Analytical Run 164135

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 07/10/08		
ANALYTICAL DILUTION:	1.00		
ACETONE	20	20 U	UG/L
BENZENE	1.0	1.0 U	UG/L
BROMOBENZENE	2.0	2.0 U	UG/L
BROMOCHLOROMETHANE	2.0	2.0 U	UG/L
BROMODICHLOROMETHANE	1.0	0.39 J	UG/L
BROMOFORM	1.0	1.0 U	UG/L
BROMOMETHANE	2.0	2.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
TERT-BUTYL ALCOHOL	100	100 U	UG/L
METHYL-TERT-BUTYL ETHER	1.0	1.0 U	UG/L
ETHYL-TERT-BUTYL ETHER	1.0	1.0 U	UG/L
TERT-BUTYLBENZENE	2.0	2.0 U	UG/L
SEC-BUTYLBENZENE	2.0	2.0 U	UG/L
N-BUTYLBENZENE	5.0	5.0 U	UG/L
CARBON TETRACHLORIDE	1.0	1.4	UG/L
CHLOROBENZENE	1.0	1.0 U	UG/L
CHLOROETHANE	2.0	2.0 U	UG/L
CHLOROFORM	1.0	150	UG/L
CHLOROMETHANE	2.0	2.0 U	UG/L
1,2-DIBROMO-3-CHLOROPROPANE	5.0	5.0 U	UG/L
2-CHLOROTOLUENE	5.0	5.0 U	UG/L
4-CHLOROTOLUENE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	1.0	1.0 U	UG/L
1,2-DIBROMOETHANE	1.0	1.0 U	UG/L
DIBROMOMETHANE	1.0	1.0 U	UG/L
1,2-DICHLOROBENZENE	2.0	2.0 U	UG/L
1,4-DICHLOROBENZENE	2.0	0.58 J	UG/L
1,3-DICHLOROBENZENE	2.0	2.0 U	UG/L
DICHLORODIFLUOROMETHANE	1.0	1.0 U	UG/L
1,1-DICHLOROETHANE	1.0	1.0 U	UG/L
1,2-DICHLOROETHANE	1.0	1.0 U	UG/L
1,1-DICHLOROETHENE	1.0	1.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	1.0	1.0 U	UG/L
CIS-1,2-DICHLOROETHENE	1.0	1.0 U	UG/L
2,2-DICHLOROPROPANE	2.0	2.0 U	UG/L
1,2-DICHLOROPROPANE	1.0	1.0 U	UG/L
1,3-DICHLOROPROPANE	2.0	2.0 U	UG/L
1,1-DICHLOROPROPENE	2.0	2.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	1.0	1.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	1.0	1.0 U	UG/L
ETHYLBENZENE	1.0	1.0 U	UG/L
HEXACHLOROBUTADIENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
DI-ISOPROPYL ETHER	1.0	1.0 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS  
 METHOD 8260B.DOD  
 Reported: 07/30/08

ENSR International

Project Reference: TRONOX PHASE B INVESTIGATION PROJ# 04020-023-4312

Client Sample ID : M-14ABF

Date Sampled : 06/30/08 10:38 Order #: 1113699 Sample Matrix: WATER  
 Date Received: 07/01/08 Submission #: R2844768 Analytical Run 164135

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 07/10/08		
ANALYTICAL DILUTION:	1.00		
ISOPROPYLBENZENE	2.0	2.0 U	UG/L
P-ISOPROPYLTOLUENE	2.0	2.0 U	UG/L
TERT-AMYL-METHYL ETHER	1.0	1.0 U	UG/L
METHYLENE CHLORIDE	2.0	0.25 J	UG/L
NAPHTHALENE	2.0	2.0 U	UG/L
4-METHYL-2-PENTANONE	10	10 U	UG/L
N-PROPYLBENZENE	2.0	2.0 U	UG/L
STYRENE	1.0	1.0 U	UG/L
1,1,1,2-TETRACHLOROETHANE	1.0	1.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	1.0	1.0 U	UG/L
TETRACHLOROETHENE	1.0	0.29 J	UG/L
TOLUENE	1.0	1.0 U	UG/L
1,2,4-TRICHLOROBENZENE	2.0	2.0 U	UG/L
1,2,3-TRICHLOROBENZENE	2.0	2.0 U	UG/L
1,1,1-TRICHLOROETHANE	1.0	1.0 U	UG/L
1,1,2-TRICHLOROETHANE	1.0	1.0 U	UG/L
TRICHLOROETHENE	1.0	0.92 J	UG/L
TRICHLOROFLUOROMETHANE	1.0	1.0 U	UG/L
1,2,3-TRICHLOROPROPANE	2.0	2.0 U	UG/L
1,3,5-TRIMETHYLBENZENE	2.0	2.0 U	UG/L
1,2,4-TRIMETHYLBENZENE	2.0	2.0 U	UG/L
VINYL CHLORIDE	1.0	1.0 U	UG/L
M+P-XYLENE	2.0	2.0 U	UG/L
O-XYLENE	1.0	1.0 U	UG/L

SURROGATE RECOVERIES

QC LIMITS

BROMOFLUOROBENZENE	(70 - 130 %)	106	%
TOLUENE-D8	(70 - 130 %)	105	%
DIBROMOFLUOROMETHANE	(70 - 130 %)	102	%

Data File : J:\ACQUDATA\MSVOA8\DATA\071008\Z2774.D  
 Acq On : 10 Jul 2008 4:35 pm  
 Sample : 1113699 1.0  
 Misc : ENSR R-44768 8260B.DODO  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 10 16:47 2008

Vial: 17  
 Operator: Herring  
 Inst : MS #8  
 Multiplr: 1.00

Quant Results File: W070808.RES

Quant Method : J:\ACQUDATA\M...\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 16:13:36 2008  
 Response via : Initial Calibration  
 DataAcq Meth : W070808

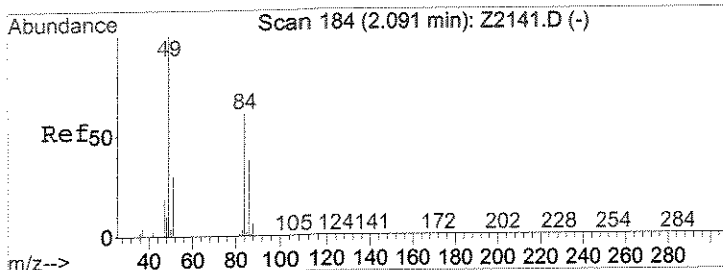
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	3.15	168	426324	50.00	ppb	0.00
42) 1,4 - Difluorobenzene	3.65	114	747034	50.00	ppb	0.00
63) d5 - Chlorobenzene	5.97	117	645251	50.00	ppb	-0.01
85) d4 - Dichlorobenzene	8.15	152	298385	50.00	ppb	-0.01

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) surr4,Dibrflmethane	3.14	113	219696	51.16	ppb	-0.01
Spiked Amount 50.000			Recovery =	102.32%		
48) surr1,1,2-Dicethane	3.36	65	220449	48.93	ppb	0.00
Spiked Amount 50.000			Recovery =	97.86%		
69) surr3,Toluene-d8	4.75	98	871050	52.66	ppb	-0.01
Spiked Amount 50.000			Recovery =	105.32%		
70) surr2,bfb	7.03	95	346363	53.17	ppb	-0.01
Spiked Amount 50.000			Recovery =	106.34%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
<del>16) Acetone</del>	<del>1.88</del>	<del>43</del>	<del>1807</del>	<del>2.44</del>	<del>ppb</del>	<del># 88</del>
<del>22) Methyl Acetate</del>	<del>1.98</del>	<del>43</del>	<del>667</del>	<del>0.24</del>	<del>ppb</del>	<del># 98</del>
<del>23) Methylene Chloride</del>	<del>2.12</del>	<del>84</del>	<del>1093</del>	<del>0.25</del>	<del>ppb</del>	<del># 85</del>
<del>36) Propionitrile</del>	<del>2.88</del>	<del>54</del>	<del>98</del>	<del>0.40</del>	<del>ppb</del>	<del># 1</del>
<del>37) Methacrylonitrile</del>	<del>2.87</del>	<del>67</del>	<del>293</del>	<del>0.30</del>	<del>ppb</del>	<del># 47</del>
39) Chloroform	3.03	83	1013515	152.37	ppb	100
<del>40) Tetrahydrofuran</del>	<del>3.03</del>	<del>42</del>	<del>2206</del>	<del>3.30</del>	<del>ppb</del>	<del># 1</del>
<del>44) cyclohexane</del>	<del>3.15</del>	<del>56</del>	<del>9112</del>	<del>1.13</del>	<del>ppb</del>	<del># 1</del>
<del>45) Carbontetrachloride</del>	<del>3.28</del>	<del>117</del>	<del>5665</del>	<del>1.45</del>	<del>ppb</del>	<del># 84</del>
<del>47) Iso Butyl Alcohol</del>	<del>3.23</del>	<del>43</del>	<del>1068</del>	<del>17.84</del>	<del>ppb</del>	<del># 40</del>
53) Trichloroethene	3.84	95	3518	0.92	ppb	# 80
<del>57) 1,4-Dioxane</del>	<del>4.16</del>	<del>88</del>	<del>425</del>	<del>20.21</del>	<del>ppb</del>	<del># 42</del>
59) Bromodichloromethane	4.19	83	1874	0.39	ppb	# 89
71) Tetrachloroethene	5.26	166	1011	0.29	ppb	# 93
<del>72) 2-Hexanone</del>	<del>5.27</del>	<del>43</del>	<del>941</del>	<del>0.53</del>	<del>ppb</del>	<del># 47</del>
<del>84) Cyclohexanone</del>	<del>6.98</del>	<del>55</del>	<del>417</del>	<del>1.90</del>	<del>ppb</del>	<del># 1</del>
<del>88) 1,2,3-Trichloropropane</del>	<del>7.20</del>	<del>110</del>	<del>396</del>	<del>Below Cal</del>	<del>#</del>	<del>54</del>
100) 1,4-Dclbenz	8.18	146	4096	0.58	ppb	# 90

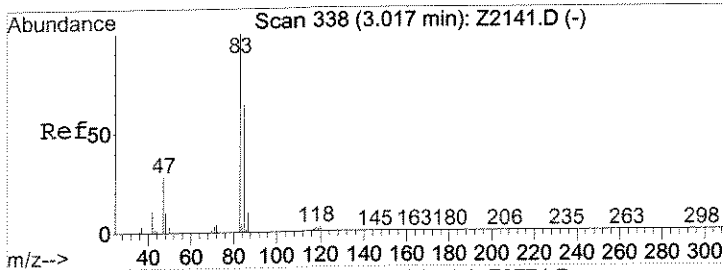
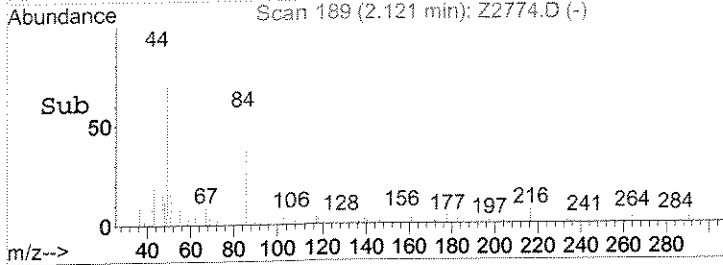
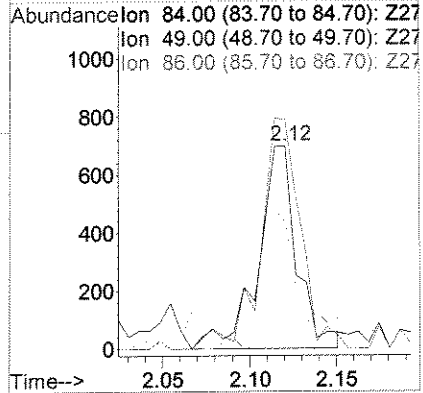
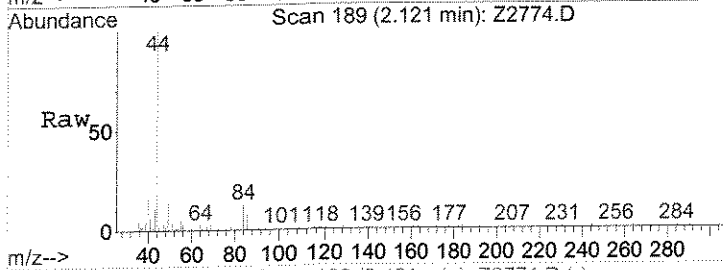
RJH  
7/16





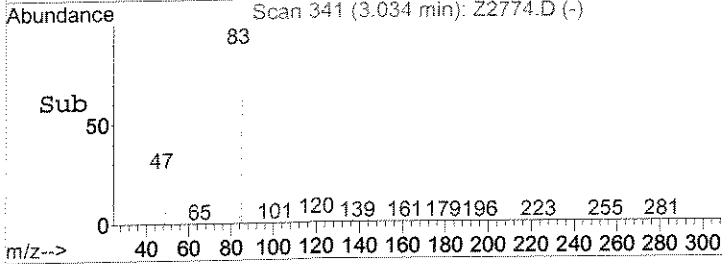
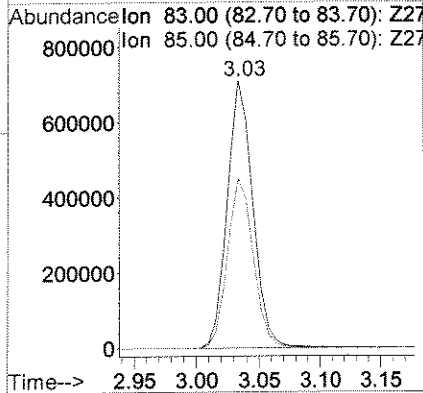
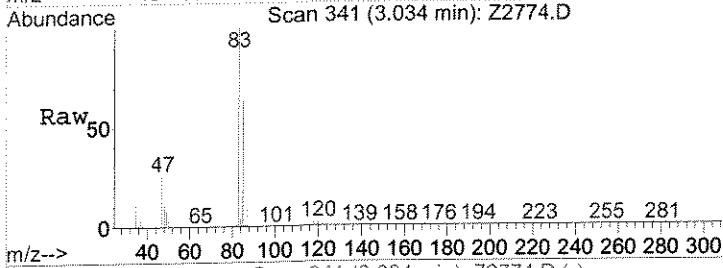
#23  
 Methylene Chloride  
 Concen: 0.25 ppb  
 RT: 2.12 min Scan# 189  
 Delta R.T. -0.01 min  
 Lab File: Z2774.D  
 Acq: 10 Jul 2008 4:35 pm

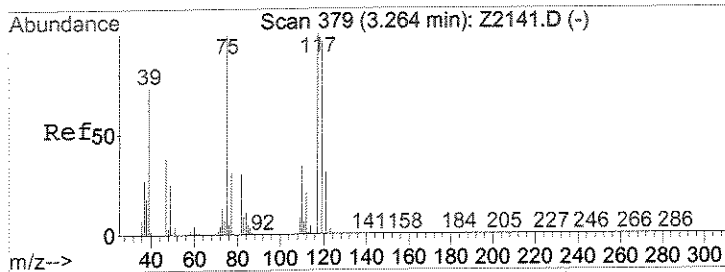
Tgt Ion	Resp	Lower	Upper
84	1093		
84	100		
49	112.9	110.6	165.8
86	62.4	50.4	75.6



#39  
 Chloroform  
 Concen: 152.37 ppb  
 RT: 3.03 min Scan# 341  
 Delta R.T. -0.01 min  
 Lab File: Z2774.D  
 Acq: 10 Jul 2008 4:35 pm

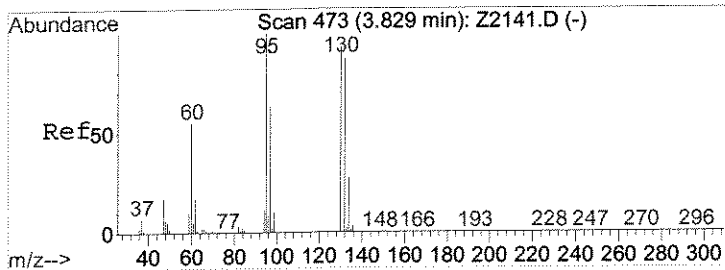
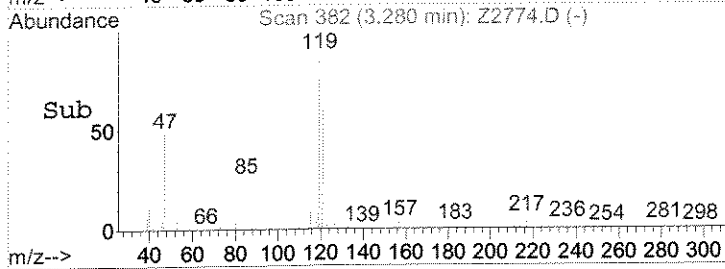
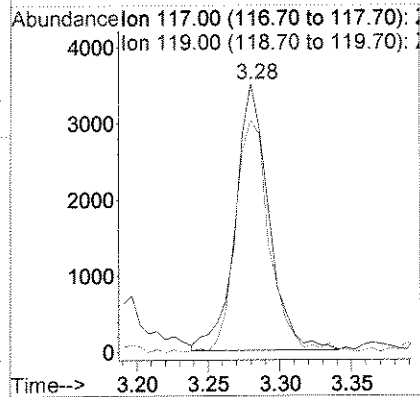
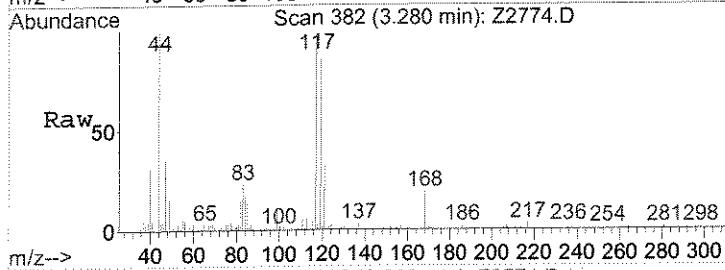
Tgt Ion	Resp	Lower	Upper
83	1013515		
83	100		
85	63.5	50.6	75.8





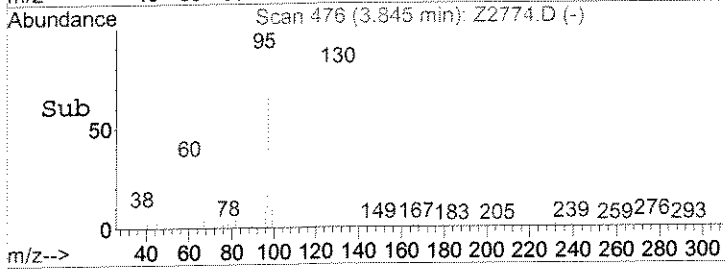
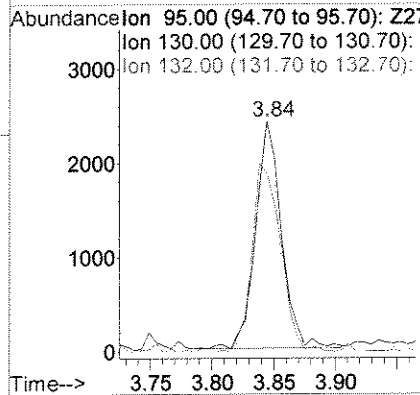
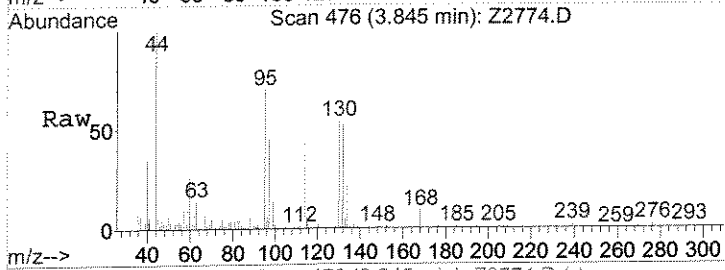
#45  
 Carbontetrachloride  
 Concen: 1.45 ppb  
 RT: 3.28 min Scan# 382  
 Delta R.T. -0.01 min  
 Lab File: Z2774.D  
 Acq: 10 Jul 2008 4:35 pm

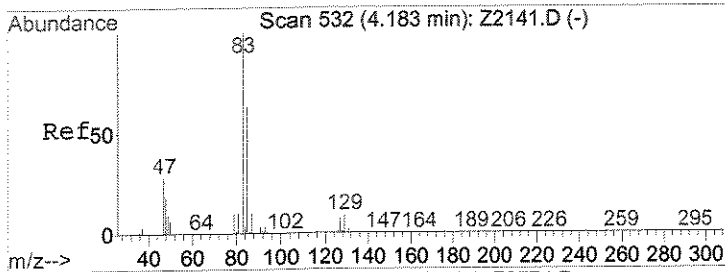
Tgt Ion	Ratio	Lower	Upper
117	100		
119	83.5	79.4	119.0



#53  
 Trichloroethene  
 Concen: 0.92 ppb  
 RT: 3.84 min Scan# 476  
 Delta R.T. -0.01 min  
 Lab File: Z2774.D  
 Acq: 10 Jul 2008 4:35 pm

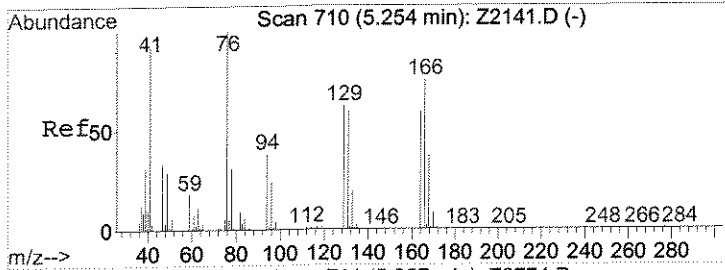
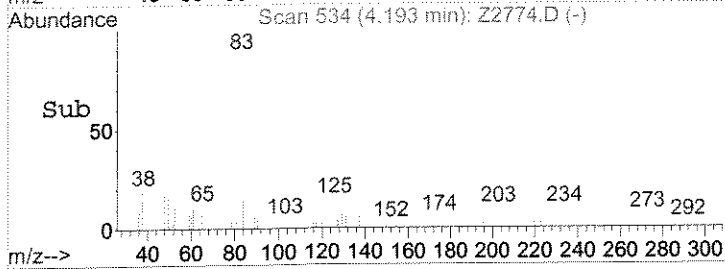
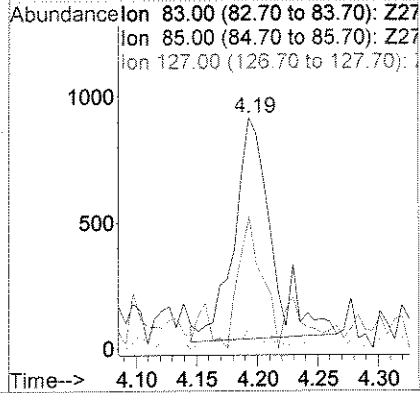
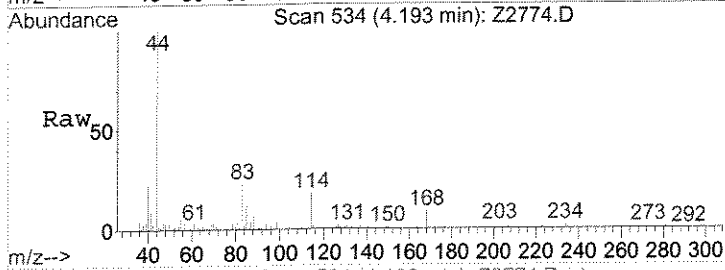
Tgt Ion	Ratio	Lower	Upper
95	100		
130	77.2	77.8	116.6#
132	75.1	74.9	112.3





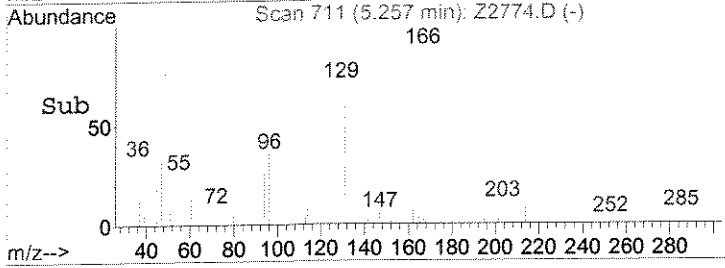
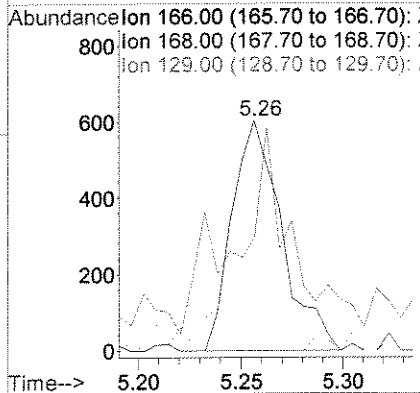
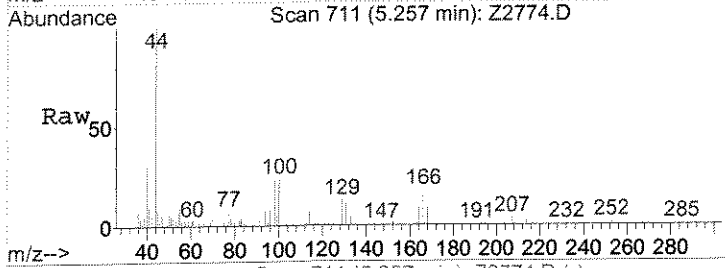
#59  
 Bromodichloromethane  
 Concen: 0.39 ppb  
 RT: 4.19 min Scan# 534  
 Delta R.T. -0.01 min  
 Lab File: Z2774.D  
 Acq: 10 Jul 2008 4:35 pm

Tgt Ion	Ratio	Lower	Upper
83	100		
85	57.1	52.9	79.3
127	9.1	5.9	8.9#

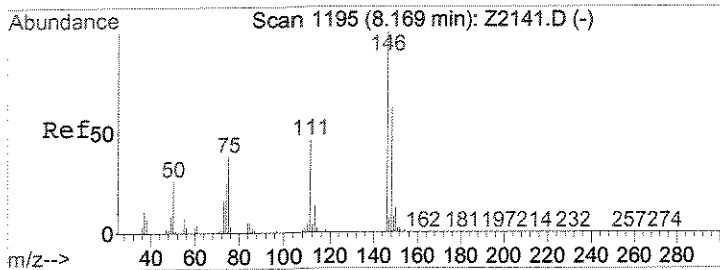


#71  
 Tetrachloroethene  
 Concen: 0.29 ppb  
 RT: 5.26 min Scan# 711  
 Delta R.T. -0.01 min  
 Lab File: Z2774.D  
 Acq: 10 Jul 2008 4:35 pm

Tgt Ion	Ratio	Lower	Upper
166	100		
168	45.5	39.0	58.4
129	66.2	58.6	87.8

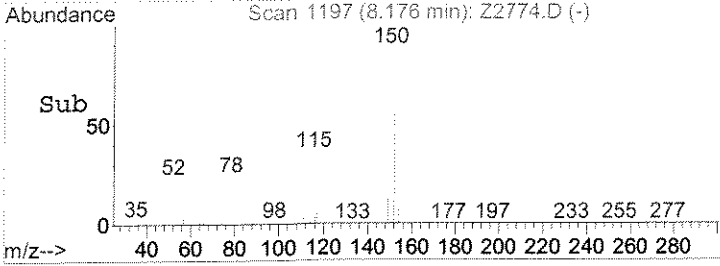
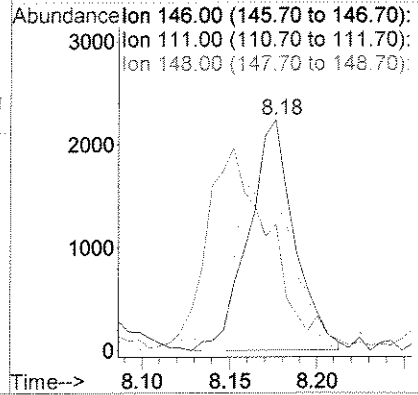
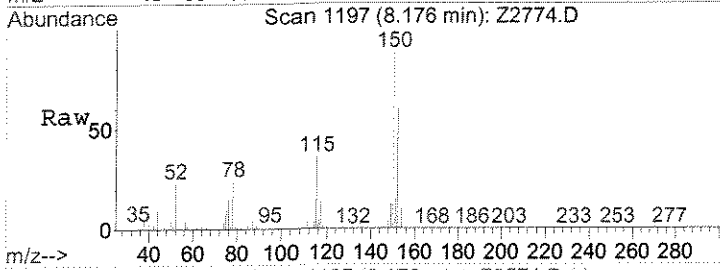






#100  
 1,4-Dclbenz  
 Concen: 0.58 ppb  
 RT: 8.18 min Scan# 1197  
 Delta R.T. -0.01 min  
 Lab File: Z2774.D  
 Acq: 10 Jul 2008 4:35 pm

Tgt Ion	Ratio	Resp	Lower	Upper
146	100	4096		
111	54.5	30.6	46.0	#
148	63.5	50.7	76.1	



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS  
 METHOD 8260B.DOD  
 Reported: 07/30/08

ENSR International

Project Reference: TRONOX PHASE B INVESTIGATION PROJ# 04020-023-4312

Client Sample ID : TB062908GW4

Date Sampled : 06/29/08 14:31 Order #: 1113700 Sample Matrix: WATER  
 Date Received: 07/01/08 Submission #: R2844768 Analytical Run 164135

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 07/10/08			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	20 U	UG/L
BENZENE	1.0	1.0 U	UG/L
BROMOBENZENE	2.0	2.0 U	UG/L
BROMOCHLOROMETHANE	2.0	2.0 U	UG/L
BROMODICHLOROMETHANE	1.0	1.0 U	UG/L
BROMOFORM	1.0	1.0 U	UG/L
BROMOMETHANE	2.0	2.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
TERT-BUTYL ALCOHOL	100	100 U	UG/L
METHYL-TERT-BUTYL ETHER	1.0	1.0 U	UG/L
ETHYL-TERT-BUTYL ETHER	1.0	1.0 U	UG/L
TERT-BUTYLBENZENE	2.0	2.0 U	UG/L
SEC-BUTYLBENZENE	2.0	2.0 U	UG/L
N-BUTYLBENZENE	5.0	5.0 U	UG/L
CARBON TETRACHLORIDE	1.0	1.0 U	UG/L
CHLOROBENZENE	1.0	1.0 U	UG/L
CHLOROETHANE	2.0	2.0 U	UG/L
CHLOROFORM	1.0	1.0 U	UG/L
CHLOROMETHANE	2.0	2.0 U	UG/L
1,2-DIBROMO-3-CHLOROPROPANE	5.0	5.0 U	UG/L
2-CHLOROTOLUENE	5.0	5.0 U	UG/L
4-CHLOROTOLUENE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	1.0	1.0 U	UG/L
1,2-DIBROMOETHANE	1.0	1.0 U	UG/L
DIBROMOMETHANE	1.0	1.0 U	UG/L
1,2-DICHLOROBENZENE	2.0	2.0 U	UG/L
1,4-DICHLOROBENZENE	2.0	2.0 U	UG/L
1,3-DICHLOROBENZENE	2.0	2.0 U	UG/L
DICHLORODIFLUOROMETHANE	1.0	1.0 U	UG/L
1,1-DICHLOROETHANE	1.0	1.0 U	UG/L
1,2-DICHLOROETHANE	1.0	1.0 U	UG/L
1,1-DICHLOROETHENE	1.0	1.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	1.0	1.0 U	UG/L
CIS-1,2-DICHLOROETHENE	1.0	1.0 U	UG/L
2,2-DICHLOROPROPANE	2.0	2.0 U	UG/L
1,2-DICHLOROPROPANE	1.0	1.0 U	UG/L
1,3-DICHLOROPROPANE	2.0	2.0 U	UG/L
1,1-DICHLOROPROPENE	2.0	2.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	1.0	1.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	1.0	1.0 U	UG/L
ETHYLBENZENE	1.0	1.0 U	UG/L
HEXACHLOROBUTADIENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
DI-ISOPROPYL ETHER	1.0	1.0 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS  
METHOD 8260B.DOD  
Reported: 07/30/08

ENSR International  
Project Reference: TRONOX PHASE B INVESTIGATION PROJ# 04020-023-4312  
Client Sample ID : TB062908GW4

Date Sampled : 06/29/08 14:31 Order #: 1113700 Sample Matrix: WATER  
Date Received: 07/01/08 Submission #: R2844768 Analytical Run 164135

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 07/10/08		
ANALYTICAL DILUTION:	1.00		
ISOPROPYLBENZENE	2.0	2.0 U	UG/L
P-ISOPROPYLTOLUENE	2.0	2.0 U	UG/L
TERT-AMYL-METHYL ETHER	1.0	1.0 U	UG/L
METHYLENE CHLORIDE	2.0	2.0 U	UG/L
NAPHTHALENE	2.0	2.0 U	UG/L
4-METHYL-2-PENTANONE	10	10 U	UG/L
N-PROPYLBENZENE	2.0	2.0 U	UG/L
STYRENE	1.0	1.0 U	UG/L
1,1,1,2-TETRACHLOROETHANE	1.0	1.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	1.0	1.0 U	UG/L
TETRACHLOROETHENE	1.0	1.0 U	UG/L
TOLUENE	1.0	1.0 U	UG/L
1,2,4-TRICHLOROBENZENE	2.0	2.0 U	UG/L
1,2,3-TRICHLOROBENZENE	2.0	2.0 U	UG/L
1,1,1-TRICHLOROETHANE	1.0	1.0 U	UG/L
1,1,2-TRICHLOROETHANE	1.0	1.0 U	UG/L
TRICHLOROETHENE	1.0	1.0 U	UG/L
TRICHLOROFLUOROMETHANE	1.0	1.0 U	UG/L
1,2,3-TRICHLOROPROPANE	2.0	2.0 U	UG/L
1,3,5-TRIMETHYLBENZENE	2.0	2.0 U	UG/L
1,2,4-TRIMETHYLBENZENE	2.0	2.0 U	UG/L
VINYL CHLORIDE	1.0	1.0 U	UG/L
M+P-XYLENE	2.0	2.0 U	UG/L
O-XYLENE	1.0	1.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
BROMOFLUOROBENZENE	(70 - 130 %)	106	%
TOLUENE-D8	(70 - 130 %)	104	%
DIBROMOFLUOROMETHANE	(70 - 130 %)	103	%

Data File : J:\ACQUDATA\MSVOA8\DATA\071008\Z2777.D  
 Acq On : 10 Jul 2008 5:58 pm  
 Sample : 1113700 1.0  
 Misc : ENSR R-44768 8260B.DODO  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 10 18:10 2008

Vial: 20  
 Operator: Herring  
 Inst : MS #8  
 Multiplr: 1.00

Quant Results File: W070808.RES

Quant Method : J:\ACQUDATA\M...\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 16:13:36 2008  
 Response via : Initial Calibration  
 DataAcq Meth : W070808

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	3.15	168	424366	50.00	ppb	0.00
42) 1,4 - Difluorobenzene	3.65	114	756633	50.00	ppb	0.00
63) d5 - Chlorobenzene	5.97	117	651225	50.00	ppb	-0.01
85) d4 - Dichlorobenzene	8.15	152	298354	50.00	ppb	-0.01

System Monitoring Compounds

43) surr4,Dibrflmethane	3.14	113	224703	51.66	ppb	-0.01
Spiked Amount	50.000		Recovery	= 103.32%		
48) surr1,1,2-Dicethane	3.36	65	224424	49.18	ppb	0.00
Spiked Amount	50.000		Recovery	= 98.36%		
69) surr3,Toluene-d8	4.75	98	868020	52.00	ppb	-0.01
Spiked Amount	50.000		Recovery	= 104.00%		
70) surr2,bfb	7.03	95	347802	52.90	ppb	-0.01
Spiked Amount	50.000		Recovery	= 105.80%		

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
<del>16) Acetone</del>	<del>1.89</del>	<del>43</del>	<del>1567</del>	<del>2.12</del>	<del>ppb</del>	<del># 74</del>
<del>36) Propionitrile</del>	<del>2.87</del>	<del>54</del>	<del>178</del>	<del>0.73</del>	<del>ppb</del>	<del># 1</del>
<del>44) cyclohexane</del>	<del>3.15</del>	<del>56</del>	<del>8931</del>	<del>1.10</del>	<del>ppb</del>	<del># 1</del>
<del>47) Iso-Butyl Alcohol</del>	<del>3.32</del>	<del>43</del>	<del>904</del>	<del>14.91</del>	<del>ppb</del>	<del># 95</del>
<del>57) 1,4-Dioxane</del>	<del>4.13</del>	<del>88</del>	<del>369</del>	<del>13.12</del>	<del>ppb</del>	<del># 38</del>
<del>60) 2-Nitropropane</del>	<del>4.28</del>	<del>43</del>	<del>1654</del>	<del>2.42</del>	<del>ppb</del>	<del># 35</del>
<del>72) 2-Hexanone</del>	<del>5.34</del>	<del>43</del>	<del>1100</del>	<del>0.61</del>	<del>ppb</del>	<del># 55</del>
<del>84) Cyclohexanone</del>	<del>7.03</del>	<del>55</del>	<del>853</del>	<del>3.85</del>	<del>ppb</del>	<del># 85</del>
<del>88) 1,2,3-Trichloropropane</del>	<del>7.23</del>	<del>110</del>	<del>100</del>	<del>Below Cal</del>	<del>#</del>	<del>36</del>

RJH  
7/16

Data File : J:\ACQUDATA\MSVOA8\DATA\071008\Z2777.D

Vial: 20

Acq On : 10 Jul 2008 5:58 pm

Operator: Herring

Sample : 1113700 1.0

Inst : MS #8

Misc : ENSR R-44768 8260B.DODO

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Jul 10 18:10 2008

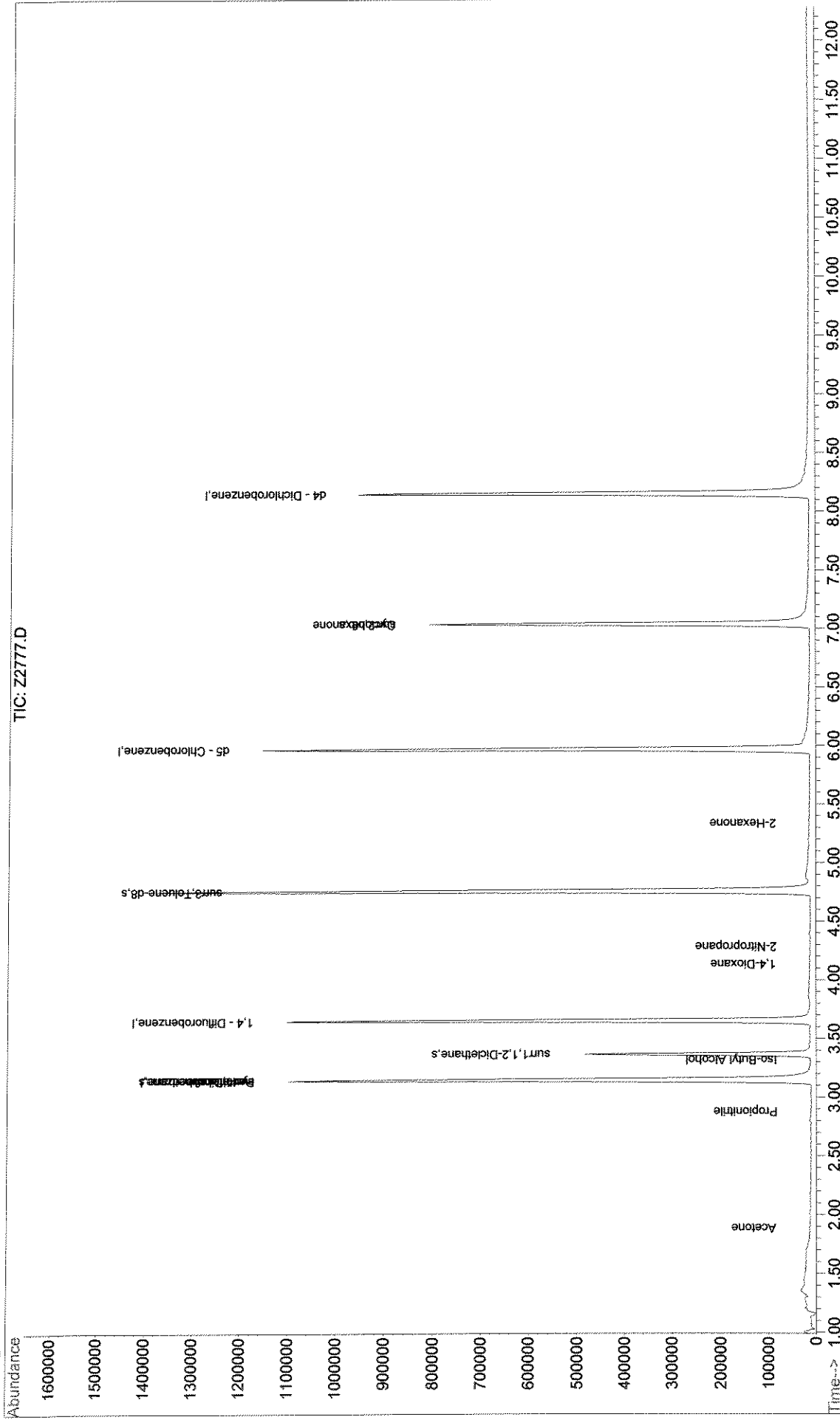
Quant Results File: W070808.RES

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)

Title : 8260voca

Last Update : Wed Jul 09 16:13:36 2008

Response via : Initial Calibration



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS  
 METHOD 8260B.DOD  
 Reported: 07/30/08

ENSR International

Project Reference: TRONOX PHASE B INVESTIGATION PROJ# 04020-023-4312

Client Sample ID : TB062908GW1

Date Sampled : 06/29/08 14:44 Order #: 1113701 Sample Matrix: WATER  
 Date Received: 07/01/08 Submission #: R2844768 Analytical Run 164135

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 07/10/08			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	2.2 J	UG/L
BENZENE	1.0	1.0 U	UG/L
BROMOBENZENE	2.0	2.0 U	UG/L
BROMOCHLOROMETHANE	2.0	2.0 U	UG/L
BROMODICHLOROMETHANE	1.0	1.0 U	UG/L
BROMOFORM	1.0	1.0 U	UG/L
BROMOMETHANE	2.0	2.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
TERT-BUTYL ALCOHOL	100	100 U	UG/L
METHYL-TERT-BUTYL ETHER	1.0	1.0 U	UG/L
ETHYL-TERT-BUTYL ETHER	1.0	1.0 U	UG/L
TERT-BUTYLBENZENE	2.0	2.0 U	UG/L
SEC-BUTYLBENZENE	2.0	2.0 U	UG/L
N-BUTYLBENZENE	5.0	5.0 U	UG/L
CARBON TETRACHLORIDE	1.0	1.0 U	UG/L
CHLOROBENZENE	1.0	1.0 U	UG/L
CHLOROETHANE	2.0	2.0 U	UG/L
CHLOROFORM	1.0	1.0 U	UG/L
CHLOROMETHANE	2.0	2.0 U	UG/L
1, 2-DIBROMO-3-CHLOROPROPANE	5.0	5.0 U	UG/L
2-CHLOROTOLUENE	5.0	5.0 U	UG/L
4-CHLOROTOLUENE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	1.0	1.0 U	UG/L
1, 2-DIBROMOETHANE	1.0	1.0 U	UG/L
DIBROMOMETHANE	1.0	1.0 U	UG/L
1, 2-DICHLOROBENZENE	2.0	2.0 U	UG/L
1, 4-DICHLOROBENZENE	2.0	2.0 U	UG/L
1, 3-DICHLOROBENZENE	2.0	2.0 U	UG/L
DICHLORODIFLUOROMETHANE	1.0	1.0 U	UG/L
1, 1-DICHLOROETHANE	1.0	1.0 U	UG/L
1, 2-DICHLOROETHANE	1.0	1.0 U	UG/L
1, 1-DICHLOROETHENE	1.0	1.0 U	UG/L
TRANS-1, 2-DICHLOROETHENE	1.0	1.0 U	UG/L
CIS-1, 2-DICHLOROETHENE	1.0	1.0 U	UG/L
2, 2-DICHLOROPROPANE	2.0	2.0 U	UG/L
1, 2-DICHLOROPROPANE	1.0	1.0 U	UG/L
1, 3-DICHLOROPROPANE	2.0	2.0 U	UG/L
1, 1-DICHLOROPROPENE	2.0	2.0 U	UG/L
TRANS-1, 3-DICHLOROPROPENE	1.0	1.0 U	UG/L
CIS-1, 3-DICHLOROPROPENE	1.0	1.0 U	UG/L
ETHYLBENZENE	1.0	1.0 U	UG/L
HEXACHLOROBTADIENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
DI-ISOPROPYL ETHER	1.0	1.0 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS  
 METHOD 8260B.DOD  
 Reported: 07/30/08

ENSR International

Project Reference: TRONOX PHASE B INVESTIGATION PROJ# 04020-023-4312

Client Sample ID : TB062908GW1

Date Sampled : 06/29/08 14:44 Order #: 1113701 Sample Matrix: WATER  
 Date Received: 07/01/08 Submission #: R2844768 Analytical Run 164135

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 07/10/08		
ANALYTICAL DILUTION:	1.00		
ISOPROPYLBENZENE	2.0	2.0 U	UG/L
P-ISOPROPYLTOLUENE	2.0	2.0 U	UG/L
TERT-AMYL-METHYL ETHER	1.0	1.0 U	UG/L
METHYLENE CHLORIDE	2.0	2.0 U	UG/L
NAPHTHALENE	2.0	2.0 U	UG/L
4-METHYL-2-PENTANONE	10	10 U	UG/L
N-PROPYLBENZENE	2.0	2.0 U	UG/L
STYRENE	1.0	1.0 U	UG/L
1,1,1,2-TETRACHLOROETHANE	1.0	1.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	1.0	1.0 U	UG/L
TETRACHLOROETHENE	1.0	1.0 U	UG/L
TOLUENE	1.0	1.0 U	UG/L
1,2,4-TRICHLOROBENZENE	2.0	2.0 U	UG/L
1,2,3-TRICHLOROBENZENE	2.0	2.0 U	UG/L
1,1,1-TRICHLOROETHANE	1.0	1.0 U	UG/L
1,1,2-TRICHLOROETHANE	1.0	1.0 U	UG/L
TRICHLOROETHENE	1.0	1.0 U	UG/L
TRICHLOROFLUOROMETHANE	1.0	1.0 U	UG/L
1,2,3-TRICHLOROPROPANE	2.0	2.0 U	UG/L
1,3,5-TRIMETHYLBENZENE	2.0	2.0 U	UG/L
1,2,4-TRIMETHYLBENZENE	2.0	2.0 U	UG/L
VINYL CHLORIDE	1.0	1.0 U	UG/L
M+P-XYLENE	2.0	2.0 U	UG/L
O-XYLENE	1.0	1.0 U	UG/L

SURROGATE RECOVERIES

QC LIMITS

BROMOFLUOROBENZENE	(70 - 130 %)	103	%
TOLUENE-D8	(70 - 130 %)	99	%
DIBROMOFLUOROMETHANE	(70 - 130 %)	99	%

Data File : J:\ACQUADATA\MSVOA8\DATA\071008\Z2778.D Vial: 21  
 Acq On : 10 Jul 2008 6:26 pm Operator: Herring  
 Sample : 1113701 1.0 Inst : MS #8  
 Misc : ENSR R-44768 8260B.DODO Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 10 18:43 2008 Quant Results File: W070808.RES

Quant Method : J:\ACQUADATA\M...\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 16:13:36 2008  
 Response via : Initial Calibration  
 DataAcq Meth : W070808

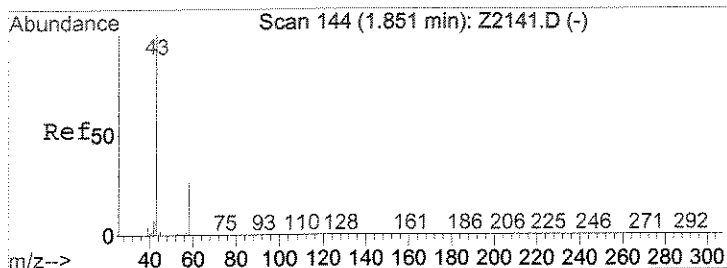
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	3.15	168	402127	50.00	ppb	0.00
42) 1,4 - Difluorobenzene	3.65	114	687414	50.00	ppb	-0.01
63) d5 - Chlorobenzene	5.97	117	656989	50.00	ppb	-0.01
85) d4 - Dichlorobenzene	8.15	152	302221	50.00	ppb	-0.01

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) surr4, Dibrflmethane	3.14	113	196238	49.66	ppb	-0.01
Spiked Amount				50.000		
			Recovery	=	99.32%	
48) surr1, 1,2-Diclcethane	3.36	65	173226	41.78	ppb	0.00
Spiked Amount				50.000		
			Recovery	=	83.56%	
69) surr3, Toluene-d8	4.75	98	831871	49.39	ppb	-0.01
Spiked Amount				50.000		
			Recovery	=	98.78%	
70) surr2, bfb	7.03	95	341326	51.46	ppb	-0.01
Spiked Amount				50.000		
			Recovery	=	102.92%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
<del>13) Acrolein</del>	<del>1.75</del>	<del>56</del>	<del>552</del>	<del>2.31</del>	<del>ppb</del>	<del># 64</del>
16) Acetone	1.89	43	1522 2358 2.18	3.37	ppb	# 79
<del>36) Propionitrile</del>	<del>2.96</del>	<del>54</del>	<del>148</del>	<del>0.64</del>	<del>ppb</del>	<del># 95</del>
<del>40) Tetrahydrofuran</del>	<del>3.12</del>	<del>42</del>	<del>615</del>	<del>0.97</del>	<del>ppb</del>	<del># 35</del>
<del>44) cyclohexane</del>	<del>3.14</del>	<del>56</del>	<del>6904</del>	<del>0.93</del>	<del>ppb</del>	<del># 1</del>
<del>57) 1,4-Dioxane</del>	<del>4.11</del>	<del>88</del>	<del>326</del>	<del>11.94</del>	<del>ppb</del>	<del># 38</del>
<del>72) 2-Hexanone</del>	<del>5.32</del>	<del>43</del>	<del>1317</del>	<del>0.73</del>	<del>ppb</del>	<del># 41</del>
<del>84) Cyclohexanone</del>	<del>6.93</del>	<del>55</del>	<del>273</del>	<del>1.22</del>	<del>ppb</del>	<del># 8</del>
<del>88) 1,2,3-Trichloropropane</del>	<del>7.25</del>	<del>110</del>	<del>94</del>	<del>Below Cal</del>	<del></del>	<del># 71</del>

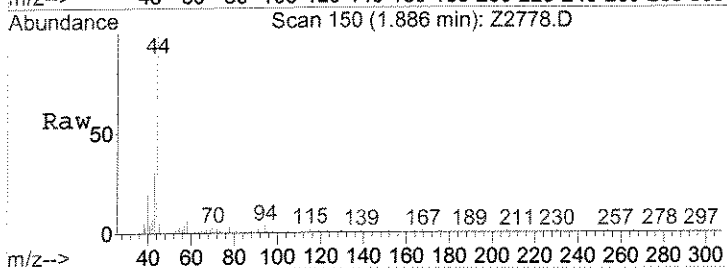
*BYH  
7/16*



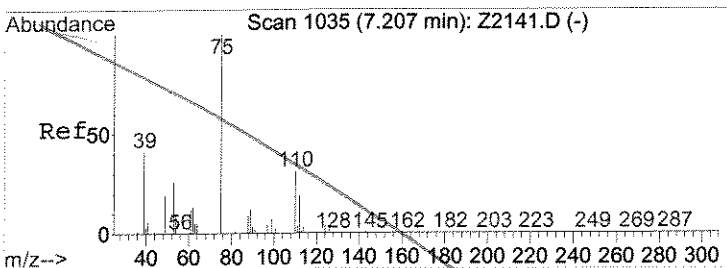
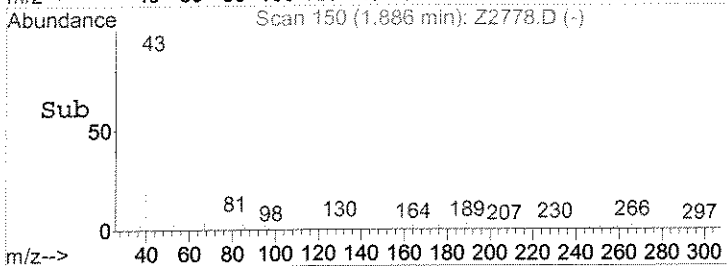
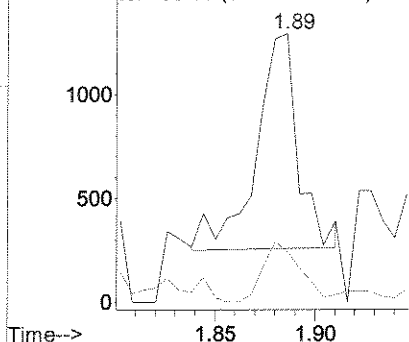


#16  
 Acetone  
 Concen: 2.18 ppb m  
 RT: 1.89 min Scan# 150  
 Delta R.T. -0.01 min  
 Lab File: Z2778.D  
 Acq: 10 Jul 2008 6:26 pm

Tgt Ion: 43 Resp: 1522  
 Ion Ratio Lower Upper  
 43 100  
 58 18.7 24.3 36.5#

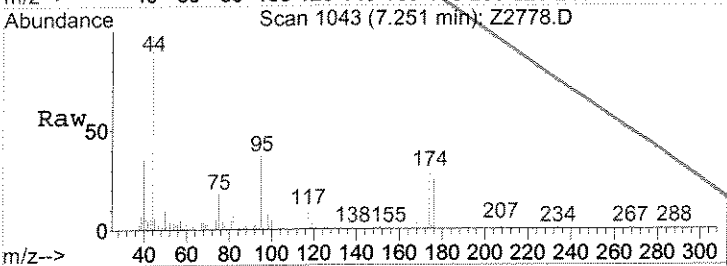


Abundance Ion 43.00 (42.70 to 43.70): Z27  
 1500 Ion 58.00 (57.70 to 58.70): Z27

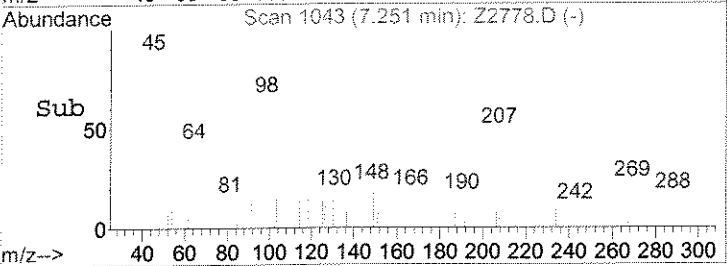
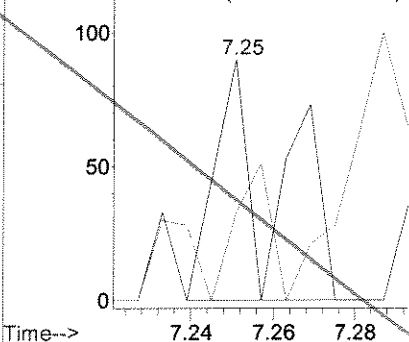


#88  
 1,2,3-Trichloropropane  
 Concen: Below Cal  
 RT: 7.25 min Scan# 1043  
 Delta R.T. 0.03 min  
 Lab File: Z2778.D  
 Acq: 10 Jul 2008 6:26 pm

Tgt Ion: 110 Resp: 94  
 Ion Ratio Lower Upper  
 110 100  
 112 36.7 47.0 70.4#

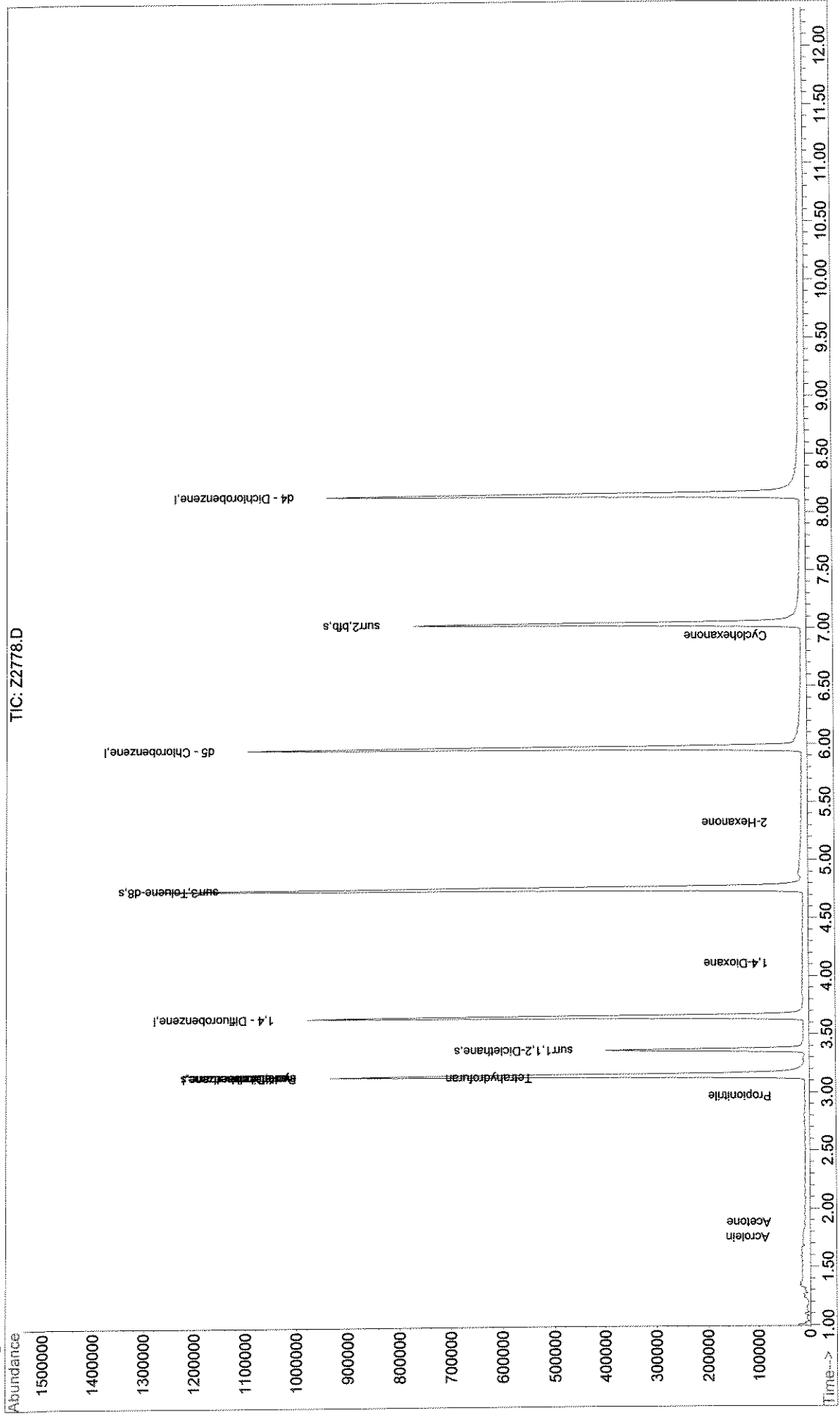


Abundance Ion 110.00 (109.70 to 110.70): Z  
 100 Ion 112.00 (111.70 to 112.70): Z



Data File : J:\ACQDATA\MSVOA8\DATA\071008\Z2778.D Vial: 21  
 Acq On : 10 Jul 2008 6:26 pm Operator: Herring  
 Sample : 1113701 1.0 Inst : MS #8  
 Misc : ENSR R-44768 8260B.DODO Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 10 18:43 2008 Quant Results File: W070808.RES

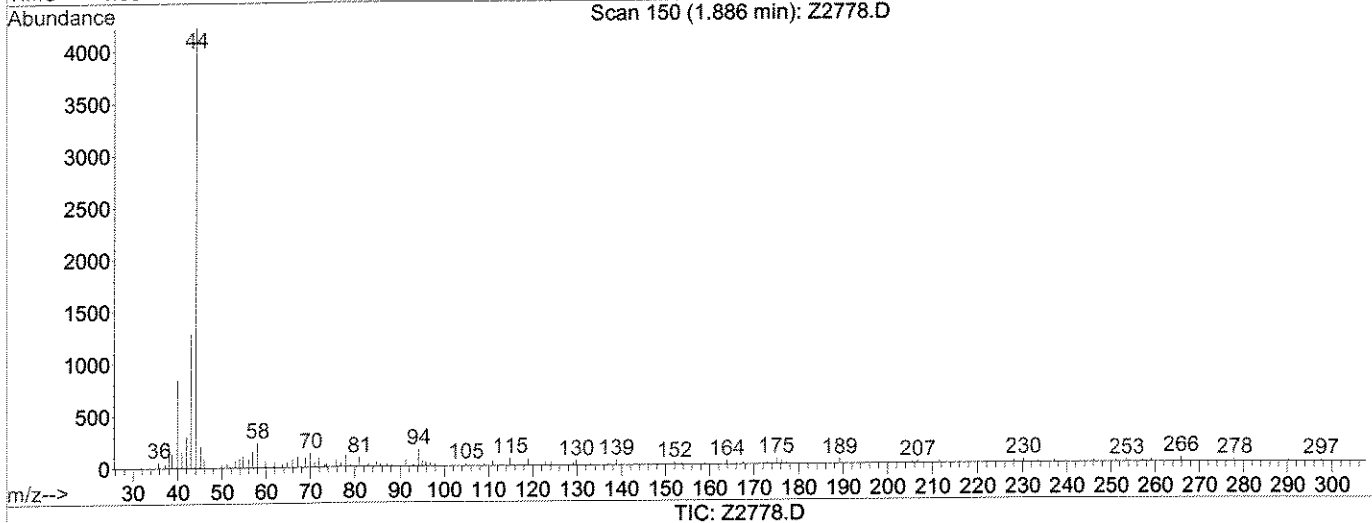
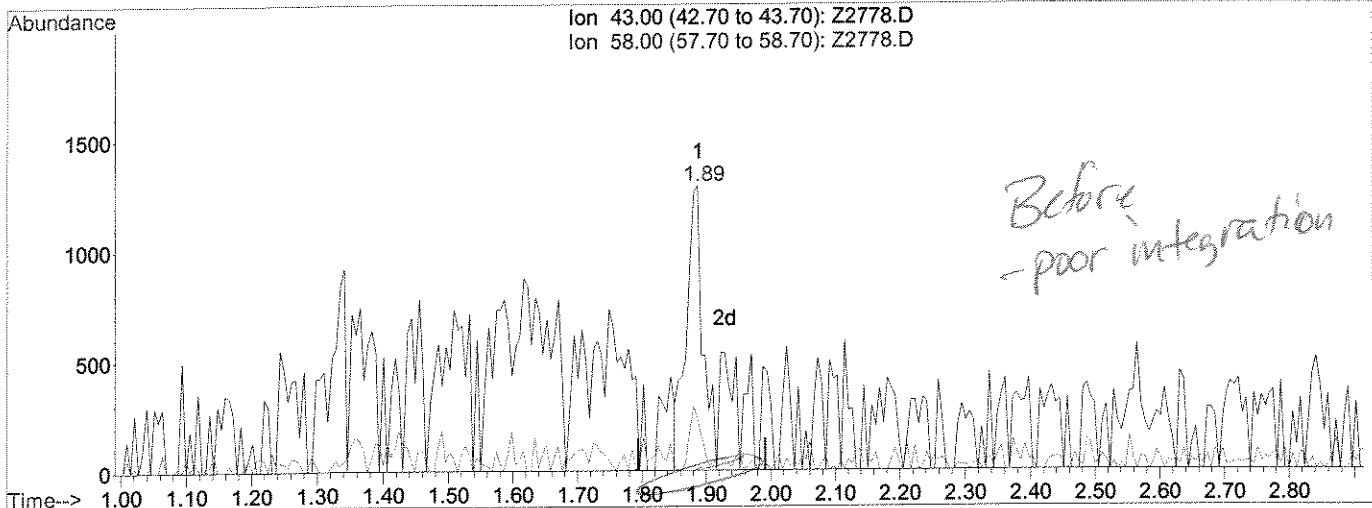
Method : J:\ACQDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260v0a  
 Last Update : Wed Jul 09 16:13:36 2008  
 Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\071008\Z2778.D Vial: 21  
 Acq On : 10 Jul 2008 6:26 pm Operator: Herring  
 Sample : 1113701 1.0 Inst : MS #8  
 Misc : ENSR R-44768 8260B.DODO Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 16 15:30 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 16:13:36 2008  
 Response via : Multiple Level Calibration



(16) Acetone

1.89min 3.37ppb

response 2358

Ion	Exp%	Act%
-----	------	------

43.00	100	100
-------	-----	-----

58.00	30.40	18.70#
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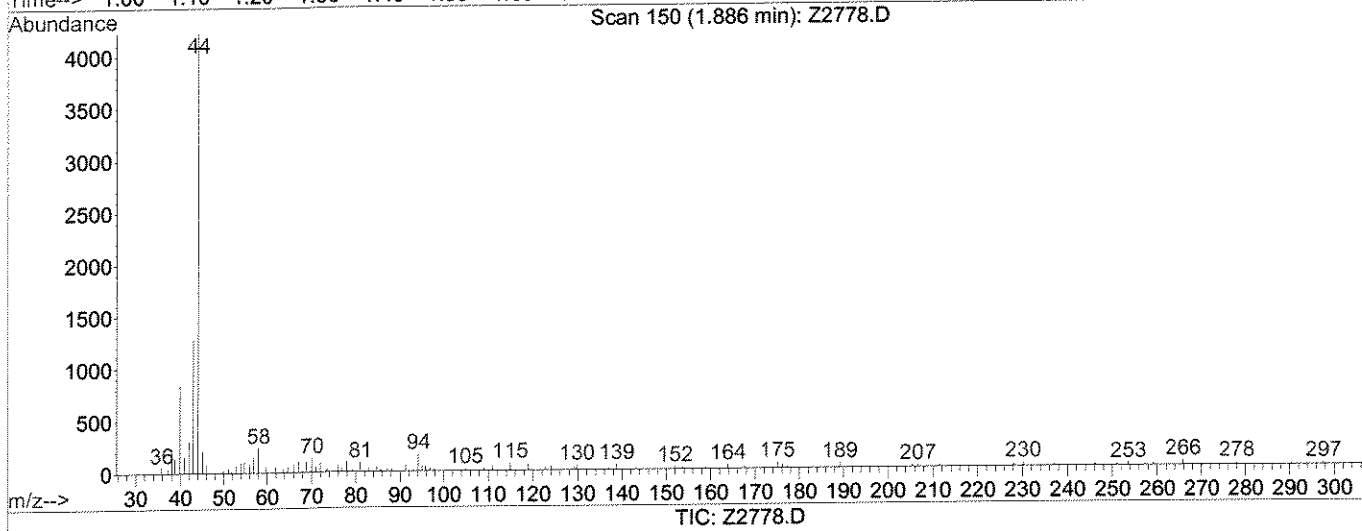
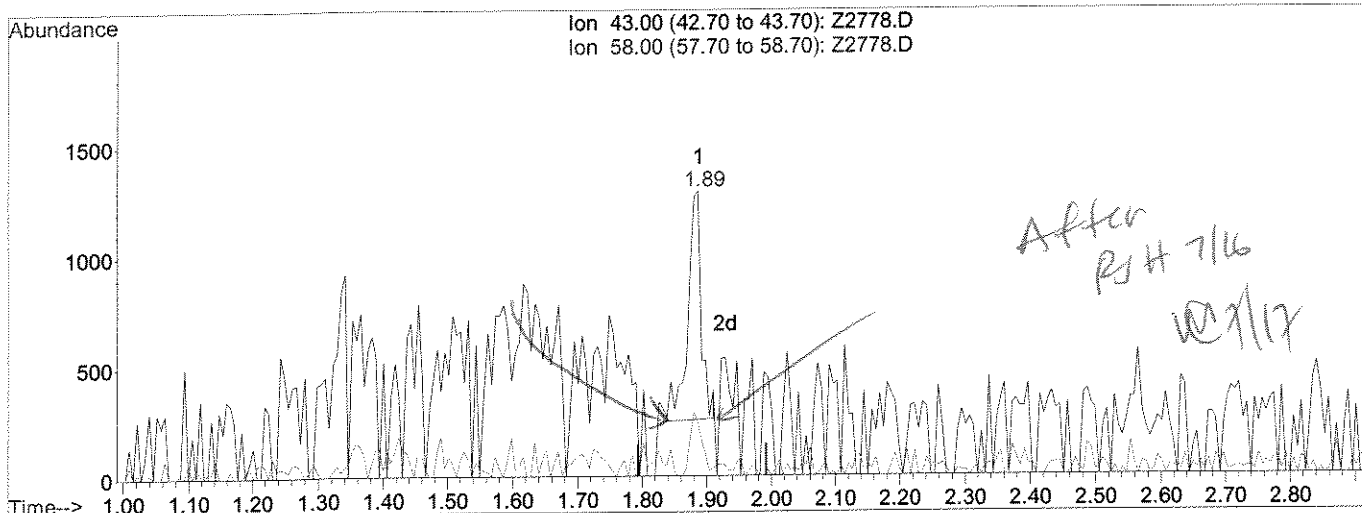
0.00	0.00	0.00
------	------	------

0.00	0.00	0.00
------	------	------

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\071008\Z2778.D Vial: 21  
 Acq On : 10 Jul 2008 6:26 pm Operator: Herring  
 Sample : 1113701 1.0 Inst : MS #8  
 Misc : ENSR R-44768 8260B.DODO Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 16 15:30 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 16:13:36 2008  
 Response via : Multiple Level Calibration



(16) Acetone

1.89min 2.18ppb m

response 1522

Ion	Exp%	Act%
43.00	100	100
58.00	30.40	18.70#
0.00	0.00	0.00
0.00	0.00	0.00

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS  
 METHOD 8260B.DOD  
 Reported: 07/30/08

ENSR International

Project Reference: TRONOX PHASE B INVESTIGATION PROJ# 04020-023-4312

Client Sample ID : TB062803

Date Sampled : 06/29/08 Order #: 1113705 Sample Matrix: WATER  
 Date Received: 07/01/08 Submission #: R2844768 Analytical Run 164135

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 07/10/08			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	20 U	UG/L
BENZENE	1.0	1.0 U	UG/L
BROMOBENZENE	2.0	2.0 U	UG/L
BROMOCHLOROMETHANE	2.0	2.0 U	UG/L
BROMODICHLOROMETHANE	1.0	1.0 U	UG/L
BROMOFORM	1.0	1.0 U	UG/L
BROMOMETHANE	2.0	2.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
TERT-BUTYL ALCOHOL	100	100 U	UG/L
METHYL-TERT-BUTYL ETHER	1.0	1.0 U	UG/L
ETHYL-TERT-BUTYL ETHER	1.0	1.0 U	UG/L
TERT-BUTYLBENZENE	2.0	2.0 U	UG/L
SEC-BUTYLBENZENE	2.0	2.0 U	UG/L
N-BUTYLBENZENE	5.0	5.0 U	UG/L
CARBON TETRACHLORIDE	1.0	1.0 U	UG/L
CHLOROBENZENE	1.0	1.0 U	UG/L
CHLOROETHANE	2.0	2.0 U	UG/L
CHLOROFORM	1.0	1.0 U	UG/L
CHLOROMETHANE	2.0	2.0 U	UG/L
1,2-DIBROMO-3-CHLOROPROPANE	5.0	5.0 U	UG/L
2-CHLOROTOLUENE	5.0	5.0 U	UG/L
4-CHLOROTOLUENE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	1.0	1.0 U	UG/L
1,2-DIBROMOETHANE	1.0	1.0 U	UG/L
DIBROMOMETHANE	1.0	1.0 U	UG/L
1,2-DICHLOROBENZENE	2.0	2.0 U	UG/L
1,4-DICHLOROBENZENE	2.0	2.0 U	UG/L
1,3-DICHLOROBENZENE	2.0	2.0 U	UG/L
DICHLORODIFLUOROMETHANE	1.0	1.0 U	UG/L
1,1-DICHLOROETHANE	1.0	1.0 U	UG/L
1,2-DICHLOROETHANE	1.0	1.0 U	UG/L
1,1-DICHLOROETHENE	1.0	1.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	1.0	1.0 U	UG/L
CIS-1,2-DICHLOROETHENE	1.0	1.0 U	UG/L
2,2-DICHLOROPROPANE	2.0	2.0 U	UG/L
1,2-DICHLOROPROPANE	1.0	1.0 U	UG/L
1,3-DICHLOROPROPANE	2.0	2.0 U	UG/L
1,1-DICHLOROPROPENE	2.0	2.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	1.0	1.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	1.0	1.0 U	UG/L
ETHYLBENZENE	1.0	1.0 U	UG/L
HEXACHLOROBUTADIENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
DI-ISOPROPYL ETHER	1.0	1.0 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS  
 METHOD 8260B.DOD  
 Reported: 07/30/08

ENSR International

Project Reference: TRONOX PHASE B INVESTIGATION PROJ# 04020-023-4312

Client Sample ID : TB062803

Date Sampled : 06/29/08      Order #: 1113705      Sample Matrix: WATER  
 Date Received: 07/01/08      Submission #: R2844768      Analytical Run 164135

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 07/10/08		
ANALYTICAL DILUTION:	1.00		
ISOPROPYLBENZENE	2.0	2.0 U	UG/L
P-ISOPROPYLTOLUENE	2.0	2.0 U	UG/L
TERT-AMYL-METHYL ETHER	1.0	1.0 U	UG/L
METHYLENE CHLORIDE	2.0	2.0 U	UG/L
NAPHTHALENE	2.0	2.0 U	UG/L
4-METHYL-2-PENTANONE	10	10 U	UG/L
N-PROPYLBENZENE	2.0	2.0 U	UG/L
STYRENE	1.0	1.0 U	UG/L
1,1,1,2-TETRACHLOROETHANE	1.0	1.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	1.0	1.0 U	UG/L
TETRACHLOROETHENE	1.0	1.0 U	UG/L
TOLUENE	1.0	1.0 U	UG/L
1,2,4-TRICHLOROBENZENE	2.0	2.0 U	UG/L
1,2,3-TRICHLOROBENZENE	2.0	2.0 U	UG/L
1,1,1-TRICHLOROETHANE	1.0	1.0 U	UG/L
1,1,2-TRICHLOROETHANE	1.0	1.0 U	UG/L
TRICHLOROETHENE	1.0	1.0 U	UG/L
TRICHLOROFLUOROMETHANE	1.0	1.0 U	UG/L
1,2,3-TRICHLOROPROPANE	2.0	2.0 U	UG/L
1,3,5-TRIMETHYLBENZENE	2.0	2.0 U	UG/L
1,2,4-TRIMETHYLBENZENE	2.0	2.0 U	UG/L
VINYL CHLORIDE	1.0	1.0 U	UG/L
M+P-XYLENE	2.0	2.0 U	UG/L
O-XYLENE	1.0	1.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
BROMOFLUOROBENZENE	(70 - 130 %)	107	%
TOLUENE-D8	(70 - 130 %)	107	%
DIBROMOFLUOROMETHANE	(70 - 130 %)	98	%

Data File : J:\ACQUADATA\MSVOA8\DATA\071008\Z2779.D  
 Acq On : 10 Jul 2008 6:54 pm  
 Sample : 1113705 1.0  
 Misc : ENSR R-44768 8260B.DODO  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 10 19:06 2008

Vial: 22  
 Operator: Herring  
 Inst : MS #8  
 Multiplr: 1.00

Quant Results File: W070808.RES

Quant Method : J:\ACQUADATA\M...\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 16:13:36 2008  
 Response via : Initial Calibration  
 DataAcq Meth : W070808

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	3.15	168	402469	50.00	ppb	0.00
42) 1,4 - Difluorobenzene	3.65	114	693093	50.00	ppb	0.00
63) d5 - Chlorobenzene	5.96	117	621578	50.00	ppb	-0.01
85) d4 - Dichlorobenzene	8.15	152	295216	50.00	ppb	-0.01

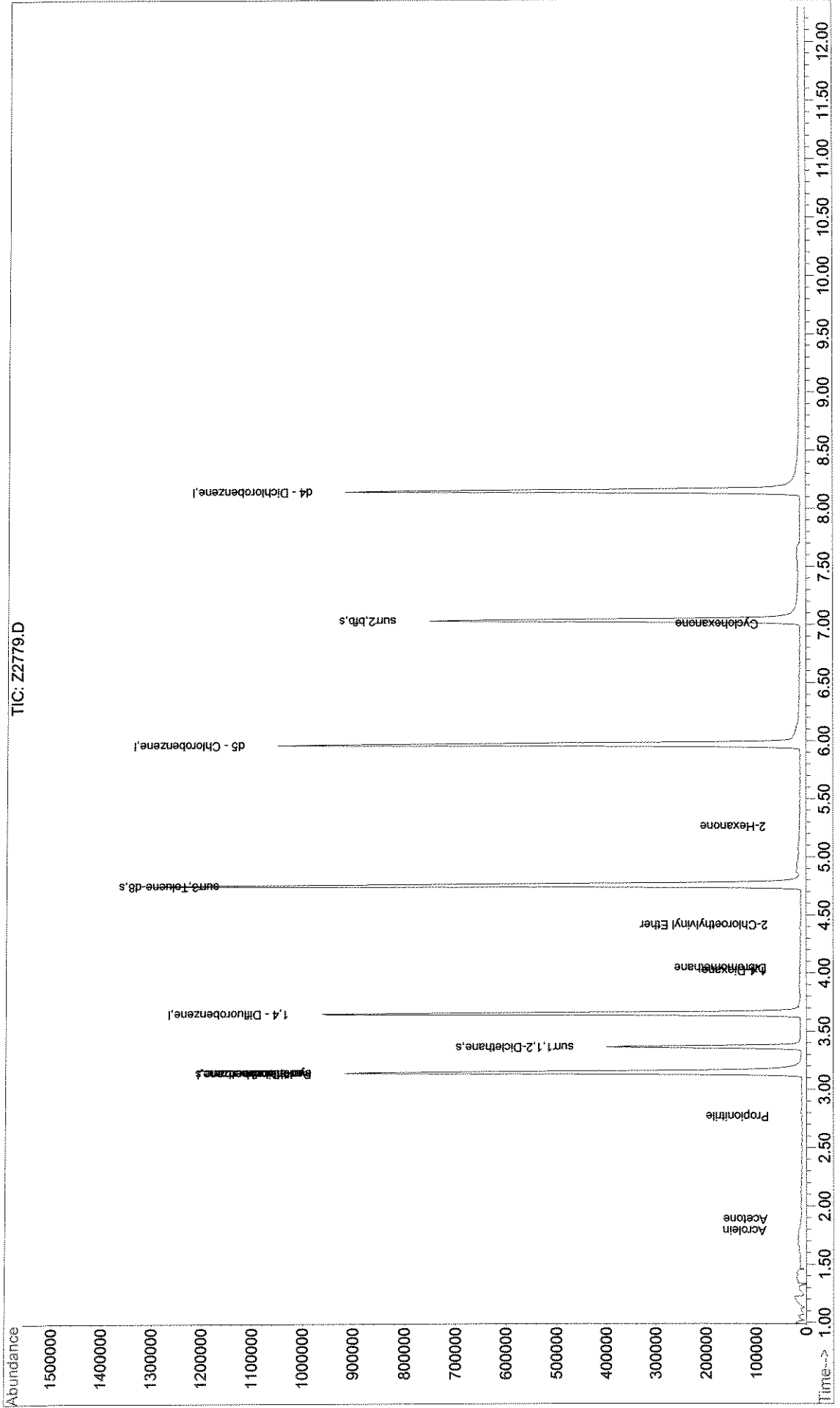
System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) surr4, Dibrflmethane	3.14	113	194996	48.94	ppb	-0.01
Spiked Amount			50.000			
			Recovery	=	97.88%	
48) surr1, 1,2-Dicethane	3.36	65	174777	41.81	ppb	0.00
Spiked Amount			50.000			
			Recovery	=	83.62%	
69) surr3, Toluene-d8	4.75	98	848906	53.28	ppb	-0.01
Spiked Amount			50.000			
			Recovery	=	106.56%	
70) surr2, bfb	7.03	95	334519	53.31	ppb	-0.01
Spiked Amount			50.000			
			Recovery	=	106.62%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
<del>13) Acrolein</del>	<del>1.80</del>	<del>56</del>	<del>743</del>	<del>3.10</del>	<del>ppb</del>	<del># 48</del>
<del>16) Acetone</del>	<del>1.89</del>	<del>43</del>	<del>671</del>	<del>0.96</del>	<del>ppb</del>	<del># 83</del>
<del>36) Propionitrile</del>	<del>2.77</del>	<del>54</del>	<del>114</del>	<del>0.50</del>	<del>ppb</del>	<del># 94</del>
<del>44) cyclohexane</del>	<del>3.14</del>	<del>56</del>	<del>6912</del>	<del>0.93</del>	<del>ppb</del>	<del># 1</del>
<del>57) 1,4-Dioxane</del>	<del>4.02</del>	<del>88</del>	<del>284</del>	<del>6.31</del>	<del>ppb</del>	<del># 19</del>
<del>58) Dibromomethane</del>	<del>4.05</del>	<del>93</del>	<del>588</del>	<del>0.33</del>	<del>ppb</del>	<del># 43</del>
<del>61) 2-Chloroethylvinyl Ether</del>	<del>4.41</del>	<del>63</del>	<del>450</del>	<del>0.25</del>	<del>ppb</del>	<del># 94</del>
<del>72) 2-Hexanone</del>	<del>5.26</del>	<del>43</del>	<del>849</del>	<del>0.50</del>	<del>ppb</del>	<del># 31</del>
<del>84) Cyclohexanone</del>	<del>7.00</del>	<del>55</del>	<del>303</del>	<del>1.43</del>	<del>ppb</del>	<del># 52</del>
<del>88) 1,2,3-Trichloropropane</del>	<del>7.11</del>	<del>110</del>	<del>57</del>	<del>Below Cal</del>		<del>100</del>

*Handwritten:* 7/16

Data File : J:\ACQUDATA\MSVOA8\DATA\071008\Z2779.D Vial: 22  
 Acq On : 10 Jul 2008 6:54 pm Operator: Herring  
 Sample : 1113705 1.0 Inst : MS #8  
 Misc : ENSR R-44768 8260B.DODO Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 10 19:06 2008 Quant Results File: W070808.RES

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260v0a  
 Last Update : Wed Jul 09 16:13:36 2008  
 Response via : Initial Calibration



00105



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS  
 METHOD 8260B.DOD  
 Reported: 07/30/08

ENSR International

Project Reference: TRONOX PHASE B INVESTIGATION PROJ# 04020-023-4312

Client Sample ID : TB063008GW3

Date Sampled : 06/30/08 10:38 Order #: 1113707 Sample Matrix: WATER  
 Date Received: 07/01/08 Submission #: R2844768 Analytical Run 164135

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 07/10/08			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	1.4 J	UG/L
BENZENE	1.0	1.0 U	UG/L
BROMOBENZENE	2.0	2.0 U	UG/L
BROMOCHLOROMETHANE	2.0	2.0 U	UG/L
BROMODICHLOROMETHANE	1.0	1.0 U	UG/L
BROMOFORM	1.0	1.0 U	UG/L
BROMOMETHANE	2.0	2.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
TERT-BUTYL ALCOHOL	100	100 U	UG/L
METHYL-TERT-BUTYL ETHER	1.0	1.0 U	UG/L
ETHYL-TERT-BUTYL ETHER	1.0	1.0 U	UG/L
TERT-BUTYLBENZENE	2.0	2.0 U	UG/L
SEC-BUTYLBENZENE	2.0	2.0 U	UG/L
N-BUTYLBENZENE	5.0	5.0 U	UG/L
CARBON TETRACHLORIDE	1.0	1.0 U	UG/L
CHLOROBENZENE	1.0	1.0 U	UG/L
CHLOROETHANE	2.0	2.0 U	UG/L
CHLOROFORM	1.0	1.0 U	UG/L
CHLOROMETHANE	2.0	2.0 U	UG/L
1,2-DIBROMO-3-CHLOROPROPANE	5.0	5.0 U	UG/L
2-CHLOROTOLUENE	5.0	5.0 U	UG/L
4-CHLOROTOLUENE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	1.0	1.0 U	UG/L
1,2-DIBROMOETHANE	1.0	1.0 U	UG/L
DIBROMOMETHANE	1.0	1.0 U	UG/L
1,2-DICHLOROBENZENE	2.0	2.0 U	UG/L
1,4-DICHLOROBENZENE	2.0	2.0 U	UG/L
1,3-DICHLOROBENZENE	2.0	2.0 U	UG/L
DICHLORODIFLUOROMETHANE	1.0	1.0 U	UG/L
1,1-DICHLOROETHANE	1.0	1.0 U	UG/L
1,2-DICHLOROETHANE	1.0	1.0 U	UG/L
1,1-DICHLOROETHENE	1.0	1.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	1.0	1.0 U	UG/L
CIS-1,2-DICHLOROETHENE	1.0	1.0 U	UG/L
2,2-DICHLOROPROPANE	2.0	2.0 U	UG/L
1,2-DICHLOROPROPANE	1.0	1.0 U	UG/L
1,3-DICHLOROPROPANE	2.0	2.0 U	UG/L
1,1-DICHLOROPROPENE	2.0	2.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	1.0	1.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	1.0	1.0 U	UG/L
ETHYLBENZENE	1.0	1.0 U	UG/L
HEXACHLOROBUTADIENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
DI-ISOPROPYL ETHER	1.0	1.0 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS  
 METHOD 8260B.DOD  
 Reported: 07/30/08

ENSR International

Project Reference: TRONOX PHASE B INVESTIGATION PROJ# 04020-023-4312

Client Sample ID : TB063008GW3

Date Sampled : 06/30/08 10:38 Order #: 1113707 Sample Matrix: WATER  
 Date Received: 07/01/08 Submission #: R2844768 Analytical Run 164135

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 07/10/08		
ANALYTICAL DILUTION:	1.00		
ISOPROPYLBENZENE	2.0	2.0 U	UG/L
P-ISOPROPYLTOLUENE	2.0	2.0 U	UG/L
TERT-AMYL-METHYL ETHER	1.0	1.0 U	UG/L
METHYLENE CHLORIDE	2.0	0.23 J	UG/L
NAPHTHALENE	2.0	2.0 U	UG/L
4-METHYL-2-PENTANONE	10	10 U	UG/L
N-PROPYLBENZENE	2.0	2.0 U	UG/L
STYRENE	1.0	1.0 U	UG/L
1,1,1,2-TETRACHLOROETHANE	1.0	1.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	1.0	1.0 U	UG/L
TETRACHLOROETHENE	1.0	1.0 U	UG/L
TOLUENE	1.0	1.0 U	UG/L
1,2,4-TRICHLOROBENZENE	2.0	2.0 U	UG/L
1,2,3-TRICHLOROBENZENE	2.0	2.0 U	UG/L
1,1,1-TRICHLOROETHANE	1.0	1.0 U	UG/L
1,1,2-TRICHLOROETHANE	1.0	1.0 U	UG/L
TRICHLOROETHENE	1.0	1.0 U	UG/L
TRICHLOROFLUOROMETHANE	1.0	1.0 U	UG/L
1,2,3-TRICHLOROPROPANE	2.0	2.0 U	UG/L
1,3,5-TRIMETHYLBENZENE	2.0	2.0 U	UG/L
1,2,4-TRIMETHYLBENZENE	2.0	2.0 U	UG/L
VINYL CHLORIDE	1.0	1.0 U	UG/L
M+P-XYLENE	2.0	2.0 U	UG/L
O-XYLENE	1.0	1.0 U	UG/L

SURROGATE RECOVERIES

QC LIMITS

BROMOFLUOROBENZENE	(70 - 130 %)	100	%
TOLUENE-D8	(70 - 130 %)	99	%
DIBROMOFLUOROMETHANE	(70 - 130 %)	96	%

Data File : J:\ACQUDATA\MSVOA8\DATA\071008\Z2780.D Vial: 23  
 Acq On : 10 Jul 2008 7:22 pm Operator: Herring  
 Sample : 1113707 1.0 Inst : MS #8  
 Misc : ENSR R-44768 8260B.DODO Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 10 19:33 2008 Quant Results File: W070808.RES

Quant Method : J:\ACQUDATA\M...\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 16:13:36 2008  
 Response via : Initial Calibration  
 DataAcq Meth : W070808

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	3.15	168	428041	50.00	ppb	0.00
42) 1,4 - Difluorobenzene	3.65	114	732257	50.00	ppb	-0.01
63) d5 - Chlorobenzene	5.97	117	657857	50.00	ppb	-0.01
85) d4 - Dichlorobenzene	8.15	152	303759	50.00	ppb	-0.01

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) surr4, Dibrflmethane	3.14	113	202295	48.06	ppb	-0.01
Spiked Amount						
						Recovery = 96.12%
48) surr1, 1,2-Dicethane	3.36	65	182718	41.37	ppb	0.00
Spiked Amount						Recovery = 82.74%
69) surr3, Toluene-d8	4.75	98	835203	49.53	ppb	-0.01
Spiked Amount						Recovery = 99.06%
70) surr2, bfb	7.03	95	330743	49.80	ppb	-0.01
Spiked Amount						Recovery = 99.60%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
16) Acetone	1.88	43	2294	3.08	ppb m	93
23) Methylene Chloride	2.11	84	1002	0.23	ppb #	74
44) cyclohexane	3.14	56	7915	1.00	ppb #	1
57) 1,4-Dioxane	4.09	88	493	29.32	ppb #	19
58) Dibromomethane	4.06	93	459	0.24	ppb #	37
72) 2-Hexanone	5.38	43	877	0.48	ppb #	31
84) Cyclohexanone	7.03	55	540	2.41	ppb #	34
88) 1,2,3-Trichloropropane	7.21	110	63	Below Cal	#	21

EJH  
7/16

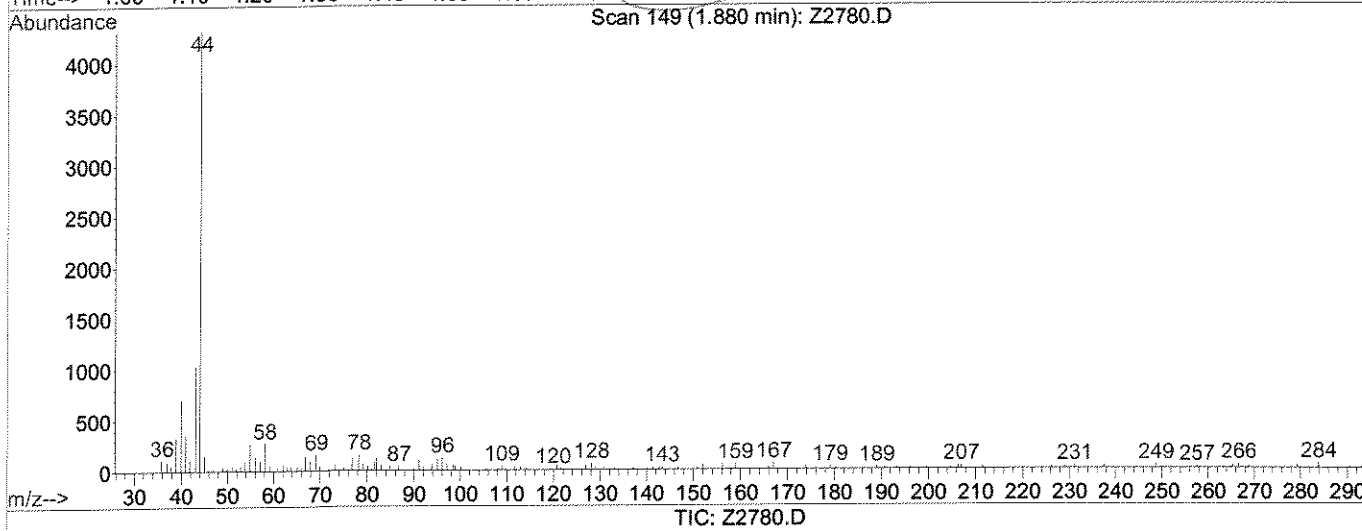
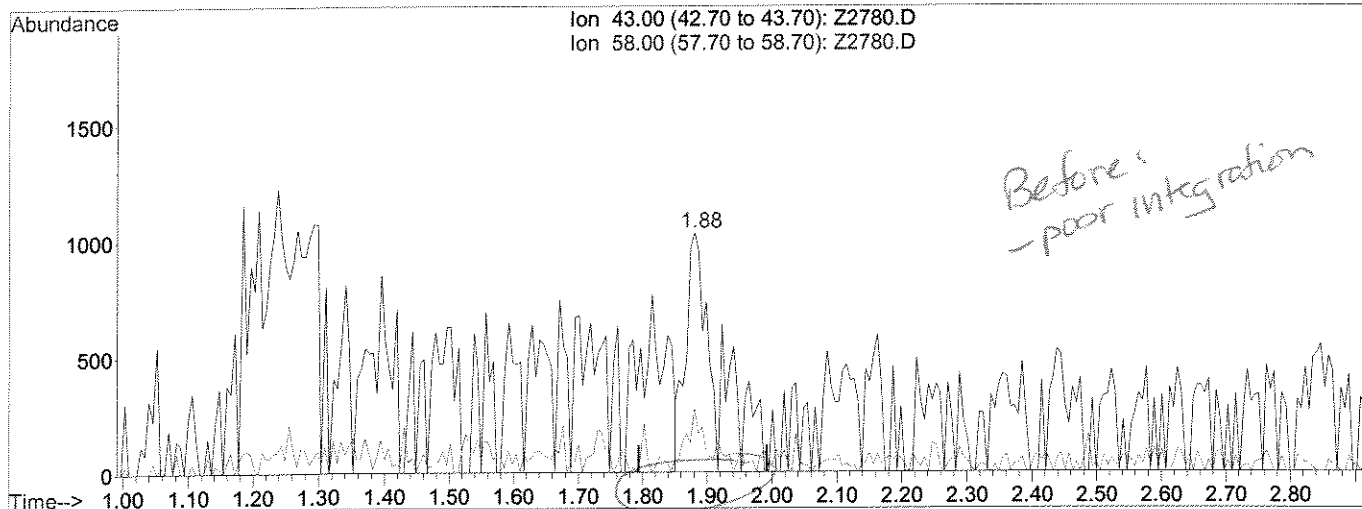
1080  
1080 1.45

RJH  
7/16

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\071008\Z2780.D Vial: 23  
Acq On : 10 Jul 2008 7:22 pm Operator: Herring  
Sample : 1113707 1.0 Inst : MS #8  
Misc : ENSR R-44768 8260B.DODO Multiplr: 1.00  
MS Integration Params: RTEINT.P  
Quant Time: Jul 10 19:33 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
Title : 8260voa  
Last Update : Wed Jul 09 16:13:36 2008  
Response via : Multiple Level Calibration



(16) Acetone

1.88min 3.08ppb

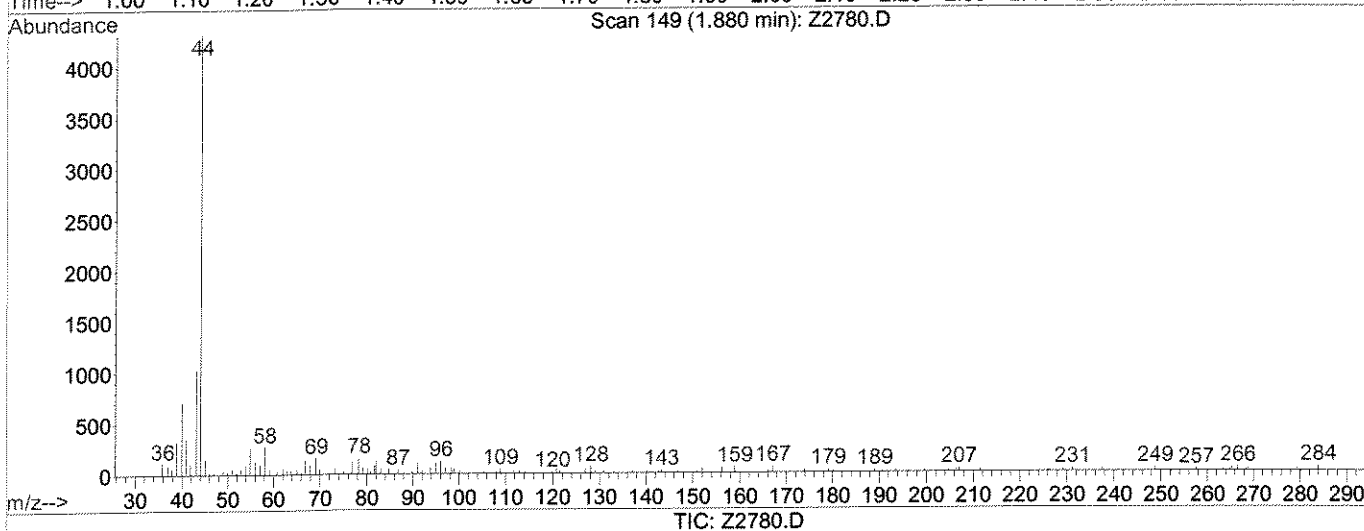
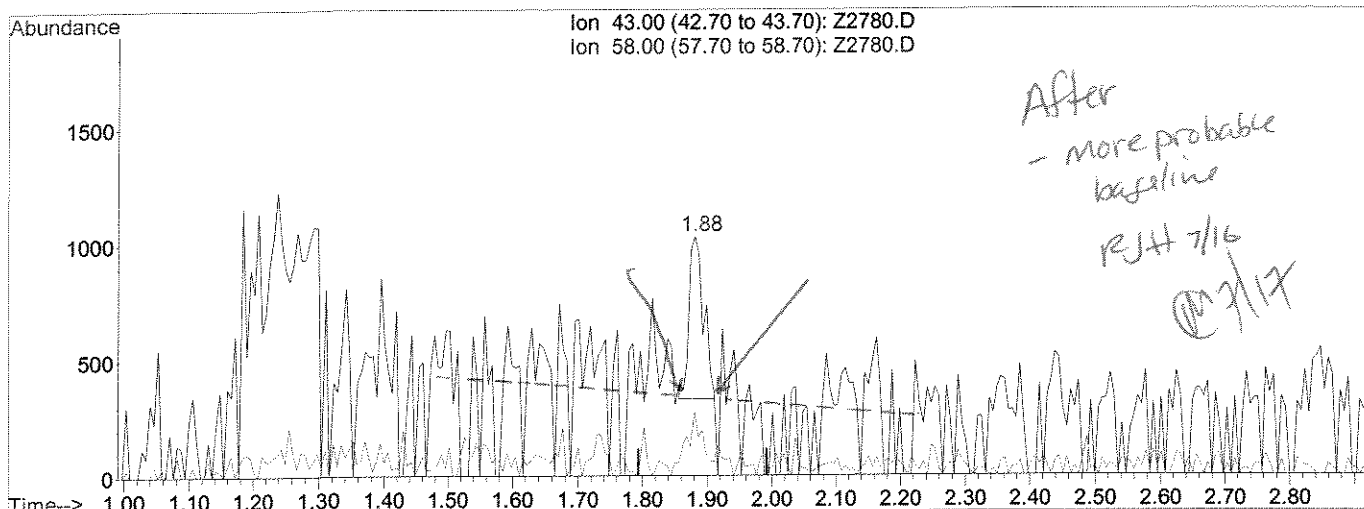
response 2294

Ion	Exp%	Act%
43.00	100	100
58.00	30.40	26.74
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\071008\Z2780.D Vial: 23  
Acq On : 10 Jul 2008 7:22 pm Operator: Herring  
Sample : 1113707 1.0 Inst : MS #8  
Misc : ENSR R-44768 8260B.DODO Multiplr: 1.00  
MS Integration Params: RTEINT.P  
Quant Time: Jul 16 15:37 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
Title : 8260voa  
Last Update : Wed Jul 09 16:13:36 2008  
Response via : Multiple Level Calibration



(16) Acetone

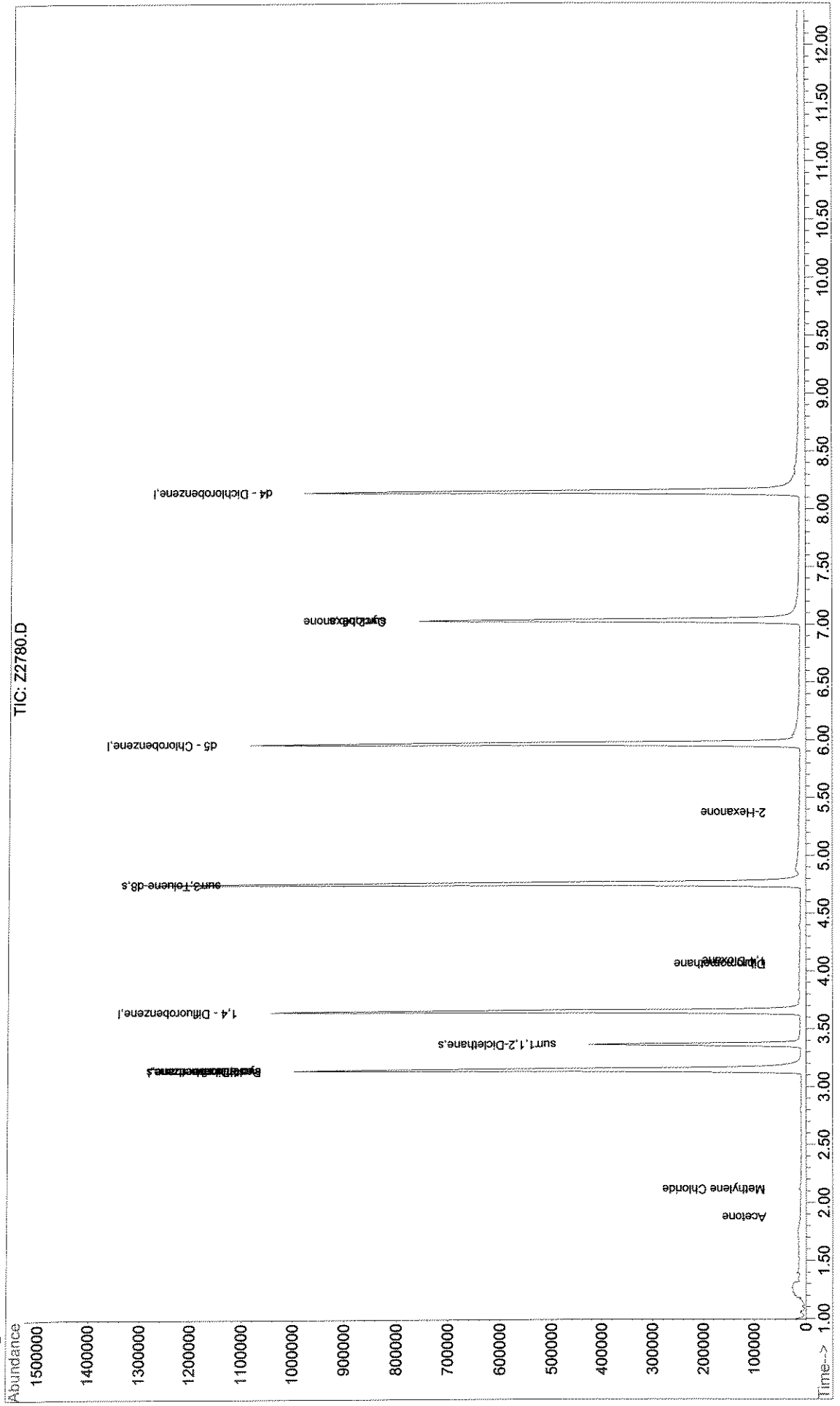
1.88min 1.45ppb m

response 1080

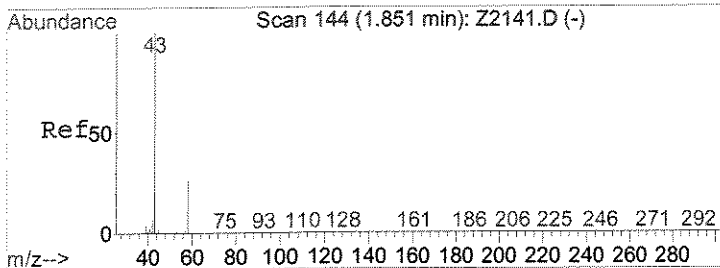
Ion	Exp%	Act%
43.00	100	100
58.00	30.40	26.74
0.00	0.00	0.00
0.00	0.00	0.00

Data File : J:\ACQDATA\MSVOA8\DATA\071008\Z2780.D Vial: 23  
 Acq On : 10 Jul 2008 7:22 pm Operator: Herring  
 Sample : 1113707 1.0 Inst : MS #8  
 Misc : ENSR R-44768 8260B.DODO Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 10 19:33 2008 Quant Results File: W070808.RES

Method : J:\ACQDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 16:13:36 2008  
 Response via : Initial Calibration

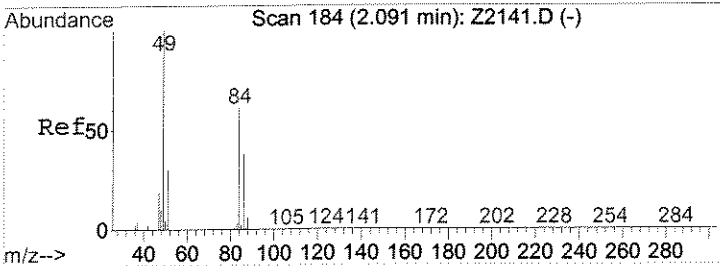
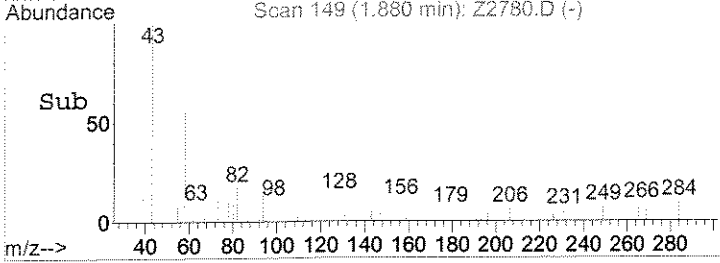
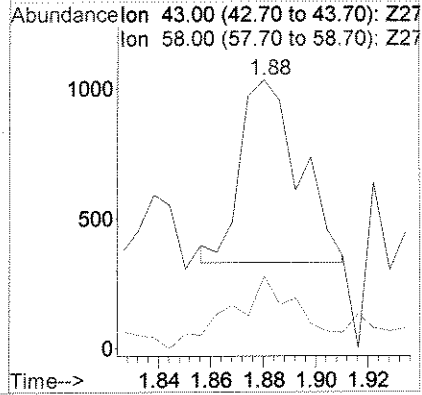
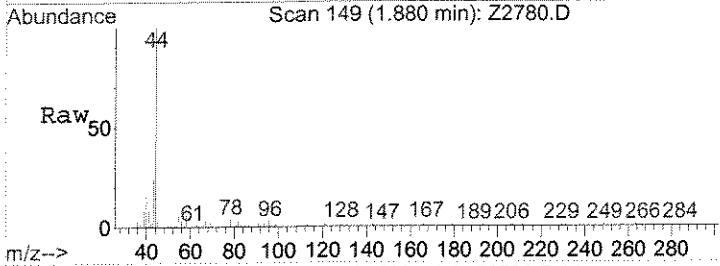


00111



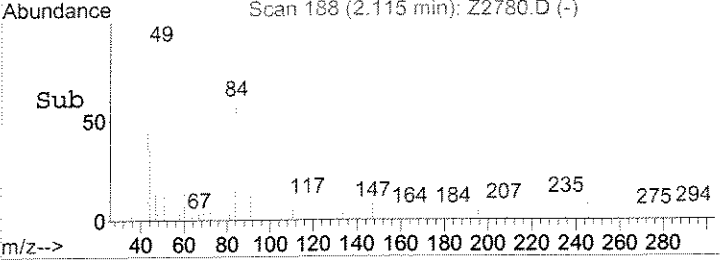
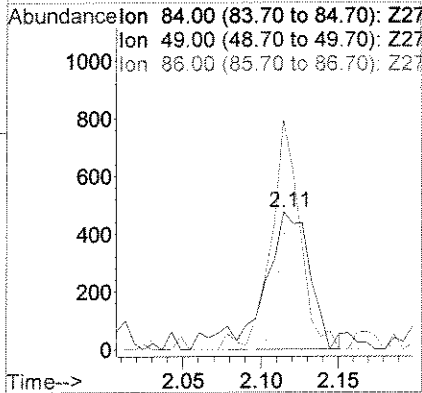
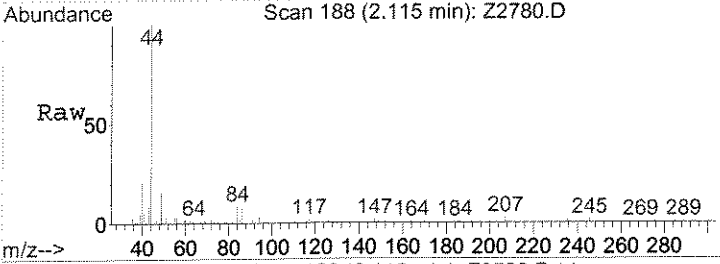
#16  
 Acetone  
 Concen: 1.45 ppb m  
 RT: 1.88 min Scan# 149  
 Delta R.T. -0.01 min  
 Lab File: Z2780.D  
 Acq: 10 Jul 2008 7:22 pm

Tgt Ion: 43 Resp: 1080  
 Ion Ratio Lower Upper  
 43 100  
 58 26.7 24.3 36.5



#23  
 Methylene Chloride  
 Concen: 0.23 ppb  
 RT: 2.11 min Scan# 188  
 Delta R.T. -0.01 min  
 Lab File: Z2780.D  
 Acq: 10 Jul 2008 7:22 pm

Tgt Ion: 84 Resp: 1002  
 Ion Ratio Lower Upper  
 84 100  
 49 167.1 110.6 165.8#  
 86 86.0 50.4 75.6#



**VOLATILE ORGANICS**  
**STANDARDS DATA**



## Initial Calibration - Detailed Report

<b>Calibration ID:</b>	CAL794 8260B WATERS (10mL)	<b>Instrument ID:</b>	MS #8
<b>Method ID:</b>	MJ164 JUL 08 2008	<b>Column Name:</b>	MS DB-624
		<b>Calibration Fit:</b>	AverageRF

FileID	File Location	Acquisition Date	Quantitation Date	Last Updated
6529	J:\ACQUDATA\MSVOA8\DATA\070808\Z2746.D	07/08/2008 12:59	07/09/2008 15:49	07/15/2008 17:19
6530	J:\ACQUDATA\MSVOA8\DATA\070808\Z2747.D	07/08/2008 13:27	07/09/2008 14:24	07/15/2008 17:19
6531	J:\ACQUDATA\MSVOA8\DATA\070808\Z2748.D	07/08/2008 13:55	07/09/2008 14:39	07/15/2008 17:19
6532	J:\ACQUDATA\MSVOA8\DATA\070808\Z2749.D	07/08/2008 14:23	07/09/2008 14:45	07/15/2008 17:19
6533	J:\ACQUDATA\MSVOA8\DATA\070808\Z2750.D	07/08/2008 14:50	07/09/2008 15:37	07/15/2008 17:19
6534	J:\ACQUDATA\MSVOA8\DATA\070808\Z2751.D	07/08/2008 15:18	07/09/2008 16:00	07/15/2008 17:19
6535	J:\ACQUDATA\MSVOA8\DATA\070808\Z2752.D	07/08/2008 15:46	07/09/2008 13:01	07/15/2008 17:19
6536	J:\ACQUDATA\MSVOA8\DATA\070808\Z2753.D	07/08/2008 16:14	07/09/2008 13:01	07/15/2008 17:19

Parameter Name	(0.5)	(1.0)	(2.0)	(5.0)	FileID (10)	(50)	(100)	(200)	Mean RF	%RSD
	6529	6530	6531	6532	6533	6534	6535	6536		
Dichlorodifluoromethane	0.449	0.389	0.406	0.381	0.463	0.451	0.430	0.449	0.427	7.3
Chloromethane	0.750	0.679	0.680	0.615	0.681	0.667	0.668	0.755	0.687	6.7
Vinyl Chloride	0.637	0.514	0.571	0.529	0.636	0.628	0.600	0.621	0.592	8.3
Bromomethane	0.574	0.369	0.390	0.353	0.376	0.374	0.346	0.375	0.395	18.7*
Chloroethane	0.353	0.357	0.335	0.352	0.383	0.365	0.345	0.363	0.357	4.0
Dichlorofluoromethane (CFC 21)	0.884	1.008	0.975	0.946	0.934	0.971	0.975	0.963	0.957	3.9
Trichlorofluoromethane	0.549	0.512	0.569	0.473	0.597	0.578	0.543	0.581	0.550	7.4
Diethyl Ether	0.350	0.313	0.298	0.306	0.329	0.317	0.311	0.318	0.318	5.0
1,2-Dichloro-1,1,2-trifluoroethane (123A)	0.221	0.252	0.268	0.255	0.241	0.236	0.221	0.194	0.236	10.0
2,2-Dichloro-1,1,1-trifluoroethane (123)	0.496	0.495	0.431	0.416	0.425	0.464	0.471	0.483	0.460	6.9
Acrolein		0.029	0.026	0.024	0.031	0.034	0.032	0.033	0.030	12.0
Trichlorotrifluoroethane (Freon-113)	0.208	0.171	0.181	0.150	0.192	0.190	0.179	0.190	0.182	9.4
1,1-Dichloroethene	0.388	0.410	0.421	0.329	0.404	0.403	0.381	0.403	0.392	7.2
Acetone				0.088	0.086	0.093	0.085	0.083	0.087	4.3
2-Propanol			0.008	0.008	0.009	0.007	0.009	0.008	0.008	6.7
Iodomethane (Methyl Iodide)			0.100	0.111	0.118	0.125	0.113	0.116	0.114	7.2
Carbon Disulfide	1.619	1.491	1.468	1.437	1.502	1.525	1.458	1.539	1.505	3.8
Acetonitrile			0.019	0.013	0.016	0.012	0.012	0.013	0.014	19.8*
Allyl Chloride	0.255	0.251	0.253	0.262	0.254	0.274	0.250	0.222	0.253	5.8
Methyl Acetate			0.416	0.318	0.311	0.308	0.305	0.291	0.325	14.0
Methylene Chloride	0.643	0.550	0.482	0.450	0.504	0.482	0.463	0.497	0.509	12.1
tert-Butyl Alcohol		0.012	0.013	0.013	0.013	0.012	0.013	0.012	0.012	4.0
Acrylonitrile	0.113	0.095	0.100	0.094	0.108	0.102	0.099	0.102	0.102	6.1
Methyl tert-Butyl Ether	1.025	0.929	1.036	0.936	1.017	0.995	0.953	0.972	0.983	4.2
trans-1,2-Dichloroethene	0.379	0.475	0.439	0.418	0.447	0.465	0.440	0.466	0.441	7.0
1,1-Dichloroethane	0.883	0.839	0.883	0.808	0.899	0.884	0.844	0.890	0.866	3.7
Diisopropyl Ether	1.928	1.977	1.875	1.934	1.920	1.954	1.978	1.907	1.934	1.8
Vinyl Acetate		0.040	0.049	0.057	0.049	0.052	0.052	0.052	0.050	10.7
trans-1-Chloro-1,3-butadiene	0.663	0.703	0.728	0.714	0.740	0.763	0.739	0.747	0.725	4.3
ETBE	1.319	1.275	1.345	1.337	1.358	1.377	1.405	1.341	1.345	2.9
trans-1,2-Dichloropropane	0.602	0.661	0.648	0.563	0.624	0.581	0.546	0.568	0.599	7.0
trans-2-Butanone (MEK)			0.168	0.121	0.123	0.131	0.125	0.125	0.132	13.4
trans-1,2-Dichloroethene	0.464	0.479	0.487	0.450	0.502	0.500	0.480	0.507	0.484	4.1
Propionitrile	0.031	0.026	0.030	0.026	0.030	0.029	0.028	0.028	0.029	6.6
Methacrylonitrile	0.084	0.117	0.135	0.109	0.123	0.118	0.113	0.118	0.115	12.7
Bromochloromethane	0.204	0.209	0.209	0.190	0.204	0.197	0.190	0.188	0.199	4.4
Chloroform	0.834	0.777	0.759	0.733	0.804	0.787	0.754	0.793	0.780	4.0
Tetrahydrofuran				0.081	0.084	0.080	0.072	0.075	0.078	5.9

## Initial Calibration - Detailed Report

Calibration ID: CAL794  
Method ID: MJ164

Instrument ID: MS #8  
Column Name: MS  
Calibration Fit: AverageRF

Parameter Name	FileID								Mean RF	%RSD
	6529	6530	6531	6532	6533	6534	6535	6536		
1,1,1-Trichloroethane (TCA)	0.559	0.639	0.613	0.514	0.606	0.613	0.580	0.599	0.591	6.6
Dibromofluoromethane			0.261	0.281	0.290	0.296	0.296	0.301	0.287	5.1
Cyclohexane	0.492	0.549	0.519	0.514	0.520	0.567	0.574	0.572	0.538	5.8
Carbon Tetrachloride	0.270	0.265	0.260	0.229	0.281	0.264	0.257	0.261	0.261	5.8
1,1-Dichloropropene	0.385	0.373	0.400	0.334	0.395	0.397	0.381	0.399	0.383	5.8
Isobutyl Alcohol			0.004	0.004	0.004	0.004	0.004	0.004	0.004	4.8
1,2-Dichloroethane-d4			0.274	0.307	0.315	0.306	0.304	0.303	0.302	4.7
Benzene	1.164	1.116	1.121	1.022	1.140	1.131	1.080	1.144	1.115	4.0
1,2-Dichloroethane (EDC)	0.300	0.281	0.297	0.281	0.302	0.291	0.272	0.281	0.288	3.8
TAME	0.567	0.617	0.601	0.615	0.640	0.650	0.659	0.643	0.624	4.9
n-Heptane		0.447	0.570	0.385	0.464	0.488	0.460	0.497	0.473	11.8
Trichloroethene (TCE)	0.253	0.247	0.254	0.240	0.271	0.264	0.249	0.260	0.255	4.0
Methylcyclohexane	0.373	0.463	0.414	0.412	0.416	0.450	0.448	0.454	0.429	7.0
1,2-Dichloropropane	0.304	0.266	0.285	0.280	0.294	0.288	0.271	0.289	0.285	4.3
Methyl Methacrylate	0.163	0.130	0.142	0.115	0.119	0.124	0.117	0.127	0.130	12.3
1,4-Dioxane				0.001	0.001	0.001	0.001	0.001	0.001	22.0*
Dibromomethane	0.125	0.141	0.146	0.134	0.130	0.119	0.116	0.118	0.129	8.8
Bromodichloromethane	0.328	0.334	0.329	0.304	0.336	0.320	0.309	0.321	0.323	3.6
2-Nitropropane				0.045	0.048	0.043	0.044	0.046	0.045	4.4
2-Chloroethyl Vinyl Ether	0.149	0.114	0.136	0.121	0.129	0.138	0.131	0.128	0.131	7.9
cis-1,3-Dichloropropene	0.377	0.363	0.400	0.354	0.387	0.372	0.353	0.369	0.372	4.3
4-Methyl-2-pentanone (MIBK)			0.225	0.235	0.216	0.208	0.206	0.213	0.217	5.1
Toluene	1.341	1.275	1.289	1.138	1.333	1.288	1.221	1.295	1.273	5.1
trans-1,3-Dichloropropene	0.329	0.338	0.352	0.321	0.347	0.343	0.330	0.349	0.339	3.2
Ethyl Methacrylate	0.291	0.285	0.297	0.266	0.297	0.293	0.285	0.301	0.290	3.8
1,1,2-Trichloroethane	0.157	0.170	0.178	0.159	0.184	0.171	0.165	0.175	0.170	5.4
Toluene-d8			1.129	1.252	1.324	1.319	1.316	1.351	1.282	6.4
4-Bromofluorobenzene			0.444	0.503	0.518	0.514	0.519	0.531	0.505	6.2
Tetrachloroethene (PCE)	0.265	0.277	0.290	0.236	0.283	0.283	0.270	0.286	0.274	6.3
2-Hexanone				0.149	0.135	0.134	0.133	0.136	0.138	4.9
1,3-Dichloropropane	0.418	0.399	0.376	0.363	0.382	0.368	0.348	0.364	0.377	5.9
Dibromochloromethane	0.212	0.222	0.226	0.204	0.231	0.218	0.212	0.224	0.219	4.1
1,2-Dibromoethane (EDB)	0.177	0.172	0.167	0.165	0.168	0.146	0.133	0.137	0.158	10.7
Chlorobenzene	0.766	0.666	0.761	0.703	0.780	0.758	0.727	0.770	0.741	5.3
1,1,1,2-Tetrachloroethane	0.217	0.227	0.246	0.216	0.240	0.243	0.230	0.245	0.233	5.2
Ethylbenzene	1.235	1.368	1.400	1.248	1.473	1.443	1.376	1.466	1.376	6.7
m,p-Xylenes	0.492	0.476	0.490	0.462	0.535	0.537	0.511	0.545	0.506	6.1
o-Xylene	0.471	0.499	0.489	0.436	0.510	0.509	0.484	0.499	0.487	5.0
Styrene	0.727	0.777	0.781	0.784	0.902	0.916	0.873	0.881	0.830	8.5
Bromoform		0.079	0.098	0.096	0.108	0.114	0.111	0.117	0.103	12.7
Isopropylbenzene	1.092	1.201	1.238	1.091	1.352	1.336	1.269	1.352	1.242	8.6
Cyclohexanone		0.018	0.017	0.015	0.017	0.015	0.018	0.019	0.017	8.9
1,1,2,2-Tetrachloroethane	0.486	0.459	0.460	0.462	0.454	0.432	0.443	0.458	0.457	3.5
trans-1,4-Dichloro-2-butene		0.083	0.102	0.074	0.080	0.079	0.079	0.089	0.084	11.1
1,2,3-Trichloropropane	0.204	0.148	0.120	0.118	0.128	0.115	0.107	0.109	0.131	24.4*
n-Propylbenzene	2.933	3.342	3.251	3.020	3.384	3.451	3.386	3.483	3.281	6.1
Bromobenzene	0.535	0.591	0.602	0.567	0.609	0.604	0.585	0.593	0.586	4.1
1,3,5-Trimethylbenzene	2.162	2.237	2.240	2.139	2.360	2.331	2.316	2.373	2.270	3.9
2-Chlorotoluene	1.695	1.913	1.817	1.731	1.808	1.867	1.797	1.921	1.819	4.4
1-Chlorotoluene	1.810	2.018	2.177	2.249	2.363	2.426	2.403	2.443	2.236	10.1

## Initial Calibration - Detailed Report

**Calibration ID:** CAL794  
**Method ID:** MJ164

**Instrument ID:** MS #8  
**Column Name:** MS  
**Calibration Fit:** AverageRF

Parameter Name	FileID								Mean RF	%RSD
	6529	6530	6531	6532	6533	6534	6535	6536		
tert-Butylbenzene	1.744	1.788	1.896	1.661	1.892	2.170	1.829	1.900	1.860	8.1
1,2,4-Trimethylbenzene	2.211	2.090	2.300	2.029	2.269	2.224	2.202	2.267	2.199	4.3
sec-Butylbenzene	2.598	2.707	2.746	2.558	2.877	2.892	2.894	3.005	2.785	5.7
4-Isopropyltoluene	2.297	2.338	2.226	2.009	2.373	2.406	2.393	2.517	2.320	6.5
1,3-Dichlorobenzene	1.169	1.155	1.066	1.063	1.173	1.163	1.152	1.194	1.142	4.3
1,4-Dichlorobenzene	1.276	1.178	1.215	1.094	1.174	1.156	1.144	1.187	1.178	4.5
n-Butylbenzene	2.066	2.081	2.128	1.880	2.240	2.220	2.312	2.457	2.173	8.0
1,2-Dichlorobenzene	0.978	1.001	0.995	0.975	1.060	1.037	1.038	1.076	1.020	3.7
1,2-Dibromo-3-chloropropane (DBC)		0.067	0.055	0.049	0.058	0.056	0.054	0.058	0.057	9.7
1,2,4-Trichlorobenzene	0.449	0.580	0.528	0.509	0.569	0.577	0.607	0.641	0.558	10.8
Hexachlorobutadiene	0.258	0.224	0.267	0.230	0.261	0.273	0.279	0.302	0.262	9.7
Naphthalene	1.457	1.329	1.387	1.261	1.381	1.389	1.399	1.455	1.382	4.6
1,2,3-Trichlorobenzene	0.478	0.551	0.481	0.466	0.530	0.519	0.536	0.583	0.518	7.8

4 compound out of 101 failed Maximum %RSD criteria

## Initial Calibration - Summary Report

<b>Calibration ID:</b>	CAL794	<b>Instrument ID:</b>	MS #8
<b>Method ID:</b>	MJ164	<b>Column Name:</b>	MS

Parameter Name	Type	Curve Fit	Min RF	Mean RF	Max %RSD	%RSD	Min COD	COD	MRL Check	Conc ½ Low pt.
Dichlorodifluoromethane	TRG	AverageRF		0.427	15	7.3			OK	
Chloromethane	TRG	AverageRF	0.100	0.687	15	6.7			OK	
Vinyl Chloride	TRG	AverageRF		0.592	15	8.3			OK	
Bromomethane	TRG	AverageRF		0.395	15	18.7*			OK	
Chloroethane	TRG	AverageRF		0.357	15	4.0			OK	
Dichlorofluoromethane (CFC 21)	TRG	AverageRF		0.957	15	3.9			OK	
Trichlorofluoromethane	TRG	AverageRF		0.550	15	7.4			OK	
Diethyl Ether	TRG	AverageRF		0.318	15	5.0			OK	
1,2-Dichloro-1,1,2-trifluoroethane (CF	TRG	AverageRF		0.236	15	10.0			OK	
2,2-Dichloro-1,1,1-trifluoroethane (CF	TRG	AverageRF		0.460	15	6.9			OK	
Acrolein	TRG	AverageRF		0.030	15	12.0			OK	
Trichlorotrifluoroethane	TRG	AverageRF		0.182	15	9.4			OK	
1,1-Dichloroethene	MS	AverageRF		0.392	15	7.2			OK	
Acetone	TRG	AverageRF		0.087	15	4.3			OK	
2-Propanol	TRG	AverageRF		0.008	15	6.7			OK	
Iodomethane (Methyl Iodide)	TRG	AverageRF		0.114	15	7.2			OK	
Carbon Disulfide	TRG	AverageRF		1.505	15	3.8			OK	
Acetonitrile	TRG	AverageRF		0.014	15	19.8*			OK	
Allyl Chloride	TRG	AverageRF		0.253	15	5.8			OK	
Methyl Acetate	TRG	AverageRF		0.325	15	14.0			OK	
Methylene Chloride	TRG	AverageRF		0.509	15	12.1			OK	
tert-Butyl Alcohol	TRG	AverageRF		0.012	15	4.0			OK	
Acrylonitrile	TRG	AverageRF		0.102	15	6.1			OK	
Methyl tert-Butyl Ether	TRG	AverageRF		0.983	15	4.2			OK	
trans-1,2-Dichloroethene	TRG	AverageRF		0.441	15	7.0			OK	
1,1-Dichloroethane	TRG	AverageRF	0.100	0.866	15	3.7			OK	
Diisopropyl Ether	TRG	AverageRF		1.934	15	1.8			OK	
Vinyl Acetate	TRG	AverageRF		0.050	15	10.7			OK	
2-Chloro-1,3-butadiene	TRG	AverageRF		0.725	15	4.3			OK	
ETBE	TRG	AverageRF		1.345	15	2.9			OK	
2,2-Dichloropropane	TRG	AverageRF		0.599	15	7.0			OK	
2-Butanone (MEK)	TRG	AverageRF		0.132	15	13.4			OK	
cis-1,2-Dichloroethene	TRG	AverageRF		0.484	15	4.1			OK	
Propionitrile	TRG	AverageRF		0.029	15	6.6			OK	
Methacrylonitrile	TRG	AverageRF		0.115	15	12.7			OK	
Bromochloromethane	TRG	AverageRF		0.199	15	4.4			OK	
Chloroform	TRG	AverageRF		0.780	15	4.0			OK	
Tetrahydrofuran	TRG	AverageRF		0.078	15	5.9			OK	
1,1,1-Trichloroethane (TCA)	TRG	AverageRF		0.591	15	6.6			OK	
Dibromofluoromethane	SURR	AverageRF		0.287	15	5.1			NA	
Cyclohexane	TRG	AverageRF		0.538	15	5.8			OK	
Carbon Tetrachloride	TRG	AverageRF		0.261	15	5.8			OK	
1,1-Dichloropropene	TRG	AverageRF		0.383	15	5.8			OK	
isobutyl Alcohol	TRG	AverageRF		0.004	15	4.8			OK	
1,2-Dichloroethane-d4	SURR	AverageRF		0.302	15	4.7			NA	
Benzene	MS	AverageRF		1.115	15	4.0			OK	
1,2-Dichloroethane (EDC)	TRG	AverageRF		0.288	15	3.8			OK	
1,1-Dichloroethane (EDC)	TRG	AverageRF		0.624	15	4.9			OK	
n-Heptane	TRG	AverageRF		0.473	15	11.8			OK	
Trichloroethene (TCE)	MS	AverageRF		0.255	15	4.0			OK	
Methylcyclohexane	TRG	AverageRF		0.429	15	7.0			OK	

## Initial Calibration - Summary Report

**Calibration ID:** CAL794  
**Method ID:** MJ164

**Instrument ID:** MS #8  
**Column Name:** MS

Parameter Name	Type	Curve Fit	Min RF	Mean RF	Max %RSD	%RSD	Min COD	COD	MRL Check	Conc ½ Low pt.
1,2-Dichloropropane	TRG	AverageRF		0.285	15	4.3			OK	
Methyl Methacrylate	TRG	AverageRF		0.130	15	12.3			OK	
1,4-Dioxane	TRG	AverageRF		0.001	15	22.0*			OK	
Dibromomethane	TRG	AverageRF		0.129	15	8.8			OK	
Bromodichloromethane	TRG	AverageRF		0.323	15	3.6			OK	
2-Nitropropane	TRG	AverageRF		0.045	15	4.4			OK	
2-Chloroethyl Vinyl Ether	TRG	AverageRF		0.131	15	7.9			OK	
cis-1,3-Dichloropropene	TRG	AverageRF		0.372	15	4.3			OK	
4-Methyl-2-pentanone (MIBK)	TRG	AverageRF		0.217	15	5.1			OK	
Toluene	MS	AverageRF		1.273	15	5.1			OK	
trans-1,3-Dichloropropene	TRG	AverageRF		0.339	15	3.2			OK	
Ethyl Methacrylate	TRG	AverageRF		0.290	15	3.8			OK	
1,1,2-Trichloroethane	TRG	AverageRF		0.170	15	5.4			OK	
Toluene-d8	SURR	AverageRF		1.282	15	6.4			NA	
4-Bromofluorobenzene	SURR	AverageRF		0.505	15	6.2			NA	
Tetrachloroethene (PCE)	TRG	AverageRF		0.274	15	6.3			OK	
2-Hexanone	TRG	AverageRF		0.138	15	4.9			OK	
1,3-Dichloropropane	TRG	AverageRF		0.377	15	5.9			OK	
Dibromochloromethane	TRG	AverageRF		0.219	15	4.1			OK	
1,2-Dibromoethane (EDB)	TRG	AverageRF		0.158	15	10.7			OK	
Chlorobenzene	MS	AverageRF	0.300	0.741	15	5.3			OK	
1,1,1,2-Tetrachloroethane	TRG	AverageRF		0.233	15	5.2			OK	
Ethylbenzene	TRG	AverageRF		1.376	15	6.7			OK	
m,p-Xylenes	TRG	AverageRF		0.506	15	6.1			OK	
o-Xylene	TRG	AverageRF		0.487	15	5.0			OK	
Styrene	TRG	AverageRF		0.830	15	8.5			OK	
Bromoform	TRG	AverageRF	0.100	0.103	15	12.7			OK	
Isopropylbenzene	TRG	AverageRF		1.242	15	8.6			OK	
Cyclohexanone	TRG	AverageRF		0.017	15	8.9			OK	
1,1,2,2-Tetrachloroethane	TRG	AverageRF	0.300	0.457	15	3.5			OK	
trans-1,4-Dichloro-2-butene	TRG	AverageRF		0.084	15	11.1			OK	
1,2,3-Trichloropropane	TRG	AverageRF		0.131	15	24.4*			OK	
n-Propylbenzene	TRG	AverageRF		3.281	15	6.1			OK	
Bromobenzene	TRG	AverageRF		0.586	15	4.1			OK	
1,3,5-Trimethylbenzene	TRG	AverageRF		2.270	15	3.9			OK	
2-Chlorotoluene	TRG	AverageRF		1.819	15	4.4			OK	
1-Chlorotoluene	TRG	AverageRF		2.236	15	10.1			OK	
nert-Butylbenzene	TRG	AverageRF		1.860	15	8.1			OK	
1,2,4-Trimethylbenzene	TRG	AverageRF		2.199	15	4.3			OK	
sec-Butylbenzene	TRG	AverageRF		2.785	15	5.7			OK	
1-Isopropyltoluene	TRG	AverageRF		2.320	15	6.5			OK	
1,3-Dichlorobenzene	TRG	AverageRF		1.142	15	4.3			OK	
1,4-Dichlorobenzene	TRG	AverageRF		1.178	15	4.5			OK	
n-Butylbenzene	TRG	AverageRF		2.173	15	8.0			OK	
1,2-Dichlorobenzene	TRG	AverageRF		1.020	15	3.7			OK	
1,2-Dibromo-3-chloropropane (DBCP)	TRG	AverageRF		0.057	15	9.7			OK	
1,2,4-Trichlorobenzene	TRG	AverageRF		0.558	15	10.8			OK	
Hexachlorobutadiene	TRG	AverageRF		0.262	15	9.7			OK	
1-naphthalene	TRG	AverageRF		1.382	15	4.6			OK	
1,2,3-Trichlorobenzene	TRG	AverageRF		0.518	15	7.8			OK	

# Initial Calibration - Summary Report

Calibration ID: CAL794  
Method ID: MJ164

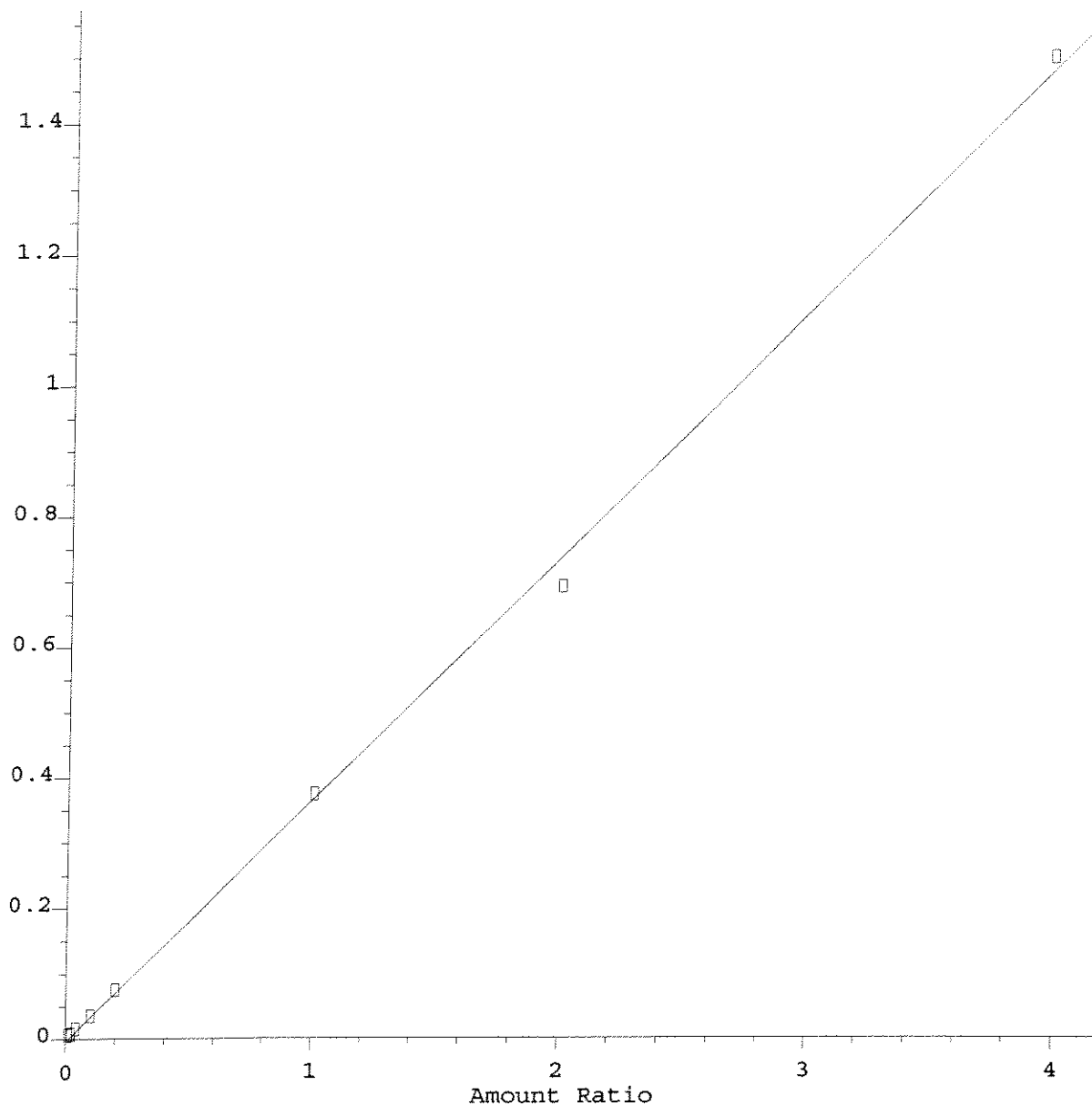
Instrument ID: MS #8  
Column Name: MS

## SPCC and CCC Evaluations

Parameter Name	Type	SPCC Criteria	SPCC Result	CCC Criteria	CCC Result
Chloromethane	SPCC	0.100	0.687		
Vinyl Chloride	CCC			30	8.3
1,1-Dichloroethene	CCC			30	7.2
1,1-Dichloroethane	SPCC	0.100	0.866		
Chloroform	CCC			30	4.0
1,2-Dichloropropane	CCC			30	4.3
Toluene	CCC			30	5.1
Chlorobenzene	SPCC	0.300	0.741		
Ethylbenzene	CCC			30	6.7
Bromoform	SPCC	0.100	0.103		
1,1,2,2-Tetrachloroethane	SPCC	0.300	0.457		

Bromomethane

Response Ratio

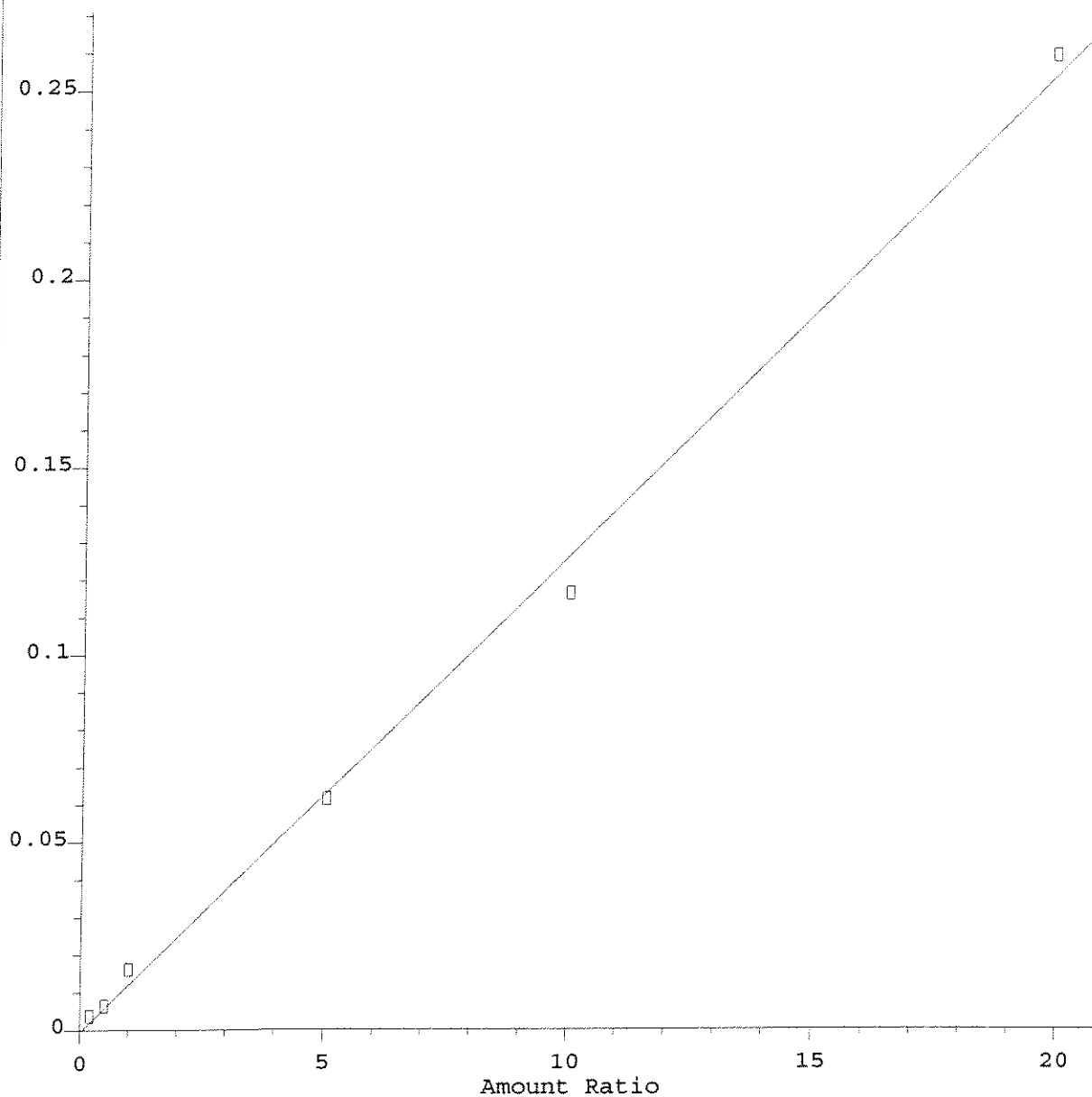


Resp Ratio = 3.70e-001 \* Amt - 3.19e-003  
Coef of Det (r^2) = 0.999 Curve Fit: Linear

Method Name: J:\ACQUDATA\MSVOA8\METHODS\W070808.M  
Calibration Table Last Updated: Wed Jul 09 15:15:33 2008

Acetonitrile

Response Ratio

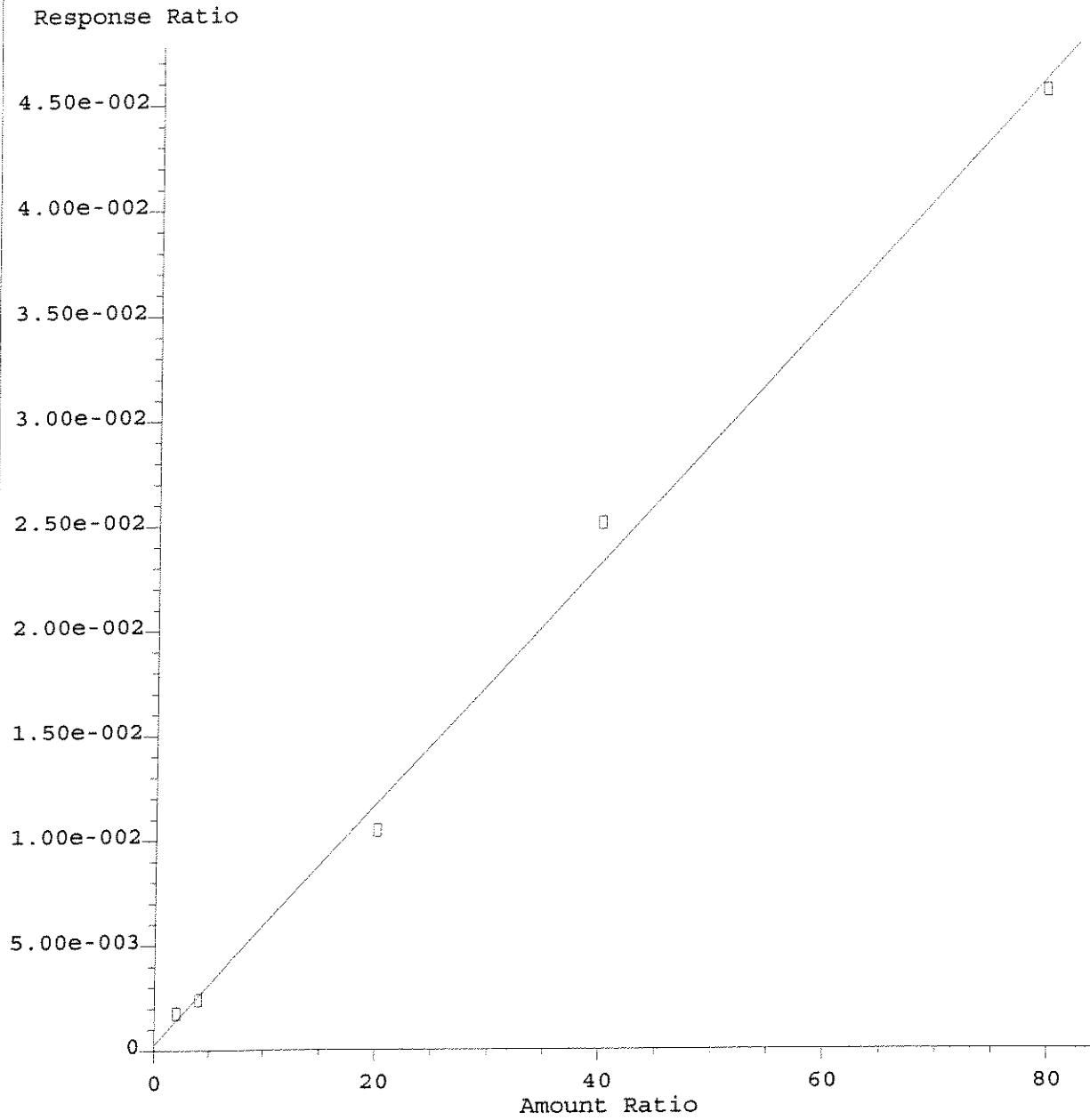


Resp Ratio =  $1.27e-002 * Amt - 5.59e-004$   
Coef of Det ( $r^2$ ) = 0.997    Curve Fit: Linear

Method Name: J:\ACQUADATA\MSVOAS\METHODS\W070808.M  
Calibration Table Last Updated: Wed Jul 09 15:37:54 2008



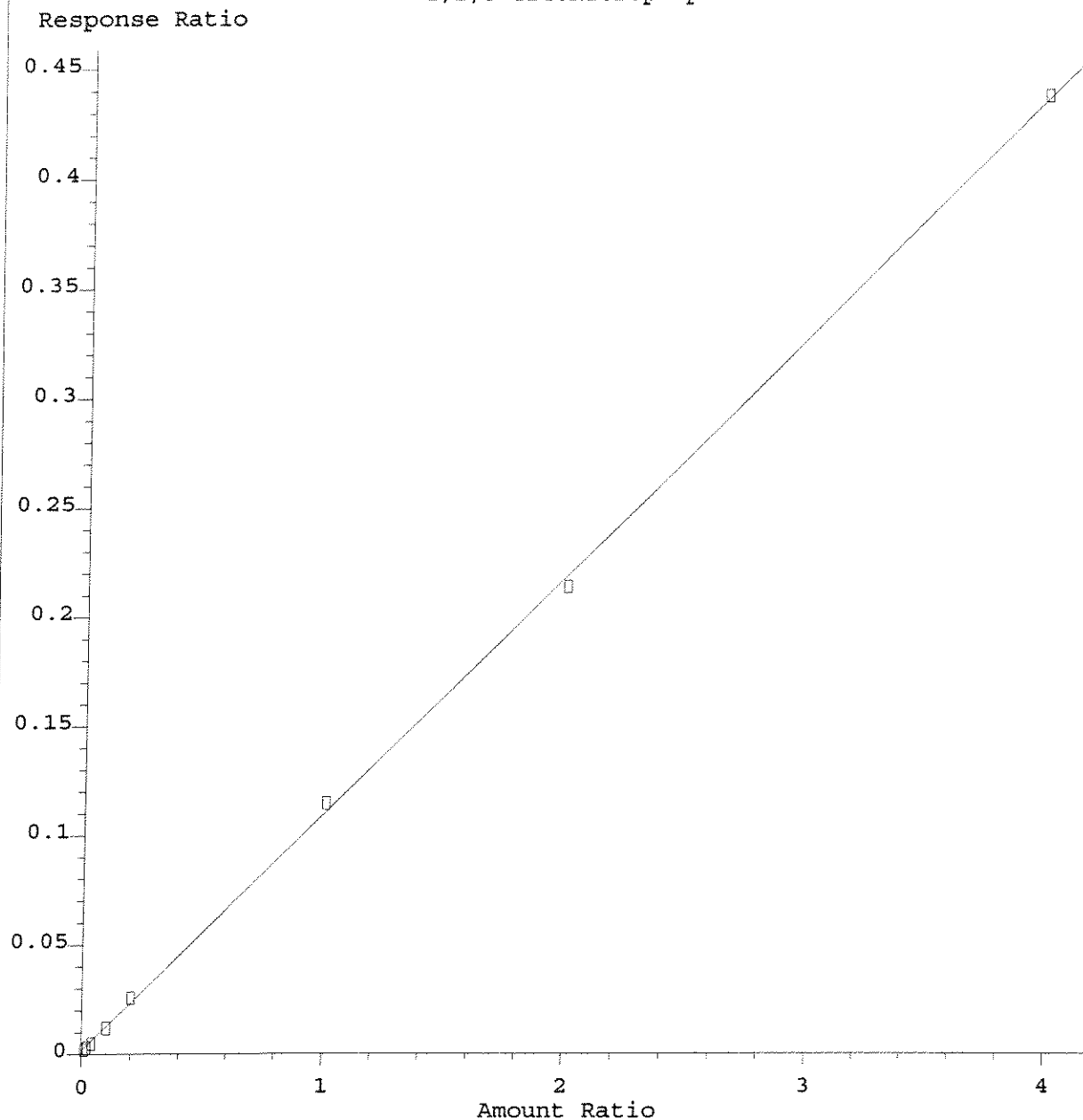
1,4-Dioxane



Resp Ratio =  $5.73e-004 * Amt + 3.37e-004$   
Coef of Det ( $r^2$ ) = 0.996 Curve Fit: Linear

Method Name: J:\ACQUDATA\MSVOA8\METHODS\W070808.M  
Calibration Table Last Updated: Wed Jul 09 16:00:52 2008

1,2,3-Trichloropropane



Resp Ratio = 1.09e-001 \* Amt + 1.56e-003  
Coef of Det (r<sup>2</sup>) = 1.000 Curve Fit: Linear

Method Name: J:\ACQUDATA\MSVOA8\METHODS\W070808.M  
Calibration Table Last Updated: Wed Jul 09 16:13:36 2008

Data File : J:\ACQUADATA\MSVOA8\DATA\070808\Z2746.D  
 Acq On : 8 Jul 2008 12:59 pm  
 Sample : 0.5PPB  
 Misc : Initial Calibration- 8260B WATER  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 15:49 2008

Vial: 8  
 Operator: Herring  
 Inst : MS #8  
 Multiplr: 1.00

Quant Results File: W070808.RES

Quant Method : J:\ACQUADATA\M...\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Initial Calibration  
 DataAcq Meth : W070808

*RJH 7/9/08*

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	3.15	168	269538	50.00	ppb	0.00
42) 1,4 - Difluorobenzene	3.66	114	470020	50.00	ppb	0.00
63) d5 - Chlorobenzene	5.97	117	406334	50.00	ppb	0.00
85) d4 - Dichlorobenzene	8.16	152	187629	50.00	ppb	0.00

System Monitoring Compounds

43) surr4,Dibrflmethane	3.14	113	143579	56.13	ppb	0.00
Spiked Amount						
Recovery						= 112.26%
48) surr1,1,2-Diclcethane	3.37	65	148194	58.69	ppb	0.00
Spiked Amount						
Recovery						= 117.38%
69) surr3,Toluene-d8	4.76	98	539227	54.69	ppb	0.00
Spiked Amount						
Recovery						= 109.38%
70) surr2,bfb	7.04	95	216871	62.66	ppb	0.00
Spiked Amount						
Recovery						= 125.32%

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.08	85	1209	0.56	ppb	96
4) Chloromethane	1.18	50	2021	0.52	ppb	99
5) Vinyl Chloride	1.24	62	1717	0.56	ppb	# 71
6) Bromomethane	1.42	94	1548	0.82	ppb	# 74
7) Chloroethane	1.47	64	952	0.48	ppb	# 63
8) FREON 21	1.56	67	2383	0.48	ppb	94
9) Trichlorofluoromethane	1.60	101	1481	0.51	ppb	# 82
10) Diethyl Ether	1.74	59	944	0.59	ppb	93
11) FREON 123A	1.74	85	595	0.52	ppb	93
12) FREON 123	1.77	85	1336	0.58	ppb	95
13) Acrolein	1.81	56	725	3.67	ppb	# 13
14) FREON 113	1.86	85	561m	0.62	ppb	
15) 1,1-Diclcethene	1.87	96	1047	0.52	ppb	# 84
16) Acetone	1.89	43	1086	2.31	ppb	# 69
19) Carbon Disulfide	2.01	76	4363	0.54	ppb	100
21) Allyl Chloride	2.05	76	688m	0.54	ppb	
22) Methyl Acetate	2.06	43	1001m	0.60	ppb	
23) Methylene Chloride	2.13	84	1732	0.66	ppb	90
25) Acrylonitrile	2.25	53	1518	2.64	ppb	# 53
26) Methyl-t-Butyl Ether	2.28	73	2762	0.60	ppb	# 89
27) trans-1,2-Dichloroethene	2.28	96	1021	0.43	ppb	# 78
28) 1,1-Diclcethane	2.51	63	2380	0.49	ppb	99
29) DIPE	2.53	45	5198	0.48	ppb	99
31) 2-Chloro-1,3-butadiene	2.57	53	1788	0.43	ppb	94
32) ETBE	2.75	59	3555	0.50	ppb	# 92
33) 2,2-Dichloropropane	2.86	77	1623	0.50	ppb	93
35) cis-1,2-Dichloroethene	2.85	96	1252	0.47	ppb	90
36) Propionitrile	2.89	54	422	2.11	ppb	# 84
37) Methacrylonitrile	2.99	67	227m	0.41	ppb	
38) Bromochloromethane	3.00	128	550	0.51	ppb	92
39) Chloroform	3.05	83	2247	0.53	ppb	86
41) 1,1,1-Trichloroethane	3.18	97	1507	0.49	ppb	# 1
44) cyclohexane	3.22	56	2311	0.44	ppb	# 78
45) Carbontetrachloride	3.29	117	1271	0.57	ppb	# 74
46) 1,1-Dichloropropene	3.28	75	1808m	0.53	ppb	

*RJH 7/9/08*

Data File : J:\ACQUADATA\MSVOAS\DATA\070808\Z2746.D Vial: 8  
 Acq On : 8 Jul 2008 12:59 pm Operator: Herring  
 Sample : 0.5PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 15:49 2008 Quant Results File: W070808.RES

Quant Method : J:\ACQUADATA\M...\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Initial Calibration  
 DataAcq Meth : W070808

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
49) Benzene	3.42	78	5470	0.55	ppb	# 85
50) 1,2-Dichloroethane	3.42	62	1411	0.55	ppb	96
51) TAME	3.48	73	2663	0.51	ppb	# 81
52) N-Heptane	3.57	43	3363	0.76	ppb	94
53) Trichloroethene	3.85	95	1190	0.51	ppb	82
54) methylcyclohexane	4.01	55	1755	0.42	ppb	86
55) 1,2-Diclpropane	4.01	63	1428	0.53	ppb	87
56) Methyl Methacrylate	4.07	69	765	0.82	ppb	93
58) Dibromomethane	4.10	93	588	0.54	ppb	# 74
59) Bromodichloromethane	4.20	83	1542	0.58	ppb	# 87
61) 2-Chloroethylvinyl Ether	4.42	63	698	0.55	ppb	# 48
62) cis-1,3-Dichloropropene	4.54	75	1771	0.51	ppb	92
65) Toluene	4.81	91	5448	0.55	ppb	94
66) trans-1,3-Dichloropropene	4.97	75	1337	0.50	ppb	95
67) Ethyl Methacrylate	5.04	69	1182m	0.64	ppb	
68) 1,1,2-Trichloroethane	5.13	83	639m	0.51	ppb	
71) Tetrachloroethene	5.27	166	1077	0.49	ppb	# 78
73) 1,3-Dichloropropane	5.27	76	1699	0.60	ppb	96
74) Dibromochloromethane	5.46	129	861	0.54	ppb	# 65
75) 1,2-Dibromoethane	5.58	107	719	0.52	ppb	# 78
76) Chlorobenzene	6.00	112	3113	0.52	ppb	# 74
77) 1,1,1,2-Tetrachloroethane	6.06	131	882	0.48	ppb	# 13
78) Ethylbenzene	6.09	91	5018	0.48	ppb	95
79) (m+p)Xylene	6.19	106	3997	1.04	ppb	96
80) o-Xylene	6.55	106	1915	0.52	ppb	98
81) Styrene	6.57	104	2956	0.48	ppb	93
82) Bromoform	6.75	173	385m	0.51	ppb	
83) Isopropylbenzene	6.90	105	4439	0.47	ppb	95
84) Cyclohexanone	6.99	55	1249	8.04	ppb	89
86) 1,1,2,2-Tetrachloroethane	7.17	83	912	0.51	ppb	# 64
88) 1,2,3-Trichloropropane	7.21	110	382m	0.92	ppb	
89) n-Propylbenzene	7.29	91	5504	0.43	ppb	92
90) Bromobenzene	7.18	156	1004	0.46	ppb	# 86
92) 1,3,5-Trimethylbenzene	7.46	105	4057	0.48	ppb	97
93) 2-Chlorotoluene	7.37	91	3181	0.46	ppb	98
94) 4-Chlorotoluene	7.47	91	3397	0.42	ppb	# 87
95) tert-Butylbenzene	7.77	119	3273	0.45	ppb	99
96) 1,2,4-Trimethylbenzene	7.82	105	4148	0.50	ppb	99
97) sec-Butylbenzene	7.98	105	4874	0.43	ppb	99
98) p-Isopropyltoluene	8.13	119	4309	0.47	ppb	97
99) 1,3-Dclbenz	8.09	146	2193	0.51	ppb	91
100) 1,4-Dclbenz	8.18	146	2395m	0.56	ppb	
102) n-Butylbenzene	8.52	91	3877	0.47	ppb	98
103) 1,2-Dclbenz	8.54	146	1835	0.48	ppb	# 89
106) 1,2,4-Tcbenzene	10.15	180	843	0.43	ppb	98
107) Hexachlorobu	10.30	225	484m	0.47	ppb	
108) Naphthalen	10.37	128	2733	0.62	ppb	97
109) 1,2,3-Tclbenzene	10.61	180	897	0.52	ppb	93

}

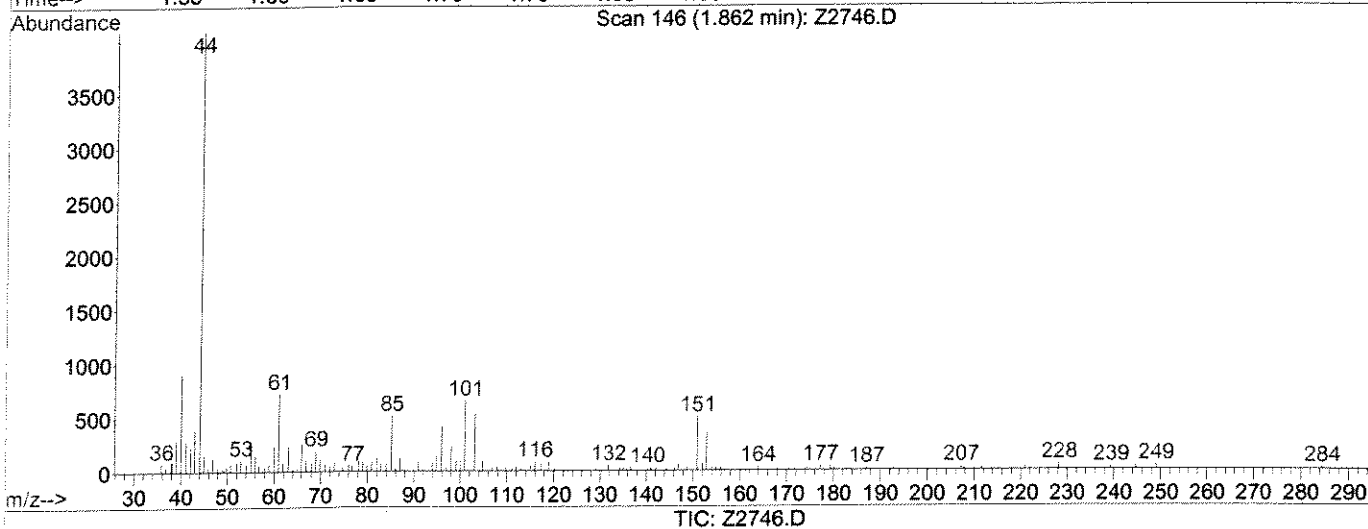
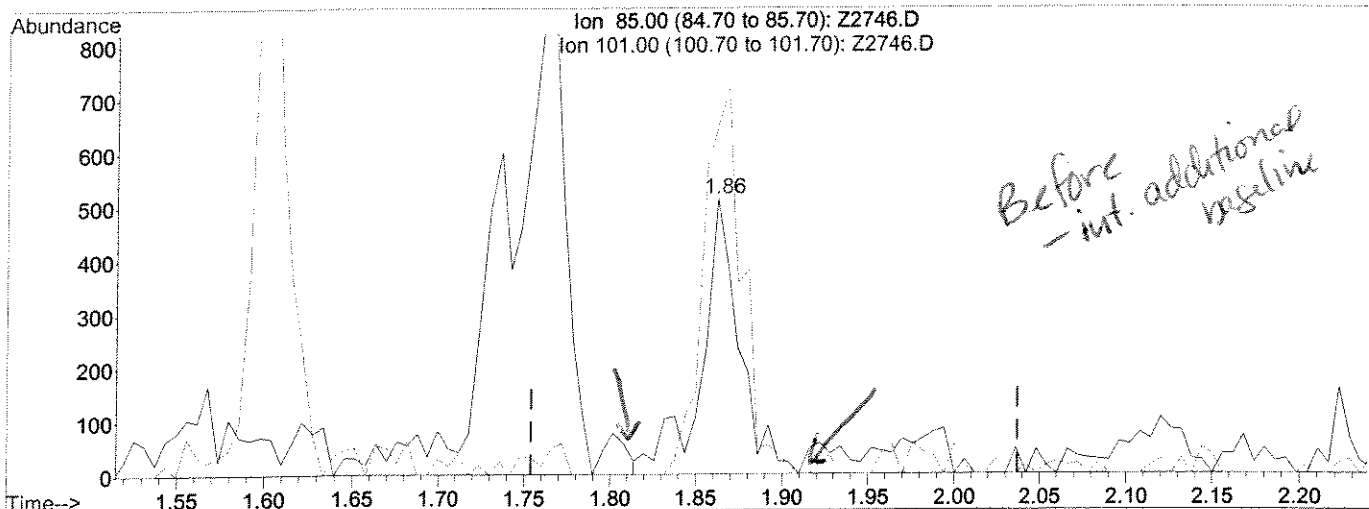
R/H  
7/9/08

(#) = qualifier out of range (m) = manual integration  
 Z2746.D W070808.M Wed Jul 09 16:17:48 2008

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOAS\DATA\070808\Z2746.D Vial: 8  
Acq On : 8 Jul 2008 12:59 pm Operator: Herring  
Sample : 0.5PPB Inst : MS #8  
Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
MS Integration Params: RTEINT.P  
Quant Time: Jul 9 14:02 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOAS\METHODS\W070808.M (RTE Integrator)  
Title : 8260voa  
Last Update : Wed Jul 09 15:15:33 2008  
Response via : Multiple Level Calibration



(14) FREON 113

1.86min 0.86ppb

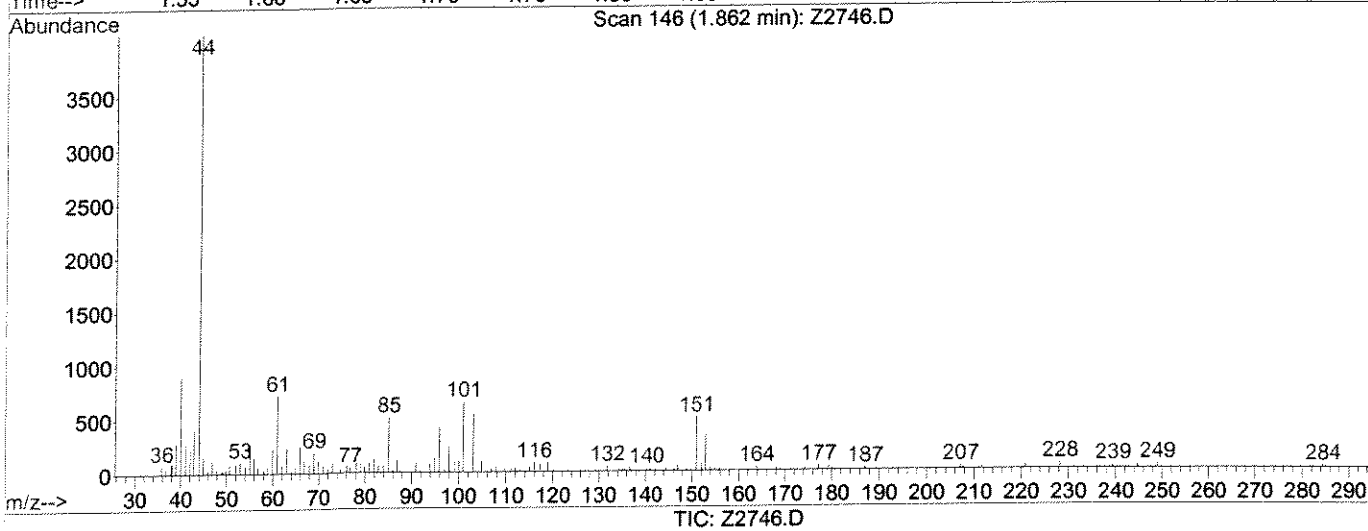
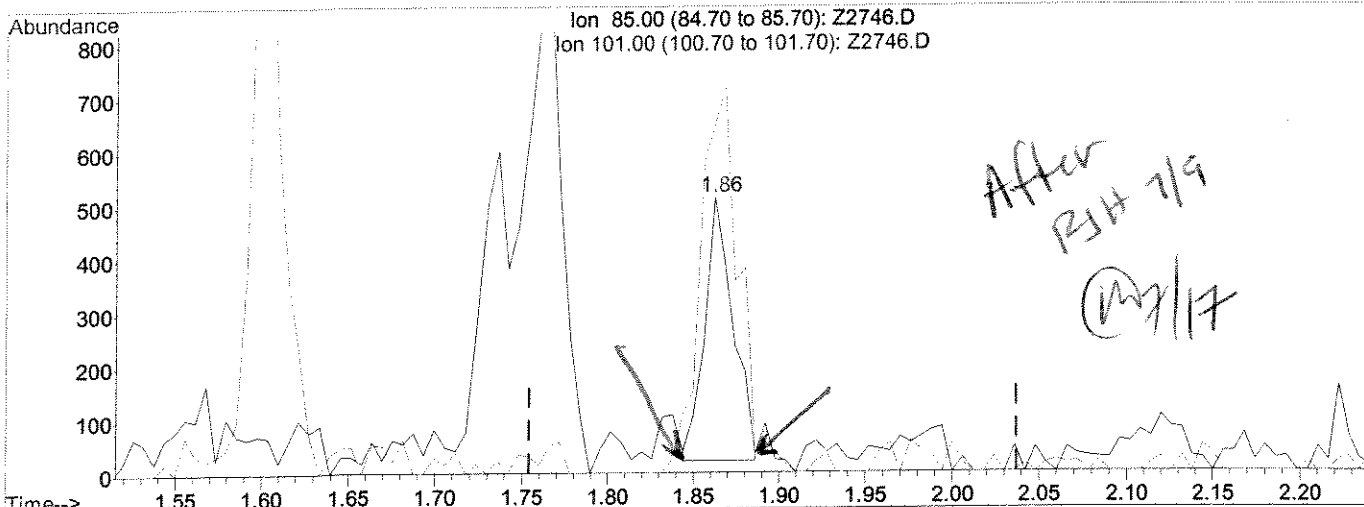
response 780

Ion	Exp%	Act%
85.00	100	100
101.00	213.60	127.04#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2746.D Vial: 8  
Acq On : 8 Jul 2008 12:59 pm Operator: Herring  
Sample : 0.5PPB Inst : MS #8  
Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
MS Integration Params: RTEINT.P  
Quant Time: Jul 9 15:30 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
Title : 8260voa  
Last Update : Wed Jul 09 15:15:33 2008  
Response via : Multiple Level Calibration



(14) FREON 113

1.86min 0.62ppb m

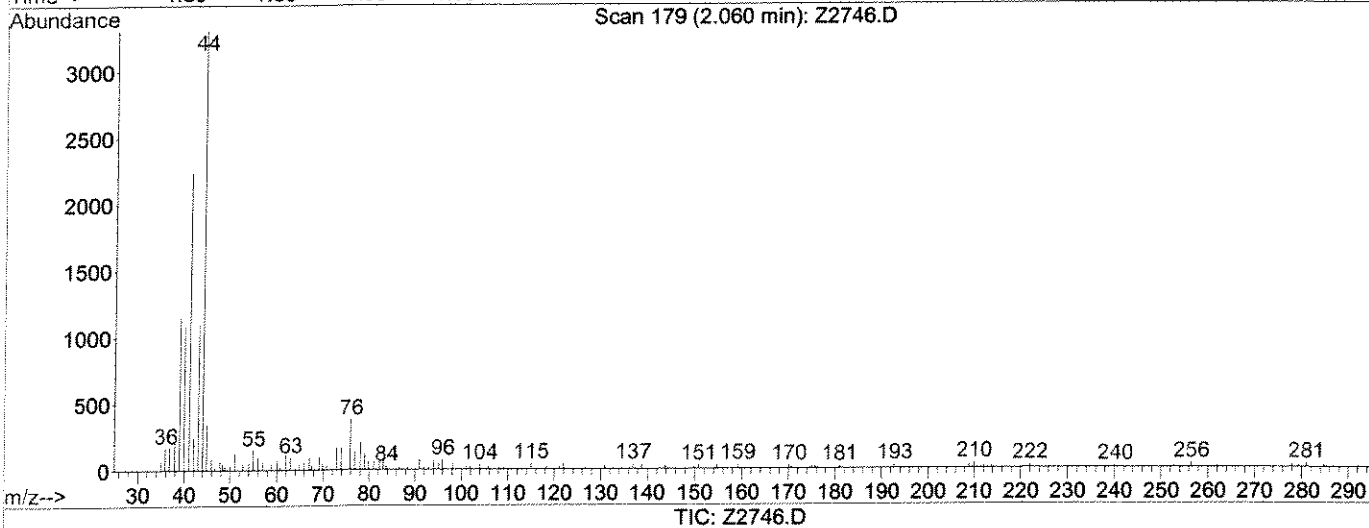
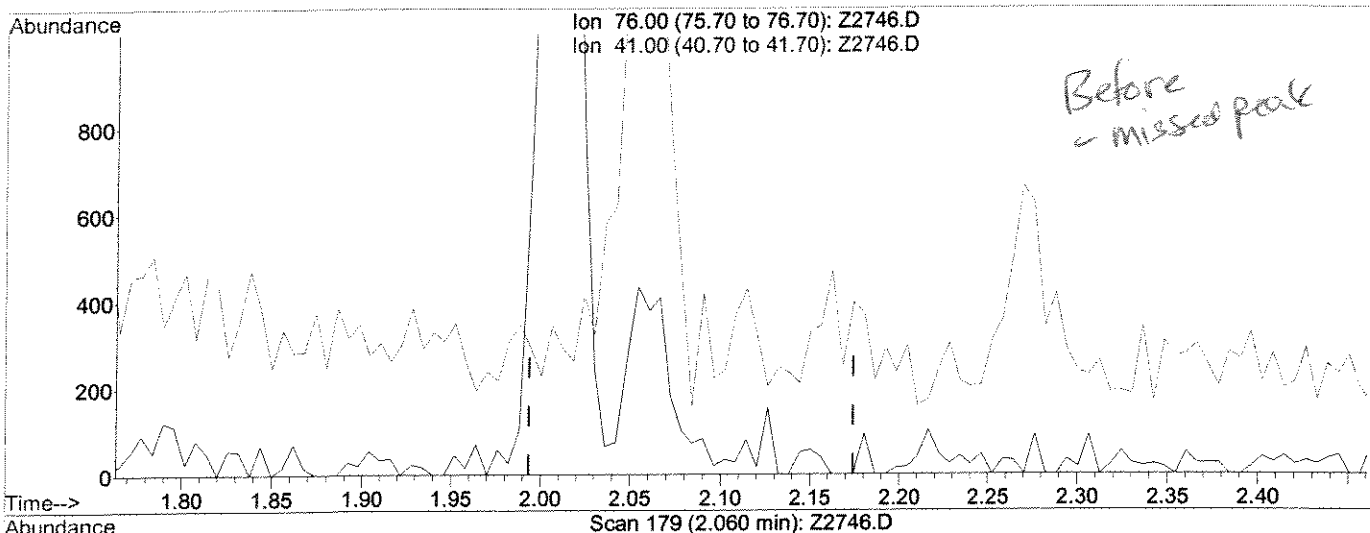
response 561

Ion	Exp%	Act%
85.00	100	100
101.00	213.60	127.04#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2746.D Vial: 8  
 Acq On : 8 Jul 2008 12:59 pm Operator: Herring  
 Sample : 0.5PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 13:00 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Multiple Level Calibration



(21) Allyl Chloride

2.06min 0.00ppb

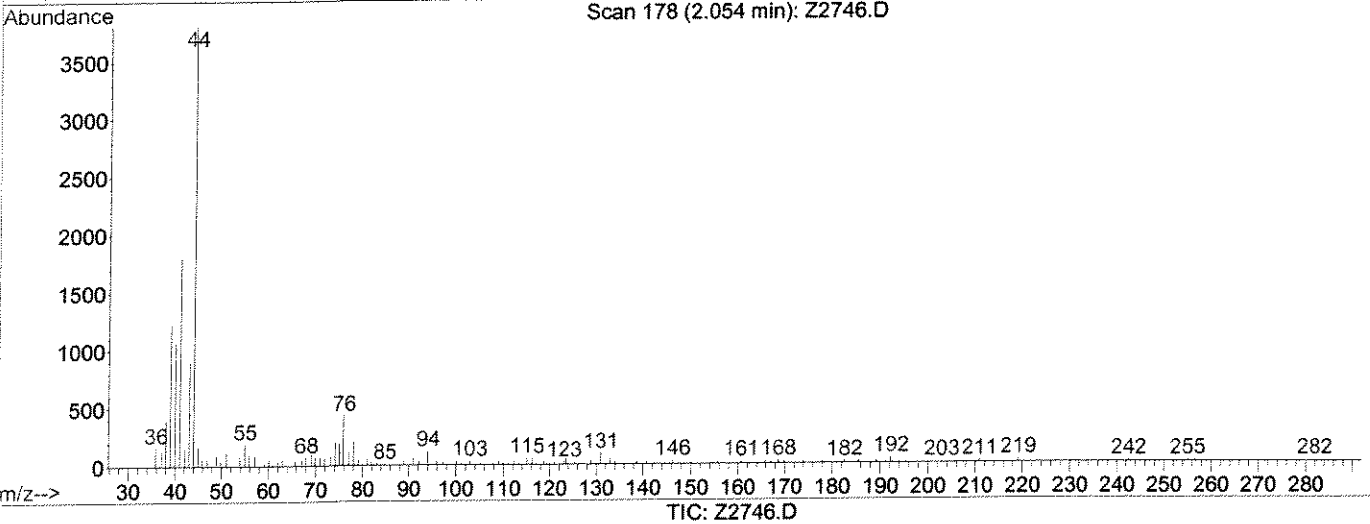
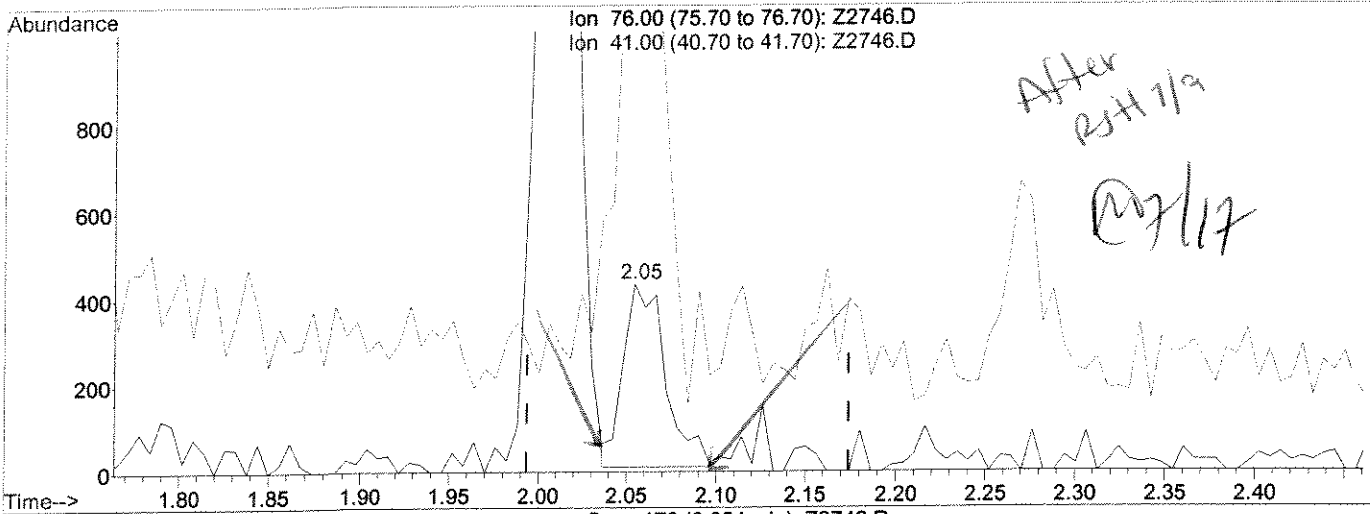
response 0

Ion	Exp%	Act%
76.00	100	0.00
41.00	330.40	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2746.D Vial: 8  
 Acq On : 8 Jul 2008 12:59 pm Operator: Herring  
 Sample : 0.5PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 13:48 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Multiple Level Calibration



(21) Allyl Chloride

2.05min 0.54ppb m

response 688

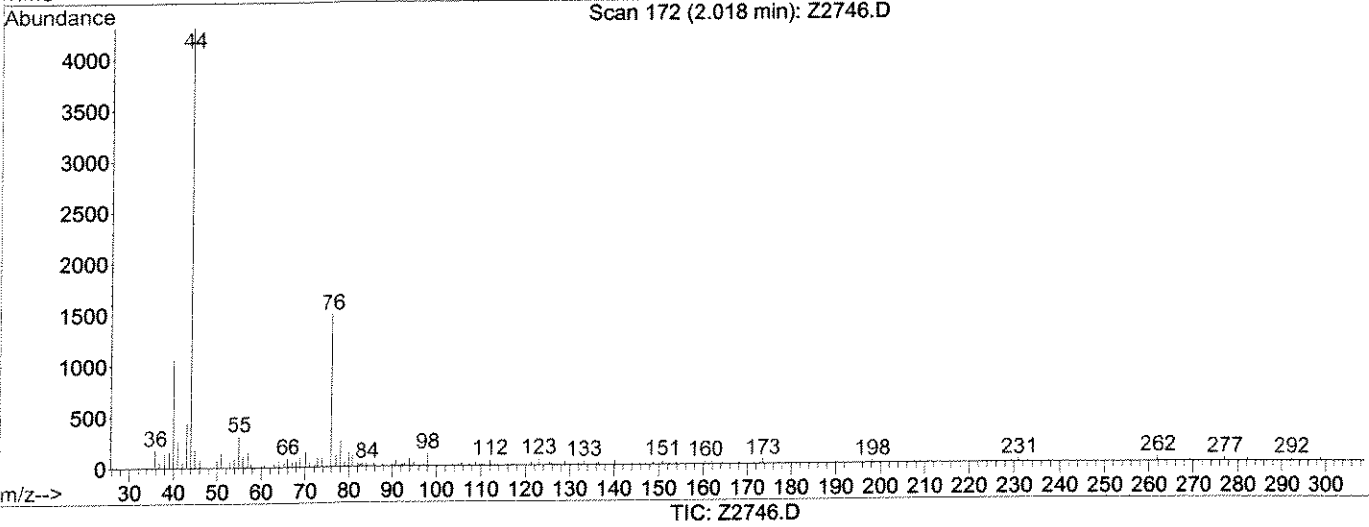
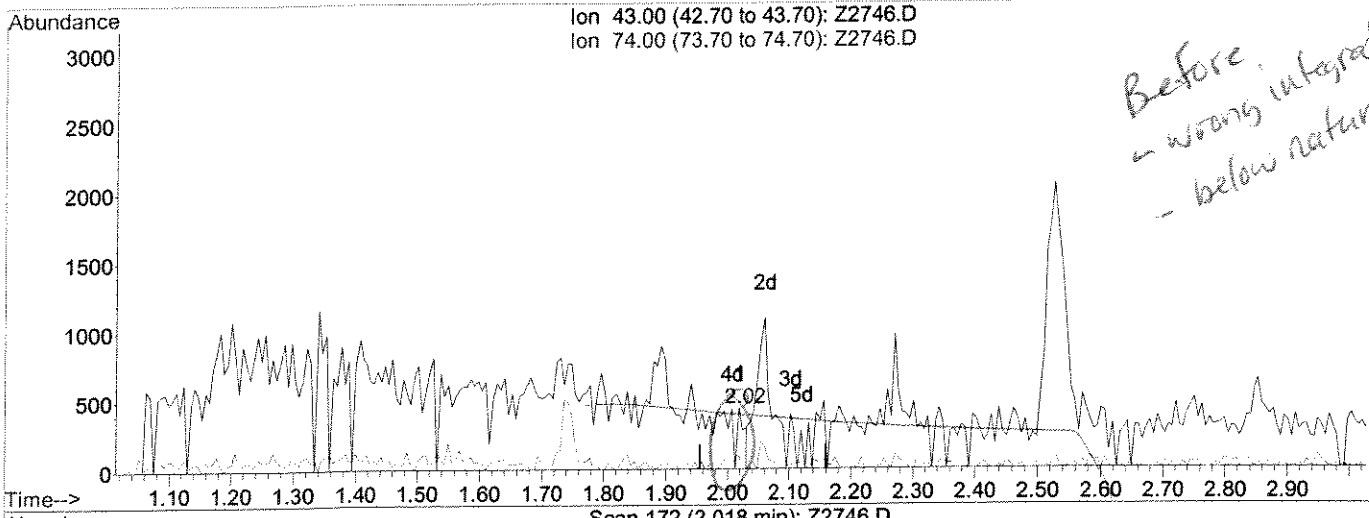
Ion	Exp%	Act%
76.00	100	100
41.00	330.40	414.75
0.00	0.00	0.00
0.00	0.00	0.00



Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2746.D Vial: 8  
 Acq On : 8 Jul 2008 12:59 pm Operator: Herring  
 Sample : 0.5PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 13:48 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Multiple Level Calibration



(22) Methyl Acetate

2.02min 0.22ppb

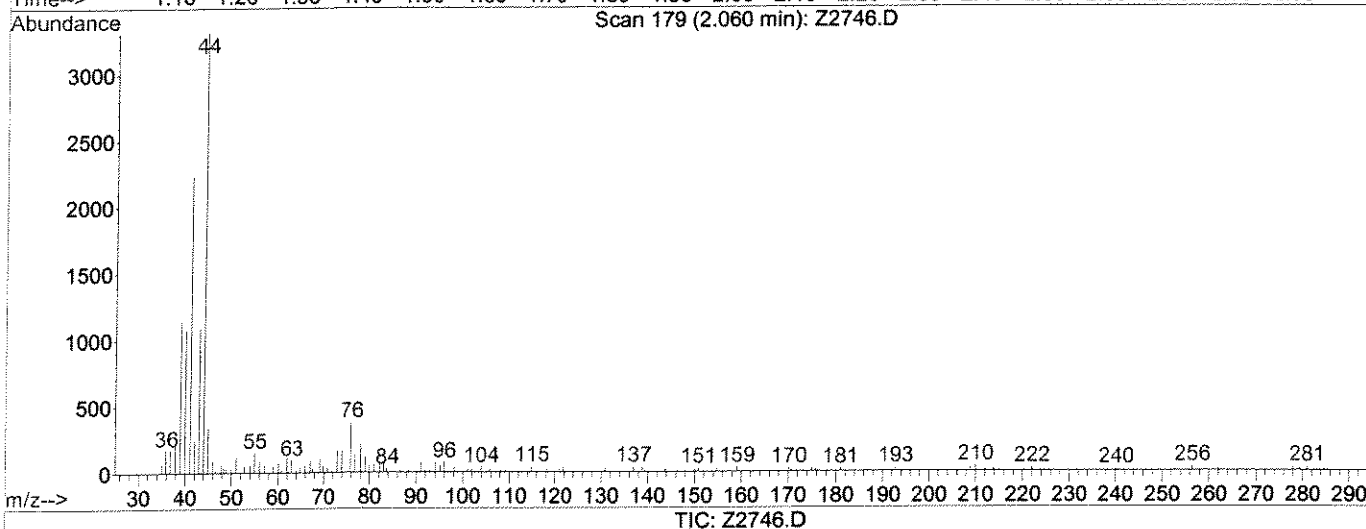
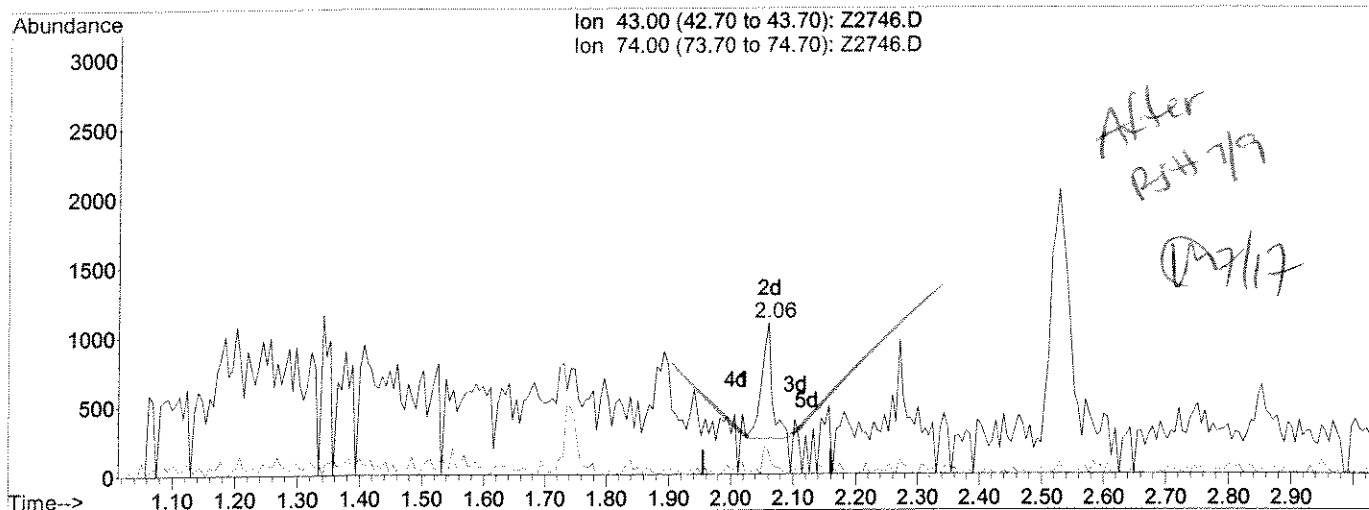
response 366

Ion	Exp%	Act%
43.00	100	100
74.00	20.70	22.37
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2746.D Vial: 8  
 Acq On : 8 Jul 2008 12:59 pm Operator: Herring  
 Sample : 0.5PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 13:52 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Multiple Level Calibration



(22) Methyl Acetate

2.06min 0.60ppb m

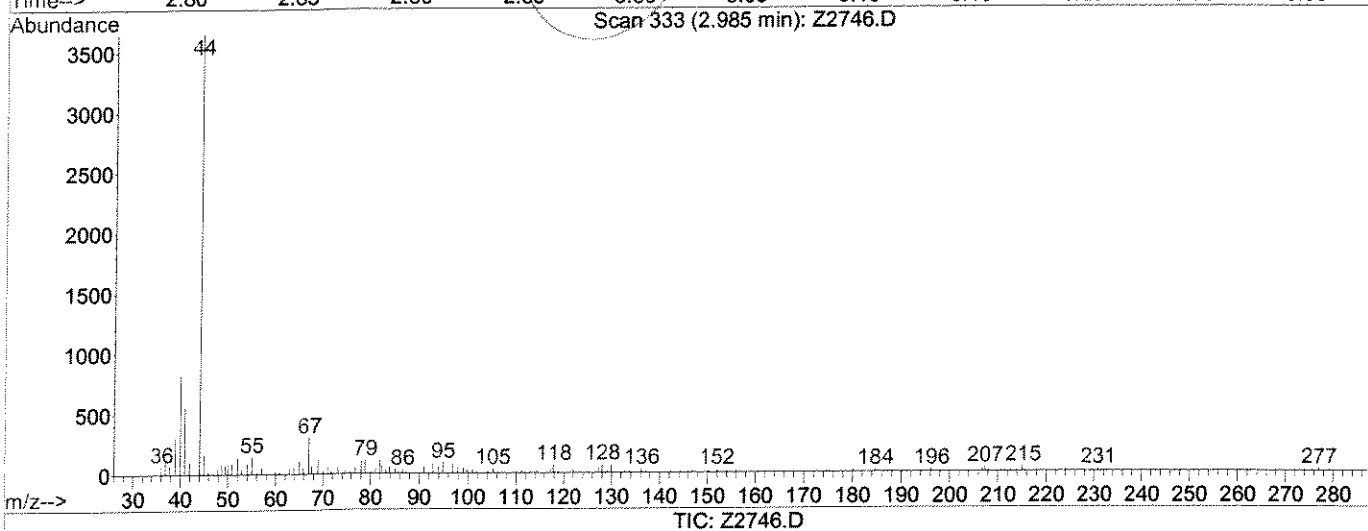
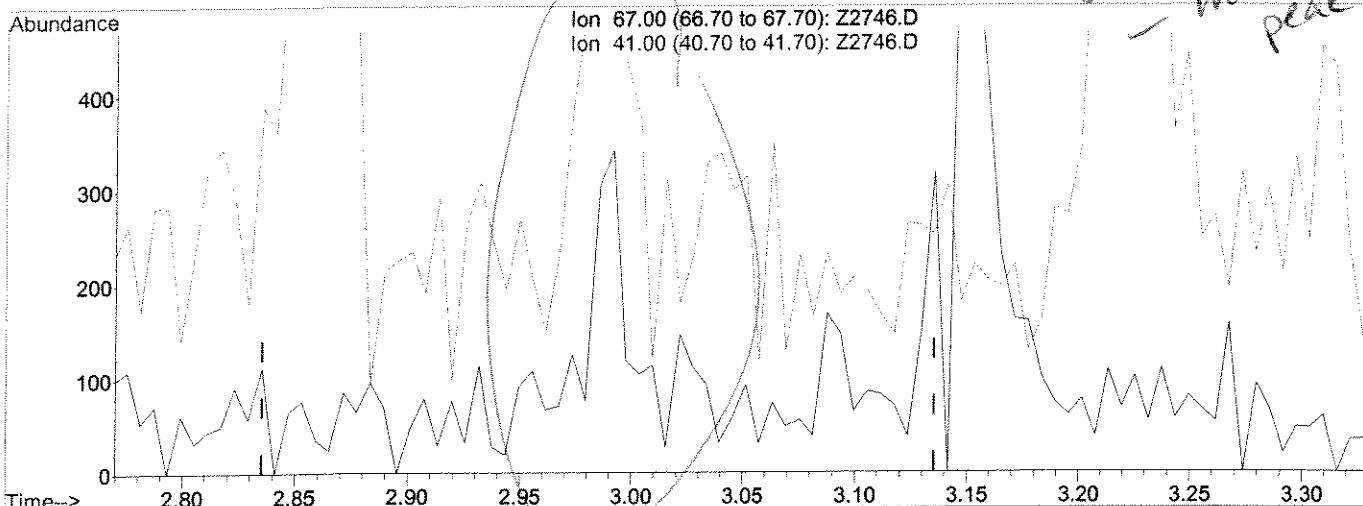
response 1001

Ion	Exp%	Act%
43.00	100	100
74.00	20.70	15.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2746.D Vial: 8  
Acq On : 8 Jul 2008 12:59 pm Operator: Herring  
Sample : 0.5PPB Inst : MS #8  
Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
MS Integration Params: RTEINT.P  
Quant Time: Jul 9 15:30 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
Title : 8260voa  
Last Update : Wed Jul 09 15:37:54 2008  
Response via : Multiple Level Calibration



(37) Methacrylonitrile

2.99min 0.00ppb

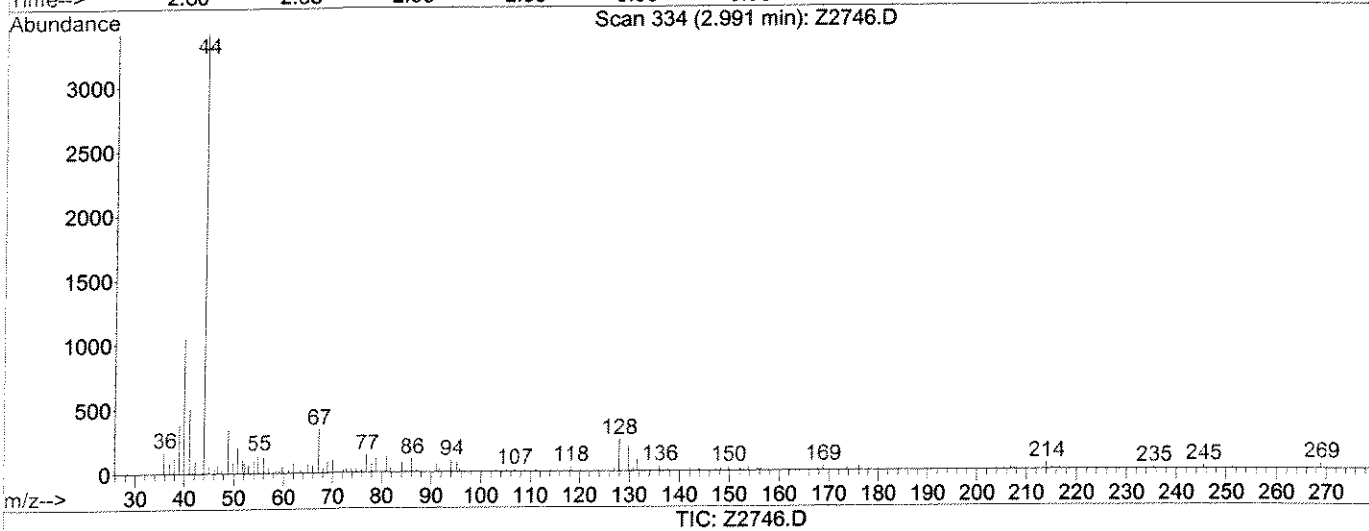
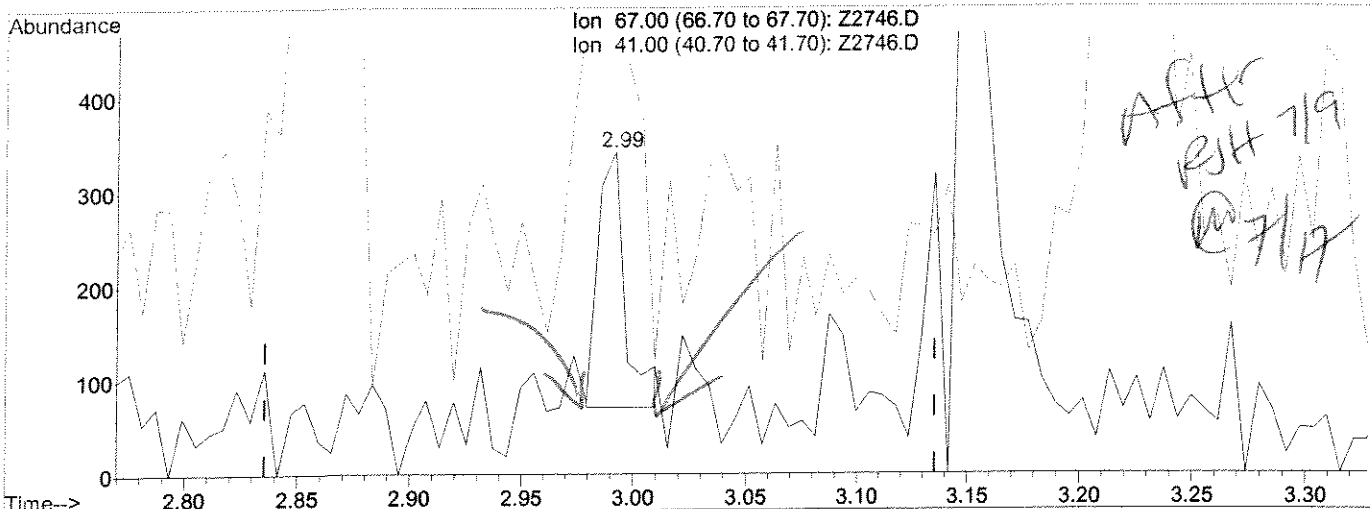
response 0

Ion	Exp%	Act%
67.00	100	0.00
41.00	192.10	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2746.D Vial: 8  
Acq On : 8 Jul 2008 12:59 pm Operator: Herring  
Sample : 0.5PPB Inst : MS #8  
Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
MS Integration Params: RTEINT.P  
Quant Time: Jul 9 15:49 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
Title : 8260voa  
Last Update : Wed Jul 09 15:37:54 2008  
Response via : Multiple Level Calibration



(37) Methacrylonitrile

2.99min 0.41ppb m

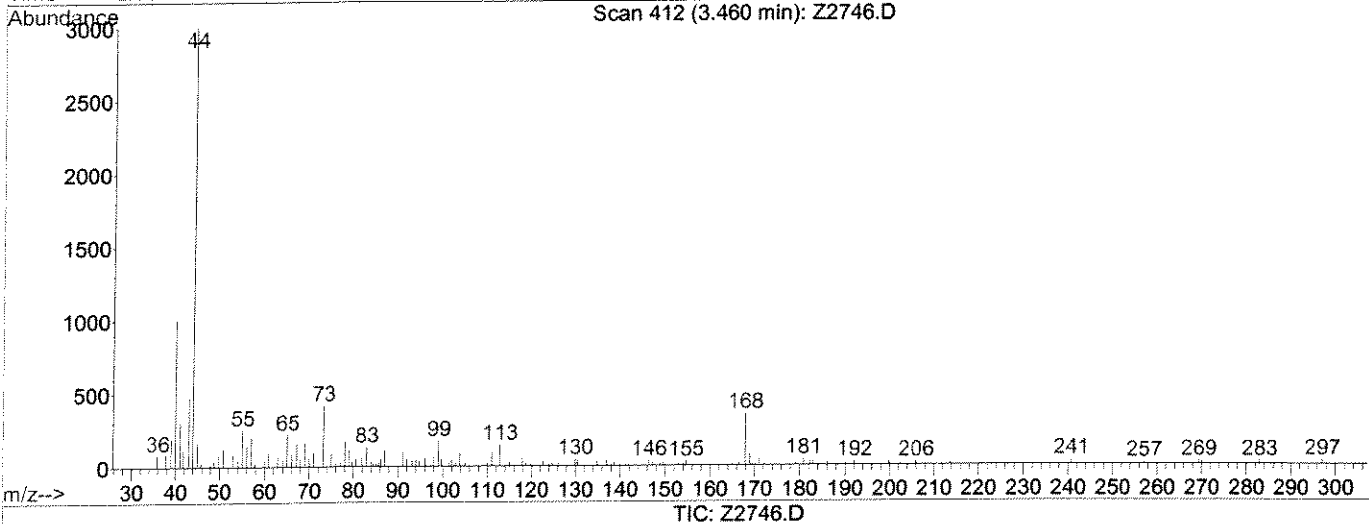
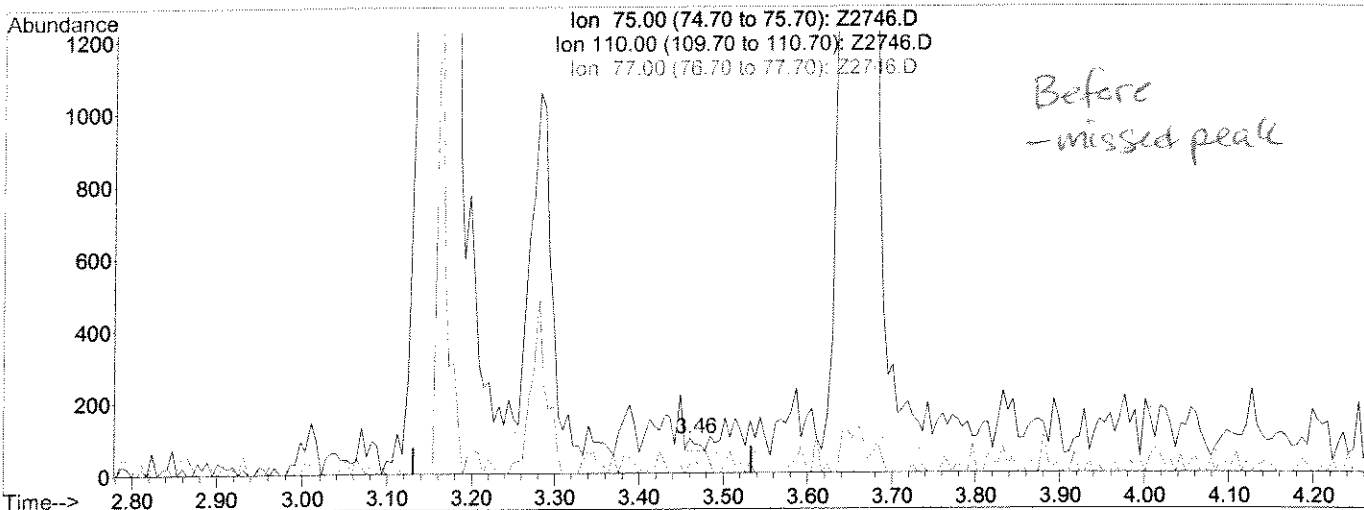
response 227

Ion	Exp%	Act%
67.00	100	100
41.00	192.10	148.83
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2746.D Vial: 8  
 Acq On : 8 Jul 2008 12:59 pm Operator: Herring  
 Sample : 0.5PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 13:54 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Multiple Level Calibration



(46) 1,1-Dichloropropene

3.46min 0.01ppb

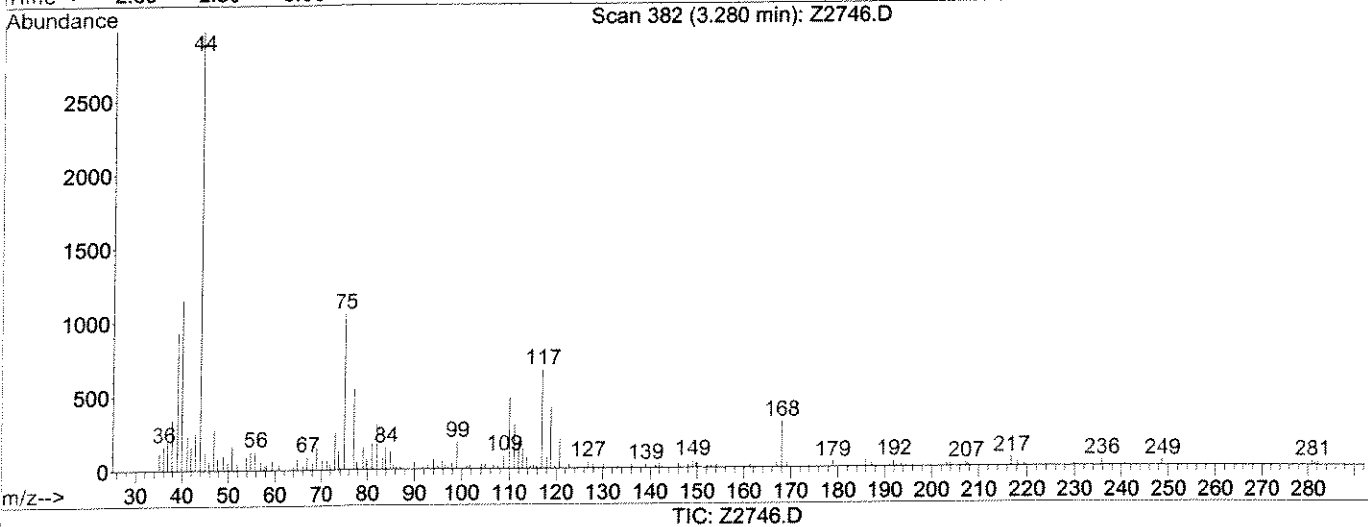
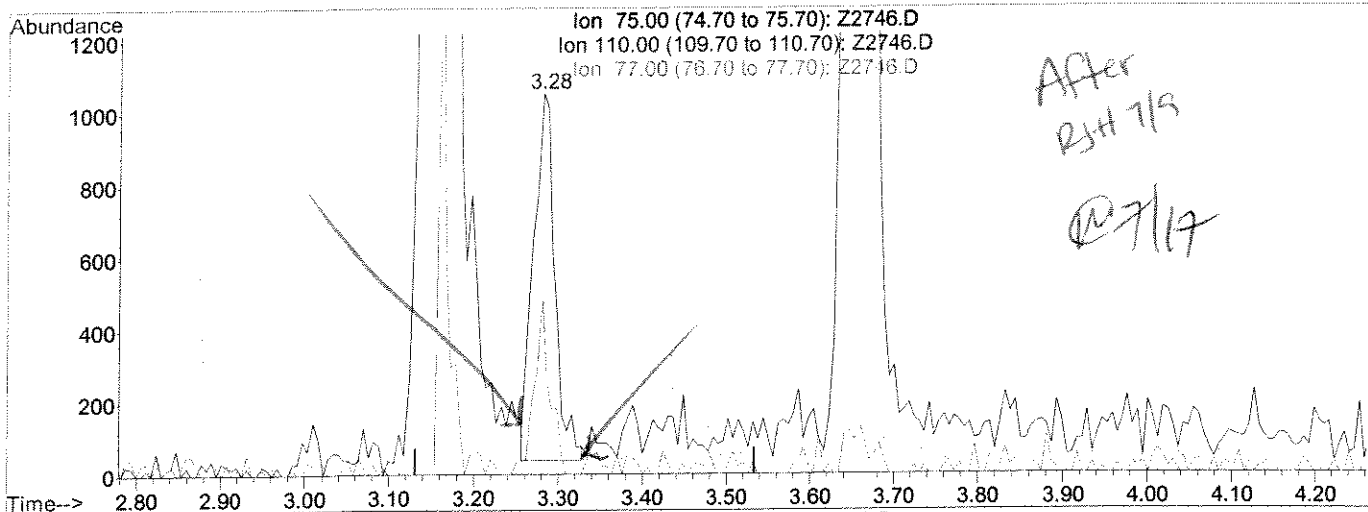
response 25

Ion	Exp%	Act%
75.00	100	100
110.00	31.60	25.77
77.00	30.50	34.02
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2746.D Vial: 8  
 Acq On : 8 Jul 2008 12:59 pm Operator: Herring  
 Sample : 0.5PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 13:55 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Multiple Level Calibration



(46) 1,1-Dichloropropene

3.28min 0.53ppb m

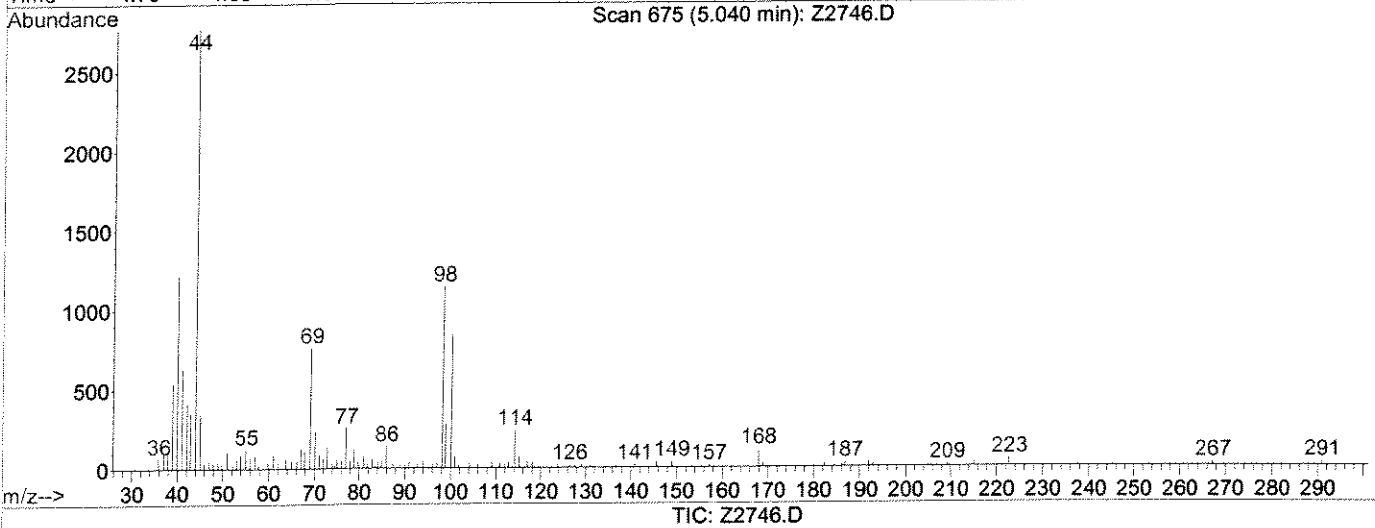
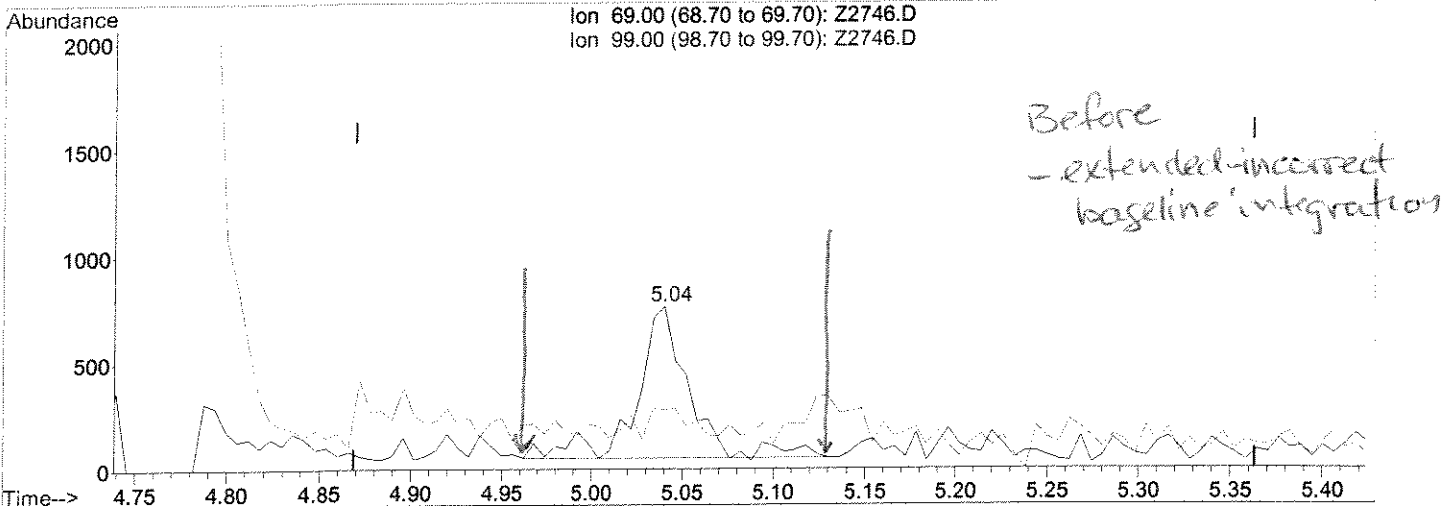
response 1808

Ion	Exp%	Act%
75.00	100	100
110.00	31.60	45.64#
77.00	30.50	51.99#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2746.D Vial: 8  
 Acq On : 8 Jul 2008 12:59 pm Operator: Herring  
 Sample : 0.5PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 13:58 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Multiple Level Calibration



(67) Ethyl Methacrylate

5.04min 0.79ppb

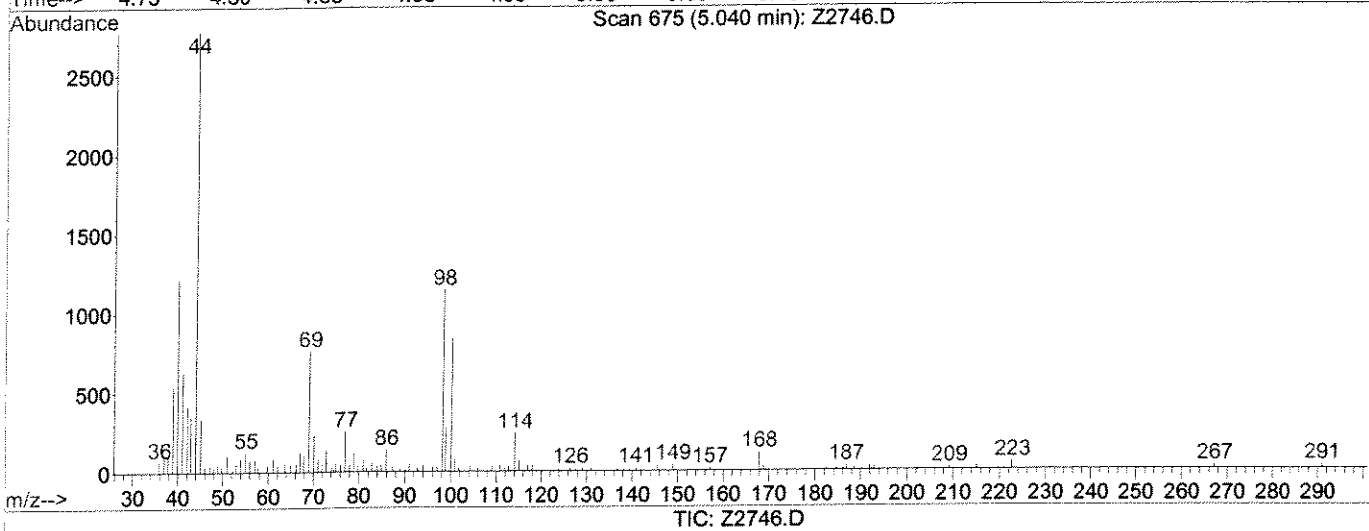
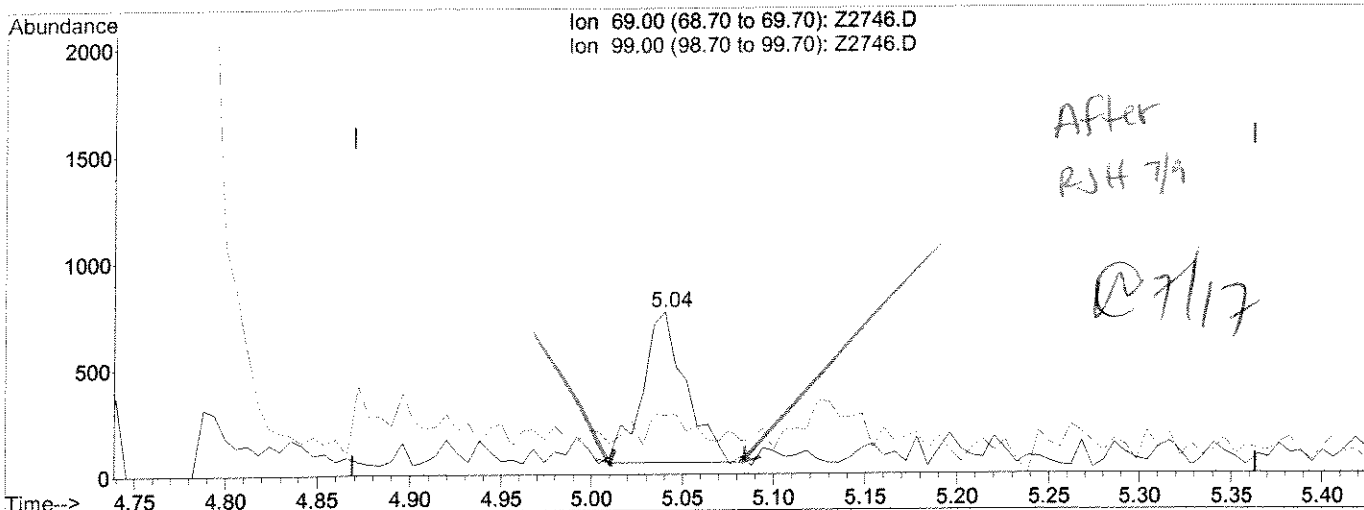
response 1445

Ion	Exp%	Act%
69.00	100	100
99.00	17.60	36.30#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2746.D Vial: 8  
Acq On : 8 Jul 2008 12:59 pm Operator: Herring  
Sample : 0.5PPB Inst : MS #8  
Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
MS Integration Params: RTEINT.P  
Quant Time: Jul 9 13:58 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
Title : 8260voa  
Last Update : Wed Jul 09 12:58:26 2008  
Response via : Multiple Level Calibration



(67) Ethyl Methacrylate

5.04min 0.64ppb m

response 1182

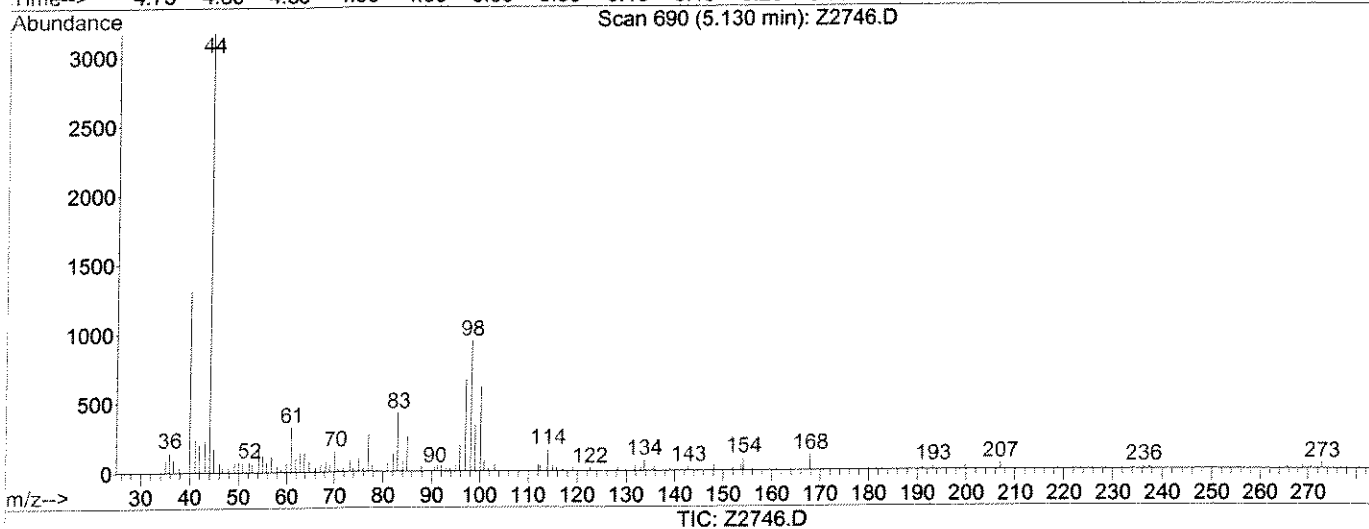
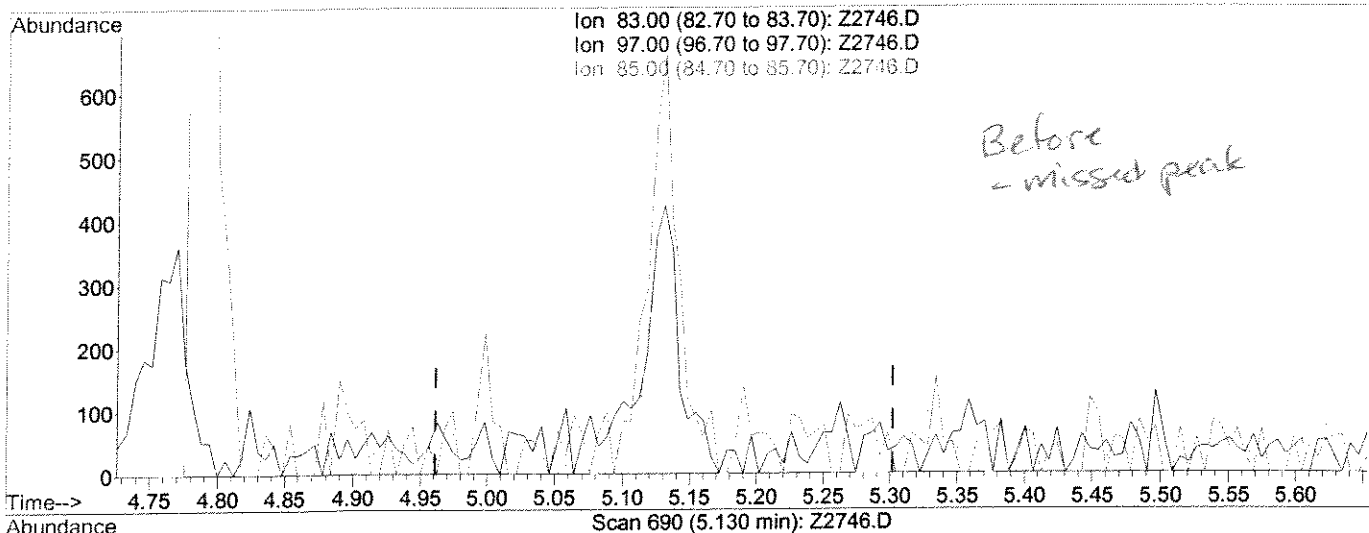
Ion	Exp%	Act%
69.00	100	100
99.00	17.60	36.30#
0.00	0.00	0.00
0.00	0.00	0.00



Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2746.D Vial: 8  
Acq On : 8 Jul 2008 12:59 pm Operator: Herring  
Sample : 0.5PPB Inst : MS #8  
Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
MS Integration Params: RTEINT.P  
Quant Time: Jul 9 13:58 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
Title : 8260voa  
Last Update : Wed Jul 09 12:58:26 2008  
Response via : Multiple Level Calibration



(68) 1,1,2-Trichloroethane

5.13min 0.00ppb

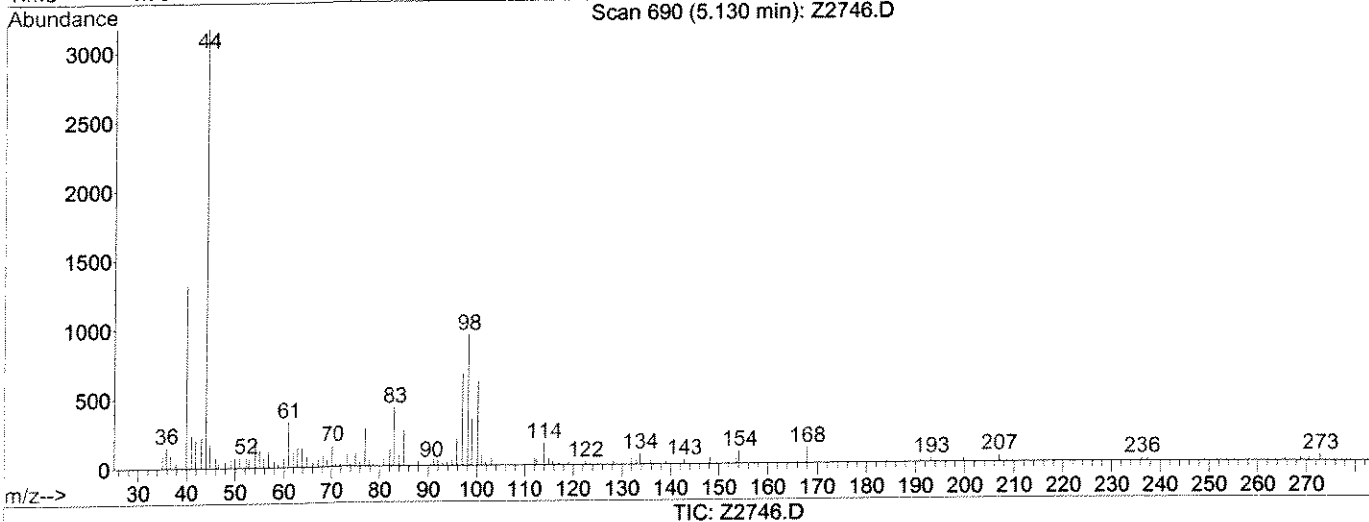
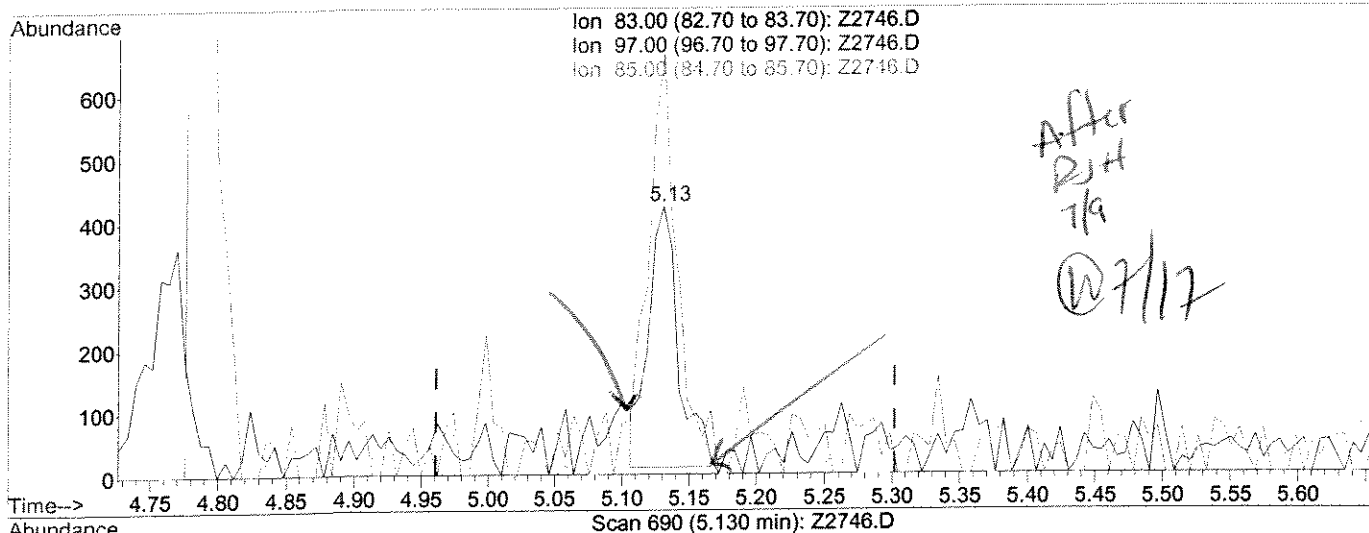
response 0

Ion	Exp%	Act%
83.00	100	0.00
97.00	112.90	0.00#
85.00	66.00	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2746.D Vial: 8  
 Acq On : 8 Jul 2008 12:59 pm Operator: Herring  
 Sample : 0.5PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 13:59 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Multiple Level Calibration



(68) 1,1,2-Trichloroethane

5.13min 0.51ppbm

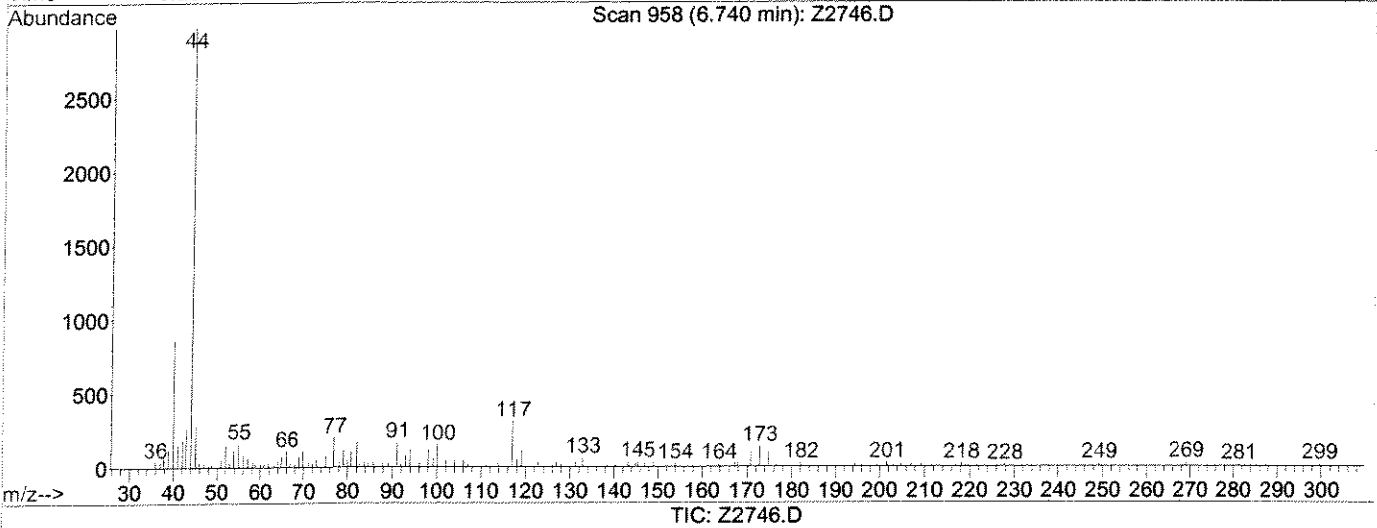
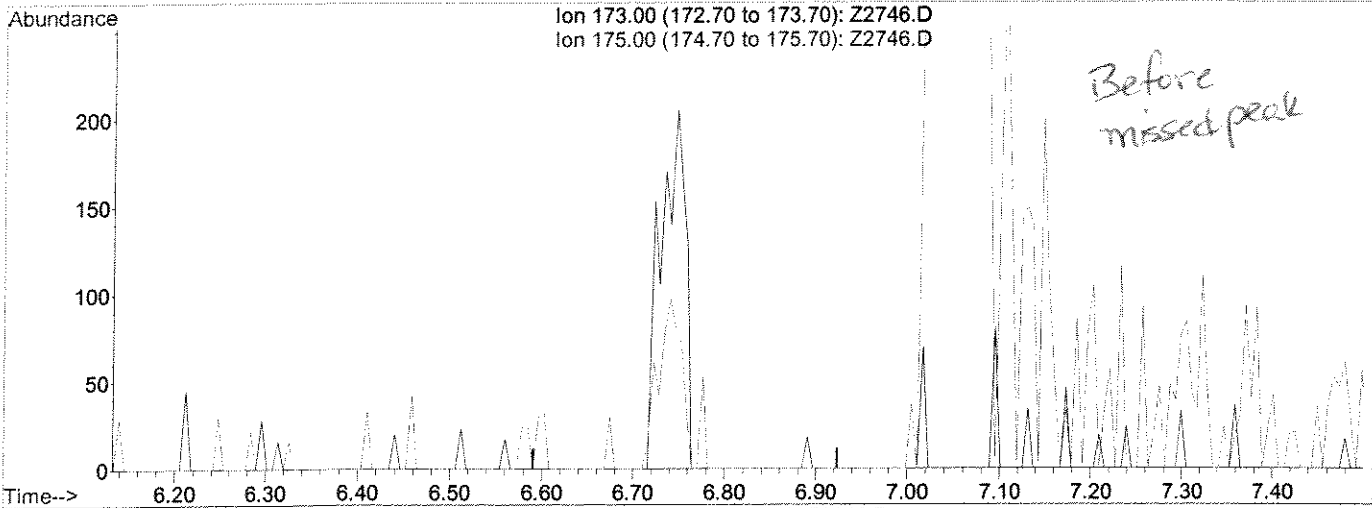
response 639

Ion	Exp%	Act%
83.00	100	100
97.00	112.90	156.50#
85.00	66.00	59.57
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2746.D Vial: 8  
 Acq On : 8 Jul 2008 12:59 pm Operator: Herring  
 Sample : 0.5PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 13:59 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Multiple Level Calibration



(82) Bromoform (p)

6.74min 0.00ppb

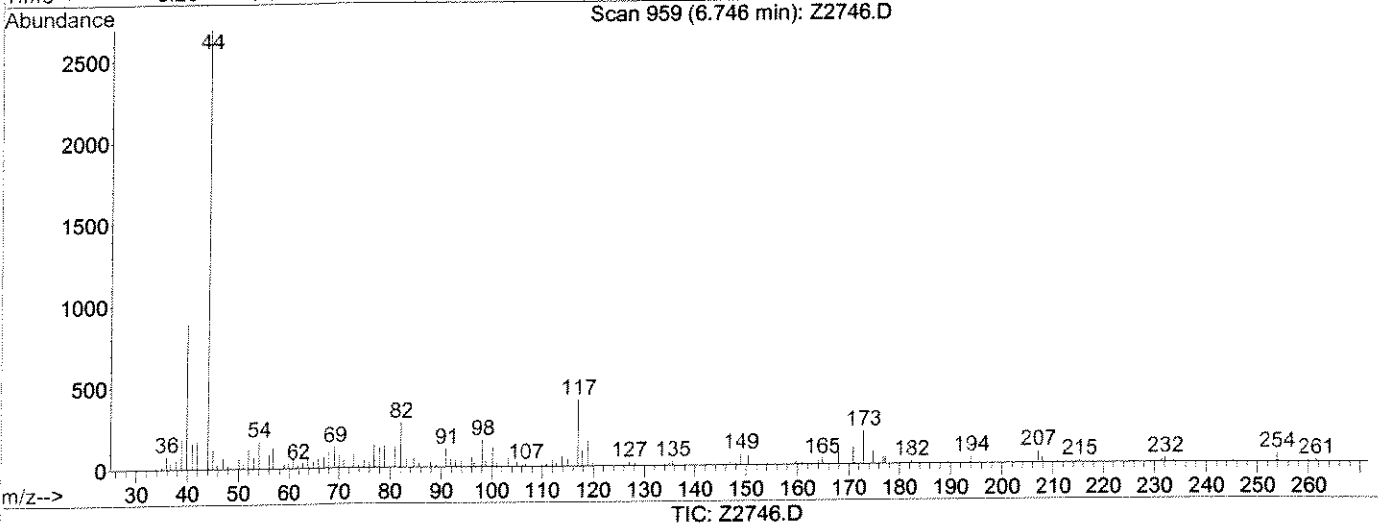
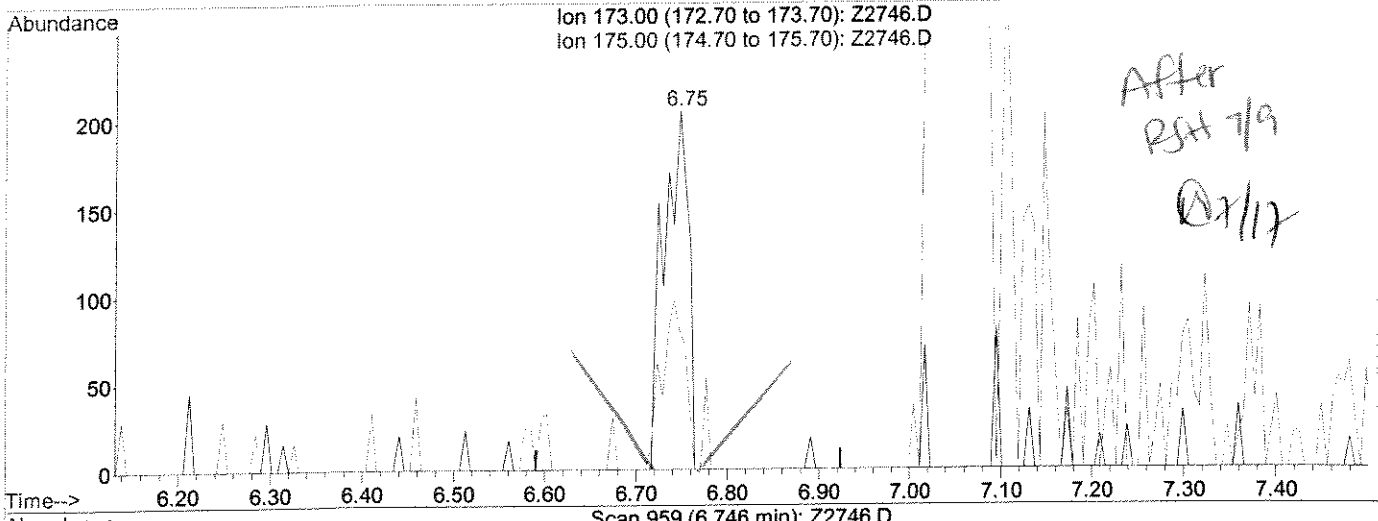
response 0

Ion	Exp%	Act%
173.00	100	0.00
175.00	44.90	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2746.D Vial: 8  
 Acq On : 8 Jul 2008 12:59 pm Operator: Herring  
 Sample : 0.5PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 14:00 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Multiple Level Calibration



(82) Bromoform (p)

6.75min 0.51ppb m

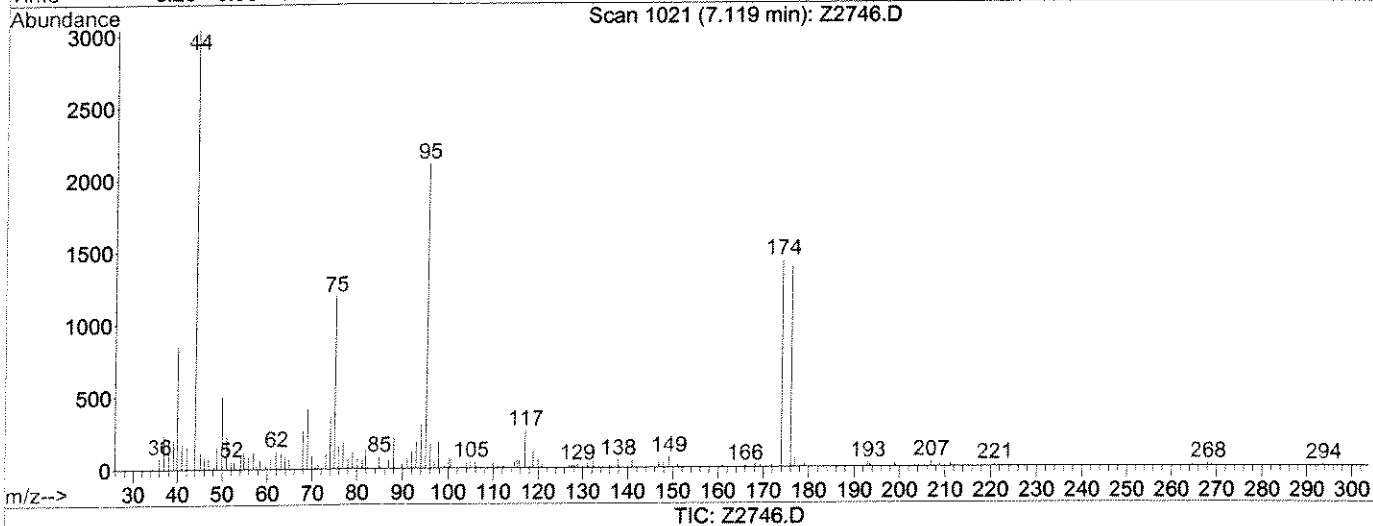
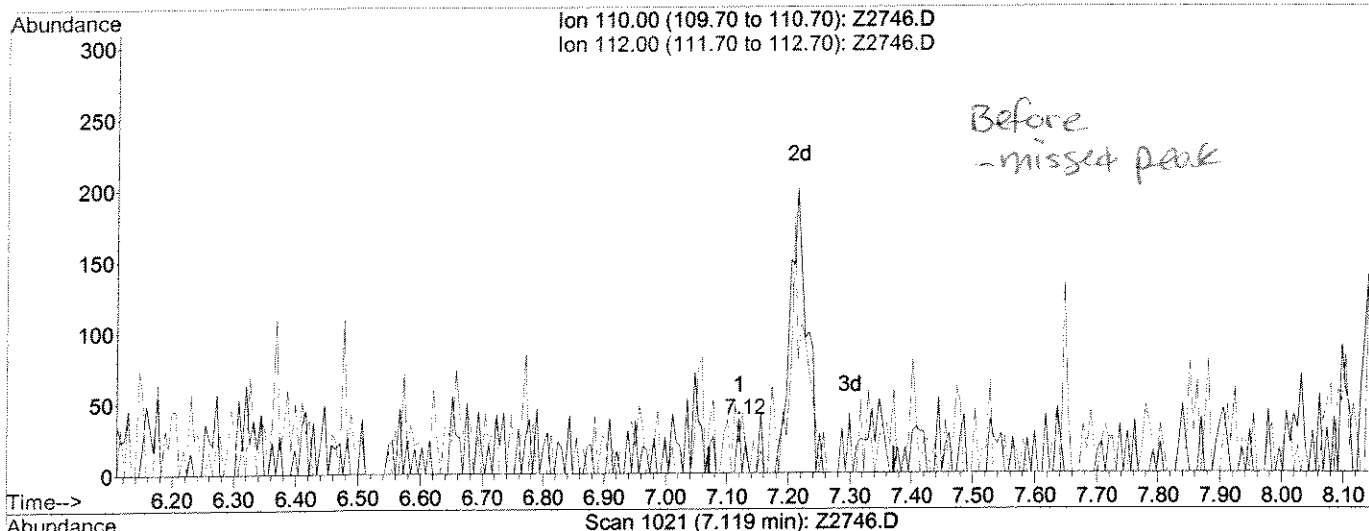
response 385

Ion	Exp%	Act%
173.00	100	100
175.00	44.90	39.02
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2746.D Vial: 8  
 Acq On : 8 Jul 2008 12:59 pm Operator: Herring  
 Sample : 0.5PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 14:00 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Multiple Level Calibration



(88) 1,2,3-Trichloropropane

7.12min 0.05ppb

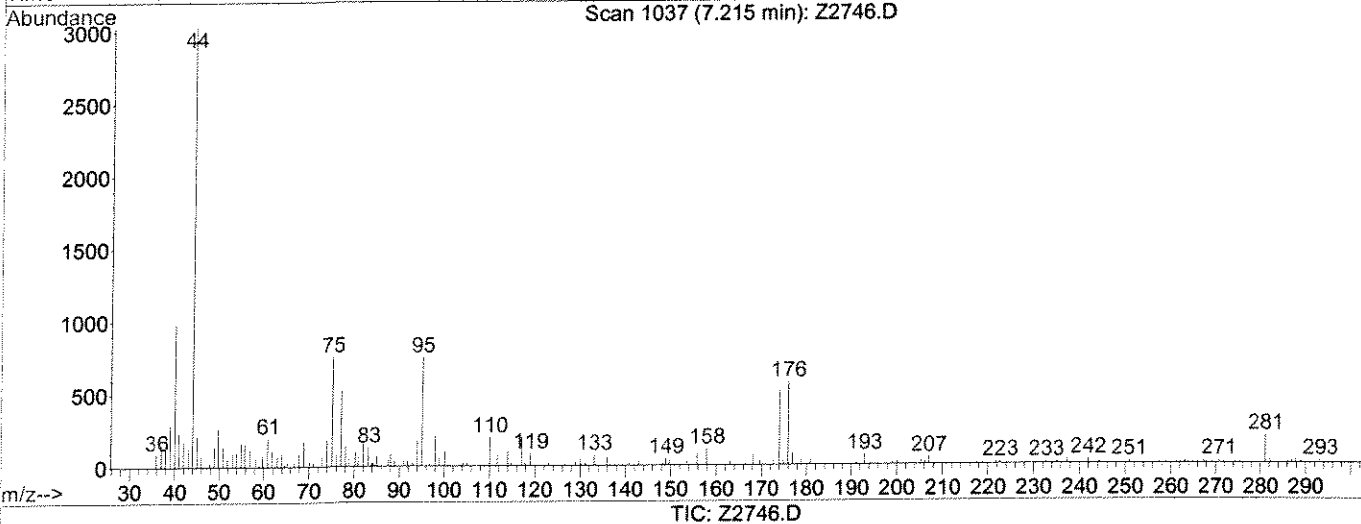
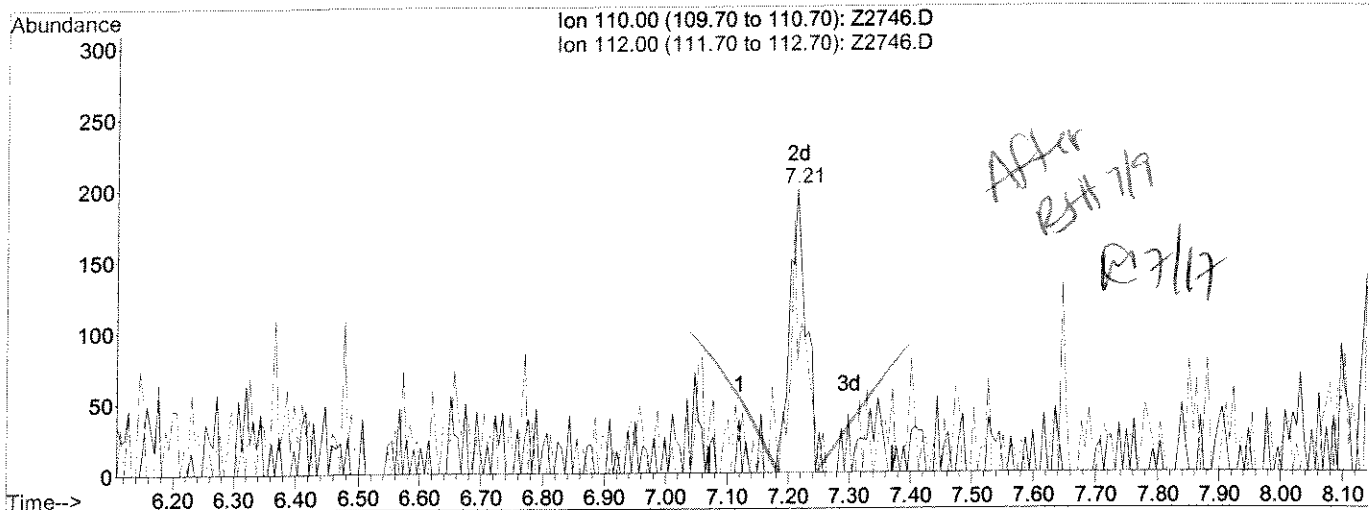
response 22

Ion	Exp%	Act%
110.00	100	100
112.00	58.70	55.26
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2746.D Vial: 8  
 Acq On : 8 Jul 2008 12:59 pm Operator: Herring  
 Sample : 0.5PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 14:01 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Multiple Level Calibration



(88) 1,2,3-Trichloropropane

7.21min 0.92ppb m

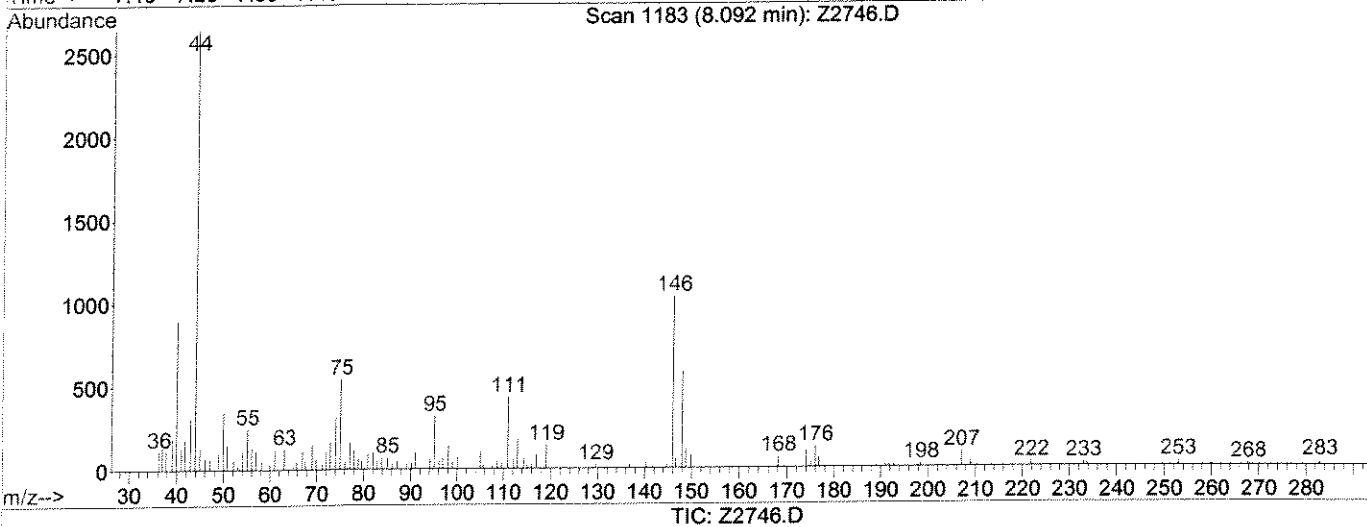
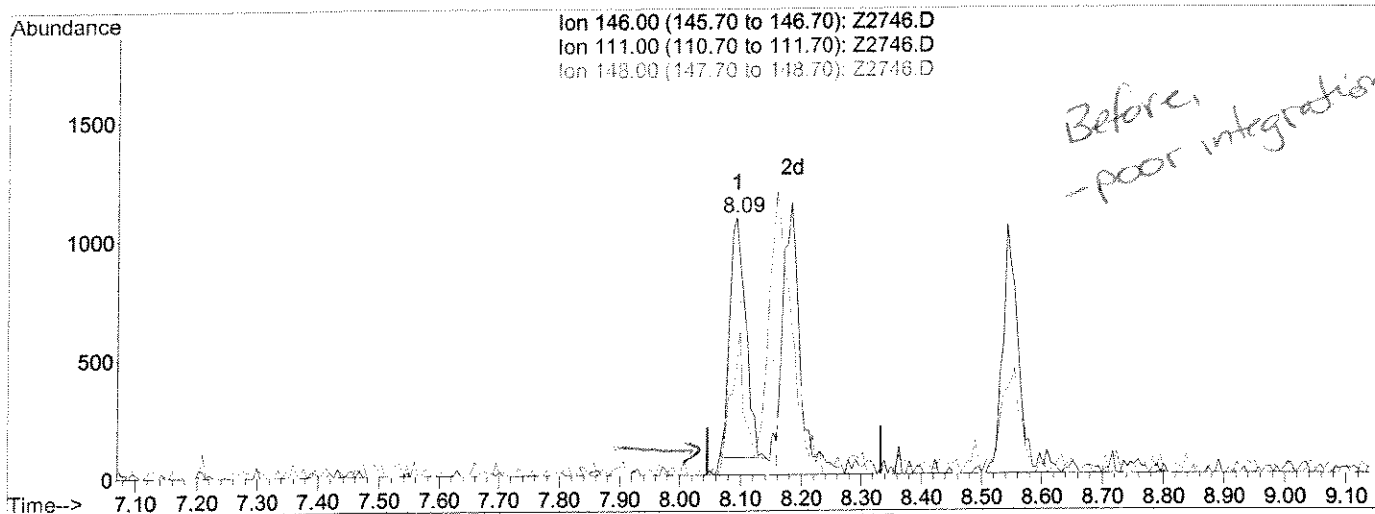
response 382

Ion	Exp%	Act%
110.00	100	100
112.00	58.70	39.50#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2746.D Vial: 8  
 Acq On : 8 Jul 2008 12:59 pm Operator: Herring  
 Sample : 0.5PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 14:01 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Multiple Level Calibration



(100) 1,4-Dicibenz

8.09min 0.43ppb

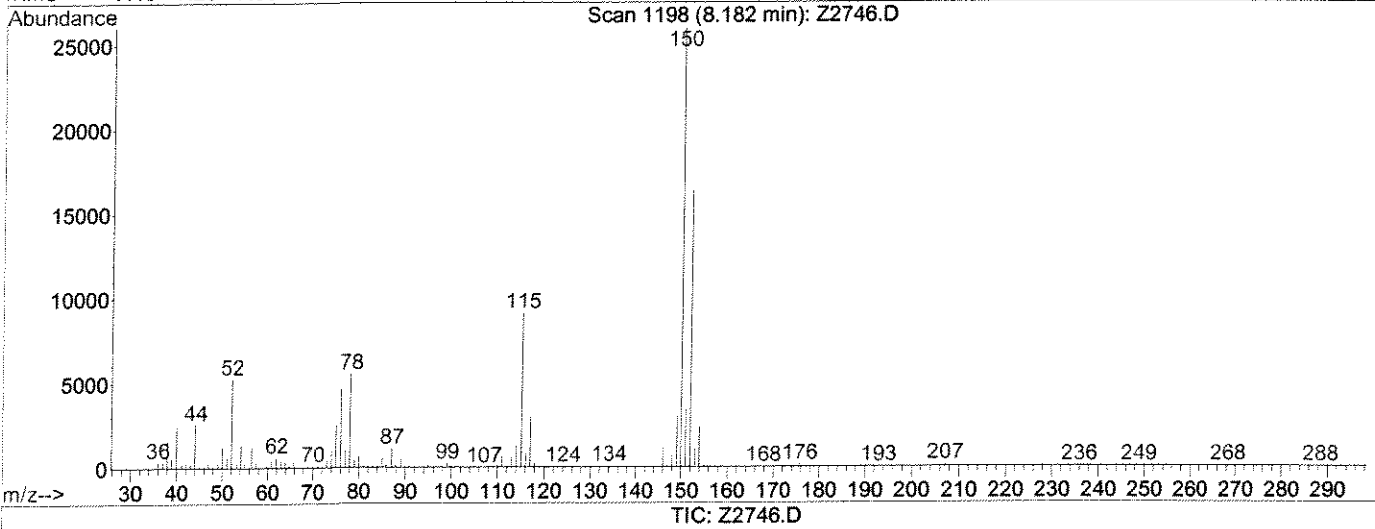
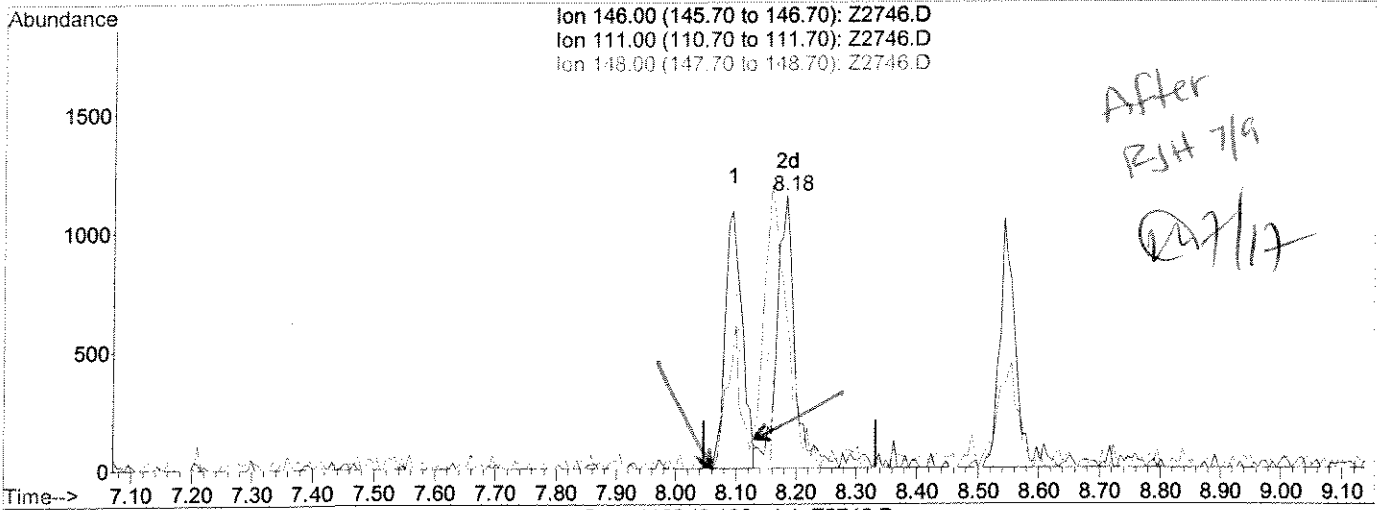
response 1828

Ion	Exp%	Act%
146.00	100	100
111.00	38.30	39.47
148.00	63.40	53.17
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2746.D Vial: 8  
 Acq On : 8 Jul 2008 12:59 pm Operator: Herring  
 Sample : 0.5PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 14:02 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Multiple Level Calibration



(100) 1,4-Diclbz

8.18min 0.56ppb m

response 2395

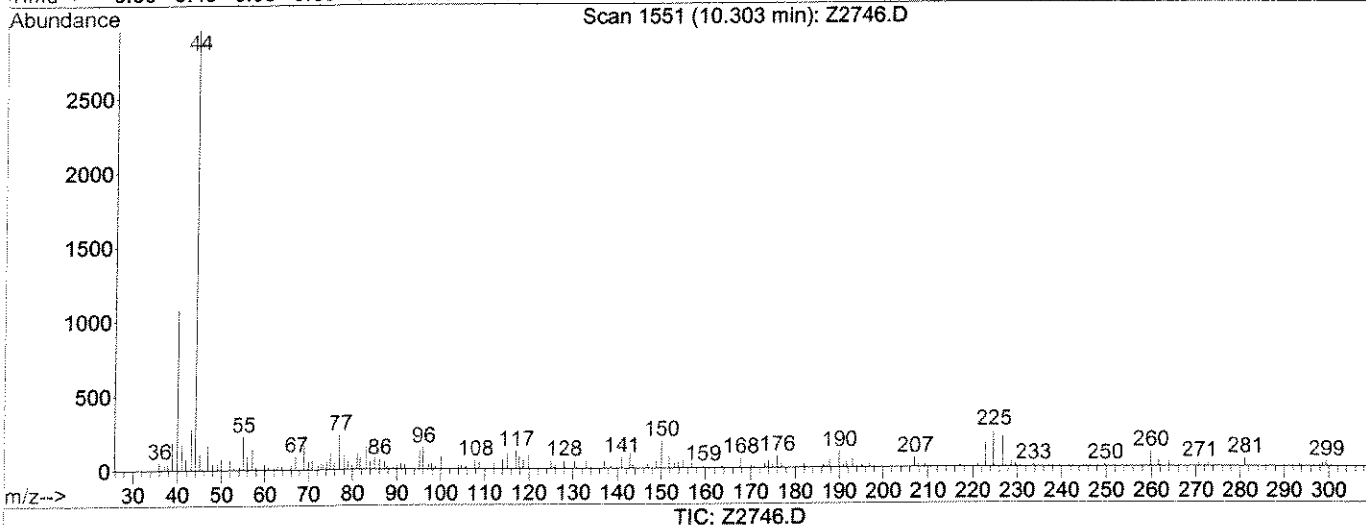
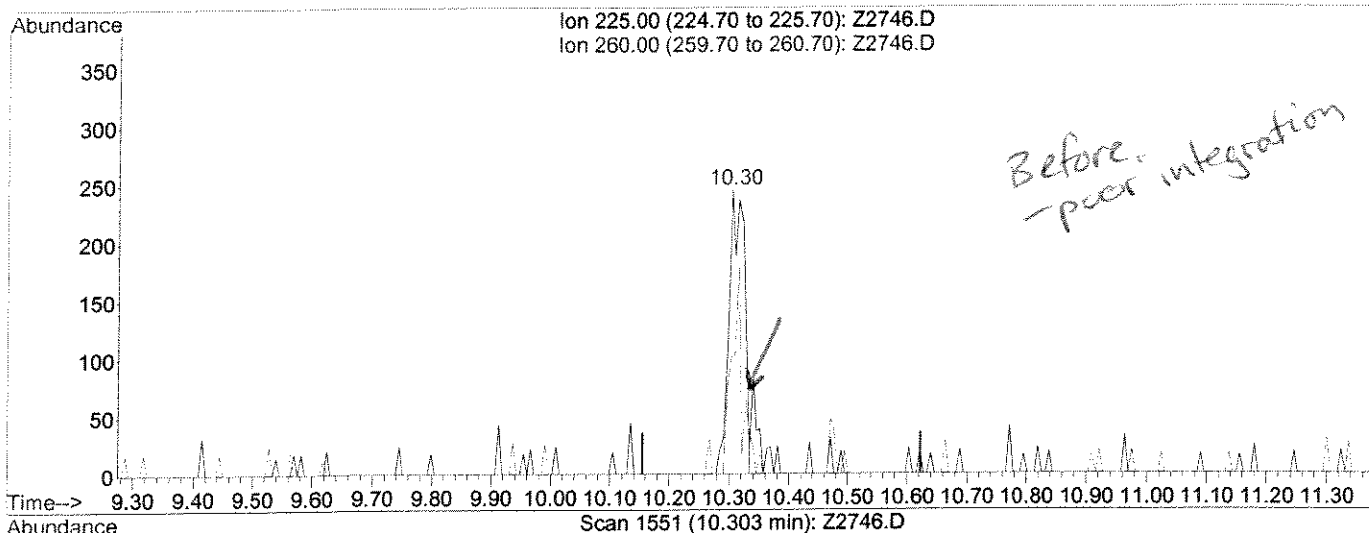
Ion	Exp%	Act%
146.00	100	100
111.00	38.30	55.74#
148.00	63.40	64.78
0.00	0.00	0.00



Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2746.D Vial: 8  
 Acq On : 8 Jul 2008 12:59 pm Operator: Herring  
 Sample : 0.5PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 14:02 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Multiple Level Calibration



(107) Hexachlorobu

10.30min 0.41ppb

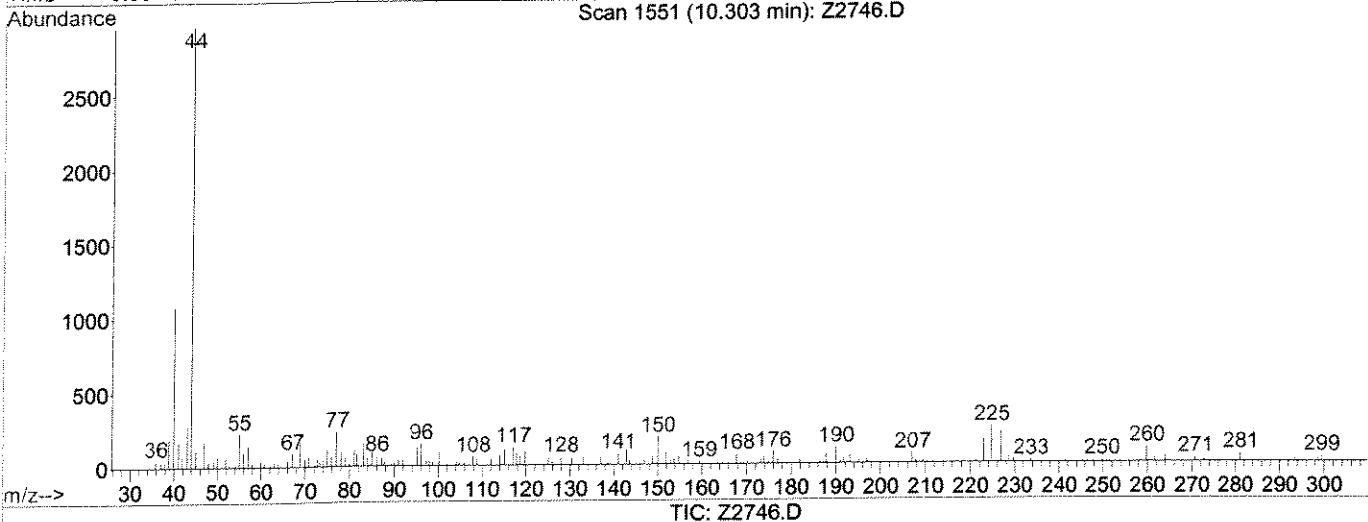
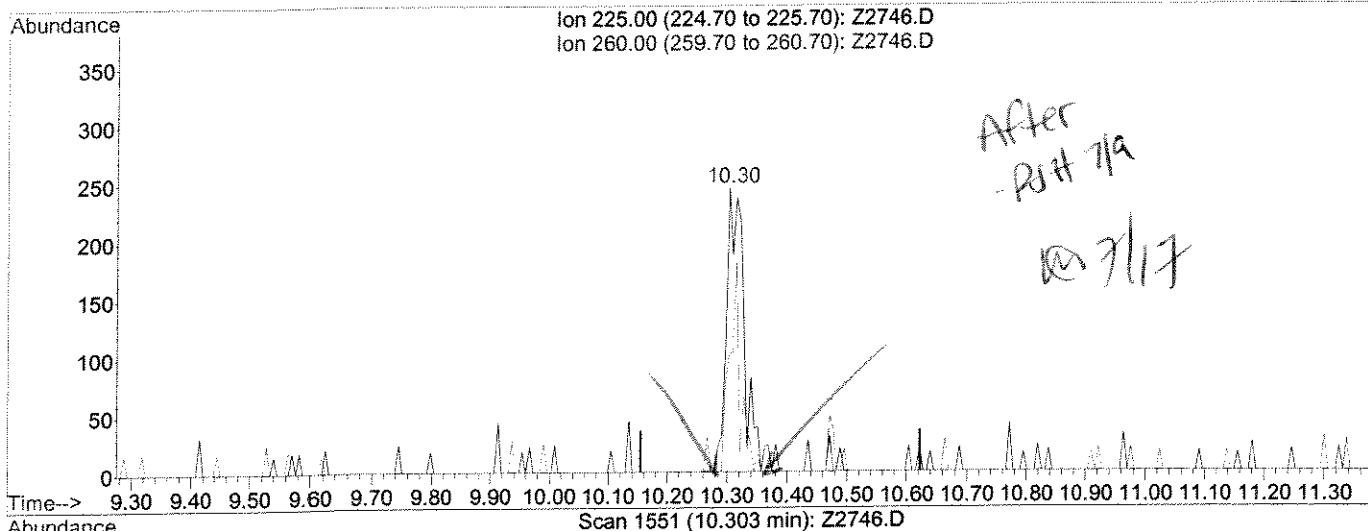
response 427

Ion	Exp%	Act%
225.00	100	100
260.00	27.90	41.63#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2746.D Vial: 8  
 Acq On : 8 Jul 2008 12:59 pm Operator: Herring  
 Sample : 0.5PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 14:02 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Multiple Level Calibration



(107) Hexachlorobu

10.30min 0.47ppb m

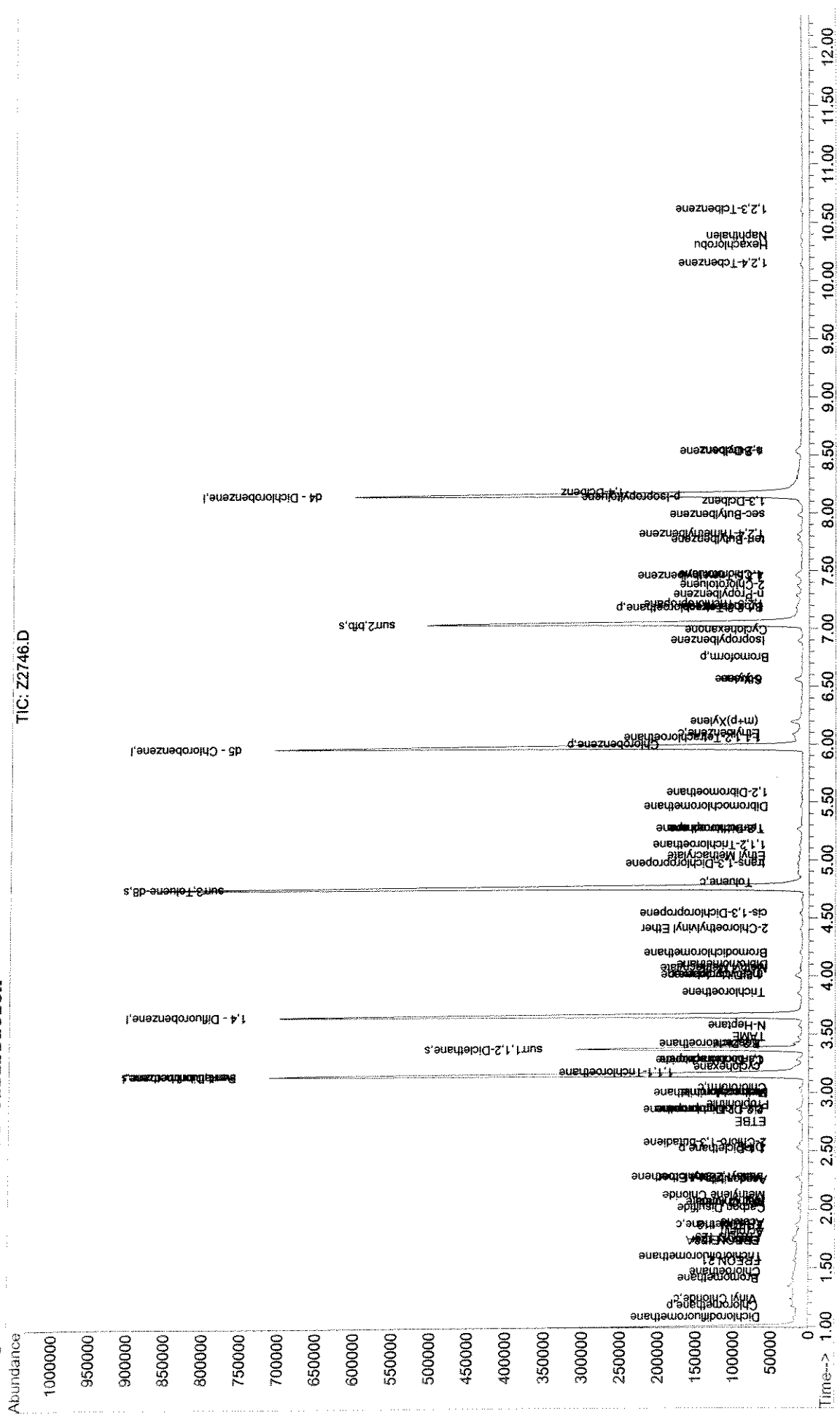
response 484

Ion	Exp%	Act%
225.00	100	100
260.00	27.90	41.63#
0.00	0.00	0.00
0.00	0.00	0.00

Data File : J:\ACQDATA\MSVOA8\DATA\070808\Z2746.D  
 Acq On : 8 Jul 2008 12:59 pm  
 Sample : 0.5PPB  
 Misc : Initial Calibration- 8260B WATER  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 15:49 2008

Vial: 8  
 Operator: Herring  
 Inst : MS #8  
 Multiplr: 1.00  
 Quant Results File: W070808.RES

Method : J:\ACQDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 16:13:36 2008  
 Response via : Initial Calibration



Data File : J:\ACQUADATA\MSVOA8\DATA\070808\Z2747.D  
 Acq On : 8 Jul 2008 1:27 pm  
 Sample : 1.0PPB  
 Misc : Initial Calibration- 8260B WATER  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 14:24 2008

Vial: 9  
 Operator: Herring  
 Inst : MS #8  
 Multiplr: 1.00

Quant Results File: W070808.RES

Quant Method : J:\ACQUADATA\M...\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Initial Calibration  
 DataAcq Meth : W070808

RJA  
7/9/08

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	3.15	168	271963	50.00	ppb	0.00
42) 1,4 - Difluorobenzene	3.66	114	481390	50.00	ppb	0.00
63) d5 - Chlorobenzene	5.97	117	412469	50.00	ppb	0.00
85) d4 - Dichlorobenzene	8.16	152	187284	50.00	ppb	0.00

System Monitoring Compounds

43) surr4,Dibrflmethane	3.14	113	143229	54.67	ppb	0.00
Spiked Amount						
						Recovery = 109.34%
48) surr1,1,2-Dicethane	3.37	65	152175	58.85	ppb	0.00
Spiked Amount						
						Recovery = 117.70%
69) surr3,Toluene-d8	4.76	98	551911	55.14	ppb	0.00
Spiked Amount						
						Recovery = 110.28%
70) surr2,bfb	7.04	95	225941	64.31	ppb	0.00
Spiked Amount						
						Recovery = 128.62%

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.07	85	2116	0.97	ppb	# 89
4) Chloromethane	1.18	50	3693	0.94	ppb	95
5) Vinyl Chloride	1.24	62	2794	0.91	ppb	# 82
6) Bromomethane	1.42	94	2008	1.05	ppb	95
7) Chloroethane	1.47	64	1942	0.97	ppb	# 76
8) FREON 21	1.56	67	5484	1.09	ppb	95
9) Trichlorofluoromethane	1.60	101	2786	0.95	ppb	91
10) Diethyl Ether	1.74	59	1705	1.06	ppb	89
11) FREON 123A	1.74	85	1369	1.18	ppb	87
12) FREON 123	1.77	85	2694	1.15	ppb	95
13) Acrolein	1.81	56	780	3.91	ppb	90
14) FREON 113	1.86	85	931	1.02	ppb	# 63
15) 1,1-Dicethene	1.87	96	2230	1.10	ppb	89
18) Iodomethane	1.96	127	555	0.54	ppb	73
19) Carbon Disulfide	2.01	76	8110	1.00	ppb	94
21) Allyl Chloride	2.06	76	1363	1.06	ppb	66
22) Methyl Acetate	2.05	43	3160	1.89	ppb	91
23) Methylene Chloride	2.12	84	2989	1.13	ppb	93
24) TBA	2.16	59	1296	12.97	ppb	# 1
25) Acrylonitrile	2.25	53	2586	4.45	ppb	# 87
26) Methyl-t-Butyl Ether	2.27	73	5052	1.08	ppb	# 86
27) trans-1,2-Dichloroethene	2.28	96	2582	1.07	ppb	# 94
28) 1,1-Dicethane	2.51	63	4565	0.93	ppb	# 89
29) DIPE	2.53	45	10752	0.99	ppb	95
30) Vinyl Acetate	2.52	86	216m	0.81	ppb	
31) 2-Chloro-1,3-butadiene	2.56	53	3824	0.91	ppb	99
32) ETBE	2.75	59	6934	0.96	ppb	# 89
33) 2,2-Dichloropropane	2.85	77	3596	1.11	ppb	97
34) 2-Butanone	2.85	43	1323m	1.65	ppb	
35) cis-1,2-Dichloroethene	2.85	96	2607	0.98	ppb	# 69
36) Propionitrile	2.90	54	718	3.56	ppb	# 61
37) Methacrylonitrile	2.99	67	639	1.16	ppb	99
38) Bromochloromethane	3.00	128	1135	1.05	ppb	92
39) Chloroform	3.05	83	4226	0.99	ppb	99
40) Tetrahydrofuran	3.05	42	888m	1.99	ppb	

RJA  
7/9/08

Data File : J:\ACQUATA\MSVOA8\DATA\070808\Z2747.D  
 Acq On : 8 Jul 2008 1:27 pm  
 Sample : 1.0PPB  
 Misc : Initial Calibration- 8260B WATER  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 14:24 2008

Vial: 9  
 Operator: Herring  
 Inst : MS #8  
 Multiplr: 1.00

Quant Results File: W070808.RES

Quant Method : J:\ACQUATA\M...\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Initial Calibration  
 DataAcq Meth : W070808

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) 1,1,1-Trichloroethane	3.17	97	3476	1.13	ppb	# 1
44) cyclohexane	3.22	56	5288	0.99	ppb	# 80
45) Carbontetrachloride	3.29	117	2556	1.13	ppb	89
46) 1,1-Dichloropropene	3.28	75	3594	1.03	ppb	93
49) Benzene	3.42	78	10740	1.06	ppb	98
50) 1,2-Dichloroethane	3.42	62	2704	1.03	ppb	# 86
51) TAME	3.48	73	5941	1.11	ppb	96
52) N-Heptane	3.57	43	4306	0.96	ppb	# 89
53) Trichloroethene	3.85	95	2378	0.99	ppb	96
54) methylcyclohexane	4.00	55	4454	1.05	ppb	88
55) 1,2-Diclpropane	4.01	63	2564	0.93	ppb	94
56) Methyl Methacrylate	4.07	69	1250	1.31	ppb	97
58) Dibromomethane	4.10	93	1362	1.22	ppb	# 80
59) Bromodichloromethane	4.20	83	3215	1.17	ppb	# 84
61) 2-Chloroethylvinyl Ether	4.42	63	1102m	0.85	ppb	-RTH 7/9/08
62) cis-1,3-Dichloropropene	4.54	75	3494	0.98	ppb	# 87
64) 4-Methyl-2-Pentanone	4.66	43	1560	0.94	ppb	# 73
65) Toluene	4.81	91	10514	1.04	ppb	95
66) trans-1,3-Dichloropropene	4.97	75	2789	1.02	ppb	96
67) Ethyl Methacrylate	5.04	69	2350	1.26	ppb	93
68) 1,1,2-Trichloroethane	5.12	83	1399	1.09	ppb	89
71) Tetrachloroethene	5.27	166	2287	1.02	ppb	98
73) 1,3-Dichloropropane	5.27	76	3293	1.14	ppb	98
74) Dibromochloromethane	5.46	129	1832	1.13	ppb	99
75) 1,2-Dibromoethane	5.57	107	1421	1.01	ppb	98
76) Chlorobenzene	6.00	112	5498	0.90	ppb	95
77) 1,1,1,2-Tetrachloroethane	6.07	131	1871	1.00	ppb	# 66
78) Ethylbenzene	6.09	91	11285	1.07	ppb	94
79) (m+p)Xylene	6.19	106	7856	2.02	ppb	93
80) o-Xylene	6.56	106	4115	1.10	ppb	97
81) Styrene	6.57	104	6411	1.02	ppb	92
82) Bromoform	6.75	173	655	0.86	ppb	# 81
83) Isopropylbenzene	6.90	105	9908	1.04	ppb	95
84) Cyclohexanone	6.99	55	2956	18.75	ppb	97
86) 1,1,2,2-Tetrachloroethane	7.17	83	1721	0.96	ppb	# 94
87) Trans-1,4-Dichloro-2-buten	7.23	53	312m	0.87	ppb	
88) 1,2,3-Trichloropropane	7.21	110	555	1.33	ppb	# 29
89) n-Propylbenzene	7.29	91	12519	0.98	ppb	99
90) Bromobenzene	7.19	156	2215	1.02	ppb	84
92) 1,3,5-Trimethylbenzene	7.45	105	8379	1.00	ppb	96
93) 2-Chlorotoluene	7.37	91	7166	1.03	ppb	92
94) 4-Chlorotoluene	7.47	91	7557	0.93	ppb	96
95) tert-Butylbenzene	7.77	119	6698	0.91	ppb	94
96) 1,2,4-Trimethylbenzene	7.82	105	7829	0.95	ppb	90
97) sec-Butylbenzene	7.98	105	10139	0.90	ppb	99
98) p-Isopropyltoluene	8.13	119	8759	0.96	ppb	98
99) 1,3-Dclbenz	8.10	146	4327m	1.01	ppb	
100) 1,4-Dclbenz	8.18	146	4414m	1.04	ppb	
102) n-Butylbenzene	8.52	91	7795	0.94	ppb	97
103) 1,2-Dclbenz	8.55	146	3751	0.97	ppb	98

(#) = qualifier out of range (m) = manual integration  
 Z2747.D W070808.M Wed Jul 09 16:17:59 2008

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2747.D Vial: 9  
 Acq On : 8 Jul 2008 1:27 pm Operator: Herring  
 Sample : 1.0PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 14:24 2008 Quant Results File: W070808.RES

Quant Method : J:\ACQUDATA\M...\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Initial Calibration  
 DataAcq Meth : W070808

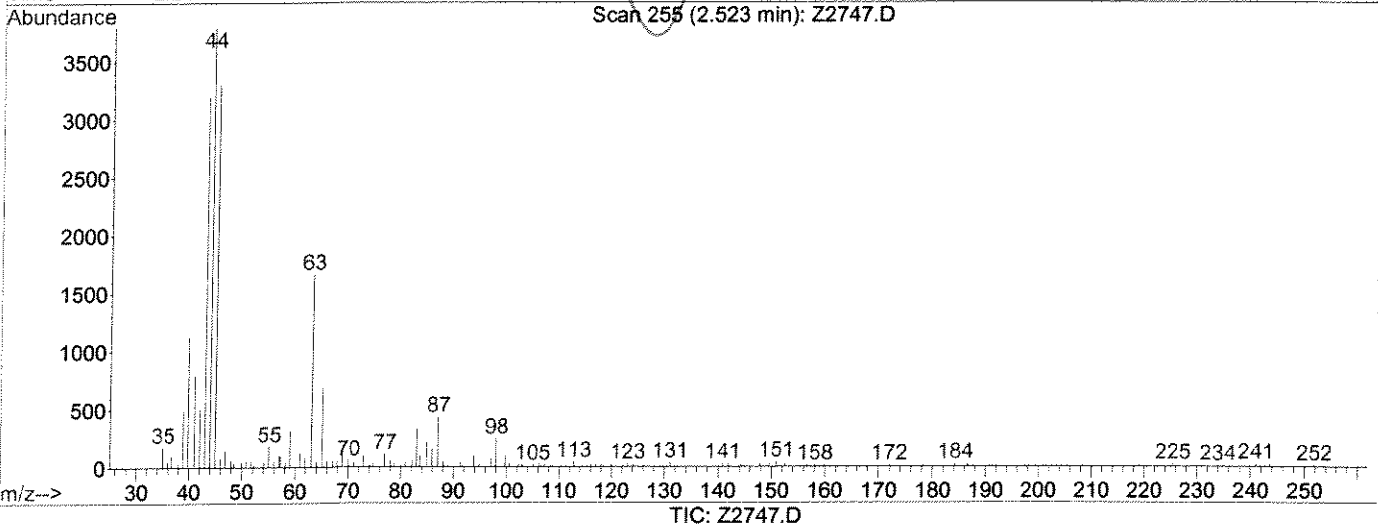
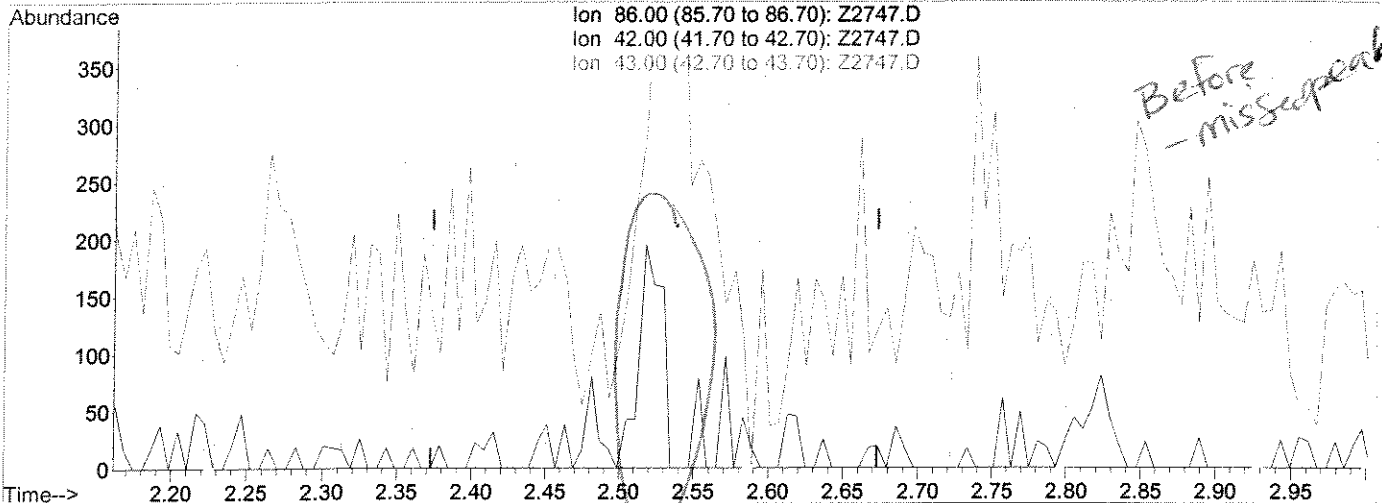
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
104) 1,2-Dibromo-3-chloropropan	9.32	157	251m	1.10	ppb	
106) 1,2,4-Tcbenzene	10.15	180	2173m	1.10	ppb	
107) Hexachlorobu	10.31	225	840	0.82	ppb	# 80
108) Naphthalen	10.38	128	4977	1.14	ppb	97
109) 1,2,3-Tclbenzene	10.61	180	2062	1.19	ppb	100

} RJH  
7/9/08

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2747.D Vial: 9  
 Acq On : 8 Jul 2008 1:27 pm Operator: Herring  
 Sample : 1.0PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 14:08 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Multiple Level Calibration



(30) Vinyl Acetate

2.52min 0.00ppb

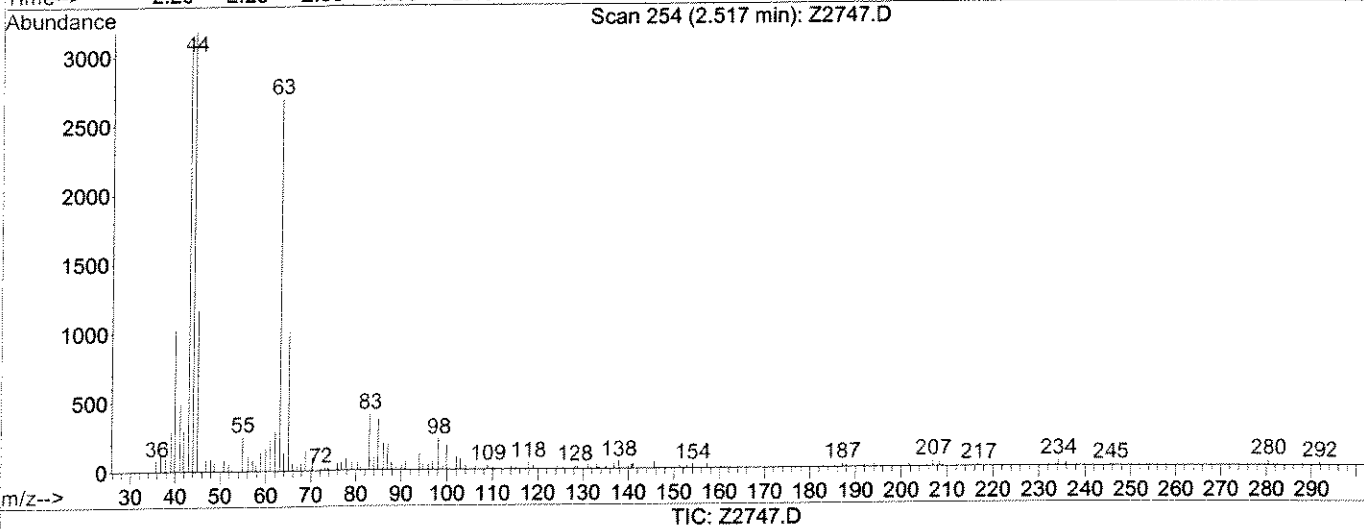
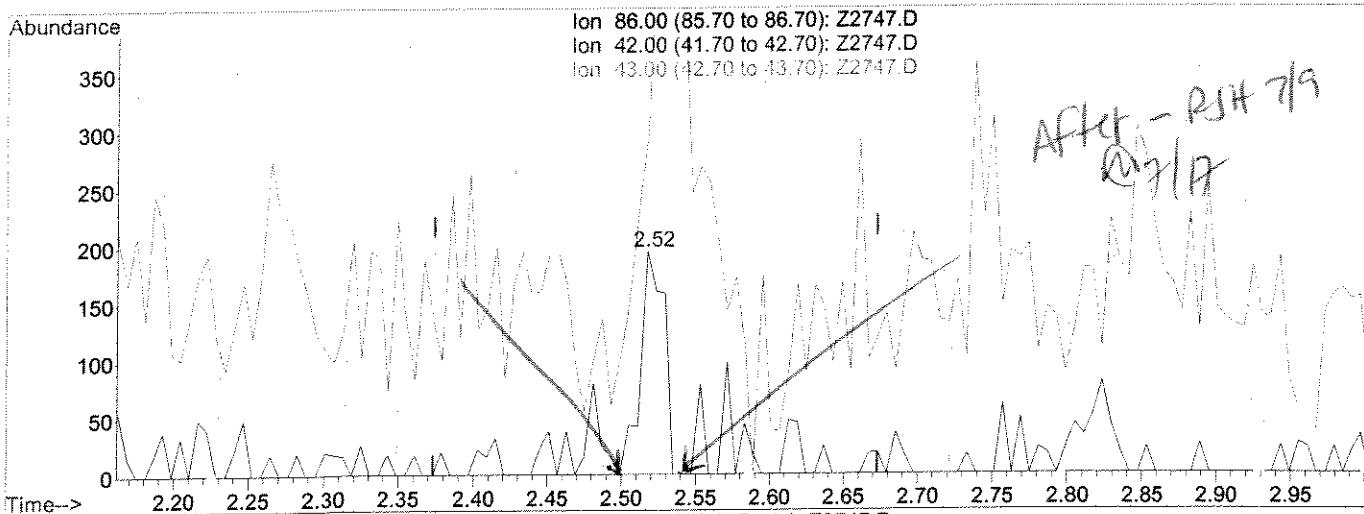
response 0

Ion	Exp%	Act%
86.00	100	0.00
42.00	156.80	0.00#
43.00	1696.20	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2747.D Vial: 9  
Acq On : 8 Jul 2008 1:27 pm Operator: Herring  
Sample : 1.0PPB Inst : MS #8  
Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
MS Integration Params: RTEINT.P  
Quant Time: Jul 9 14:10 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
Title : 8260voa  
Last Update : Wed Jul 09 12:58:26 2008  
Response via : Multiple Level Calibration



(30) Vinyl Acetate

2.52min 0.81ppb m

response 216

Ion	Exp%	Act%
86.00	100	100
42.00	156.80	151.28
43.00	1696.20	1586.67
0.00	0.00	0.00

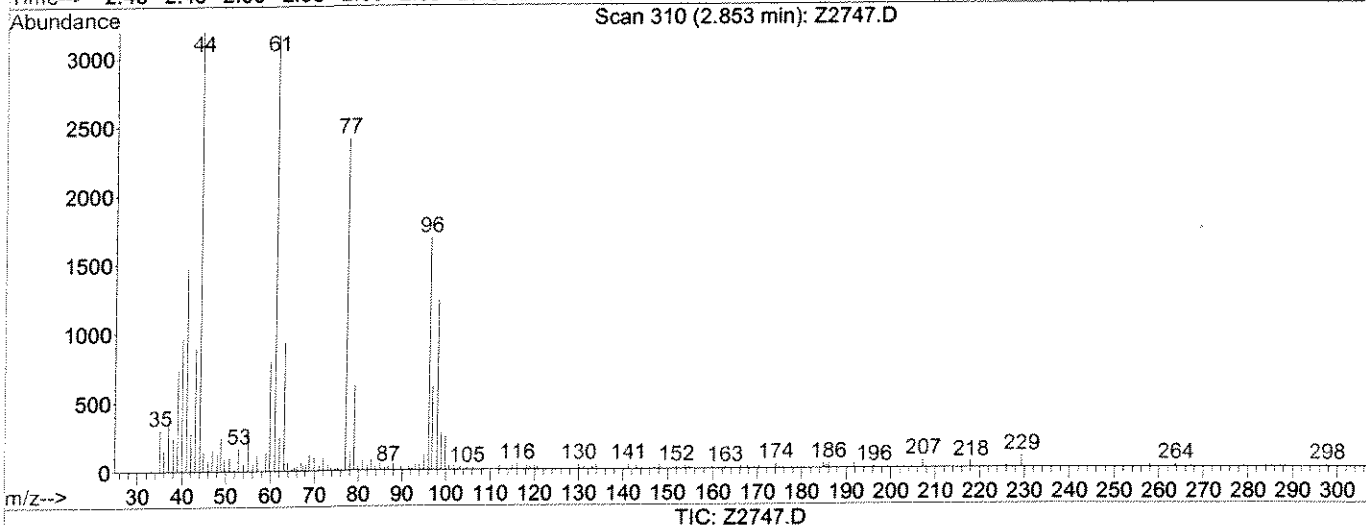
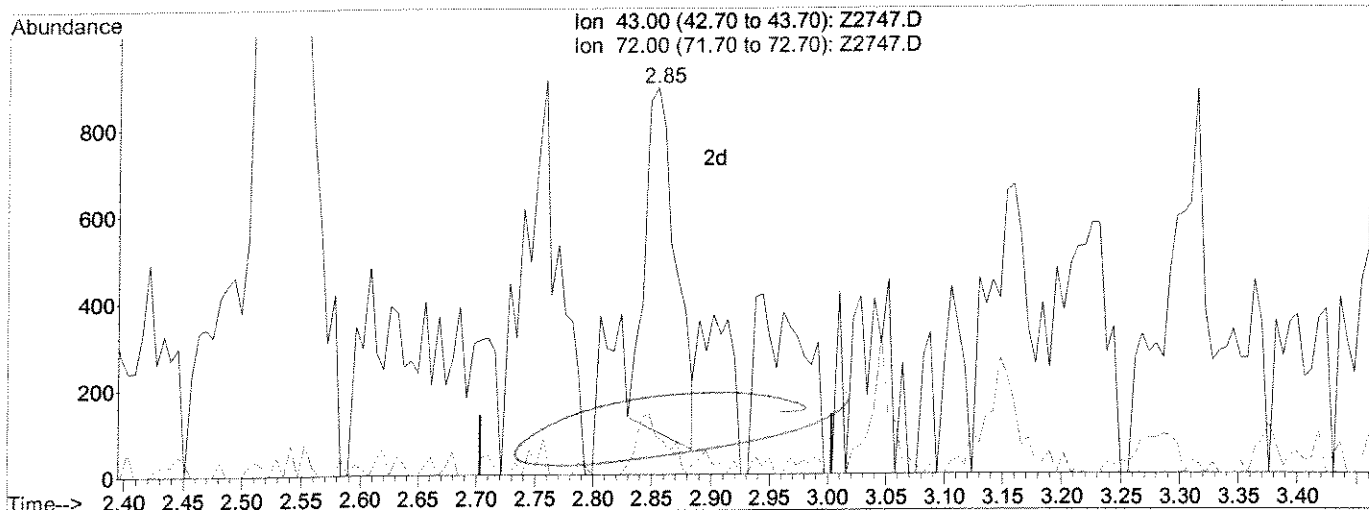


Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2747.D Vial: 9  
Acq On : 8 Jul 2008 1:27 pm Operator: Herring  
Sample : 1.0PPB Inst : MS #8  
Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
MS Integration Params: RTEINT.P  
Quant Time: Jul 9 14:10 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
Title : 8260voa  
Last Update : Wed Jul 09 12:58:26 2008  
Response via : Multiple Level Calibration

*Before  
poor integration*



(34) 2-Butanone

2.85min 1.78ppb

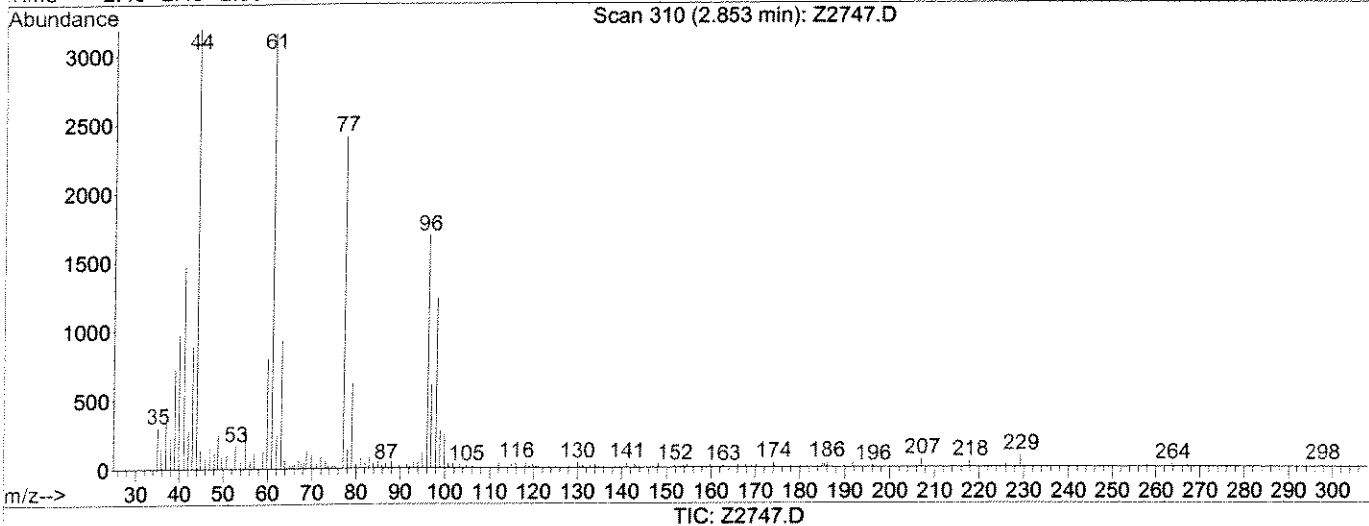
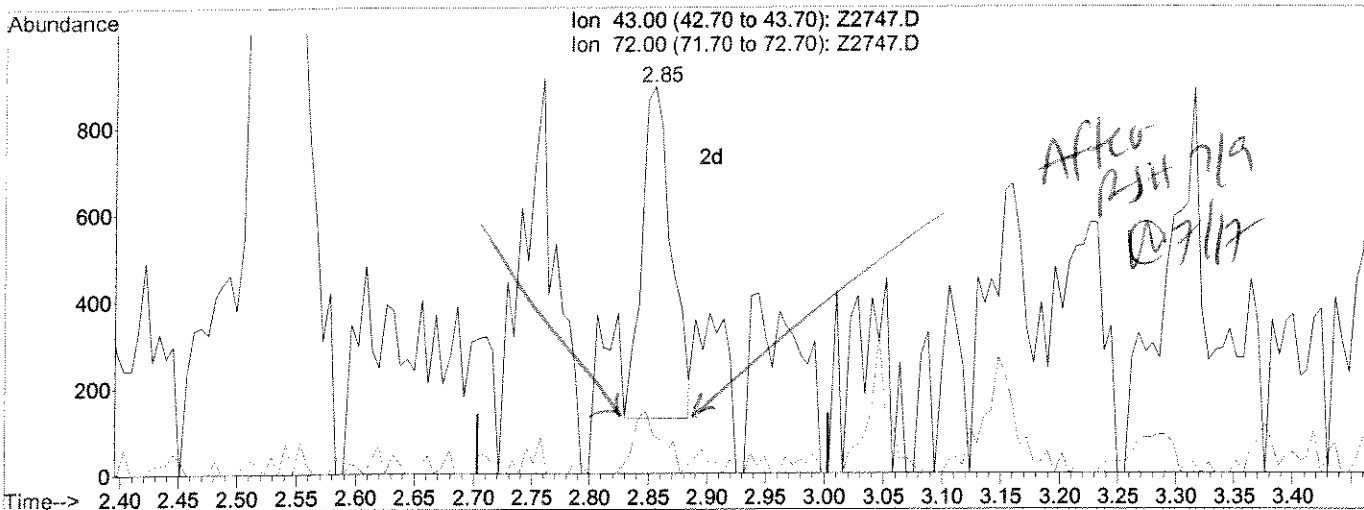
response 1426

Ion	Exp%	Act%
43.00	100	100
72.00	22.30	10.10#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2747.D Vial: 9  
Acq On : 8 Jul 2008 1:27 pm Operator: Herring  
Sample : 1.0PPB Inst : MS #8  
Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
MS Integration Params: RTEINT.P  
Quant Time: Jul 9 14:11 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
Title : 8260voa  
Last Update : Wed Jul 09 12:58:26 2008  
Response via : Multiple Level Calibration



(34) 2-Butanone

2.85min 1.65ppb m

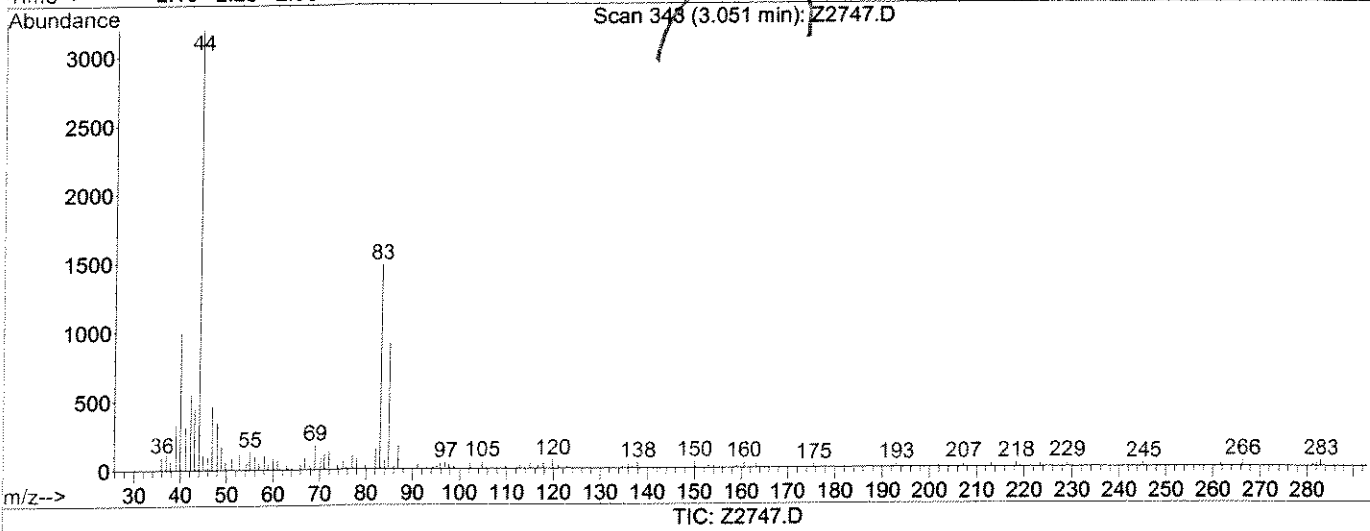
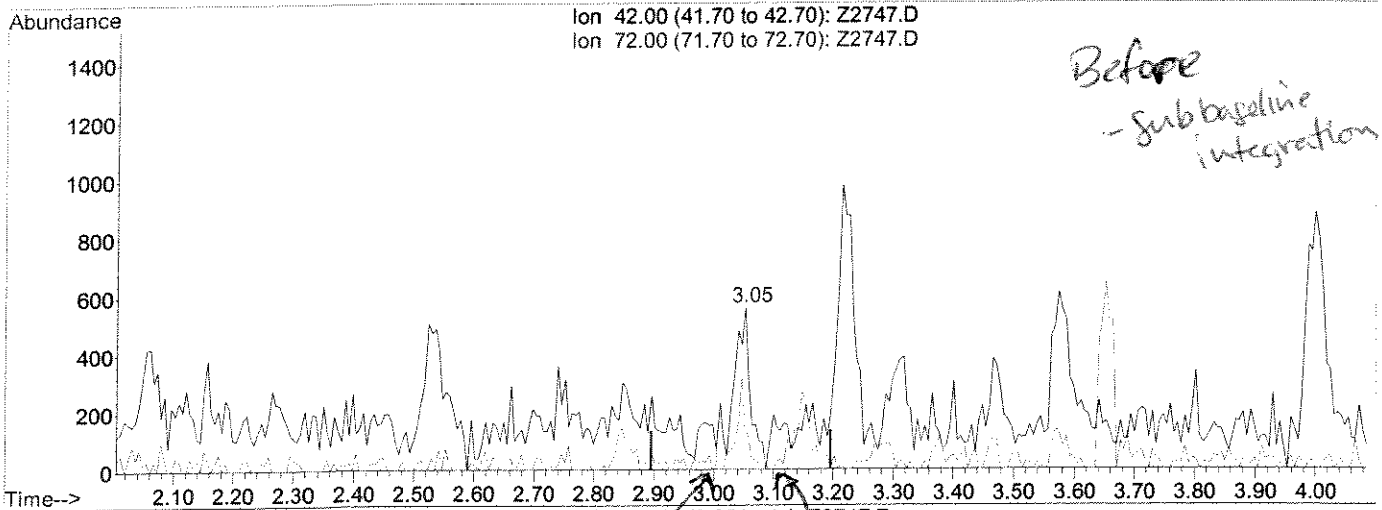
response 1323

Ion	Exp%	Act%
43.00	100	100
72.00	22.30	10.10#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOAS\DATA\070808\Z2747.D Vial: 9  
 Acq On : 8 Jul 2008 1:27 pm Operator: Herring  
 Sample : 1.0PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 14:11 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOAS\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Multiple Level Calibration



(40) Tetrahydrofuran

3.05min 2.57ppb

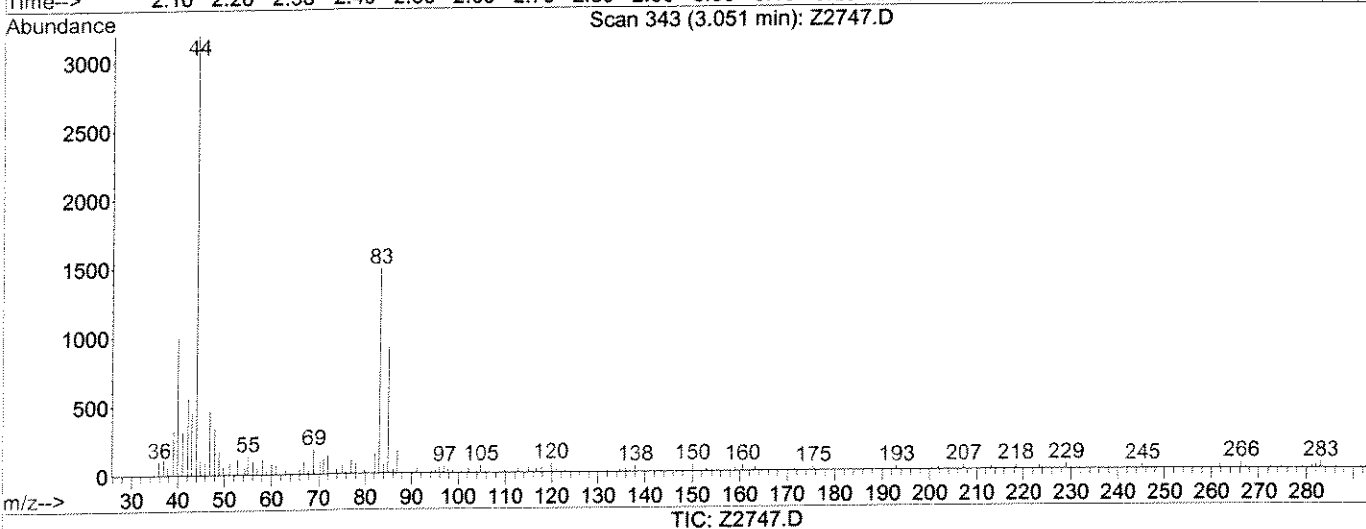
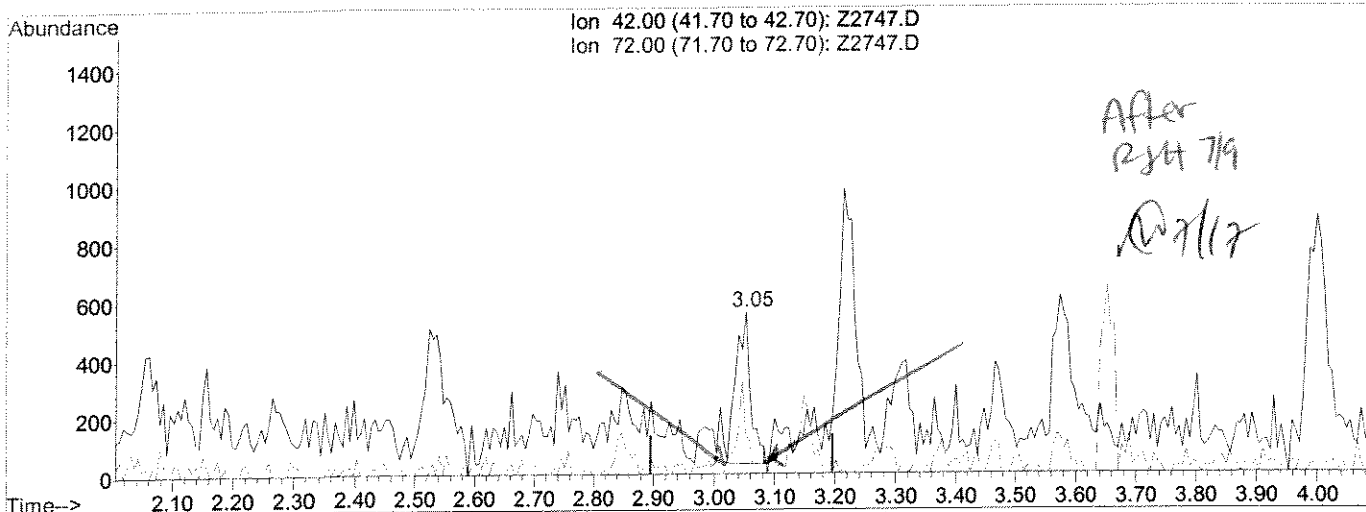
response 1149

Ion	Exp%	Act%
42.00	100	100
72.00	39.90	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2747.D Vial: 9  
Acq On : 8 Jul 2008 1:27 pm Operator: Herring  
Sample : 1.0PPB Inst : MS #8  
Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
MS Integration Params: RTEINT.P  
Quant Time: Jul 9 14:12 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
Title : 8260voa  
Last Update : Wed Jul 09 12:58:26 2008  
Response via : Multiple Level Calibration



(40) Tetrahydrofuran

3.05min 1.99ppb m

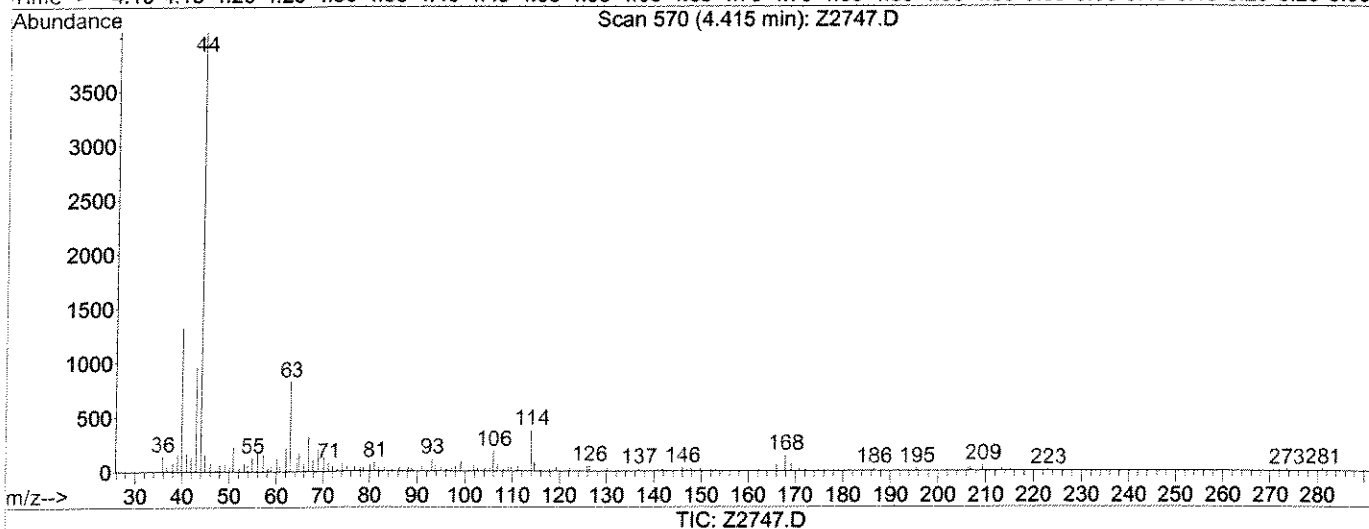
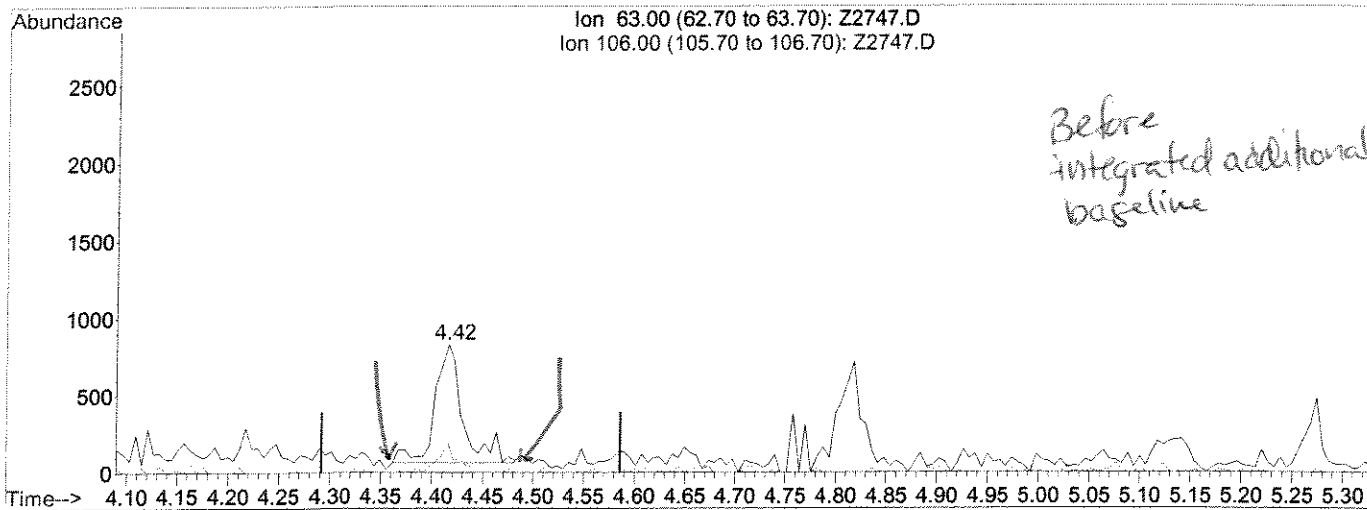
response 888

Ion	Exp%	Act%
42.00	100	100
72.00	39.90	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2747.D Vial: 9  
 Acq On : 8 Jul 2008 1:27 pm Operator: Herring  
 Sample : 1.0PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 14:16 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Multiple Level Calibration



(61) 2-Chloroethylvinyl Ether

4.42min 1.12ppb

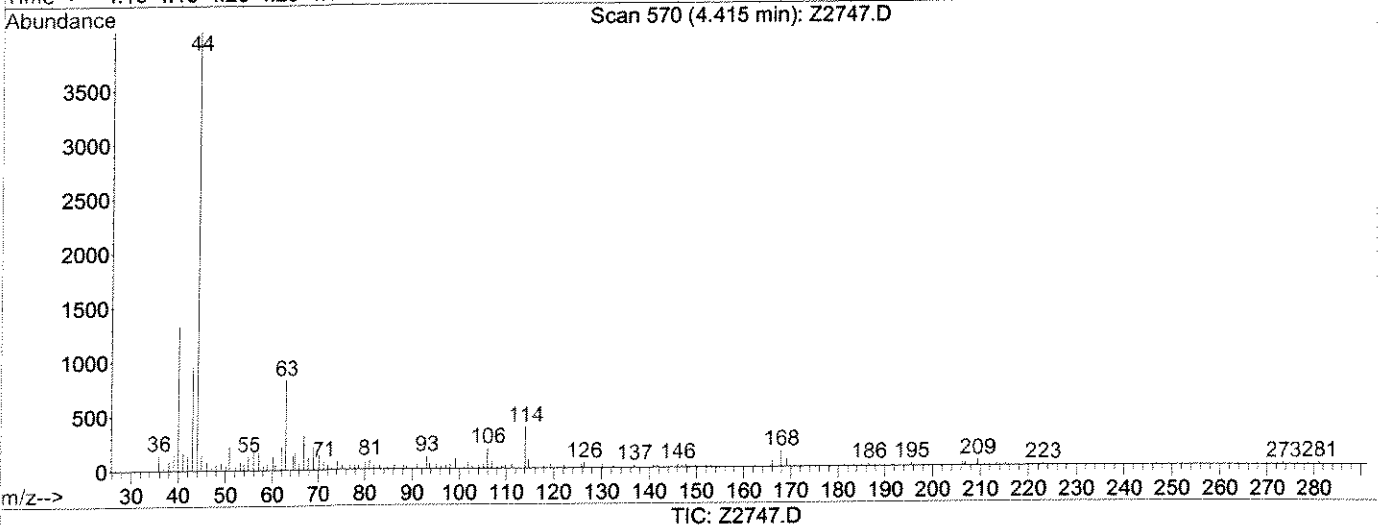
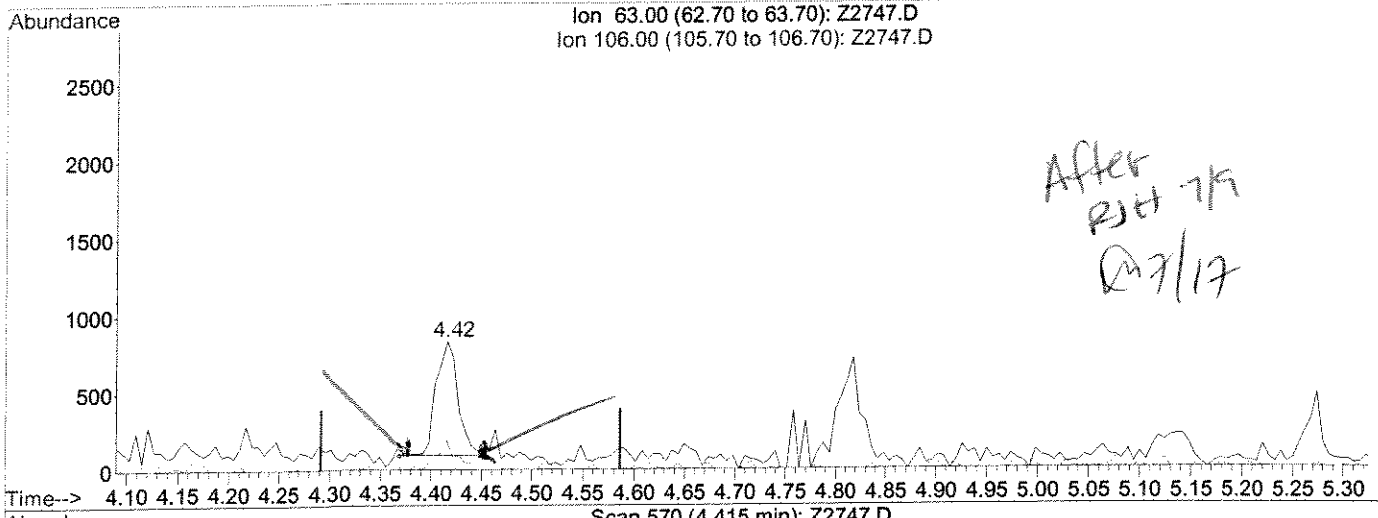
response 1461

Ion	Exp%	Act%
63.00	100	100
106.00	27.20	22.77
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2747.D Vial: 9  
 Acq On : 8 Jul 2008 1:27 pm Operator: Herring  
 Sample : 1.0PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 14:16 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Multiple Level Calibration



(61) 2-Chloroethylvinyl Ether

4.42min 0.85ppb m

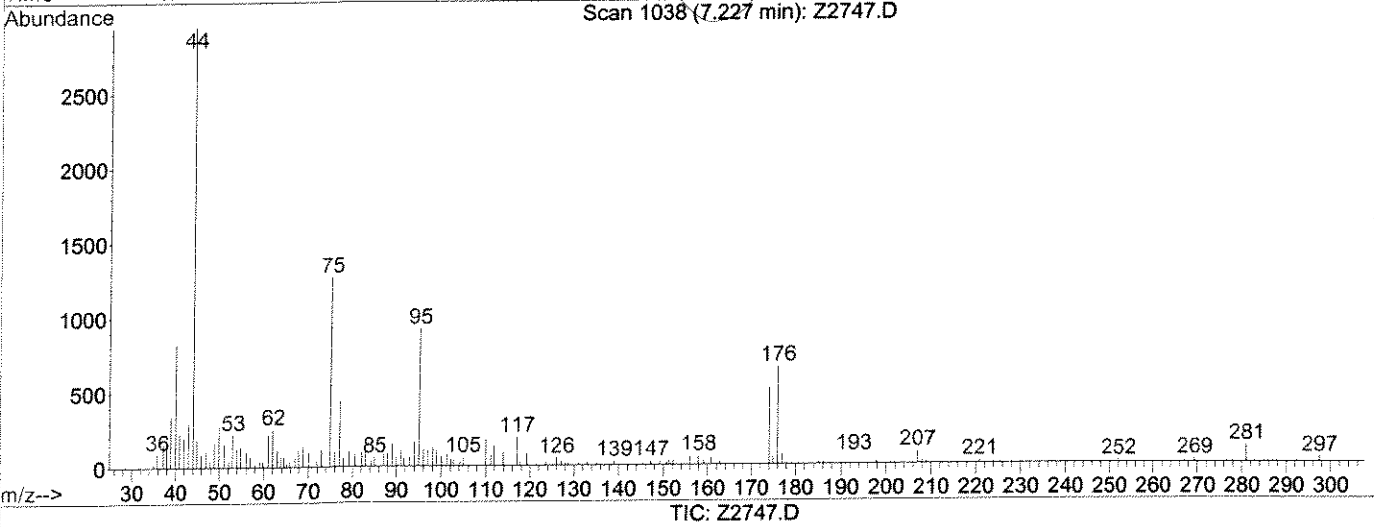
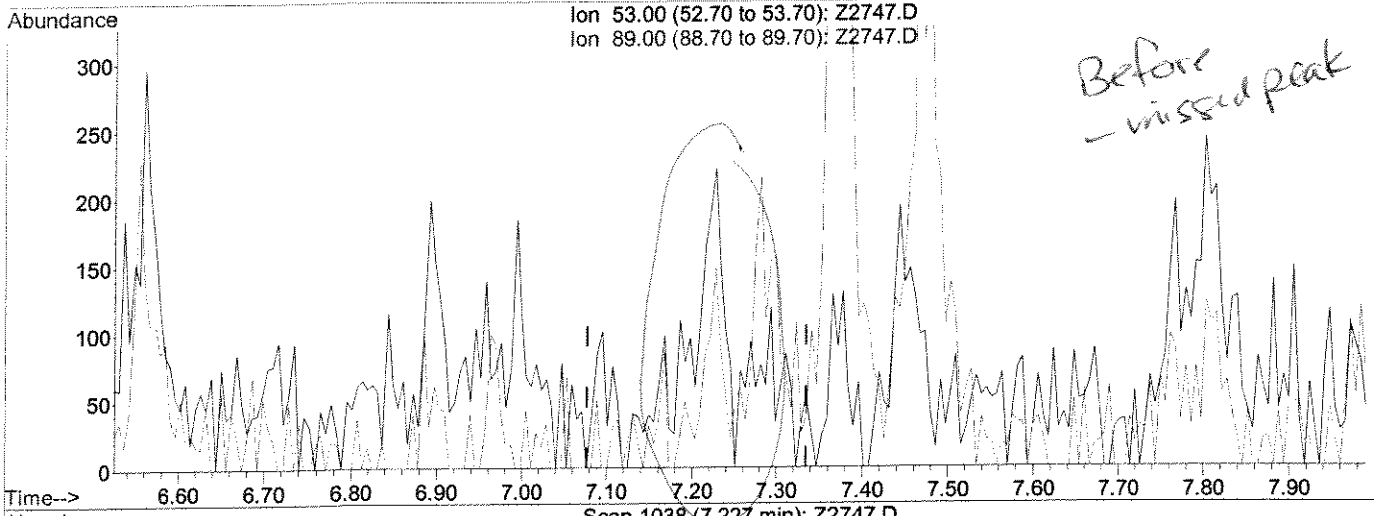
response 1102

Ion	Exp%	Act%
63.00	100	100
106.00	27.20	22.77
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2747.D Vial: 9  
 Acq On : 8 Jul 2008 1:27 pm Operator: Herring  
 Sample : 1.0PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 14:17 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Multiple Level Calibration



(87) Trans-1,4-Dichloro-2-butene

7.23min 0.00ppb

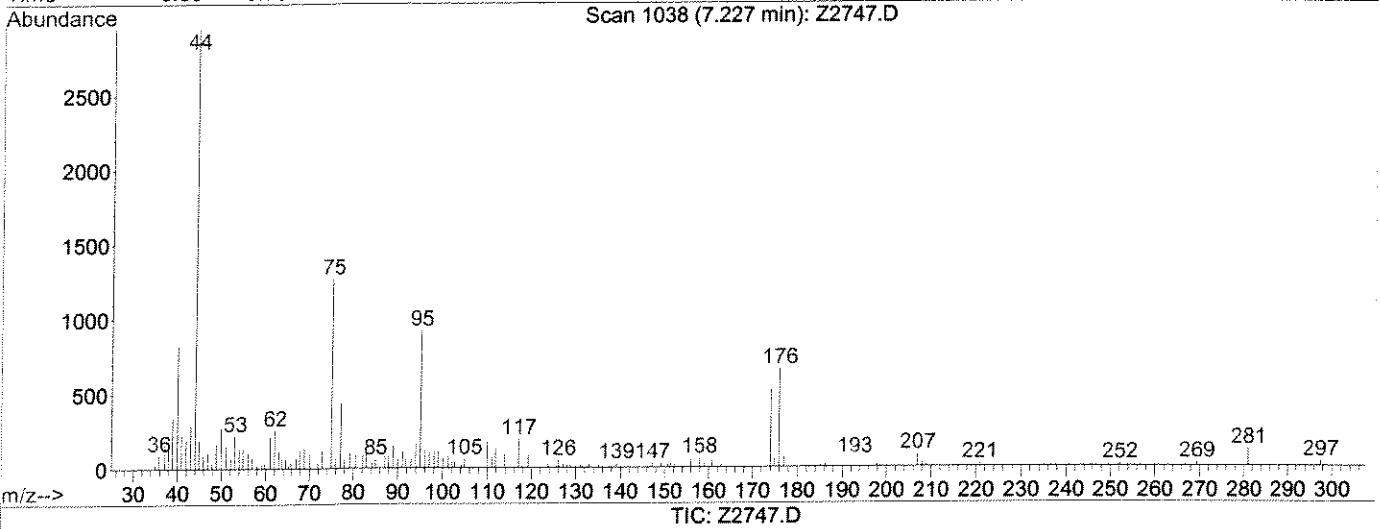
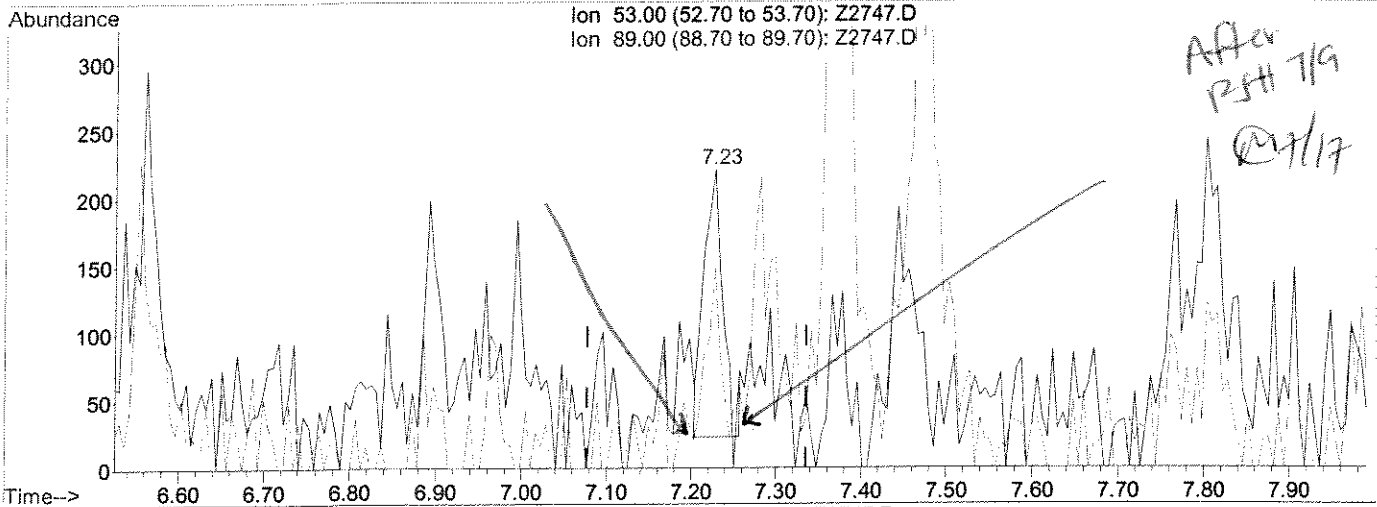
response 0

Ion	Exp%	Act%
53.00	100	0.00
89.00	67.00	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2747.D Vial: 9  
 Acq On : 8 Jul 2008 1:27 pm Operator: Herring  
 Sample : 1.0PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 14:21 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Multiple Level Calibration



(87) Trans-1,4-Dichloro-2-butene

7.23min 0.87ppb m

response 312

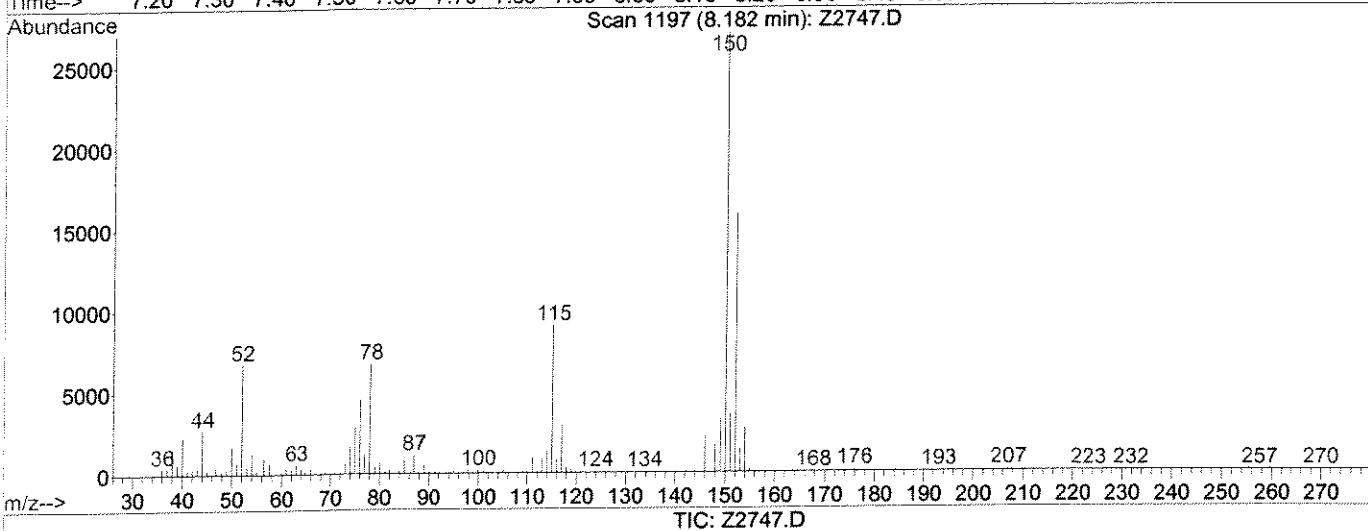
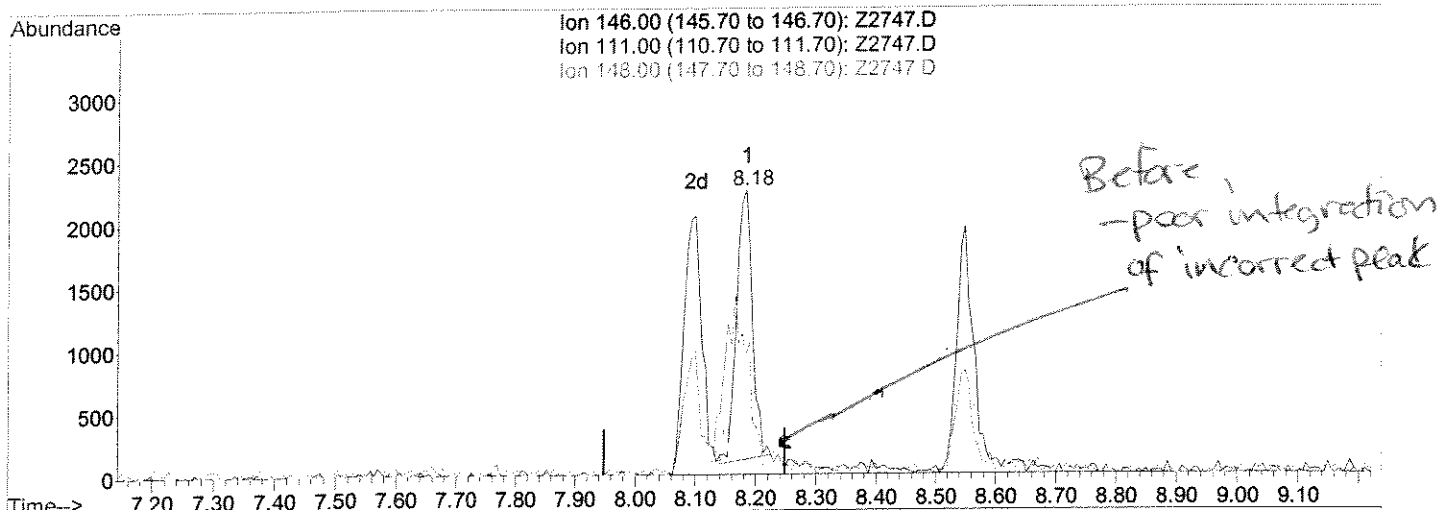
Ion	Exp%	Act%
53.00	100	100
89.00	67.00	66.97
0.00	0.00	0.00
0.00	0.00	0.00



Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2747.D Vial: 9  
 Acq On : 8 Jul 2008 1:27 pm Operator: Herring  
 Sample : 1.0PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 14:21 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Multiple Level Calibration



(99) 1,3-Diclbz

8.18min 0.93ppb

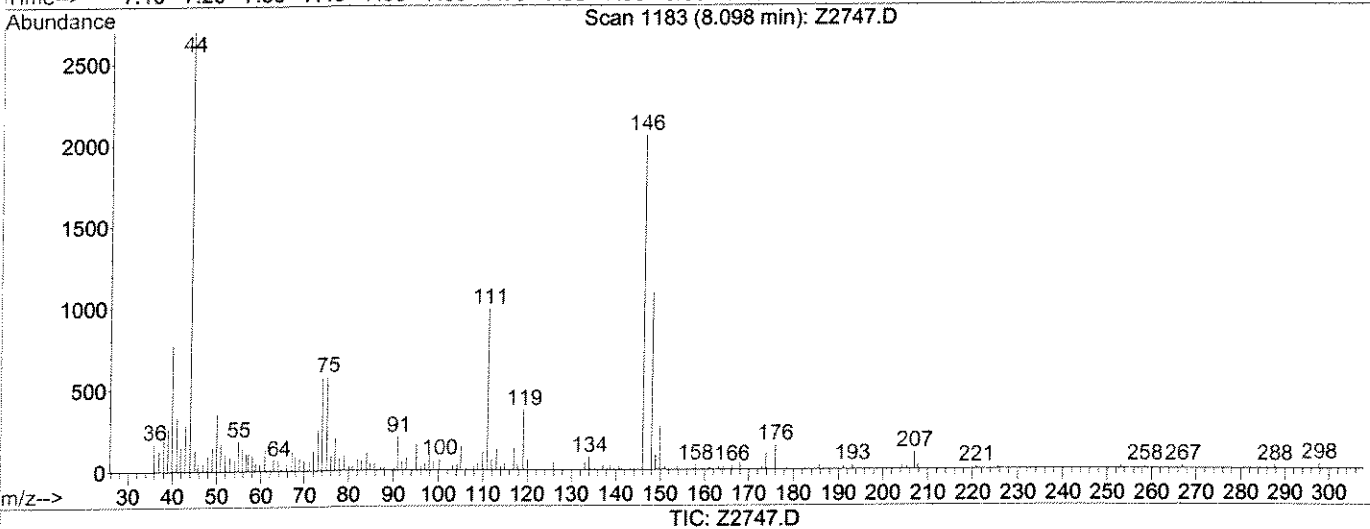
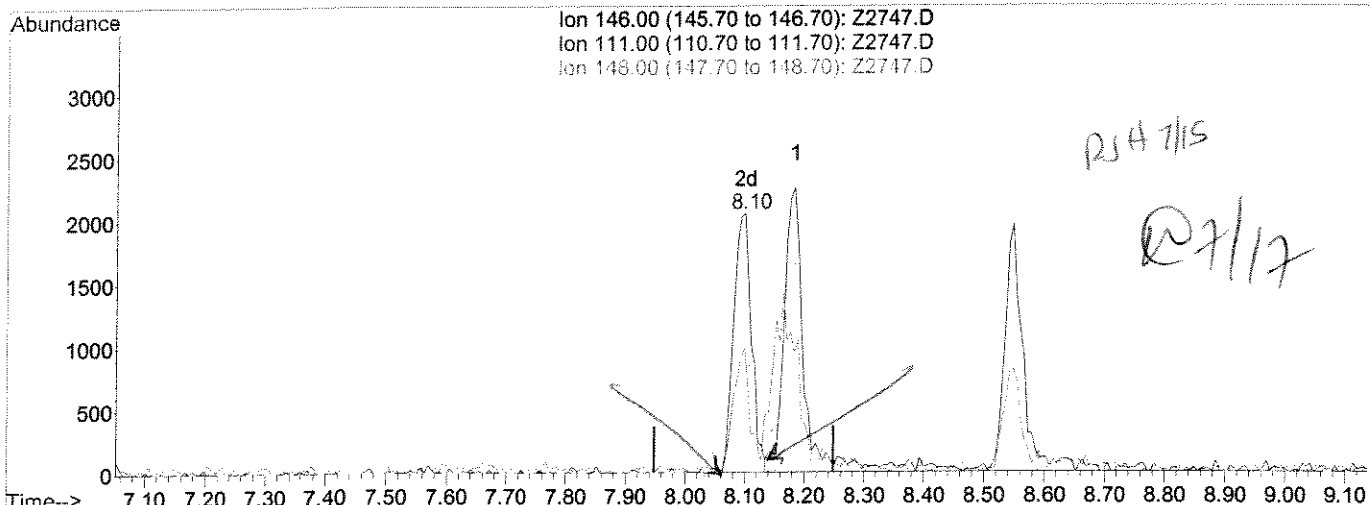
response 3956

Ion	Exp%	Act%
146.00	100	100
111.00	39.90	42.26
148.00	64.10	74.72
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2747.D Vial: 9  
 Acq On : 8 Jul 2008 1:27 pm Operator: Herring  
 Sample : 1.0PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 14:24 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 16:13:36 2008  
 Response via : Multiple Level Calibration



(99) 1,3-Dclbenz

8.10min 1.01ppb m

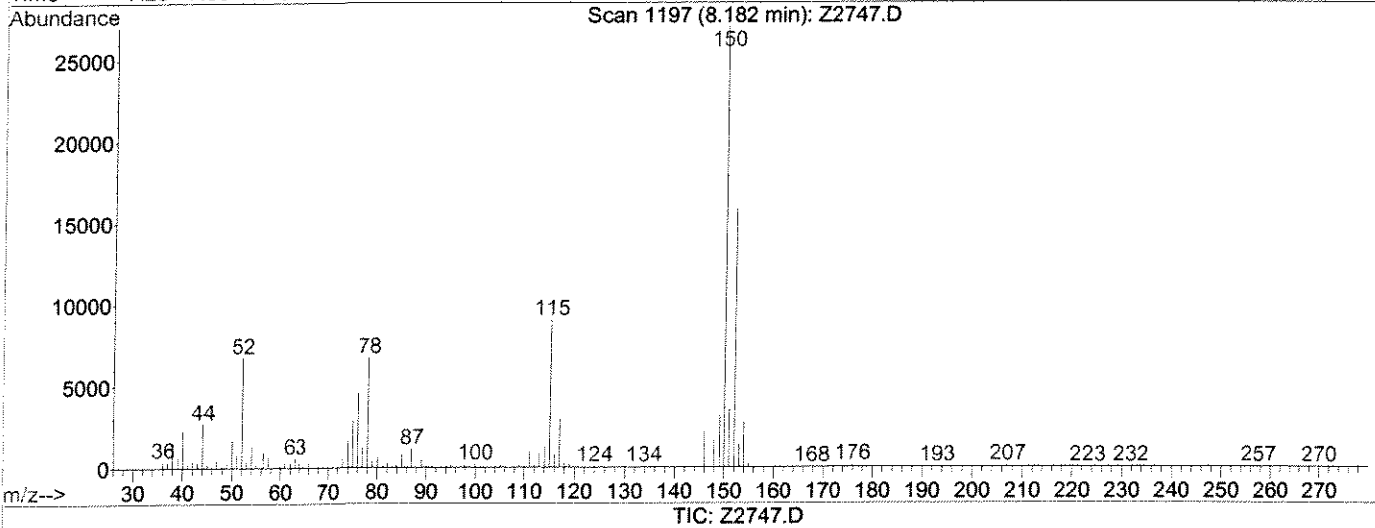
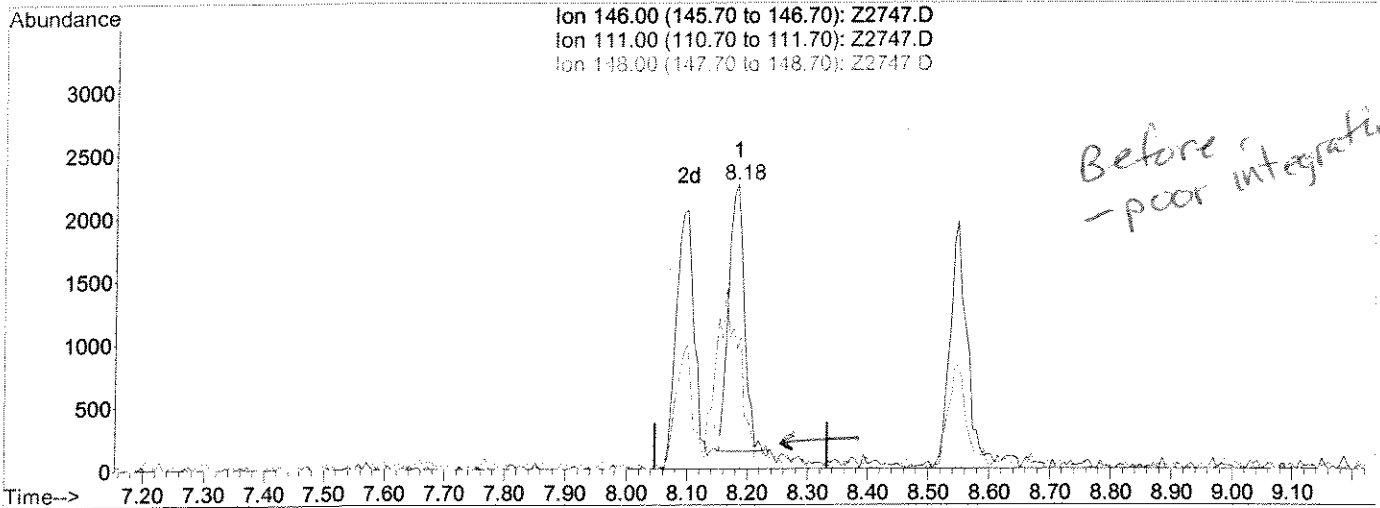
response 4327

Ion	Exp%	Act%
146.00	100	100
111.00	39.90	48.10#
148.00	64.10	52.88
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOAS\DATA\070808\Z2747.D Vial: 9  
 Acq On : 8 Jul 2008 1:27 pm Operator: Herring  
 Sample : 1.0PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 14:22 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOAS\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Multiple Level Calibration



(100) 1,4-Dcibenz

8.18min 0.90ppb

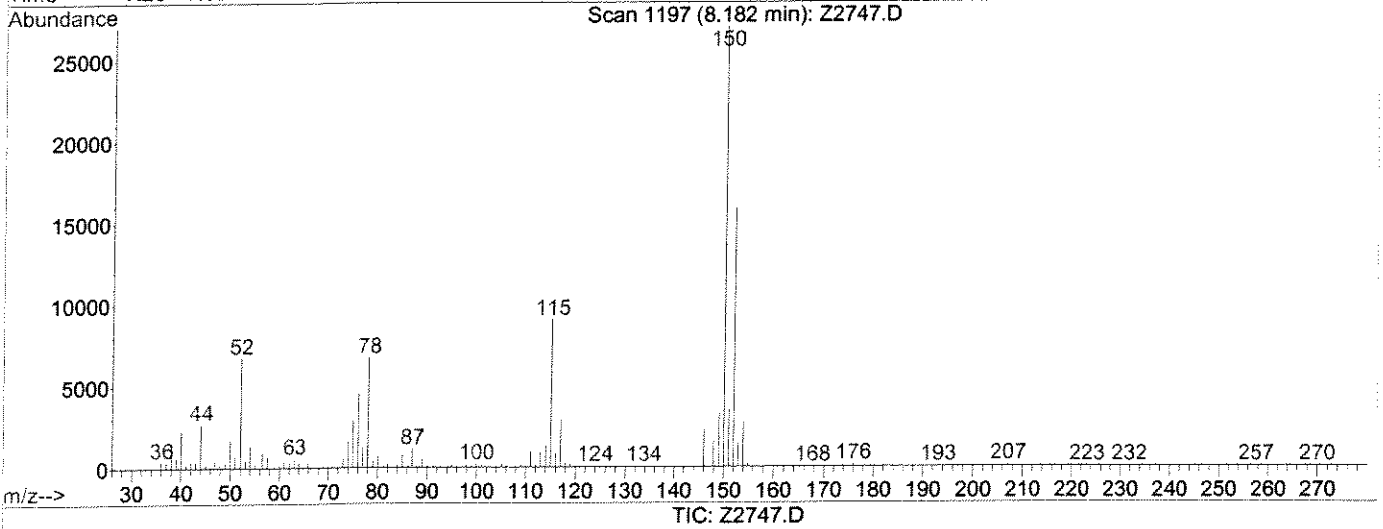
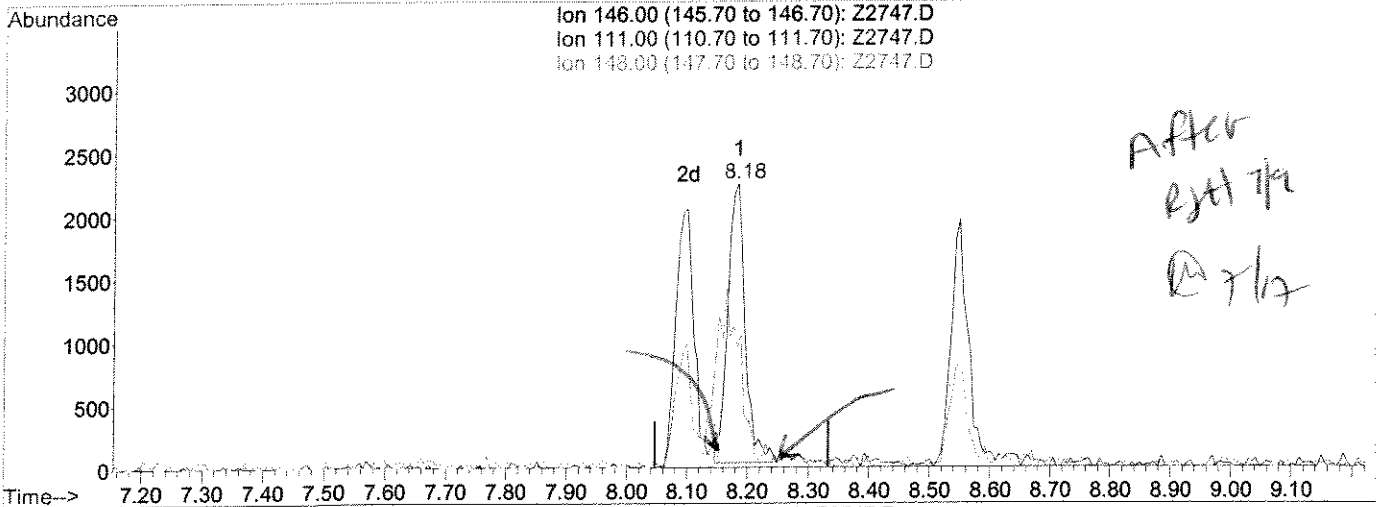
response 3845

Ion	Exp%	Act%
146.00	100	100
111.00	38.30	42.26
148.00	63.40	74.72
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2747.D Vial: 9  
Acq On : 8 Jul 2008 1:27 pm Operator: Herring  
Sample : 1.0PPB Inst : MS #8  
Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
MS Integration Params: RTEINT.P  
Quant Time: Jul 9 14:23 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
Title : 8260voa  
Last Update : Wed Jul 09 12:58:26 2008  
Response via : Multiple Level Calibration



(100) 1,4-Diclbz

8.18min 1.04ppb m

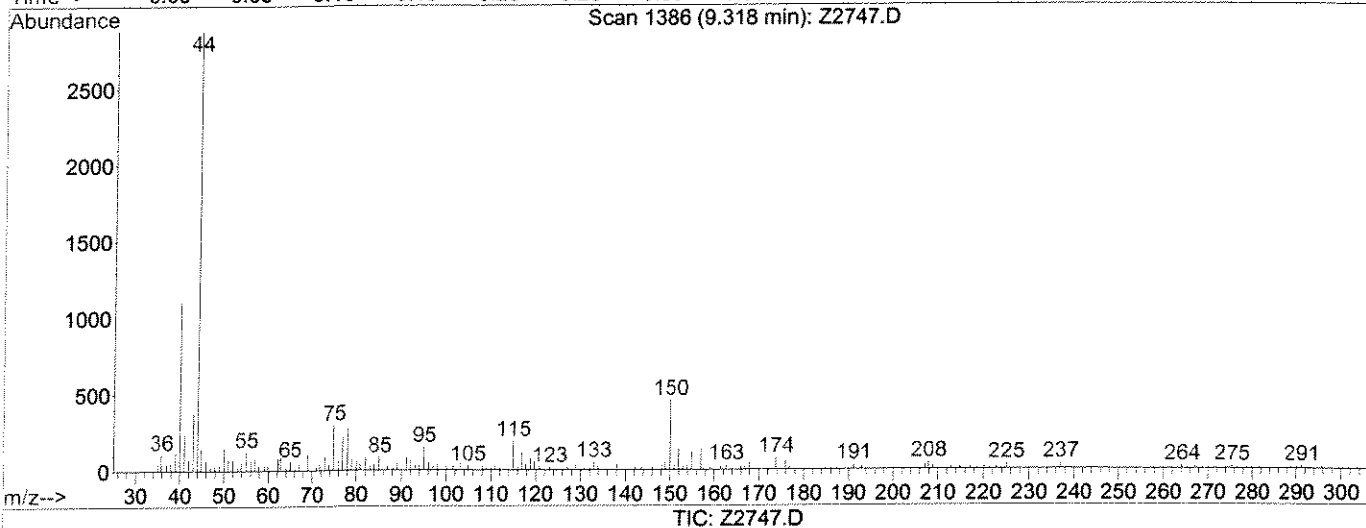
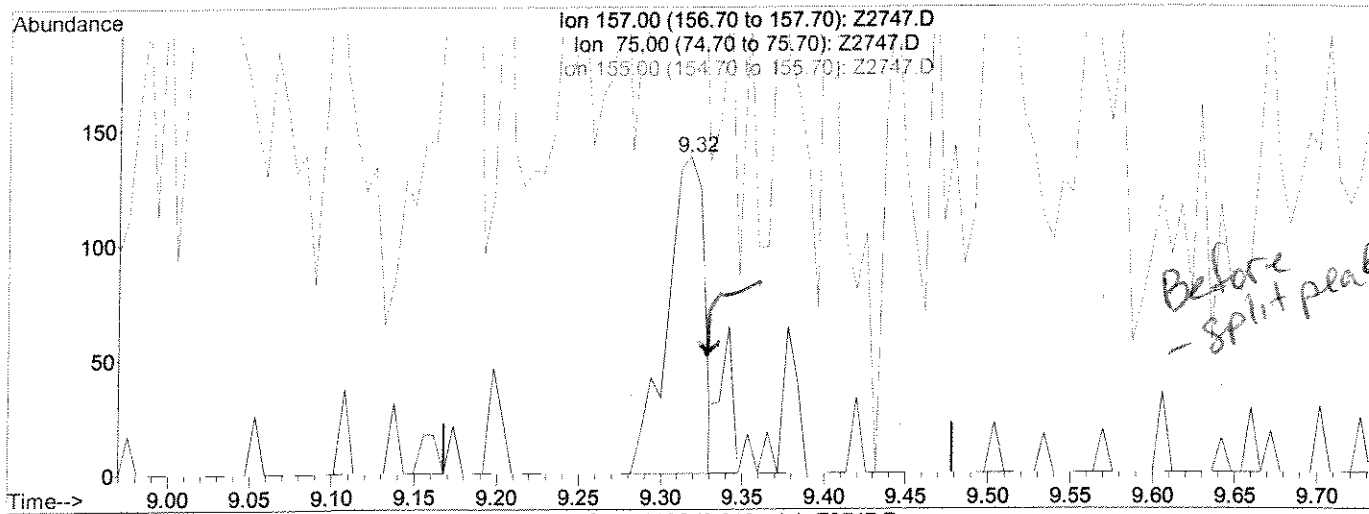
response 4414

Ion	Exp%	Act%
146.00	100	100
111.00	38.30	42.26
148.00	63.40	74.72
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2747.D Vial: 9  
Acq On : 8 Jul 2008 1:27 pm Operator: Herring  
Sample : 1.0PPB Inst : MS #8  
Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
MS Integration Params: RTEINT.P  
Quant Time: Jul 9 14:23 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
Title : 8260voa  
Last Update : Wed Jul 09 12:58:26 2008  
Response via : Multiple Level Calibration



(104) 1,2-Dibromo-3-chloropropane

9.32min 0.95ppb

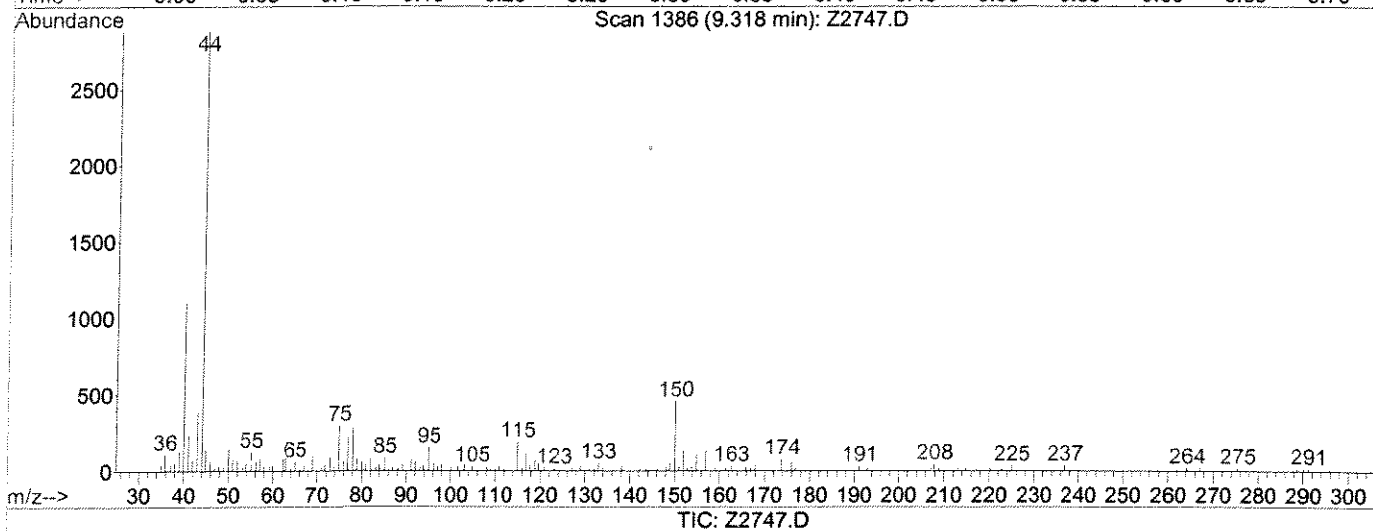
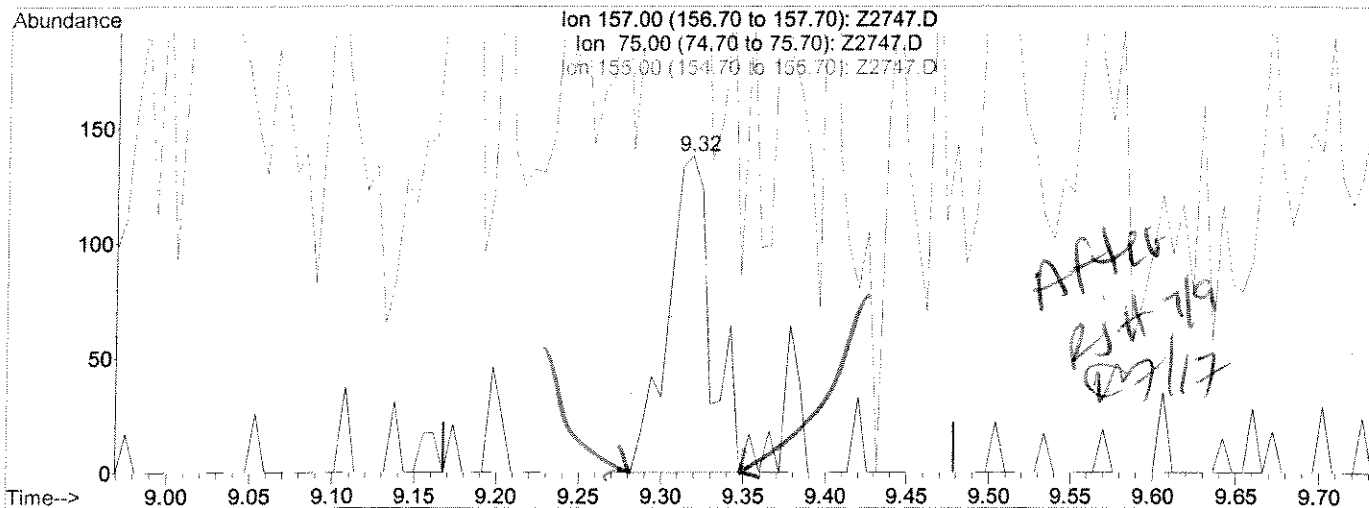
response 217

Ion	Exp%	Act%
157.00	100	100
75.00	96.30	215.94#
155.00	79.90	83.33
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOAS\DATA\070808\Z2747.D Vial: 9  
 Acq On : 8 Jul 2008 1:27 pm Operator: Herring  
 Sample : 1.0PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 14:23 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOAS\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Multiple Level Calibration



(104) 1,2-Dibromo-3-chloropropane

9.32min 1.10ppb m

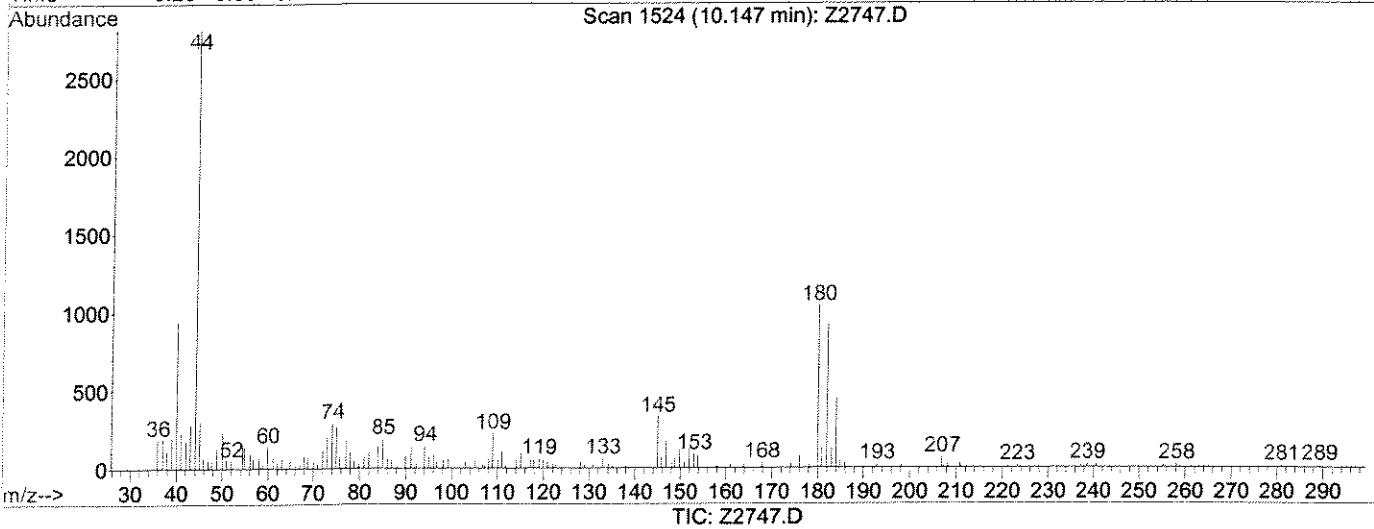
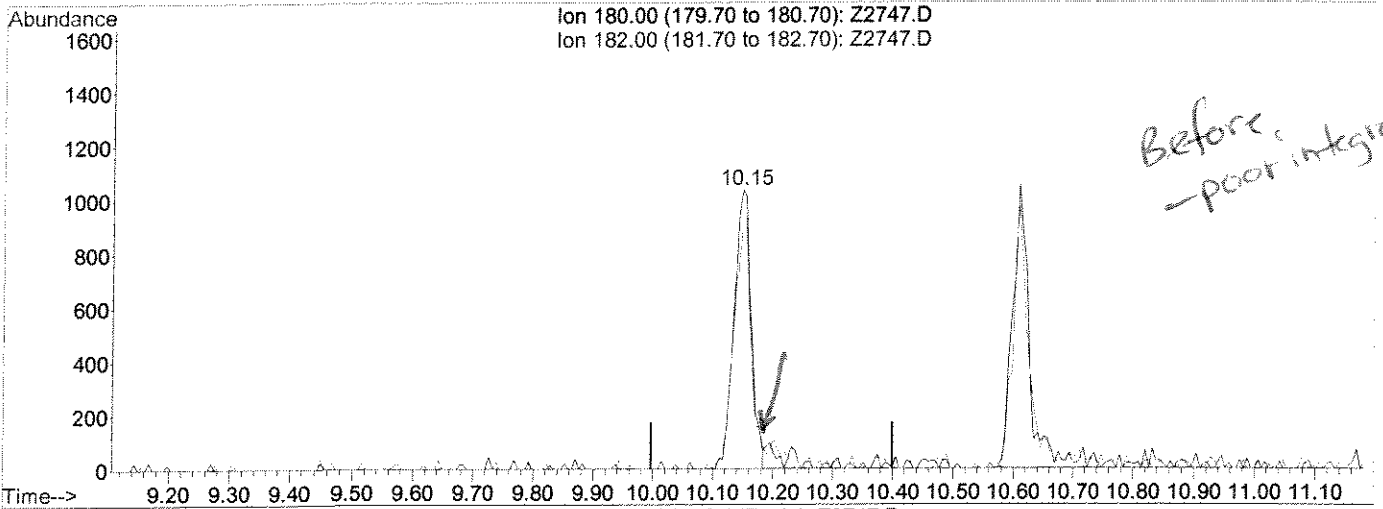
response 251

Ion	Exp%	Act%
157.00	100	100
75.00	96.30	215.94#
155.00	79.90	83.33
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2747.D Vial: 9  
 Acq On : 8 Jul 2008 1:27 pm Operator: Herring  
 Sample : 1.0PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 14:23 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Multiple Level Calibration



(106) 1,2,4-Tcbenzene

10.15min 1.04ppb

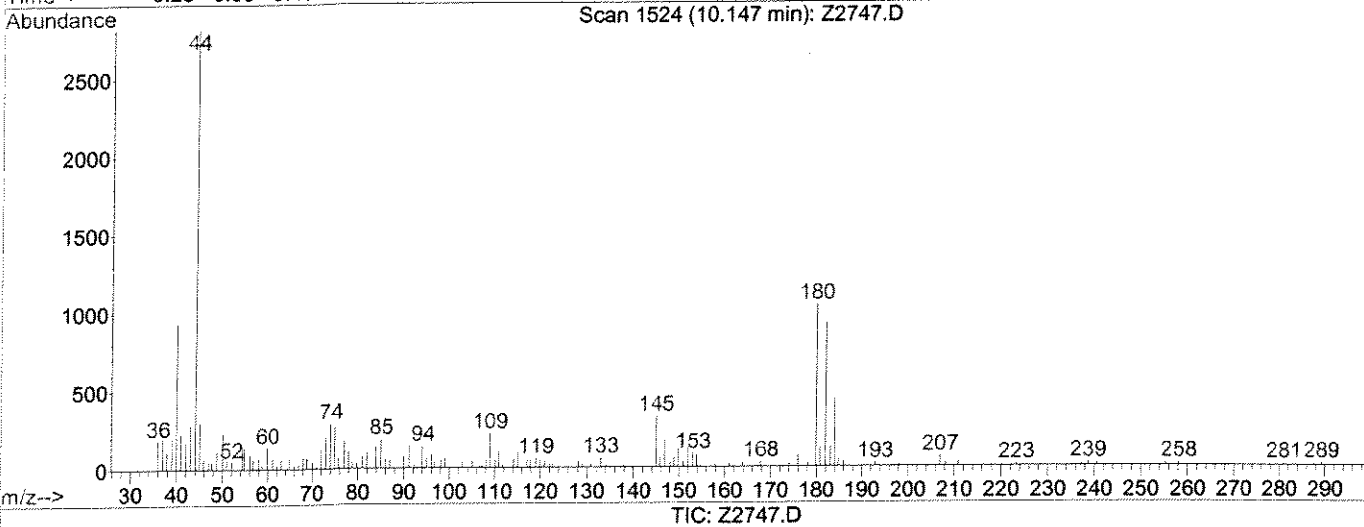
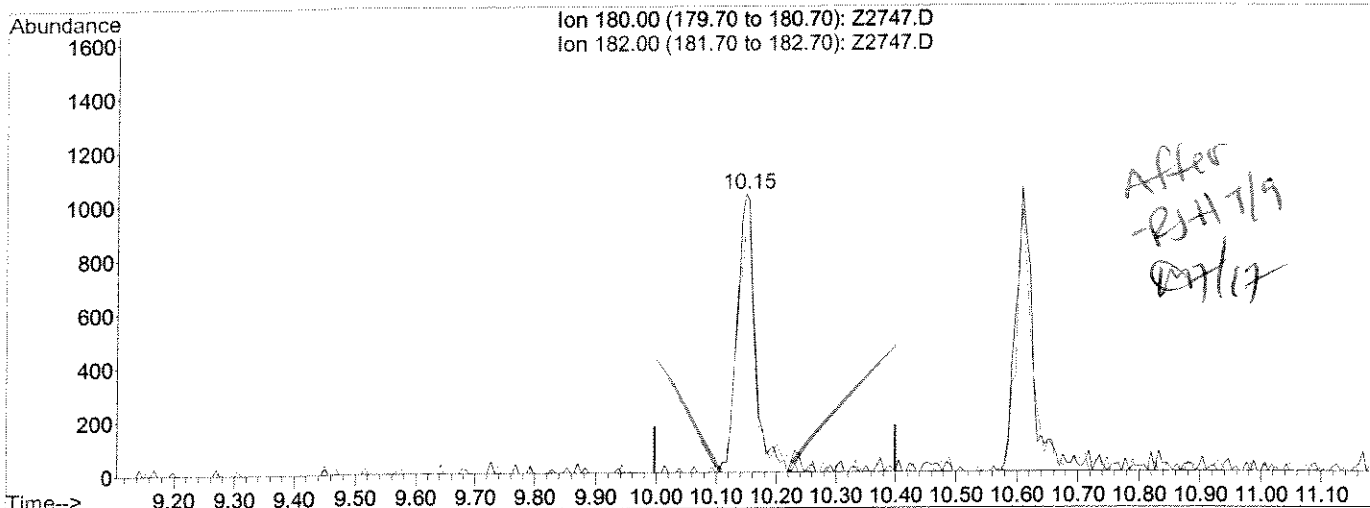
response 2059

Ion	Exp%	Act%
180.00	100	100
182.00	96.20	88.71
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2747.D Vial: 9  
Acq On : 8 Jul 2008 1:27 pm Operator: Herring  
Sample : 1.0PPB Inst : MS #8  
Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
MS Integration Params: RTEINT.P  
Quant Time: Jul 9 14:24 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
Title : 8260voa  
Last Update : Wed Jul 09 12:58:26 2008  
Response via : Multiple Level Calibration



(106) 1,2,4-Tbenzene

10.15min 1.10ppb m

response 2173

Ion	Exp%	Act%
180.00	100	100
182.00	96.20	88.71
0.00	0.00	0.00
0.00	0.00	0.00





Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2748.D Vial: 10  
 Acq On : 8 Jul 2008 1:55 pm Operator: Herring  
 Sample : 2.0PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 14:39 2008 Quant Results File: W070808.RES

*RJH  
7/9/08*

Quant Method : J:\ACQUDATA\M...\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Initial Calibration  
 DataAcq Meth : W070808

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	3.15	168	283965	50.00	ppb	0.00
42) 1,4 - Difluorobenzene	3.66	114	490721	50.00	ppb	0.00
63) d5 - Chlorobenzene	5.97	117	420369	50.00	ppb	0.00
85) d4 - Dichlorobenzene	8.16	152	195058	50.00	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) surr4,Dibrflmethane	3.15	113	31966	11.97	ppb	0.00
Spiked Amount						
Recovery						23.94%
48) surr1,1,2-Diclcethane	3.37	65	33628	12.76	ppb	0.00
Spiked Amount						
Recovery						25.52%
69) surr3,Toluene-d8	4.76	98	118628	11.63	ppb	0.00
Spiked Amount						
Recovery						23.26%
70) surr2,bfb	7.04	95	46648	13.03	ppb	0.00
Spiked Amount						
Recovery						26.06%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.07	85	4609	2.03	ppb	99
4) Chloromethane	1.18	50	7727	1.88	ppb	94
5) Vinyl Chloride	1.24	62	6482	2.02	ppb	94
6) Bromomethane	1.42	94	4428	2.22	ppb	99
7) Chloroethane	1.47	64	3810	1.82	ppb	94
8) FREON 21	1.56	67	11079	2.10	ppb	92
9) Trichlorofluoromethane	1.60	101	6468	2.10	ppb	89
10) Diethyl Ether	1.74	59	3386	2.01	ppb	94
11) FREON 123A	1.74	85	3048	2.52	ppb	77
12) FREON 123	1.76	85	4898	2.00	ppb	93
13) Acrolein	1.81	56	1488m	7.14	ppb	
14) FREON 113	1.86	85	2055	2.16	ppb	84
15) 1,1-Diclcethene	1.87	96	4780	2.26	ppb	96
16) Acetone	1.89	43	1588	3.21	ppb	# 70
17) 2-Propanol	1.94	45	1862m	23.78	ppb	
18) Iodomethane	1.96	127	1140	1.06	ppb	94
19) Carbon Disulfide	2.01	76	16680	1.97	ppb	99
20) Acetonitrile	2.04	40	1072	10.14	ppb	# 39
21) Allyl Chloride	2.06	76	2869	2.13	ppb	98
22) Methyl Acetate	2.06	43	4721	2.70	ppb	93
23) Methylene Chloride	2.13	84	5473	1.98	ppb	96
24) TBA	2.16	59	2979	28.54	ppb	# 67
25) Acrylonitrile	2.25	53	5700	9.40	ppb	87
26) Methyl-t-Butyl Ether	2.27	73	11765	2.41	ppb	94
27) trans-1,2-Dichloroethene	2.28	96	4989	1.99	ppb	93
28) 1,1-Diclcethane	2.52	63	10035	1.97	ppb	92
29) DIPE	2.53	45	21303	1.88	ppb	98
30) Vinyl Acetate	2.52	86	560m	2.00	ppb	
31) 2-Chloro-1,3-butadiene	2.56	53	8272	1.88	ppb	90
32) ETBE	2.75	59	15274	2.02	ppb	95
33) 2,2-Dichloropropane	2.86	77	7365	2.17	ppb	98
34) 2-Butanone	2.85	43	1907	2.27	ppb	# 87
35) cis-1,2-Dichloroethene	2.85	96	5536	1.99	ppb	98
36) Propionitrile	2.89	54	1686	8.01	ppb	# 60
37) Methacrylonitrile	2.99	67	1538	2.67	ppb	77

*RJH  
7/9/08*

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2748.D  
 Acq On : 8 Jul 2008 1:55 pm  
 Sample : 2.0PPB  
 Misc : Initial Calibration- 8260B WATER  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 14:39 2008

Vial: 10  
 Operator: Herring  
 Inst : MS #8  
 Multiplr: 1.00

Quant Results File: W070808.RES

Quant Method : J:\ACQUDATA\M...\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Initial Calibration  
 DataAcq Meth : W070808

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) Bromochloromethane	3.00	128	2370	2.10	ppb	97
39) Chloroform	3.04	83	8623	1.92	ppb	92
40) Tetrahydrofuran	3.05	42	1253	2.69	ppb	96
41) 1,1,1-Trichloroethane	3.18	97	6965	2.16	ppb #	1
44) cyclohexane	3.22	56	10185	1.86	ppb #	96
45) Carbontetrachloride	3.29	117	5097	2.21	ppb	84
46) 1,1-Dichloropropene	3.28	75	7856	2.22	ppb #	91
47) Iso-Butyl Alcohol	3.30	43	1567m	27.17	ppb	<i>RJH 7/9/08</i>
49) Benzene	3.42	78	22006	2.13	ppb	97
50) 1,2-Dichloroethane	3.42	62	5820	2.18	ppb	95
51) TAME	3.48	73	11788	2.16	ppb	92
52) N-Heptane	3.57	43	11182	2.43	ppb	90
53) Trichloroethene	3.85	95	4992	2.04	ppb	93
54) methylcyclohexane	4.00	55	8135	1.88	ppb	94
55) 1,2-Diclpropane	4.01	63	5588	1.99	ppb	99
56) Methyl Methacrylate	4.07	69	2796	2.88	ppb #	81
58) Dibromomethane	4.10	93	2866	2.51	ppb	92
59) Bromodichloromethane	4.20	83	6466	2.31	ppb	93
60) 2-Nitropropane	4.42	43	2896	8.05	ppb	98
61) 2-Chloroethylvinyl Ether	4.42	63	2675m	2.01	ppb	
62) cis-1,3-Dichloropropene	4.54	75	7849	2.16	ppb	93
64) 4-Methyl-2-Pentanone	4.66	43	3783m	2.23	ppb	
65) Toluene	4.81	91	21682	2.11	ppb	95
66) trans-1,3-Dichloropropene	4.97	75	5912m	2.13	ppb	
67) Ethyl Methacrylate	5.04	69	4991m	2.62	ppb	
68) 1,1,2-Trichloroethane	5.12	83	2992	2.29	ppb	88
71) Tetrachloroethene	5.27	166	4880	2.14	ppb #	90
72) 2-Hexanone	5.33	43	3721	3.21	ppb #	82
73) 1,3-Dichloropropene	5.27	76	6327	2.15	ppb #	81
74) Dibromochloromethane	5.47	129	3796	2.29	ppb	98
75) 1,2-Dibromoethane	5.57	107	2814	1.96	ppb	91
76) Chlorobenzene	6.00	112	12795	2.05	ppb	95
77) 1,1,1,2-Tetrachloroethane	6.07	131	4132	2.17	ppb #	79
78) Ethylbenzene	6.09	91	23537	2.20	ppb	97
79) (m+p)Xylene	6.19	106	16481	4.16	ppb	94
80) o-Xylene	6.55	106	8219	2.16	ppb	99
81) Styrene	6.57	104	13126	2.04	ppb	92
82) Bromoform	6.74	173	1644	2.12	ppb	97
83) Isopropylbenzene	6.90	105	20813	2.14	ppb	99
84) Cyclohexanone	6.99	55	5624	35.01	ppb	96
86) 1,1,2,2-Tetrachloroethane	7.17	83	3591	1.92	ppb #	91
87) Trans-1,4-Dichloro-2-buten	7.23	53	797	2.15	ppb	85
88) 1,2,3-Trichloropropane	7.21	110	937	2.16	ppb #	81
89) n-Propylbenzene	7.29	91	25367	1.91	ppb	97
90) Bromobenzene	7.19	156	4694	2.07	ppb #	76
92) 1,3,5-Trimethylbenzene	7.45	105	17481	2.01	ppb	93
93) 2-Chlorotoluene	7.37	91	14179	1.95	ppb	95
94) 4-Chlorotoluene	7.47	91	16983	2.01	ppb	94
95) tert-Butylbenzene	7.77	119	14792m	1.93	ppb	
96) 1,2,4-Trimethylbenzene	7.82	105	17948	2.08	ppb	100

(#) = qualifier out of range (m) = manual integration  
 Z2748.D W070808.M Wed Jul 09 16:18:10 2008

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2748.D Vial: 10  
 Acq On : 8 Jul 2008 1:55 pm Operator: Herring  
 Sample : 2.0PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 14:39 2008 Quant Results File: W070808.RES

Quant Method : J:\ACQUDATA\M...\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Initial Calibration  
 DataAcq Meth : W070808

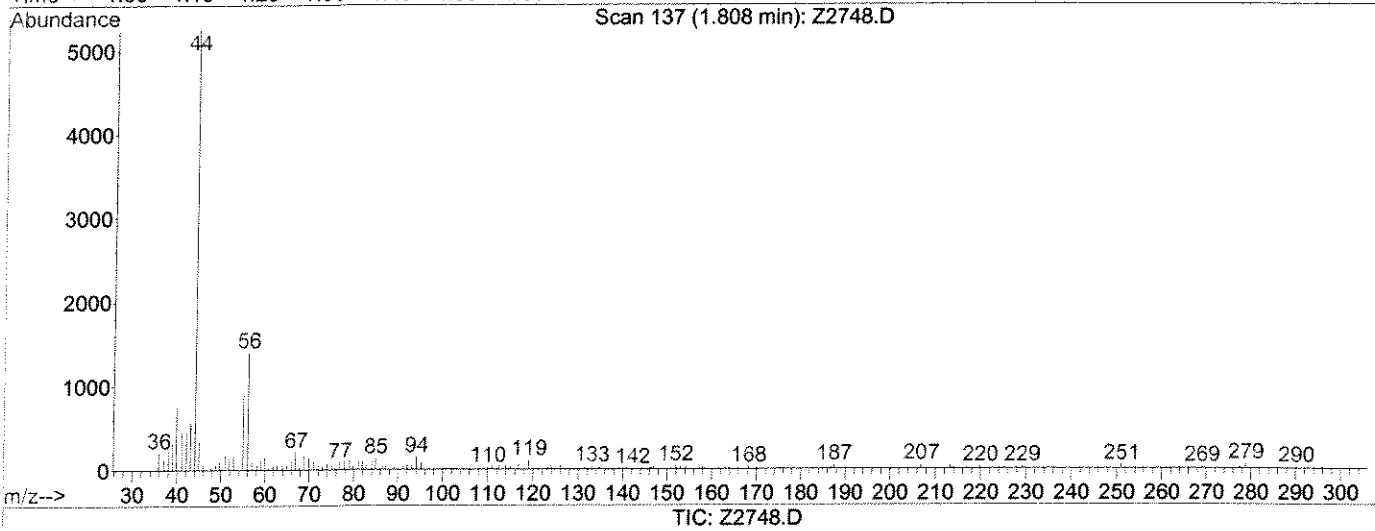
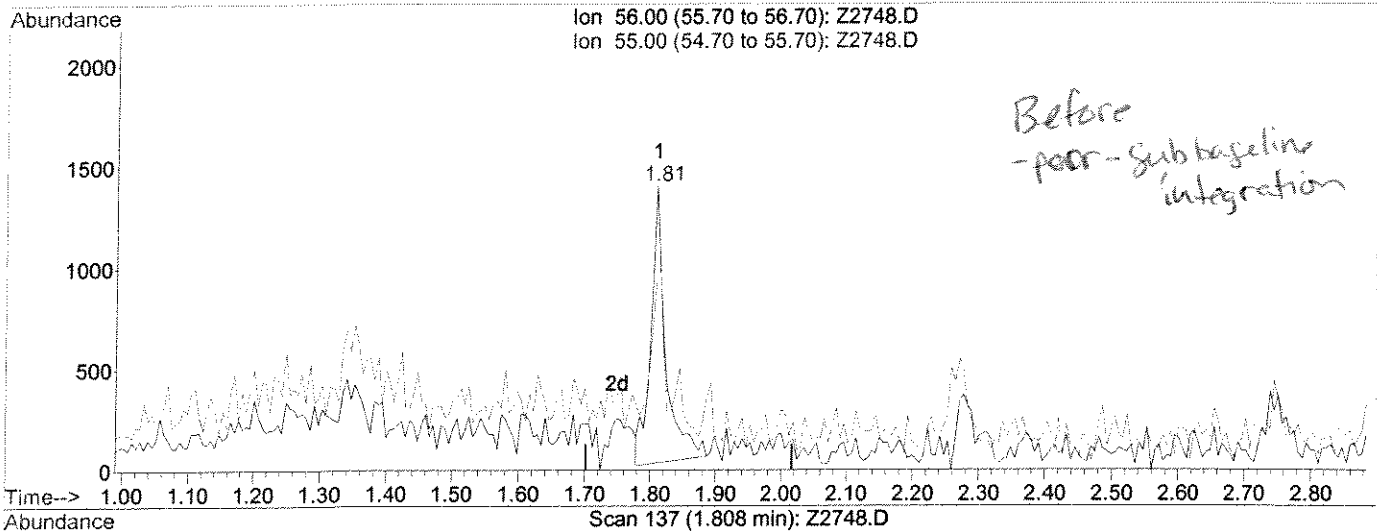
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
97) sec-Butylbenzene	7.98	105	21429	1.83	ppb	# 91
98) p-Isopropyltoluene	8.12	119	17366	1.83	ppb	93
99) 1,3-Dclbenz	8.09	146	8314	1.87	ppb	91
100) 1,4-Dclbenz	8.18	146	9480m	2.14	ppb	96
102) n-Butylbenzene	8.52	91	16604	1.92	ppb	91
103) 1,2-Dclbenz	8.54	146	7766	1.93	ppb	91
104) 1,2-Dibromo-3-chloropropan	9.31	157	430	1.81	ppb	# 47
106) 1,2,4-Tcbenzene	10.15	180	4121	2.00	ppb	83
107) Hexachlorobu	10.31	225	2085	1.95	ppb	93
108) Naphthalen	10.39	128	10823	2.38	ppb	98
109) 1,2,3-Tclbenzene	10.62	180	3753	2.08	ppb	# 79

*RJH 7/9/08*

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2748.D Vial: 10  
 Acq On : 8 Jul 2008 1:55 pm Operator: Herring  
 Sample : 2.0PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 13:00 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Multiple Level Calibration



(13) Acrolein

1.81min 10.53ppb

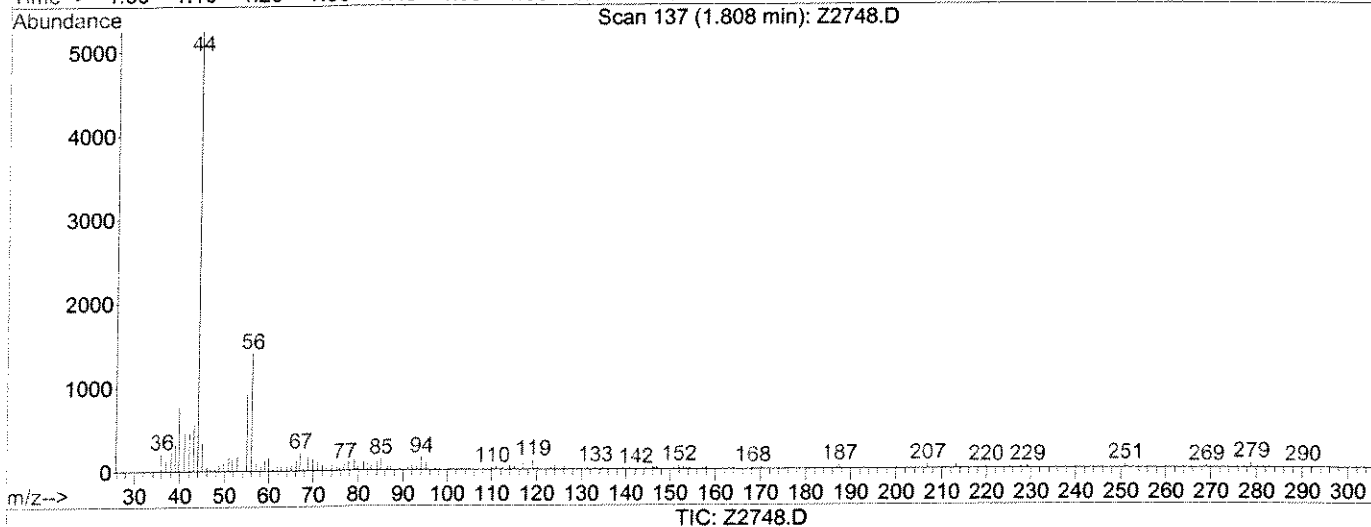
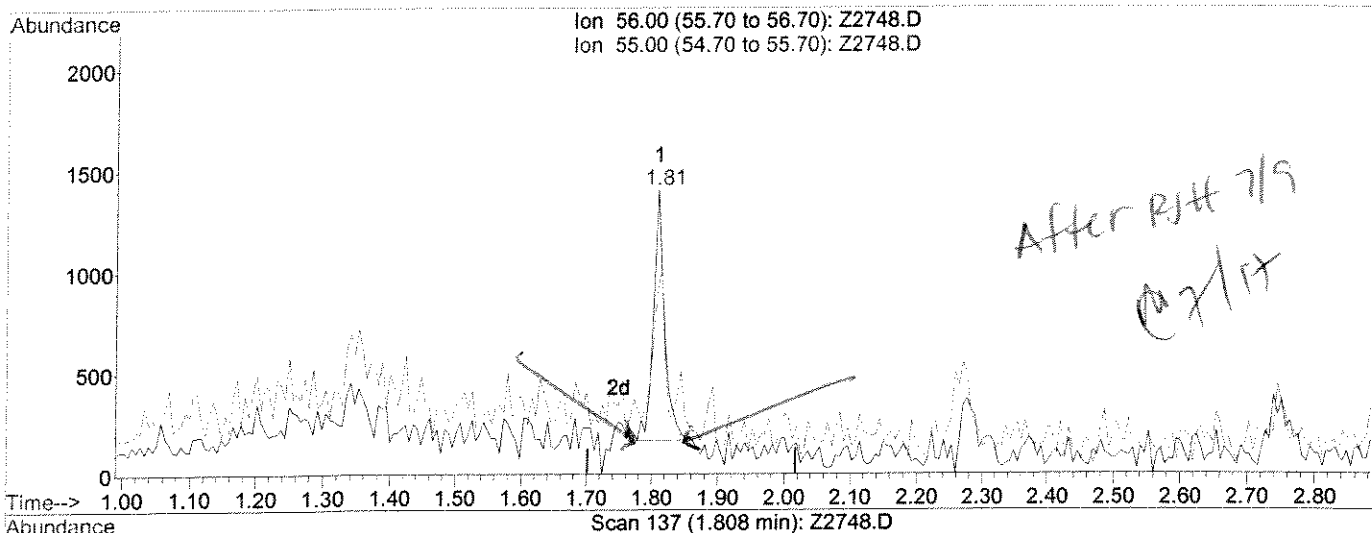
response 2194

Ion	Exp%	Act%
56.00	100	100
55.00	67.30	65.29
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2748.D Vial: 10  
 Acq On : 8 Jul 2008 1:55 pm Operator: Herring  
 Sample : 2.0PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 14:26 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Multiple Level Calibration



(13) Acrolein

1.81min 7.14ppb m

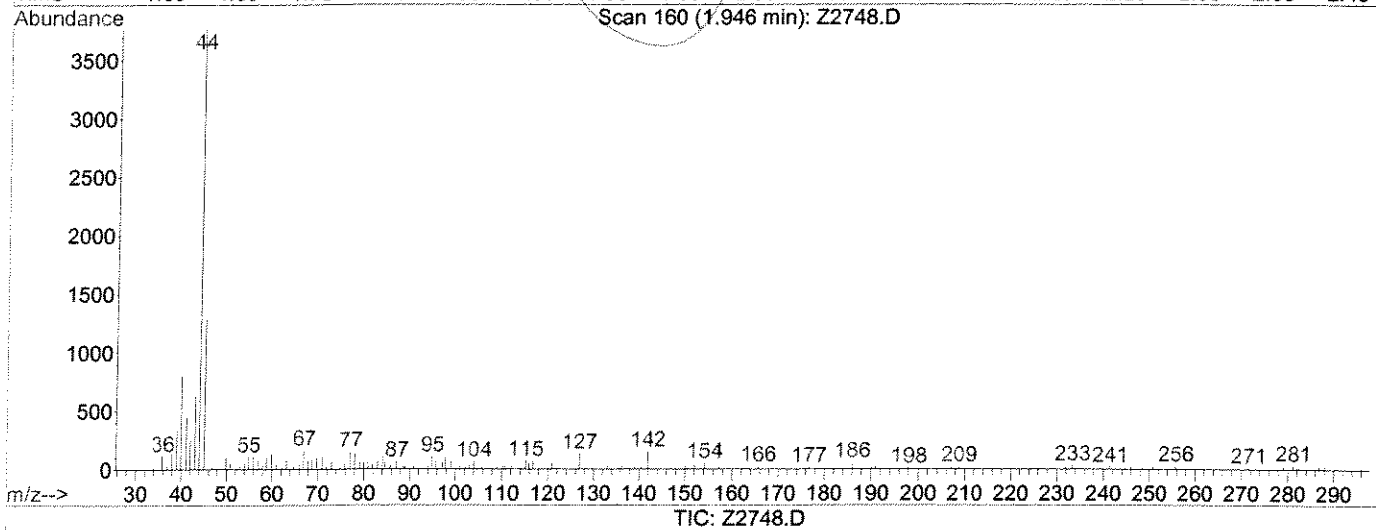
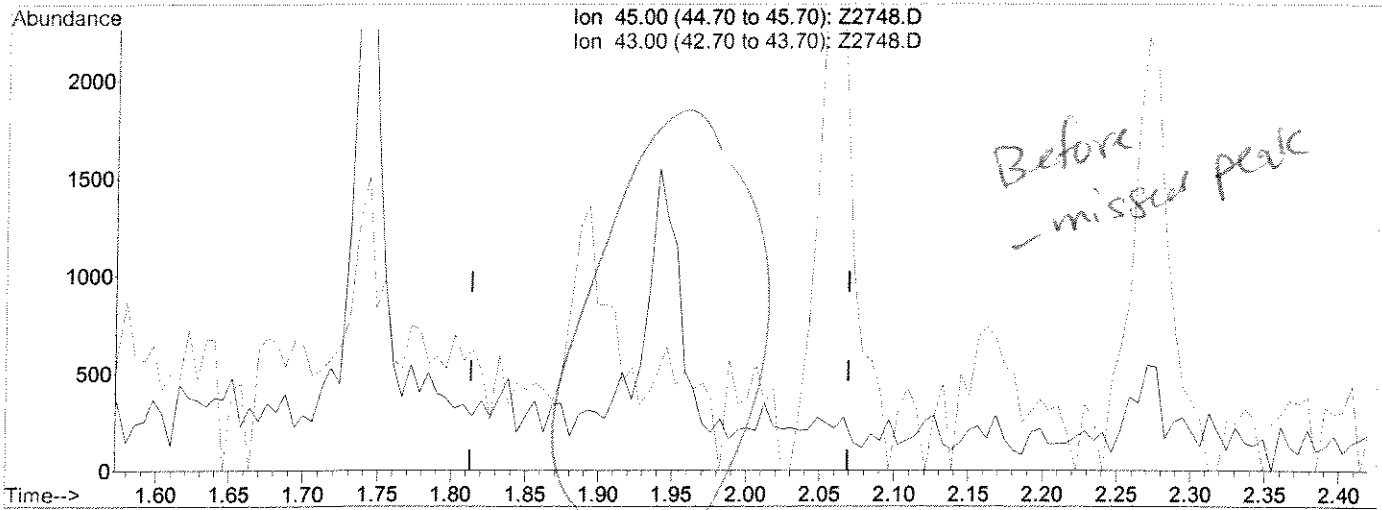
response 1488

Ion	Exp%	Act%
56.00	100	100
55.00	67.30	65.29
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOAS\DATA\070808\Z2748.D Vial: 10  
 Acq On : 8 Jul 2008 1:55 pm Operator: Herring  
 Sample : 2.0PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 14:26 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOAS\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Multiple Level Calibration



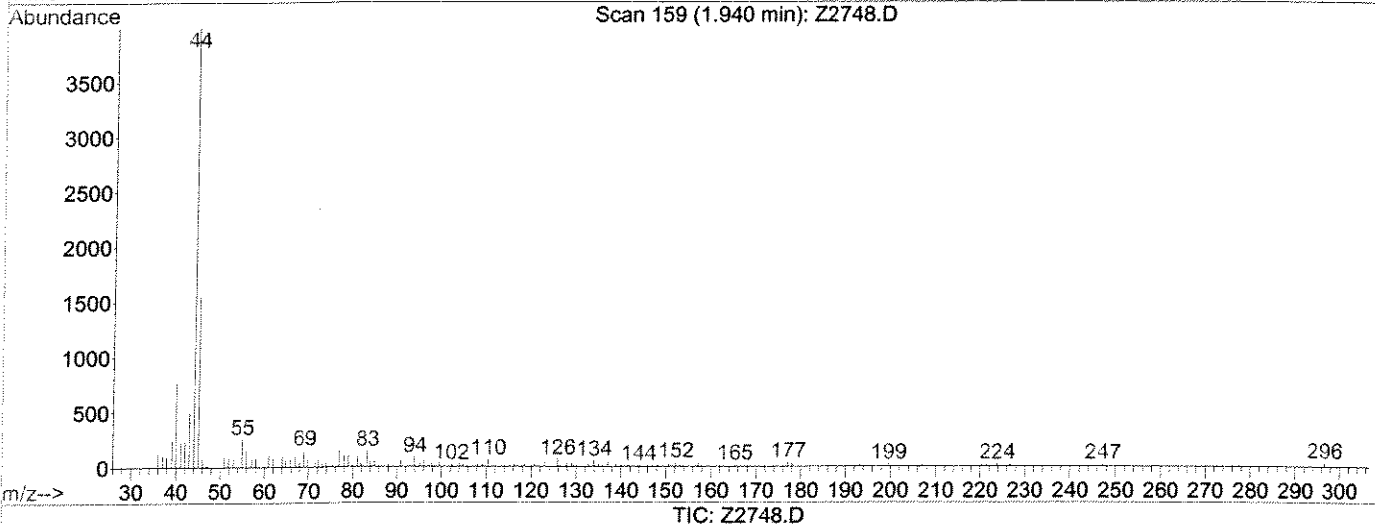
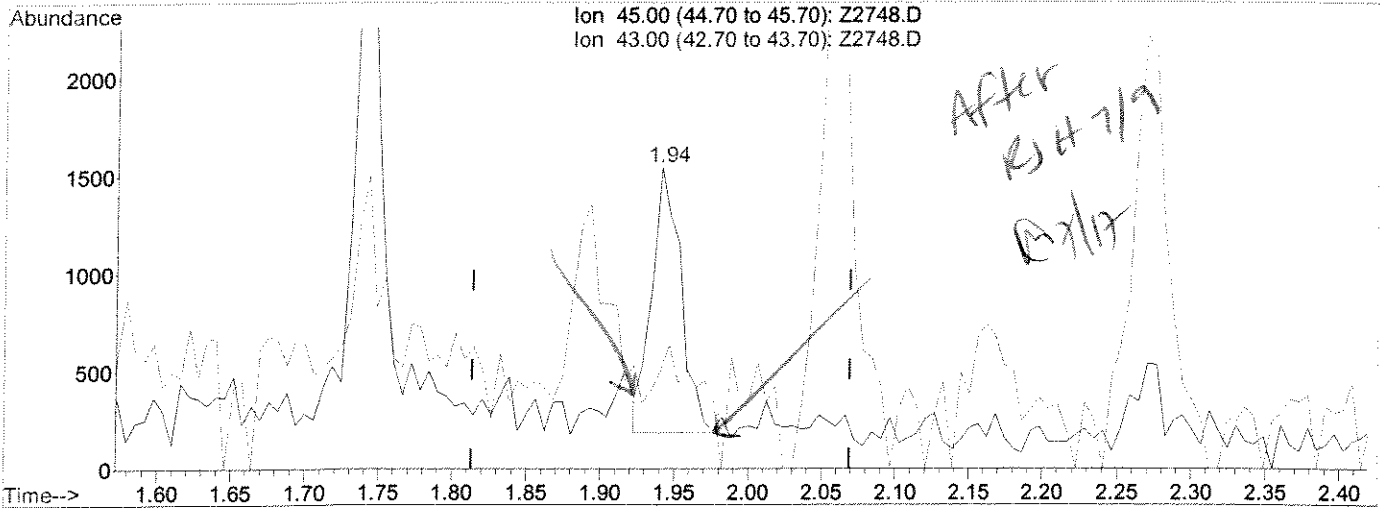
(17) 2-Propanol  
 1.95min 0.00ppb  
 response 0

lon	Exp%	Act%
45.00	100	0.00
43.00	18.10	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2748.D Vial: 10  
 Acq On : 8 Jul 2008 1:55 pm Operator: Herring  
 Sample : 2.0PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 14:27 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Multiple Level Calibration



(17) 2-Propanol

1.94min 23.78ppb m

response 1862

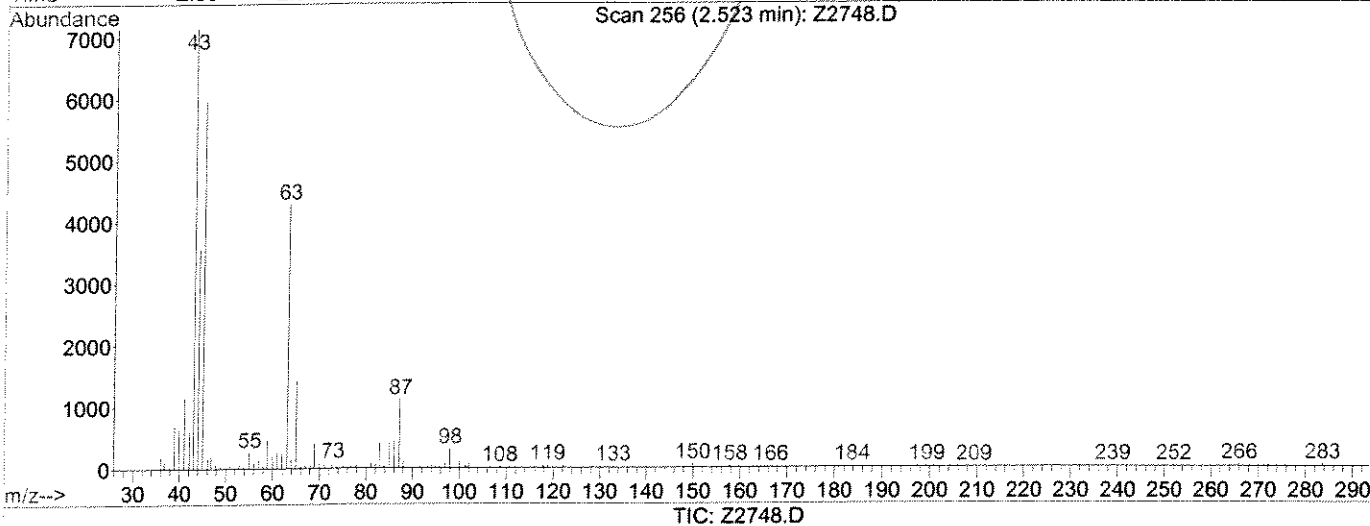
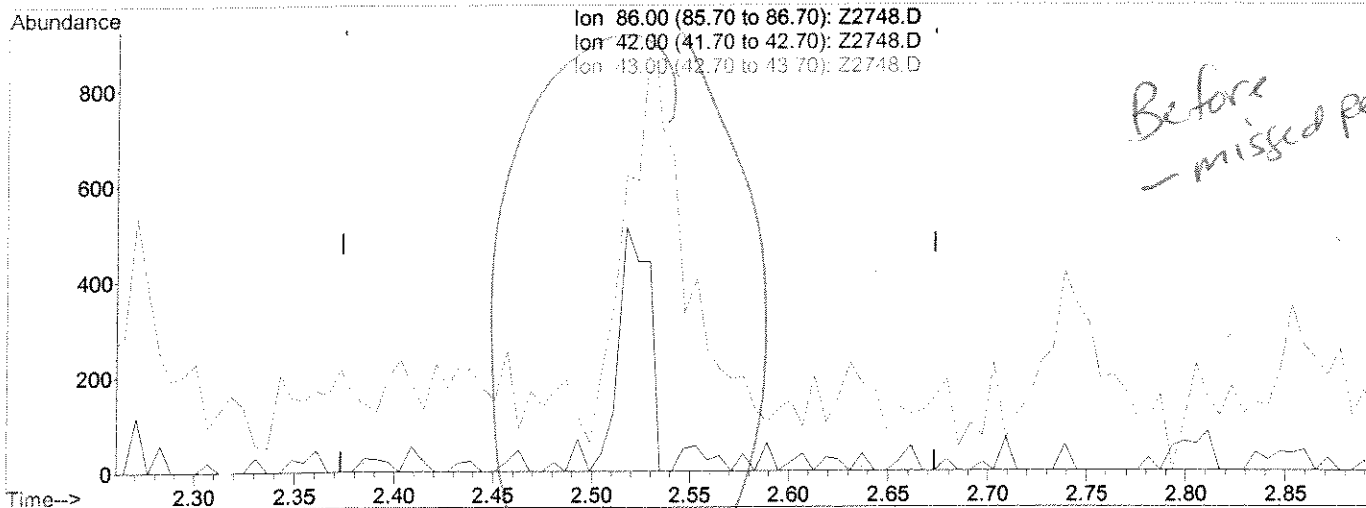
Ion	Exp%	Act%
45.00	100	100
43.00	18.10	32.49#
0.00	0.00	0.00
0.00	0.00	0.00



Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOAS\DATA\070808\Z2748.D Vial: 10  
 Acq On : 8 Jul 2008 1:55 pm Operator: Herring  
 Sample : 2.0PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 14:27 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOAS\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Multiple Level Calibration



(30) Vinyl Acetate

2.52min 0.00ppb

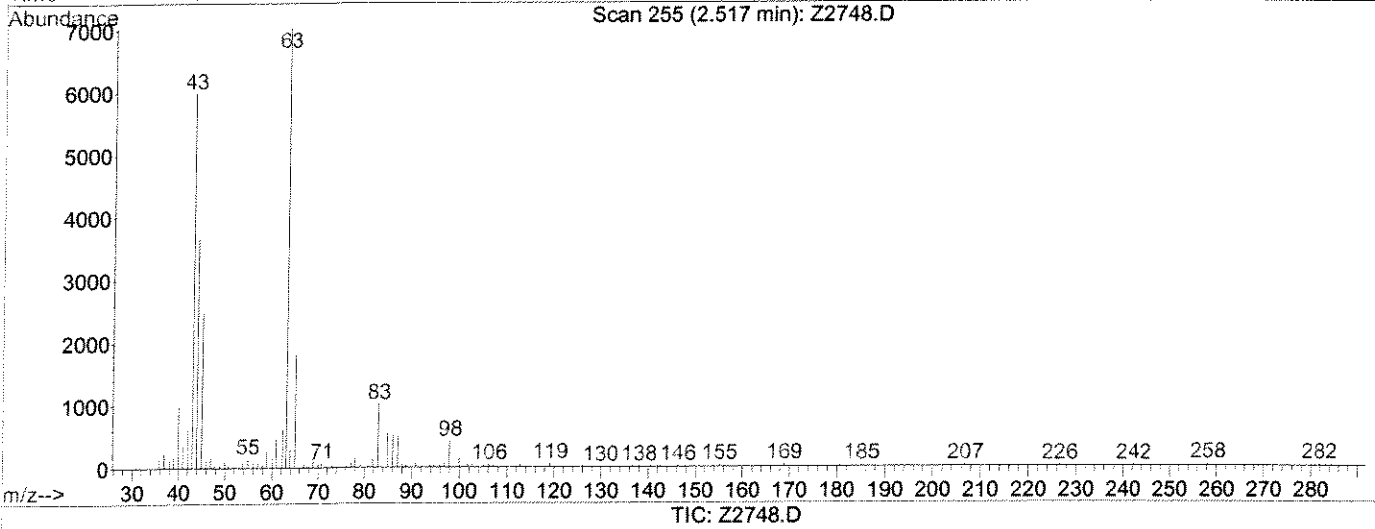
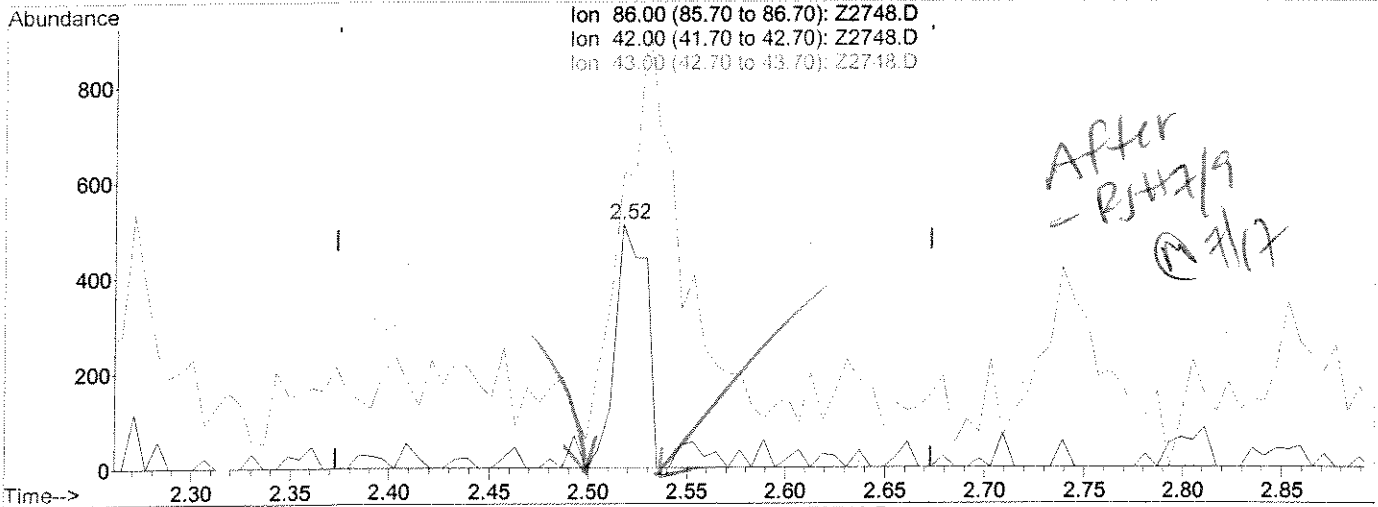
response 0

Ion	Exp%	Act%
86.00	100	0.00
42.00	156.80	0.00#
43.00	1696.20	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2748.D Vial: 10  
Acq On : 8 Jul 2008 1:55 pm Operator: Herring  
Sample : 2.0PPB Inst : MS #8  
Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
MS Integration Params: RTEINT.P  
Quant Time: Jul 9 14:27 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
Title : 8260voa  
Last Update : Wed Jul 09 12:58:26 2008  
Response via : Multiple Level Calibration



(30) Vinyl Acetate

2.52min 2.00ppb m

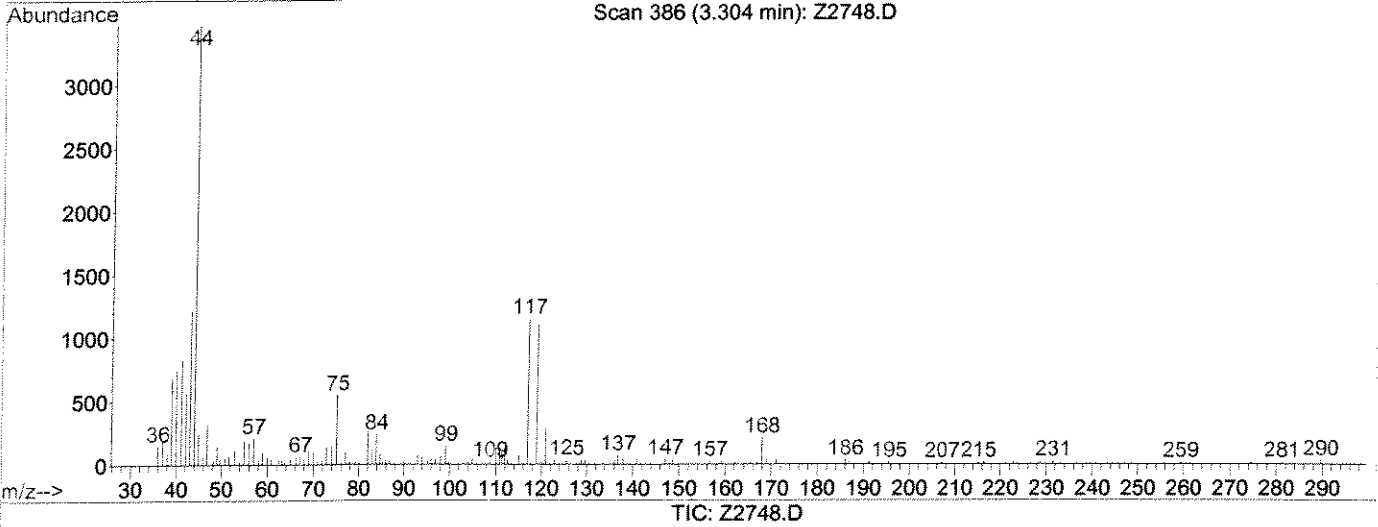
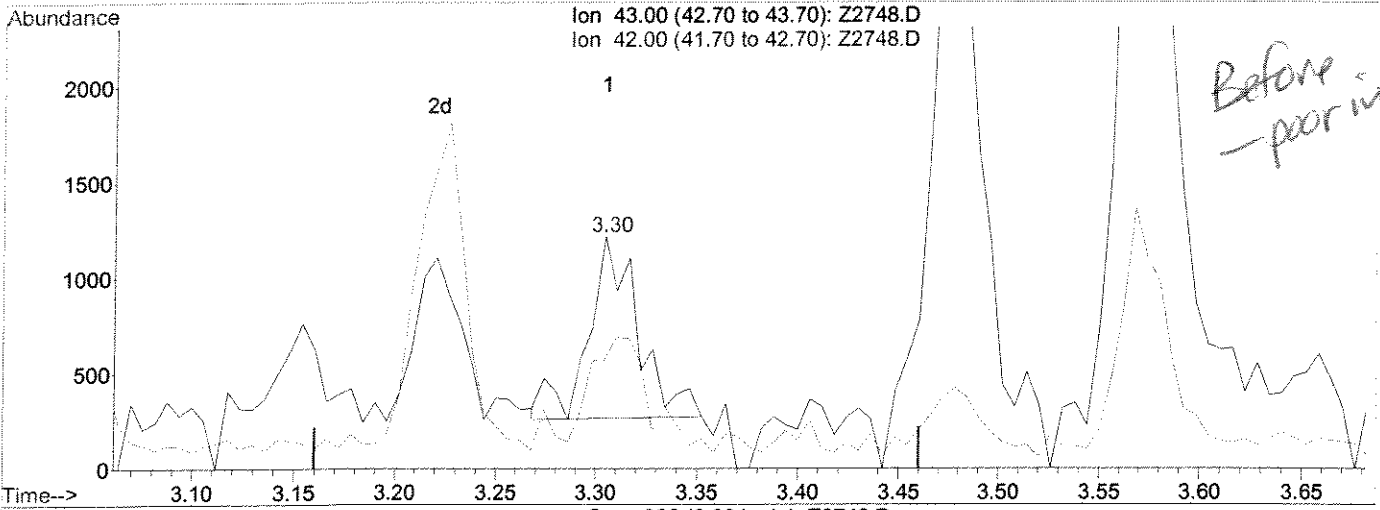
response 560

Ion	Exp%	Act%
86.00	100	100
42.00	156.80	120.90
43.00	1696.20	1170.90#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2748.D Vial: 10  
 Acq On : 8 Jul 2008 1:55 pm Operator: Herring  
 Sample : 2.0PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 14:27 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Multiple Level Calibration



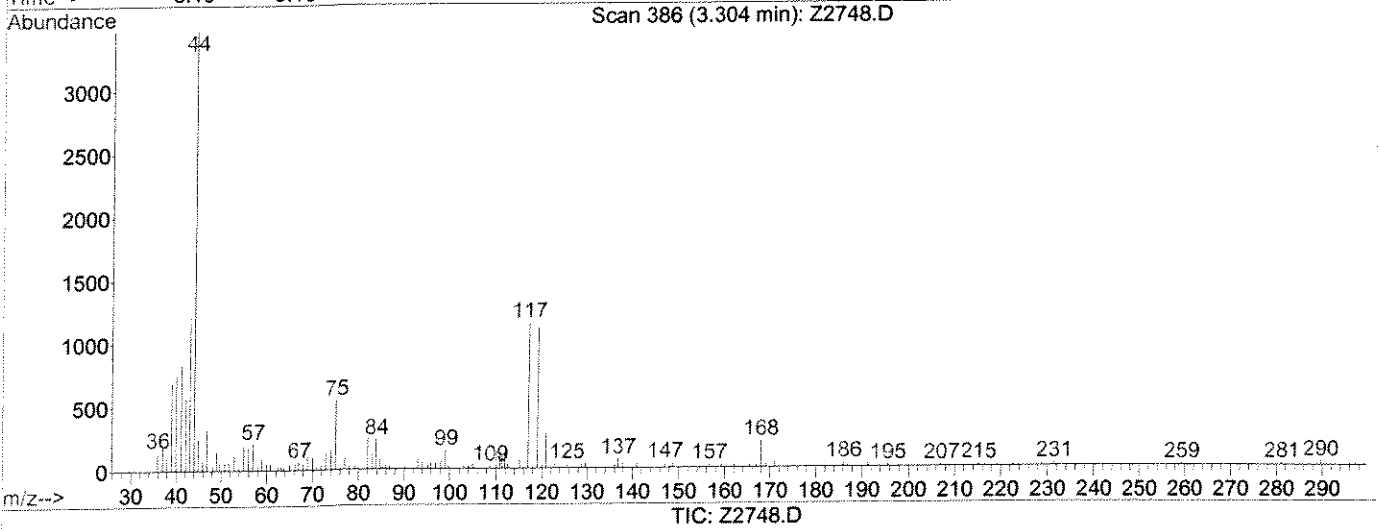
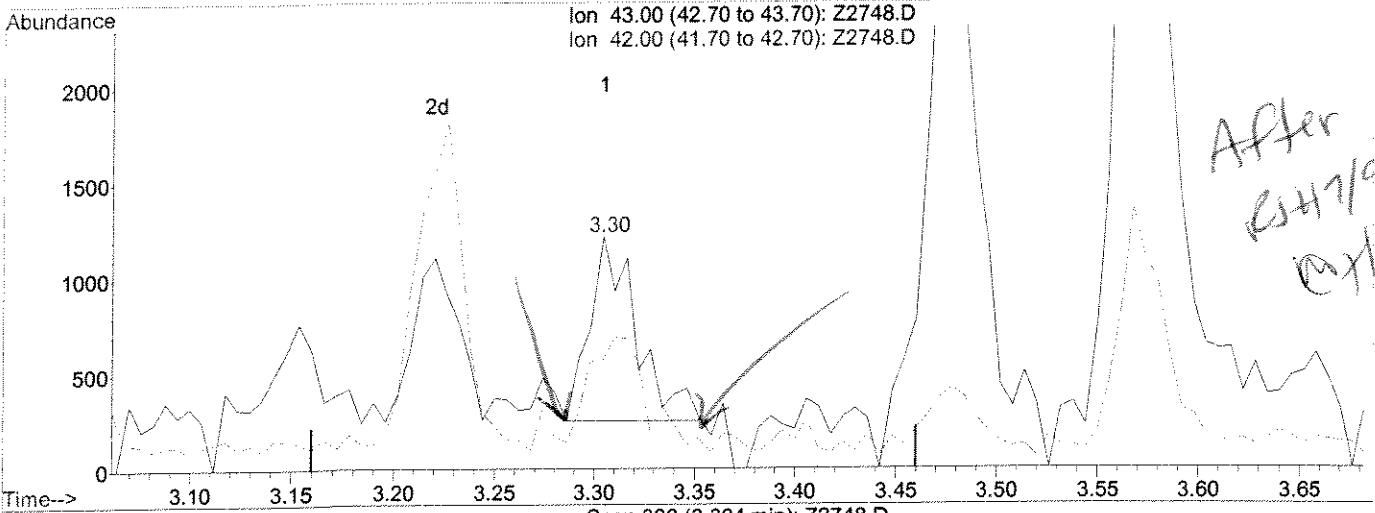
(47) Iso-Butyl Alcohol  
 3.30min 28.32ppb  
 response 1633

Ion	Exp%	Act%
43.00	100	100
42.00	64.90	46.75
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2748.D Vial: 10  
 Acq On : 8 Jul 2008 1:55 pm Operator: Herring  
 Sample : 2.0PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 14:32 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Multiple Level Calibration



(47) Iso-Butyl Alcohol

3.30min 27.17ppb m

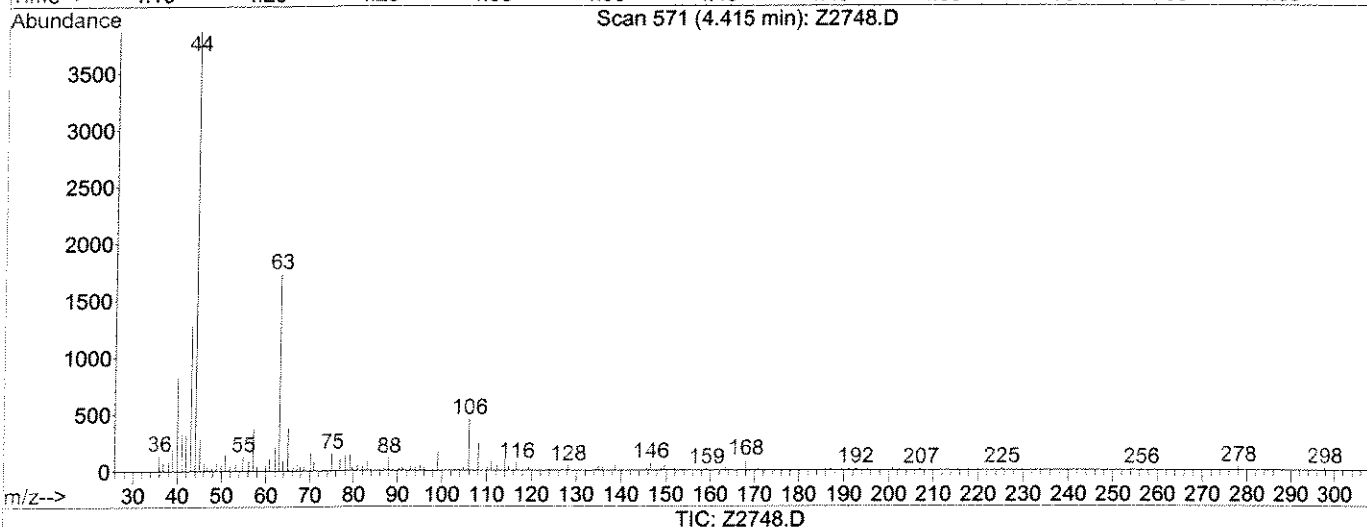
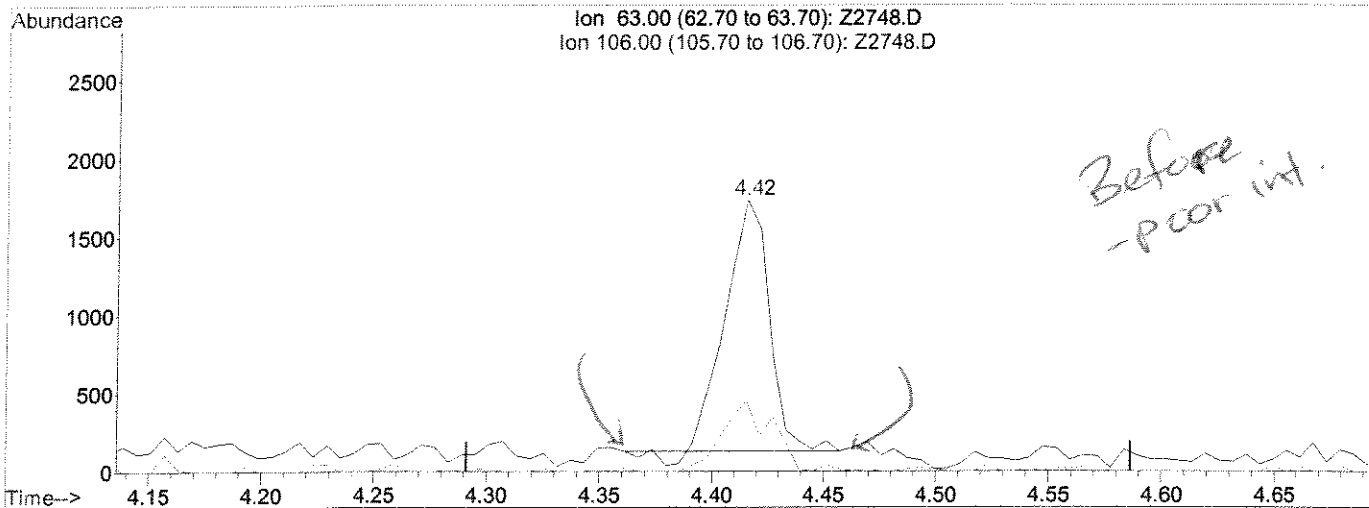
response 1567

Ion	Exp%	Act%
43.00	100	100
42.00	64.90	46.75
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2748.D Vial: 10  
 Acq On : 8 Jul 2008 1:55 pm Operator: Herring  
 Sample : 2.0PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 14:35 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Multiple Level Calibration



(61) 2-Chloroethylvinyl Ether

4.42min 1.63ppb

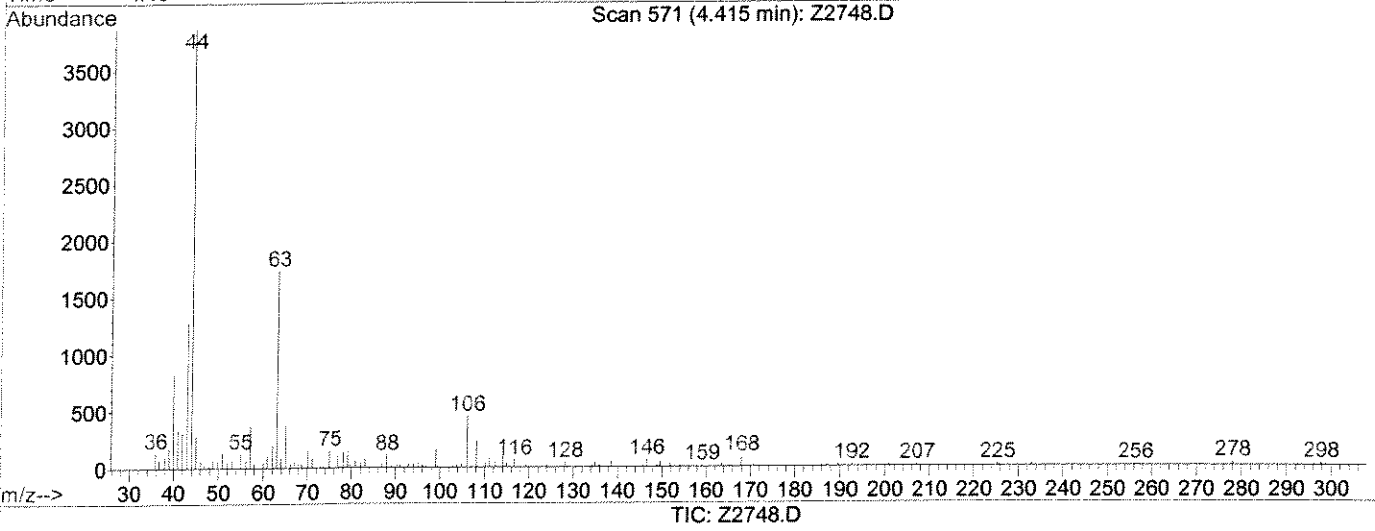
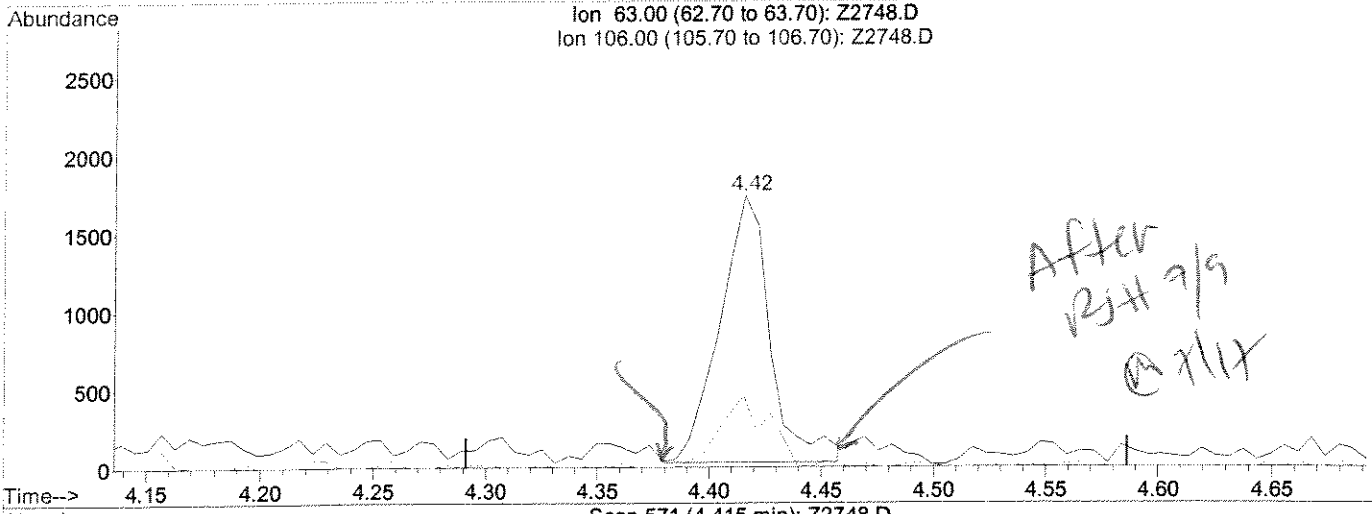
response 2169

Ion	Exp%	Act%
63.00	100	100
106.00	27.20	26.19
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2748.D Vial: 10  
 Acq On : 8 Jul 2008 1:55 pm Operator: Herring  
 Sample : 2.0PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 14:35 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260vca  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Multiple Level Calibration



(61) 2-Chloroethylvinyl Ether

4.42min 2.01ppb m

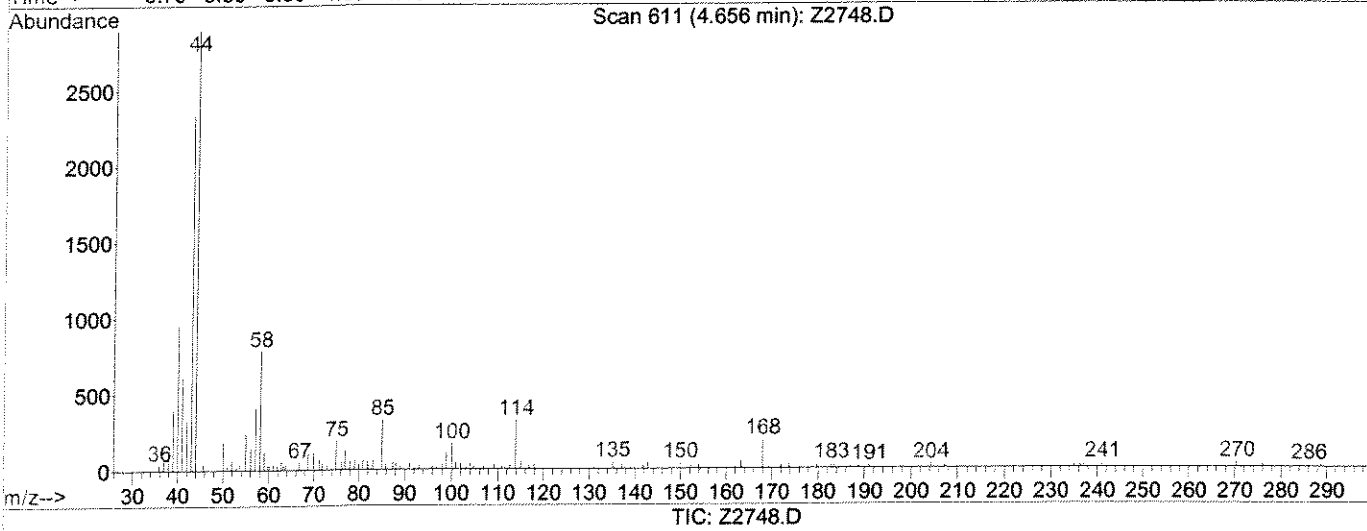
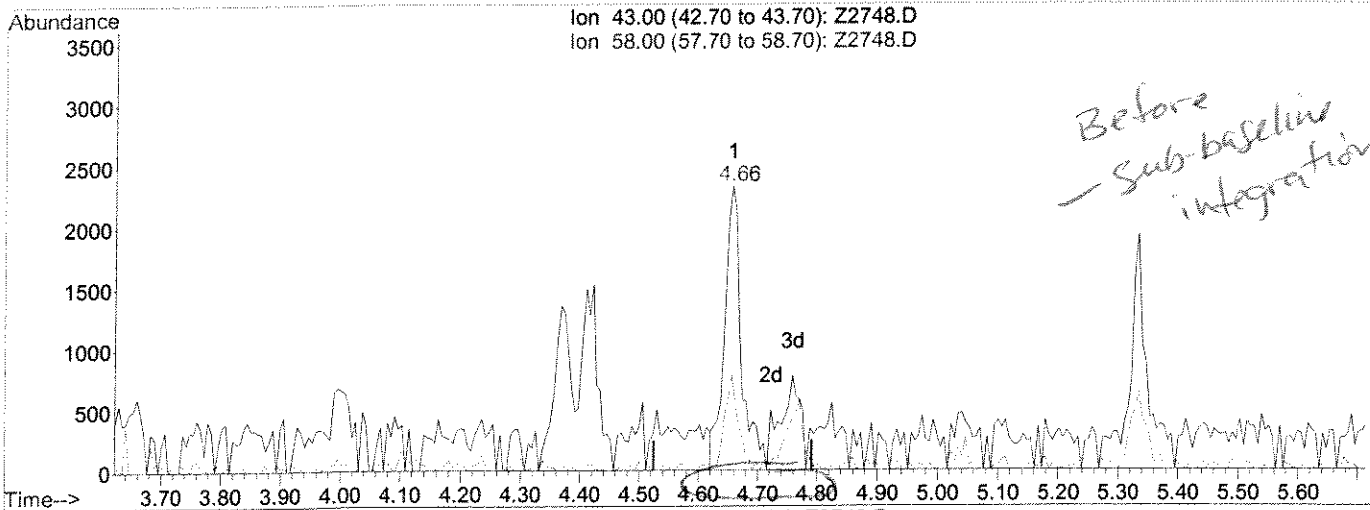
response 2675

Ion	Exp%	Act%
63.00	100	100
106.00	27.20	26.19
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQDATA\MSVOA8\DATA\070808\Z2748.D Vial: 10  
 Acq On : 8 Jul 2008 1:55 pm Operator: Herring  
 Sample : 2.0PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 14:35 2008 Quant Results File: temp.res

Method : J:\ACQDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Multiple Level Calibration



(64) 4-Methyl-2-Pentanone

4.66min 2.75ppb

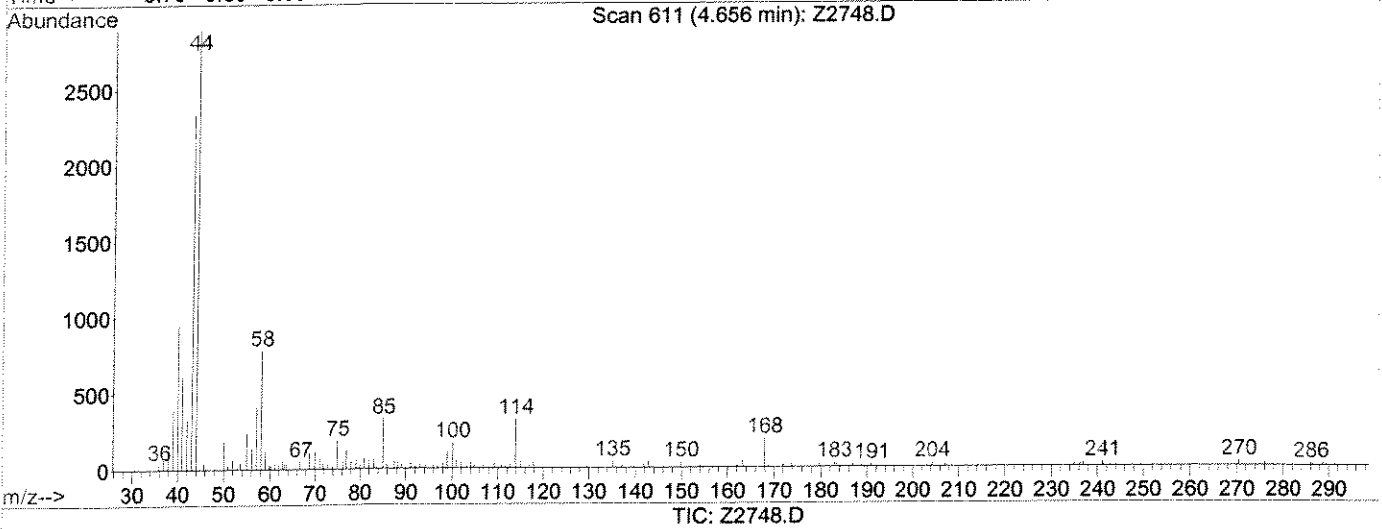
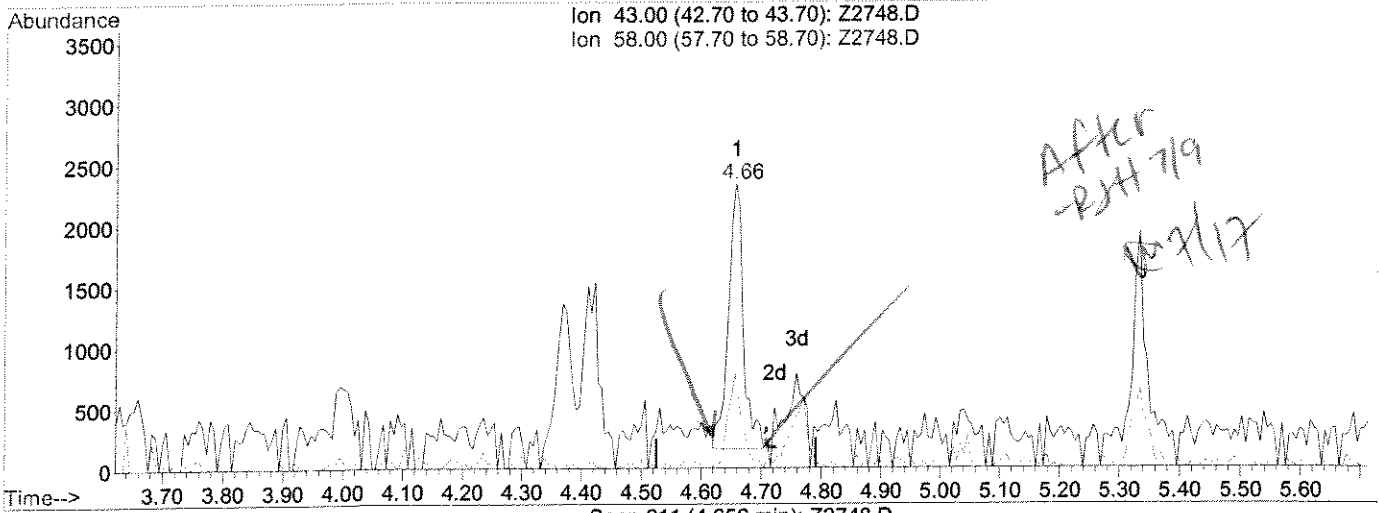
response 4656

Ion	Exp%	Act%
43.00	100	100
58.00	33.50	33.65
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2748.D Vial: 10  
 Acq On : 8 Jul 2008 1:55 pm Operator: Herring  
 Sample : 2.0PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 14:36 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Multiple Level Calibration



(64) 4-Methyl-2-Pentanone

4.66min 2.23ppb m

response 3783

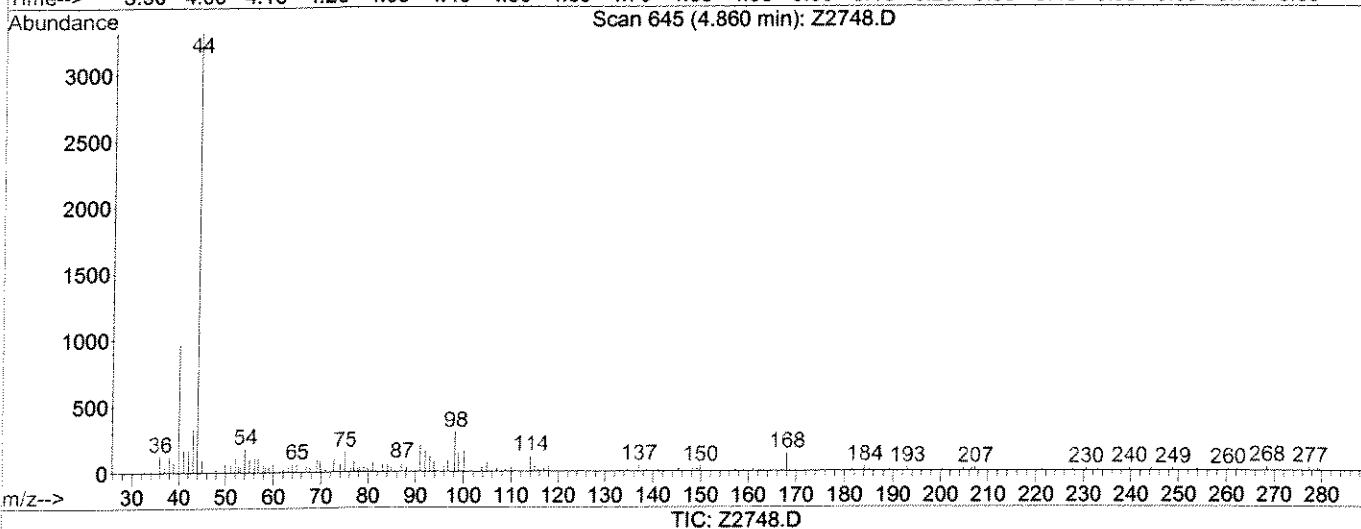
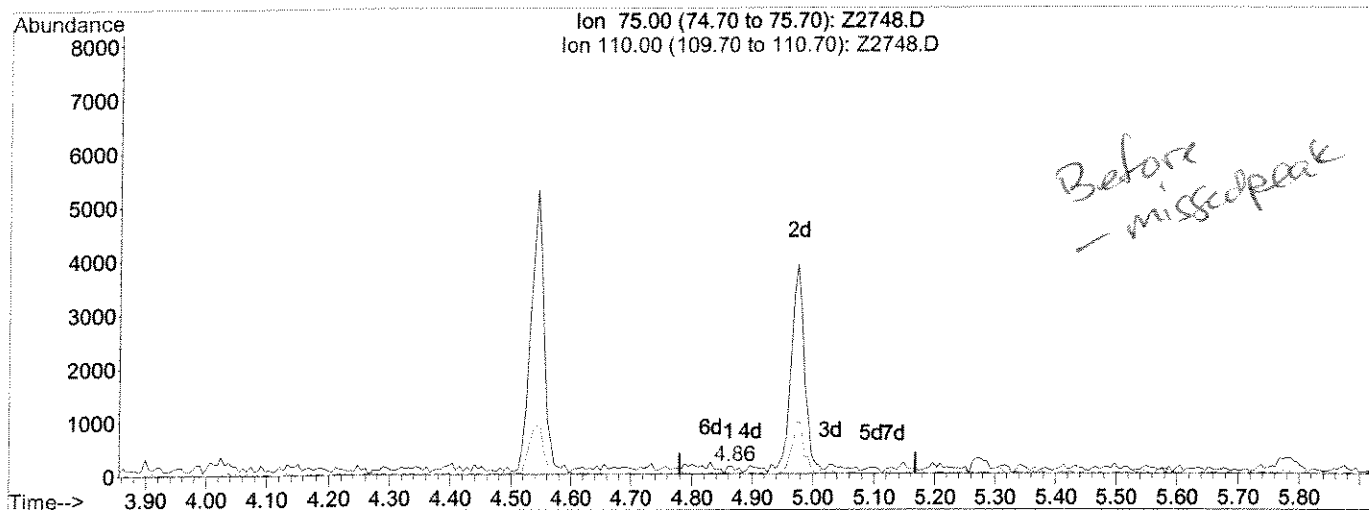
Ion	Exp%	Act%
43.00	100	100
58.00	33.50	33.65
0.00	0.00	0.00
0.00	0.00	0.00



Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2748.D Vial: 10  
 Acq On : 8 Jul 2008 1:55 pm Operator: Herring  
 Sample : 2.0PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 14:36 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Multiple Level Calibration



(66) trans-1,3-Dichloropropene

4.86min 0.06ppb

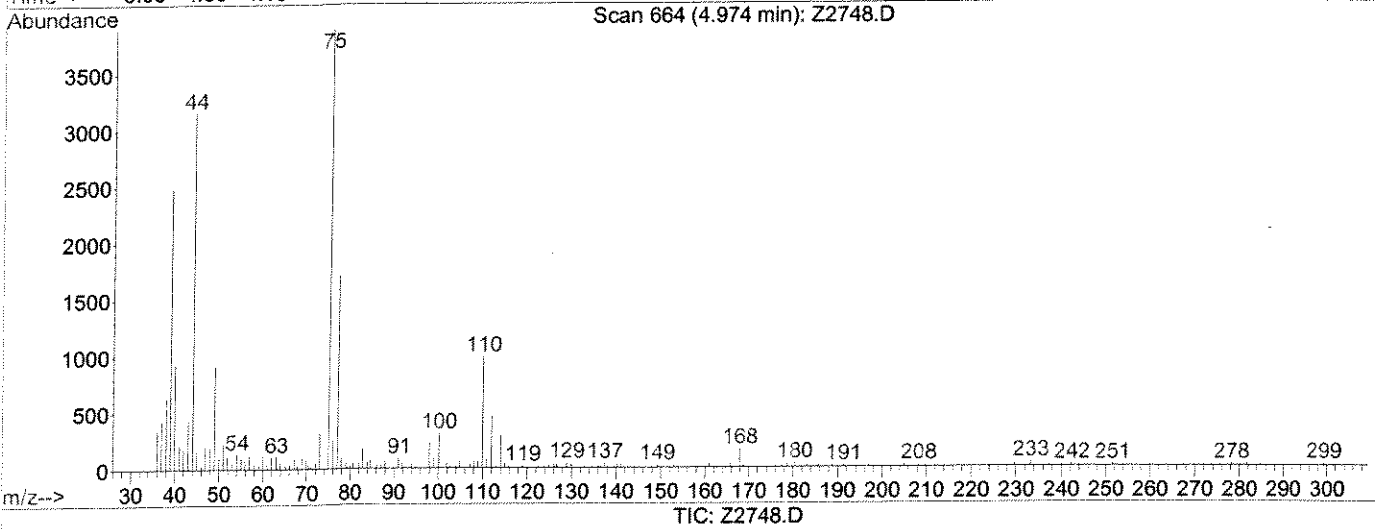
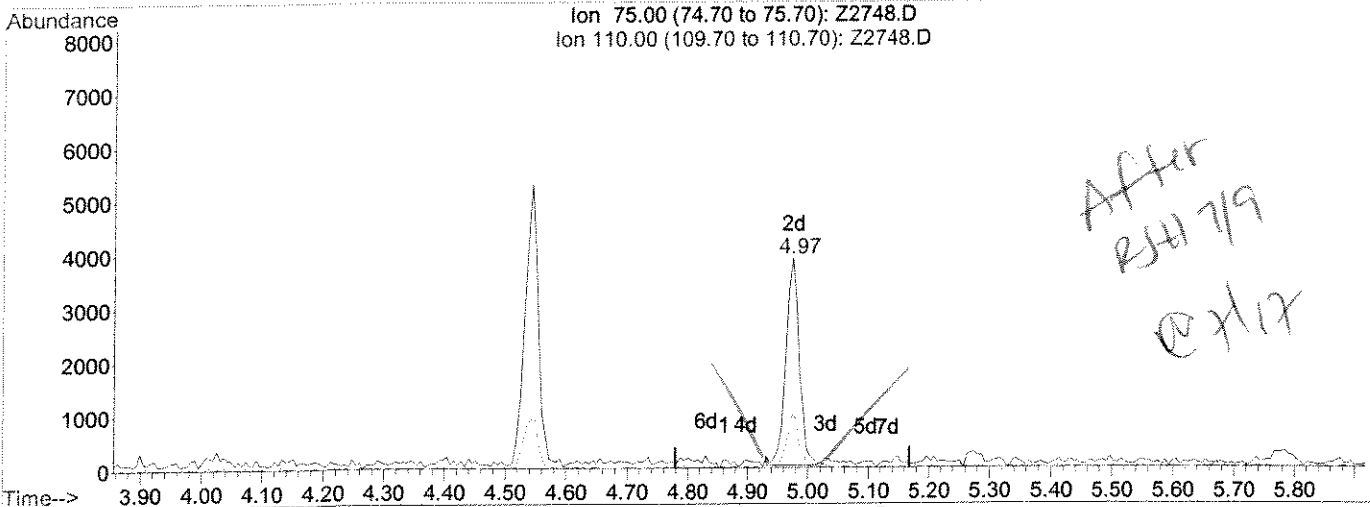
response 179

Ion	Exp%	Act%
75.00	100	100
110.00	21.00	24.34
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2748.D Vial: 10  
 Acq On : 8 Jul 2008 1:55 pm Operator: Herring  
 Sample : 2.0PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 14:36 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Multiple Level Calibration



(66) trans-1,3-Dichloropropene

4.97min 2.13ppb m

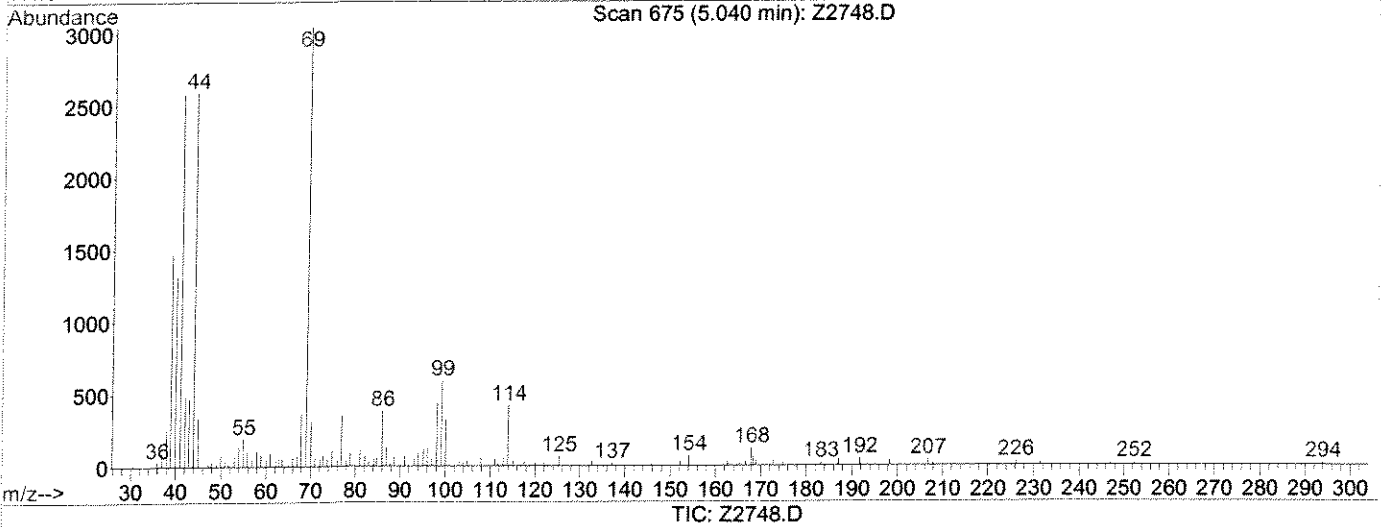
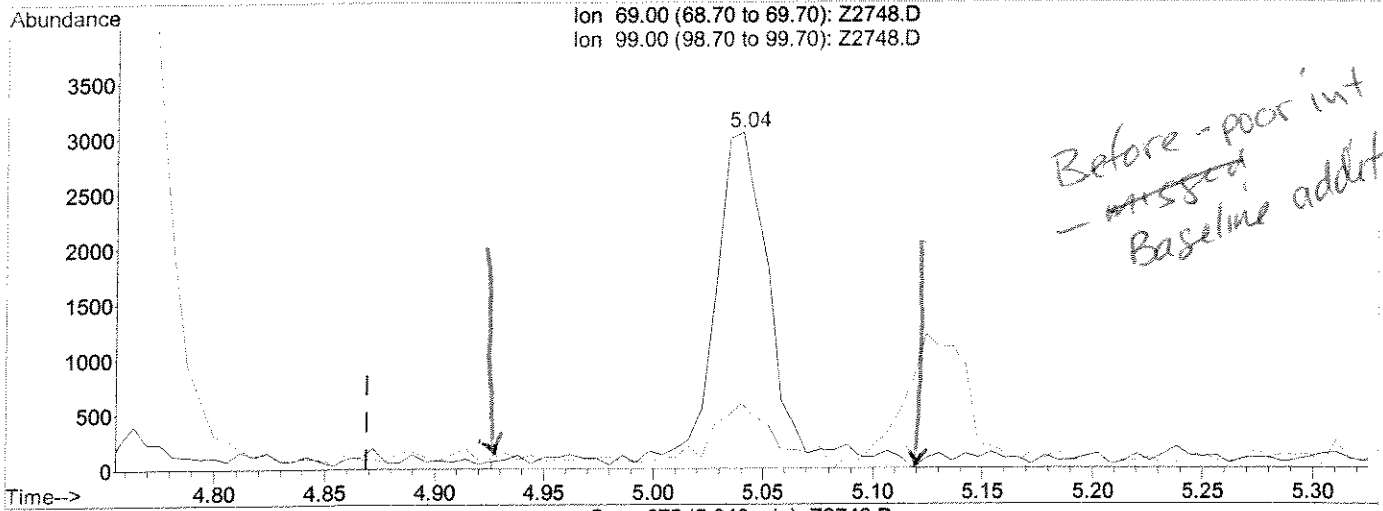
response 5912

Ion	Exp%	Act%
75.00	100	100
110.00	21.00	25.30#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOAS\DATA\070808\Z2748.D Vial: 10  
 Acq On : 8 Jul 2008 1:55 pm Operator: Herring  
 Sample : 2.0PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 14:36 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOAS\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Multiple Level Calibration



(67) Ethyl Methacrylate

5.04min 3.09ppb

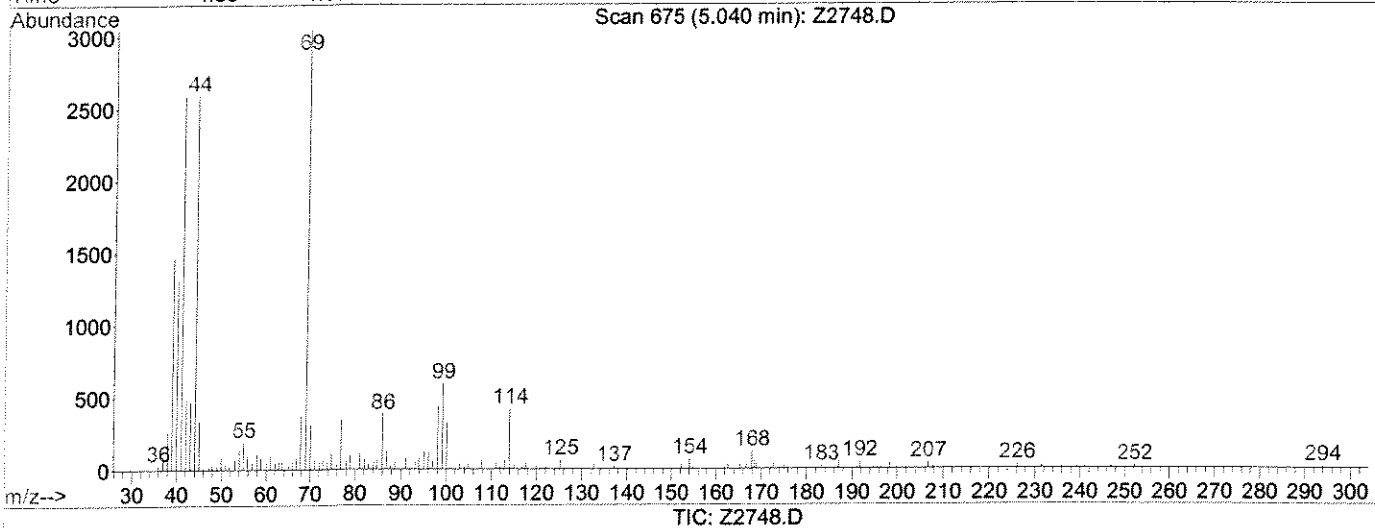
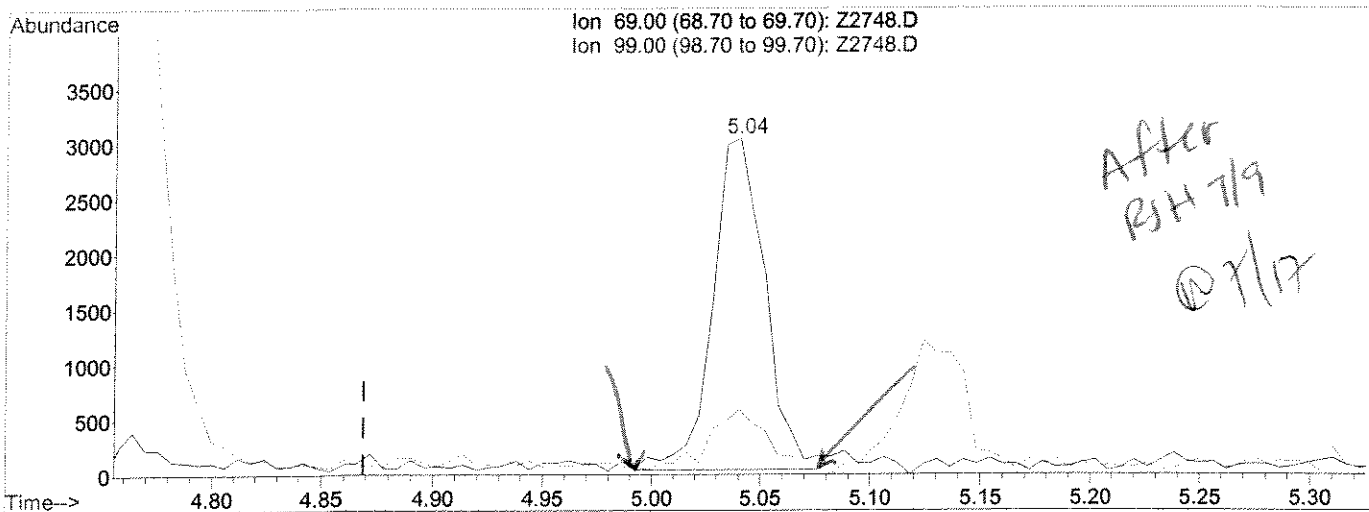
response 5872

Ion	Exp%	Act%
69.00	100	100
99.00	17.60	19.49
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2748.D Vial: 10  
 Acq On : 8 Jul 2008 1:55 pm Operator: Herring  
 Sample : 2.0PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 14:37 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Multiple Level Calibration



(67) Ethyl Methacrylate

5.04min 2.62ppb m

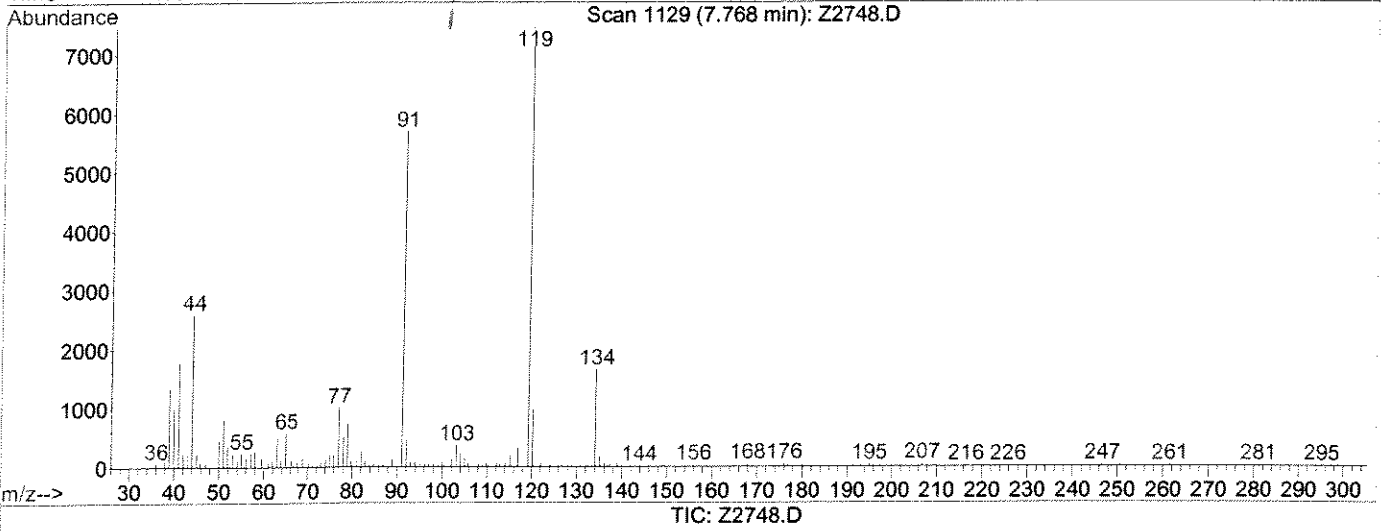
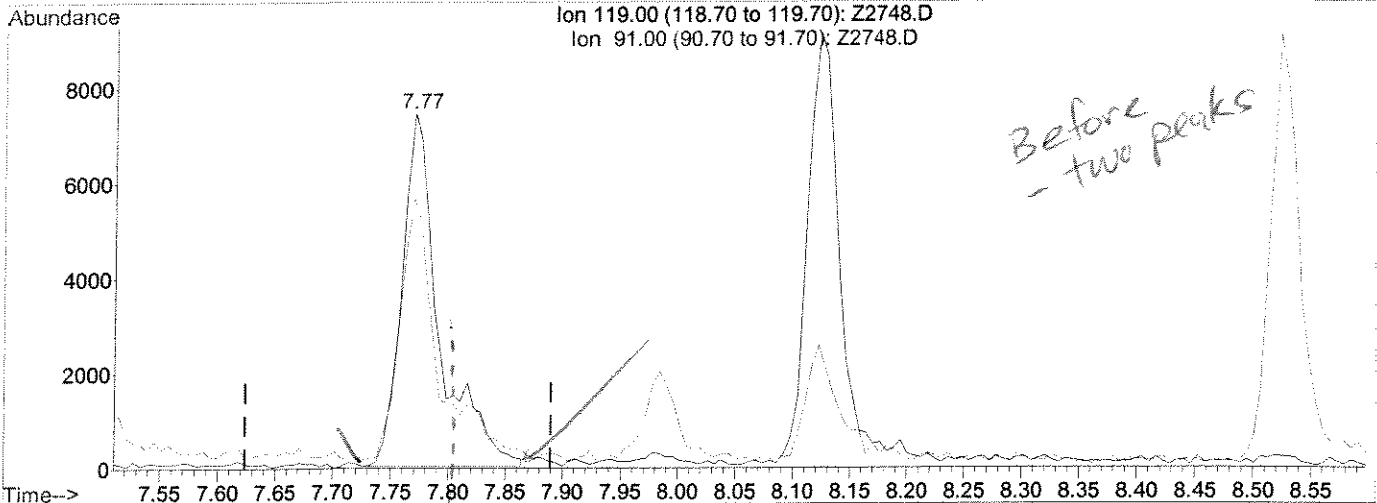
response 4991

Ion	Exp%	Act%
69.00	100	100
99.00	17.60	19.49
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2748.D Vial: 10  
 Acq On : 8 Jul 2008 1:55 pm Operator: Herring  
 Sample : 2.0PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 14:37 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Multiple Level Calibration



(95) tert-Butylbenzene

7.77min 2.20ppb

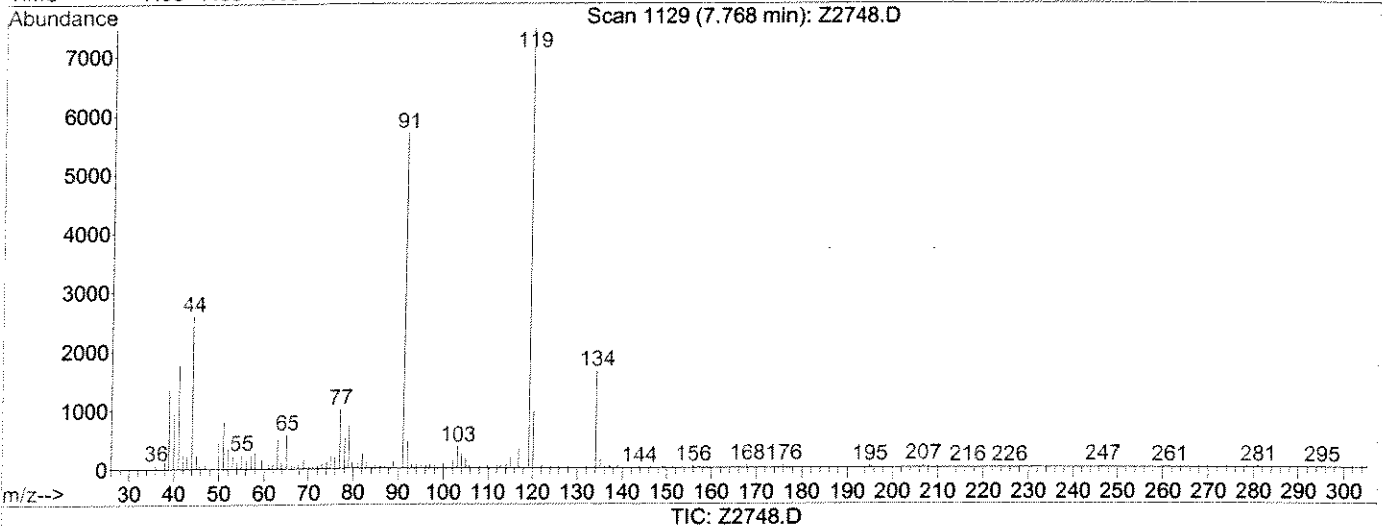
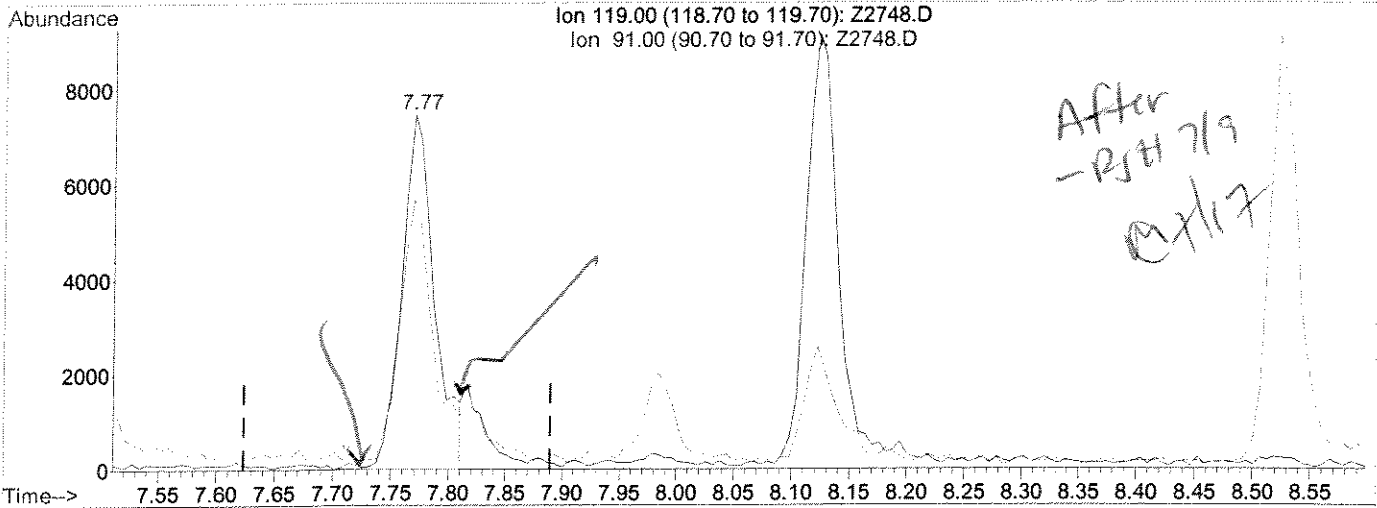
response 16834

Ion	Exp%	Act%
119.00	100	100
91.00	70.20	76.22
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2748.D Vial: 10  
 Acq On : 8 Jul 2008 1:55 pm Operator: Herring  
 Sample : 2.0PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 14:38 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Multiple Level Calibration



(95) tert-Butylbenzene

7.77min 1.93ppb m

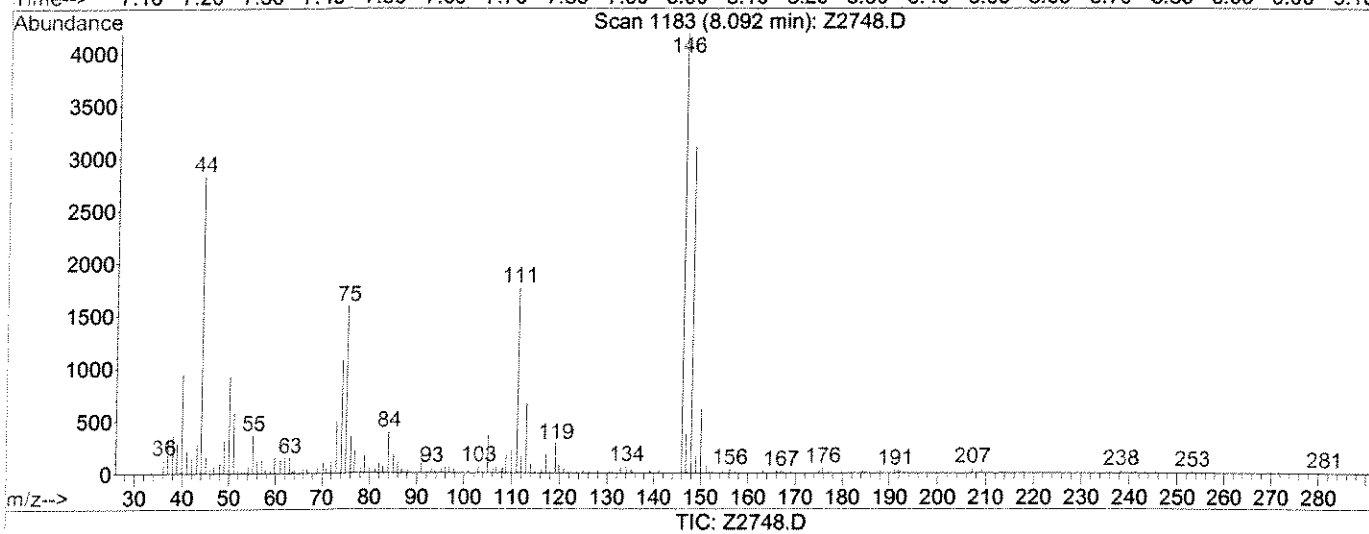
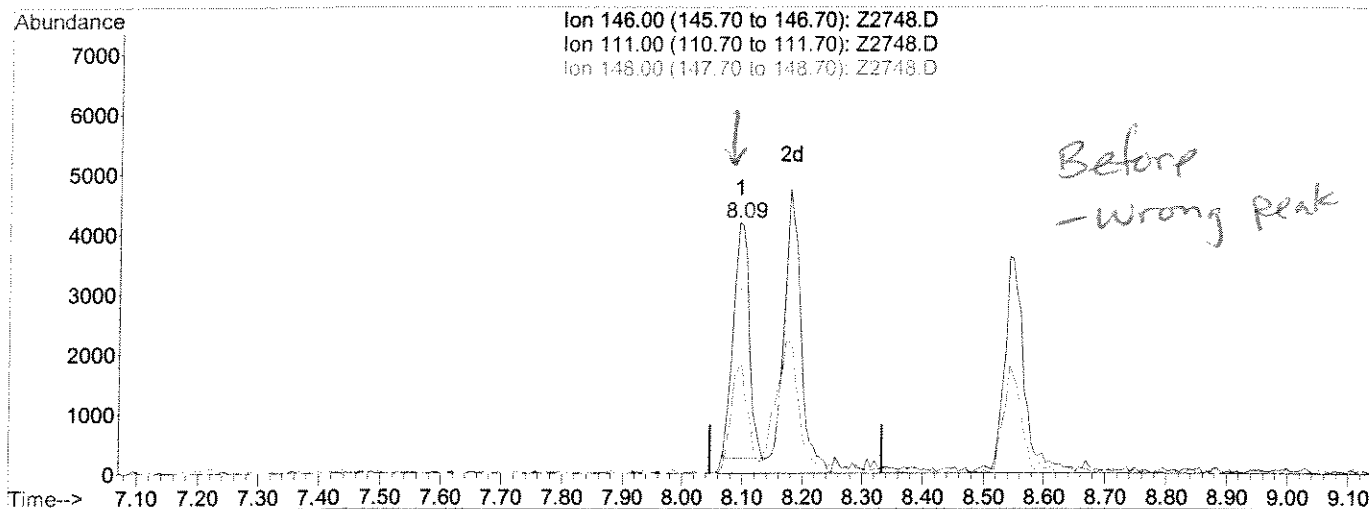
response 14792

Ion	Exp%	Act%
119.00	100	100
91.00	70.20	76.22
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2748.D Vial: 10  
 Acq On : 8 Jul 2008 1:55 pm Operator: Herring  
 Sample : 2.0PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 14:38 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Multiple Level Calibration



(100) 1,4-Dicibenz

8.09min 1.61ppb

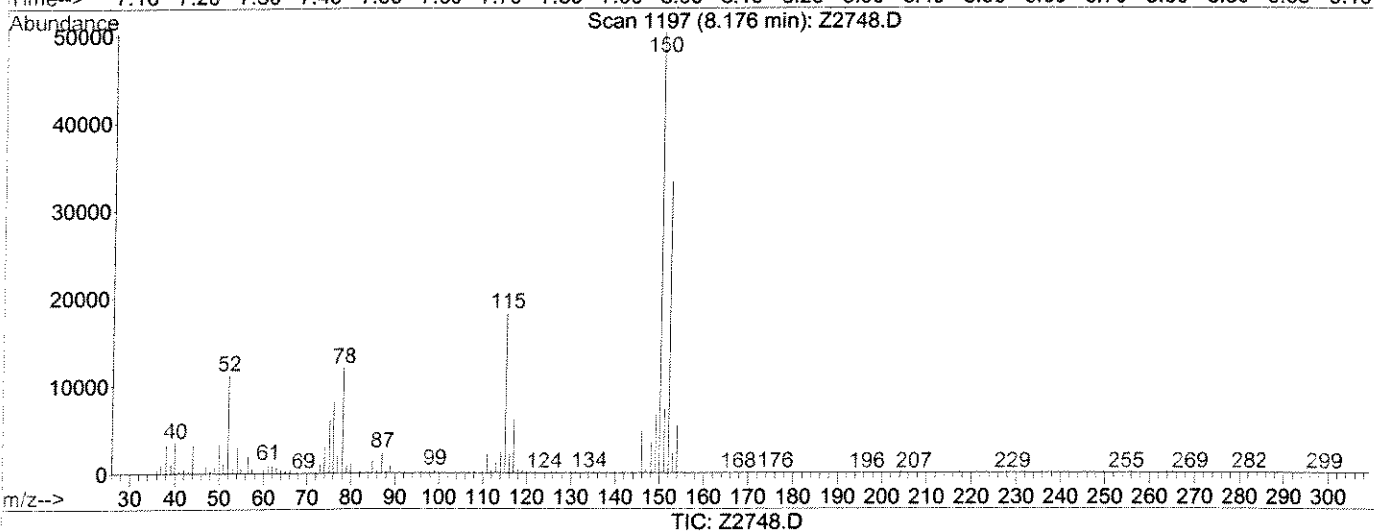
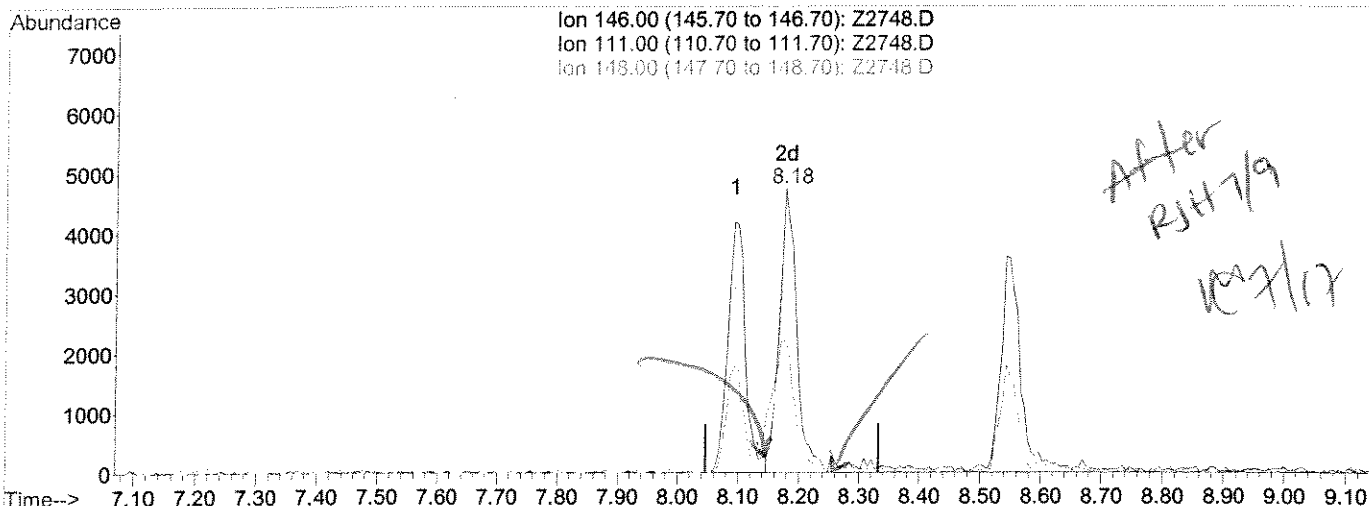
response 7139

Ion	Exp%	Act%
146.00	100	100
111.00	38.30	42.09
148.00	63.40	74.24
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2748.D Vial: 10  
 Acq On : 8 Jul 2008 1:55 pm Operator: Herring  
 Sample : 2.0PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 14:39 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Multiple Level Calibration



(100) 1,4-Diclbz

8.18min 2.14ppb m

response 9480

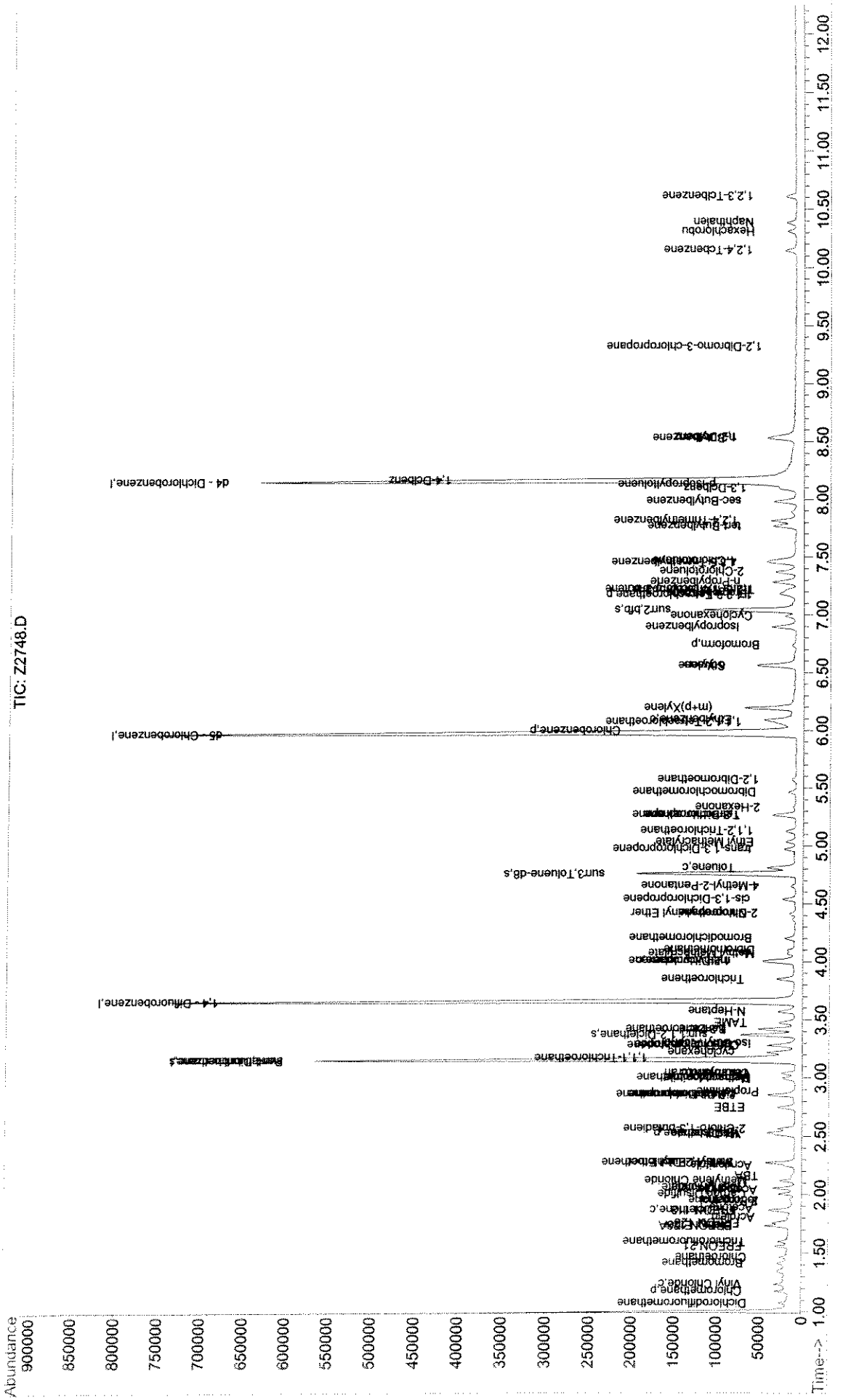
Ion	Exp%	Act%
146.00	100	100
111.00	38.30	46.30#
148.00	63.40	73.43
0.00	0.00	0.00



Data File : J:\ACQDATA\MSVOA8\DATA\070808\Z2748.D  
 Acq On : 8 Jul 2008 1:55 pm  
 Sample : 2.0PPB  
 Misc : Initial Calibration- 8260B WATER  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 14:39 2008

Vial: 10  
 Operator: Herring  
 Inst : MS #8  
 Multiplr: 1.00  
 Quant Results File: W070808.RES

Method : J:\ACQDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 16:13:36 2008  
 Response via : Initial Calibration



Data File : J:\ACQUATA\MSVOA8\DATA\070808\Z2749.D Vial: 11  
 Acq On : 8 Jul 2008 2:23 pm Operator: Herring  
 Sample : 5.0PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 14:45 2008 Quant Results File: W070808.RES

*RJH  
7/9/08*

Quant Method : J:\ACQUATA\M...\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Initial Calibration  
 DataAcq Meth : W070808

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	3.15	168	285710	50.00	ppb	0.00
42) 1,4 - Difluorobenzene	3.66	114	495306	50.00	ppb	0.00
63) d5 - Chlorobenzene	5.97	117	426260	50.00	ppb	0.00
85) d4 - Dichlorobenzene	8.16	152	195461	50.00	ppb	0.00

System Monitoring Compounds

43) surr4,Dibrflmethane	3.14	113	69636	25.83	ppb	0.00
Spiked Amount 50.000			Recovery =	51.66%		
48) surr1,1,2-Dicethane	3.37	65	75941	28.54	ppb	0.00
Spiked Amount 50.000			Recovery =	57.08%		
69) surr3,Toluene-d8	4.76	98	266780	25.79	ppb	0.00
Spiked Amount 50.000			Recovery =	51.58%		
70) surr2,bfb	7.04	95	107194	29.52	ppb	0.00
Spiked Amount 50.000			Recovery =	59.04%		

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	1.08	85	10876	4.77	ppb	96
4) Chloromethane	1.18	50	17570	4.24	ppb	97
5) Vinyl Chloride	1.24	62	15102	4.67	ppb	94
6) Bromomethane	1.42	94	10073	5.02	ppb	97
7) Chloroethane	1.47	64	10050	4.77	ppb	92
8) FREON 21	1.56	67	27024	5.10	ppb	99
9) Trichlorofluoromethane	1.60	101	13526	4.37	ppb	96
10) Diethyl Ether	1.74	59	8733	5.15	ppb	94
11) FREON 123A	1.74	85	7278	5.97	ppb	90
12) FREON 123	1.76	85	11893	4.83	ppb	98
13) Acrolein	1.81	56	3465	16.53	ppb	99
14) FREON 113	1.87	85	4285	4.48	ppb	79
15) 1,1-Dicethene	1.87	96	9396	4.42	ppb	89
16) Acetone	1.89	43	2505	5.04	ppb	# 80
17) 2-Propanol	1.94	45	4596	58.34	ppb	90
18) Iodomethane	1.96	127	3158	2.93	ppb	82
19) Carbon Disulfide	2.01	76	41058	4.83	ppb	98
20) Acetonitrile	2.03	40	1849	17.39	ppb	# 61
21) Allyl Chloride	2.06	76	7485	5.52	ppb	96
22) Methyl Acetate	2.06	43	9082	5.17	ppb	94
23) Methylene Chloride	2.12	84	12865	4.64	ppb	93
24) TBA	2.16	59	7420	70.66	ppb	98
25) Acrylonitrile	2.25	53	13455	22.04	ppb	98
26) Methyl-t-Butyl Ether	2.27	73	26750	5.44	ppb	96
27) trans-1,2-Dichloroethene	2.28	96	11940	4.73	ppb	92
28) 1,1-Dicethane	2.52	63	23077	4.49	ppb	98
29) DIPE	2.54	45	55266	4.86	ppb	98
30) Vinyl Acetate	2.52	86	1633	5.81	ppb	95
31) 2-Chloro-1,3-butadiene	2.57	53	20411	4.62	ppb	91
32) ETBE	2.75	59	38196	5.03	ppb	98
33) 2,2-Dichloropropane	2.86	77	16097	4.71	ppb	94
34) 2-Butanone	2.85	43	3462	4.10	ppb	# 85
35) cis-1,2-Dichloroethene	2.85	96	12849	4.60	ppb	98
36) Propionitrile	2.89	54	3657	17.27	ppb	# 85
37) Methacrylonitrile	2.99	67	3127	5.39	ppb	93

(#) = qualifier out of range (m) = manual integration  
 Z2749.D W070808.M Wed Jul 09 16:18:24 2008

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2749.D  
 Acq On : 8 Jul 2008 2:23 pm  
 Sample : 5.0PPB  
 Misc : Initial Calibration- 8260B WATER  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 14:45 2008

Vial: 11  
 Operator: Herring  
 Inst : MS #8  
 Multiplr: 1.00

Quant Results File: W070808.RES

Quant Method : J:\ACQUDATA\M...\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Initial Calibration  
 DataAcq Meth : W070808

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) Bromochloromethane	3.00	128	5423	4.77	ppb	91
39) Chloroform	3.04	83	20954	4.65	ppb	99
40) Tetrahydrofuran	3.05	42	2311	4.92	ppb	98
41) 1,1,1-Trichloroethane	3.18	97	14686	4.53	ppb	# 1
44) cyclohexane	3.22	56	25473	4.61	ppb	98
45) Carbontetrachloride	3.29	117	11343	4.87	ppb	89
46) 1,1-Dichloropropene	3.28	75	16530	4.62	ppb	98
47) Iso-Butyl Alcohol	3.30	43	4273	73.41	ppb	97
49) Benzene	3.42	78	50602	4.84	ppb	96
50) 1,2-Dichloroethane	3.42	62	13898	5.15	ppb	96
51) TAME	3.48	73	30476	5.53	ppb	97
52) N-Heptane	3.57	43	19090	4.12	ppb	98
53) Trichloroethene	3.85	95	11868	4.81	ppb	96
54) methylcyclohexane	4.00	55	20409	4.67	ppb	99
55) 1,2-Dichloropropane	4.01	63	13862	4.89	ppb	95
56) Methyl Methacrylate	4.07	69	5691	5.81	ppb	98
57) 1,4-Dioxane	4.12	88	876	79.32	ppb	# 76
58) Dibromomethane	4.10	93	6657	5.77	ppb	92
59) Bromodichloromethane	4.20	83	15042	5.33	ppb	# 87
60) 2-Nitropropane	4.37	43	4457	12.27	ppb	# 90
61) 2-Chloroethylvinyl Ether	4.42	63	6008	4.48	ppb	99
62) cis-1,3-Dichloropropene	4.54	75	17513	4.77	ppb	99
64) 4-Methyl-2-Pentanone	4.66	43	10034	5.84	ppb	90
65) Toluene	4.81	91	48528	4.65	ppb	100
66) trans-1,3-Dichloropropene	4.97	75	13697	4.86	ppb	99
67) Ethyl Methacrylate	5.04	69	11353	5.88	ppb	93
68) 1,1,2-Trichloroethane	5.13	83	6763	5.10	ppb	87
71) Tetrachloroethene	5.26	166	10081	4.37	ppb	93
72) 2-Hexanone	5.33	43	6359	5.41	ppb	97
73) 1,3-Dichloropropane	5.27	76	15456	5.17	ppb	95
74) Dibromochloromethane	5.46	129	8689	5.18	ppb	89
75) 1,2-Dibromoethane	5.58	107	7052	4.84	ppb	91
76) Chlorobenzene	6.00	112	29964	4.74	ppb	92
77) 1,1,1,2-Tetrachloroethane	6.06	131	9214	4.78	ppb	# 88
78) Ethylbenzene	6.09	91	53195	4.90	ppb	95
79) (m+p)Xylene	6.19	106	39409	9.80	ppb	94
80) o-Xylene	6.55	106	18581	4.82	ppb	95
81) Styrene	6.57	104	33404	5.13	ppb	94
82) Bromoform	6.74	173	4085	5.20	ppb	92
83) Isopropylbenzene	6.90	105	46524	4.71	ppb	97
84) Cyclohexanone	6.99	55	12647	77.64	ppb	95
86) 1,1,2,2-Tetrachloroethane	7.17	83	9021	4.80	ppb	88
87) Trans-1,4-Dichloro-2-buten	7.22	53	1453	3.90	ppb	88
88) 1,2,3-Trichloropropane	7.22	110	2313	5.32	ppb	85
89) n-Propylbenzene	7.29	91	59029	4.43	ppb	98
90) Bromobenzene	7.19	156	11081	4.87	ppb	96
92) 1,3,5-Trimethylbenzene	7.45	105	41800	4.79	ppb	96
93) 2-Chlorotoluene	7.37	91	33839	4.65	ppb	99
94) 4-Chlorotoluene	7.47	91	43958	5.19	ppb	97
95) tert-Butylbenzene	7.77	119	32459m	4.24	ppb	

(#) = qualifier out of range (m) = manual integration  
 Z2749.D W070808.M Wed Jul 09 16:18:24 2008

Data File : J:\ACQUDATA\MSVOAS\DATA\070808\Z2749.D Vial: 11  
 Acq On : 8 Jul 2008 2:23 pm Operator: Herring  
 Sample : 5.0PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 14:45 2008 Quant Results File: W070808.RES

Quant Method : J:\ACQUDATA\M...\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Initial Calibration  
 DataAcq Meth : W070808

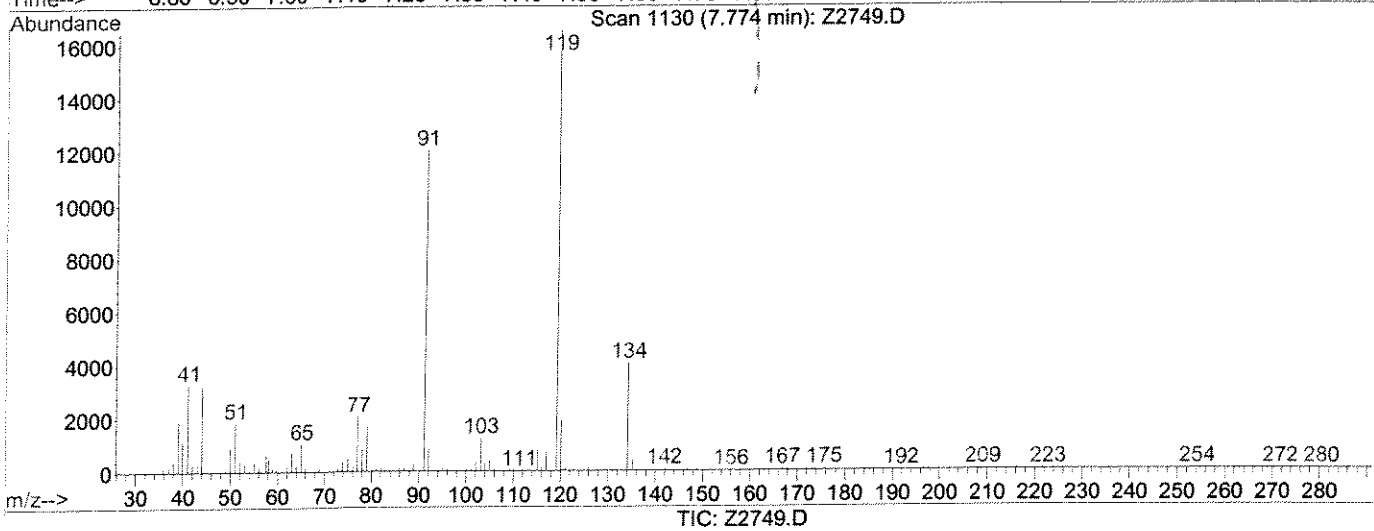
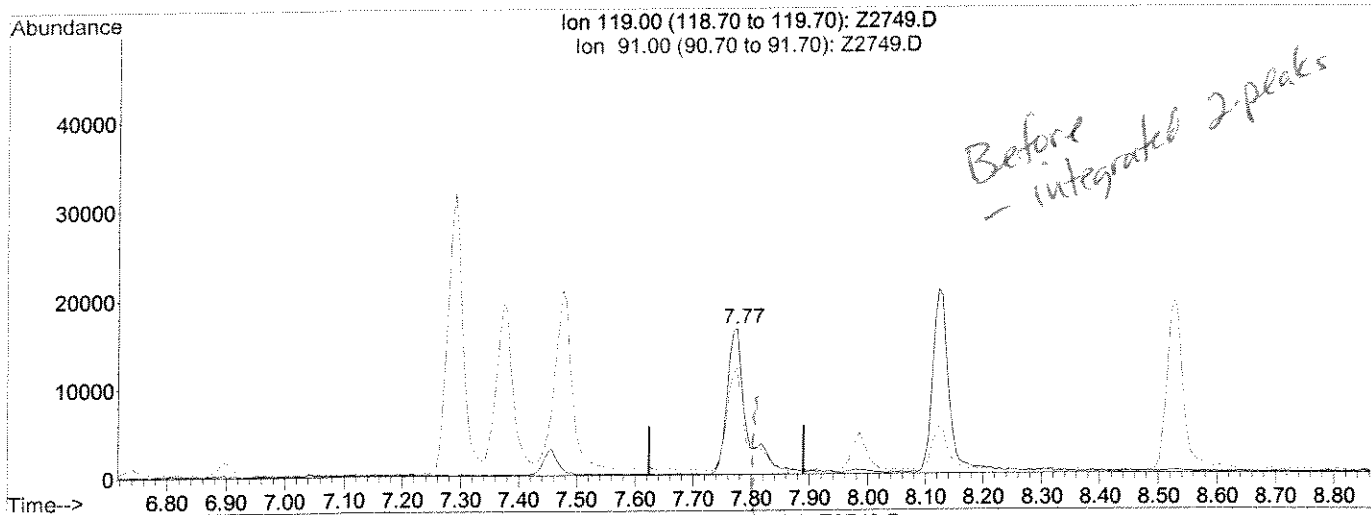
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
96) 1,2,4-Trimethylbenzene	7.82	105	39653	4.60	ppb	97
97) sec-Butylbenzene	7.98	105	50006	4.27	ppb	93
98) p-Isopropyltoluene	8.12	119	39267	4.13	ppb	96
99) 1,3-Dclbenz	8.09	146	20781	4.67	ppb	94
100) 1,4-Dclbenz	8.18	146	21381	4.82	ppb	96
102) n-Butylbenzene	8.53	91	36756	4.24	ppb	97
103) 1,2-Dclbenz	8.55	146	19060	4.74	ppb	96
104) 1,2-Dibromo-3-chloropropan	9.32	157	961	4.04	ppb #	84
106) 1,2,4-Tcbenzene	10.15	180	9954	4.82	ppb	98
107) Hexachlorobu	10.31	225	4486	4.18	ppb	93
108) Naphthalen	10.38	128	24657	5.41	ppb	100
109) 1,2,3-Tclbenzene	10.61	180	9101	5.03	ppb	99

(#) = qualifier out of range (m) = manual integration  
 Z2749.D W070808.M Wed Jul 09 16:18:25 2008

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2749.D Vial: 11  
 Acq On : 8 Jul 2008 2:23 pm Operator: Herring  
 Sample : 5.0PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 13:00 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Multiple Level Calibration



(95) tert-Butylbenzene

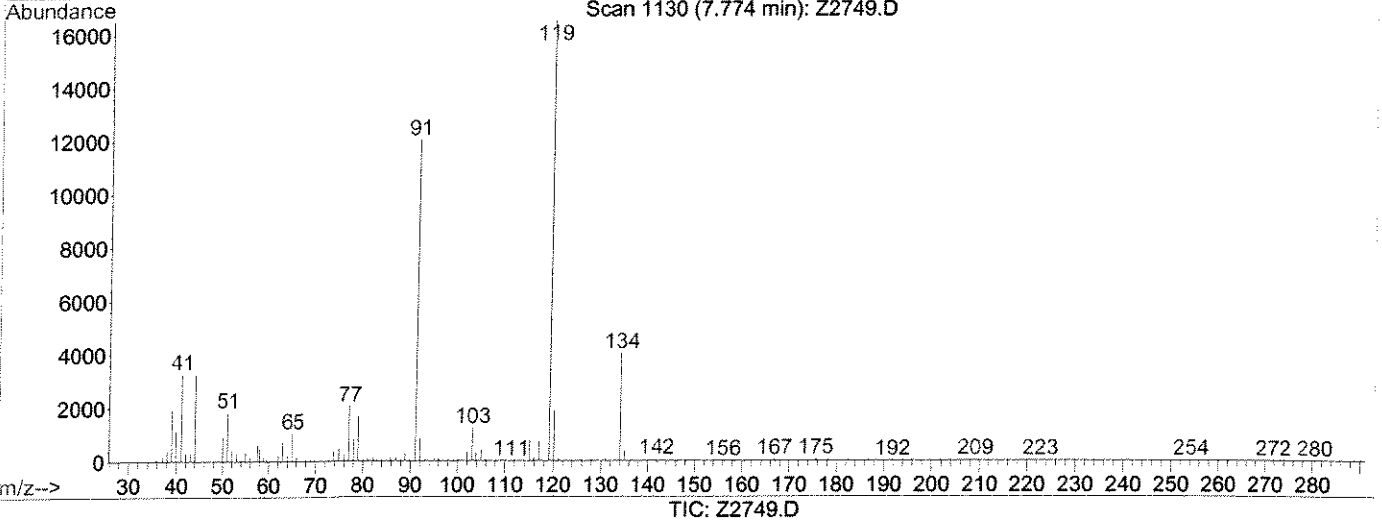
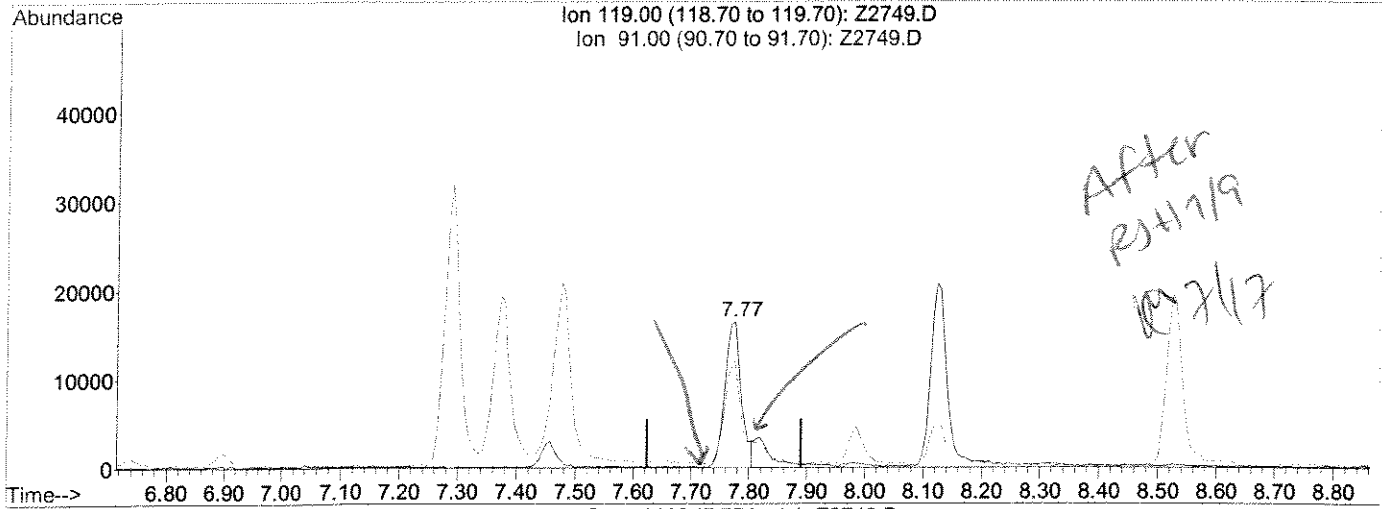
7.77min 5.01ppb

response 38348

Ion	Exp%	Act%
119.00	100	100
91.00	70.20	72.96
0.00	0.00	0.00
0.00	0.00	0.00

Data File : J:\ACQUDATA\MSVOAS\DATA\070808\Z2749.D Vial: 11  
 Acq On : 8 Jul 2008 2:23 pm Operator: Herring  
 Sample : 5.0PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 14:45 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOAS\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Multiple Level Calibration



(95) tert-Butylbenzene

7.77min 4.24ppb m

response 32459

Ion	Exp%	Act%
119.00	100	100
91.00	70.20	72.96
0.00	0.00	0.00
0.00	0.00	0.00



Data File : J:\ACQUATA\MSVOA8\DATA\070808\Z2750.D Vial: 12  
 Acq On : 8 Jul 2008 2:50 pm Operator: Herring  
 Sample : 10PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 15:37 2008

Quant Results File: W070808.RES

RJA  
7/9/08

Quant Method : J:\ACQUATA\M...\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Initial Calibration  
 DataAcq Meth : W070808

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	3.15	168	291172	50.00	ppb	0.00
42) 1,4 - Difluorobenzene	3.66	114	503588	50.00	ppb	0.00
63) d5 - Chlorobenzene	5.98	117	430542	50.00	ppb	0.00
85) d4 - Dichlorobenzene	8.16	152	204298	50.00	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) surr4,Dibrflmethane	3.15	113	109693	40.03	ppb	0.00
Spiked Amount 50.000			Recovery =	80.06%		
48) surr1,1,2-Dicethane	3.37	65	119094	44.02	ppb	0.00
Spiked Amount 50.000			Recovery =	88.04%		
69) surr3,Toluene-d8	4.76	98	427495	40.92	ppb	0.00
Spiked Amount 50.000			Recovery =	81.84%		
70) surr2,bfb	7.05	95	167191	45.59	ppb	0.00
Spiked Amount 50.000			Recovery =	91.18%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.08	85	26943	11.59	ppb	100
4) Chloromethane	1.18	50	39673	9.39	ppb	97
5) Vinyl Chloride	1.24	62	37008	11.23	ppb	99
6) Bromomethane	1.42	94	21896	10.70	ppb	99
7) Chloroethane	1.47	64	22308	10.40	ppb	98
8) FREON 21	1.56	67	54364	10.06	ppb	98
9) Trichlorofluoromethane	1.60	101	34756	11.03	ppb	98
10) Diethyl Ether	1.74	59	19150	11.07	ppb	96
11) FREON 123A	1.73	85	14018	11.29	ppb	90
12) FREON 123	1.76	85	24760	9.87	ppb	99
13) Acrolein	1.81	56	8888	41.60	ppb	99
14) FREON 113	1.87	85	11166	11.46	ppb	92
15) 1,1-Dicethene	1.87	96	23506	10.85	ppb	94
16) Acetone	1.89	43	4984m	9.83	ppb	
17) 2-Propanol	1.95	45	10306	128.36	ppb	# 83
18) Iodomethane	1.96	127	6897	6.28	ppb	95
19) Carbon Disulfide	2.01	76	87473	10.09	ppb	99
20) Acetonitrile	2.04	40	4713m	43.49	ppb	
21) Allyl Chloride	2.06	76	14814	10.72	ppb	92
22) Methyl Acetate	2.06	43	18119	10.12	ppb	98
23) Methylene Chloride	2.13	84	29354	10.38	ppb	98
24) TBA	2.16	59	14752	137.85	ppb	95
25) Acrylonitrile	2.25	53	31405	50.49	ppb	99
26) Methyl-t-Butyl Ether	2.28	73	59249	11.82	ppb	97
27) trans-1,2-Dichloroethene	2.28	96	26019	10.11	ppb	95
28) 1,1-Dicethane	2.52	63	52366	10.00	ppb	99
29) DIPE	2.53	45	111803	9.65	ppb	96
30) Vinyl Acetate	2.52	86	2832	9.88	ppb	72
31) 2-Chloro-1,3-butadiene	2.57	53	43074	9.57	ppb	96
32) ETBE	2.75	59	79094	10.21	ppb	98
33) 2,2-Dichloropropane	2.86	77	36323	10.44	ppb	99
34) 2-Butanone	2.85	43	7186	8.36	ppb	# 89
35) cis-1,2-Dichloroethene	2.86	96	29213	10.25	ppb	93
36) Propionitrile	2.89	54	8770	40.64	ppb	94
37) Methacrylonitrile	2.99	67	7159	12.11	ppb	91

RJA  
7/9/08

(#) = qualifier out of range (m) = manual integration  
 Z2750.D W070808.M Wed Jul 09 16:18:36 2008



Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2750.D  
 Acq On : 8 Jul 2008 2:50 pm  
 Sample : 10PPB  
 Misc : Initial Calibration- 8260B WATER  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 15:37 2008

Vial: 12  
 Operator: Herring  
 Inst : MS #8  
 Multiplr: 1.00

Quant Results File: W070808.RES

Quant Method : J:\ACQUDATA\M...\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Initial Calibration  
 DataAcq Meth : W070808

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) Bromochloromethane	3.00	128	11878	10.25	ppb	86
39) Chloroform	3.04	83	46812	10.19	ppb	98
40) Tetrahydrofuran	3.04	42	4880	10.20	ppb	100
41) 1,1,1-Trichloroethane	3.18	97	35318	10.69	ppb #	79
44) cyclohexane	3.22	56	52361	9.33	ppb	99
45) Carbontetrachloride	3.29	117	28335	11.96	ppb	97
46) 1,1-Dichloropropene	3.28	75	39774	10.94	ppb	97
47) Iso-Butyl Alcohol	3.31	43	8170	138.05	ppb	86
49) Benzene	3.42	78	114777	10.81	ppb	99
50) 1,2-Dichloroethane	3.42	62	30419	11.08	ppb	99
51) TAME	3.48	73	64479	11.51	ppb	97
52) N-Heptane	3.57	43	46734	9.91	ppb	98
53) Trichloroethene	3.86	95	27344	10.91	ppb	95
54) methylcyclohexane	4.00	55	41906	9.42	ppb	96
55) 1,2-Diclpropane	4.01	63	29629	10.27	ppb	98
56) Methyl Methacrylate	4.07	69	12001	12.05	ppb	89
57) 1,4-Dioxane	4.11	88	1217	108.39	ppb	90
58) Dibromomethane	4.10	93	13115	11.18	ppb	97
59) Bromodichloromethane	4.20	83	33816	11.79	ppb	96
60) 2-Nitropropane	4.37	43	9694	26.25	ppb	100
61) 2-Chloroethylvinyl Ether	4.41	63	13034	9.56	ppb	92
62) cis-1,3-Dichloropropene	4.54	75	38997	10.45	ppb	99
64) 4-Methyl-2-Pentanone	4.65	43	18581	10.70	ppb	97
65) Toluene	4.82	91	114824	10.90	ppb	97
66) trans-1,3-Dichloropropene	4.97	75	29863	10.48	ppb	99
67) Ethyl Methacrylate	5.04	69	25579	13.12	ppb	96
68) 1,1,2-Trichloroethane	5.13	83	15803	11.80	ppb	99
71) Tetrachloroethene	5.27	166	24373	10.45	ppb	97
72) 2-Hexanone	5.33	43	11607	9.77	ppb	94
73) 1,3-Dichloropropane	5.27	76	32864	10.89	ppb	95
74) Dibromochloromethane	5.47	129	19931	11.76	ppb	93
75) 1,2-Dibromoethane	5.57	107	14436	9.81	ppb	98
76) Chlorobenzene	6.00	112	67129	10.51	ppb	97
77) 1,1,1,2-Tetrachloroethane	6.07	131	20704	10.62	ppb	97
78) Ethylbenzene	6.09	91	126869	11.57	ppb	100
79) (m+p)Xylene	6.20	106	92084	22.68	ppb	99
80) o-Xylene	6.56	106	43878	11.28	ppb	95
81) Styrene	6.57	104	77652	11.80	ppb	98
82) Bromoform	6.74	173	9265	11.67	ppb	90
83) Isopropylbenzene	6.90	105	116451	11.67	ppb	99
84) Cyclohexanone	6.99	55	29630	180.08	ppb	97
86) 1,1,2,2-Tetrachloroethane	7.17	83	18564	9.46	ppb	97
87) Trans-1,4-Dichloro-2-buten	7.23	53	3260	8.38	ppb	91
88) 1,2,3-Trichloropropane	7.22	110	5242	11.53	ppb	98
89) n-Propylbenzene	7.29	91	138252	9.92	ppb	98
90) Bromobenzene	7.20	156	24866	10.46	ppb	99
92) 1,3,5-Trimethylbenzene	7.45	105	96412	10.57	ppb	100
93) 2-Chlorotoluene	7.37	91	73872	9.71	ppb	98
94) 4-Chlorotoluene	7.48	91	96544	10.92	ppb	99
95) tert-Butylbenzene	7.77	119	77313m	9.66	ppb	

B/M 7/9/08

(#) = qualifier out of range (m) = manual integration  
 Z2750.D W070808.M Wed Jul 09 16:18:37 2008

Data File : J:\ACQU\DATA\MSVOA8\DATA\070808\Z2750.D Vial: 12  
 Acq On : 8 Jul 2008 2:50 pm Operator: Herring  
 Sample : 10PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 15:37 2008 Quant Results File: W070808.RES

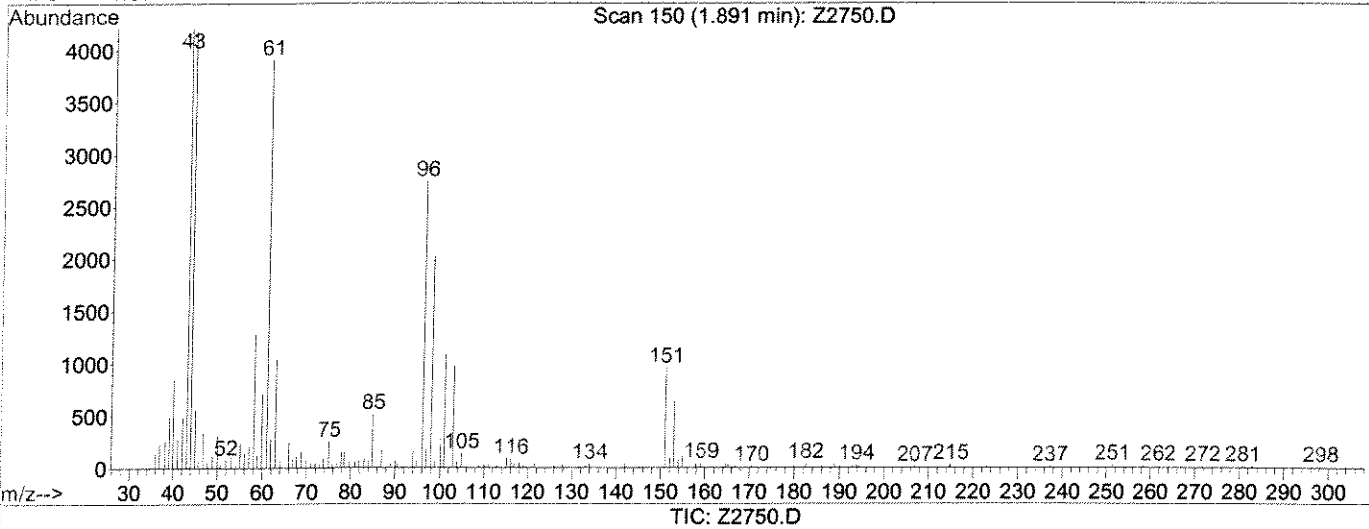
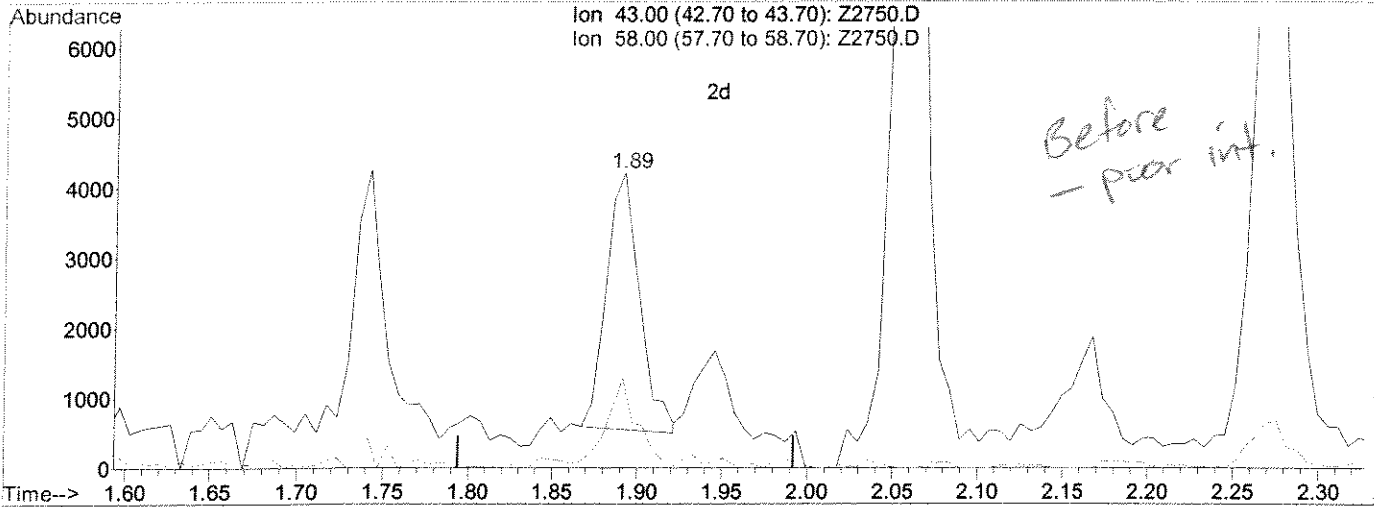
Quant Method : J:\ACQU\DATA\M...\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Initial Calibration  
 DataAcq Meth : W070808

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
96) 1,2,4-Trimethylbenzene	7.81	105	92703	10.28	ppb	98
97) sec-Butylbenzene	7.98	105	117538	9.60	ppb	97
98) p-Isopropyltoluene	8.13	119	96946	9.76	ppb	98
99) 1,3-Dclbenz	8.10	146	47947	10.30	ppb	99
100) 1,4-Dclbenz	8.18	146	47982	10.34	ppb	99
102) n-Butylbenzene	8.53	91	91529	10.09	ppb	98
103) 1,2-Dclbenz	8.55	146	43321	10.30	ppb	93
104) 1,2-Dibromo-3-chloropropan	9.32	157	2386	9.60	ppb	90
106) 1,2,4-Tcbenzene	10.15	180	23260	10.78	ppb	90
107) Hexachlorobu	10.31	225	10650	9.50	ppb	94
108) Naphthalen	10.39	128	56427	11.85	ppb	100
109) 1,2,3-Tclbenzene	10.61	180	21659	11.46	ppb	95

(#) = qualifier out of range (m) = manual integration  
 Z2750.D W070808.M Wed Jul 09 16:18:37 2008

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2750.D Vial: 12  
 Acq On : 8 Jul 2008 2:50 pm Operator: Herring  
 Sample : 10PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 13:00 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Multiple Level Calibration



(16) Acetone

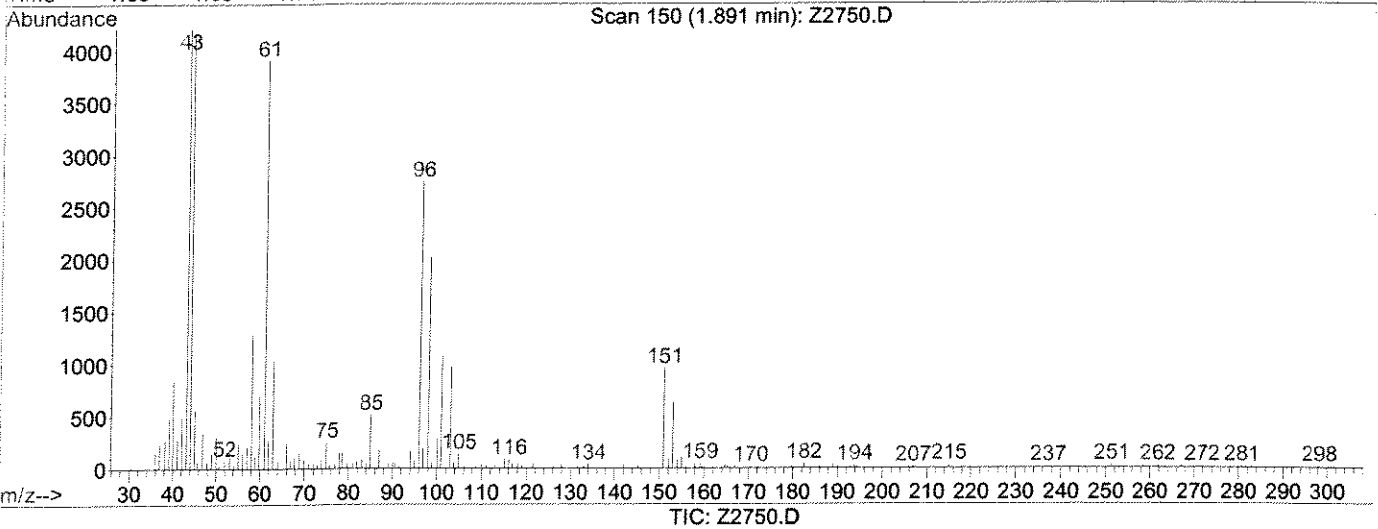
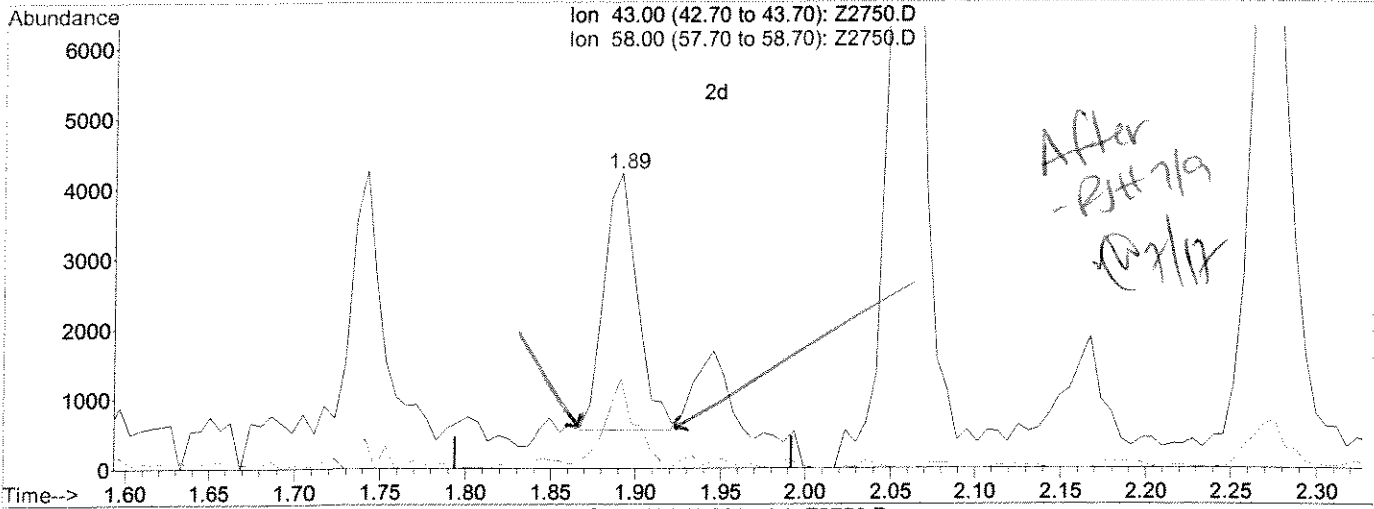
1.89min 9.86ppb

response 4996

Ion	Exp%	Act%
43.00	100	100
58.00	30.40	30.56
0.00	0.00	0.00
0.00	0.00	0.00

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2750.D Vial: 12  
 Acq On : 8 Jul 2008 2:50 pm Operator: Herring  
 Sample : 10PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 14:57 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Multiple Level Calibration



(16) Acetone

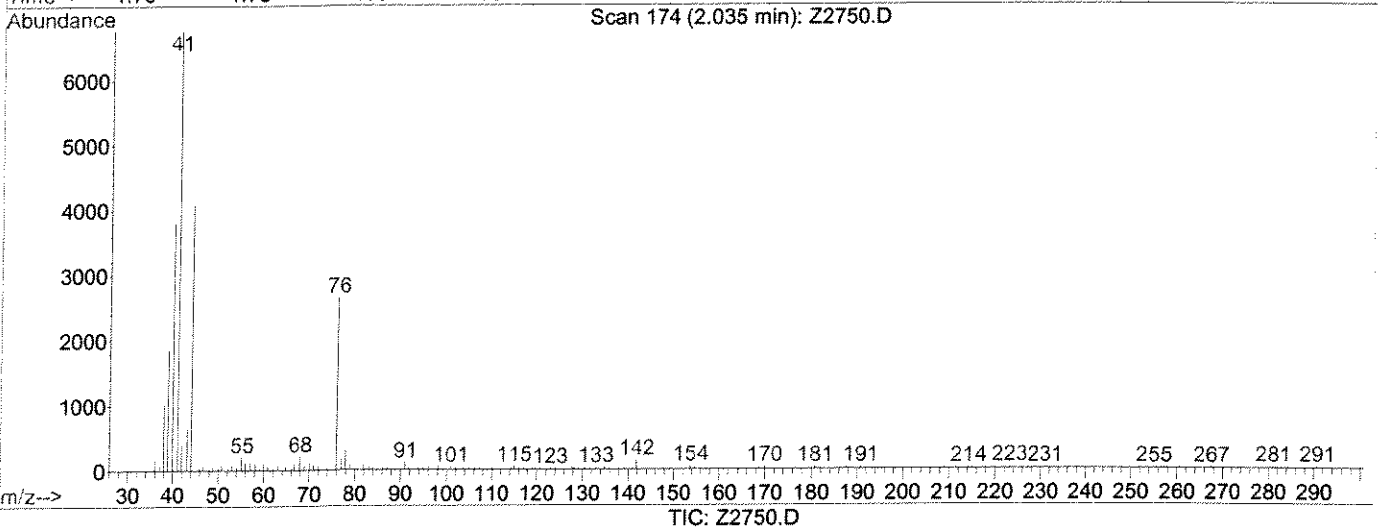
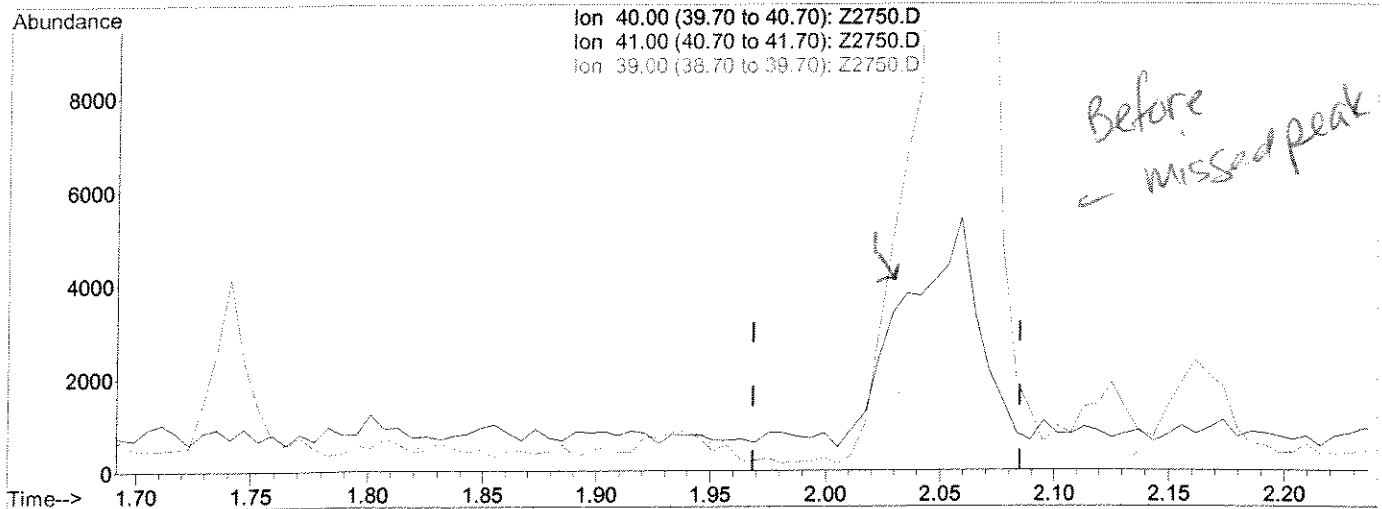
1.89min 9.83ppb m

response 4984

Ion	Exp%	Act%
43.00	100	100
58.00	30.40	30.56
0.00	0.00	0.00
0.00	0.00	0.00

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2750.D Vial: 12  
Acq On : 8 Jul 2008 2:50 pm Operator: Herring  
Sample : 10PPB Inst : MS #8  
Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
MS Integration Params: RTEINT.P  
Quant Time: Jul 9 14:57 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
Title : 8260voa  
Last Update : Wed Jul 09 12:58:26 2008  
Response via : Multiple Level Calibration



(20) Acetonitrile

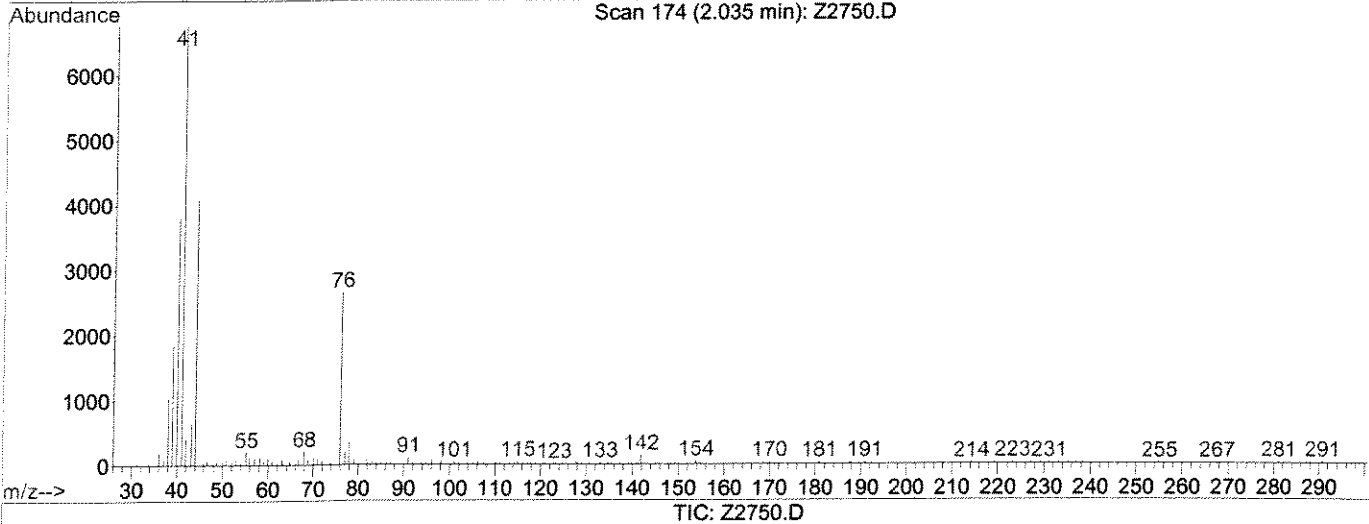
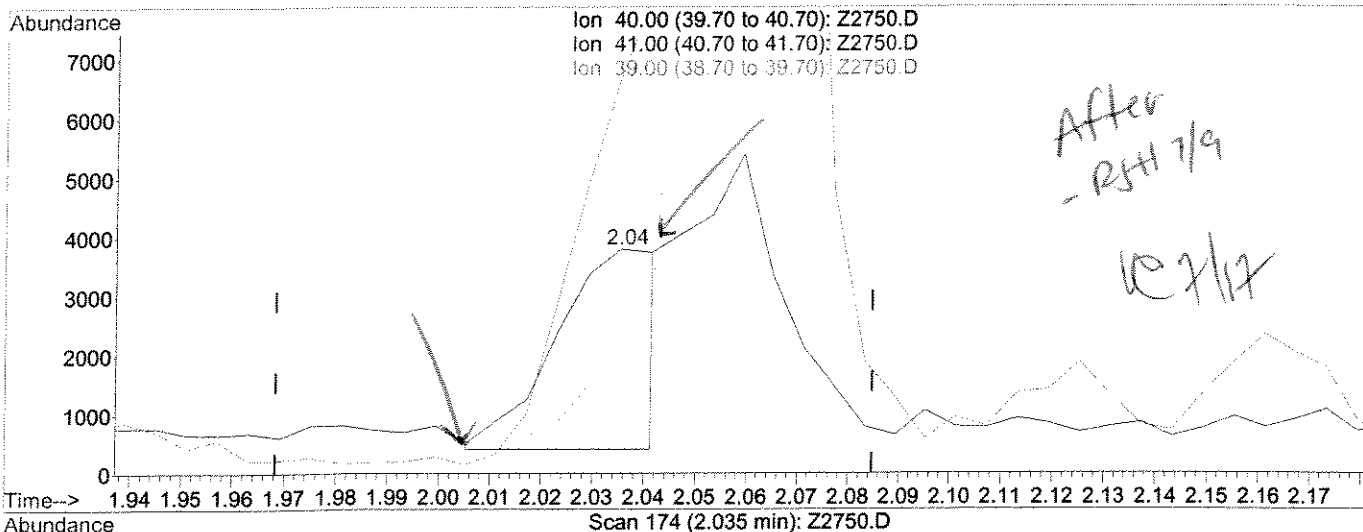
2.04min 0.00ppb

response 0

Ion	Exp%	Act%
40.00	100	0.00
41.00	193.10	0.00#
39.00	49.50	0.00#
0.00	0.00	0.00

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2750.D Vial: 12  
 Acq On : 8 Jul 2008 2:50 pm Operator: Herring  
 Sample : 10PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 15:37 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 15:31:36 2008  
 Response via : Multiple Level Calibration



(20) Acetonitrile

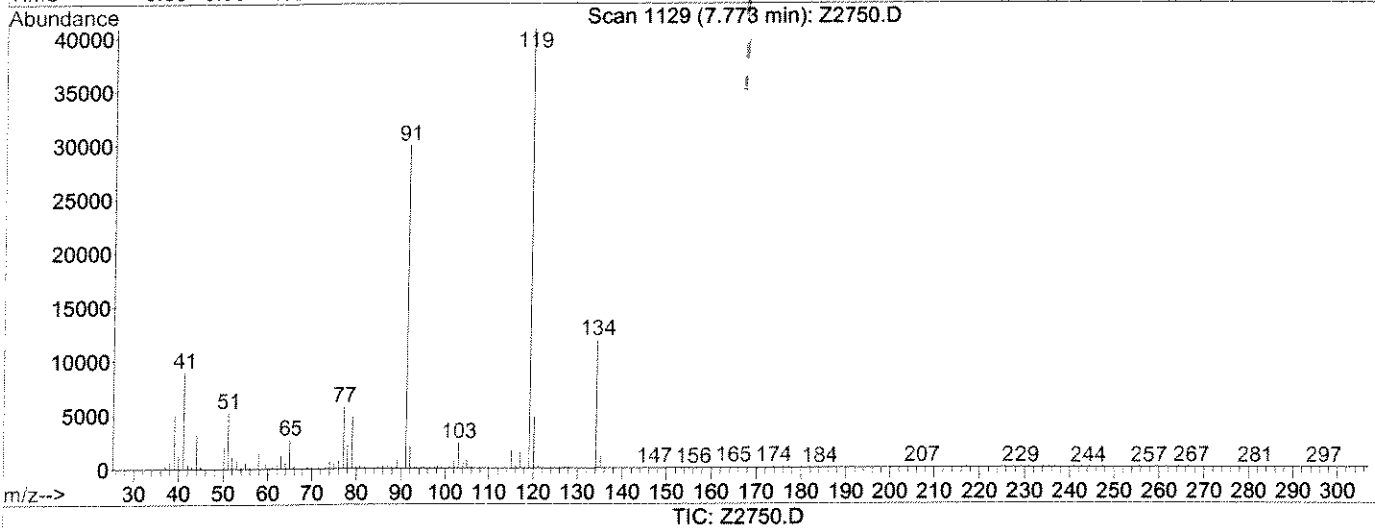
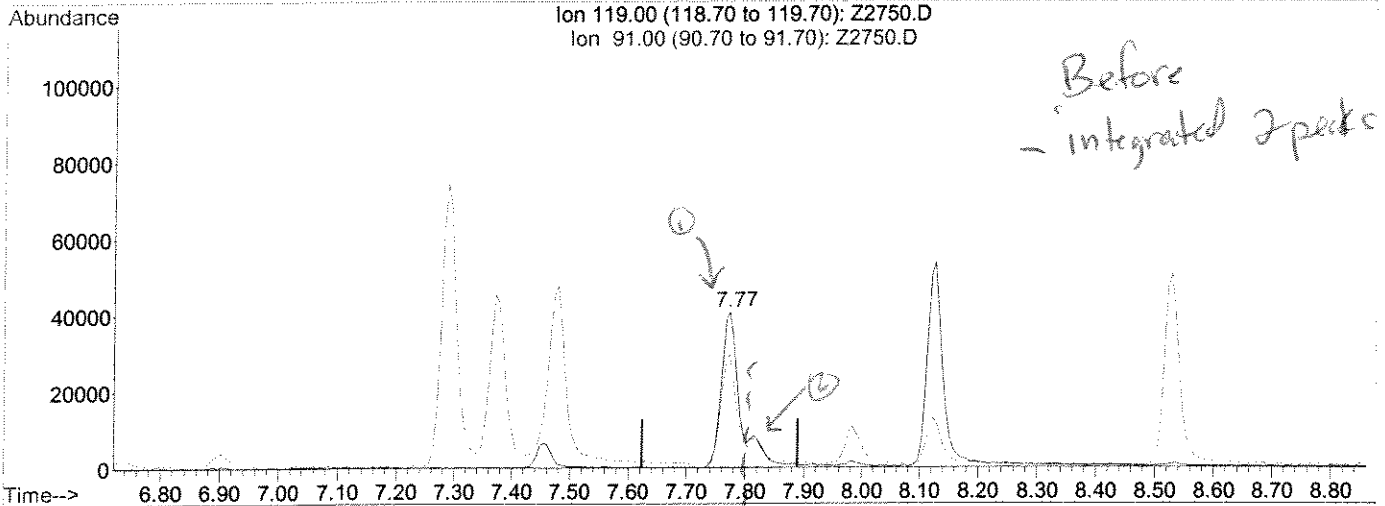
2.04min 43.49ppb m

response 4713

Ion	Exp%	Act%
40.00	100	100
41.00	193.10	178.10
39.00	49.50	48.85
0.00	0.00	0.00

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2750.D Vial: 12  
 Acq On : 8 Jul 2008 2:50 pm Operator: Herring  
 Sample : 10PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 14:59 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Multiple Level Calibration



(95) tert-Butylbenzene

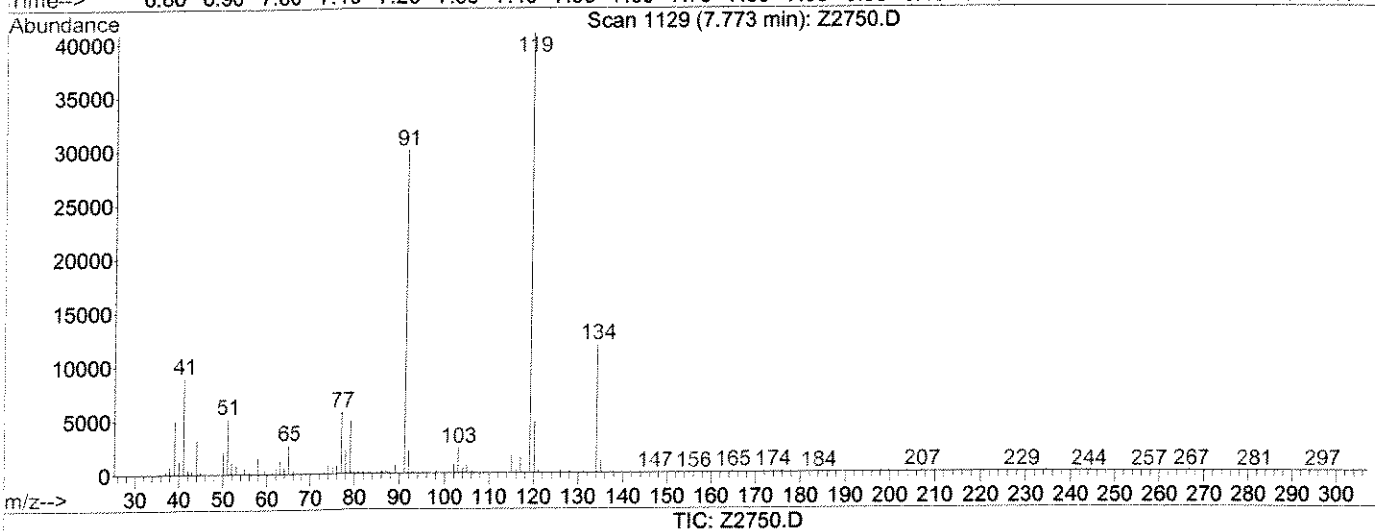
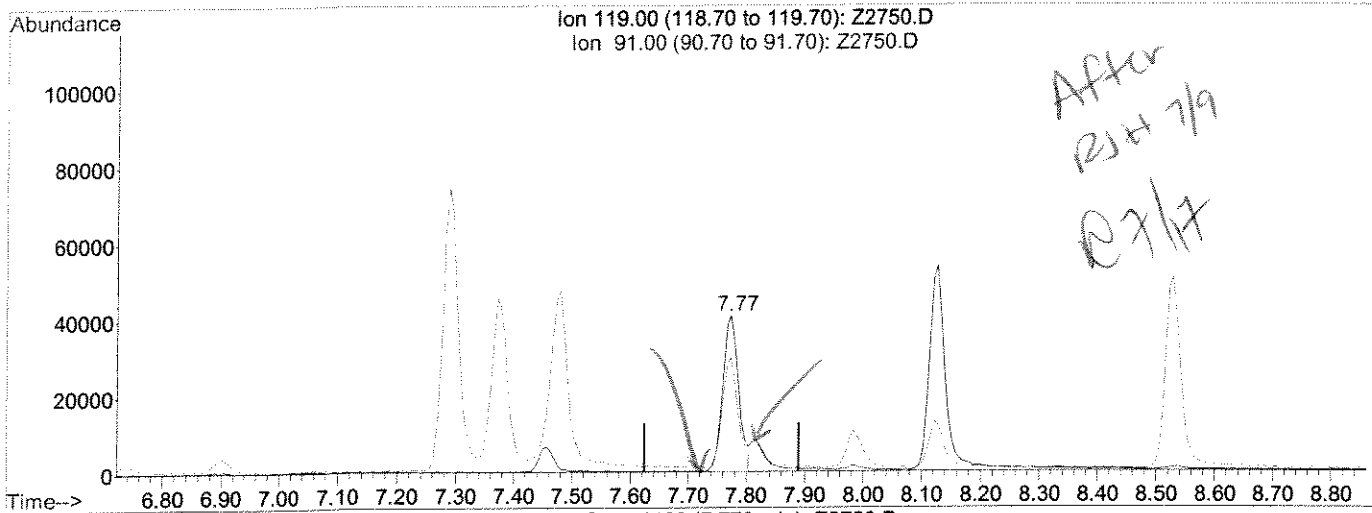
7.77min 11.42ppb

response 91421

Ion	Exp%	Act%
119.00	100	100
91.00	70.20	73.38
0.00	0.00	0.00
0.00	0.00	0.00

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2750.D Vial: 12  
 Acq On : 8 Jul 2008 2:50 pm Operator: Herring  
 Sample : 10PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 15:01 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260vca  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Multiple Level Calibration



(95) tert-Butylbenzene

7.77min 9.66ppb m

response 77313

Ion	Exp%	Act%
119.00	100	100
91.00	70.20	73.38
0.00	0.00	0.00
0.00	0.00	0.00



Data File : J:\ACQDATA\MSVOA8\DATA\070808\Z2750.D

Acq On : 8 Jul 2008 2:50 pm

Sample : 10PPB

Misc : Initial Calibration- 8260B WATER

MS Integration Params: RTEINT.P

Quant Time: Jul 9 15:37 2008

Vial: 12

Operator: Herring

Inst : MS #8

Multiplr: 1.00

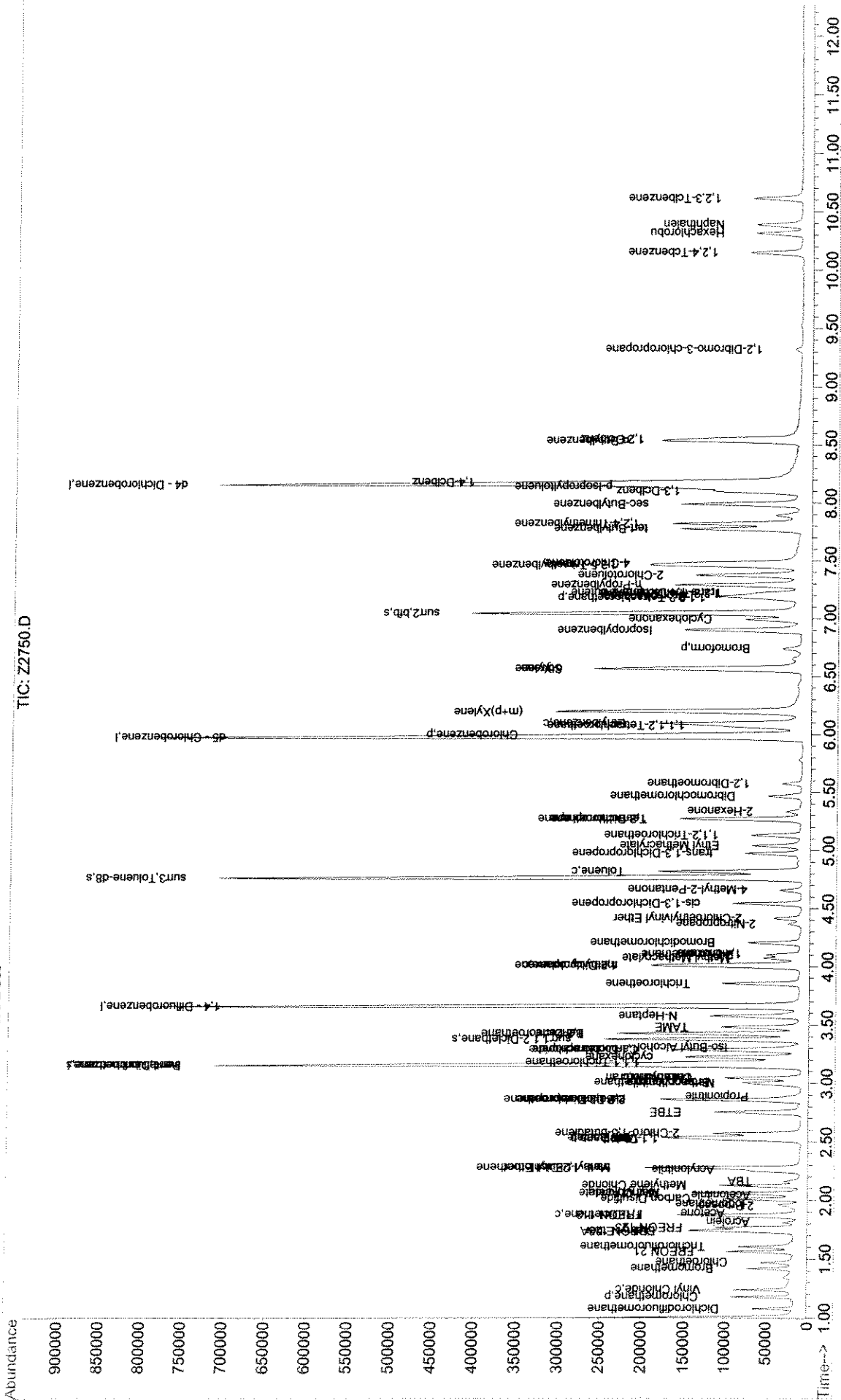
Quant Results File: W070808.RES

Method : J:\ACQDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)

Title : 8260vova

Last Update : Wed Jul 09 16:13:36 2008

Response via : Initial Calibration



Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2751.D Vial: 13
Acq On : 8 Jul 2008 3:18 pm Operator: Herring
Sample : 50PPB Inst : MS #8
Misc : Initial Calibration- 8260B WATER Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 9 16:00 2008 Quant Results File: W070808.RES

RSH
7/9/08

Quant Method : J:\ACQUDATA\M...\W070808.M (RTE Integrator)
Title : 8260voa
Last Update : Wed Jul 09 12:58:26 2008
Response via : Initial Calibration
DataAcq Meth : W070808

Table with 7 columns: Internal Standards, R.T., QIon, Response, Conc, Units, Dev(Min). Rows include Pentafuorobenzene, 1,4-Difluorobenzene, d5-Chlorobenzene, d4-Dichlorobenzene.

System Monitoring Compounds

Table with 7 columns: Internal Standards, R.T., QIon, Response, Conc, Units, Dev(Min). Rows include surr4, Dibrflmethane, surr1, 1,2-Dicethane, surr3, Toluene-d8, surr2, bfb.

Target Compounds

Table with 7 columns: Internal Standards, R.T., QIon, Response, Conc, Units, Dev(Min), Qvalue. Rows include Dichlorodifluoromethane, Chloromethane, Vinyl Chloride, Bromomethane, Chloroethane, FREON 21, Trichlorofluoromethane, Diethyl Ether, FREON 123A, FREON 123, Acrolein, FREON 113, 1,1-Dicethene, Acetone, 2-Propanol, Iodomethane, Carbon Disulfide, Acetonitrile, Allyl Chloride, Methyl Acetate, Methylene Chloride, TBA, Acrylonitrile, Methyl-t-Butyl Ether, trans-1,2-Dichloroethene, 1,1-Dicethane, DIPE, Vinyl Acetate, 2-Chloro-1,3-butadiene, ETBE, 2,2-Dichloropropane, 2-Butanone, cis-1,2-Dichloroethene, Propionitrile, Methacrylonitrile.

(#) = qualifier out of range (m) = manual integration
Z2751.D W070808.M Wed Jul 09 16:18:49 2008

Data File : J:\ACQUDATA\MSVOAS\DATA\070808\Z2751.D  
Acq On : 8 Jul 2008 3:18 pm  
Sample : 50PPB  
Misc : Initial Calibration- 8260B WATER  
MS Integration Params: RTEINT.P  
Quant Time: Jul 9 16:00 2008

Vial: 13  
Operator: Herring  
Inst : MS #8  
Multiplr: 1.00

Quant Results File: W070808.RES

Quant Method : J:\ACQUDATA\M...\W070808.M (RTE Integrator)  
Title : 8260voa  
Last Update : Wed Jul 09 12:58:26 2008  
Response via : Initial Calibration  
DataAcq Meth : W070808

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) Bromochloromethane	3.00	128	59165	49.45	ppb	100
39) Chloroform	3.05	83	236710	49.92	ppb	100
40) Tetrahydrofuran	3.05	42	24027	48.65	ppb	100
41) 1,1,1-Trichloroethane	3.18	97	184364	54.04	ppb	100
44) cyclohexane	3.23	56	295369	50.88	ppb	100
45) Carbontetrachloride	3.29	117	137541	56.11	ppb	100
46) 1,1-Dichloropropene	3.28	75	207042	55.06	ppb	100
47) Iso-Butyl Alcohol	3.31	43	39109	638.89	ppb	100
49) Benzene	3.42	78	588864	53.60	ppb	100
50) 1,2-Dichloroethane	3.42	62	151764	53.45	ppb	100
51) TAME	3.48	73	338320	58.40	ppb	100
52) N-Heptane	3.57	43	254343	52.16	ppb	100
53) Trichloroethene	3.85	95	137360	52.98	ppb	100
54) methylcyclohexane	4.00	55	234343	50.94	ppb	100
55) 1,2-Diclpropane	4.01	63	150128	50.32	ppb	100
56) Methyl Methacrylate	4.07	69	64343	62.46	ppb	100
57) 1,4-Dioxane	4.11	88	5445m	468.85	ppb	
58) Dibromomethane	4.10	93	61835	50.98	ppb	100
59) Bromodichloromethane	4.20	83	166525	56.13	ppb	100
60) 2-Nitropropane	4.37	43	44937	117.64	ppb	100
61) 2-Chloroethylvinyl Ether	4.42	63	71698	50.85	ppb	100
62) cis-1,3-Dichloropropene	4.54	75	193922	50.24	ppb	100
64) 4-Methyl-2-Pentanone	4.66	43	93783	51.65	ppb	100
65) Toluene	4.82	91	579887	52.64	ppb	100
66) trans-1,3-Dichloropropene	4.97	75	154496	51.88	ppb	100
67) Ethyl Methacrylate	5.04	69	132075	64.82	ppb	100
68) 1,1,2-Trichloroethane	5.13	83	77074	55.03	ppb	100
71) Tetrachloroethene	5.27	166	127475	52.28	ppb	100
72) 2-Hexanone	5.33	43	60526	48.73	ppb	100
73) 1,3-Dichloropropane	5.27	76	165793	52.53	ppb	100
74) Dibromochloromethane	5.47	129	98320	55.48	ppb	100
75) 1,2-Dibromoethane	5.57	107	65883	42.81	ppb	100
76) Chlorobenzene	6.00	112	341316	51.09	ppb	100
77) 1,1,1,2-Tetrachloroethane	6.07	131	109287	53.64	ppb	100
78) Ethylbenzene	6.09	91	649620	56.67	ppb	100
79) (m+p)Xylene	6.20	106	483295	113.85	ppb	100
80) o-Xylene	6.56	106	229123	56.32	ppb	100
81) Styrene	6.57	104	412092	59.91	ppb	100
82) Bromoform	6.74	173	51342	61.88	ppb	100
83) Isopropylbenzene	6.90	105	601392	57.64	ppb	100
84) Cyclohexanone	6.99	55	138012	802.33	ppb	100
86) 1,1,2,2-Tetrachloroethane	7.17	83	93154	44.94	ppb	100
87) Trans-1,4-Dichloro-2-buten	7.23	53	16942	41.23	ppb	100
88) 1,2,3-Trichloropropane	7.22	110	24720	51.49	ppb	100
89) n-Propylbenzene	7.29	91	744664	50.60	ppb	100
90) Bromobenzene	7.19	156	130391	51.91	ppb	100
92) 1,3,5-Trimethylbenzene	7.45	105	503003	52.23	ppb	100
93) 2-Chlorotoluene	7.38	91	402953	50.13	ppb	100
94) 4-Chlorotoluene	7.47	91	523447	56.03	ppb	100
95) tert-Butylbenzene	7.77	119	468320	55.37	ppb	100

(#) = qualifier out of range (m) = manual integration  
Z2751.D W070808.M Wed Jul 09 16:18:49 2008

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2751.D Vial: 13  
 Acq On : 8 Jul 2008 3:18 pm Operator: Herring  
 Sample : 50PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 16:00 2008 Quant Results File: W070808.RES

Quant Method : J:\ACQUDATA\M...\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Initial Calibration  
 DataAcq Meth : W070808

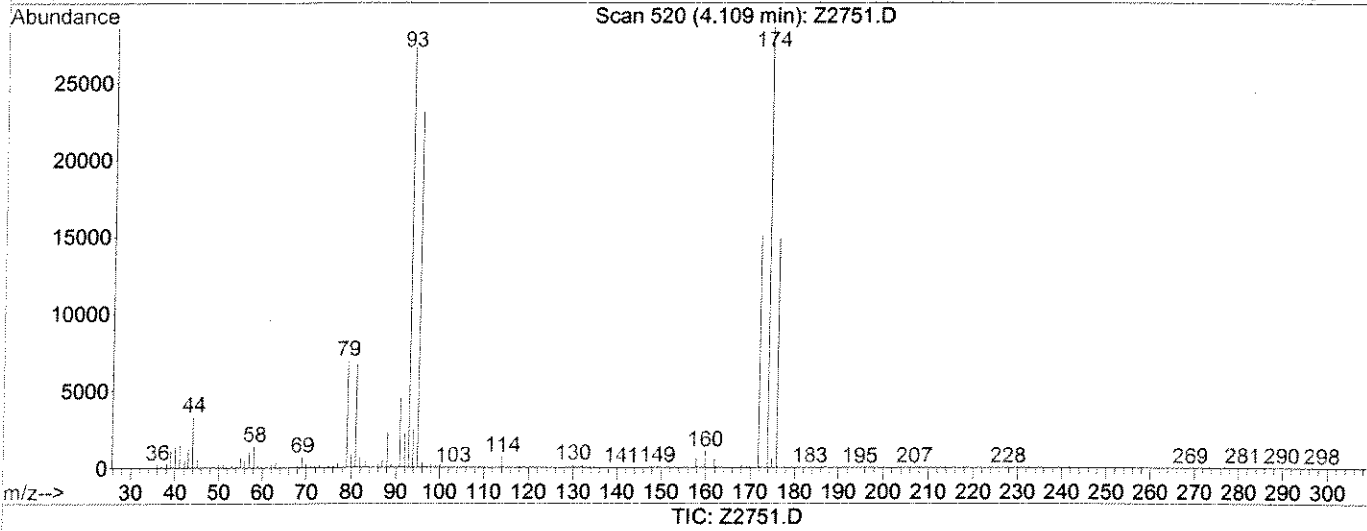
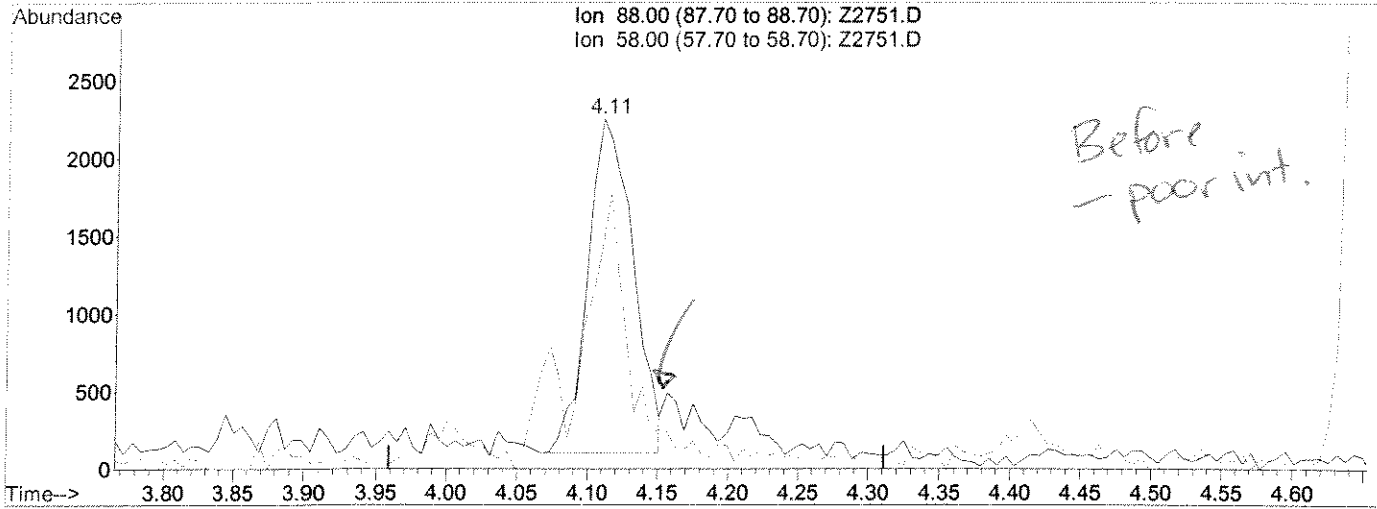
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
96) 1,2,4-Trimethylbenzene	7.82	105	480030	50.39	ppb	100
97) sec-Butylbenzene	7.98	105	624178	48.27	ppb	100
98) p-Isopropyltoluene	8.13	119	519116	49.46	ppb	100
99) 1,3-Dclbenz	8.10	146	250897	51.05	ppb	100
100) 1,4-Dclbenz	8.18	146	249547	50.91	ppb	100
102) n-Butylbenzene	8.53	91	478965	50.01	ppb	100
103) 1,2-Dclbenz	8.55	146	223714	50.35	ppb	100
104) 1,2-Dibromo-3-chloropropan	9.32	157	12003	45.70	ppb	100
106) 1,2,4-Tcbenzene	10.15	180	124422	54.59	ppb	100
107) Hexachlorobu	10.31	225	58837	49.68	ppb	100
108) Naphthalen	10.39	128	299698	59.58	ppb	100
109) 1,2,3-Tclbenzene	10.62	180	112049	56.13	ppb	100

(#) = qualifier out of range (m) = manual integration  
 Z2751.D W070808.M Wed Jul 09 16:18:50 2008

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2751.D Vial: 13  
Acq On : 8 Jul 2008 3:18 pm Operator: Herring  
Sample : 50PPB Inst : MS #8  
Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
MS Integration Params: RTEINT.P  
Quant Time: Jul 9 13:00 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
Title : 8260voa  
Last Update : Wed Jul 09 15:50:32 2008  
Response via : Multiple Level Calibration



(57) 1,4-Dioxane

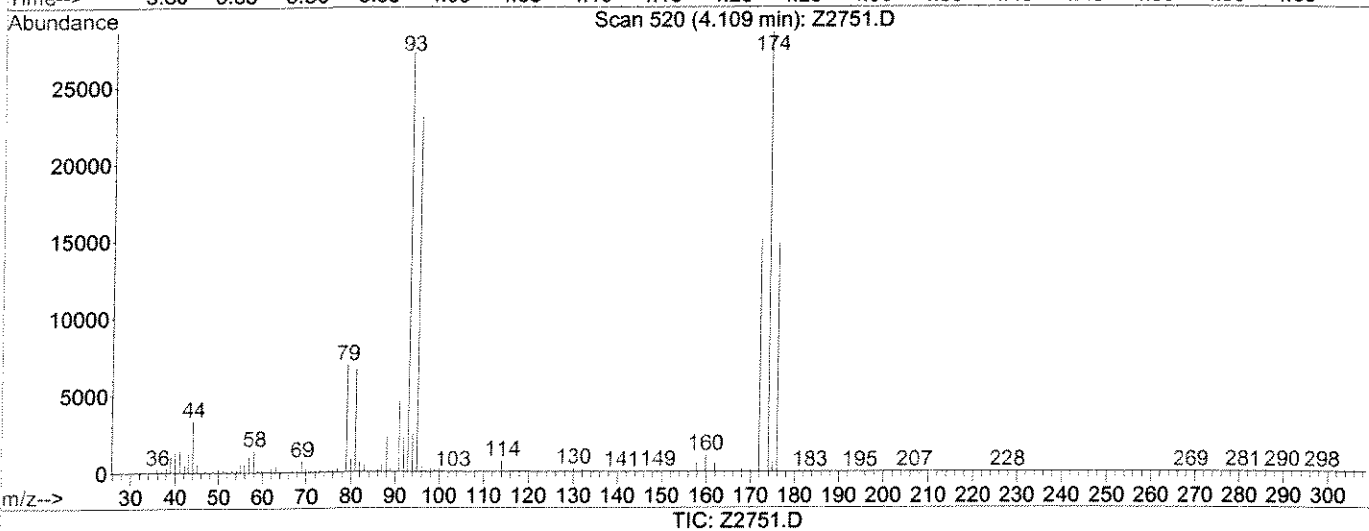
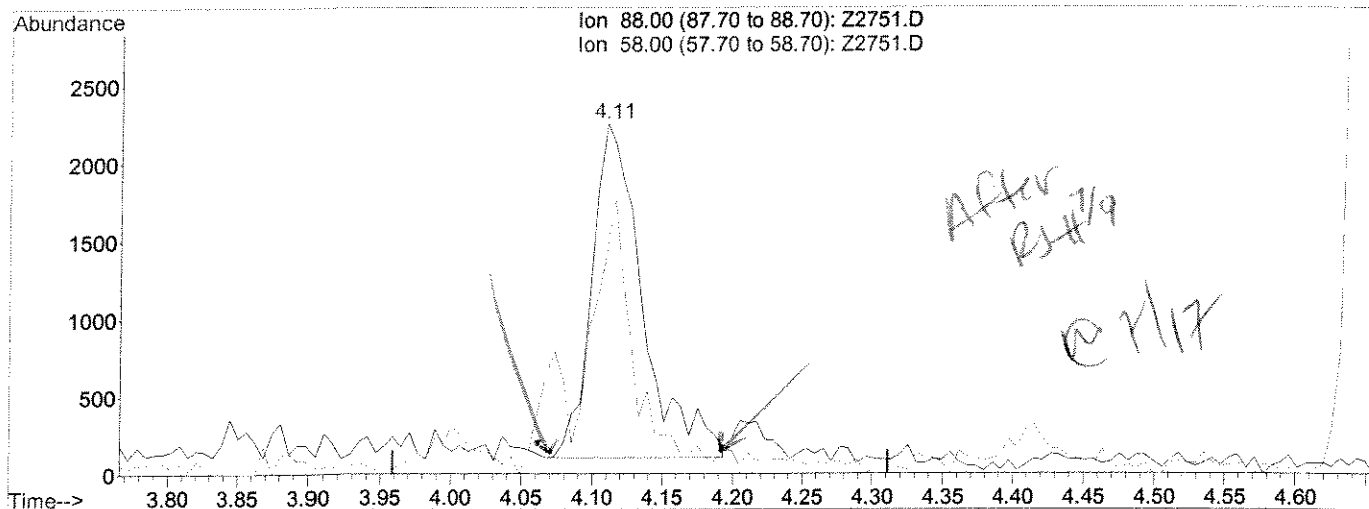
4.11min 419.34ppb

response 4870

Ion	Exp%	Act%
88.00	100	100
58.00	62.60	62.59
0.00	0.00	0.00
0.00	0.00	0.00

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2751.D Vial: 13  
 Acq On : 8 Jul 2008 3:18 pm Operator: Herring  
 Sample : 50PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 16:00 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 15:50:32 2008  
 Response via : Multiple Level Calibration



(57) 1,4-Dioxane

4.11min 468.85ppb m

response 5445

Ion	Exp%	Act%
88.00	100	100
58.00	62.60	62.59
0.00	0.00	0.00
0.00	0.00	0.00



Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2752.D Vial: 14  
 Acq On : 8 Jul 2008 3:46 pm Operator: Herring  
 Sample : 100PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 13:01 2008 Quant Results File: W070808.RES

*PSH 7/9/08*

Quant Method : J:\ACQUDATA\M...\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Initial Calibration  
 DataAcq Meth : W070808

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	3.15	168	311874	50.00	ppb	0.00
42) 1,4 - Difluorobenzene	3.66	114	540116	50.00	ppb	0.00
63) d5 - Chlorobenzene	5.98	117	466843	50.00	ppb	0.00
85) d4 - Dichlorobenzene	8.16	152	218321	50.00	ppb	0.00

System Monitoring Compounds

43) surr4,Dibrflmethane	3.15	113	319446	108.68	ppb	0.00
Spiked Amount	50.000		Recovery	=	217.36%	
48) surr1,1,2-Dicethane	3.38	65	328571	113.24	ppb	0.00
Spiked Amount	50.000		Recovery	=	226.48%	
69) surr3,Toluene-d8	4.76	98	1228985	108.49	ppb	0.00
Spiked Amount	50.000		Recovery	=	216.98%	
70) surr2,bfb	7.05	95	484628	121.87	ppb	0.00
Spiked Amount	50.000		Recovery	=	243.74%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.07	85	268179	107.69	ppb	100
4) Chloromethane	1.18	50	416425	92.04	ppb	97
5) Vinyl Chloride	1.24	62	374222	106.01	ppb	98
6) Bromomethane	1.42	94	215637	98.38	ppb	97
7) Chloroethane	1.46	64	215027	93.56	ppb	98
8) FREON 21	1.56	67	608051	105.04	ppb	100
9) Trichlorofluoromethane	1.60	101	338728	100.36	ppb	99
10) Diethyl Ether	1.74	59	193832	104.63	ppb	99
11) FREON 123A	1.74	85	137910	103.72	ppb	# 78
12) FREON 123	1.77	85	293560	109.21	ppb	98
13) Acrolein	1.81	56	98828	431.85	ppb	95
14) FREON 113	1.87	85	111381	106.69	ppb	96
15) 1,1-Dicethene	1.87	96	237829	102.53	ppb	99
16) Acetone	1.89	43	53314	98.19	ppb	100
17) 2-Propanol	1.95	45	110180	1281.23	ppb	94
18) Iodomethane	1.96	127	70717	60.08	ppb	91
19) Carbon Disulfide	2.01	76	909630	98.01	ppb	99
20) Acetonitrile	2.04	40	36251	312.34	ppb	98
21) Allyl Chloride	2.06	76	156023	105.44	ppb	100
22) Methyl Acetate	2.06	43	190196	99.14	ppb	99
23) Methylene Chloride	2.13	84	288789	95.36	ppb	99
24) TBA	2.16	59	158283	1380.90	ppb	95
25) Acrylonitrile	2.25	53	307276	461.21	ppb	100
26) Methyl-t-Butyl Ether	2.28	73	594354	110.72	ppb	99
27) trans-1,2-Dichloroethene	2.28	96	274430	99.51	ppb	99
28) 1,1-Dicethane	2.52	63	526213	93.83	ppb	99
29) DIPE	2.53	45	1233924	99.40	ppb	97
30) Vinyl Acetate	2.52	86	32574	106.10	ppb	90
31) 2-Chloro-1,3-butadiene	2.57	53	461070	95.60	ppb	99
32) ETBE	2.75	59	876318	105.62	ppb	99
33) 2,2-Dichloropropane	2.86	77	340306	91.30	ppb	96
34) 2-Butanone	2.85	43	78159	84.85	ppb	94
35) cis-1,2-Dichloroethene	2.85	96	299688	98.21	ppb	95
36) Propionitrile	2.89	54	88169	381.42	ppb	99
37) Methacrylonitrile	2.99	67	70332	111.07	ppb	95

(#) = qualifier out of range (m) = manual integration  
 Z2752.D W070808.M Wed Jul 09 16:19:06 2008



Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2752.D Vial: 14  
 Acq On : 8 Jul 2008 3:46 pm Operator: Herring  
 Sample : 100PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 13:01 2008 Quant Results File: W070808.RES

Quant Method : J:\ACQUDATA\M...\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Initial Calibration  
 DataAcq Meth : W070808

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) Bromochloromethane	3.00	128	118216	95.22	ppb	95
39) Chloroform	3.04	83	470255	95.58	ppb	99
40) Tetrahydrofuran	3.04	42	44971	87.75	ppb	100
41) 1,1,1-Trichloroethane	3.18	97	361525	102.13	ppb	94
44) cyclohexane	3.23	56	619529	102.92	ppb	100
45) Carbontetrachloride	3.29	117	277198	109.06	ppb	98
46) 1,1-Dichloropropene	3.28	75	411533	105.53	ppb	98
47) Iso-Butyl Alcohol	3.32	43	87674	1381.22	ppb	99
49) Benzene	3.42	78	1167044	102.44	ppb	99
50) 1,2-Dichloroethane	3.42	62	293775	99.77	ppb	99
51) TAME	3.48	73	712310	118.58	ppb	100
52) N-Heptane	3.57	43	497281	98.36	ppb	100
53) Trichloroethene	3.86	95	268590	99.91	ppb	92
54) methylcyclohexane	4.00	55	484413	101.54	ppb	99
55) 1,2-Dicloropropane	4.02	63	292228	94.46	ppb	96
56) Methyl Methacrylate	4.07	69	126259	118.20	ppb	93
57) 1,4-Dioxane	4.11	88	13553	1125.42	ppb	94
58) Dibromomethane	4.10	93	124942	99.34	ppb	96
59) Bromodichloromethane	4.20	83	333705	108.48	ppb	95
60) 2-Nitropropane	4.37	43	94353	238.20	ppb	96
61) 2-Chloroethylvinyl Ether	4.41	63	141336	96.67	ppb	99
62) cis-1,3-Dichloropropene	4.54	75	381820	95.39	ppb	97
64) 4-Methyl-2-Pentanone	4.65	43	191876	101.89	ppb	97
65) Toluene	4.82	91	1140037	99.78	ppb	100
66) trans-1,3-Dichloropropene	4.97	75	308412	99.85	ppb	97
67) Ethyl Methacrylate	5.04	69	266212	125.97	ppb	99
68) 1,1,2-Trichloroethane	5.13	83	153934	105.96	ppb	94
71) Tetrachloroethene	5.27	166	252064	99.67	ppb	98
72) 2-Hexanone	5.33	43	123794	96.09	ppb	95
73) 1,3-Dichloropropane	5.27	76	325313	99.38	ppb	100
74) Dibromochloromethane	5.47	129	197897	107.66	ppb	98
75) 1,2-Dibromoethane	5.57	107	123758	77.54	ppb	99
76) Chlorobenzene	6.00	112	678842	97.97	ppb	98
77) 1,1,1,2-Tetrachloroethane	6.07	131	214656	101.58	ppb	95
78) Ethylbenzene	6.09	91	1284854	108.07	ppb	98
79) (m+p)Xylene	6.20	106	953909	216.66	ppb	99
80) o-Xylene	6.56	106	452036	107.14	ppb	98
81) Styrene	6.57	104	815089	114.25	ppb	100
82) Bromoform	6.75	173	103707	120.51	ppb	98
83) Isopropylbenzene	6.90	105	1184418	109.45	ppb	98
84) Cyclohexanone	6.99	55	332318	1862.64	ppb	100
86) 1,1,2,2-Tetrachloroethane	7.17	83	193259	92.15	ppb	100
87) Trans-1,4-Dichloro-2-buten	7.23	53	34484	82.95	ppb	94
88) 1,2,3-Trichloropropane	7.22	110	46673	96.09	ppb	# 83
89) n-Propylbenzene	7.29	91	1478474	99.30	ppb	100
90) Bromobenzene	7.19	156	255544	100.56	ppb	98
92) 1,3,5-Trimethylbenzene	7.46	105	1011168	103.78	ppb	99
93) 2-Chlorotoluene	7.38	91	784491	96.46	ppb	98
94) 4-Chlorotoluene	7.48	91	1049230	111.01	ppb	98
95) tert-Butylbenzene	7.77	119	798706	93.34	ppb	98

(#) = qualifier out of range (m) = manual integration  
 Z2752.D W070808.M Wed Jul 09 16:19:06 2008

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2752.D Vial: 14  
 Acq On : 8 Jul 2008 3:46 pm Operator: Herring  
 Sample : 100PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 13:01 2008 Quant Results File: W070808.RES

Quant Method : J:\ACQUDATA\M...\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Initial Calibration  
 DataAcq Meth : W070808

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
96) 1,2,4-Trimethylbenzene	7.82	105	961623	99.78	ppb	99
97) sec-Butylbenzene	7.99	105	1263493	96.58	ppb	100
98) p-Isopropyltoluene	8.13	119	1044801	98.39	ppb	100
99) 1,3-Dclbenz	8.10	146	503075	101.17	ppb	100
100) 1,4-Dclbenz	8.18	146	499308	100.69	ppb	99
102) n-Butylbenzene	8.53	91	1009488	104.18	ppb	99
103) 1,2-Dclbenz	8.55	146	453263	100.84	ppb	99
104) 1,2-Dibromo-3-chloropropan	9.32	157	23471	88.34	ppb	99
106) 1,2,4-Tcbenzene	10.15	180	264878	114.87	ppb	97
107) Hexachlorobu	10.31	225	121868	101.72	ppb	97
108) Naphthalen	10.39	128	610648	120.00	ppb	100
109) 1,2,3-Tclbenzene	10.61	180	233911	115.82	ppb	98

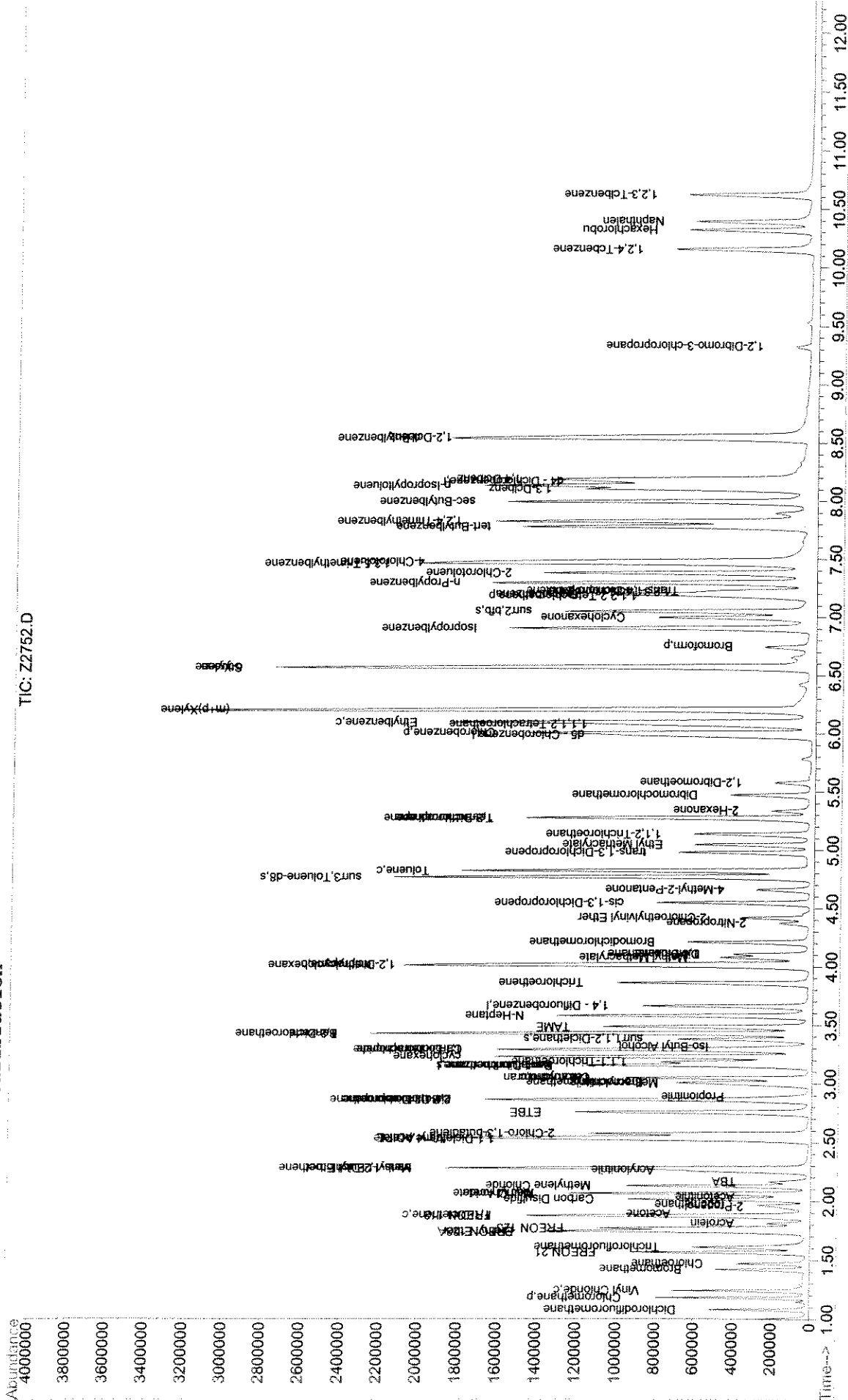
(#) = qualifier out of range (m) = manual integration  
 Z2752.D W070808.M Wed Jul 09 16:19:07 2008

Data File : J:\ACQDATA\MSVOA8\DATA\070808\Z2752.D  
 Acq On : 8 Jul 2008 3:46 pm  
 Sample : 100PPB  
 Misc : Initial Calibration- 8260B WATER  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 13:01 2008

Vial: 14  
 Operator: Herring  
 Inst : MS #8  
 Multiplr: 1.00

Quant Results File: W070808.RES

Method : J:\ACQDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260v0a  
 Last Update : Wed Jul 09 16:13:36 2008  
 Response via : Initial Calibration



Data File : J:\ACQUATA\MSVOA8\DATA\070808\Z2753.D Vial: 15  
 Acq On : 8 Jul 2008 4:14 pm Operator: Herring  
 Sample : 200PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 13:01 2008 Quant Results File: W070808.RES

Quant Method : J:\ACQUATA\M...\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Initial Calibration  
 DataAcq Meth : W070808

RJH 7/9/08

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	3.16	168	317441	50.00	ppb	0.00
42) 1,4 - Difluorobenzene	3.66	114	543852	50.00	ppb	0.00
63) d5 - Chlorobenzene	5.98	117	471830	50.00	ppb	0.00
85) d4 - Dichlorobenzene	8.17	152	228958	50.00	ppb	0.00

System Monitoring Compounds

43) surr4,Dibrflmethane	3.14	113	654341	221.09	ppb	0.00
Spiked Amount	50.000		Recovery	=	442.18%	
48) surr1,1,2-Dicethane	3.37	65	658694	225.46	ppb	0.00
Spiked Amount	50.000		Recovery	=	450.92%	
69) surr3,Toluene-d8	4.77	98	2549866	222.72	ppb	0.00
Spiked Amount	50.000		Recovery	=	445.44%	
70) surr2,bfb	7.05	95	1001841	249.28	ppb	0.00
Spiked Amount	50.000		Recovery	=	498.56%	

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	1.08	85	569742	224.78	ppb	99
4) Chloromethane	1.18	50	959218	208.28	ppb	99
5) Vinyl Chloride	1.24	62	789158	219.64	ppb	98
6) Bromomethane	1.41	94	475719	213.23	ppb	97
7) Chloroethane	1.46	64	460462	196.84	ppb	97
8) FREON 21	1.56	67	1223023	207.58	ppb	100
9) Trichlorofluoromethane	1.61	101	737113	214.56	ppb	98
10) Diethyl Ether	1.74	59	404166	214.35	ppb	98
11) FREON 123A	1.74	85	246549	182.17	ppb	# 57
12) FREON 123	1.76	85	612937	224.02	ppb	93
13) Acrolein	1.81	56	211066	906.12	ppb	93
14) FREON 113	1.86	85	240938	226.74	ppb	95
15) 1,1-Dicethene	1.88	96	511839	216.78	ppb	97
16) Acetone	1.89	43	105348	190.63	ppb	96
17) 2-Propanol	1.94	45	208825	2385.73	ppb	99
18) Iodomethane	1.96	127	146677	122.43	ppb	99
19) Carbon Disulfide	2.01	76	1954518	206.90	ppb	99
20) Acetonitrile	2.03	40	82168	695.54	ppb	92
21) Allyl Chloride	2.06	76	281528	186.91	ppb	91
22) Methyl Acetate	2.06	43	369506	189.23	ppb	97
23) Methylene Chloride	2.12	84	631253	204.79	ppb	99
24) TBA	2.16	59	308510	2644.32	ppb	95
25) Acrylonitrile	2.25	53	647577	954.94	ppb	99
26) Methyl-t-Butyl Ether	2.27	73	1234682	225.97	ppb	98
27) trans-1,2-Dichloroethene	2.28	96	592011	210.90	ppb	96
28) 1,1-Dicethane	2.51	63	1129784	197.92	ppb	98
29) DIPE	2.54	45	2421007	191.60	ppb	96
30) Vinyl Acetate	2.53	86	65537	209.72	ppb	99
31) 2-Chloro-1,3-butadiene	2.57	53	948119	193.14	ppb	98
32) ETBE	2.75	59	1702926	201.64	ppb	99
33) 2,2-Dichloropropane	2.86	77	721730	190.23	ppb	100
34) 2-Butanone	2.86	43	158126	168.66	ppb	100
35) cis-1,2-Dichloroethene	2.86	96	644053	207.35	ppb	95
36) Propionitrile	2.89	54	180467	767.01	ppb	99
37) Methacrylonitrile	2.99	67	149394	231.79	ppb	94

(#) = qualifier out of range (m) = manual integration  
 Z2753.D W070808.M Wed Jul 09 16:19:18 2008

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2753.D  
 Acq On : 8 Jul 2008 4:14 pm  
 Sample : 200PPB  
 Misc : Initial Calibration- 8260B WATER  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 13:01 2008

Vial: 15  
 Operator: Herring  
 Inst : MS #8  
 Multiplr: 1.00

Quant Results File: W070808.RES

Quant Method : J:\ACQUDATA\M...\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Initial Calibration  
 DataAcq Meth : W070808

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) Bromochloromethane	3.01	128	238774	188.96	ppb	93
39) Chloroform	3.04	83	1006528	201.00	ppb	100
40) Tetrahydrofuran	3.05	42	95829	183.71	ppb	97
41) 1,1,1-Trichloroethane	3.18	97	761194	211.27	ppb	94
44) cyclohexane	3.23	56	1244967	205.41	ppb	100
45) Carbontetrachloride	3.29	117	567083	221.57	ppb	99
46) 1,1-Dichloropropene	3.28	75	867710	220.99	ppb	99
47) Iso-Butyl Alcohol	3.31	43	168126	2630.47	ppb	98
49) Benzene	3.43	78	2488386	216.92	ppb	100
50) 1,2-Dichloroethane	3.43	62	611377	206.21	ppb	98
51) TAME	3.48	73	1399296	231.35	ppb	99
52) N-Heptane	3.58	43	1080579	212.26	ppb	99
53) Trichloroethene	3.85	95	565226	208.81	ppb	100
54) methylcyclohexane	4.00	55	987318	205.54	ppb	99
55) 1,2-Diclpropane	4.02	63	628468	201.76	ppb	99
56) Methyl Methacrylate	4.08	69	277289	257.81	ppb	97
57) 1,4-Dioxane	4.11	88	24779	2043.48	ppb	92
58) Dibromomethane	4.10	93	257093	203.01	ppb	95
59) Bromodichloromethane	4.21	83	698331	225.45	ppb	97
60) 2-Nitropropane	4.37	43	198985	498.90	ppb	97
61) 2-Chloroethylvinyl Ether	4.42	63	279531	189.88	ppb	99
62) cis-1,3-Dichloropropene	4.54	75	802415	199.09	ppb	99
64) 4-Methyl-2-Pentanone	4.66	43	402258	211.34	ppb	100
65) Toluene	4.82	91	2443188	211.58	ppb	99
66) trans-1,3-Dichloropropene	4.98	75	658685	210.99	ppb	98
67) Ethyl Methacrylate	5.04	69	568994	266.40	ppb	100
68) 1,1,2-Trichloroethane	5.13	83	330533	225.12	ppb	97
71) Tetrachloroethene	5.27	166	540502	211.47	ppb	98
72) 2-Hexanone	5.34	43	257568	197.80	ppb	95
73) 1,3-Dichloropropane	5.28	76	687114	207.69	ppb	99
74) Dibromochloromethane	5.47	129	422390	227.37	ppb	99
75) 1,2-Dibromoethane	5.58	107	259398	160.80	ppb	99
76) Chlorobenzene	6.00	112	1452433	207.41	ppb	98
77) 1,1,1,2-Tetrachloroethane	6.07	131	462647	216.62	ppb	98
78) Ethylbenzene	6.09	91	2766264	230.22	ppb	100
79) (m+p)Xylene	6.20	106	2056634	462.18	ppb	98
80) o-Xylene	6.56	106	941617	220.81	ppb	100
81) Styrene	6.57	104	1662411	230.56	ppb	99
82) Bromoform	6.74	173	220084	253.04	ppb	97
83) Isopropylbenzene	6.90	105	2552266	233.36	ppb	99
84) Cyclohexanone	6.99	55	724222	4016.36	ppb	100
86) 1,1,2,2-Tetrachloroethane	7.18	83	419547	190.75	ppb	100
87) Trans-1,4-Dichloro-2-buten	7.23	53	81658	187.29	ppb	93
88) 1,2,3-Trichloropropane	7.22	110	100139	196.59	ppb	90
89) n-Propylbenzene	7.30	91	3189830	204.28	ppb	99
90) Bromobenzene	7.19	156	542829	203.69	ppb	96
92) 1,3,5-Trimethylbenzene	7.46	105	2173252	212.69	ppb	99
93) 2-Chlorotoluene	7.38	91	1759727	206.33	ppb	100
94) 4-Chlorotoluene	7.48	91	2237050	225.69	ppb	98
95) tert-Butylbenzene	7.78	119	1739969	193.90	ppb	99

(#) = qualifier out of range (m) = manual integration  
 Z2753.D W070808.M Wed Jul 09 16:19:18 2008

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2753.D Vial: 15  
 Acq On : 8 Jul 2008 4:14 pm Operator: Herring  
 Sample : 200PPB Inst : MS #8  
 Misc : Initial Calibration- 8260B WATER Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 9 13:01 2008 Quant Results File: W070808.RES

Quant Method : J:\ACQUDATA\M...\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 12:58:26 2008  
 Response via : Initial Calibration  
 DataAcq Meth : W070808

Compound	R.T.	QION	Response	Conc	Unit	Qvalue
96) 1,2,4-Trimethylbenzene	7.82	105	2075756	205.38	ppb	98
97) sec-Butylbenzene	7.99	105	2751844	200.57	ppb	100
98) p-Isopropyltoluene	8.13	119	2305372	207.00	ppb	99
99) 1,3-Dclbenz	8.10	146	1093183	209.63	ppb	99
100) 1,4-Dclbenz	8.18	146	1087493	209.12	ppb	100
102) n-Butylbenzene	8.53	91	2250340	221.44	ppb	99
103) 1,2-Dclbenz	8.55	146	985096	208.98	ppb	99
104) 1,2-Dibromo-3-chloropropan	9.32	157	53554	192.20	ppb	94
106) 1,2,4-Tcbenzene	10.15	180	586971	242.73	ppb	98
107) Hexachlorobu	10.32	225	276582	220.13	ppb	100
108) Naphthalen	10.39	128	1332544	249.69	ppb	99
109) 1,2,3-Tclbenzene	10.62	180	534028	252.14	ppb	97



Evaluate Continuing Calibration Report

Data File : J:\ACQUATA\MSVOA8\DATA\071008\Z2763.D Vial: 6  
 Acq On : 10 Jul 2008 11:26 am Operator: Herring  
 Sample : CCV Inst : MS #8  
 Misc : Multiplr: 1.00  
 MS Integration Params: RTEINT.P

*Pjst 7/10/08*

Method : J:\ACQUATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 16:13:36 2008  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	<i>%diff</i>	%Dev	Area%	Dev(min)
1 I	Pentafluorobenzene	1.000	1.000		0.0	135	0.00
2	Dichlorodifluoromethane	0.427	0.464		-8.7	139	0.00
3	Freon 114	0.000	0.000		0.0	137	0.00
4 p	Chloromethane	0.687	0.690		-0.4	140	0.00
5 c	Vinyl Chloride	0.592	0.624		-5.4	134	0.00
6	Bromomethane	0.395	<del>0.391</del>	<i>-6.5</i>	<del>1.0</del>	141	0.00 <i>-Pjst 7/10</i>
7	Chloroethane	0.357	0.378		-5.9	140	0.00
8	FREON 21	0.957	0.981		-2.5	136	0.00
9	Trichlorofluoromethane	0.550	0.590		-7.3	138	0.00
10	Diethyl Ether	0.318	0.323		-1.6	137	0.00
11	FREON 123A	0.236	0.253		-7.2	145	0.00
12	FREON 123	0.460	0.452		1.7	132	-0.01
13	Acrolein	0.030	0.031		-3.3	124	0.00
14	FREON 113	0.182	0.179		1.6	128	0.00
15 c	1,1-Dicethene	0.392	0.396		-1.0	133	0.00
16	Acetone	0.087	0.086		1.1	125	-0.01
17	2-Propanol	0.008	0.010		-25.0#	191	-0.01
18	Iodomethane	0.114	0.123		-7.9	133	0.00
19	Carbon Disulfide	1.505	1.483		1.5	131	-0.01
20	Acetonitrile	0.014	<del>0.014</del>	<i>-11.8</i>	<del>0.0</del>	155	0.00 <i>-Pjst 7/10</i>
21	Allyl Chloride	0.253	0.254		-0.4	125	0.00
22	Methyl Acetate	0.325	0.299		8.0	131	-0.01
23	Methylene Chloride	0.509	0.471		7.5	132	-0.01
24	TBA	0.012	0.014		-16.7	162	0.00
25	Acrylonitrile	0.102	0.099		2.9	131	-0.01
26	Methyl-t-Butyl Ether	0.983	0.943		4.1	128	0.00
27	trans-1,2-Dichloroethene	0.441	0.459		-4.1	133	0.00
28 p	1,1-Dicethane	0.866	0.869		-0.3	133	-0.01
29	DIPE	1.934	1.931		0.2	133	0.00
30	Vinyl Acetate	0.050	0.050		0.0	131	0.00
31	2-Chloro-1,3-butadiene	0.725	0.721		0.6	128	-0.01
32	ETBE	1.345	1.321		1.8	130	-0.01
33	2,2-Dichloropropane	0.599	0.599		0.0	139	0.00
34	2-Butanone	0.132	0.126		4.5	129	0.00
35	cis-1,2-Dichloroethene	0.484	0.502		-3.7	136	0.00
36	Propionitrile	0.029	0.030		-3.4	141	0.00
37	Methacrylonitrile	0.115	0.105		8.7	120	0.00
38	Bromochloromethane	0.199	0.194		2.5	133	0.00
39 c	Chloroform	0.780	0.768		1.5	132	-0.01
40	Tetrahydrofuran	0.078	0.077		1.3	131	-0.01
41	1,1,1-Trichloroethane	0.591	0.584		1.2	129	0.00
42 I	1,4 - Difluorobenzene	1.000	1.000		0.0	135	-0.01
43 s	surr4,Dibrflmethane	0.287	0.302		-5.2	138	-0.01
44	cyclohexane	0.538	0.560		-4.1	133	-0.01
45	Carbontetrachloride	0.261	0.258		1.1	132	-0.01
46	1,1-Dichloropropene	0.383	0.387		-1.0	131	0.00
47	Iso-Butyl Alcohol	0.004	0.004		0.0	158	-0.01
48 s	surr1,1,2-Dicethane	0.302	0.301		0.3	133	0.00
49	Benzene	1.115	1.131		-1.4	135	-0.01

(#) = Out of Range



Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\MSVOA8\DATA\071008\Z2763.D Vial: 6  
 Acq On : 10 Jul 2008 11:26 am Operator: Herring  
 Sample : CCV Inst : MS #8  
 Misc : Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 16:13:36 2008  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Drift	%Dev	Area%	Dev(min)
50	1,2-Dichloroethane	0.288	0.268		6.9	124	-0.01
51	TAME	0.624	0.615		1.4	128	-0.01
52	N-Heptane	0.473	0.494		-4.4	137	-0.01
53	Trichloroethene	0.255	0.260		-2.0	133	0.00
54	methylcyclohexane	0.429	0.451		-5.1	135	-0.01
55 c	1,2-Dicpropene	0.285	0.286		-0.4	134	0.00
56	Methyl Methacrylate	0.130	0.105		19.2	115	-0.01
57	1,4-Dioxane	0.001	0.001	-43.3	0.0	216#	0.00 - RJH 7/10
58	Dibromomethane	0.129	0.115		10.9	130	-0.01
59	Bromodichloromethane	0.323	0.316		2.2	133	-0.01
60	2-Nitropropane	0.045	0.042		6.7	132	0.00
61	2-Chloroethylvinyl Ether	0.131	0.116		11.5	114	-0.01
62	cis-1,3-Dichloropropene	0.372	0.347		6.7	126	-0.01
63 I	d5 - Chlorobenzene	1.000	1.000		0.0	137	-0.01
64	4-Methyl-2-Pentanone	0.217	0.194		10.6	127	-0.01
65 c	Toluene	1.273	1.270		0.2	135	-0.01
66	trans-1,3-Dichloropropene	0.339	0.308		9.1	122	-0.01
67	Ethyl Methacrylate	0.290	0.246		15.2	114	-0.01
68	1,1,2-Trichloroethane	0.170	0.164		3.5	131	-0.01
69 s	surr3, Toluene-d8	1.282	1.363		-6.3	141	-0.01
70 s	surr2, bfb	0.505	0.528		-4.6	140	-0.01
71	Tetrachloroethene	0.274	0.274		0.0	132	-0.01
72	2-Hexanone	0.138	0.127		8.0	128	-0.01
73	1,3-Dichloropropene	0.377	0.343		9.0	127	-0.01
74	Dibromochloromethane	0.219	0.206		5.9	129	-0.01
75	1,2-Dibromoethane	0.158	0.121		23.4#	112	-0.01
76 p	Chlorobenzene	0.741	0.747		-0.8	135	-0.01
77	1,1,1,2-Tetrachloroethane	0.233	0.232		0.4	131	-0.01
78 c	Ethylbenzene	1.376	1.410		-2.5	133	-0.01
79	(m+p) Xylene	0.506	0.524		-3.6	133	-0.01
80	o-Xylene	0.487	0.495		-1.6	133	-0.01
81	Styrene	0.830	0.880		-6.0	131	-0.01
82 p	Bromoform	0.103	0.107		-3.9	128	-0.01
83	Isopropylbenzene	1.242	1.263		-1.7	129	-0.01
84	Cyclohexanone	0.017	0.021		-23.5#	190	-0.01
85 I	d4 - Dichlorobenzene	1.000	1.000		0.0	134	-0.01
86 p	1,1,2,2-Tetrachloroethane	0.457	0.423		7.4	132	-0.01
87	Trans-1,4-Dichloro-2-butene	0.084	0.042		50.0#	72	-0.01
88	1,2,3-Trichloropropene	0.131	0.105	5.0	19.8	123	-0.02 - RJH 7/10
89	n-Propylbenzene	3.281	3.433		-4.6	134	-0.01
90	Bromobenzene	0.586	0.589		-0.5	131	-0.01
91	4-Ethyltoluene	0.000	0.000		0.0	132	-0.01
92	1,3,5-Trimethylbenzene	2.270	2.289		-0.8	132	-0.01
93	2-Chlorotoluene	1.819	1.815		0.2	131	-0.02
94	4-Chlorotoluene	2.236	2.437		-9.0	135	0.00
95	tert-Butylbenzene	1.860	1.778		4.4	110	-0.01
96	1,2,4-Trimethylbenzene	2.199	2.186		0.6	132	-0.01
97	sec-Butylbenzene	2.785	2.851		-2.4	132	-0.01

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\MSVOA8\DATA\071008\Z2763.D Vial: 6  
 Acq On : 10 Jul 2008 11:26 am Operator: Herring  
 Sample : CCV Inst : MS #8  
 Misc : Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 16:13:36 2008  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
98 p-Isopropyltoluene	2.320	2.344	-1.0	131	-0.01
99 1,3-Dclbenz	1.142	1.157	-1.3	134	-0.01
00 1,4-Dclbenz	1.178	1.134	3.7	132	-0.01
01 Benzyl Chloride	0.000	0.000	0.0	134	-0.01
02 n-Butylbenzene	2.173	2.237	-2.9	135	-0.01
03 1,2-Dclbenz	1.020	1.039	-1.9	135	-0.01
04 1,2-Dibromo-3-chloropropane	0.057	0.050	12.3	120	-0.01
05 Nitrobenzene	0.000	0.000	0.0	187	-0.01
06 1,2,4-Tcbenzene	0.558	0.587	-5.2	137	-0.01
07 Hexachlorobu	0.262	0.276	-5.3	136	-0.01
08 Naphthalen	1.382	1.361	1.5	132	-0.02
09 1,2,3-Tclbenzene	0.518	0.519	-0.2	134	-0.02

Data File : J:\ACQUDATA\MSVOA8\DATA\071008\Z2763.D  
 Acq On : 10 Jul 2008 11:26 am  
 Sample : CCV  
 Misc :

Vial: 6  
 Operator: Herring  
 Inst : MS #8  
 Multiplr: 1.00

MS Integration Params: RTEINT.P  
 Quant Time: Jul 10 11:38 2008

Quant Results File: W070808.RES

Quant Method : J:\ACQUDATA\M...\W070808.M (RTE Integrator)

Title : 8260voa  
 Last Update : Wed Jul 09 16:13:36 2008  
 Response via : Initial Calibration  
 DataAcq Meth : W070808

*RAH  
7/10/08*

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	3.15	168	405960	50.00	ppb	0.00
42) 1,4 - Difluorobenzene	3.65	114	702945	50.00	ppb	-0.01
63) d5 - Chlorobenzene	5.97	117	614547	50.00	ppb	-0.01
85) d4 - Dichlorobenzene	8.15	152	290066	50.00	ppb	-0.01

System Monitoring Compounds

43) surr4,Dibrflmethane	3.14	113	212320	52.54	ppb	-0.01
Spiked Amount			Recovery	=	105.08%	
48) surr1,1,2-Dicethane	3.37	65	211659	49.92	ppb	0.00
Spiked Amount			Recovery	=	99.84%	
69) surr3,Toluene-d8	4.75	98	837421	53.16	ppb	-0.01
Spiked Amount			Recovery	=	106.32%	
70) surr2,bfb	7.04	95	324311	52.27	ppb	-0.01
Spiked Amount			Recovery	=	104.54%	

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	1.08	85	188544	54.38	ppb	100
4) Chloromethane	1.17	50	279933	50.19	ppb	100
5) Vinyl Chloride	1.23	62	253347	52.72	ppb	99
6) Bromomethane	1.41	94	158809	53.26	ppb	96
7) Chloroethane	1.46	64	153605	53.05	ppb	97
8) FREON 21	1.56	67	398350	51.26	ppb	99
9) Trichlorofluoromethane	1.60	101	239719	53.65	ppb	100
10) Diethyl Ether	1.74	59	130973	50.75	ppb	95
11) FREON 123A	1.73	85	102703	53.61	ppb	89
12) FREON 123	1.76	85	183594	49.14	ppb	99
13) Acrolein	1.80	56	63117	261.17	ppb	94
14) FREON 113	1.86	85	72811	49.14	ppb	100
15) 1,1-Dicethene	1.87	96	160587	50.41	ppb	97
16) Acetone	1.88	43	34927	49.49	ppb	100
17) 2-Propanol	1.94	45	84837	1266.10	ppb	95
18) Iodomethane	1.96	127	49909	54.01	ppb	81
19) Carbon Disulfide	2.00	76	601927	49.26	ppb	100
20) Acetonitrile	2.03	40	28602	279.44	ppb	92
21) Allyl Chloride	2.06	76	103180	50.31	ppb	96
22) Methyl Acetate	2.05	43	121361	46.03	ppb	96
23) Methylene Chloride	2.12	84	191128	46.26	ppb	92
24) TBA	2.16	59	116338	1147.04	ppb	94
25) Acrylonitrile	2.24	53	201600	244.39	ppb	98
26) Methyl-t-Butyl Ether	2.27	73	382950	47.98	ppb	98
27) trans-1,2-Dichloroethene	2.27	96	186311	52.03	ppb	97
28) 1,1-Dicethane	2.51	63	352593	50.13	ppb	99
29) DIPE	2.53	45	783991	49.92	ppb	93
30) Vinyl Acetate	2.52	86	20483	50.36	ppb	97
31) 2-Chloro-1,3-butadiene	2.56	53	292677	49.74	ppb	100
32) ETBE	2.74	59	536255	49.12	ppb	97
33) 2,2-Dichloropropane	2.85	77	243000	49.95	ppb	97
34) 2-Butanone	2.85	43	50952	47.47	ppb	100
35) cis-1,2-Dichloroethene	2.85	96	203753	51.88	ppb	96
36) Propionitrile	2.88	54	60622	261.48	ppb	99
37) Methacrylonitrile	2.98	67	42426	45.57	ppb	98

(#) = qualifier out of range (m) = manual integration  
 Z2763.D W070808.M Thu Jul 10 11:38:51 2008

Data File : J:\ACQUDATA\MSVOAS\DATA\071008\Z2763.D  
 Acq On : 10 Jul 2008 11:26 am  
 Sample : CCV  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 10 11:38 2008

Vial: 6  
 Operator: Herring  
 Inst : MS #8  
 Multiplr: 1.00

Quant Results File: W070808.RES

Quant Method : J:\ACQUDATA\M...\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 16:13:36 2008  
 Response via : Initial Calibration  
 DataAcq Meth : W070808

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) Bromochloromethane	3.00	128	78760	48.82	ppb	91
39) Chloroform	3.03	83	311804	49.23	ppb	98
40) Tetrahydrofuran	3.03	42	31380	49.27	ppb	100
41) 1,1,1-Trichloroethane	3.17	97	237281	49.49	ppb	97
44) cyclohexane	3.21	56	393534	52.00	ppb	99
45) Carbontetrachloride	3.28	117	181574	49.50	ppb	96
46) 1,1-Dichloropropene	3.28	75	271701	50.46	ppb	99
47) Iso-Butyl Alcohol	3.30	43	61729	1095.97	ppb	98
49) Benzene	3.41	78	794821	50.72	ppb	100
50) 1,2-Dichloroethane	3.41	62	188098	46.45	ppb	98
51) TAME	3.47	73	432593	49.31	ppb	98
52) N-Heptane	3.56	43	347192	52.20	ppb	97
53) Trichloroethene	3.85	95	182782	51.04	ppb	91
54) methylcyclohexane	3.99	55	317238	52.62	ppb	99
55) 1,2-Dichloropropane	4.01	63	201085	50.26	ppb	98
56) Methyl Methacrylate	4.06	69	74100	40.66	ppb	95
57) 1,4-Dioxane	4.10	88	11770	1432.51	ppb	82
58) Dibromomethane	4.09	93	80579	44.53	ppb	97
59) Bromodichloromethane	4.19	83	222002	48.95	ppb	97
60) 2-Nitropropane	4.36	43	59349	93.54	ppb	98
61) 2-Chloroethylvinyl Ether	4.40	63	81689	44.40	ppb	99
62) cis-1,3-Dichloropropene	4.53	75	244070	46.68	ppb	99
64) 4-Methyl-2-Pentanone	4.64	43	119336	44.70	ppb	95
65) Toluene	4.81	91	780300	49.89	ppb	100
66) trans-1,3-Dichloropropene	4.96	75	189013	45.41	ppb	94
67) Ethyl Methacrylate	5.03	69	151130	42.47	ppb	98
68) 1,1,2-Trichloroethane	5.12	83	100826	48.32	ppb	96
71) Tetrachloroethene	5.26	166	168569	50.06	ppb	97
72) 2-Hexanone	5.32	43	77769	46.02	ppb	89
73) 1,3-Dichloropropane	5.26	76	210545	45.40	ppb	98
74) Dibromochloromethane	5.46	129	126886	47.21	ppb	96
75) 1,2-Dibromoethane	5.56	107	74088	38.09	ppb	100
76) Chlorobenzene	5.99	112	459211	50.40	ppb	99
77) 1,1,1,2-Tetrachloroethane	6.06	131	142818	49.87	ppb	96
78) Ethylbenzene	6.08	91	866642	51.24	ppb	99
79) (m+p)Xylene	6.19	106	643673	103.51	ppb	97
80) o-Xylene	6.55	106	303919	50.77	ppb	99
81) Styrene	6.56	104	540748	53.01	ppb	97
82) Bromoform	6.73	173	65510	51.65	ppb	97
83) Isopropylbenzene	6.89	105	776147	50.86	ppb	99
84) Cyclohexanone	6.98	55	262091	1254.42	ppb	99
86) 1,1,2,2-Tetrachloroethane	7.16	83	122676	46.30	ppb	98
87) Trans-1,4-Dichloro-2-buten	7.22	53	12272	25.26	ppb	90
88) 1,2,3-Trichloropropane	7.20	110	30398	47.52	ppb	87
89) n-Propylbenzene	7.28	91	995928	52.32	ppb	99
90) Bromobenzene	7.18	156	170799	50.27	ppb	96
92) 1,3,5-Trimethylbenzene	7.44	105	663864	50.42	ppb	97
93) 2-Chlorotoluene	7.36	91	526337	49.88	ppb	100
94) 4-Chlorotoluene	7.47	91	706873	54.49	ppb	98
95) tert-Butylbenzene	7.76	119	515614	47.78	ppb	100

(#) = qualifier out of range (m) = manual integration  
 Z2763.D W070808.M Thu Jul 10 11:38:52 2008

Data File : J:\ACQUADATA\MSVOA8\DATA\071008\Z2763.D Vial: 6  
 Acq On : 10 Jul 2008 11:26 am Operator: Herring  
 Sample : CCV Inst : MS #8  
 Misc : Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Jul 10 11:38 2008

Quant Results File: W070808.RES

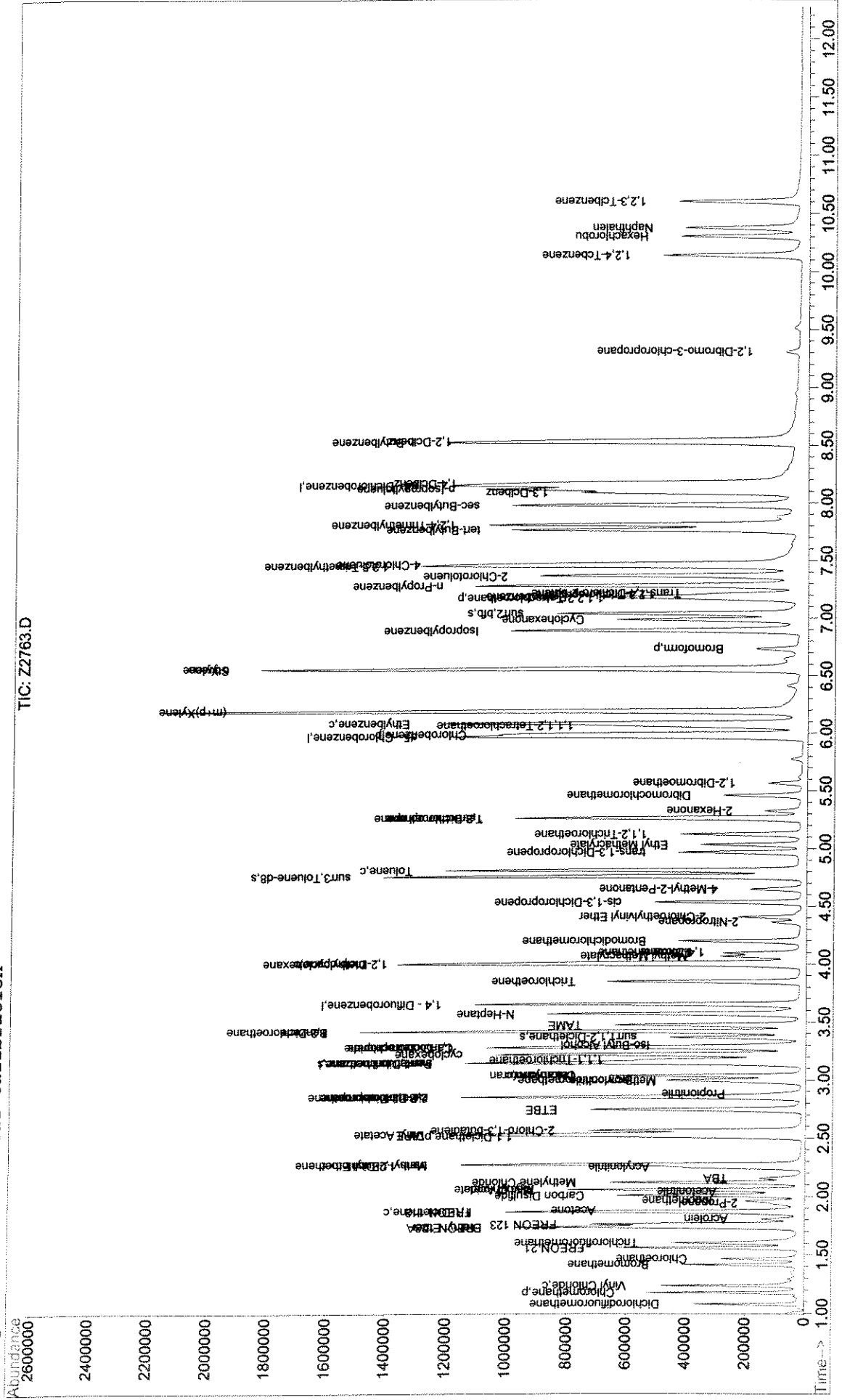
Quant Method : J:\ACQUADATA\M...\W070808.M (RTE Integrator)

Title : 8260voa  
 Last Update : Wed Jul 09 16:13:36 2008  
 Response via : Initial Calibration  
 DataAcq Meth : W070808

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
96) 1,2,4-Trimethylbenzene	7.80	105	633943	49.69	ppb	99
97) sec-Butylbenzene	7.97	105	826976	51.19	ppb	99
98) p-Isopropyltoluene	8.12	119	680047	50.53	ppb	100
99) 1,3-Dclbenz	8.09	146	335598	50.66	ppb	99
100) 1,4-Dclbenz	8.17	146	329018	48.14	ppb	98
102) n-Butylbenzene	8.52	91	648888	51.47	ppb	98
103) 1,2-Dclbenz	8.54	146	301244	50.91	ppb	98
104) 1,2-Dibromo-3-chloropropan	9.31	157	14371	43.62	ppb	90
106) 1,2,4-Tcbenzene	10.14	180	170267	52.64	ppb	100
107) Hexachlorobu	10.30	225	80082	52.75	ppb	97
108) Naphthalen	10.37	128	394917	49.25	ppb	99
109) 1,2,3-Tclbenzene	10.60	180	150462	50.08	ppb	97

Data File : J:\ACQDATA\MSVOA8\DATA\071008\Z2763.D Vial: 6  
 Acq On : 10 Jul 2008 11:26 am Operator: Herring  
 Sample : CCV Inst : MS #8  
 Misc : Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 10 11:38 2008 Quant Results File: W070808.RES

Method : J:\ACQDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260v0a  
 Last Update : Wed Jul 09 16:13:36 2008  
 Response via : Initial Calibration

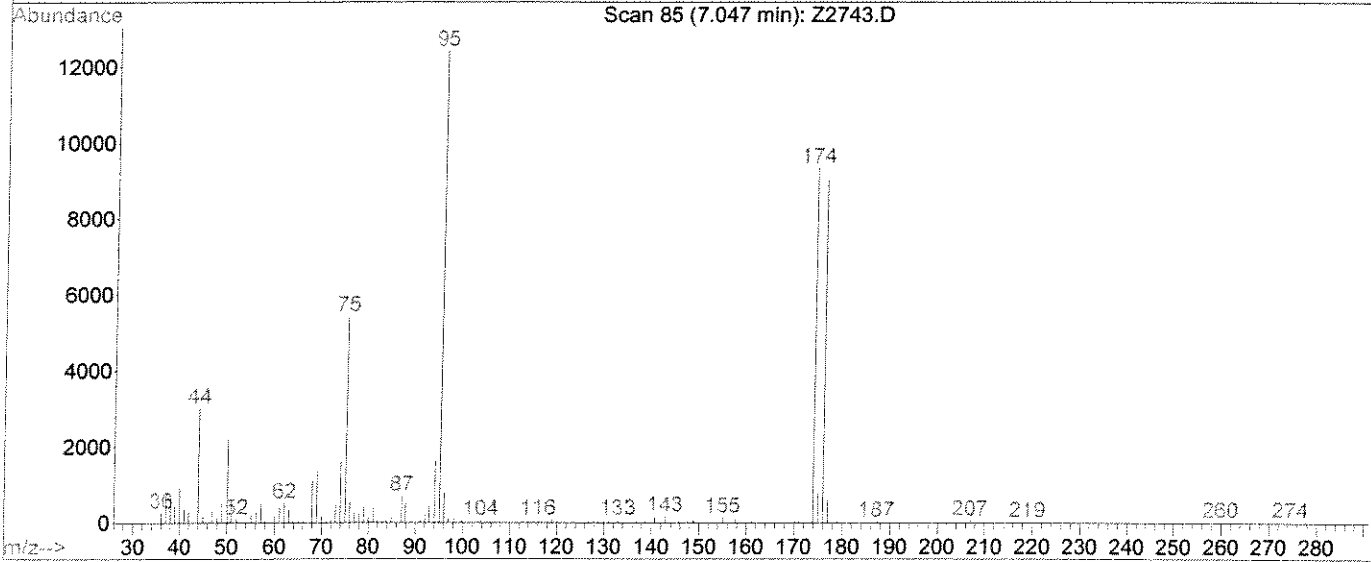
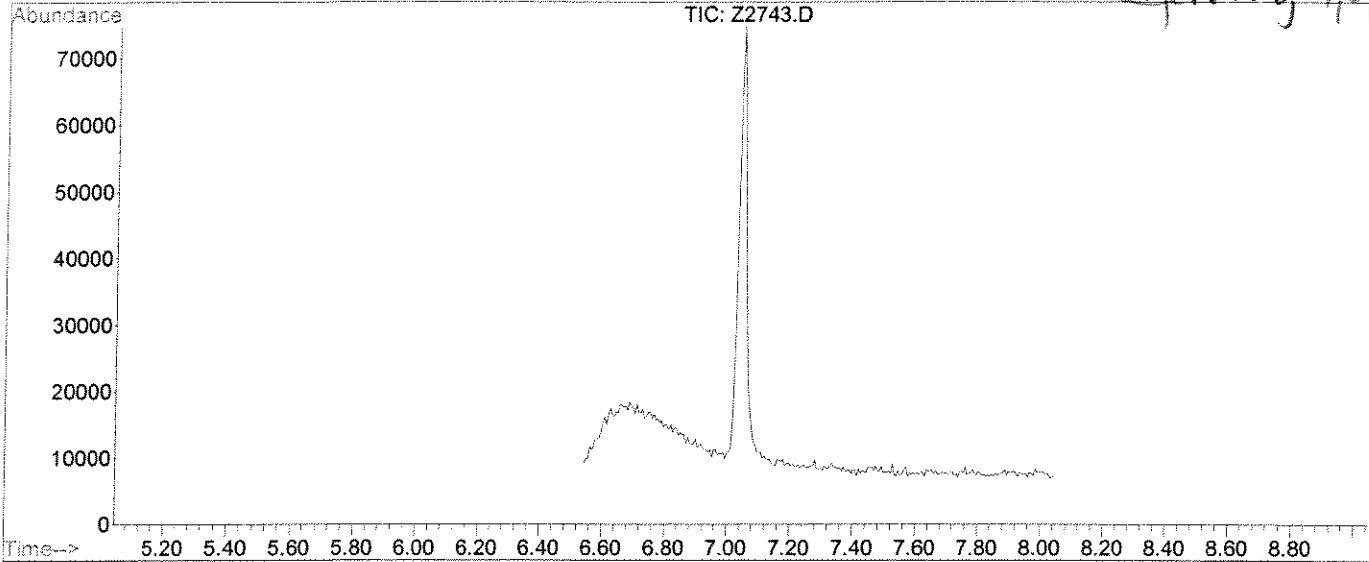


**VOLATILE ORGANICS**

**RAW QC DATA**

Data File : J:\ACQUDATA\MSVOA8\DATA\070808\Z2743.D Vial: 5  
 Acq On : 8 Jul 2008 11:36 am Operator: Herring  
 Sample : TUNE CHECK Inst : MS #8  
 Misc : Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa

*R. Herring 7/8/08*



Spectrum Information: Scan 85

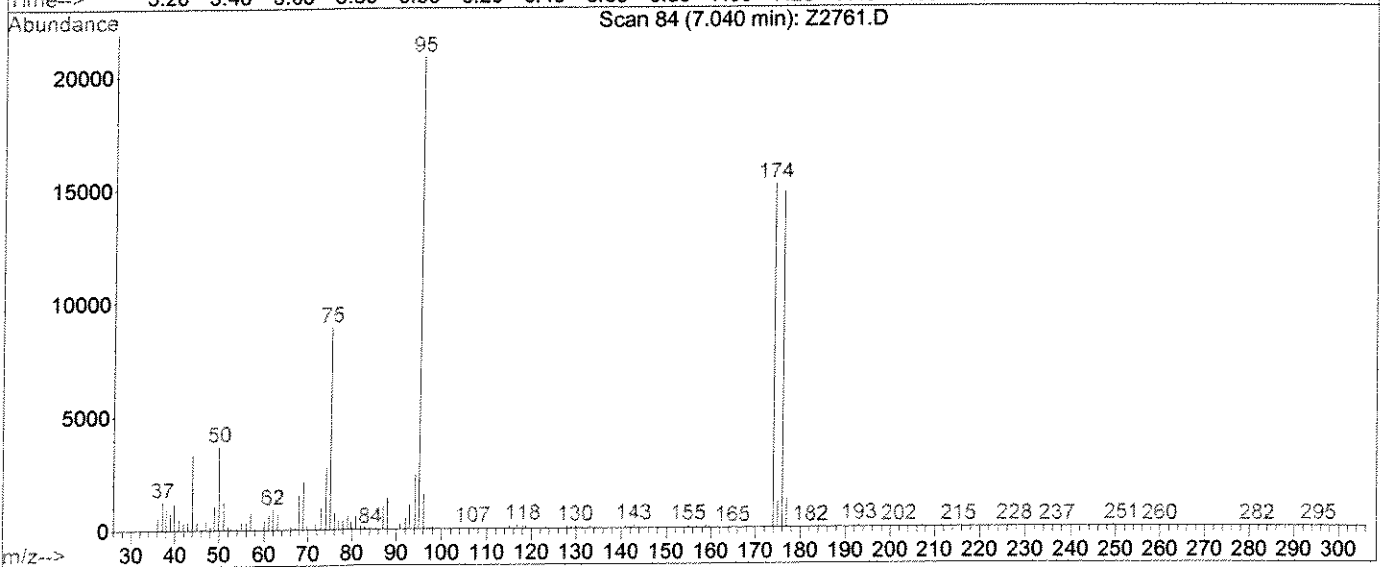
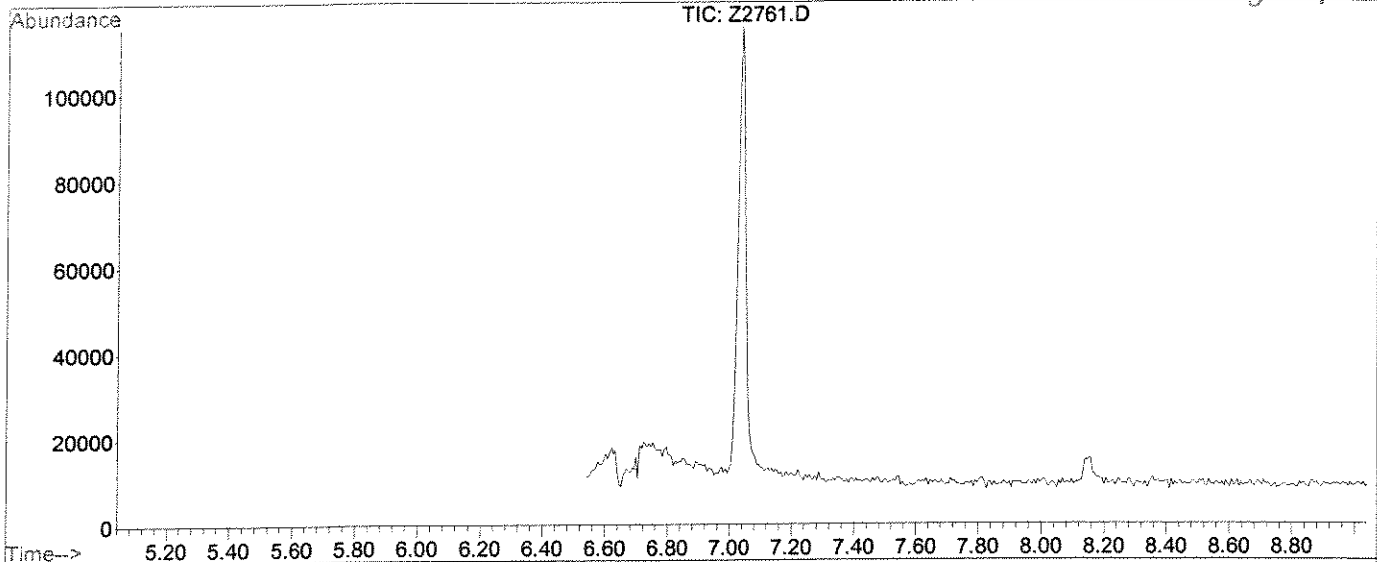
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.8	2215	PASS
75	95	30	60	43.6	5425	PASS
95	95	100	100	100.0	12444	PASS
96	95	5	9	6.2	772	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	75.1	9342	PASS
175	174	5	9	8.1	757	PASS
176	174	95	101	96.3	9000	PASS
177	176	5	9	6.6	596	PASS



BFB

Data File : J:\ACQUDATA\MSVOA8\DATA\071008\Z2761.D Vial: 4  
Acq On : 10 Jul 2008 10:14 am Operator: Herring  
Sample : TUNE CHECK Inst : MS #8  
Misc : Multiplr: 1.00  
MS Integration Params: RTEINT.P  
Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
Title : 8260voa

RJA 7/10



Spectrum Information: Scan 84

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.7	3700	PASS
75	95	30	60	42.7	8911	PASS
95	95	100	100	100.0	20856	PASS
96	95	5	9	7.4	1545	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	72.7	15166	PASS
175	174	5	9	7.6	1151	PASS
176	174	95	101	97.7	14812	PASS
177	176	5	9	8.4	1237	PASS

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS  
 METHOD 8260B.DOD  
 Reported: 07/30/08

Project Reference:  
 Client Sample ID : METHOD BLANK

Date Sampled : Order #: 1118603 Sample Matrix: WATER  
 Date Received: Submission #: Analytical Run 164135

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 07/10/08			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	20 U	UG/L
BENZENE	1.0	1.0 U	UG/L
BROMOBENZENE	2.0	2.0 U	UG/L
BROMOCHLOROMETHANE	2.0	2.0 U	UG/L
BROMODICHLOROMETHANE	1.0	1.0 U	UG/L
BROMOFORM	1.0	1.0 U	UG/L
BROMOMETHANE	2.0	2.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
TERT-BUTYL ALCOHOL	100	100 U	UG/L
METHYL-TERT-BUTYL ETHER	1.0	1.0 U	UG/L
ETHYL-TERT-BUTYL ETHER	1.0	1.0 U	UG/L
TERT-BUTYLBENZENE	2.0	2.0 U	UG/L
SEC-BUTYLBENZENE	2.0	2.0 U	UG/L
N-BUTYLBENZENE	5.0	5.0 U	UG/L
CARBON TETRACHLORIDE	1.0	1.0 U	UG/L
CHLOROBENZENE	1.0	1.0 U	UG/L
CHLOROETHANE	2.0	2.0 U	UG/L
CHLOROFORM	1.0	1.0 U	UG/L
CHLOROMETHANE	2.0	2.0 U	UG/L
1,2-DIBROMO-3-CHLOROPROPANE	5.0	5.0 U	UG/L
2-CHLOROTOLUENE	5.0	5.0 U	UG/L
4-CHLOROTOLUENE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	1.0	1.0 U	UG/L
1,2-DIBROMOETHANE	1.0	1.0 U	UG/L
DIBROMOMETHANE	1.0	1.0 U	UG/L
1,2-DICHLOROBENZENE	2.0	2.0 U	UG/L
1,4-DICHLOROBENZENE	2.0	2.0 U	UG/L
1,3-DICHLOROBENZENE	2.0	2.0 U	UG/L
DICHLORODIFLUOROMETHANE	1.0	1.0 U	UG/L
1,1-DICHLOROETHANE	1.0	1.0 U	UG/L
1,2-DICHLOROETHANE	1.0	1.0 U	UG/L
1,1-DICHLOROETHENE	1.0	1.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	1.0	1.0 U	UG/L
CIS-1,2-DICHLOROETHENE	1.0	1.0 U	UG/L
2,2-DICHLOROPROPANE	2.0	2.0 U	UG/L
1,2-DICHLOROPROPANE	1.0	1.0 U	UG/L
1,3-DICHLOROPROPANE	2.0	2.0 U	UG/L
1,1-DICHLOROPROPENE	2.0	2.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	1.0	1.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	1.0	1.0 U	UG/L
ETHYLBENZENE	1.0	1.0 U	UG/L
HEXACHLOROBUTADIENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
DI-ISOPROPYL ETHER	1.0	1.0 U	UG/L
ISOPROPYLBENZENE	2.0	2.0 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS  
 METHOD 8260B.DOD  
 Reported: 07/30/08

Project Reference:  
 Client Sample ID : METHOD BLANK

Date Sampled : Order #: 1118603 Sample Matrix: WATER  
 Date Received: Submission #: Analytical Run 164135

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 07/10/08			
ANALYTICAL DILUTION: 1.00			
P-ISOPROPYLTOLUENE	2.0	2.0 U	UG/L
TERT-AMYL-METHYL ETHER	1.0	1.0 U	UG/L
METHYLENE CHLORIDE	2.0	2.0 U	UG/L
NAPHTHALENE	2.0	2.0 U	UG/L
4-METHYL-2-PENTANONE	10	10 U	UG/L
N-PROPYLBENZENE	2.0	2.0 U	UG/L
STYRENE	1.0	1.0 U	UG/L
1,1,1,2-TETRACHLOROETHANE	1.0	1.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	1.0	1.0 U	UG/L
TETRACHLOROETHENE	1.0	1.0 U	UG/L
TOLUENE	1.0	1.0 U	UG/L
1,2,4-TRICHLOROBENZENE	2.0	2.0 U	UG/L
1,2,3-TRICHLOROBENZENE	2.0	2.0 U	UG/L
1,1,1-TRICHLOROETHANE	1.0	1.0 U	UG/L
1,1,2-TRICHLOROETHANE	1.0	1.0 U	UG/L
TRICHLOROETHENE	1.0	1.0 U	UG/L
TRICHLOROFLUOROMETHANE	1.0	1.0 U	UG/L
1,2,3-TRICHLOROPROPANE	2.0	2.0 U	UG/L
1,3,5-TRIMETHYLBENZENE	2.0	2.0 U	UG/L
1,2,4-TRIMETHYLBENZENE	2.0	2.0 U	UG/L
VINYL CHLORIDE	1.0	1.0 U	UG/L
M+P-XYLENE	2.0	2.0 U	UG/L
O-XYLENE	1.0	1.0 U	UG/L

<u>SURROGATE RECOVERIES</u>	<u>QC LIMITS</u>		
BROMOFLUOROBENZENE	(70 - 130 %)	100	%
TOLUENE-D8	(70 - 130 %)	98	%
DIBROMOFLUOROMETHANE	(70 - 130 %)	103	%

Data File : J:\ACQUDATA\MSVOA8\DATA\071008\Z2770.D  
 Acq On : 10 Jul 2008 2:44 pm  
 Sample : MET BLK  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 10 14:56 2008

Vial: 13  
 Operator: Herring  
 Inst : MS #8  
 Multiplr: 1.00

Quant Results File: W070808.RES

Quant Method : J:\ACQUDATA\M...\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 16:13:36 2008  
 Response via : Initial Calibration  
 DataAcq Meth : W070808

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	3.15	168	424050	50.00	ppb	0.00
42) 1,4 - Difluorobenzene	3.65	114	744987	50.00	ppb	-0.01
63) d5 - Chlorobenzene	5.97	117	674155	50.00	ppb	-0.01
85) d4 - Dichlorobenzene	8.15	152	293681	50.00	ppb	-0.01

System Monitoring Compounds

43) surr4, Dibrflmethane	3.14	113	219652	51.29	ppb	-0.01
Spiked Amount	50.000		Recovery	= 102.58%		
48) surr1, 1,2-Dicethane	3.36	65	217342	48.37	ppb	0.00
Spiked Amount	50.000		Recovery	= 96.74%		
69) surr3, Toluene-d8	4.75	98	843888	48.83	ppb	-0.01
Spiked Amount	50.000		Recovery	= 97.66%		
70) surr2, bfb	7.03	95	339111	49.83	ppb	-0.01
Spiked Amount	50.000		Recovery	= 99.66%		

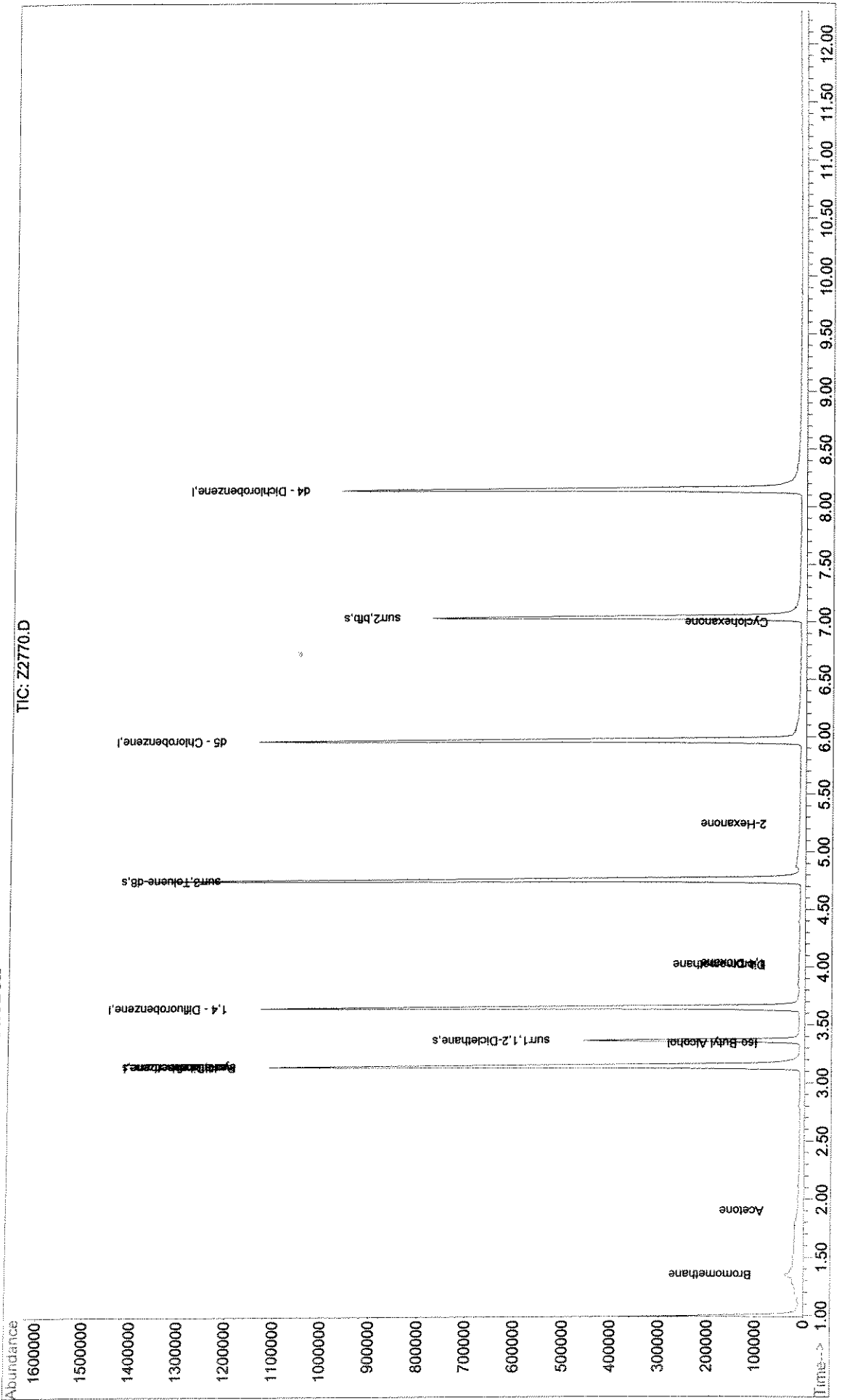
Target Compounds

						Qvalue
<del>6) Bromomethane</del>	<del>1.35</del>	<del>94</del>	<del>1052</del>	<del>0.77</del>	<del>ppb</del>	<del># 33</del>
<del>16) Acetone</del>	<del>1.90</del>	<del>43</del>	<del>659</del>	<del>0.89</del>	<del>ppb</del>	<del># 69</del>
<del>44) cyclohexane</del>	<del>3.14</del>	<del>56</del>	<del>9435</del>	<del>1.18</del>	<del>ppb</del>	<del># 1</del>
<del>47) Iso-Butyl Alcohol</del>	<del>3.33</del>	<del>43</del>	<del>916</del>	<del>15.35</del>	<del>ppb</del>	<del># 72</del>
<del>57) 1,4-Dioxane</del>	<del>4.03</del>	<del>88</del>	<del>376</del>	<del>14.60</del>	<del>ppb</del>	<del># 26</del>
<del>58) Dibromomethane</del>	<del>4.01</del>	<del>93</del>	<del>461</del>	<del>0.24</del>	<del>ppb</del>	<del># 10</del>
<del>72) 2-Hexanone</del>	<del>5.24</del>	<del>43</del>	<del>1224</del>	<del>0.66</del>	<del>ppb</del>	<del># 46</del>
<del>84) Cyclohexanone</del>	<del>6.99</del>	<del>55</del>	<del>236</del>	<del>1.03</del>	<del>ppb</del>	<del># 63</del>
<del>88) 1,2,3-Trichloropropane</del>	<del>7.21</del>	<del>110</del>	<del>18</del>	<del>Below Cal</del>		<del># 1</del>

*RJH*  
*7/16*

Data File : J:\ACQDATA\MSVOA8\DATA\071008\Z2770.D Vial: 13  
 Acq On : 10 Jul 2008 2:44 pm Operator: Herring  
 Sample : MET BLK Inst : MS #8  
 Misc : Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 10 14:56 2008 Quant Results File: W070808.RES

Method : J:\ACQDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 16:13:36 2008  
 Response via : Initial Calibration



00237

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS  
 METHOD 8260B.DOD  
 Reported: 09/03/08

Project Reference:  
 Client Sample ID : LABORATORY CONTROL SAMPLE

Date Sampled : Order #: 1118605 Sample Matrix: WATER  
 Date Received: Submission #: Analytical Run 164135

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 07/10/08		
ANALYTICAL DILUTION:	1.00		
ACETONE	20	13 J	UG/L
BENZENE	1.0	22	UG/L
BROMOBENZENE	2.0	20	UG/L
BROMOCHLOROMETHANE	2.0	21	UG/L
BROMODICHLOROMETHANE	1.0	20	UG/L
BROMOFORM	1.0	20	UG/L
BROMOMETHANE	2.0	17	UG/L
2-BUTANONE (MEK)	10	17	UG/L
TERT-BUTYL ALCOHOL	100	440	UG/L
METHYL-TERT-BUTYL ETHER	1.0	16	UG/L
ETHYL-TERT-BUTYL ETHER	1.0	17	UG/L
TERT-BUTYLBENZENE	2.0	19	UG/L
SEC-BUTYLBENZENE	2.0	21	UG/L
N-BUTYLBENZENE	5.0	21	UG/L
CARBON TETRACHLORIDE	1.0	15	UG/L
CHLOROBENZENE	1.0	20	UG/L
CHLOROETHANE	2.0	14	UG/L
CHLOROFORM	1.0	19	UG/L
CHLOROMETHANE	2.0	17	UG/L
1,2-DIBROMO-3-CHLOROPROPANE	5.0	16	UG/L
2-CHLOROTOLUENE	5.0	20	UG/L
4-CHLOROTOLUENE	5.0	21	UG/L
DIBROMOCHLOROMETHANE	1.0	18	UG/L
1,2-DIBROMOETHANE	1.0	15	UG/L
DIBROMOMETHANE	1.0	19	UG/L
1,2-DICHLOROBENZENE	2.0	20	UG/L
1,4-DICHLOROBENZENE	2.0	20	UG/L
1,3-DICHLOROBENZENE	2.0	20	UG/L
DICHLORODIFLUOROMETHANE	1.0	26	UG/L
1,1-DICHLOROETHANE	1.0	20	UG/L
1,2-DICHLOROETHANE	1.0	18	UG/L
1,1-DICHLOROETHENE	1.0	14	UG/L
TRANS-1,2-DICHLOROETHENE	1.0	18	UG/L
CIS-1,2-DICHLOROETHENE	1.0	19	UG/L
2,2-DICHLOROPROPANE	2.0	16	UG/L
1,2-DICHLOROPROPANE	1.0	21	UG/L
1,3-DICHLOROPROPANE	2.0	17	UG/L
1,1-DICHLOROPROPENE	2.0	17	UG/L
TRANS-1,3-DICHLOROPROPENE	1.0	16	UG/L
CIS-1,3-DICHLOROPROPENE	1.0	18	UG/L
ETHYLBENZENE	1.0	21	UG/L
HEXACHLOROBUTADIENE	5.0	20	UG/L
2-HEXANONE	10	20	UG/L
DI-ISOPROPYL ETHER	1.0	20	UG/L

00238

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS  
 METHOD 8260B.DOD  
 Reported: 07/30/08

Project Reference:  
 Client Sample ID : LABORATORY CONTROL SAMPLE

Date Sampled : Order #: 1118605 Sample Matrix: WATER  
 Date Received: Submission #: Analytical Run 164135

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 07/10/08			
ANALYTICAL DILUTION: 1.00			
ISOPROPYLBENZENE	2.0	21	UG/L
P-ISOPROPYLTOLUENE	2.0	19	UG/L
TERT-AMYL-METHYL ETHER	1.0	19	UG/L
METHYLENE CHLORIDE	2.0	15	UG/L
NAPHTHALENE	2.0	20	UG/L
4-METHYL-2-PENTANONE	10	17	UG/L
N-PROPYLBENZENE	2.0	20	UG/L
STYRENE	1.0	21	UG/L
1,1,1,2-TETRACHLOROETHANE	1.0	19	UG/L
1,1,2,2-TETRACHLOROETHANE	1.0	20	UG/L
TETRACHLOROETHENE	1.0	20	UG/L
TOLUENE	1.0	20	UG/L
1,2,4-TRICHLOROBENZENE	2.0	21	UG/L
1,2,3-TRICHLOROBENZENE	2.0	21	UG/L
1,1,1-TRICHLOROETHANE	1.0	17	UG/L
1,1,2-TRICHLOROETHANE	1.0	19	UG/L
TRICHLOROETHENE	1.0	22	UG/L
TRICHLOROFLUOROMETHANE	1.0	12	UG/L
1,2,3-TRICHLOROPROPANE	2.0	18	UG/L
1,3,5-TRIMETHYLBENZENE	2.0	20	UG/L
1,2,4-TRIMETHYLBENZENE	2.0	20	UG/L
VINYL CHLORIDE	1.0	15	UG/L
M+P-XYLENE	2.0	41	UG/L
O-XYLENE	1.0	21	UG/L

SURROGATE RECOVERIES

QC LIMITS

BROMOFLUOROBENZENE	(70 - 130 %)	103	%
TOLUENE-D8	(70 - 130 %)	103	%
DIBROMOFLUOROMETHANE	(70 - 130 %)	96	%

Data File : J:\ACQUDATA\MSVOA8\DATA\071008\Z2764.D  
 Acq On : 10 Jul 2008 11:53 am  
 Sample : LCS  
 Misc :

Vial: 7  
 Operator: Herring  
 Inst : MS #8  
 Multiplr: 1.00

MS Integration Params: RTEINT.P  
 Quant Time: Jul 16 9:52 2008

Quant Results File: W070808.RES

Quant Method : J:\ACQUDATA\M...\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 16:13:36 2008  
 Response via : Initial Calibration  
 DataAcq Meth : W070808

*RJH 7/16/08*

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	3.15	168	336297	50.00	ppb	0.00
42) 1,4 - Difluorobenzene	3.65	114	611446	50.00	ppb	-0.01
63) d5 - Chlorobenzene	5.96	117	589289	50.00	ppb	-0.01
85) d4 - Dichlorobenzene	8.15	152	276361	50.00	ppb	-0.01

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) surr4, Dibrflmethane	3.14	113	168877	48.05	ppb	-0.01
Spiked Amount 50.000			Recovery =	96.10%		
48) surr1,1,2-Diclcethane	3.36	65	138892	37.66	ppb	0.00
Spiked Amount 50.000			Recovery =	75.32%		
69) surr3, Toluene-d8	4.75	98	779259	51.58	ppb	-0.01
Spiked Amount 50.000			Recovery =	103.16%		
70) surr2, bfb	7.03	95	305294	51.32	ppb	-0.01
Spiked Amount 50.000			Recovery =	102.64%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.07	85	75207	26.19	ppb	98 *
4) Chloromethane	1.18	50	78676	17.03	ppb	100
5) Vinyl Chloride	1.23	62	60536	15.21	ppb	98
6) Bromomethane	1.41	94	41457	17.08	ppb	100
7) Chloroethane	1.46	64	34224	14.27	ppb	99 *
8) FREON 21	1.56	67	69464	10.79	ppb	99 NT
9) Trichlorofluoromethane	1.60	101	45401m	12.27	ppb	96 *
10) Diethyl Ether	1.74	59	32192	15.06	ppb	96
11) FREON 123A	1.73	85	20881	13.16	ppb	89 NT
12) FREON 123	1.75	85	40626	13.13	ppb	96 NT
13) Acrolein	1.81	56	15372	76.78	ppb	97
14) FREON 113	1.86	85	15171	12.36	ppb	75 NT
15) 1,1-Diclcethene	1.87	96	37982	14.39	ppb	86 *
16) Acetone	1.89	43	7696	13.16	ppb	# 88 *
17) 2-Propanol	1.94	45	17637	317.74	ppb	95
18) Iodomethane	1.96	127	8109	10.59	ppb	80 NT
19) Carbon Disulfide	2.00	76	186871	18.46	ppb	100
20) Acetonitrile	2.02	40	8663	103.57	ppb	# 80
21) Allyl Chloride	2.05	76	28444	16.74	ppb	78
22) Methyl Acetate	2.05	43	35951	16.46	ppb	94
23) Methylene Chloride	2.11	84	50842	14.86	ppb	87 *
24) TBA	2.16	59	37146	442.11	ppb	93
25) Acrylonitrile	2.24	53	59957	87.74	ppb	99
26) Methyl-t-Butyl Ether	2.26	73	104068	15.74	ppb	95
27) trans-1,2-Dichloroethene	2.27	96	55145	18.59	ppb	87
28) 1,1-Diclcethane	2.50	63	119815	20.56	ppb	99
29) DIPE	2.53	45	260860	20.05	ppb	93
30) Vinyl Acetate	2.52	86	6334	18.80	ppb	96
31) 2-Chloro-1,3-butadiene	2.56	53	99531	20.42	ppb	91
32) ETBE	2.74	59	157807	17.45	ppb	96
33) 2,2-Dichloropropane	2.85	77	63884	15.85	ppb	95
34) 2-Butanone	2.85	43	15538	17.47	ppb	95
35) cis-1,2-Dichloroethene	2.85	96	62058	19.07	ppb	88
36) Propionitrile	2.88	54	18210	94.82	ppb	98
37) Methacrylonitrile	2.98	67	13577	17.60	ppb	83

(#) = qualifier out of range (m) = manual integration  
 Z2764.D W070808.M Wed Jul 16 09:54:13 2008



Data File : J:\ACQUDATA\MSVOA8\DATA\071008\Z2764.D  
 Acq On : 10 Jul 2008 11:53 am  
 Sample : LCS  
 Misc :

Vial: 7  
 Operator: Herring  
 Inst : MS #8  
 Multiplr: 1.00

MS Integration Params: RTEINT.P  
 Quant Time: Jul 16 9:52 2008

Quant Results File: W070808.RES

Quant Method : J:\ACQUDATA\M...\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 16:13:36 2008  
 Response via : Initial Calibration  
 DataAcq Meth : W070808

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) Bromochloromethane	3.00	128	27589	20.64	ppb	93
39) Chloroform	3.03	83	101005	19.25	ppb	99
40) Tetrahydrofuran	3.03	42	11408	21.62	ppb	100
41) 1,1,1-Trichloroethane	3.17	97	68038	17.13	ppb	# 86
44) cyclohexane	3.21	56	131260	19.94	ppb	99
45) Carbontetrachloride	3.28	117	48152	15.09	ppb	98
46) 1,1-Dichloropropene	3.27	75	80750	17.24	ppb	# 94
47) Iso-Butyl Alcohol	3.30	43	29703	606.28	ppb	86
49) Benzene	3.41	78	296935	21.79	ppb	99
50) 1,2-Dichloroethane	3.41	62	62456	17.73	ppb	# 93
51) TAME	3.47	73	142438	18.67	ppb	99
52) N-Heptane	3.56	43	109680	18.96	ppb	99
53) Trichloroethene	3.84	95	68013	21.83	ppb	99
54) methylcyclohexane	3.99	55	113765	21.69	ppb	96
55) 1,2-Diclpropane	4.01	63	73547	21.13	ppb	99
56) Methyl Methacrylate	4.06	69	31078	19.61	ppb	100
57) 1,4-Dioxane	4.11	88	8146	1133.78	ppb	92
58) Dibromomethane	4.09	93	30145	19.15	ppb	97
59) Bromodichloromethane	4.19	83	77326	19.60	ppb	95
60) 2-Nitropropane	4.36	43	17468	31.65	ppb	96
61) 2-Chloroethylvinyl Ether	4.41	63	26590	16.61	ppb	# 88
62) cis-1,3-Dichloropropene	4.53	75	84185	18.51	ppb	100
64) 4-Methyl-2-Pentanone	4.65	43	44578	17.41	ppb	97
65) Toluene	4.81	91	293199	19.55	ppb	99
66) trans-1,3-Dichloropropene	4.97	75	62478	15.65	ppb	91
67) Ethyl Methacrylate	5.03	69	64699	18.96	ppb	100
68) 1,1,2-Trichloroethane	5.12	83	38558	19.27	ppb	98
71) Tetrachloroethene	5.26	166	66357	20.55	ppb	99
72) 2-Hexanone	5.32	43	32331	19.95	ppb	98
73) 1,3-Dichloropropane	5.26	76	74868	16.83	ppb	98
74) Dibromochloromethane	5.45	129	47169	18.30	ppb	100
75) 1,2-Dibromoethane	5.56	107	27717	14.86	ppb	99 *
76) Chlorobenzene	5.99	112	179088	20.50	ppb	98
77) 1,1,1,2-Tetrachloroethane	6.06	131	52606	19.16	ppb	87
78) Ethylbenzene	6.08	91	341315	21.04	ppb	96
79) (m+p)Xylene	6.19	106	245550	41.18	ppb	98
80) o-Xylene	6.55	106	121498	21.17	ppb	96
81) Styrene	6.56	104	208509	21.31	ppb	95
82) Bromoform	6.73	173	24196	19.89	ppb	93
83) Isopropylbenzene	6.89	105	309759	21.17	ppb	98
84) Cyclohexanone	6.98	55	98713	492.71	ppb	96
86) 1,1,2,2-Tetrachloroethane	7.16	83	50501	20.00	ppb	100
87) Trans-1,4-Dichloro-2-buten	7.21	53	6130	13.24	ppb	94
88) 1,2,3-Trichloropropane	7.21	110	11516	18.46	ppb	99
89) n-Propylbenzene	7.27	91	370077	20.41	ppb	98
90) Bromobenzene	7.18	156	64349	19.88	ppb	99
92) 1,3,5-Trimethylbenzene	7.44	105	254716	20.30	ppb	97
93) 2-Chlorotoluene	7.36	91	198550	19.75	ppb	97
94) 4-Chlorotoluene	7.47	91	258591	20.92	ppb	96
95) tert-Butylbenzene	7.76	119	198432m	19.30	ppb	

(#) = qualifier out of range (m) = manual integration  
 Z2764.D W070808.M Wed Jul 16 09:54:13 2008

Data File : J:\ACQUDATA\MSVOA8\DATA\071008\Z2764.D Vial: 7  
 Acq On : 10 Jul 2008 11:53 am Operator: Herring  
 Sample : LCS Inst : MS #8  
 Misc : Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 16 9:52 2008 Quant Results File: W070808.RES

Quant Method : J:\ACQUDATA\M...\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 16:13:36 2008  
 Response via : Initial Calibration  
 DataAcq Meth : W070808

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
96) 1,2,4-Trimethylbenzene	7.81	105	241532	19.87	ppb	99
97) sec-Butylbenzene	7.97	105	322084	20.93	ppb	99
98) p-Isopropyltoluene	8.12	119	248940	19.42	ppb	98
99) 1,3-Dclbenz	8.09	146	126132	19.99	ppb	99
100) 1,4-Dclbenz	8.17	146	127679	19.61	ppb	99
102) n-Butylbenzene	8.52	91	251247	20.92	ppb	97
103) 1,2-Dclbenz	8.54	146	115144	20.42	ppb	98
104) 1,2-Dibromo-3-chloropropan	9.31	157	5166	16.46	ppb	91
106) 1,2,4-Tcbenzene	10.13	180	66200	21.48	ppb	99
107) Hexachlorobu	10.30	225	29053	20.09	ppb	97
108) Naphthalen	10.37	128	155027	20.29	ppb	99
109) 1,2,3-Tclbenzene	10.60	180	60714	21.21	ppb	99

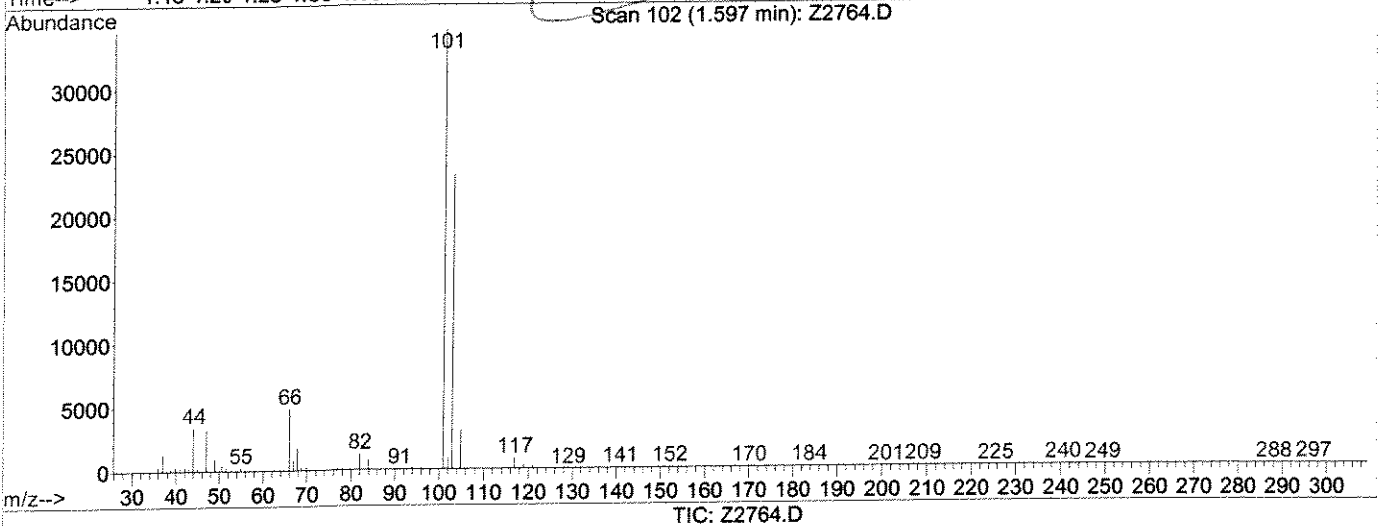
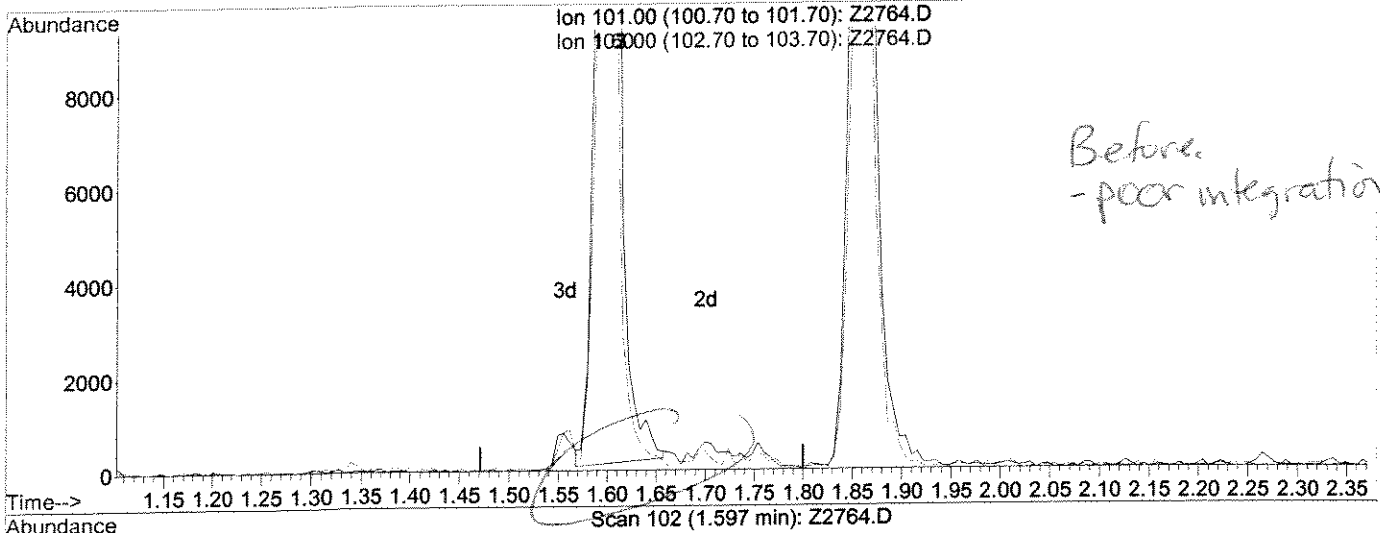
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOAS\DATA\071008\Z2764.D  
 Acq On : 10 Jul 2008 11:53 am  
 Sample : LCS  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 10 12:05 2008

Vial: 7  
 Operator: Herring  
 Inst : MS #8  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOAS\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 16:13:36 2008  
 Response via : Multiple Level Calibration



(9) Trichlorofluoromethane

1.60min 11.94ppb

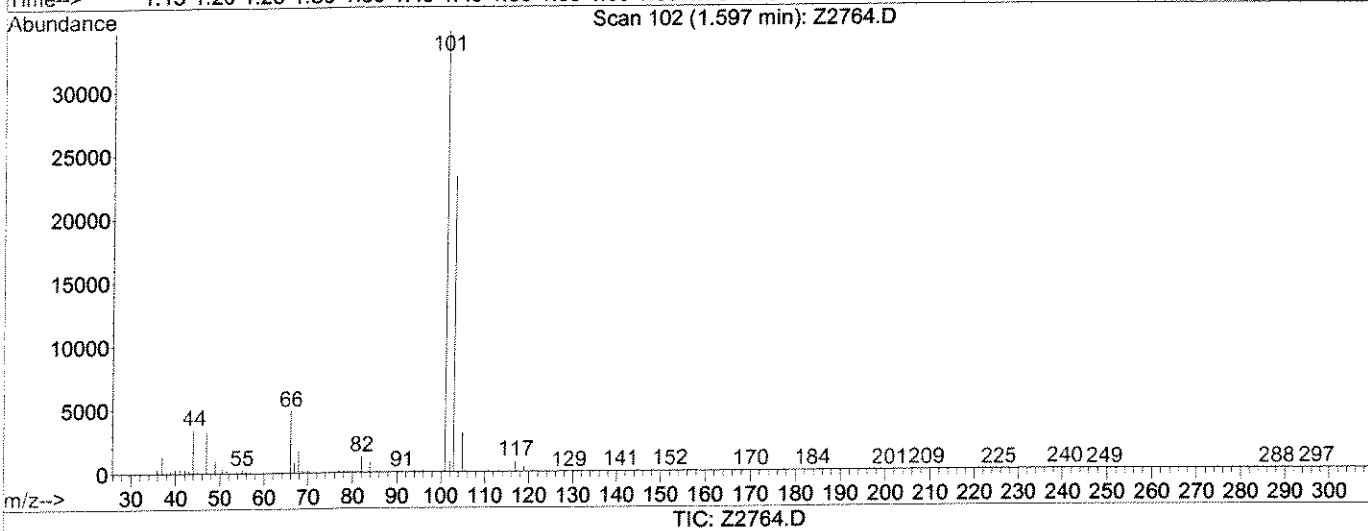
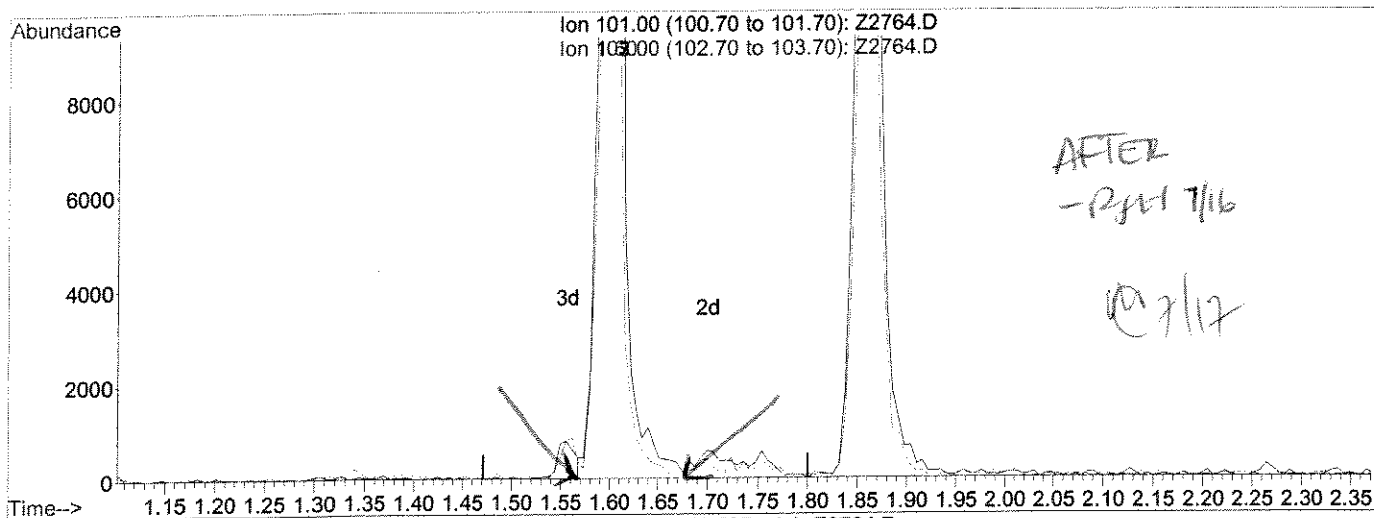
response 44178

Ion	Exp%	Act%
101.00	100	100
103.00	64.80	67.05
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\071008\Z2764.D Vial: 7  
 Acq On : 10 Jul 2008 11:53 am Operator: Herring  
 Sample : LCS Inst : MS #8  
 Misc : Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 16 9:41 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 16:13:36 2008  
 Response via : Multiple Level Calibration



(9) Trichlorofluoromethane

1.60min 12.27ppb m

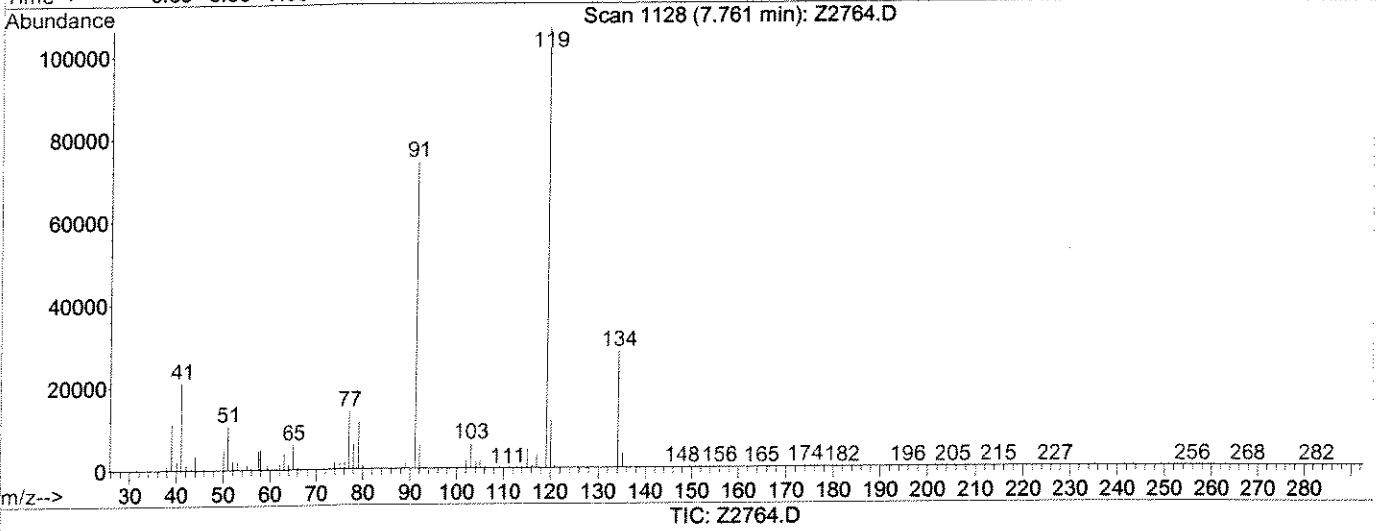
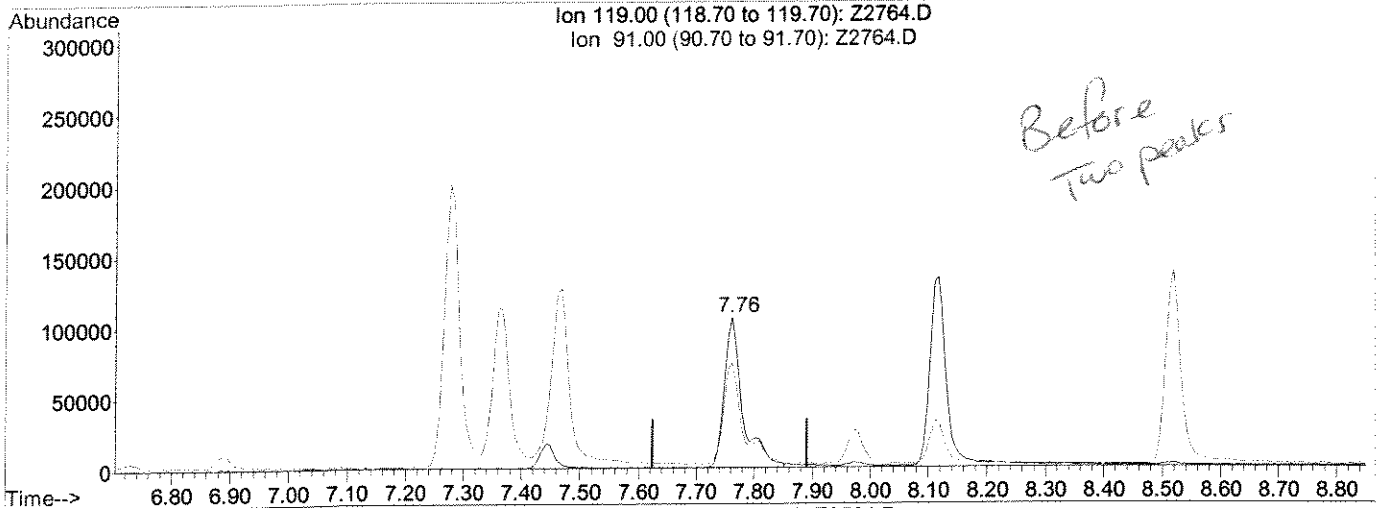
response 45401

Ion	Exp%	Act%
101.00	100	100
103.00	64.80	67.05
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\071008\Z2764.D Vial: 7  
 Acq On : 10 Jul 2008 11:53 am Operator: Herring  
 Sample : LCS Inst : MS #8  
 Misc : Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 16 9:41 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 16:13:36 2008  
 Response via : Multiple Level Calibration



(95) tert-Butylbenzene

7.76min 22.81ppb

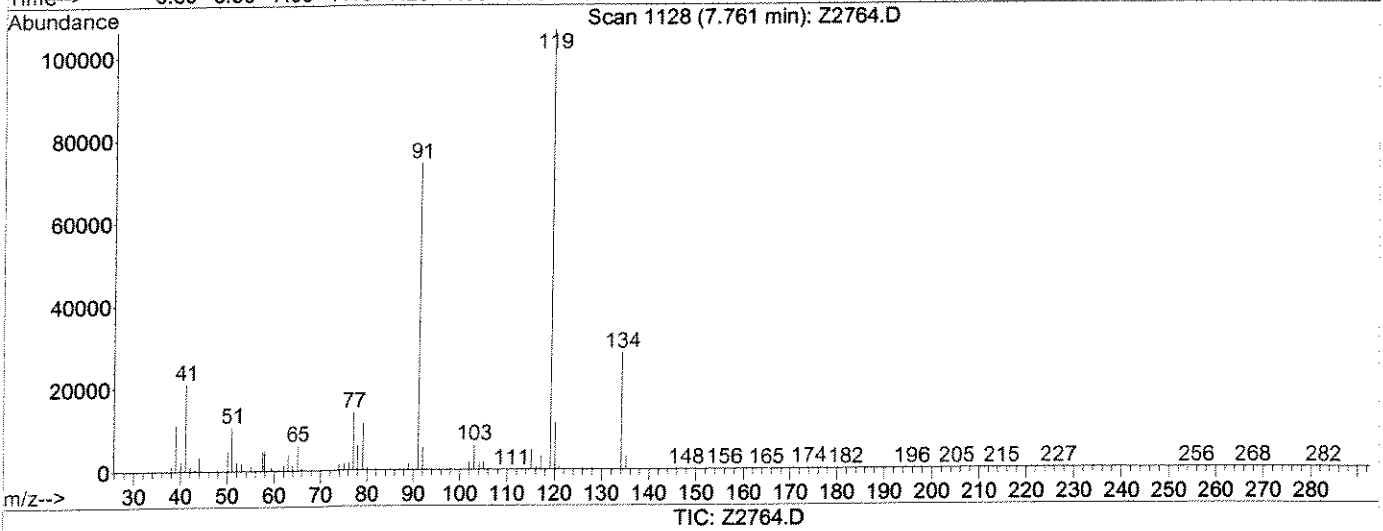
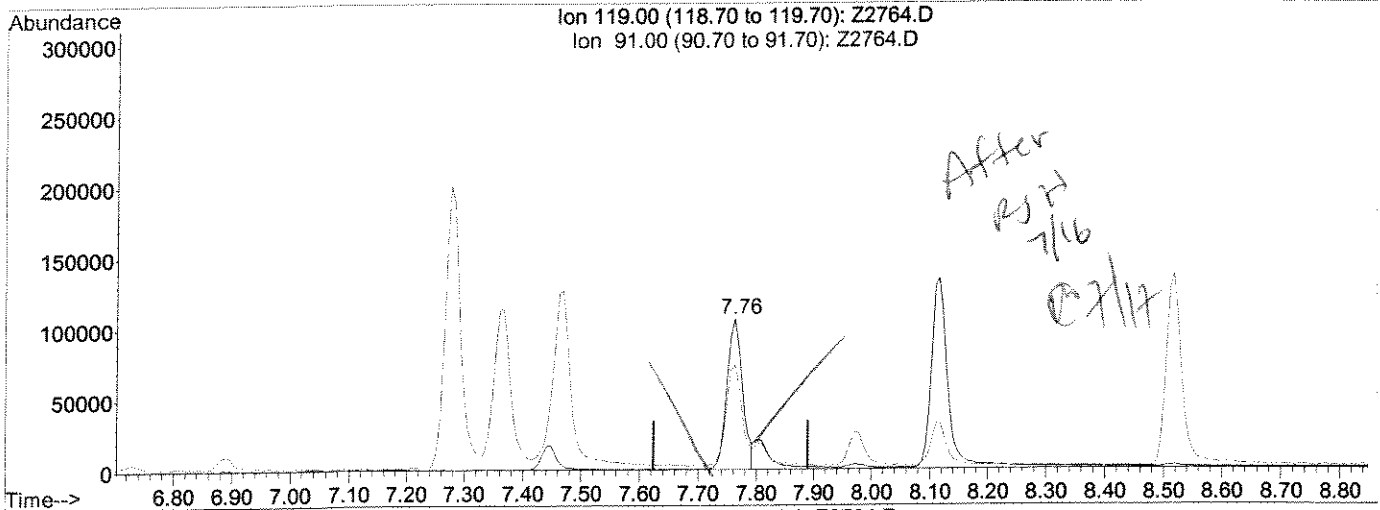
response 234544

Ion	Exp%	Act%
119.00	100	100
91.00	70.20	69.63
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA8\DATA\071008\Z2764.D Vial: 7  
 Acq On : 10 Jul 2008 11:53 am Operator: Herring  
 Sample : LCS Inst : MS #8  
 Misc : Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 16 9:52 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260voa  
 Last Update : Wed Jul 09 16:13:36 2008  
 Response via : Multiple Level Calibration



(95) tert-Butylbenzene

7.76min 19.30ppb m

response 198432

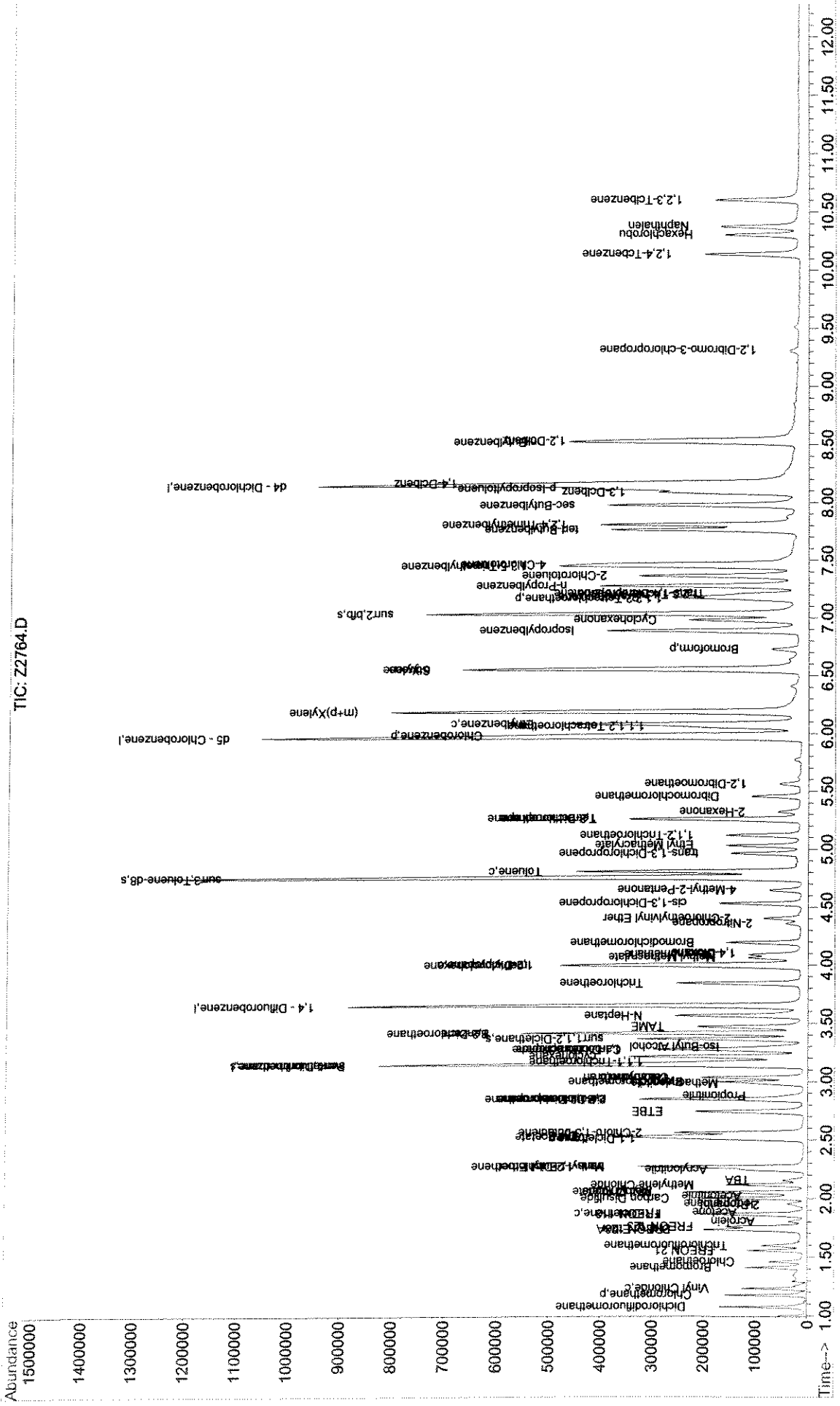
Ion	Exp%	Act%
119.00	100	100
91.00	70.20	69.63
0.00	0.00	0.00
0.00	0.00	0.00

Data File : J:\ACQDATA\MSVOA8\DATA\071008\Z2764.D  
 Acq On : 10 Jul 2008 11:53 am  
 Sample : LCS  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 16 9:52 2008

Vial: 7  
 Operator: Herring  
 Inst : MS #8  
 Multiplr: 1.00

Quant Results File: W070808.RES

Method : J:\ACQDATA\MSVOA8\METHODS\W070808.M (RTE Integrator)  
 Title : 8260v0a  
 Last Update : Wed Jul 09 16:13:36 2008  
 Response via : Initial Calibration



7/10/08 MS#8

1071008(Z...)

range

WATERS

Z2739	-
Z2740	-
Z2741	-
Z2742	NT
Z2743	YT
Z2744	-
Z2745	+
Z2746	+
Z2747	+
Z2748	Y
Z2749	Y
Z2750	Y
Z2751	Y
Z2752	Y
Z2753	Y
Z2754	-
Z2755	-
Z2756	-
Z2757	YQ

- 1 BLK
- 2 BLK
- 3 BLK
- 4 Tune Check (ml of MSVD147B/100ml DI) (sur 50)
- 5 CCV
- 6 CCV
- 7 LCS
- 8 BLK
- 9 MET BLK

164135

1118605

		VIAL#	pH
	1113695 1.0	①	[SCREEN ONLY]
(ml/50)	1113696 10	①	↓
	12 BLK		
	13 MET BLK		
	14 1113695 1.0	②	<2
2A →	15 697 1.0	①	<2
	16 698 1.0	①	<2
	17 699 1.0	①	<2
(ml/50)	18 696 50	②	<2

		VIAL#	pH
	19 BLK		
	20 700 1.0	①	<2
	21 701 1.0	①	<2
	22 705 1.0	①	<2
	23 707 1.0	①	<2
	24 1114422 1.0	①	<2
(ml/100ml)	25 419 100	①	<2
	26 420 100	①	<2
	27 421 100	①	<2
	28 756 100	①	<2
	29 BLK		

- Z2758 -
- Z2759 -
- Z2760 -
- Z2761 YT
- Z2762 NC low gases?
- Z2763 YL
- Z2764 YQ
- Z2765 -
- Z2766 N - Jlewitht!
- Z2767 N - screen ONLY
- Z2768 N - rpf 1/50
- Z2769 -
- Z2770 YM
- Z2771 Y
- Z2772 Y
- Z2773 Y
- Z2774 Y
- Z2775 Y
- Z2776 - clean-
- Z2777 Y
- Z2778 Y
- Z2779 Y
- Z2780 Y
- Z2781 ① - dot (SCREEN)
- Z2782 - SCREEN
- Z2783 - rpf/5
- Z2784 - rpf 2.5 +cc
- Z2785 - rpf 1/10
- Z2786 -

Referencing

Referencing

MS rpm	CENTURION METHOD	SURROGATE CONC (PPB)
60N	MSV10	M
100N	MSV MET 1	N/A
100N	MSV MET 1	N/A
100N	MSV10MS	12.5
100N	MSV20MS	25
100N	MSV 30MS	37.5
200N	MSV MET 1	50
300N	MSV 2x40	100
400N	MSV 4x40	200

- 1<sup>st</sup>/G 500 MSVD145A, 5µL
- 1<sup>st</sup>/G 500 MSVD143A, 5µL
- 1<sup>st</sup>/G 500 MSVD146M, 5µL
- FROMS 200 MSVD146N, 12.5µL
- 2<sup>nd</sup>/G 500 MSVD145C, 2µL
- 2<sup>nd</sup>/G 500 MSVD146G, 2µL
- 2<sup>nd</sup>/G 500 MSVD147J, 2µL
- FROMS 500 MSVD151A, 2µL

50ml → 10ml purged CCV DI

50ml → 10ml purged LCS DI

CENTURION!

DI → 10ml purge



232

82608 WATER

T070808.M  
W070808.M

7/8/08 MS#8

\070808\Z....

- 1 BLK 22739 -
- 2 BLK 22740 -
- 3 BLK 22741 -
- 4 Tune Check 22742 NT
- 5 Tune Check, <sup>(100ppb)</sup> 1ml MSVD147B / 100ml DI → 10ml purge 22743 YT
- 6 BLK 22744 -
- 7 INST. BLK. 22745 Y
- 8 0.5 ppb [Initial Calibration 82608 WATERS] 22746 Y
- 9 1.0 ppb 22747 Y
- 10 2.0 ppb 22748 Y
- 11 5.0 ppb 22749 Y
- 12 10 ppb 22750 Y
- 13 50 ppb 22751 Y
- 14 100 ppb 22752 Y
- 15 200 ppb 22753 Y
- 16 BLK 22754 -
- 17 BLK 22755 -
- 18 BLK 22756 -
- 19 ICV 50 22757 YG

~~7/10/08 MS#8~~

- 1 BLK
- 2 BLK
- 3 BLK
- 4 Tune Check (ml)
- 5 CCV
- 6 CCV
- 7 LCS
- 8 BLK
- 9 MET BLK
- 10 ~~BLK~~
- (ml/50) 11 113696 10
- 12 BLK
- 13 MET BLK
- 14 ~~BLK~~
- 20 → 15 <sup>697</sup> 697 1.0
- 16 698 1.0
- 17 699 1.0
- (ml/50) 18 696 50
- 19 BLK
- 20 700 1.0
- 21 701 1.0
- 22 705 1.0
- 23 707 1.0
- 24 ~~BLK~~
- (ml/100ml) 25 419 100
- 26 420 100
- 27 421 100
- 28 756 100
- 29 BLK

Autosampler (IS 100 MSVD147C)  
SUI 100 MSVD147D } CLNTR 100  
METHOD ADDITION

Filtering

J-CAL TABLE

I-CAL LEVEL (PPB)	1° T/G 500ppm	1° HSL 500ppm	1° OXYGEN 500ppm	FRONS 200ppm	CENTURION METHOD	SURROGATE CONC (PPB)
	MSVD150F	MSVD143A	MSVD146M	MSVD140N	MSVD	M
0.5	10ul/1ml MeOH 5ml/50ml DI	→	→	25ul/1ml MeOH	MSV MET 1	N/A
1.0	10ul/1ml MeOH 10ml/100ml DI	→	→	25ul/1ml MeOH	MSV MET 1	N/A
2.0	10ul/1ml MeOH 20ml/100ml DI	→	→	25ul/1ml MeOH	MSV10MS	12.5
5.0	1ul/50ml DI	→	→	2.5ul/100ml DI	MSV20MS	25
10	1ul/50ml DI	→	→	2.5ul/100ml DI	MSV30MS	37.5
50	5ml/50ml DI	→	→	12.5ul/50ml DI	MSV MET 1	50
100	10ml/50ml DI	→	→	25ul/50ml DI	MSV2X40	100
200	24ml/50ml DI	→	→	50ml/50ml DI	MSV4X40	200

ICV = 2° T/G MSVD145C  
2° HSL MSVD146G  
2° OLY MSVD147J  
FRONS 500 MSVD151A } SpL each/50ml DI → 10ml purge

1° T/G 500 MSVD145A  
1° HSL 500 MSVD143A  
1° OLY 500 MSVD146M  
FRONS 200 MSVD140N  
2° T/G 500 MSVD145C  
2° HSL 500 MSVD146G  
2° OLY 500 MSVD147J  
FRONS 500 MSVD151A  
CENTURION:  
00249

# **SEMIVOLATILE ORGANICS**

## **QC SUMMARY**

COLUMBIA ANALYTICAL SERVICES

QUALITY CONTROL SUMMARY: LABORATORY CONTROL SAMPLE  
WATER

Spiked Order No. : 1114612

Dup Spiked Order No. : 1114613

Client ID:

Test: 8270C.NEVA

Analytical Units: UG/L

Run Number : 163388

ANALYTE	SPIKE ADDED	SAMPLE CONCENT.	BLANK SPIKE		BLANK SPIKE DUP.			QC LIMITS	
			FOUND	% REC.	FOUND	% REC.	RPD	RPD	REC.
ACENAPHTHENE	0.50	0	0.470	94	0.490	98	4	30	50 - 120
ACENAPHTHYLENE	0.50	0	0.450	90	0.430	86	5	30	50 - 120
ANTHRACENE	0.50	0	0.410	82	0.440	88	7	30	50 - 120
BENZO (A) ANTHRACENE	0.50	0	0.440	88	0.460	92	4	30	50 - 120
BENZO (A) PYRENE	0.50	0	0.380	76	0.390	78	3	30	50 - 120
BENZO (B) FLUORANTHENE	0.50	0	0.510	102	0.480	96	6	30	50 - 120
BENZO (G, H, I) PERYLENE	0.50	0	0.440	88	0.480	96	9	30	50 - 120
BENZO (K) FLUORANTHENE	0.50	0	0.480	96	0.530	106	10	30	50 - 120
BUTYL BENZYL PHTHALATE	0.50	0	0.560	112	0.560	112	0	30	50 - 120
DI-N-BUTYLPHthalate	0.50	0	1.40	280 *	1.20	240 *	15	30	50 - 120
INDENO (1, 2, 3-CD) PYRENE	0.50	0	0.430	86	0.460	92	7	30	50 - 120
CHRYSENE	0.50	0	0.460	92	0.460	92	0	30	50 - 120
DIBENZO (A, H) ANTHRACENE	0.50	0	0.450	90	0.510	102	13	30	50 - 120
DIETHYLPHthalate	0.50	0	0.640	128 *	0.630	126 *	2	30	50 - 120
DIMETHYL PHTHALATE	0.50	0	0.520	104	0.550	110	6	30	50 - 120
1, 4-DIOXANE	5.0	0	2.30	46 *	2.30	46 *	0	30	50 - 120
BIS (2-ETHYLHEXYL) PHTHA	5.0	0	4.80	96	4.90	98	2	30	50 - 120
FLUORANTHENE	0.50	0	0.480	96	0.520	104	8	30	50 - 120
FLUORENE	0.50	0	0.470	94	0.460	92	2	30	50 - 120
HEXACHLOROBENZENE	0.50	0	0.420	84	0.410	82	2	30	50 - 120
2-METHYLNAPHTHALENE	0.50	0	0.410	82	0.440	88	7	30	50 - 120
NAPHTHALENE	0.50	0	0.440	88	0.450	90	2	30	50 - 120
NITROBENZENE	0.50	0	0.450	90	0.470	94	4	30	50 - 120
OCTACHLOROSTYRENE	0.50	0	0.420	84	0.300	60	33 *	30	50 - 120
DI-N-OCTYL PHTHALATE	0.50	0	0.430	86	0.450	90	5	30	50 - 120
PHENANTHRENE	0.50	0	0.490	98	0.490	98	0	30	50 - 120
PYRENE	0.50	0	0.460	92	0.470	94	2	30	50 - 120
PYRIDINE	3.0	0	0.150	5 *	0.300	10 *	67 *	30	50 - 120

Data F CY245.D

Data F J:\ACQUDATA\5973B\DATA\070208\

LCS

#	Name	Amount	Units	PPM	% REC	F or P	low Limits	High Limits	MsLimits
2)	1,4-Dioxane	2.27	ppm	5	45%	F	50	120	31-80
3)	Pyridine	0.15	ppm	3	5%	F	50	120	50-130
5)	SURR4,NITROBENZENE-D5	1.76	ppm	2	88%	P	45	135	22-124
6)	Nitrobenzene	0.45	ppm	0.5	91%	P	50	120	50-150
7)	Naphthalene	0.44	ppm	0.5	87%	P	50	120	33-121
8)	2-Methylnaphthalene	0.41	ppm	0.5	81%	P	50	120	42-130
9)	1-Methylnaphthalene	0.42	ppm	0.5	84%	P	62	102	50-150
11)	SURR5,2-FLUOROBIPHENYL	1.72	ppm	2	86%	P	45	135	27-114
12)	Acenaphthylene	0.45	ppm	0.5	89%	P	50	120	51-115
13)	Dimethyl phthalate	0.52	ppm	0.5	105%	P	50	120	50-130
14)	Acenaphthene	0.47	ppm	0.5	94%	P	50	120	44-112
15)	Dibenzofuran	0.45	ppm	0.5	90%	P	50	150	50-150
16)	Fluorene	0.47	ppm	0.5	94%	P	50	120	38-121
17)	Diethylphthalate	0.64	ppm	0.5	128%	F	50	120	50-130
19)	Hexachlorobenzene	0.42	ppm	0.5	84%	P	50	120	47-108
20)	Phenanthrene	0.49	ppm	0.5	98%	P	50	120	54-114
21)	Anthracene	0.41	ppm	0.5	82%	P	50	120	51-119
22)	Carbazole	0.51	ppm	0.5	102%	P	40	150	40-150
23)	Octachlorostyrene	0.42	ppm	0.5	84%	P	50	120	50-130
24)	Di-n-butylphthalate	1.43	ppm	0.5	287%	F	50	120	50-130
25)	Fluoranthene	0.48	ppm	0.5	97%	P	50	120	59-117
27)	Pyrene	0.46	ppm	0.5	92%	P	50	120	55-115
28)	SURR6,TERPHENYL-D14	1.92	ppm	2	96%	P	45	135	23-139
29)	Butyl benzyl phthalate	0.56	ppm	0.5	111%	P	50	120	50-130
30)	bis(2-Ethylhexyl)phthalate	4.79	ppm	5	96%	P	50	120	55-130
31)	Benzo(a)anthracene	0.44	ppm	0.5	88%	P	50	120	58-115
32)	Chrysene	0.46	ppm	0.5	92%	P	50	120	55-113
34)	Di-n-octyl phthalate	0.43	ppm	0.5	87%	P	50	120	50-130
35)	Benzo(b)Fluoranthene	0.51	ppm	0.5	101%	P	50	120	45-121
36)	Benzo(k)fluoranthene	0.48	ppm	0.5	96%	P	50	120	47-119
37)	Benzo(a)pyrene	0.38	ppm	0.5	75%	P	50	120	36-119
38)	Indeno(1,2,3-cd)Pyrene	0.43	ppm	0.5	87%	P	50	120	47-119
39)	Dibenz(a,h)anthracene	0.45	ppm	0.5	91%	P	50	120	47-116
40)	Benzo(g,h,i)perylene	0.44	ppm	0.5	88%	P	50	120	39-122

Data F CY246.D

Data F J:\ACQU\DATA\5973B\DATA\070208\

LLSP

#	Name	Amount	Units	PPM	% REC	F or P	low Limits	High Limits	MsLimits
2)	1,4-Dioxane	2.27	ppm	5	45%	F	50	120	31-80
3)	Pyridine	0.30	ppm	3	10%	F	50	120	50-130
5)	SURR4,NITROBENZENE-D5	1.77	ppm	2	89%	P	45	135	22-124
6)	Nitrobenzene	0.47	ppm	0.5	94%	P	50	120	50-150
7)	Naphthalene	0.45	ppm	0.5	90%	P	50	120	33-121
8)	2-Methylnaphthalene	0.44	ppm	0.5	87%	P	50	120	42-130
9)	1-Methylnaphthalene	0.46	ppm	0.5	91%	P	62	102	50-150
11)	SURR5,2-FLUOROBIPHENYL	1.79	ppm	2	90%	P	45	135	27-114
12)	Acenaphthylene	0.43	ppm	0.5	86%	P	50	120	51-115
13)	Dimethyl phthalate	0.55	ppm	0.5	110%	P	50	120	50-130
14)	Acenaphthene	0.49	ppm	0.5	97%	P	50	120	44-112
15)	Dibenzofuran	0.45	ppm	0.5	91%	P	50	150	50-150
16)	Fluorene	0.46	ppm	0.5	91%	P	50	120	38-121
17)	Diethylphthalate	0.63	ppm	0.5	127%	F	50	120	50-130
19)	Hexachlorobenzene	0.41	ppm	0.5	83%	P	50	120	47-108
20)	Phenanthrene	0.49	ppm	0.5	98%	P	50	120	54-114
21)	Anthracene	0.44	ppm	0.5	88%	P	50	120	51-119
22)	Carbazole	0.53	ppm	0.5	106%	P	40	150	40-150
23)	Octachlorostyrene	0.30	ppm	0.5	60%	P	50	120	50-130
24)	Di-n-butylphthalate	1.19	ppm	0.5	238%	F	50	120	50-130
25)	Fluoranthene	0.52	ppm	0.5	104%	P	50	120	59-117
27)	Pyrene	0.47	ppm	0.5	93%	P	50	120	55-115
28)	SURR6,TERPHENYL-D14	2.02	ppm	2	101%	P	45	135	23-139
29)	Butyl benzyl phthalate	0.56	ppm	0.5	113%	P	50	120	50-130
30)	bis(2-Ethylhexyl)phthalate	4.94	ppm	5	99%	P	50	120	55-130
31)	Benzo(a)anthracene	0.46	ppm	0.5	92%	P	50	120	58-115
32)	Chrysene	0.46	ppm	0.5	92%	P	50	120	55-113
34)	Di-n-octyl phthalate	0.45	ppm	0.5	89%	P	50	120	50-130
35)	Benzo(b)Fluoranthene	0.48	ppm	0.5	96%	P	50	120	45-121
36)	Benzo(k)fluoranthene	0.53	ppm	0.5	106%	P	50	120	47-119
37)	Benzo(a)pyrene	0.39	ppm	0.5	78%	P	50	120	36-119
38)	Indeno(1,2,3-cd)Pyrene	0.46	ppm	0.5	92%	P	50	120	47-119
39)	Dibenz(a,h)anthracene	0.51	ppm	0.5	103%	P	50	120	47-116
40)	Benzo(g,h,i)perylene	0.48	ppm	0.5	96%	P	50	120	39-122

## SEMIVOLATILE METHOD BLANK SUMMARY

SBLK1

Lab Name: CAS-ROCH Contract: ENSR  
 Lab Code: 10145 Case No.: R844768 SAS No.: \_\_\_\_\_ SDG No.: M-79B  
 Lab File ID: CY244.D Lab Sample ID: 1114611 1.0  
 Instrument ID: 5973-B Date Extracted: 7/2/08  
 Matrix: (soil/water) WATER Date Analyzed: 7/2/08  
 Level: (low/med) LOW Time Analyzed: 16:02

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	SBLK1MS	1114612 1.0	CY245.D	7/2/08
02	SBLK1MSD	1114613 1.0	CY246.D	7/2/08
03	M-79B	1113695 0.94	CY247.D	7/2/08
04	M-126B	1113696 0.94	CY248.D	7/2/08
05	M-84B	1113697 0.94	CY249.D	7/2/08
06	M-14ADBF	1113698 0.94	CY250.D	7/2/08
07	M-14ABF	1113699 0.94	CY251.D	7/2/08

COMMENTS:

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SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CAS-ROCH Contract: ENSR  
 Lab Code: 10145 Case No.: R844768 SAS No.: \_\_\_\_\_ SDG No.: M-79B  
 Lab File ID: CY228.D DFTPP Injection Date: 7/1/08  
 Instrument ID: 5973-B DFTPP Injection Time: 9:07

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	39.3
68	Less than 2.0% of mass 69	0.0 ( 0.0)1
69	Mass 69 Relative abundance	74.5
70	Less than 2.0% of mass 69	0.5 ( 0.7)1
127	40.0 - 60.0% of mass 198	45.2
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.8
275	10.0 - 30.0% of mass 198	28.5
365	Greater than 1.0% of mass 198	6.1
441	Present, but less than mass 443	11.6
442	40.0 - 100.0% of mass 198	64.8
443	17.0 - 23.0% of mass 442	12.1 ( 18.6)2

1-Value is % mass 69

2-Value is % mass 442

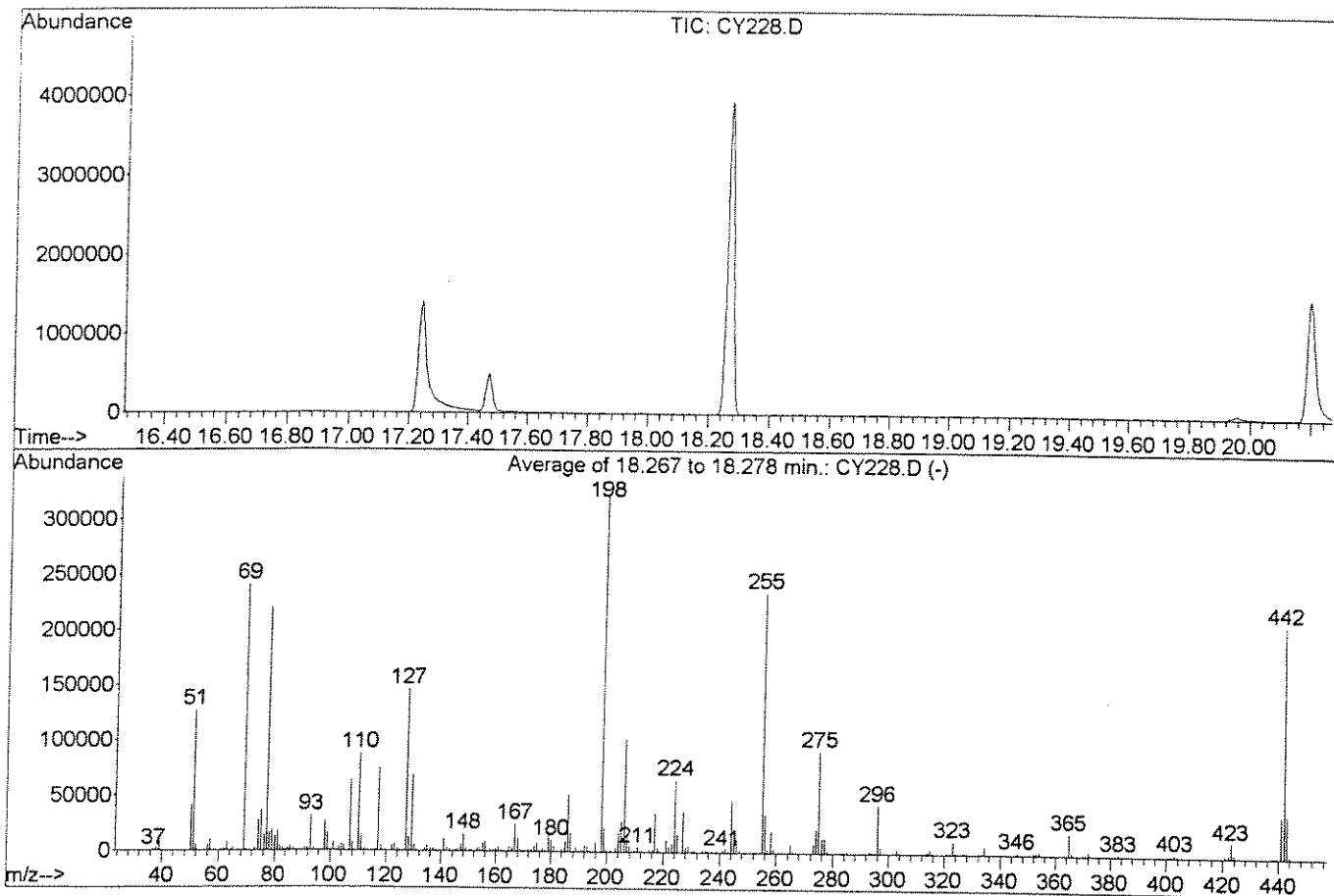
THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD00.1	INITIAL CALIBRATION	CY230.D	7/1/08	10:40
02	SSTD00.2	INITIAL CALIBRATION	CY231.D	7/1/08	11:27
03	SSTD00.5	INITIAL CALIBRATION	CY232.D	7/1/08	12:15
04	SSTD01.0	INITIAL CALIBRATION	CY233.D	7/1/08	13:02
05	SSTD02.0	INITIAL CALIBRATION	CY234.D	7/1/08	13:49
06	SSTD03.0	INITIAL CALIBRATION	CY235.D	7/1/08	14:36
07	SSTD04.0	INITIAL CALIBRATION	CY236.D	7/1/08	15:23
08	SSTD05.0	INITIAL CALIBRATION	CY237.D	7/1/08	16:09
09	SSTD010	INITIAL CALIBRATION	CY238.D	7/1/08	16:56

DFTPP

Data File : J:\ACQUDATA\5973B\DATA\070108\CY228.D  
 Acq On : 1 Jul 2008 9:07 am  
 Sample : TUNE CHECK  
 Misc : 20 ng DFTPP  
 MS Integration Params: RTEINT.P  
 Method : J:\ACQUDATA\5973B\METHODS\DFTPLVI.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS

Vial: 1  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00



Spectrum Information: Average of 18.267 to 18.278 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	39.3	127035	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	74.5	241173	PASS
70	69	0.00	2	0.7	1587	PASS
127	198	40	60	45.2	146216	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	323563	PASS
199	198	5	9	6.8	21933	PASS
275	198	10	30	28.5	92176	PASS
365	198	1	100	6.1	19616	PASS
441	443	0.01	100	96.2	37597	PASS
442	198	40	100	64.8	209621	PASS
443	442	17	23	18.6	39064	PASS



SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CAS-ROCH Contract: ENSR  
 Lab Code: 10145 Case No.: R844768 SAS No.: \_\_\_\_\_ SDG No.: M-79B  
 Lab File ID: CY241.D DFTPP Injection Date: 7/2/08  
 Instrument ID: 5973-B DFTPP Injection Time: 13:12

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	46.3
68	Less than 2.0% of mass 69	0.0 ( 0.0)1
69	Mass 69 Relative abundance	85.2
70	Less than 2.0% of mass 69	0.6 ( 0.7)1
127	40.0 - 60.0% of mass 198	47.8
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.0
275	10.0 - 30.0% of mass 198	28.6
365	Greater than 1.0% of mass 198	4.9
441	Present, but less than mass 443	9.7
442	40.0 - 100.0% of mass 198	58.2
443	17.0 - 23.0% of mass 442	10.6 ( 18.1)2

1-Value is % mass 69

2-Value is % mass 442

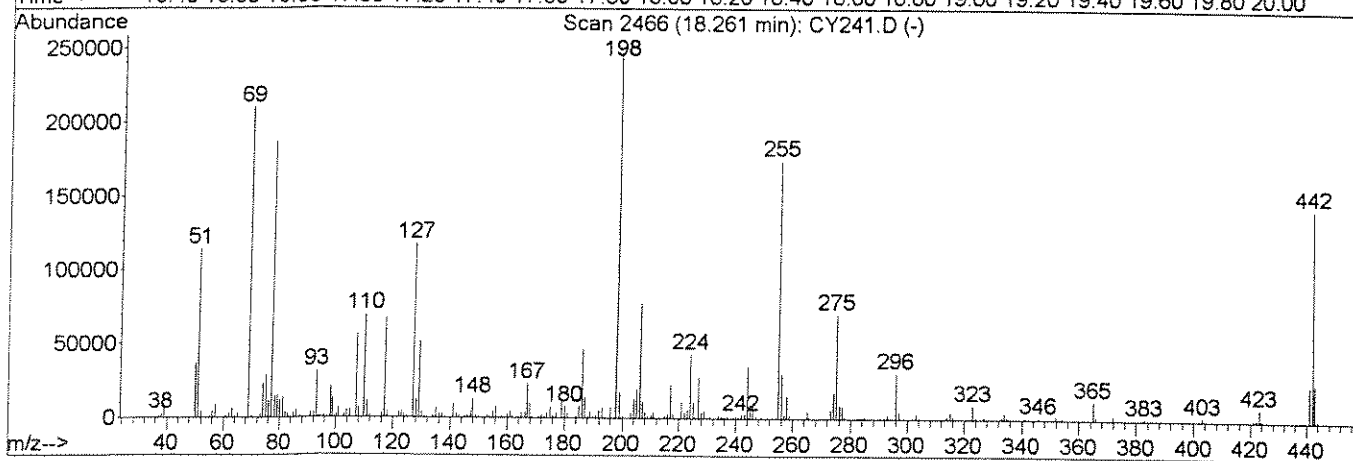
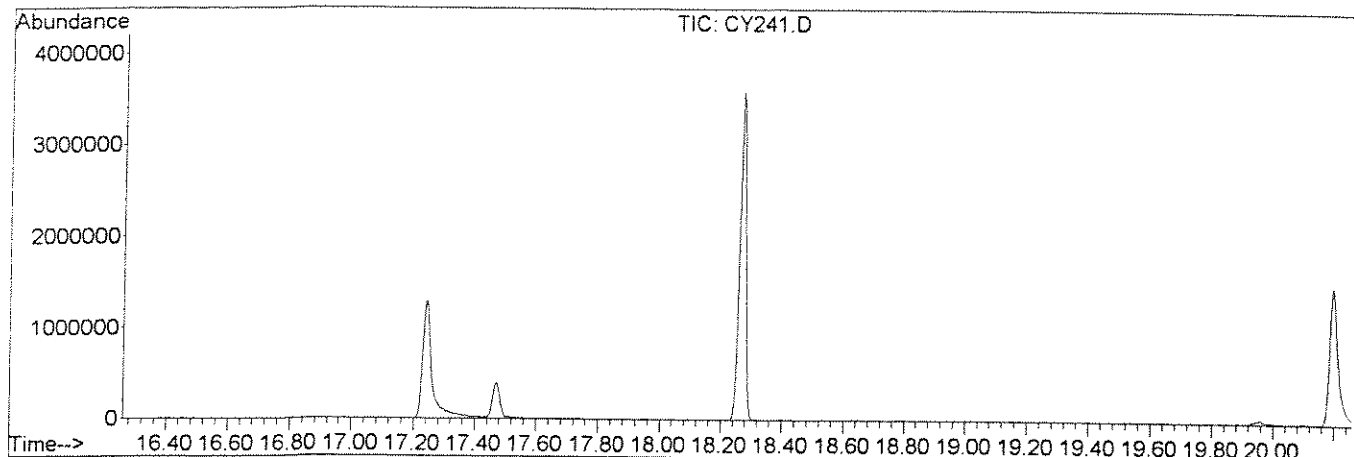
THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD12.0	CALIBRATION CHECK	CY242.D	7/2/08	14:00
02	SBLK1	1114611 1.0	CY244.D	7/2/08	16:02
03	SBLK1MS	1114612 1.0	CY245.D	7/2/08	16:50
04	SBLK1MSD	1114613 1.0	CY246.D	7/2/08	17:38
05	M-79B	1113695 0.94	CY247.D	7/2/08	18:26
06	M-126B	1113696 0.94	CY248.D	7/2/08	19:14
07	M-84B	1113697 0.94	CY249.D	7/2/08	20:02
08	M-14ADBF	1113698 0.94	CY250.D	7/2/08	20:49
09	M-14ABF	1113699 0.94	CY251.D	7/2/08	21:37

DFTPP

Data File : J:\ACQUDATA\5973B\DATA\070208\CY241.D  
 Acq On : 2 Jul 2008 1:12 pm  
 Sample : TUNE CHECK  
 Misc : 20 ng DFTPP  
 MS Integration Params: RTEINT.P  
 Method : J:\ACQUDATA\5973B\METHODS\DFTPPLVI.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS

Vial: 1  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00



Spectrum Information: Scan 2466

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	46.3	114284	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	85.2	210085	PASS
70	69	0.00	2	0.7	1539	PASS
127	198	40	60	47.8	117854	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	246714	PASS
199	198	5	9	7.0	17240	PASS
275	198	10	30	28.6	70672	PASS
365	198	1	100	4.9	12098	PASS
441	443	0.01	100	91.6	23840	PASS
442	198	40	100	58.2	143552	PASS
443	442	17	23	18.1	26040	PASS

*Z*

## SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CAS-ROCH Contract: ENSR  
 Lab Code: 10145 Case No.: R844768 SAS No.: \_\_\_\_\_ SDG No.: M-79B  
 Lab File ID (Standard): CY242.D Date Analyzed: 7/2/08  
 Instrument ID: 5973-B Time Analyzed: 14:00

	IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
12 HOUR STD	67213	10.13	254882	11.45	165402	13.03
UPPER LIMIT	134426	10.63	509764	11.95	330804	13.53
LOWER LIMIT	33607	9.63	127441	10.95	82701	12.53
EPA SAMPLE NO.						
01 SBLK1	57358	10.14	202181	11.45	132141	13.03
02 SBLK1MS	59817	10.14	212873	11.45	135803	13.03
03 SBLK1MSD	59901	10.13	208458	11.45	137616	13.03
04 M-79B	53127	10.14	195757	11.45	129230	13.03
05 M-126B	89570	10.16	224786	11.45	153401	13.03
06 M-84B	59686	10.13	227175	11.45	148542	13.03
07 M-14ADBF	65227	10.13	238833	11.45	152626	13.03
08 M-14ABF	62303	10.13	217536	11.45	147817	13.03

IS1 (DCB) = d4-1,4-Dichlorobenzene  
 IS2 (NPT) = d8-Naphthalene  
 IS3 (ANT) = d10-Acenaphthene  
 IS4 (PHN) = d10-Phenanthrene  
 IS5 (CRY) = d12-Chrysene  
 IS6 (PRY) = d12-Perylene

AREA UPPER LIMIT = +100% of internal standard area  
 AREA LOWER LIMIT = - 50% of internal standard area  
 RT UPPER LIMIT = +0.50 minutes of internal standard RT  
 RT LOWER LIMIT = -0.50 minutes of internal standard RT

# Column to be used to flag values outside QC limit with an asterisk.

\* Values outside of contract required QC limits

## SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CAS-ROCH Contract: ENSR  
 Lab Code: 10145 Case No.: R844768 SAS No.: \_\_\_\_\_ SDG No.: M-79B  
 Lab File ID (Standard): CY242.D Date Analyzed: 07/02/08  
 Instrument ID: 5973-B Time Analyzed: 14:00

	IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
12 HOUR STD	259383	14.22	255347	17.05	205106	19.78
UPPER LIMIT	518766	13.72	510694	16.55	410212	19.28
LOWER LIMIT	129692	14.72	127674	17.55	102553	20.28
EPA SAMPLE NO.						
01 SBLK1	195890	14.22	188852	17.05	150111	19.78
02 SBLK1MS	203647	14.22	209546	17.04	167323	19.79
03 SBLK1MSD	202438	14.22	211840	17.04	168768	19.79
04 M-79B	201815	14.22	198246	17.04	161478	19.78
05 M-126B	226588	14.22	232551	17.04	163964	19.78
06 M-84B	225239	14.22	234291	17.05	179595	19.78
07 M-14ADBF	240147	14.22	238259	17.05	190099	19.79
08 M-14ABF	229011	14.22	231382	17.05	176154	19.79

IS1 (DCB) = d4-1,4-Dichlorobenzene  
 IS2 (NPT) = d8-Naphthalene  
 IS3 (ANT) = d10-Acenaphthene  
 IS4 (PHN) = d10-Phenanthrene  
 IS5 (CRY) = d12-Chrysene  
 IS6 (PRY) = d12-Perylene

AREA UPPER LIMIT = +100% of internal standard area  
 AREA LOWER LIMIT = - 50% of internal standard area  
 RT UPPER LIMIT = +0.50 minutes of internal standard RT  
 RT LOWER LIMIT = -0.50 minutes of internal standard RT

# Column to be used to flag values outside QC limit with an asterisk.

\* Values outside of contract required QC limits

Columbia Analytical Services  
 8270.LL MDL STUDY 5973-B  
 Analyst: Z.Miao 06/10/2008, 06/23/2008

Method: 8270.LL WATER  
 Extracted : 06/10/2008

#	Name	Conc. ug/L	Trial #1	Trial #2	Trial #3	Trial #4	Trial #5	Trial #6	Trial #7	Mean ug/L	S	N# of reps	MDL ug/L	MRL ug/L
2)	1,4-Dioxane	0.8	0.41	0.42	0.46	0.37	0.52	0.45	0.46	0.44	0.05	7.00	0.14901	0.2
3)	Pyridine	2	0.15	0.50	0.78	0.46	0.26	0.64	0.25	0.43	0.23	7.00	0.71668	2
5)														
6)	Nitrobenzene	0.20	0.18	0.16	0.20	0.18	0.19	0.19	0.19	0.18	0.01	7.00	0.03999	0.2
7)	Naphthalene	0.20	0.18	0.18	0.19	0.18	0.20	0.19	0.22	0.19	0.01	7.00	0.04601	0.2
8)	2-Methylnaphthalene	0.20	0.16	0.15	0.18	0.16	0.18	0.16	0.18	0.17	0.01	7.00	0.0394	0.1
9)	1-Methylnaphthalene	0.20	0.14	0.15	0.16	0.14	0.16	0.16	0.16	0.15	0.01	7.00	0.0299	0.2
11)														
12)	Acenaphthylene	0.20	0.14	0.15	0.16	0.16	0.15	0.16	0.16	0.15	0.01	7.00	0.02473	0.2
13)	Dimethyl phthalate	0.20	0.19	0.18	0.20	0.19	0.20	0.20	0.20	0.19	0.01	7.00	0.02473	5
14)	Acenaphthene	0.20	0.16	0.17	0.17	0.16	0.16	0.17	0.17	0.17	0.01	7.00	0.0168	0.2
15)	Dibenzofuran	0.20	0.17	0.15	0.17	0.16	0.17	0.18	0.17	0.17	0.01	7.00	0.0299	0.2
16)	Fluorene	0.20	0.17	0.16	0.17	0.15	0.17	0.16	0.17	0.16	0.01	7.00	0.02473	0.2
17)	Diethylphthalate	0.20	0.37	0.40	0.32	0.33	0.34	0.39	0.44	0.37	0.04	7.00	0.13579	5
19)	Hexachlorobenzene	0.20	0.13	0.13	0.15	0.14	0.13	0.14	0.13	0.14	0.01	7.00	0.02473	0.2
20)	Phenanthrene	0.20	0.19	0.17	0.20	0.17	0.18	0.19	0.19	0.18	0.01	7.00	0.03564	0.2
21)	Anthracene	0.20	0.15	0.14	0.15	0.14	0.16	0.16	0.15	0.15	0.01	7.00	0.02566	0.2
22)	Carbazole	0.20	0.19	0.19	0.23	0.19	0.21	0.20	0.22	0.20	0.02	7.00	0.05086	1
23)	Octachlorostyrene	0.20	0.20	0.14	0.22	0.14	0.15	0.19	0.15	0.17	0.03	7.00	0.10265	0.2
24)	Di-n-butylphthalate	0.20	1.65	2.34	1.25	1.41	1.44	1.90	1.94	1.70	0.38	7.00	1.19253	5
25)	Fluoranthene	0.20	0.20	0.18	0.20	0.18	0.18	0.20	0.20	0.19	0.01	7.00	0.0336	0.2
27)	Pyrene	0.20	0.18	0.17	0.19	0.16	0.19	0.19	0.20	0.18	0.01	7.00	0.04338	0.2
28)														
29)	Butylbenzylphthalate	0.20	0.31	0.47	0.26	0.27	0.29	0.41	0.34	0.34	0.08	7.00	0.24471	5
30)	bis(2-Ethylhexyl)phthalate	0.80	0.77	0.87	0.82	0.76	0.85	0.97	0.88	0.85	0.07	7.00	0.22581	2
31)	Benzo(a)anthracene	0.20	0.17	0.17	0.19	0.16	0.18	0.19	0.19	0.18	0.01	7.00	0.03819	0.1
32)	Chrysene	0.20	0.18	0.17	0.19	0.17	0.20	0.18	0.19	0.18	0.01	7.00	0.03497	0.2
34)	Di-n-octylphthalate	0.20	0.13	0.15	0.15	0.14	0.15	0.19	0.19	0.16	0.02	7.00	0.07419	5
35)	Benzo(b)Fluoranthene	0.20	0.18	0.17	0.19	0.18	0.19	0.20	0.20	0.19	0.01	7.00	0.03497	0.2
36)	Benzo(k)fluoranthene	0.20	0.19	0.18	0.17	0.16	0.20	0.18	0.20	0.18	0.01	7.00	0.04702	0.2
37)	Benzo(a)pyrene	0.20	0.13	0.13	0.14	0.12	0.14	0.16	0.15	0.14	0.01	7.00	0.04228	0.2
38)	Indeno(1,2,3-cd)Pyrene	0.20	0.25	0.24	0.26	0.24	0.25	0.26	0.27	0.25	0.01	7.00	0.03497	0.2
39)	Dibenz(a,h)anthracene	0.20	0.16	0.17	0.17	0.16	0.17	0.18	0.18	0.17	0.01	7.00	0.02566	0.2
40)	Benzo(g,h,i)perylene	0.20	0.17	0.16	0.18	0.16	0.18	0.18	0.20	0.18	0.01	7.00	0.04392	0.2

7/2/08 12:10 PM

# **SEMIVOLATILE ORGANICS**

## **SAMPLE DATA**

COLUMBIA ANALYTICAL SERVICES

EXTRACTABLE ORGANICS  
METHOD 8270C.NEVA  
Reported: 07/30/08

ENSR International

Project Reference: TRONOX PHASE B INVESTIGATION PROJ# 04020-023-4312

Client Sample ID : M-79B

Date Sampled : 06/29/08 14:31 Order #: 1113695 Sample Matrix: WATER  
Date Received: 07/01/08 Submission #: R2844768 Analytical Run 163388

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED	: 07/02/08		
DATE ANALYZED	: 07/02/08		
ANALYTICAL DILUTION:	0.94		
ACENAPHTHENE	0.20	0.19 U	UG/L
ACENAPHTHYLENE	0.20	0.19 U	UG/L
ANTHRACENE	0.20	0.19 U	UG/L
BENZO (A) ANTHRACENE	0.20	0.19 U	UG/L
BENZO (A) PYRENE	0.20	0.19 U	UG/L
BENZO (B) FLUORANTHENE	0.20	0.19 U	UG/L
BENZO (G, H, I) PERYLENE	0.20	0.19 U	UG/L
BENZO (K) FLUORANTHENE	0.20	0.19 U	UG/L
BUTYL BENZYL PHTHALATE	5.0	4.7 U	UG/L
DI-N-BUTYLPHthalate	5.0	4.7 U	UG/L
INDENO (1, 2, 3-CD) PYRENE	0.20	0.19 U	UG/L
CHRYSENE	0.20	0.19 U	UG/L
DIBENZO (A, H) ANTHRACENE	0.20	0.19 U	UG/L
DIETHYLPHthalate	5.0	0.21 J	UG/L
DIMETHYL PHTHALATE	5.0	4.7 U	UG/L
1, 4-DIOXANE	2.0	1.9 U	UG/L
BIS (2-ETHYLHEXYL) PHTHALATE	5.0	0.24 J	UG/L
FLUORANTHENE	0.20	0.19 U	UG/L
FLUORENE	0.20	0.19 U	UG/L
HEXACHLORO BENZENE	0.20	0.19 U	UG/L
2-METHYLNAPHTHALENE	0.20	0.19 U	UG/L
NAPHTHALENE	0.20	0.19 U	UG/L
NITROBENZENE	0.20	0.19 U	UG/L
OCTACHLOROSTYRENE	0.20	0.19 U	UG/L
DI-N-OCTYL PHTHALATE	5.0	4.7 U	UG/L
PHENANTHRENE	0.20	0.19 U	UG/L
PYRENE	0.20	0.19 U	UG/L
PYRIDINE	2.0	1.9 U	UG/L

SURROGATE RECOVERIES

QC LIMITS

TERPHENYL-d14	(45 - 135 %)	96	%
NITROBENZENE-d5	(45 - 135 %)	81	%
2-FLUOROBIPHENYL	(45 - 135 %)	80	%

Data File : J:\ACQUADATA\5973B\DATA\070208\CY247.D  
 Acq On : 2 Jul 2008 6:26 pm  
 Sample : 1113695 0.94  
 Misc : 07/02/2008 1.0 ENSR 8270.NEVA  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 3 12:12 2008

Vial: 6  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

Quant Results File: LVI0701.RES

Quant Method : J:\ACQUADATA\5...\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Thu Jul 03 11:44:55 2008  
 Response via : Initial Calibration  
 DataAcq Meth : LVI0701

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) d4-1,4-Dichlorobenzene	10.14	152	53127	1.00	ppm	0.00
4) d8-Naphthalene	11.45	136	195757	1.00	ppm	0.00
10) d10-Acenaphthene	13.03	164	129230	1.00	ppm	0.00
18) d10-Phenanthrene	14.22	188	201815	1.00	ppm	0.00
26) d12-Chrysene	17.04	240	198246	1.00	ppm	0.00
33) d12-Perylene	19.78	264	161478	1.00	ppm	0.00

System Monitoring Compounds

5) SURR4,NITROBENZENE-D5	10.76	82	195014	1.61	ppm	0.00
Spiked Amount 2.000	Range 22 - 124		Recovery =	80.50%		
11) SURR5,2-FLUOROBIPHENYL	12.42	172	277902	1.60	ppm	0.00
Spiked Amount 2.000	Range 27 - 114		Recovery =	80.00%		
28) SURR6,TERPHENYL-D14	15.63	244	327830	1.92	ppm	0.00
Spiked Amount 2.000	Range 23 - 139		Recovery =	96.00%		

Target Compounds

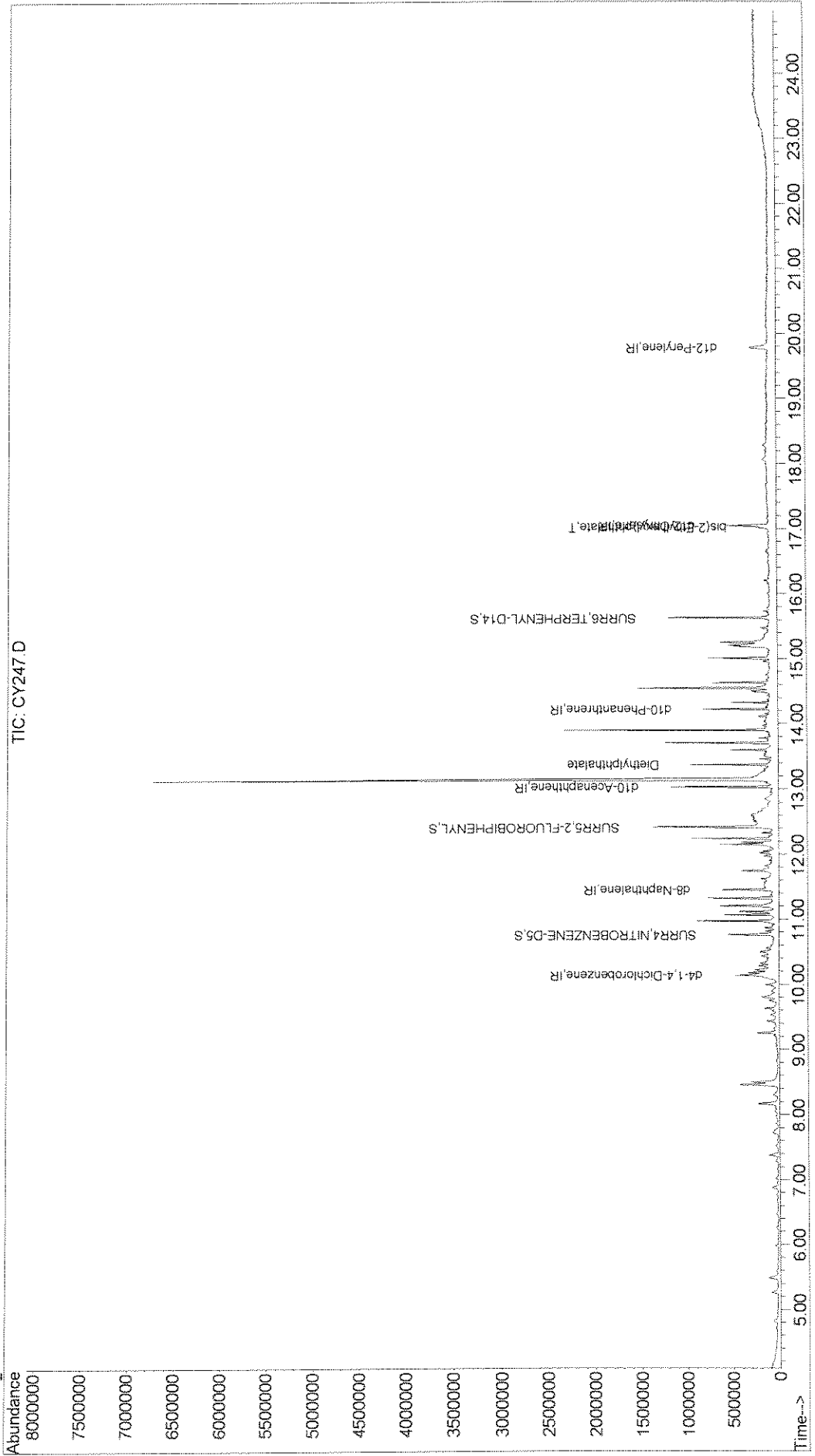
						Qvalue
17) Diethylphthalate	13.37	149	35935	0.22	ppm	97
30) bis(2-Ethylhexyl)phthalate	17.02	149	36149	0.26	ppm	98



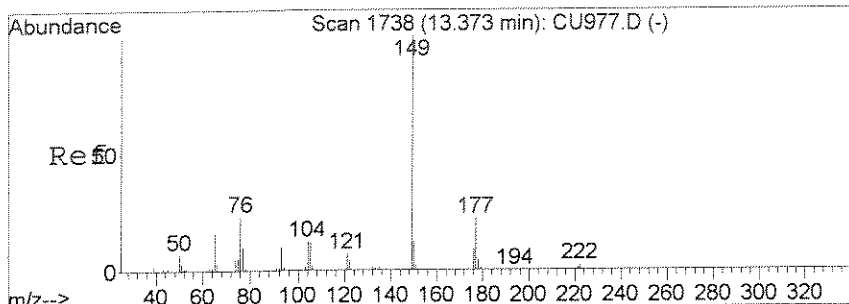
Quantitation Report

Data File : J:\ACQDATA\5973B\DATA\070208\CY247.D Vial: 6  
Acq On : 2 Jul 2008 6:26 pm Operator: Z.Miao  
Sample : 1113695 0.94 Inst : 5973-B  
Misc : 07/02/2008 1.0 ENSR 8270.NEVA Multiplr: 1.00  
MS Integration Params: RTEINT.P  
Quant Time: Jul 3 12:12 2008 Quant Results File: LVI0701.RES

Method : J:\ACQDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
Title : 8270 BNA ANALYSIS  
Last Update : Thu Jul 03 11:44:55 2008  
Response via : Initial Calibration

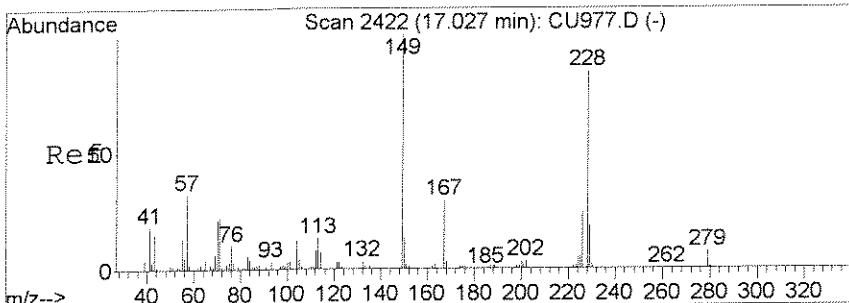
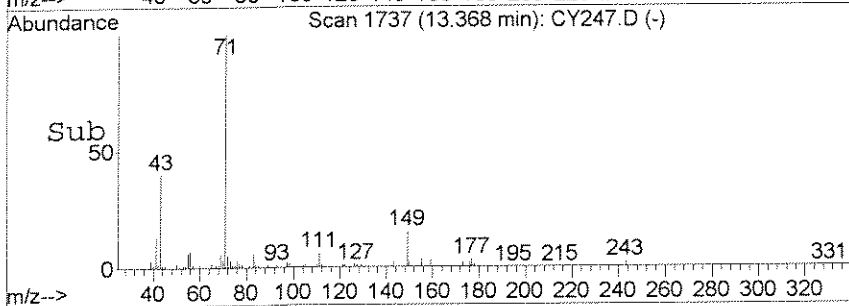
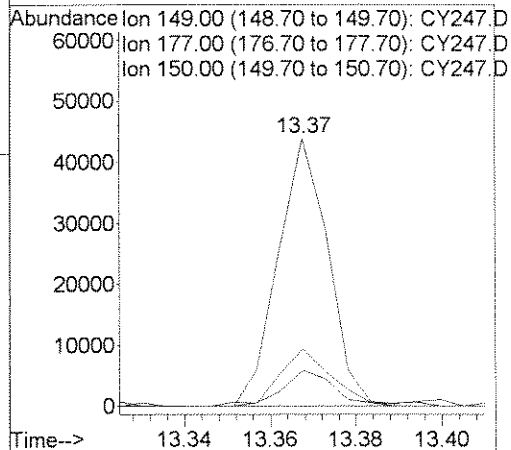
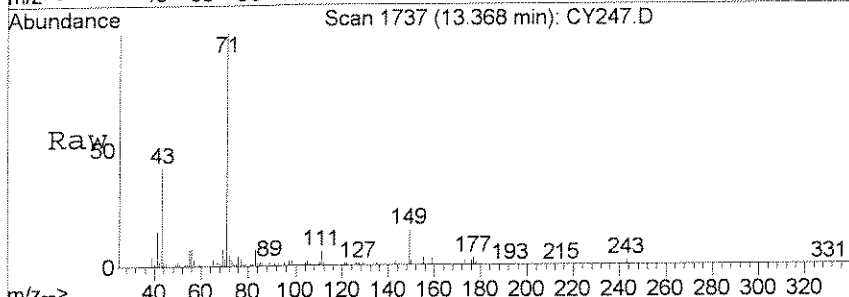


66265



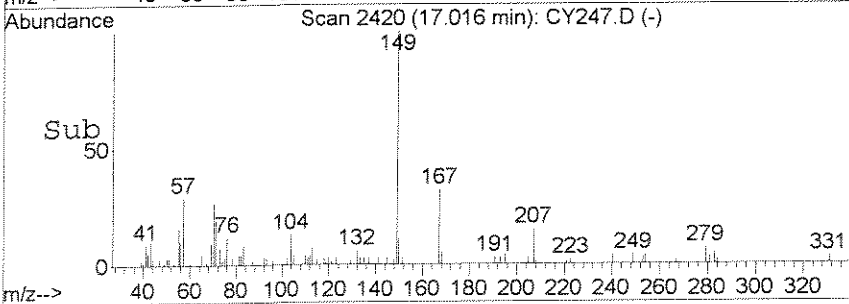
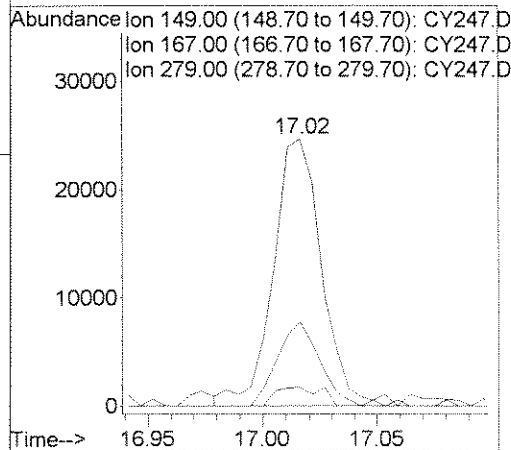
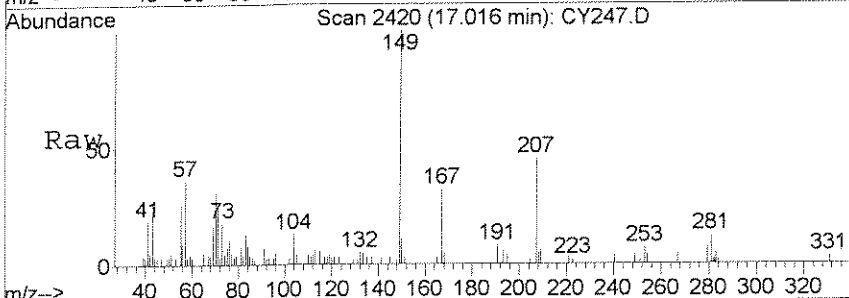
#17  
 Diethylphthalate  
 Concen: 0.22 ppm  
 RT: 13.37 min Scan# 1737  
 Delta R.T. -0.00 min  
 Lab File: CY247.D  
 Acq: 2 Jul 2008 6:26 pm

Tgt Ion	Ratio	Lower	Upper
149	100		
177	20.8	16.0	29.6
150	13.6	9.0	16.6



#30  
 bis(2-Ethylhexyl)phthalate  
 Concen: 0.26 ppm  
 RT: 17.02 min Scan# 2420  
 Delta R.T. -0.00 min  
 Lab File: CY247.D  
 Acq: 2 Jul 2008 6:26 pm

Tgt Ion	Ratio	Lower	Upper
149	100		
167	27.9	23.3	34.9
279	6.4	5.7	8.5



COLUMBIA ANALYTICAL SERVICES

EXTRACTABLE ORGANICS  
 METHOD 8270C.NEVA  
 Reported: 07/30/08

ENSR International

Project Reference: TRONOX PHASE B INVESTIGATION PROJ# 04020-023-4312  
 Client Sample ID : M-126B

Date Sampled : 06/29/08 14:44 Order #: 1113696 Sample Matrix: WATER  
 Date Received: 07/01/08 Submission #: R2844768 Analytical Run 163388

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED	: 07/02/08		
DATE ANALYZED	: 07/02/08		
ANALYTICAL DILUTION:	0.94		
ACENAPHTHENE	0.20	0.19 U	UG/L
ACENAPHTHYLENE	0.20	0.19 U	UG/L
ANTHRACENE	0.20	0.19 U	UG/L
BENZO (A) ANTHRACENE	0.20	0.19 U	UG/L
BENZO (A) PYRENE	0.20	0.19 U	UG/L
BENZO (B) FLUORANTHENE	0.20	0.19 U	UG/L
BENZO (G, H, I) PERYLENE	0.20	0.19 U	UG/L
BENZO (K) FLUORANTHENE	0.20	0.19 U	UG/L
BUTYL BENZYL PHTHALATE	5.0	4.7 U	UG/L
DI-N-BUTYLPHthalate	5.0	4.7 U	UG/L
INDENO (1, 2, 3-CD) PYRENE	0.20	0.19 U	UG/L
CHRYSENE	0.20	0.19 U	UG/L
DIBENZO (A, H) ANTHRACENE	0.20	0.19 U	UG/L
DIETHYLPHthalate	5.0	4.7 U	UG/L
DIMETHYL PHTHALATE	5.0	4.7 U	UG/L
1, 4-DIOXANE	2.0	1.9 U	UG/L
BIS (2-ETHYLHEXYL) PHTHALATE	5.0	4.7 U	UG/L
FLUORANTHENE	0.20	0.19 U	UG/L
FLUORENE	0.20	0.19 U	UG/L
HEXACHLORO BENZENE	0.20	0.19 U	UG/L
2-METHYLNAPHTHALENE	0.20	0.19 U	UG/L
NAPHTHALENE	0.20	0.075 JB	UG/L
NITROBENZENE	0.20	0.19 U	UG/L
OCTACHLOROSTYRENE	0.20	0.19 U	UG/L
DI-N-OCTYL PHTHALATE	5.0	4.7 U	UG/L
PHENANTHRENE	0.20	0.19 U	UG/L
PYRENE	0.20	0.19 U	UG/L
PYRIDINE	2.0	1.9 U	UG/L

SURROGATE RECOVERIES

QC LIMITS

TERPHENYL-d14	(45 - 135 %)	92	%
NITROBENZENE-d5	(45 - 135 %)	83	%
2-FLUOROBIPHENYL	(45 - 135 %)	79	%

Data File : J:\ACQUADATA\5973B\DATA\070208\CY248.D  
 Acq On : 2 Jul 2008 7:14 pm  
 Sample : 1113696 0.94  
 Misc : 07/02/2008 1.0 ENSR 8270.NEVA  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 3 12:15 2008

Vial: 7  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

Quant Results File: LVI0701.RES

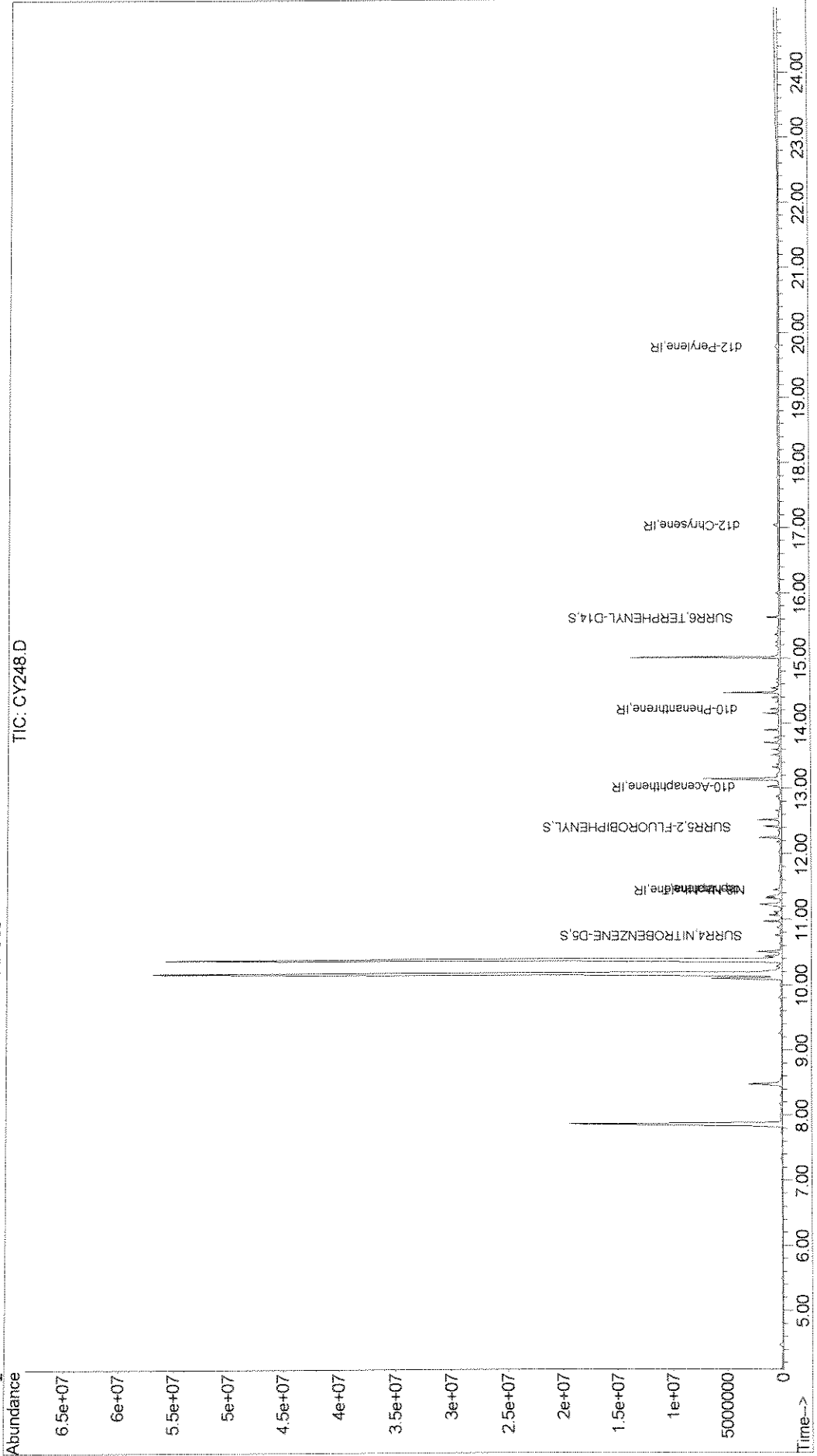
Quant Method : J:\ACQUADATA\5...\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Thu Jul 03 11:44:55 2008  
 Response via : Initial Calibration  
 DataAcq Meth : LVI0701

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) d4-1,4-Dichlorobenzene	10.16	152	89570	1.00	ppm	0.02
4) d8-Naphthalene	11.45	136	224786	1.00	ppm	0.00
10) d10-Acenaphthene	13.03	164	153401	1.00	ppm	0.00
18) d10-Phenanthrene	14.22	188	226588	1.00	ppm	0.00
26) d12-Chrysene	17.04	240	232551	1.00	ppm	0.00
33) d12-Perylene	19.78	264	163964	1.00	ppm	0.00
<b>System Monitoring Compounds</b>						
5) SURR4,NITROBENZENE-D5	10.76	82	228233	1.65	ppm	0.00
Spiked Amount	2.000	Range	22 - 124	Recovery	=	82.50%
11) SURR5,2-FLUOROBIPHENYL	12.42	172	326935	1.58	ppm	0.00
Spiked Amount	2.000	Range	27 - 114	Recovery	=	79.00%
28) SURR6,TERPHENYL-D14	15.63	244	366471	1.83	ppm	0.00
Spiked Amount	2.000	Range	23 - 139	Recovery	=	91.50%
<b>Target Compounds</b>						
7) Naphthalene	11.47	128	18287	0.08	ppm	Qvalue 93

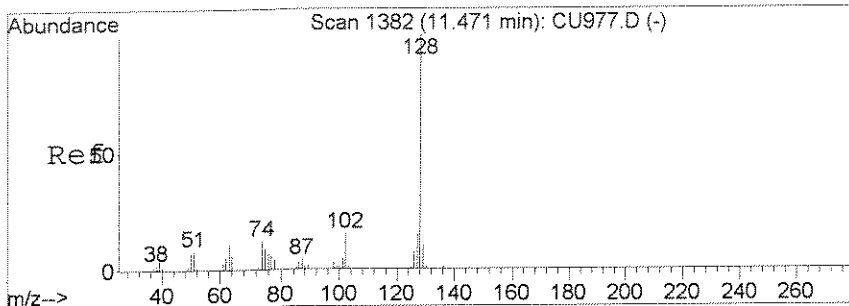
Quantitation Report

Data File : J:\ACQDATA\5973B\DATA\070208\CY248.D Vial: 7  
Acq On : 2 Jul 2008 7:14 pm Operator: Z.Miao  
Sample : 1113696 0.94 Inst : 5973-B  
Misc : 07/02/2008 1.0 ENSR 8270.NEVA Multiplr: 1.00  
MS Integration Params: RTEINT.P  
Quant Time: Jul 3 12:15 2008 Quant Results File: LVI0701.RES

Method : J:\ACQDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
Title : 8270 BNA ANALYSIS  
Last Update : Thu Jul 03 11:44:55 2008  
Response via : Initial Calibration

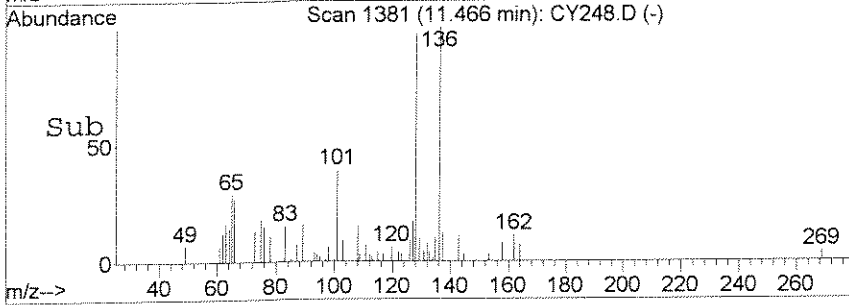
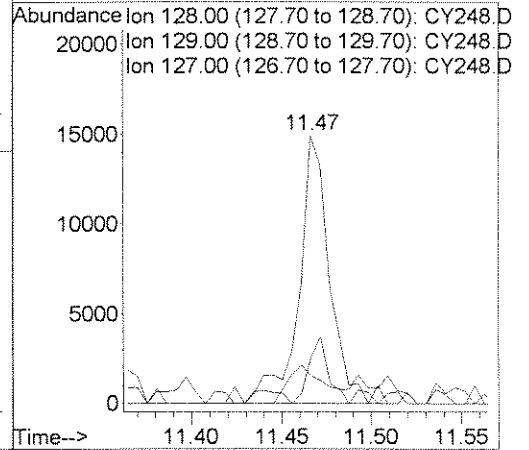
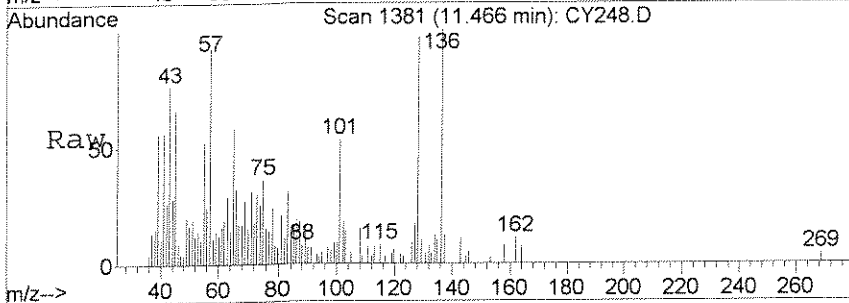


06269



#7  
 Naphthalene  
 Concen: 0.08 ppm  
 RT: 11.47 min Scan# 1381  
 Delta R.T. 0.00 min  
 Lab File: CY248.D  
 Acq: 2 Jul 2008 7:14 pm

Tgt Ion	Resp	Lower	Upper
128	18287		
129	8.1	0.0	41.6
127	12.4	0.0	44.7



COLUMBIA ANALYTICAL SERVICES

EXTRACTABLE ORGANICS

METHOD 8270C.NEVA

Reported: 07/30/08

ENSR International

Project Reference: TRONOX PHASE B INVESTIGATION PROJ# 04020-023-4312

Client Sample ID : M-84B

Date Sampled : 06/29/08 15:00 Order #: 1113697 Sample Matrix: WATER  
 Date Received: 07/01/08 Submission #: R2844768 Analytical Run 163388

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED	: 07/02/08		
DATE ANALYZED	: 07/02/08		
ANALYTICAL DILUTION:	0.94		
ACENAPHTHENE	0.20	0.19 U	UG/L
ACENAPHTHYLENE	0.20	0.19 U	UG/L
ANTHRACENE	0.20	0.19 U	UG/L
BENZO (A) ANTHRACENE	0.20	0.19 U	UG/L
BENZO (A) PYRENE	0.20	0.19 U	UG/L
BENZO (B) FLUORANTHENE	0.20	0.19 U	UG/L
BENZO (G, H, I) PERYLENE	0.20	0.19 U	UG/L
BENZO (K) FLUORANTHENE	0.20	0.19 U	UG/L
BUTYL BENZYL PHTHALATE	5.0	4.7 U	UG/L
DI-N-BUTYLPHthalate	5.0	4.7 U	UG/L
INDENO (1, 2, 3-CD) PYRENE	0.20	0.19 U	UG/L
CHRYSENE	0.20	0.19 U	UG/L
DIBENZO (A, H) ANTHRACENE	0.20	0.19 U	UG/L
DIETHYLPHthalate	5.0	0.13 J	UG/L
DIMETHYL PHTHALATE	5.0	4.7 U	UG/L
1, 4-DIOXANE	2.0	1.9 U	UG/L
BIS (2-ETHYLHEXYL) PHTHALATE	5.0	4.7 U	UG/L
FLUORANTHENE	0.20	0.19 U	UG/L
FLUORENE	0.20	0.19 U	UG/L
HEXACHLORO BENZENE	0.20	0.19 U	UG/L
2-METHYLNAPHTHALENE	0.20	0.19 U	UG/L
NAPHTHALENE	0.20	0.19 U	UG/L
NITROBENZENE	0.20	0.19 U	UG/L
OCTACHLOROSTYRENE	0.20	0.19 U	UG/L
DI-N-OCTYL PHTHALATE	5.0	4.7 U	UG/L
PHENANTHRENE	0.20	0.19 U	UG/L
PYRENE	0.20	0.19 U	UG/L
PYRIDINE	2.0	1.9 U	UG/L

SURROGATE RECOVERIES

QC LIMITS

TERPHENYL-d14	(45 - 135 %)	100	%
NITROBENZENE-d5	(45 - 135 %)	81	%
2-FLUOROBIPHENYL	(45 - 135 %)	87	%

Data File : J:\ACQUADATA\5973B\DATA\070208\CY249.D  
 Acq On : 2 Jul 2008 8:02 pm  
 Sample : 1113697 0.94  
 Misc : 07/02/2008 1.0 ENSR 8270.NEVA  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 3 12:17 2008

Vial: 8  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

Quant Results File: LVI0701.RES

Quant Method : J:\ACQUADATA\5...\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Thu Jul 03 11:44:55 2008  
 Response via : Initial Calibration  
 DataAcq Meth : LVI0701

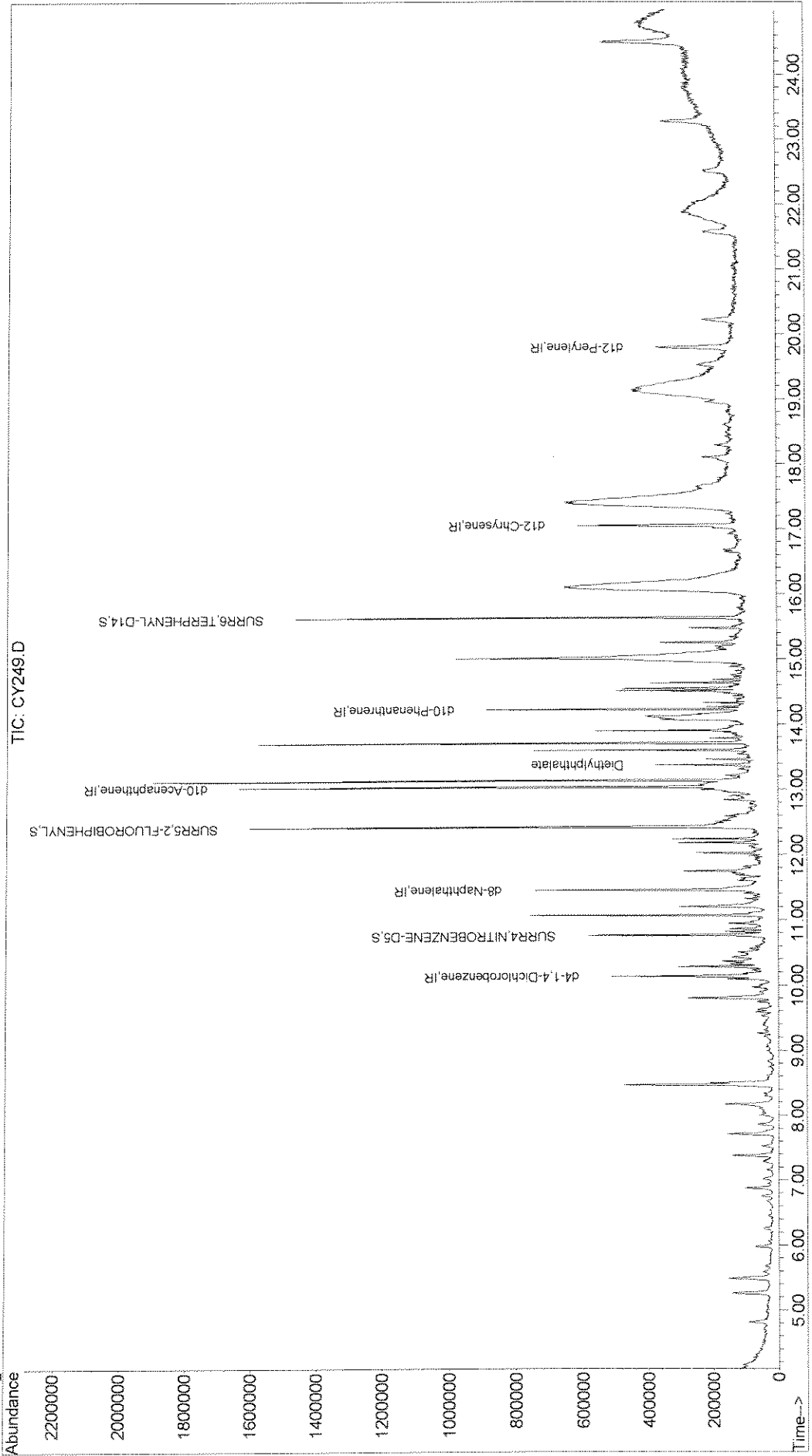
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	10.13	152	59686	1.00	ppm	0.00
4) d8-Naphthalene	11.45	136	227175	1.00	ppm	0.00
10) d10-Acenaphthene	13.03	164	148542	1.00	ppm	0.00
18) d10-Phenanthrene	14.22	188	225239	1.00	ppm	0.00
26) d12-Chrysene	17.05	240	234291	1.00	ppm	0.00
33) d12-Perylene	19.78	264	179595	1.00	ppm	0.00
System Monitoring Compounds						
5) SURR4,NITROBENZENE-D5	10.76	82	225083	1.61	ppm	0.00
Spiked Amount 2.000	Range 22 - 124		Recovery =	80.50%		
11) SURR5,2-FLUOROBIPHENYL	12.42	172	345315	1.73	ppm	0.00
Spiked Amount 2.000	Range 27 - 114		Recovery =	86.50%		
28) SURR6,TERPHENYL-D14	15.63	244	403151	1.99	ppm	0.00
Spiked Amount 2.000	Range 23 - 139		Recovery =	99.50%		
Target Compounds						
17) Diethylphthalate	13.37	149	25722	0.14	ppm	Qvalue 97



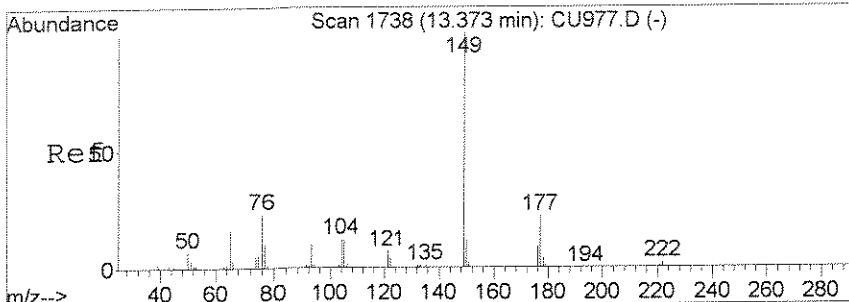
Quantitation report

Data File : J:\ACQDATA\5973B\DATA\070208\CY249.D Vial: 8  
Acq On : 2 Jul 2008 8:02 pm Operator: Z.Miao  
Sample : 1113697 0.94 Inst : 5973-B  
Misc : 07/02/2008 1.0 ENSR 8270.NEVA Multiplr: 1.00  
MS Integration Params: RTEINT.P  
Quant Time: Jul 3 12:17 2008 Quant Results File: LVI0701.RES

Method : J:\ACQDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
Title : 8270 BNA ANALYSIS  
Last Update : Thu Jul 03 11:44:55 2008  
Response via : Initial Calibration

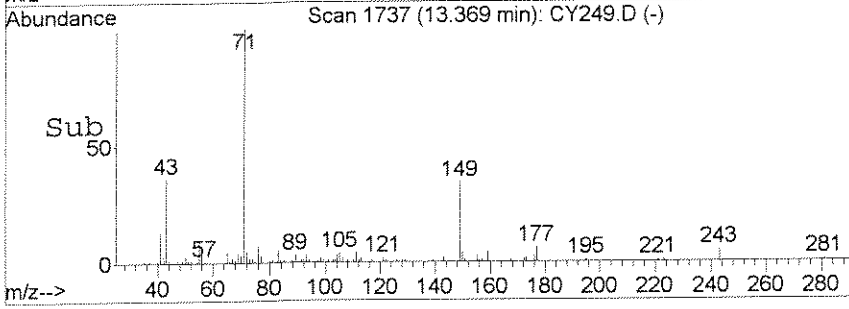
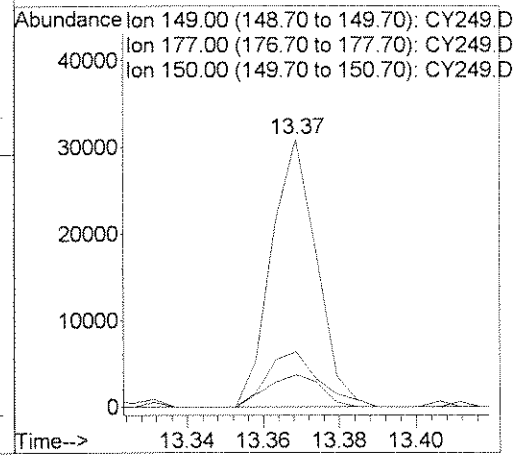
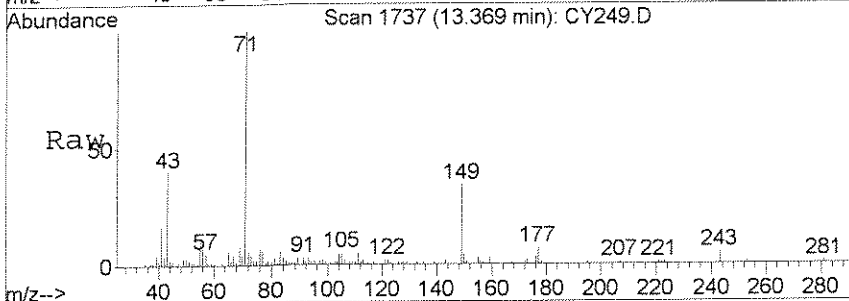


00273



#17  
 Diethylphthalate  
 Concen: 0.14 ppm  
 RT: 13.37 min Scan# 1737  
 Delta R.T. 0.00 min  
 Lab File: CY249.D  
 Acq: 2 Jul 2008 8:02 pm

Tgt Ion	Resp	Lower	Upper
149	25722		
177	20.7	16.0	29.6
150	12.1	9.0	16.6



COLUMBIA ANALYTICAL SERVICES

EXTRACTABLE ORGANICS

METHOD 8270C.NEVA

Reported: 07/30/08

ENSR International

Project Reference: TRONOX PHASE B INVESTIGATION PROJ# 04020-023-4312

Client Sample ID : M-14ADBF

Date Sampled : 06/30/08

Order #: 1113698

Sample Matrix: WATER

Date Received: 07/01/08

Submission #: R2844768

Analytical Run 163388

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED	: 07/02/08		
DATE ANALYZED	: 07/02/08		
ANALYTICAL DILUTION:	0.94		
ACENAPHTHENE	0.20	0.19 U	UG/L
ACENAPHTHYLENE	0.20	0.19 U	UG/L
ANTHRACENE	0.20	0.19 U	UG/L
BENZO (A) ANTHRACENE	0.20	0.19 U	UG/L
BENZO (A) PYRENE	0.20	0.19 U	UG/L
BENZO (B) FLUORANTHENE	0.20	0.19 U	UG/L
BENZO (G, H, I) PERYLENE	0.20	0.19 U	UG/L
BENZO (K) FLUORANTHENE	0.20	0.19 U	UG/L
BUTYL BENZYL PHTHALATE	5.0	4.7 U	UG/L
DI-N-BUTYL PHTHALATE	5.0	4.7 U	UG/L
INDENO (1, 2, 3-CD) PYRENE	0.20	0.19 U	UG/L
CHRYSENE	0.20	0.19 U	UG/L
DIBENZO (A, H) ANTHRACENE	0.20	0.19 U	UG/L
DIETHYL PHTHALATE	5.0	0.22 J	UG/L
DIMETHYL PHTHALATE	5.0	4.7 U	UG/L
1, 4-DIOXANE	2.0	1.9 U	UG/L
BIS (2-ETHYLHEXYL) PHTHALATE	5.0	4.7 U	UG/L
FLUORANTHENE	0.20	0.19 U	UG/L
FLUORENE	0.20	0.19 U	UG/L
HEXACHLORO BENZENE	0.20	0.19 U	UG/L
2-METHYLNAPHTHALENE	0.20	0.19 U	UG/L
NAPHTHALENE	0.20	0.047 JB	UG/L
NITROBENZENE	0.20	0.19 U	UG/L
OCTACHLOROSTYRENE	0.20	0.19 U	UG/L
DI-N-OCTYL PHTHALATE	5.0	4.7 U	UG/L
PHENANTHRENE	0.20	0.19 U	UG/L
PYRENE	0.20	0.19 U	UG/L
PYRIDINE	2.0	1.9 U	UG/L

SURROGATE RECOVERIES

QC LIMITS

TERPHENYL-d14	(45 - 135 %)	103	%
NITROBENZENE-d5	(45 - 135 %)	86	%
2-FLUOROBIPHENYL	(45 - 135 %)	89	%

Data File : J:\ACQUADATA\5973B\DATA\070208\CY250.D  
 Acq On : 2 Jul 2008 8:49 pm  
 Sample : 1113698 0.94  
 Misc : 07/02/2008 1.0 ENSR 8270.NEVA  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 3 12:19 2008

Vial: 9  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

Quant Results File: LVI0701.RES

Quant Method : J:\ACQUADATA\5...\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Thu Jul 03 11:44:55 2008  
 Response via : Initial Calibration  
 DataAcq Meth : LVI0701

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	10.13	152	65227	1.00	ppm	0.00
4) d8-Naphthalene	11.45	136	238833	1.00	ppm	0.00
10) d10-Acenaphthene	13.03	164	152626	1.00	ppm	0.00
18) d10-Phenanthrene	14.22	188	240147	1.00	ppm	0.00
26) d12-Chrysene	17.05	240	238259	1.00	ppm	0.00
33) d12-Perylene	19.79	264	190099	1.00	ppm	0.00

System Monitoring Compounds

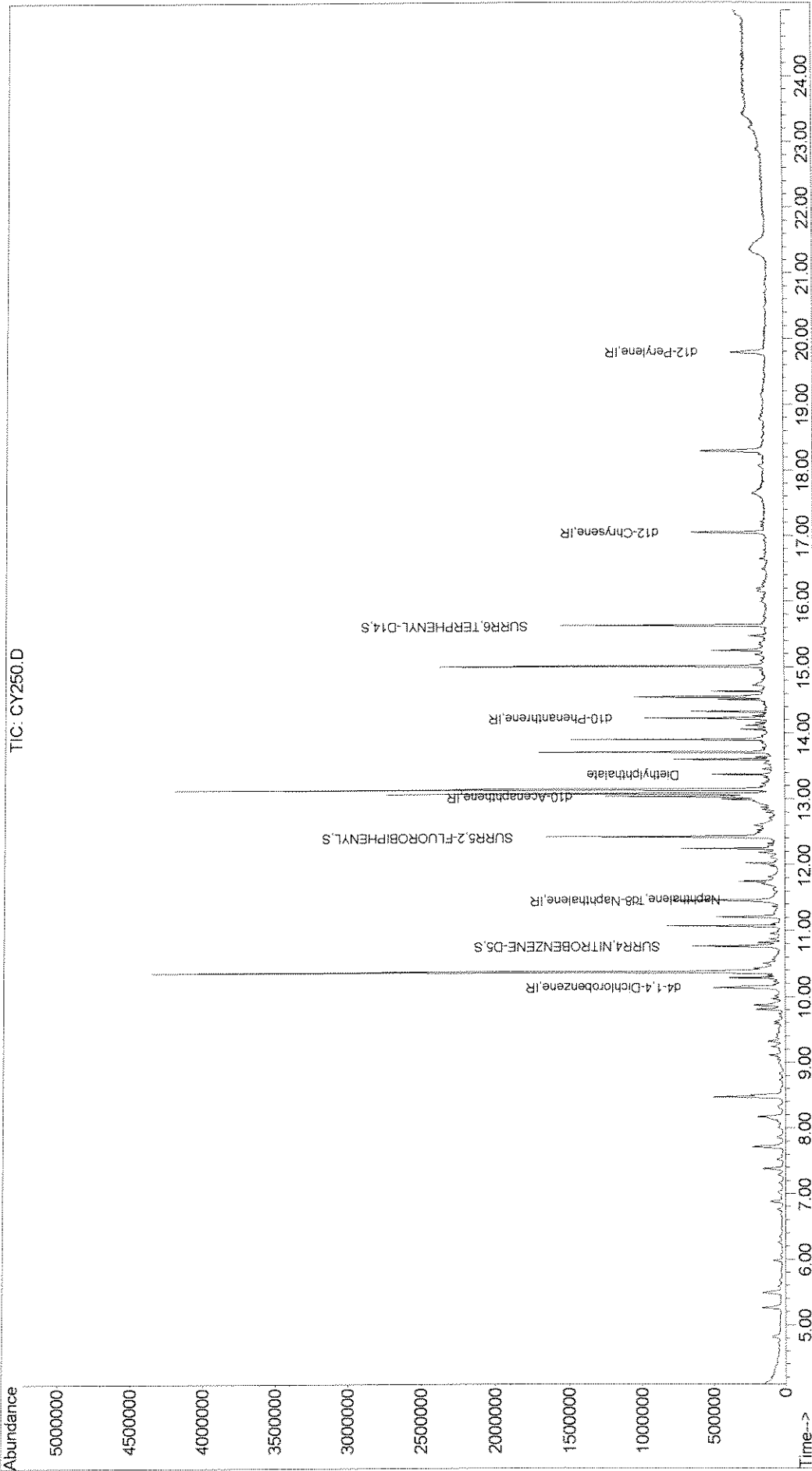
5) SURR4,NITROBENZENE-D5	10.76	82	252438	1.71	ppm	0.00
Spiked Amount	2.000	Range	22 - 124	Recovery	=	85.50%
11) SURR5,2-FLUOROBIPHENYL	12.42	172	364462	1.78	ppm	0.00
Spiked Amount	2.000	Range	27 - 114	Recovery	=	89.00%
28) SURR6,TERPHENYL-D14	15.63	244	423833	2.06	ppm	0.00
Spiked Amount	2.000	Range	23 - 139	Recovery	=	103.00%

Target Compounds

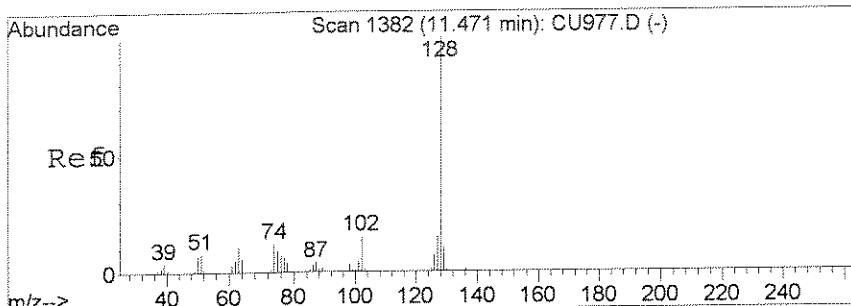
	R.T.	QIon	Response	Conc	Units	Qvalue
7) Naphthalene	11.47	128	13411	0.05	ppm	97
17) Diethylphthalate	13.37	149	43284	0.23	ppm	94

Data File : J:\ACQDATA\5973B\DATA\070208\CY250.D Vial: 9  
Acq On : 2 Jul 2008 8:49 pm Operator: Z.Miao  
Sample : 1113698 0.94 Inst : 5973-B  
Misc : 07/02/2008 1.0 ENSR 8270.NEVA Multiplr: 1.00  
MS Integration Params: RTEINT.P  
Quant Time: Jul 3 12:19 2008 Quant Results File: LVI0701.RES

Method : J:\ACQDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
Title : 8270 BNA ANALYSIS  
Last Update : Thu Jul 03 11:44:55 2008  
Response via : Initial Calibration

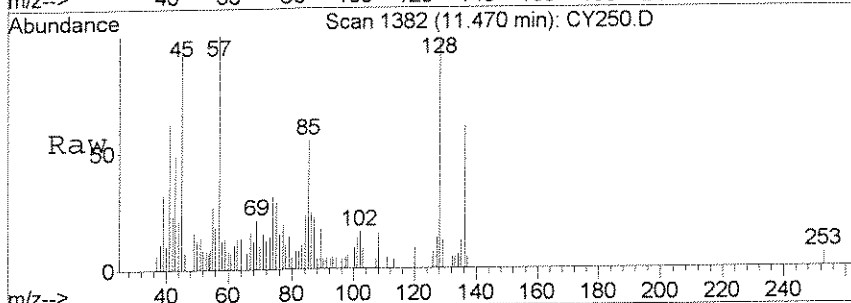


00277

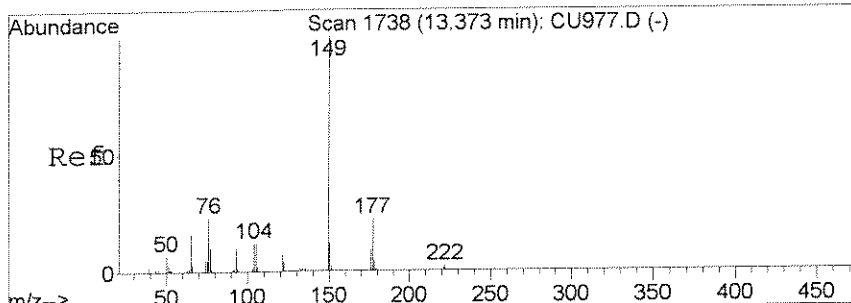
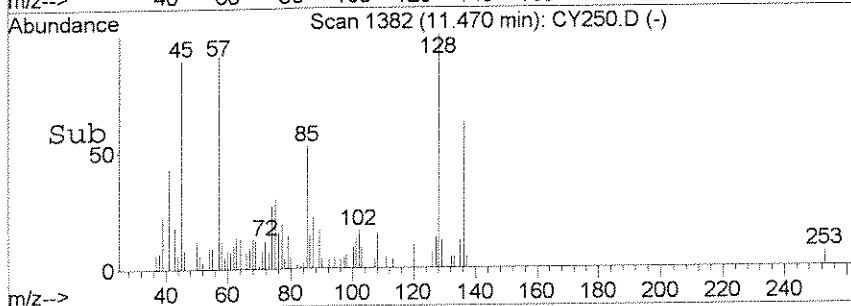
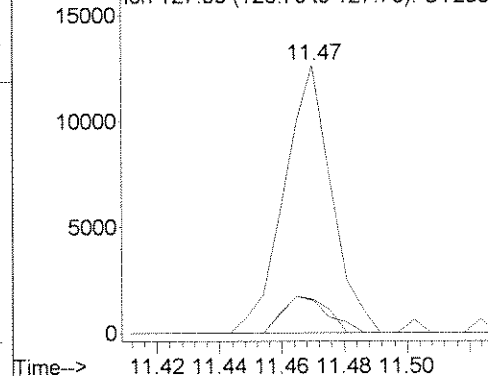


#7  
 Naphthalene  
 Concen: 0.05 ppm  
 RT: 11.47 min Scan# 1382  
 Delta R.T. 0.00 min  
 Lab File: CY250.D  
 Acq: 2 Jul 2008 8:49 pm

Tgt Ion	Ratio	Lower	Upper
128	100		
129	12.3	0.0	41.6
127	12.8	0.0	44.7

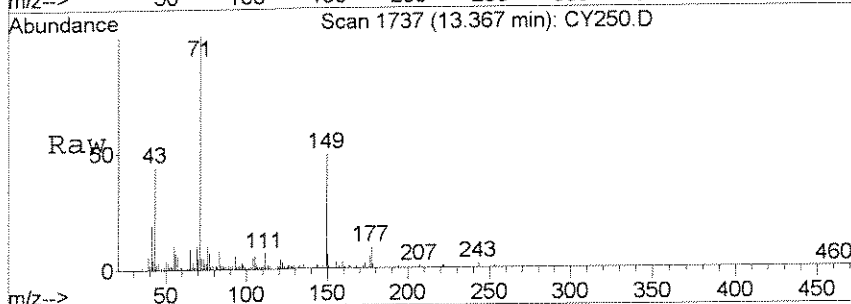


Abundance Ion 128.00 (127.70 to 128.70): CY250.D  
 Ion 129.00 (128.70 to 129.70): CY250.D  
 Ion 127.00 (126.70 to 127.70): CY250.D

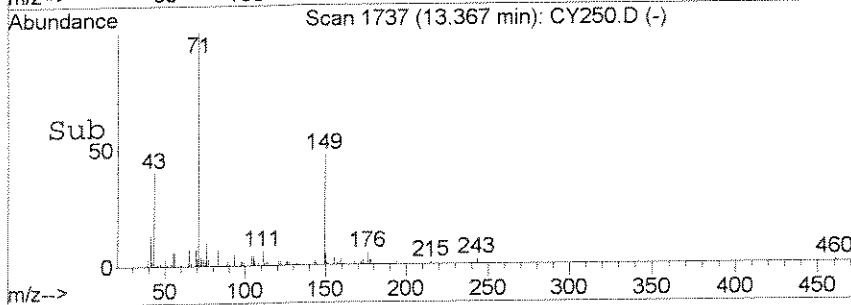
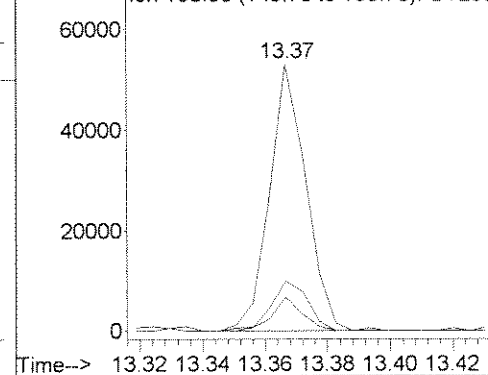


#17  
 Diethylphthalate  
 Concen: 0.23 ppm  
 RT: 13.37 min Scan# 1737  
 Delta R.T. -0.00 min  
 Lab File: CY250.D  
 Acq: 2 Jul 2008 8:49 pm

Tgt Ion	Ratio	Lower	Upper
149	100		
177	18.7	16.0	29.6
150	12.6	9.0	16.6



Abundance Ion 149.00 (148.70 to 149.70): CY250.D  
 Ion 177.00 (176.70 to 177.70): CY250.D  
 Ion 150.00 (149.70 to 150.70): CY250.D



COLUMBIA ANALYTICAL SERVICES

EXTRACTABLE ORGANICS

METHOD 8270C.NEVA

Reported: 07/30/08

ENSR International

Project Reference: TRONOX PHASE B INVESTIGATION PROJ# 04020-023-4312

Client Sample ID : M-14ABF

Date Sampled : 06/30/08 10:38 Order #: 1113699 Sample Matrix: WATER  
 Date Received: 07/01/08 Submission #: R2844768 Analytical Run 163388

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED : 07/02/08			
DATE ANALYZED : 07/02/08			
ANALYTICAL DILUTION: 0.94			
ACENAPHTHENE	0.20	0.19 U	UG/L
ACENAPHTHYLENE	0.20	0.19 U	UG/L
ANTHRACENE	0.20	0.19 U	UG/L
BENZO (A) ANTHRACENE	0.20	0.19 U	UG/L
BENZO (A) PYRENE	0.20	0.19 U	UG/L
BENZO (B) FLUORANTHENE	0.20	0.19 U	UG/L
BENZO (G, H, I) PERYLENE	0.20	0.19 U	UG/L
BENZO (K) FLUORANTHENE	0.20	0.19 U	UG/L
BUTYL BENZYL PHTHALATE	5.0	4.7 U	UG/L
DI-N-BUTYLPHTHALATE	5.0	4.7 U	UG/L
INDENO (1, 2, 3-CD) PYRENE	0.20	0.19 U	UG/L
CHRYSENE	0.20	0.19 U	UG/L
DIBENZO (A, H) ANTHRACENE	0.20	0.19 U	UG/L
DIETHYLPHTHALATE	5.0	0.13 J	UG/L
DIMETHYL PHTHALATE	5.0	4.7 U	UG/L
1, 4-DIOXANE	2.0	1.9 U	UG/L
BIS (2-ETHYLHEXYL) PHTHALATE	5.0	4.7 U	UG/L
FLUORANTHENE	0.20	0.19 U	UG/L
FLUORENE	0.20	0.19 U	UG/L
HEXACHLORO BENZENE	0.20	0.19 U	UG/L
2-METHYLNAPHTHALENE	0.20	0.19 U	UG/L
NAPHTHALENE	0.20	0.056 JB	UG/L
NITROBENZENE	0.20	0.19 U	UG/L
OCTACHLOROSTYRENE	0.20	0.19 U	UG/L
DI-N-OCTYL PHTHALATE	5.0	4.7 U	UG/L
PHENANTHRENE	0.20	0.19 U	UG/L
PYRENE	0.20	0.19 U	UG/L
PYRIDINE	2.0	1.9 U	UG/L

SURROGATE RECOVERIES

QC LIMITS

TERPHENYL-d14	(45 - 135 %)	104	%
NITROBENZENE-d5	(45 - 135 %)	93	%
2-FLUOROBIPHENYL	(45 - 135 %)	89	%

Data File : J:\ACQUADATA\5973B\DATA\070208\CY251.D  
 Acq On : 2 Jul 2008 9:37 pm  
 Sample : 1113699 0.94  
 Misc : 07/02/2008 1.0 ENSR 8270.NEVA  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 3 12:20 2008

Vial: 10  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

Quant Results File: LVI0701.RES

Quant Method : J:\ACQUADATA\5...\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Thu Jul 03 11:44:55 2008  
 Response via : Initial Calibration  
 DataAcq Meth : LVI0701

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	10.13	152	62303	1.00	ppm	0.00
4) d8-Naphthalene	11.45	136	217536	1.00	ppm	0.00
10) d10-Acenaphthene	13.03	164	147817	1.00	ppm	0.00
18) d10-Phenanthrene	14.22	188	229011	1.00	ppm	0.00
26) d12-Chrysene	17.05	240	231382	1.00	ppm	0.00
33) d12-Perylene	19.79	264	176154	1.00	ppm	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
5) SURR4,NITROBENZENE-D5	10.76	82	249243	1.86	ppm	0.00
Spiked Amount 2.000	Range 22 - 124		Recovery =	93.00%		
11) SURR5,2-FLUOROBIPHENYL	12.42	172	351847	1.77	ppm	0.00
Spiked Amount 2.000	Range 27 - 114		Recovery =	88.50%		
28) SURR6,TERPHENYL-D14	15.63	244	415462	2.08	ppm	0.00
Spiked Amount 2.000	Range 23 - 139		Recovery =	104.00%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
7) Naphthalene	11.47	128	13496	0.06	ppm	92
17) Diethylphthalate	13.37	149	26023	0.14	ppm	93

(#) = qualifier out of range (m) = manual integration  
 CY251.D LVI0701.M Thu Jul 03 12:21:03 2008

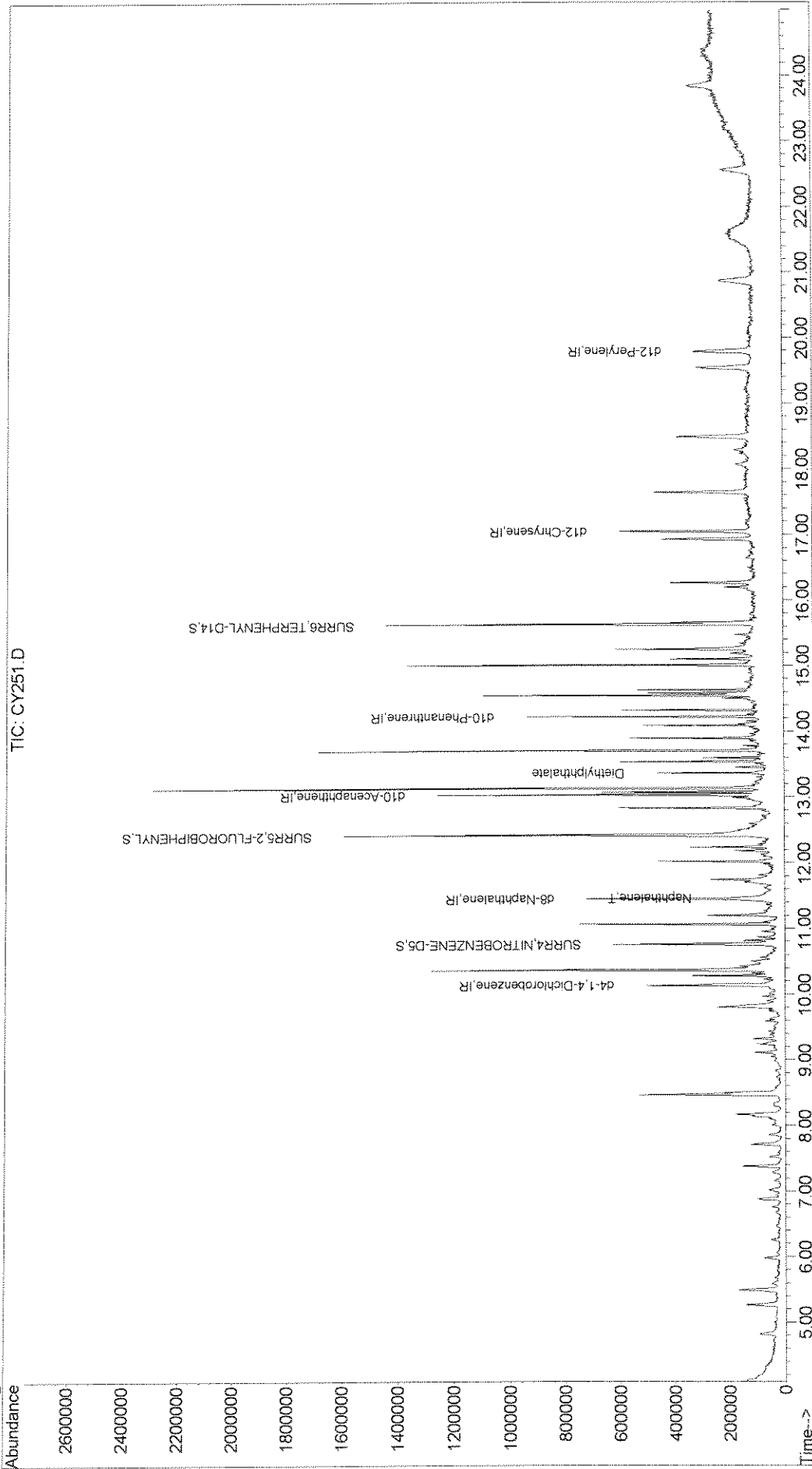
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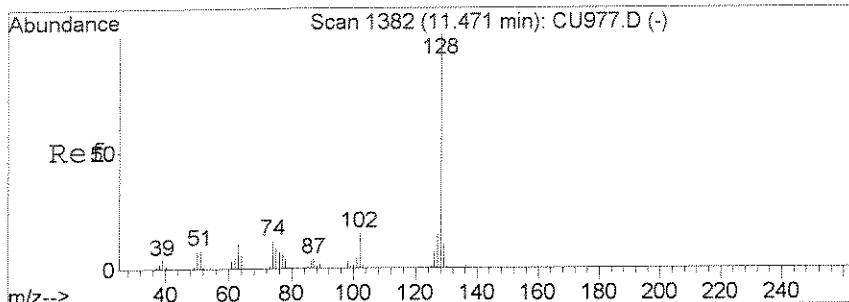
Quantitation report

Data File : J:\ACQDATA\5973B\DATA\070208\CY251.D Vial: 10  
Acq On : 2 Jul 2008 9:37 pm Operator: Z.Miao  
Sample : 1113699 0.94 Inst : 5973-B  
Misc : 07/02/2008 1.0 ENSR 8270.NEVA Multiplr: 1.00  
MS Integration Params: RTEINT.P  
Quant Time: Jul 3 12:20 2008 Quant Results File: LVI0701.RES

Method : J:\ACQDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
Title : 8270 BNA ANALYSIS  
Last Update : Thu Jul 03 11:44:55 2008  
Response via : Initial Calibration

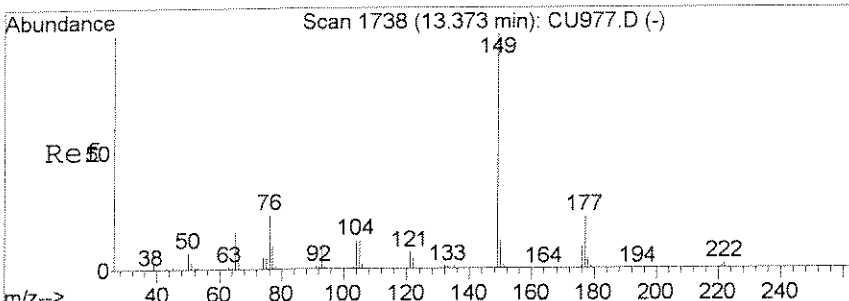
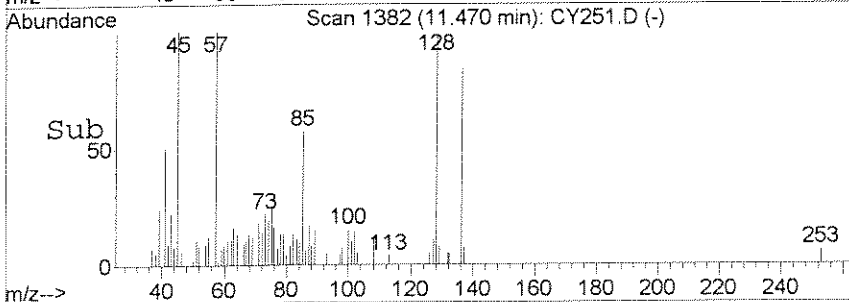
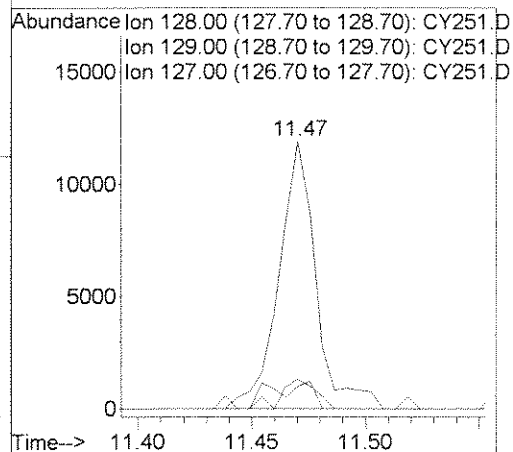
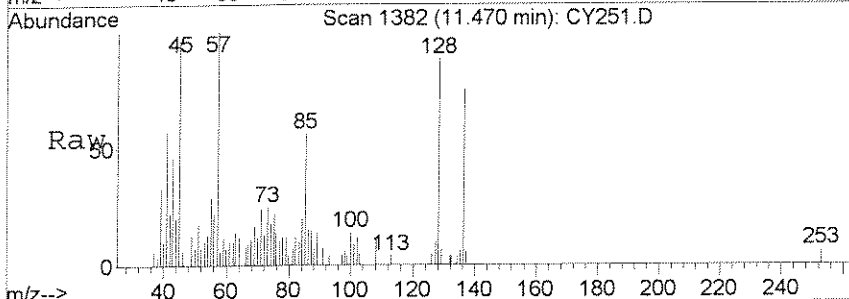


00201



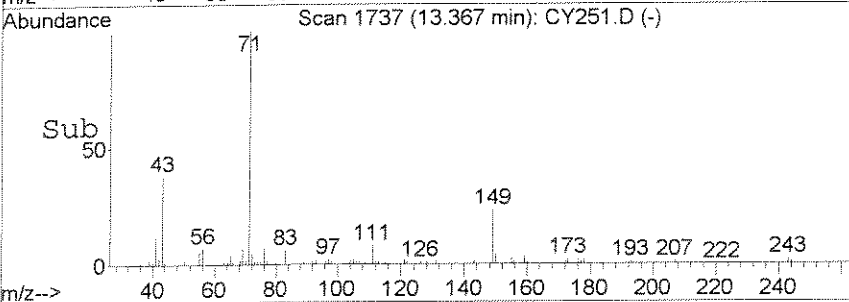
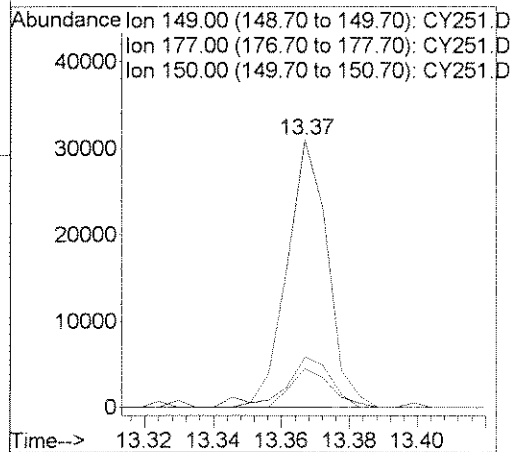
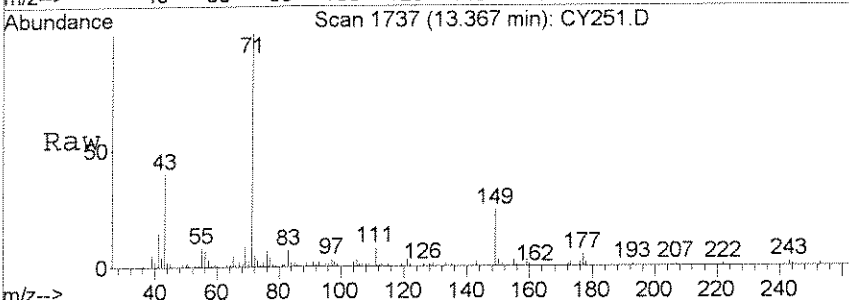
#7  
 Naphthalene  
 Concen: 0.06 ppm  
 RT: 11.47 min Scan# 1382  
 Delta R.T. 0.00 min  
 Lab File: CY251.D  
 Acq: 2 Jul 2008 9:37 pm

Tgt Ion	Ratio	Lower	Upper
128	100		
129	8.5	0.0	41.6
127	11.1	0.0	44.7



#17  
 Diethylphthalate  
 Concen: 0.14 ppm  
 RT: 13.37 min Scan# 1737  
 Delta R.T. -0.00 min  
 Lab File: CY251.D  
 Acq: 2 Jul 2008 9:37 pm

Tgt Ion	Ratio	Lower	Upper
149	100		
177	18.8	16.0	29.6
150	14.5	9.0	16.6



**SEMIVOLATILE ORGANICS**  
**STANDARDS DATA**

Response Factor Report 5973-B

Method : J:\ACQUDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 13:01:54 2008  
 Response via : Initial Calibration

5.0 = CY237.D  
 10.0 = CY238.D  
 4.0 = CY236.D

Calibration Files

0.1 =CY230.D      0.2 =CY231.D      0.5 =CY232.D  
 1.0 =CY233.D      2.0 =CY234.D      3.0 =CY235.D

Compound	0.1	0.2	0.5	1.0	2.0	3.0	Avg	%RSD
1) IR d4-1,4-Dichlorobenzen	-----ISTD-----							
2) T 1,4-Dioxane	1.246	1.054	0.955	0.911	0.931	0.919	0.980	12.03
3) Pyridine			1.876	1.832	1.957	1.936	1.954	5.00
4) IR d8-Naphthalene	-----ISTD-----							
5) S SURR4,NITROBENZENE-	0.480	0.605	0.623	0.613	0.655	0.633	0.617	9.65
6) T Nitrobenzene	0.589	0.601	0.640	0.603	0.680	0.667	0.646	6.77
7) T Naphthalene	1.028	1.106	1.037	0.996	1.035	1.008	1.026	3.59
8) T 2-Methylnaphthalene	0.726	0.717	0.695	0.753	0.744	0.733	0.727	2.49
9) T 1-Methylnaphthalene	0.679	0.686	0.706	0.692	0.714	0.688	0.691	1.93
10) IR d10-Acenaphthene	-----ISTD-----							
11) S SURR5,2-FLUOROBIPHE	1.253	1.417	1.411	1.349	1.412	1.296	1.345	4.75
12) T Acenaphthylene	1.588	1.664	1.695	1.624	1.764	1.650	1.666	3.17
13) Dimethyl phthalate	1.096	1.179	1.163	1.208	1.293	1.229	1.207	4.78
14) T Acenaphthene	1.060	1.058	1.055	1.046	1.080	1.033	1.055	1.36
15) T Dibenzofuran	1.463	1.673	1.551	1.563	1.686	1.536	1.572	4.67
16) T Fluorene	1.090	1.179	1.267	1.216	1.323	1.248	1.235	5.87
17) Diethylphthalate	1.159	1.147	1.273	1.230	1.341	1.261	1.253	5.18
18) IR d10-Phenanthrene	-----ISTD-----							
19) T Hexachlorobenzene	0.257	0.271	0.301	0.274	0.274	0.266	0.274	4.55
20) T Phenanthrene	0.933	0.971	1.003	0.958	0.981	0.913	0.952	3.29
21) T Anthracene	0.864	0.914	0.950	0.931	0.974	0.925	0.925	3.42
22) T Carbazole	0.641	0.713	0.769	0.771	0.817	0.752	0.747	6.91
23) Octachlorostyrene	0.039	0.038	0.063	0.066	0.057	0.059	0.056	19.95 <i>UR</i>
24) Di-n-butylphthalate	1.340	1.135	1.129	1.078	1.132	1.073	1.115	8.46
25) T Fluoranthene	1.054	1.134	1.161	1.097	1.160	1.074	1.113	3.44
26) IR d12-Chrysene	-----ISTD-----							
27) T Pyrene	1.131	1.218	1.161	1.133	1.206	1.101	1.154	3.46
28) S SURR6,TERPHENYL-D14	0.840	0.853	0.861	0.848	0.908	0.846	0.863	2.69
29) Butylbenzylphthalat		0.485	0.514	0.471	0.527	0.482	0.506	4.71
30) T bis(2-Ethylhexyl)ph			0.725	0.685	0.741	0.693	0.713	3.09
31) T Benzo(a)anthracene	1.064	1.172	1.057	1.025	1.128	1.064	1.094	4.54
32) T Chrysene	1.051	1.074	1.094	1.008	1.117	1.038	1.064	3.33
33) IR d12-Perylene	-----ISTD-----							
34) Di-n-octylphthalate				1.242	1.369	1.315	1.356	5.17
35) T Benzo(b)Fluoranthen	1.187	1.330	1.265	1.253	1.415	1.378	1.322	6.00
36) T Benzo(k)fluoranthen	1.079	1.048	1.166	1.203	1.297	1.304	1.215	8.91
37) T Benzo(a)pyrene	1.034	1.049	1.075	1.089	1.224	1.148	1.129	6.83
38) T Indeno(1,2,3-cd)Pyr	1.019	1.114	1.115	1.191	1.370	1.323	1.237	11.74

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 00284

Response Factor Report 5973-B

Method : J:\ACQUADATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 13:01:54 2008  
 Response via : Initial Calibration

Calibration Files

0.1	=CY230.D	0.2	=CY231.D	0.5	=CY232.D
1.0	=CY233.D	2.0	=CY234.D	3.0	=CY235.D

	Compound	0.1	0.2	0.5	1.0	2.0	3.0	Avg	%RSD
39) T	Dibenz(a,h)anthrace	0.733	0.716	0.852	0.945	1.068	1.062	0.952	17.61
40) T	Benzo(g,h,i)perylene	1.028	1.139	1.103	1.148	1.226	1.173	1.155	5.74

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\5973B\DATA\070108\CY234.D  
 Acq On : 1 Jul 2008 1:49 pm  
 Sample : Initial Calibration  
 Misc : 2.0/4.0 ppm std 8270.LL  
 MS Integration Params: RTEINT.P

Vial: 6  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

Method : J:\ACQUDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 13:01:54 2008  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	IR d4-1,4-Dichlorobenzene	1.000	1.000	0.0	100	0.00
2	T 1,4-Dioxane	0.980	0.931	5.0	100	0.00
3	Pyridine	1.954	1.957	-0.2	100	0.00
4	IR d8-Naphthalene	1.000	1.000	0.0	100	0.00
5	S SURR4,NITROBENZENE-D5	0.617	0.655	-6.2	100	0.00
6	T Nitrobenzene	0.646	0.680	-5.3	100	0.00
7	T Naphthalene	1.026	1.035	-0.9	100	0.00
8	T 2-Methylnaphthalene	0.727	0.744	-2.3	100	0.00
9	T 1-Methylnaphthalene	0.691	0.714	-3.3	100	0.00
10	IR d10-Acenaphthene	1.000	1.000	0.0	100	0.00
11	S SURR5,2-FLUOROBIPHENYL	1.345	1.412	-5.0	100	0.00
12	T Acenaphthylene	1.666	1.764	-5.9	100	0.00
13	Dimethyl phthalate	1.207	1.293	-7.1	100	0.00
14	T Acenaphthene	1.055	1.080	-2.4	100	0.00
15	T Dibenzofuran	1.572	1.686	-7.3	100	0.00
16	T Fluorene	1.235	1.323	-7.1	100	0.00
17	Diethylphthalate	1.253	1.341	-7.0	100	0.00
18	IR d10-Phenanthrene	1.000	1.000	0.0	100	0.00
19	T Hexachlorobenzene	0.274	0.274	0.0	100	0.00
20	T Phenanthrene	0.952	0.981	-3.0	100	0.00
21	T Anthracene	0.925	0.974	-5.3	100	0.00
22	T Carbazole	0.747	0.817	-9.4	100	0.00
23	Octachlorostyrene	0.056	0.057	-1.8	100	0.00
24	Di-n-butylphthalate	1.115	1.132	-1.5	100	0.00
25	T Fluoranthene	1.113	1.160	-4.2	100	0.00
26	IR d12-Chrysene	1.000	1.000	0.0	100	0.00
27	T Pyrene	1.154	1.206	-4.5	100	0.00
28	S SURR6, TERPHENYL-D14	0.863	0.908	-5.2	100	0.00
29	Butylbenzylphthalate	0.506	0.527	-4.2	100	0.00
30	T bis(2-Ethylhexyl)phthalate	0.713	0.741	-3.9	100	0.00
31	T Benzo(a)anthracene	1.094	1.128	-3.1	100	0.00
32	T Chrysene	1.064	1.117	-5.0	100	0.00
33	IR d12-Perylene	1.000	1.000	0.0	100	0.00
34	Di-n-octylphthalate	1.356	1.369	-1.0	100	0.00
35	T Benzo(b)Fluoranthene	1.322	1.415	-7.0	100	0.00
36	T Benzo(k)fluoranthene	1.215	1.297	-6.7	100	0.00

(#) = Out of Range

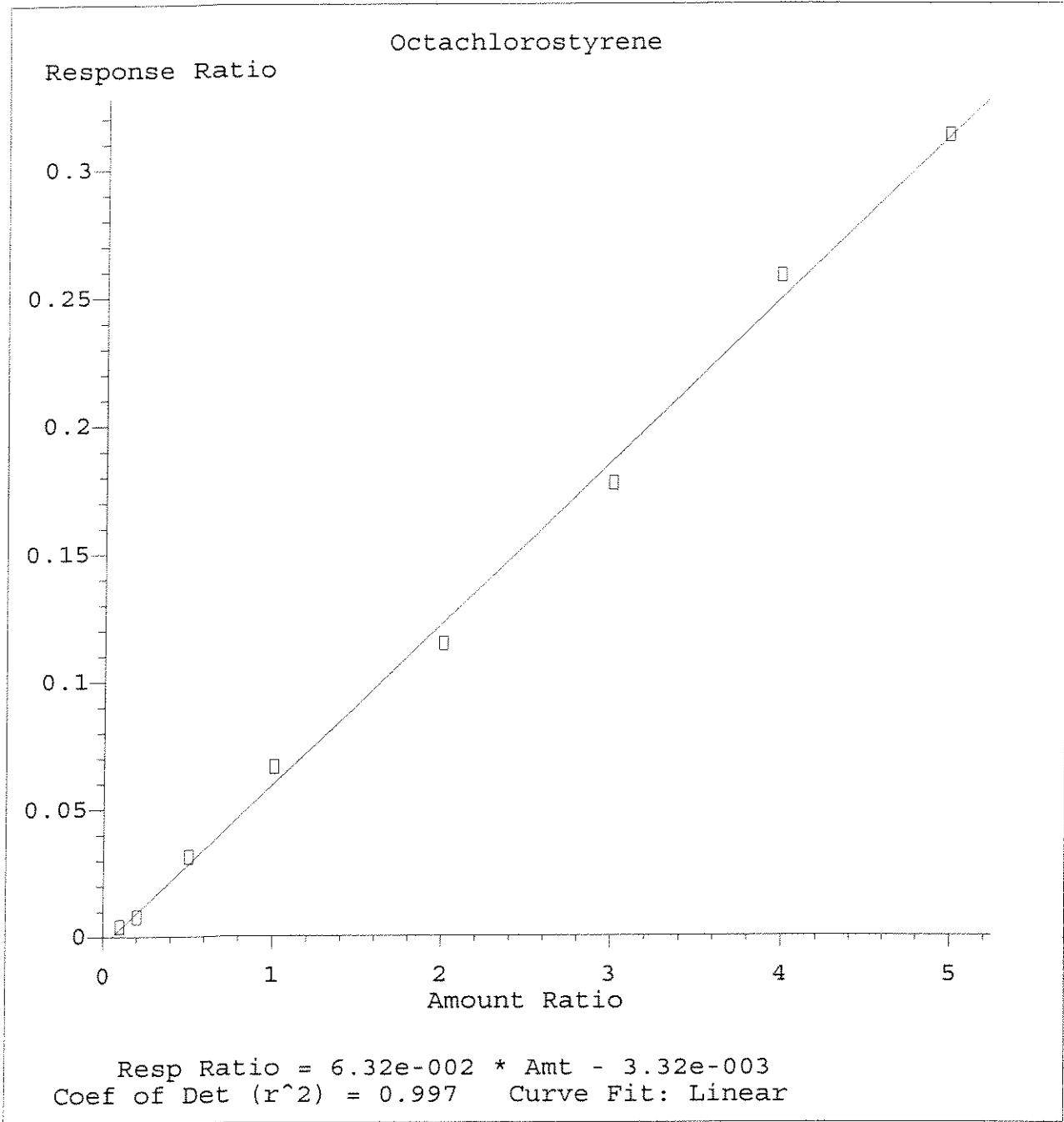
Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\5973B\DATA\070108\CY234.D Vial: 6  
 Acq On : 1 Jul 2008 1:49 pm Operator: Z.Miao  
 Sample : Initial Calibration Inst : 5973-B  
 Misc : 2.0/4.0 ppm std 8270.LL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : J:\ACQUDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 13:01:54 2008  
 Response via : Multiple Level Calibration

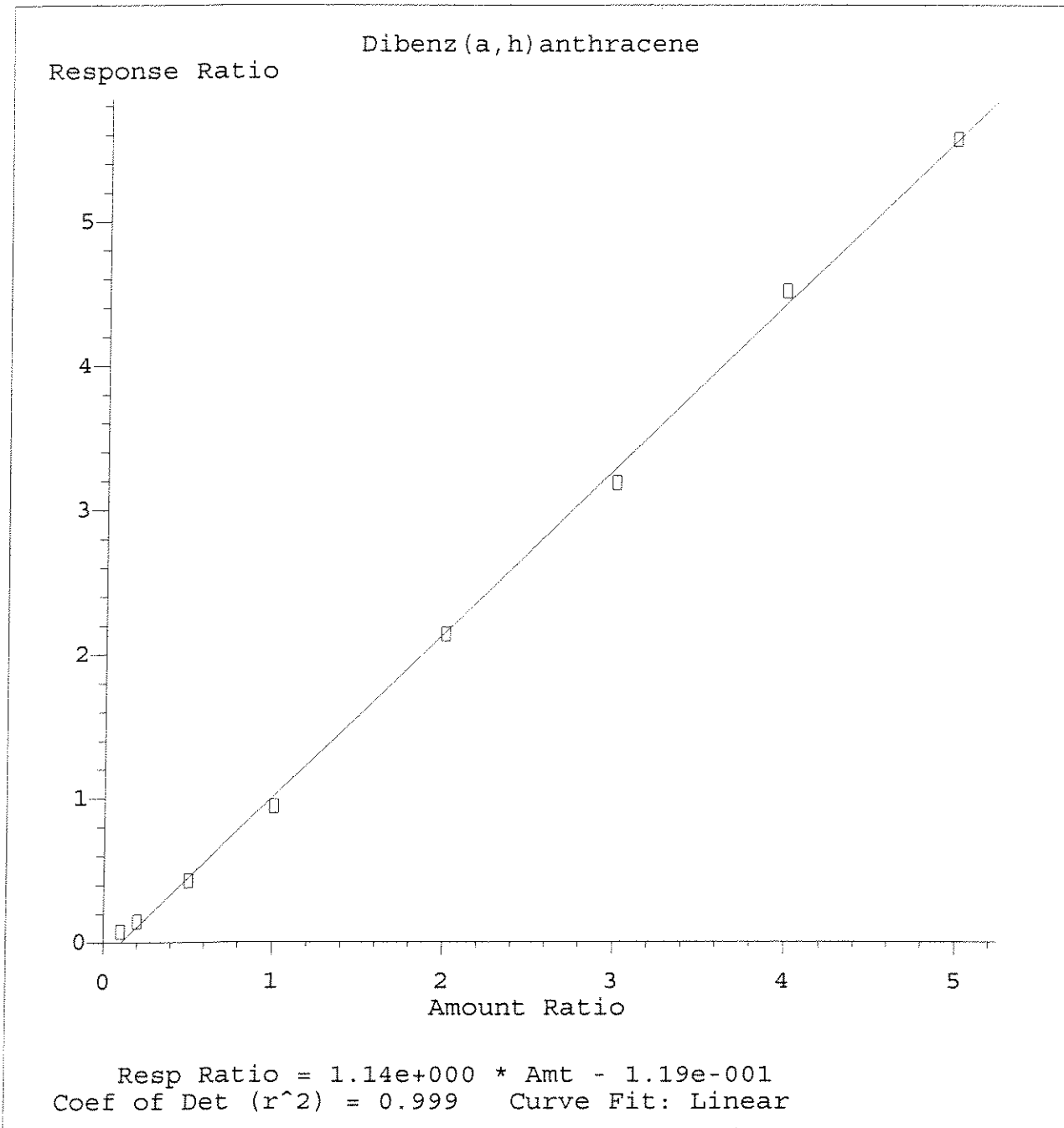
Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
37 T	Benzo(a)pyrene	1.129	1.224	-8.4	100	0.00
38 T	Indeno(1,2,3-cd)Pyrene	1.237	1.370	-10.8	100	0.00
39 T	Dibenz(a,h)anthracene	0.952	1.068	-12.2	100	0.00
40 T	Benzo(g,h,i)perylene	1.155	1.226	-6.1	100	0.00



Method Name: J:\ACQUDATA\5973B\METHODS\LVI0701.M  
Calibration Table Last Updated: Wed Jul 02 12:50:29 2008





Method Name: J:\ACQUDATA\5973B\METHODS\LVI0701.M  
Calibration Table Last Updated: Wed Jul 02 13:00:12 2008

Data File : J:\ACQUDATA\5973B\DATA\070108\CY230.D  
 Acq On : 1 Jul 2008 10:40 am  
 Sample : Initial Calibration  
 Misc : 0.1/0.2 ppm std 8270.LL  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 2 12:37 2008

Vial: 2  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

Quant Results File: LVI0701.RES

Quant Method : J:\ACQUDATA\5...\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 12:36:13 2008  
 Response via : Initial Calibration  
 DataAcq Meth : LVI0701

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) d4-1,4-Dichlorobenzene	10.14	152	76914	1.00	ppm	0.00
4) d8-Naphthalene	11.45	136	287022	1.00	ppm	0.00
10) d10-Acenaphthene	13.03	164	188966	1.00	ppm	0.00
18) d10-Phenanthrene	14.22	188	272238	1.00	ppm	0.00
26) d12-Chrysene	17.05	240	253001	1.00	ppm	0.00
33) d12-Perylene	19.79	264	208438	1.00	ppm	0.00

System Monitoring Compounds

5) SURR4,NITROBENZENE-D5	10.77	82	13790	0.08	ppm	0.00
Spiked Amount 2.000	Range 22 - 124		Recovery =	4.00%#		
11) SURR5,2-FLUOROBIPHENYL	12.42	172	23678	0.09	ppm	0.00
Spiked Amount 2.000	Range 27 - 114		Recovery =	4.50%#		
28) SURR6,TERPHENYL-D14	15.63	244	21243	0.10	ppm	0.00
Spiked Amount 2.000	Range 23 - 139		Recovery =	5.00%#		

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	4.36	88	19161	0.26	ppm	100
6) Nitrobenzene	10.79	77	16907	0.09	ppm	100
7) Naphthalene	11.47	128	29494	0.10	ppm	100
8) 2-Methylnaphthalene	12.10	142	20830	0.10	ppm	100
9) 1-Methylnaphthalene	12.20	142	19484	0.10	ppm	100
12) Acenaphthylene	12.91	152	30015	0.09	ppm	100
13) Dimethyl phthalate	12.78	163	20709	0.10	ppm	100
14) Acenaphthene	13.06	153	20025	0.10	ppm	100
15) Dibenzofuran	13.20	168	27640	0.09	ppm	100
16) Fluorene	13.49	166	20604	0.09	ppm	100
17) Diethylphthalate	13.37	149	21897	0.10	ppm	100
19) Hexachlorobenzene	13.99	284	6986	0.09	ppm	100
20) Phenanthrene	14.24	178	25398	0.10	ppm	100
21) Anthracene	14.28	178	23514	0.09	ppm	100
22) Carbazole	14.39	167	17441	0.09	ppm	100
23) Octachlorostyrene	15.12	380	1062	0.15	ppm	100
24) Di-n-butylphthalate	14.63	149	36474	0.13	ppm	100
25) Fluoranthene	15.27	202	28685	0.09	ppm	100
27) Pyrene	15.52	202	28619	0.10	ppm	100
29) Butylbenzylphthalate	16.21	149	14084	0.13	ppm	100
30) bis(2-Ethylhexyl)phthalate	17.02	149	43633	0.25	ppm	100
31) Benzo(a)anthracene	17.02	228	26907	0.10	ppm	100
32) Chrysene	17.09	228	26601	0.10	ppm	100
34) Di-n-octylphthalate	18.02	149	25380	0.11	ppm	90
35) Benzo(b)Fluoranthene	18.91	252	24743	0.09	ppm	100
36) Benzo(k)fluoranthene	18.96	252	22496	0.09	ppm	100

(#) = qualifier out of range (m) = manual integration  
 CY230.D LVI0701.M Wed Jul 02 13:01:17 2008

Data File : J:\ACQUDATA\5973B\DATA\070108\CY230.D  
Acq On : 1 Jul 2008 10:40 am  
Sample : Initial Calibration  
Misc : 0.1/0.2 ppm std 8270.LL  
MS Integration Params: RTEINT.P  
Quant Time: Jul 2 12:37 2008

Vial: 2  
Operator: Z.Miao  
Inst : 5973-B  
Multiplr: 1.00

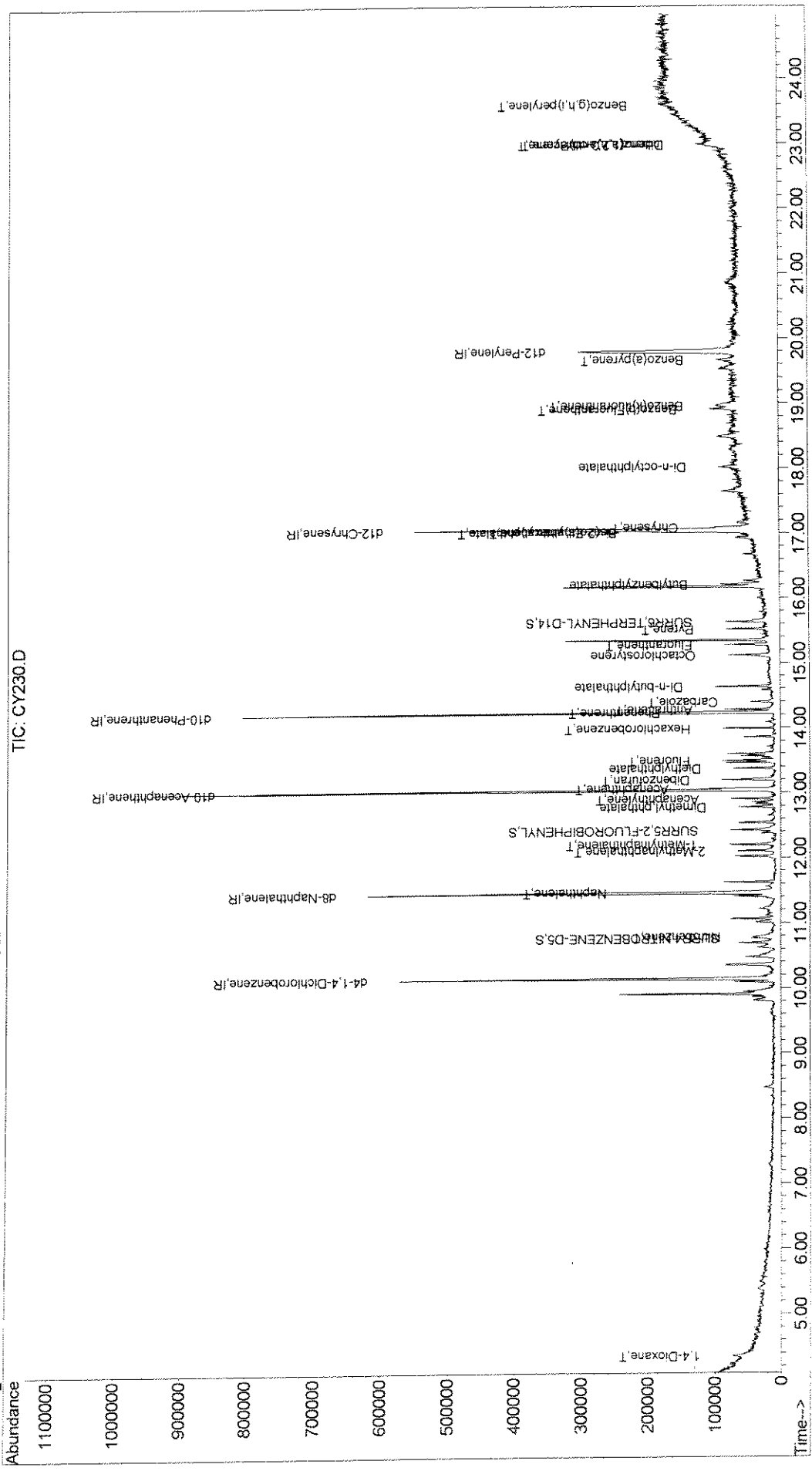
Quant Results File: LVI0701.RES

Quant Method : J:\ACQUDATA\5...\LVI0701.M (RTE Integrator)  
Title : 8270 BNA ANALYSIS  
Last Update : Wed Jul 02 12:36:13 2008  
Response via : Initial Calibration  
DataAcq Meth : LVI0701

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37) Benzo(a)pyrene	19.67	252	21554	0.09	ppm	100
38) Indeno(1,2,3-cd)Pyrene	22.98	276	21239m	0.23	ppm	
39) Dibenz(a,h)anthracene	22.99	278	15270	0.07	ppm	100
40) Benzo(g,h,i)perylene	23.59	276	21428m	0.09	ppm	

Data File : J:\ACQDATA\5973B\DATA\070108\CY230.D Vial: 2  
 Acq On : 1 Jul 2008 10:40 am Operator: Z.Miao  
 Sample : Initial Calibration Inst : 5973-B  
 Misc : 0.1/0.2 ppm std 8270.LL Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 2 12:37 2008 Quant Results File: LVI0701.RES

Method : J:\ACQDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 13:00:22 2008  
 Response via : Initial Calibration



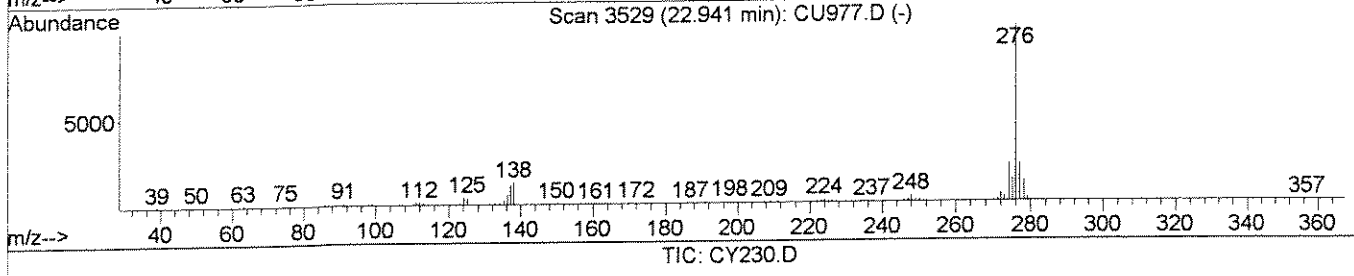
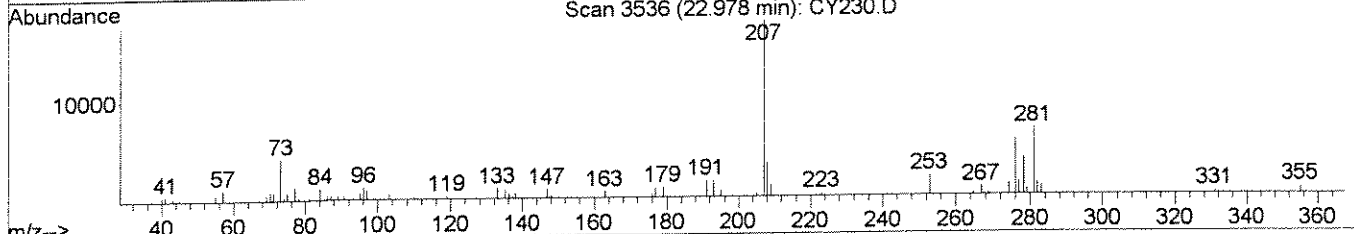
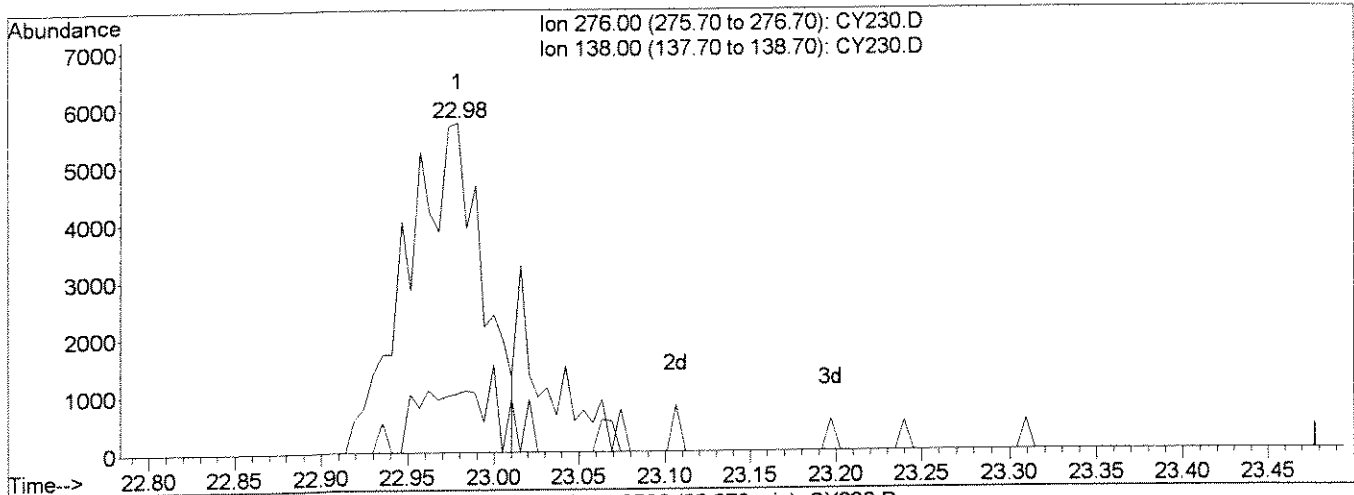
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\070108\CY230.D  
 Acq On : 1 Jul 2008 10:40 am  
 Sample : Initial Calibration  
 Misc : 0.1/0.2 ppm std 8270.LL  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 2 12:36 2008

Vial: 2  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 12:36:13 2008  
 Response via : Multiple Level Calibration



(38) Indeno(1,2,3-cd)Pyrene (T)

22.98min 0.22ppm

response 17312

Ion	Exp%	Act%
276.00	100	100
138.00	17.60	10.80
0.00	0.00	0.00
0.00	0.00	0.00

17

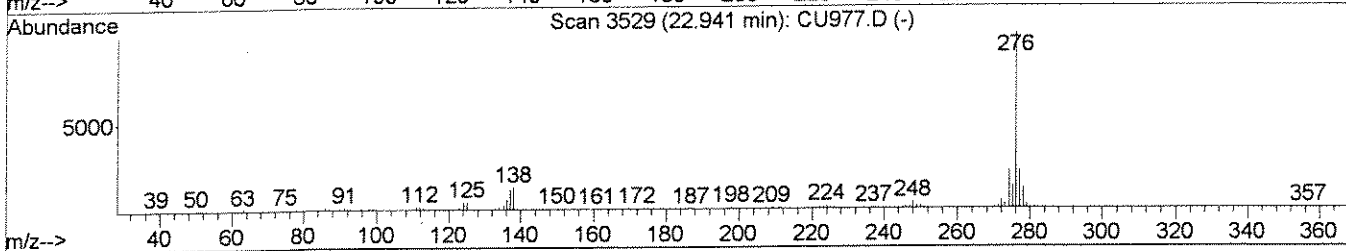
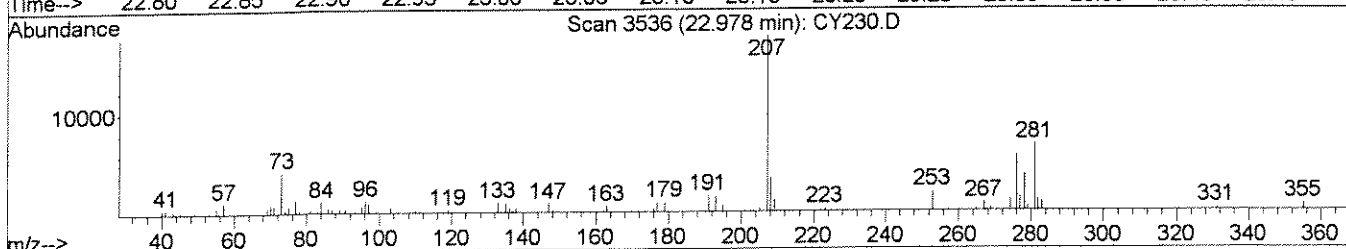
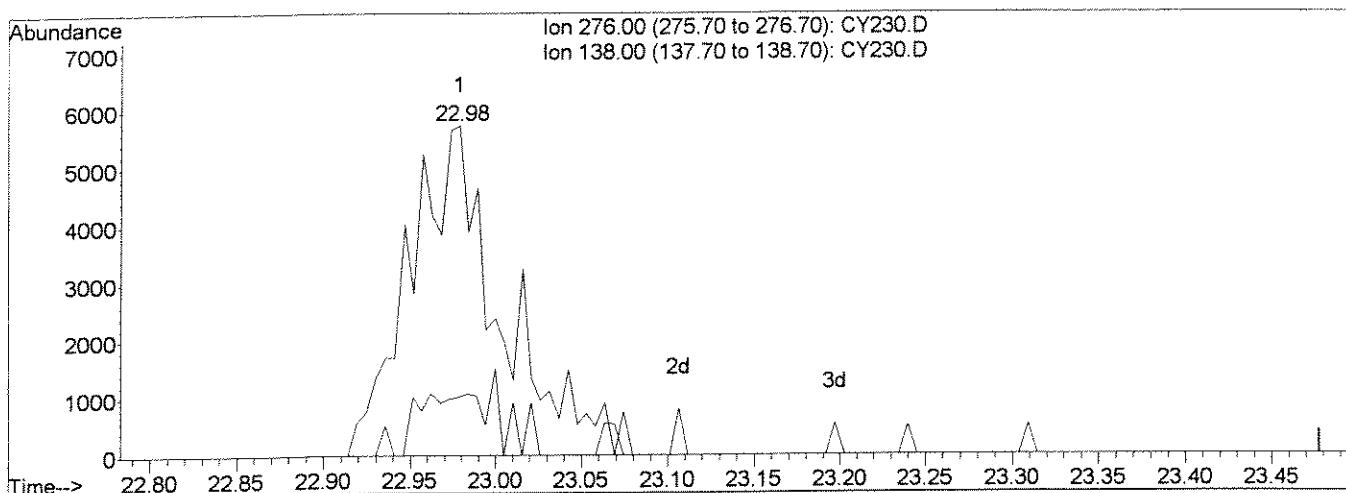
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\070108\CY230.D  
 Acq On : 1 Jul 2008 10:40 am  
 Sample : Initial Calibration  
 Misc : 0.1/0.2 ppm std 8270.LL  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 2 12:37 2008

Vial: 2  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 12:36:13 2008  
 Response via : Multiple Level Calibration



(38) Indeno(1,2,3-cd)Pyrene (T)

22.98min 0.23ppm m

response 21239

Ion	Exp%	Act%
276.00	100	100
138.00	17.60	17.63
0.00	0.00	0.00
0.00	0.00	0.00

*A 7/2/08*  
*mg*  
*1/2*

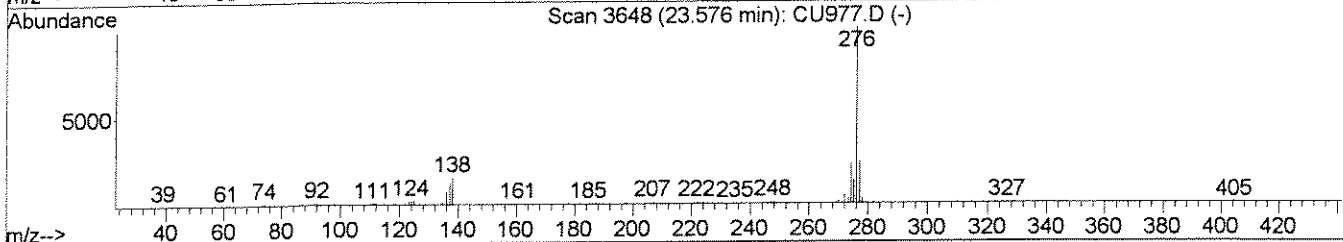
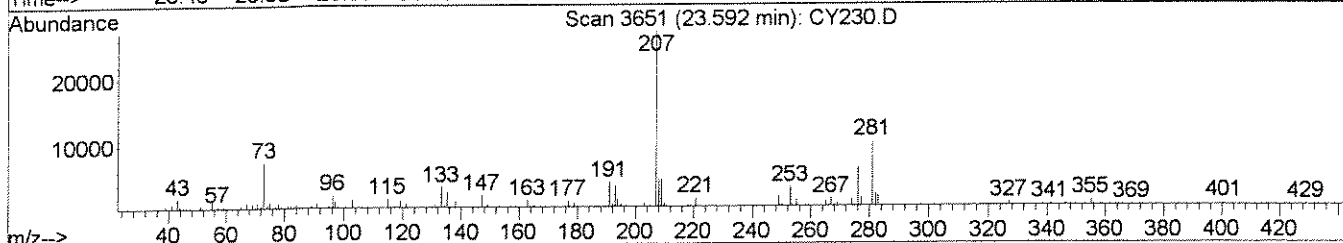
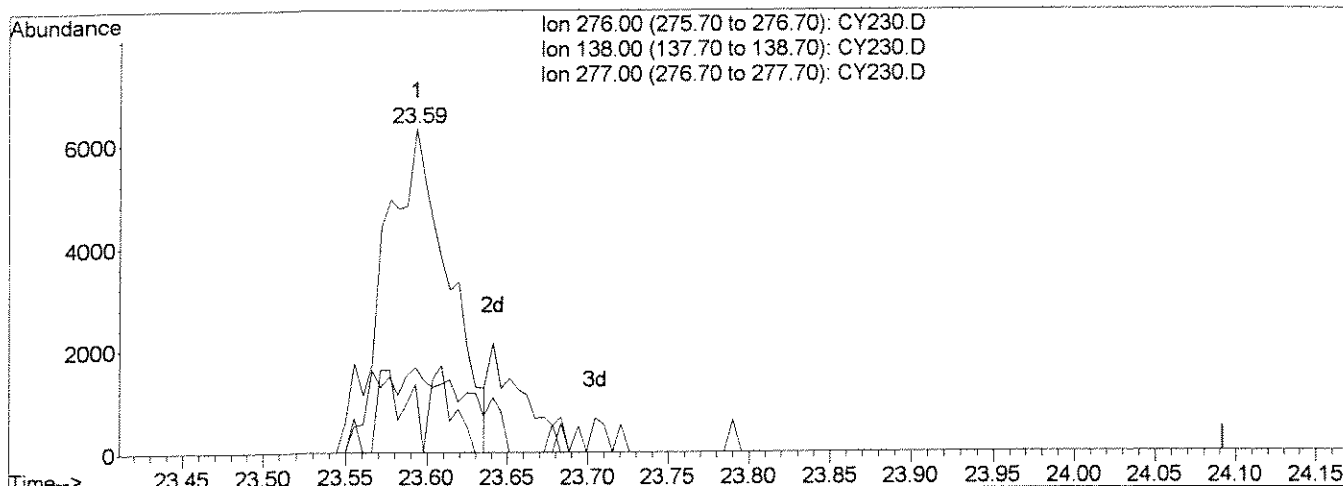
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\070108\CY230.D  
 Acq On : 1 Jul 2008 10:40 am  
 Sample : Initial Calibration  
 Misc : 0.1/0.2 ppm std 8270.LL  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 2 12:37 2008

Vial: 2  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 12:36:13 2008  
 Response via : Multiple Level Calibration



(40) Benzo(g,h,i)perylene (T)

23.59min 0.07ppm

response 17598

Ion	Exp%	Act%
276.00	100	100
138.00	21.10	23.42
277.00	26.20	23.00
0.00	0.00	0.00

13

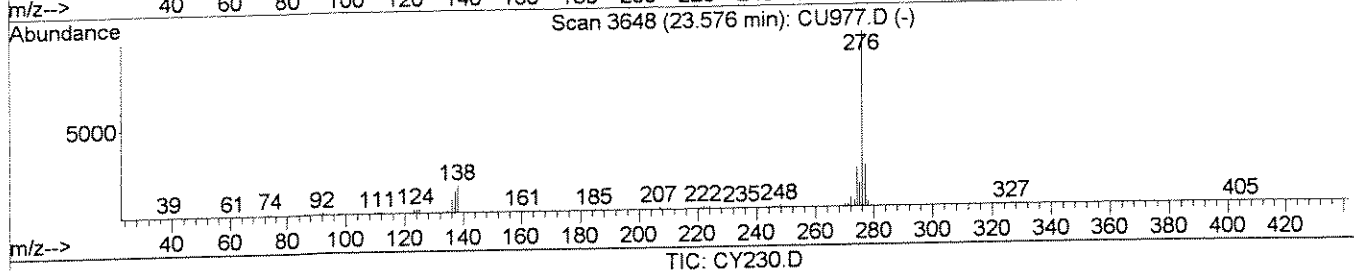
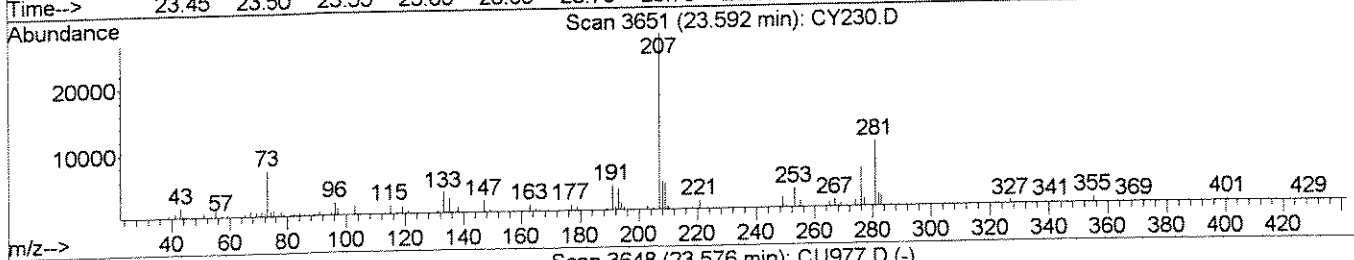
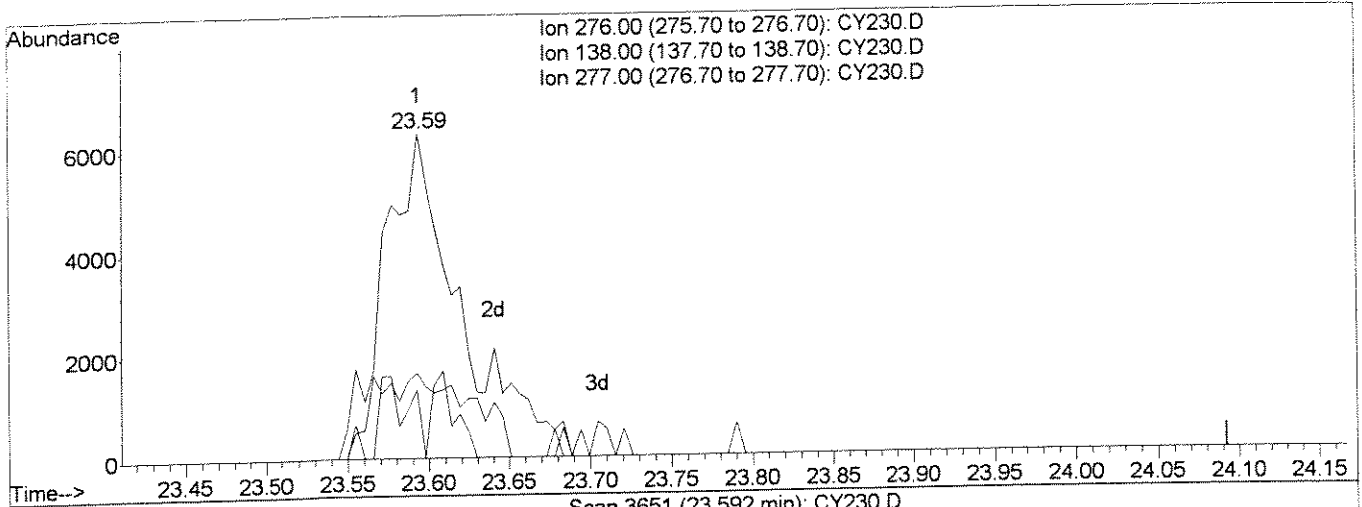
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\070108\CY230.D  
 Acq On : 1 Jul 2008 10:40 am  
 Sample : Initial Calibration  
 Misc : 0.1/0.2 ppm std 8270.LL  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 2 12:37 2008

Vial: 2  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 12:36:13 2008  
 Response via : Multiple Level Calibration



(40) Benzo(g,h,i)perylene (T)

23.59min 0.09ppm m

response 21428

Ion	Exp%	Act%
276.00	100	100
138.00	21.10	21.10
277.00	26.20	26.20
0.00	0.00	0.00

*Handwritten signature and date:*  
 A 7/2/08  
 ZM



Data File : J:\ACQUDATA\5973B\DATA\070108\CY231.D  
 Acq On : 1 Jul 2008 11:27 am  
 Sample : Initial Calibration  
 Misc : 0.2/0.4 ppm std 8270.LL  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 2 12:40 2008

Vial: 3  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

Quant Results File: LVI0701.RES

Quant Method : J:\ACQUDATA\5...\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 12:38:46 2008  
 Response via : Initial Calibration  
 DataAcq Meth : LVI0701

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	10.14	152	75539	1.00	ppm	0.00
4) d8-Naphthalene	11.45	136	279373	1.00	ppm	0.00
10) d10-Acenaphthene	13.03	164	178994	1.00	ppm	0.00
18) d10-Phenanthrene	14.22	188	265087	1.00	ppm	0.00
26) d12-Chrysene	17.05	240	246649	1.00	ppm	0.00
33) d12-Perylene	19.79	264	207278	1.00	ppm	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
5) SURR4,NITROBENZENE-D5	10.77	82	33822	0.20	ppm	0.00
Spiked Amount 2.000	Range 22	- 124	Recovery	=	10.00%#	
11) SURR5,2-FLUOROBIPHENYL	12.42	172	50738	0.21	ppm	0.00
Spiked Amount 2.000	Range 27	- 114	Recovery	=	10.50%#	
28) SURR6,TERPHENYL-D14	15.63	244	42076	0.20	ppm	0.00
Spiked Amount 2.000	Range 23	- 139	Recovery	=	10.00%#	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	4.37	88	31835	0.44	ppm	100
6) Nitrobenzene	10.78	77	33553	0.19	ppm	100
7) Naphthalene	11.47	128	61788	0.22	ppm	100
8) 2-Methylnaphthalene	12.10	142	40070	0.20	ppm	100
9) 1-Methylnaphthalene	12.20	142	38356	0.20	ppm	100
12) Acenaphthylene	12.90	152	59585	0.20	ppm	100
13) Dimethyl phthalate	12.78	163	42200	0.21	ppm	100
14) Acenaphthene	13.06	153	37890	0.20	ppm	100
15) Dibenzofuran	13.20	168	59895	0.21	ppm	100
16) Fluorene	13.49	166	42219	0.19	ppm	100
17) Diethylphthalate	13.37	149	41067	0.20	ppm	100
19) Hexachlorobenzene	13.99	284	14389	0.20	ppm	100
20) Phenanthrene	14.24	178	51506	0.20	ppm	100
21) Anthracene	14.28	178	48442	0.20	ppm	100
22) Carbazole	14.39	167	37787	0.20	ppm	100
23) Octachlorostyrene	15.11	380	2028	0.21	ppm	100
24) Di-n-butylphthalate	14.63	149	60180	0.22	ppm	100
25) Fluoranthene	15.27	202	60146	0.20	ppm	100
27) Pyrene	15.51	202	60066	0.21	ppm	100
29) Butylbenzylphthalate	16.21	149	23940	0.22	ppm	100
30) bis(2-Ethylhexyl)phthalate	17.02	149	74144	0.44	ppm	100
31) Benzo(a)anthracene	17.02	228	57817	0.22	ppm	100
32) Chrysene	17.09	228	52965	0.20	ppm	100
34) Di-n-octylphthalate	18.02	149	49523m	0.21	ppm	100
35) Benzo(b)Fluoranthene	18.91	252	55125	0.20	ppm	100
36) Benzo(k)fluoranthene	18.97	252	43460	0.17	ppm	91

(#) = qualifier out of range (m) = manual integration  
 CY231.D LVI0701.M Wed Jul 02 13:01:23 2008

Data File : J:\ACQUDATA\5973B\DATA\070108\CY231.D  
Acq On : 1 Jul 2008 11:27 am  
Sample : Initial Calibration  
Misc : 0.2/0.4 ppm std 8270.LL  
MS Integration Params: RTEINT.P  
Quant Time: Jul 2 12:40 2008

Vial: 3  
Operator: Z.Miao  
Inst : 5973-B  
Multiplr: 1.00

Quant Results File: LVI0701.RES

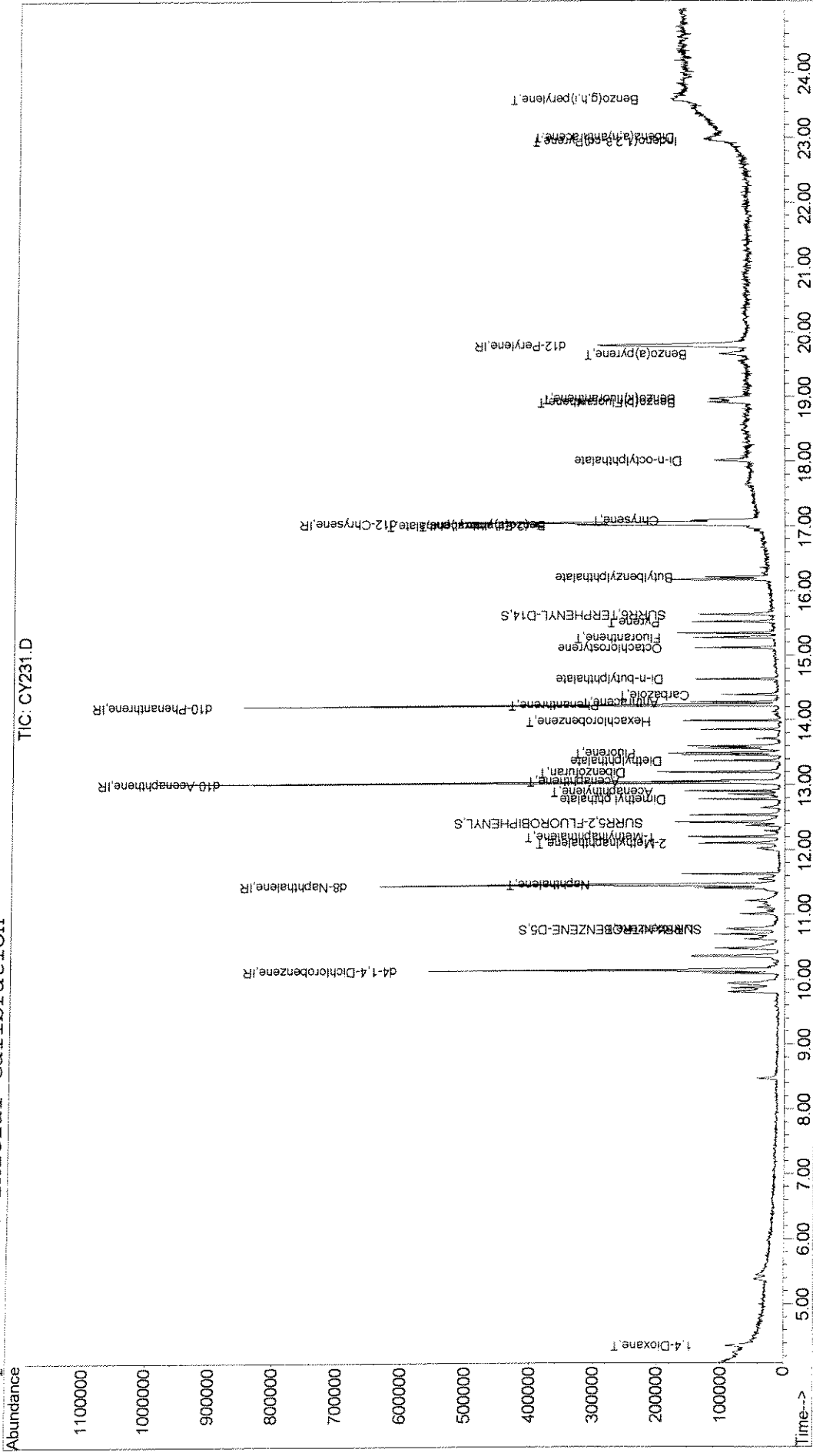
Quant Method : J:\ACQUDATA\5...\LVI0701.M (RTE Integrator)  
Title : 8270 BNA ANALYSIS  
Last Update : Wed Jul 02 12:38:46 2008  
Response via : Initial Calibration  
DataAcq Meth : LVI0701

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37) Benzo(a)pyrene	19.66	252	43501	0.18	ppm	100
38) Indeno(1,2,3-cd)Pyrene	22.95	276	46189m	0.31	ppm	
39) Dibenz(a,h)anthracene	23.00	278	29677m ✓	0.14	ppm	
40) Benzo(g,h,i)perylene	23.59	276	47215m	0.19	ppm	

Data File : J:\ACQDATA\5973B\DATA\070108\CY231.D  
 Acq On : 1 Jul 2008 11:27 am  
 Sample : Initial Calibration  
 Misc : 0.2/0.4 ppm std 8270.LL  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 2 12:40 2008

Vial: 3  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00  
 Quant Results File: LVI0701.RES

Method : J:\ACQDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 13:00:22 2008  
 Response via : Initial Calibration



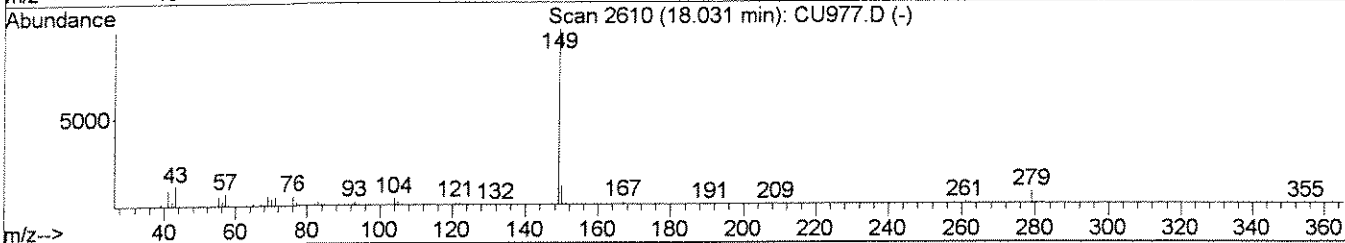
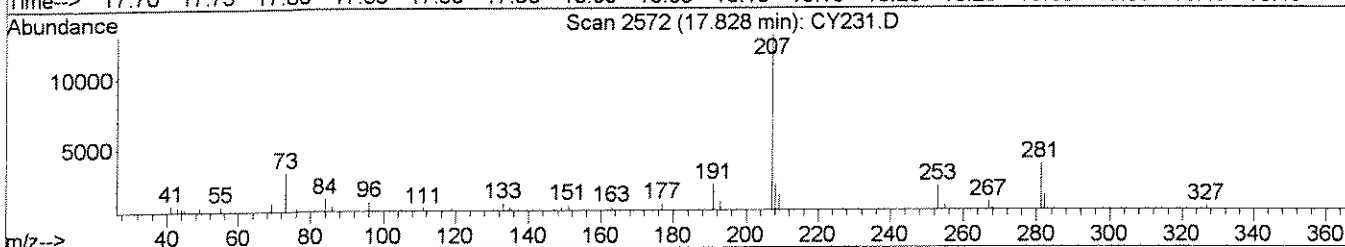
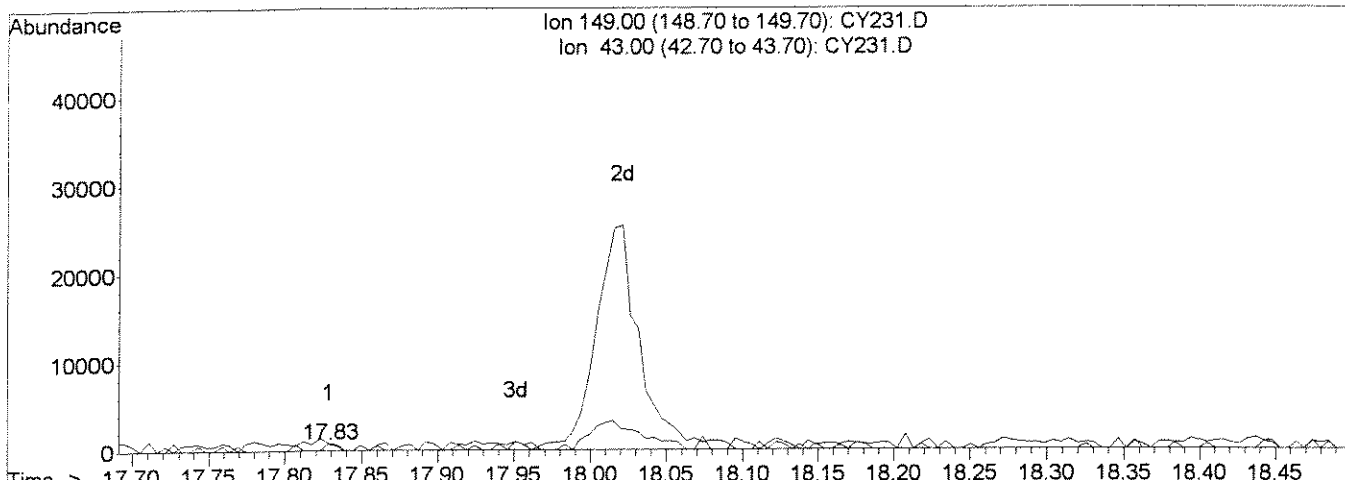
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\070108\CY231.D  
 Acq On : 1 Jul 2008 11:27 am  
 Sample : Initial Calibration  
 Misc : 0.2/0.4 ppm std 8270.LL  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 2 12:39 2008

Vial: 3  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 12:38:46 2008  
 Response via : Single Level Calibration



(34) Di-n-octylphthalate

17.83min 0.00ppm

response 401

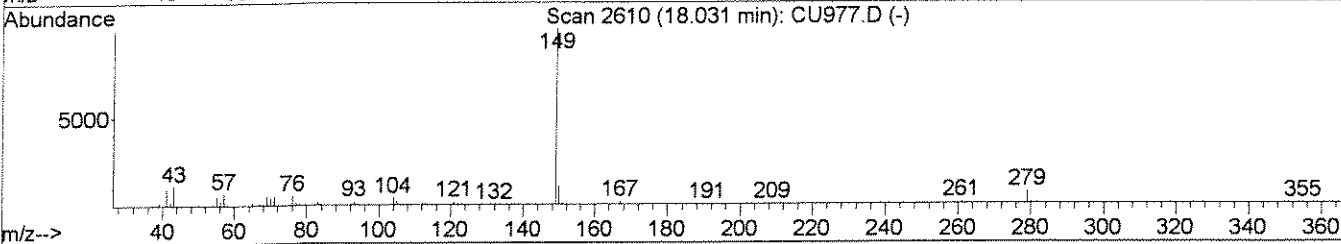
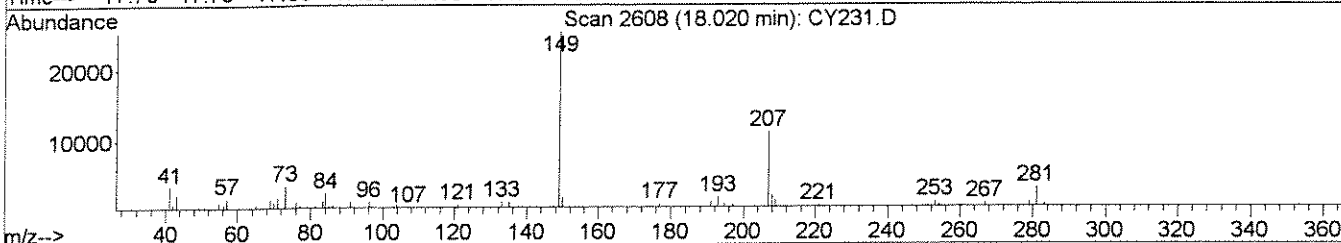
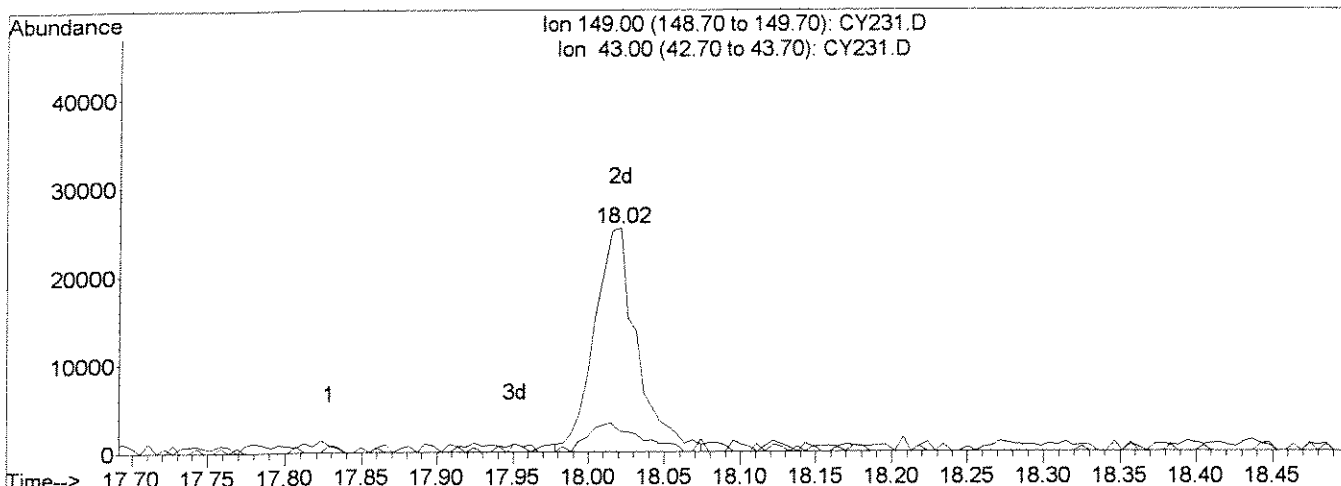
Ion	Exp%	Act%
149.00	100	100
43.00	9.10	11.29
0.00	0.00	0.00
0.00	0.00	0.00

*Handwritten mark resembling a stylized 'B' or '3'.*

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\070108\CY231.D Vial: 3  
 Acq On : 1 Jul 2008 11:27 am Operator: Z.Miao  
 Sample : Initial Calibration Inst : 5973-B  
 Misc : 0.2/0.4 ppm std 8270.LL Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 2 12:39 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 12:38:46 2008  
 Response via : Single Level Calibration



TIC: CY231.D

(34) Di-n-octylphthalate

18.02min 0.21ppm m

response 49523

Ion	Exp%	Act%
149.00	100	100
43.00	9.10	9.09
0.00	0.00	0.00
0.00	0.00	0.00

*A 7/2/08*

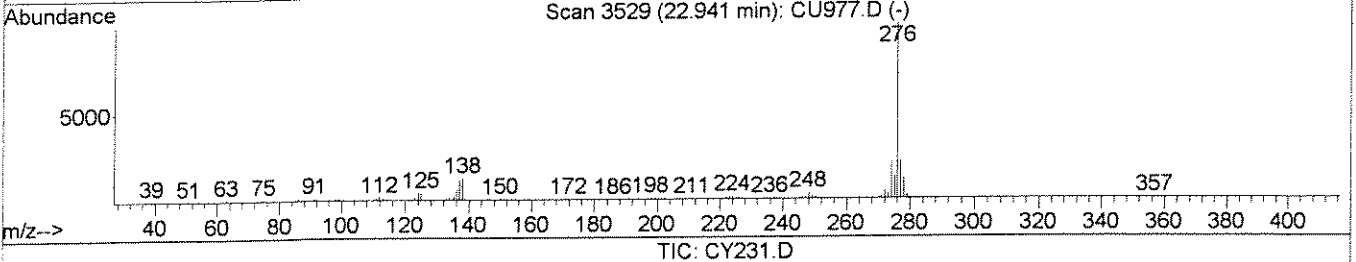
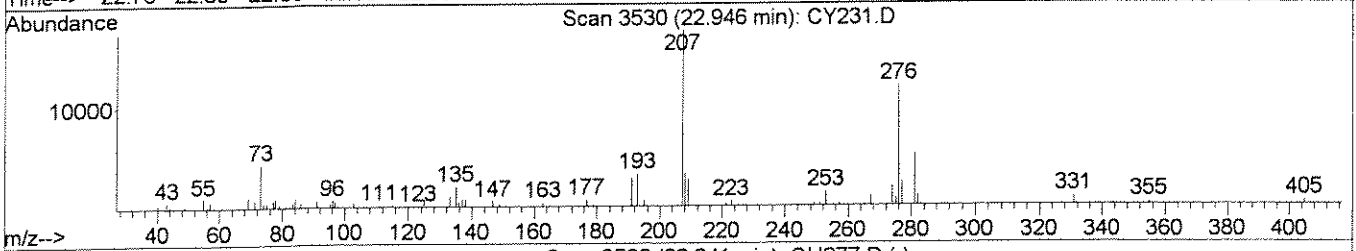
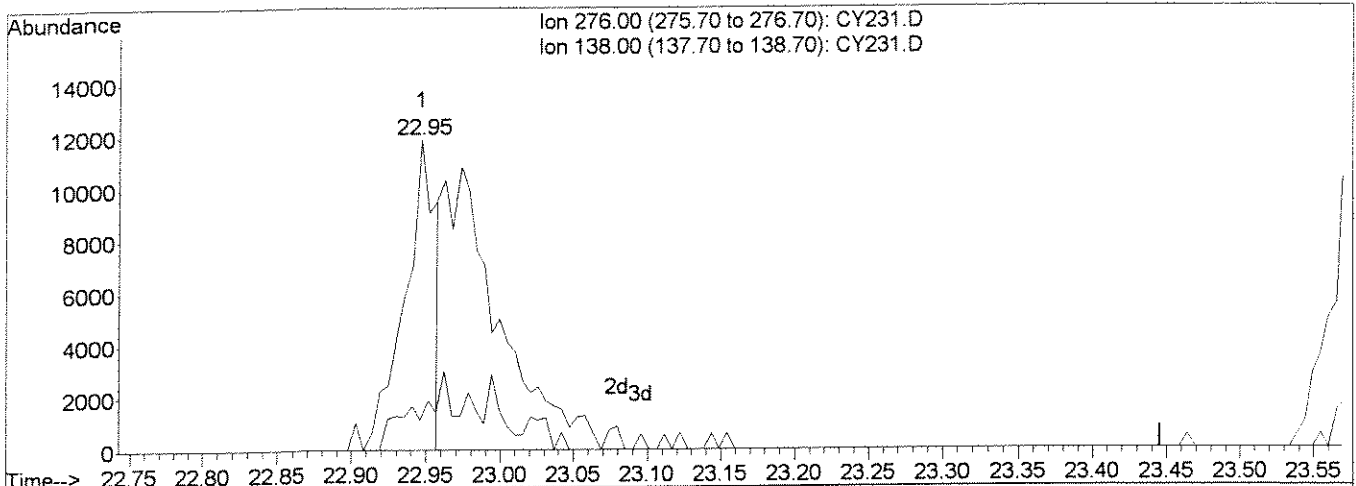
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\070108\CY231.D  
 Acq On : 1 Jul 2008 11:27 am  
 Sample : Initial Calibration  
 Misc : 0.2/0.4 ppm std 8270.LL  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 2 12:39 2008

Vial: 3  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 12:38:46 2008  
 Response via : Multiple Level Calibration



TIC: CY231.D

(38) Indeno(1,2,3-cd)Pyrene (T)

22.95min 0.22ppm

response 17291

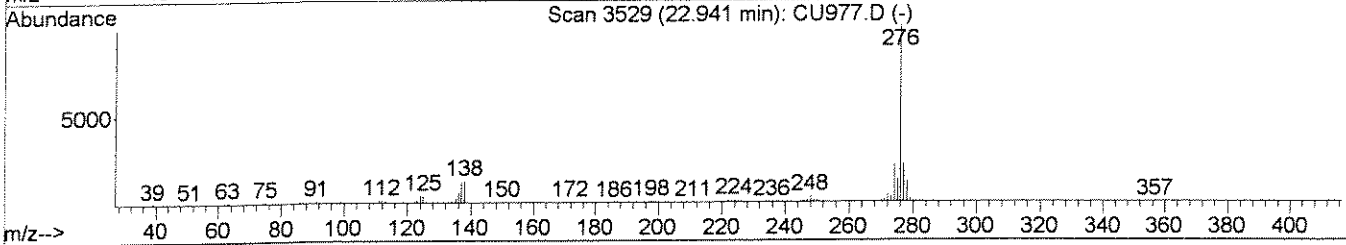
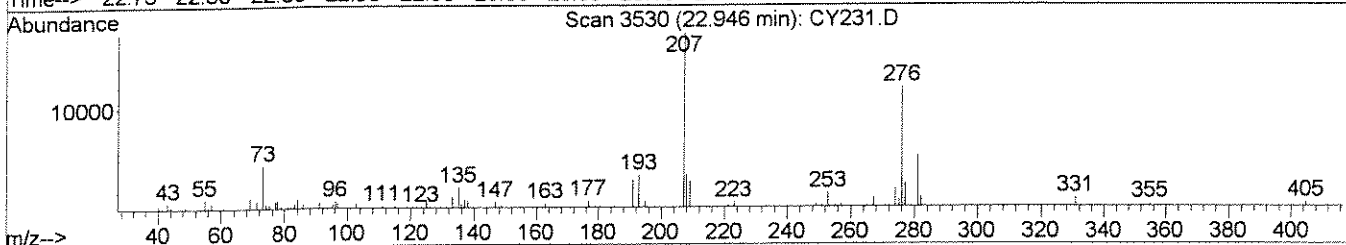
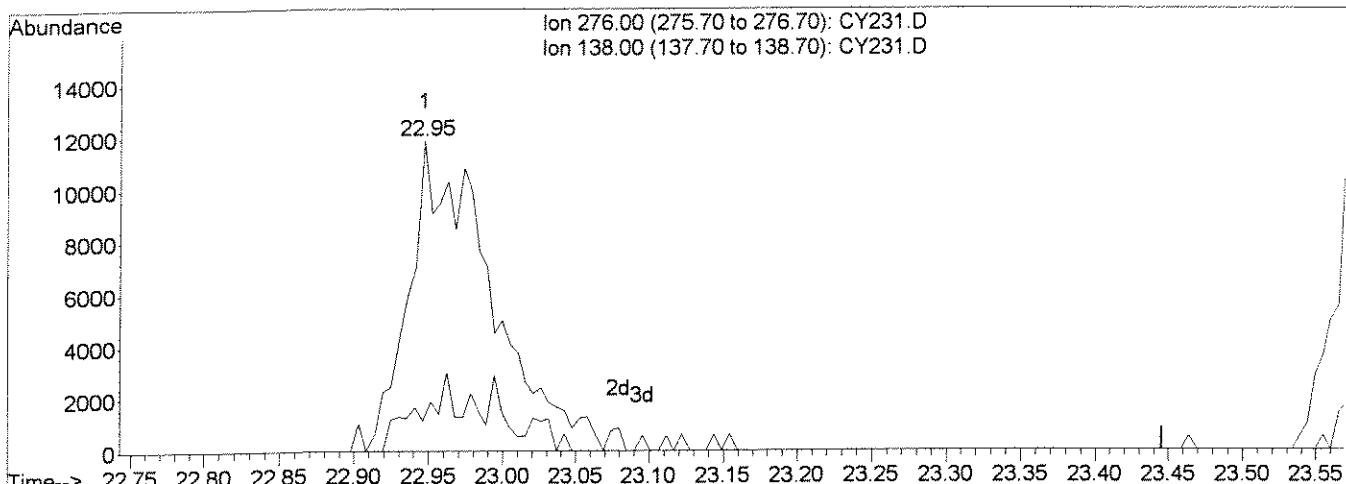
Ion	Exp%	Act%
276.00	100	100
138.00	9.60	6.04
0.00	0.00	0.00
0.00	0.00	0.00

*B* *4/2*

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\070108\CY231.D Vial: 3  
 Acq On : 1 Jul 2008 11:27 am Operator: Z.Miao  
 Sample : Initial Calibration Inst : 5973-B  
 Misc : 0.2/0.4 ppm std 8270.LL Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 2 12:40 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 12:38:46 2008  
 Response via : Multiple Level Calibration



TIC: CY231.D

(38) Indeno(1,2,3-cd)Pyrene (T)

22.95min 0.31ppm m

response 46189

Ion	Exp%	Act%
276.00	100	100
138.00	9.60	9.64
0.00	0.00	0.00
0.00	0.00	0.00

*Handwritten signature and date:*  
 A 7/2/08  
 ZM

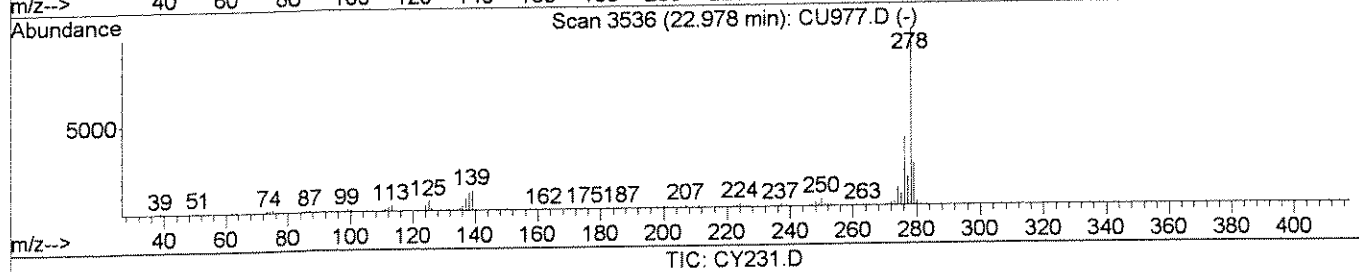
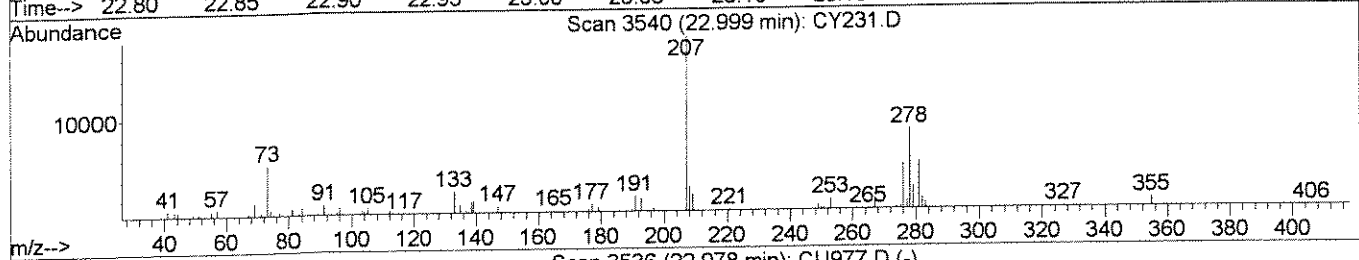
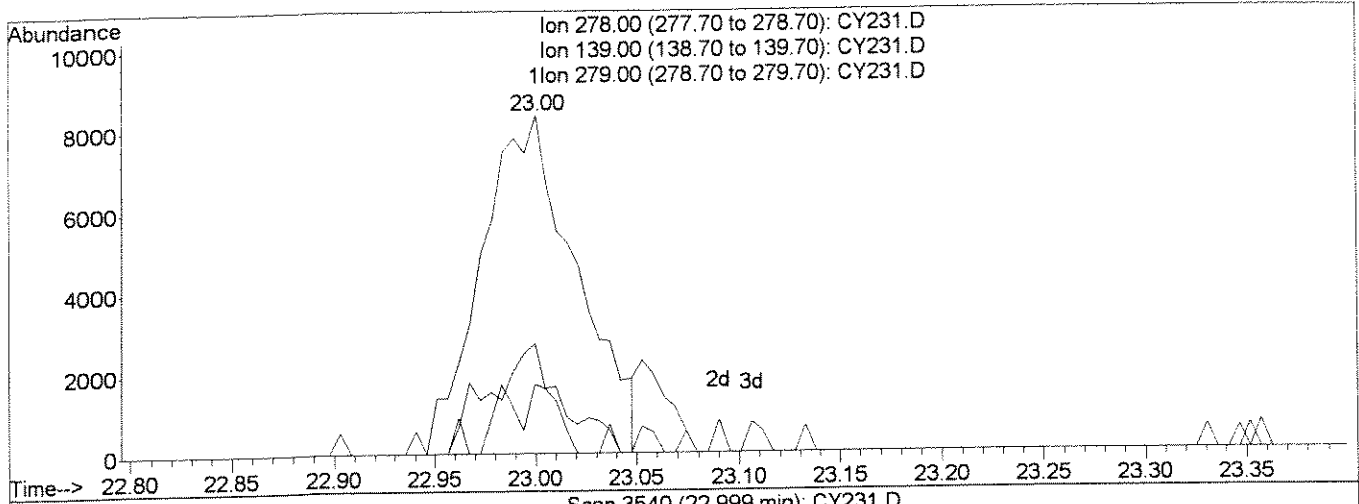
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\070108\CY231.D  
 Acq On : 1 Jul 2008 11:27 am  
 Sample : Initial Calibration  
 Misc : 0.2/0.4 ppm std 8270.LL  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 2 12:40 2008

Vial: 3  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 12:38:46 2008  
 Response via : Multiple Level Calibration



(39) Dibenz(a,h)anthracene (T)

23.00min 0.13ppm

response 27360

Ion	Exp%	Act%
278.00	100	100
139.00	20.50	23.03
279.00	32.50	36.46
0.00	0.00	0.00

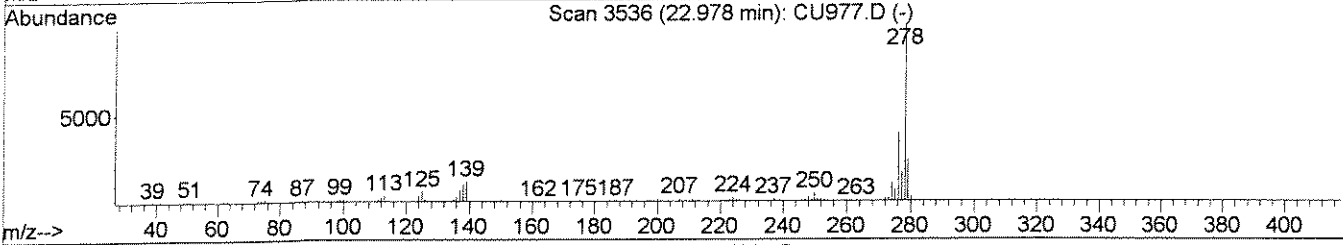
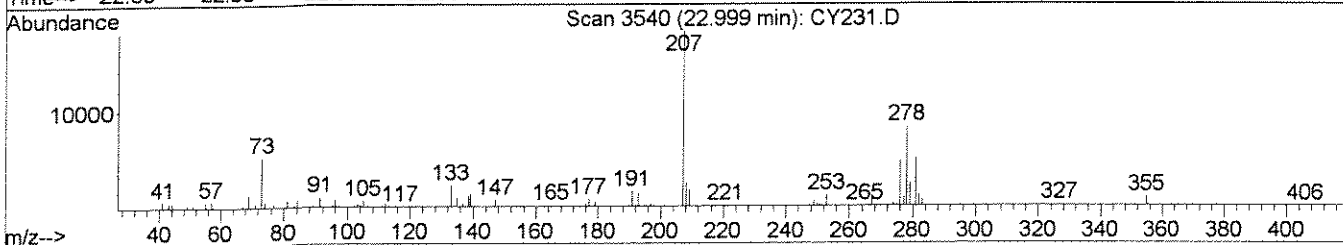
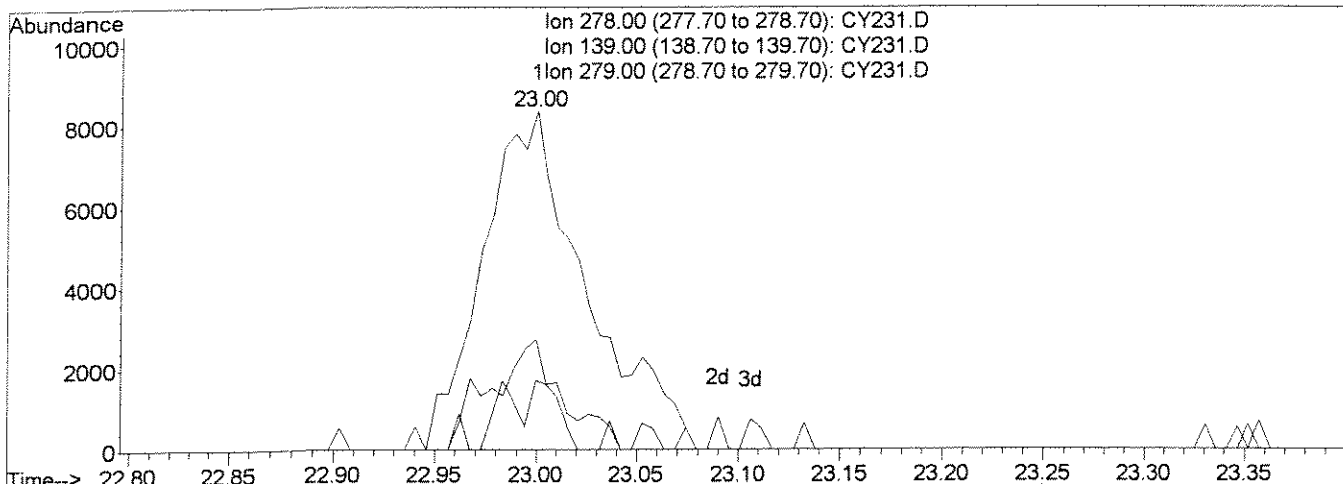
B



Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\070108\CY231.D Vial: 3  
 Acq On : 1 Jul 2008 11:27 am Operator: Z.Miao  
 Sample : Initial Calibration Inst : 5973-B  
 Misc : 0.2/0.4 ppm std 8270.LL Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 2 12:40 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 12:38:46 2008  
 Response via : Multiple Level Calibration



TIC: CY231.D

(39) Dibenz(a,h)anthracene (T)

23.00min 0.14ppm m

response 29677

Ion	Exp%	Act%
278.00	100	100
139.00	20.50	20.51
279.00	32.50	32.47
0.00	0.00	0.00

*Handwritten signature:* A 7/2/08

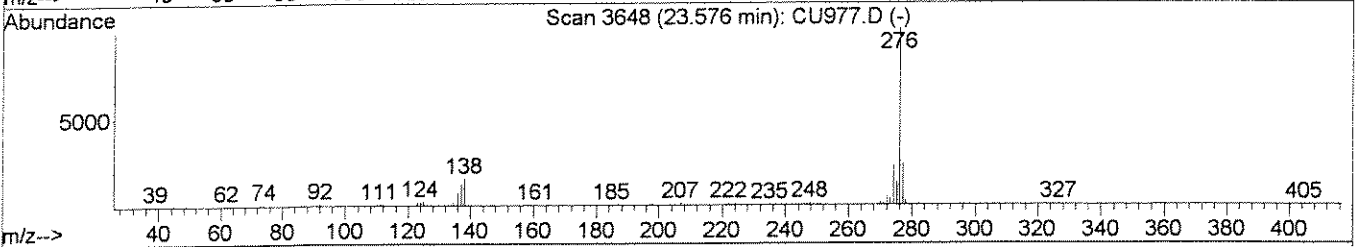
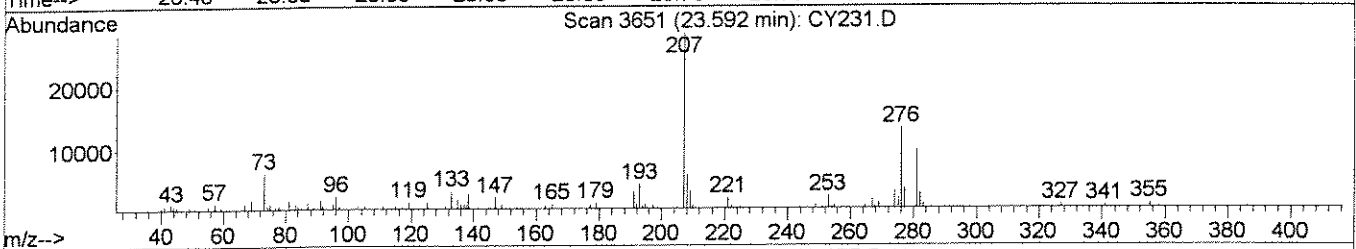
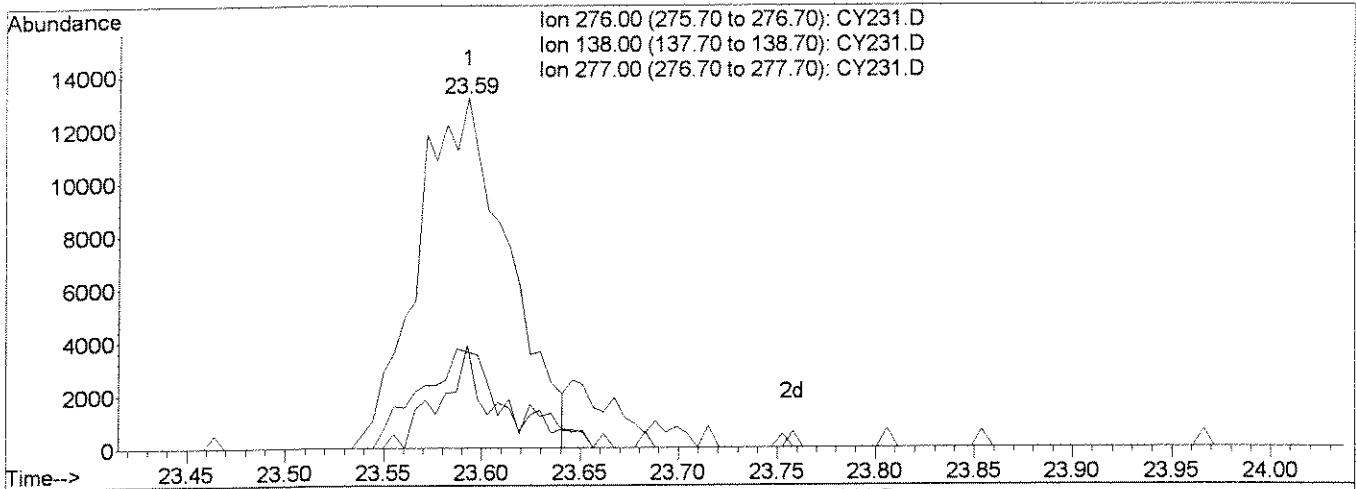
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\070108\CY231.D  
 Acq On : 1 Jul 2008 11:27 am  
 Sample : Initial Calibration  
 Misc : 0.2/0.4 ppm std 8270.LL  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 2 12:40 2008

Vial: 3  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 12:38:46 2008  
 Response via : Multiple Level Calibration



TIC: CY231.D

(40) Benzo(g,h,i)perylene (T)

23.59min 0.17ppm

response 42098

Ion	Exp%	Act%
276.00	100	100
138.00	21.80	29.05
277.00	27.50	27.01
0.00	0.00	0.00

1

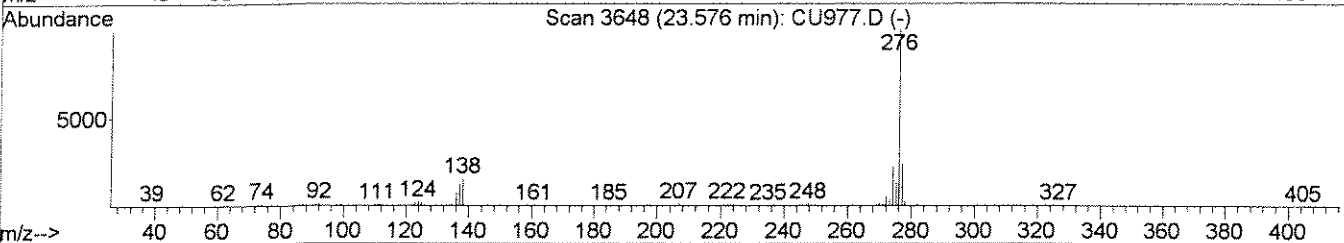
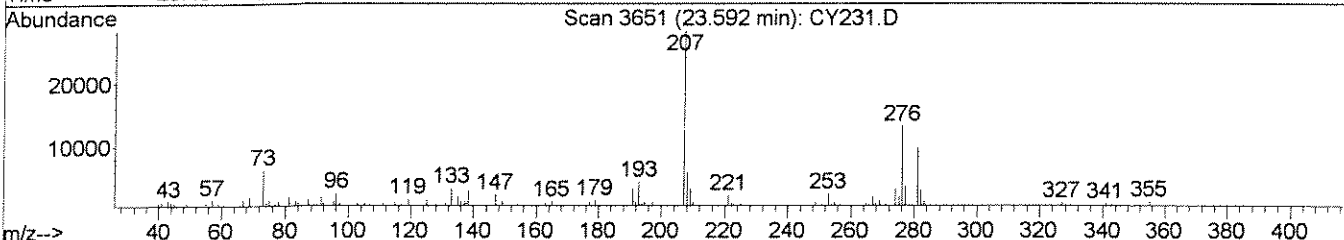
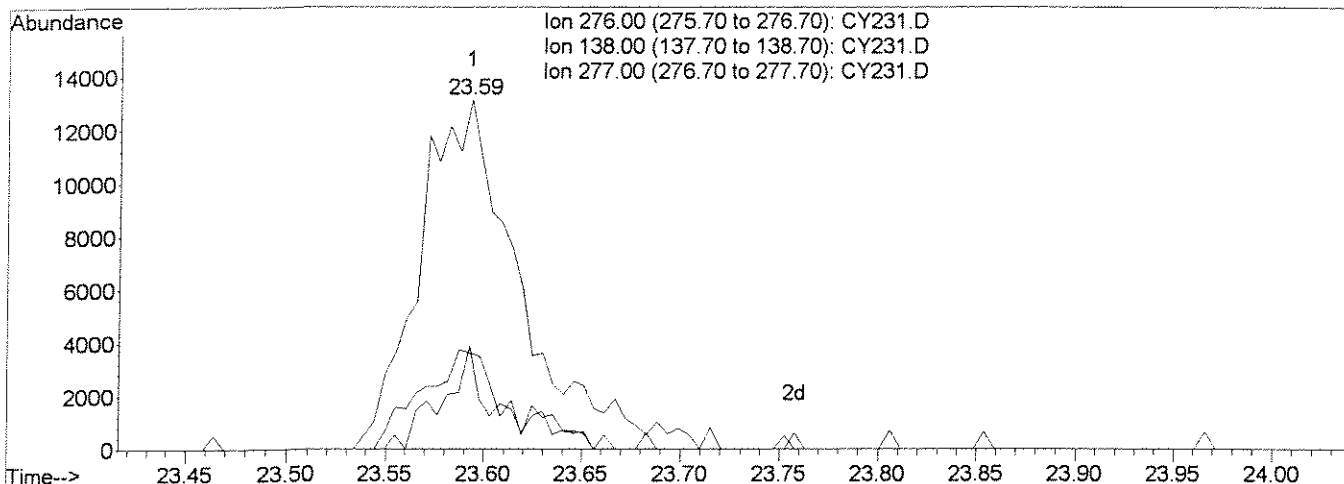
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\070108\CY231.D  
 Acq On : 1 Jul 2008 11:27 am  
 Sample : Initial Calibration  
 Misc : 0.2/0.4 ppm std 8270.LL  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 2 12:40 2008

Vial: 3  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 12:38:46 2008  
 Response via : Multiple Level Calibration



TIC: CY231.D

(40) Benzo(g,h,i)perylene (T)

23.59min 0.19ppm m

response 47215

Ion	Exp%	Act%
276.00	100	100
138.00	21.80	21.85
277.00	27.50	27.47
0.00	0.00	0.00

*Handwritten signature and date:*  
 M 7/2/08  
 M 7/2

Data File : J:\ACQUDATA\5973B\DATA\070108\CY232.D  
 Acq On : 1 Jul 2008 12:15 pm  
 Sample : Initial Calibration  
 Misc : 0.5/1.0 ppm std 8270.LL  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 2 12:41 2008

Vial: 4  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

Quant Results File: LVI0701.RES

Quant Method : J:\ACQUDATA\5...\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 12:41:17 2008  
 Response via : Initial Calibration  
 DataAcq Meth : LVI0701

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) d4-1,4-Dichlorobenzene	10.13	152	73351	1.00	ppm	0.00
4) d8-Naphthalene	11.45	136	273618	1.00	ppm	0.00
10) d10-Acenaphthene	13.03	164	182730	1.00	ppm	0.00
18) d10-Phenanthrene	14.22	188	257658	1.00	ppm	0.00
26) d12-Chrysene	17.05	240	259523	1.00	ppm	0.00
33) d12-Perylene	19.79	264	216859	1.00	ppm	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev (Min)
5) SURR4,NITROBENZENE-D5	10.76	82	85245	0.52	ppm	0.00
Spiked Amount	2.000	Range 22 - 124	Recovery	=	26.00%	
11) SURR5,2-FLUOROBIPHENYL	12.42	172	128909	0.52	ppm	0.00
Spiked Amount	2.000	Range 27 - 114	Recovery	=	26.00%#	
28) SURR6,TERPHENYL-D14	15.63	244	111727	0.50	ppm	0.00
Spiked Amount	2.000	Range 23 - 139	Recovery	=	25.00%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	4.35	88	70014	0.99	ppm	100
3) Pyridine	5.40	79	68801m	0.50	ppm	100
6) Nitrobenzene	10.78	77	87531	0.51	ppm	100
7) Naphthalene	11.47	128	141895	0.51	ppm	100
8) 2-Methylnaphthalene	12.10	142	95074	0.48	ppm	100
9) 1-Methylnaphthalene	12.20	142	96531	0.51	ppm	100
12) Acenaphthylene	12.91	152	154888	0.51	ppm	100
13) Dimethyl phthalate	12.78	163	106268	0.52	ppm	100
14) Acenaphthene	13.06	153	96412	0.50	ppm	100
15) Dibenzofuran	13.19	168	141744	0.49	ppm	100
16) Fluorene	13.49	166	115742	0.51	ppm	100
17) Diethylphthalate	13.37	149	116296	0.56	ppm	100
19) Hexachlorobenzene	13.99	284	38753	0.55	ppm	100
20) Phenanthrene	14.24	178	129268	0.53	ppm	100
21) Anthracene	14.27	178	122449	0.51	ppm	100
22) Carbazole	14.39	167	99097	0.53	ppm	100
23) Octachlorostyrene	15.12	380	8066	0.57	ppm	100
24) Di-n-butylphthalate	14.63	149	145477	0.55	ppm	100
25) Fluoranthene	15.27	202	149601	0.52	ppm	100
27) Pyrene	15.52	202	150662	0.51	ppm	100
29) Butylbenzylphthalate	16.21	149	66666	0.59	ppm	100
30) bis(2-Ethylhexyl)phthalate	17.01	149	188048	1.06	ppm	100
31) Benzo(a)anthracene	17.02	228	137099	0.49	ppm	100
32) Chrysene	17.08	228	141990	0.52	ppm	100
34) Di-n-octylphthalate	18.01	149	128217	0.53	ppm	100
35) Benzo(b)Fluoranthene	18.91	252	137128	0.47	ppm	100

(#) = qualifier out of range (m) = manual integration  
 CY232.D LVI0701.M Wed Jul 02 13:01:30 2008

Data File : J:\ACQUDATA\5973B\DATA\070108\CY232.D  
 Acq On : 1 Jul 2008 12:15 pm  
 Sample : Initial Calibration  
 Misc : 0.5/1.0 ppm std 8270.LL  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 2 12:41 2008

Vial: 4  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

Quant Results File: LVI0701.RES

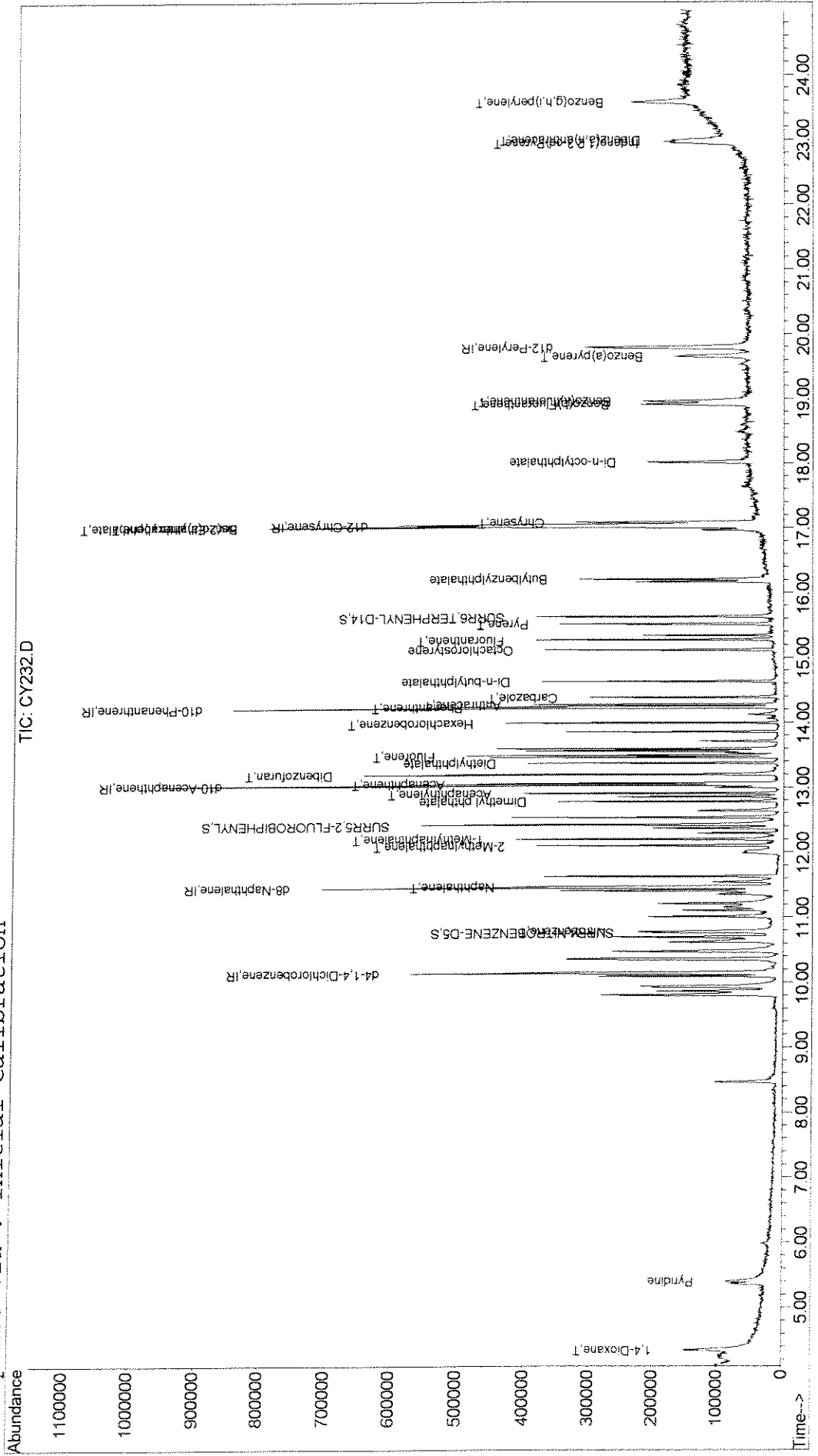
Quant Method : J:\ACQUDATA\5...\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 12:41:17 2008  
 Response via : Initial Calibration  
 DataAcq Meth : LVI0701

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
36) Benzo(k)fluoranthene	18.96	252	126469	0.47 ppm	100
37) Benzo(a)pyrene	19.65	252	116605	0.47 ppm	100
38) Indeno(1,2,3-cd)Pyrene	22.94	276	120880	0.52 ppm	100
39) Dibenz(a,h)anthracene	22.99	278	92330	0.42 ppm	100
40) Benzo(g,h,i)perylene	23.56	276	119643	0.46 ppm	100

Quantitation Report

Data File : J:\ACQUDATA\5973B\DATA\070108\CY232.D Vial: 4  
Acq On : 1 Jul 2008 12:15 pm Operator: Z.Miao  
Sample : Initial Calibration Inst : 5973-B  
Misc : 0.5/1.0 ppm std 8270.LL Multiplr: 1.00  
MS Integration Params: RTEINT.P  
Quant Time: Jul 2 12:41 2008 Quant Results File: LVI0701.RES

Method : J:\ACQUDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
Title : 8270 BNA ANALYSIS  
Last Update : Wed Jul 02 13:00:22 2008  
Response via : Initial Calibration



00310

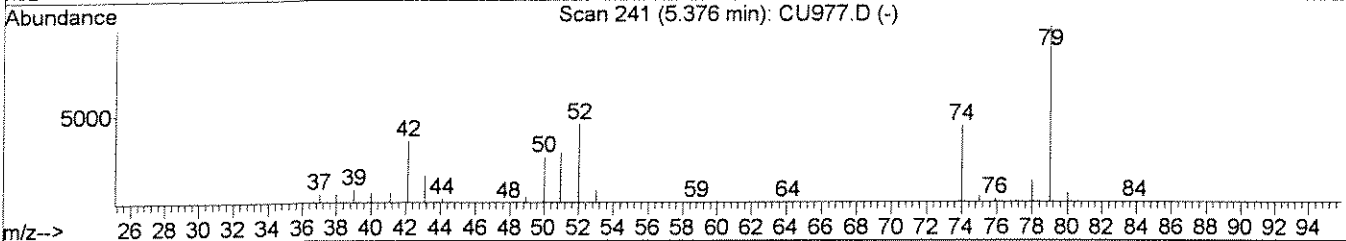
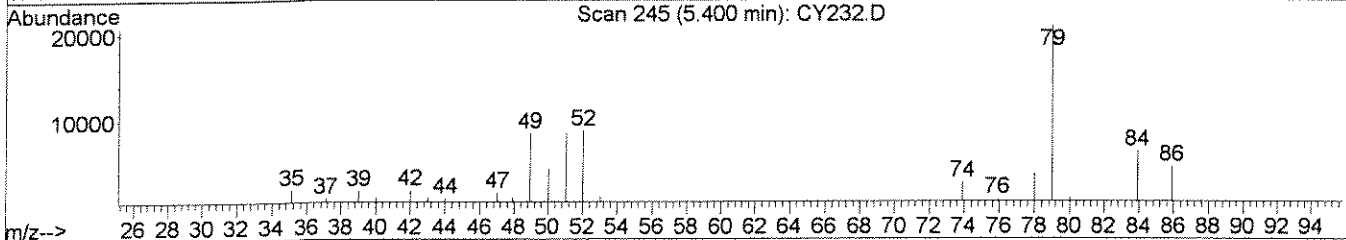
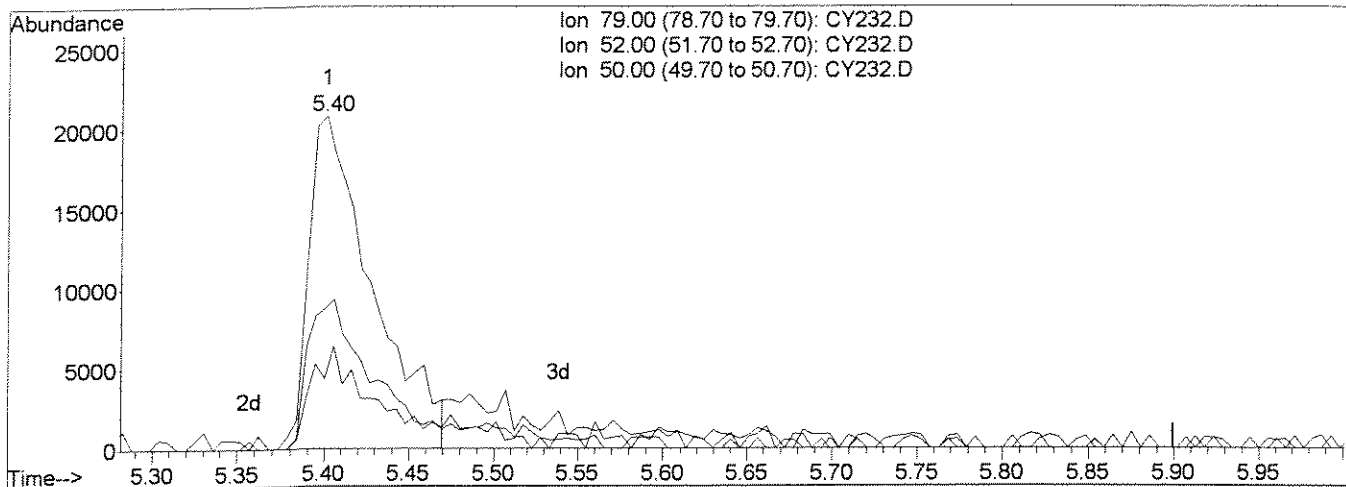
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\070108\CY232.D  
 Acq On : 1 Jul 2008 12:15 pm  
 Sample : Initial Calibration  
 Misc : 0.5/1.0 ppm std 8270.LL  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 2 12:41 2008

Vial: 4  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 12:41:17 2008  
 Response via : Single Level Calibration



TIC: CY232.D

(3) Pyridine		
5.40min 0.39ppm		
response 54157		
Ion	Exp%	Act%
79.00	100	100
52.00	42.10	42.35
50.00	21.00	19.26
0.00	0.00	0.00

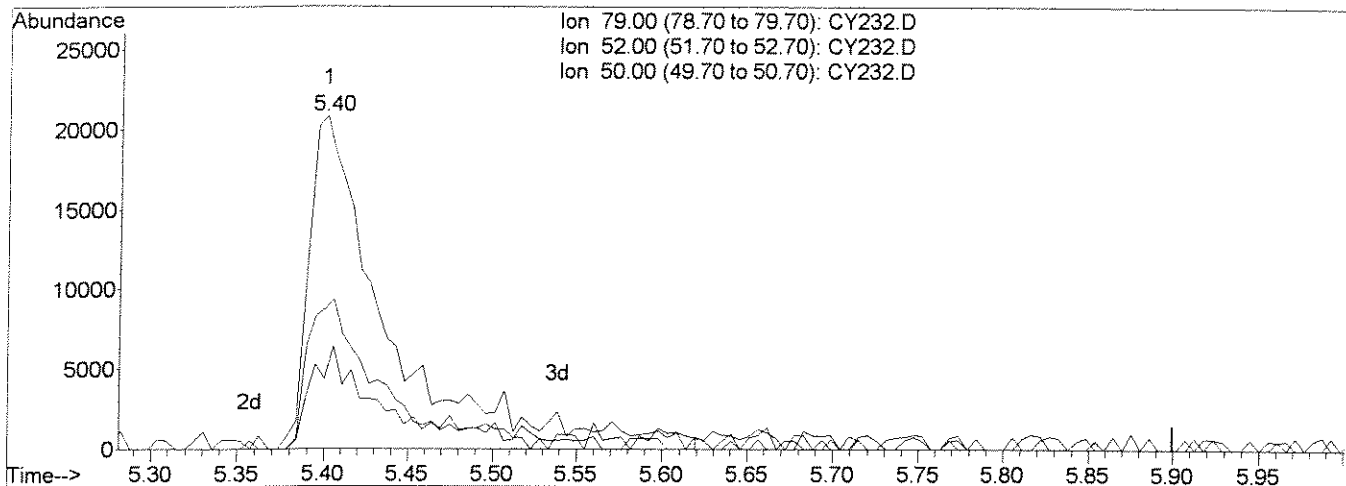
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\070108\CY232.D  
 Acq On : 1 Jul 2008 12:15 pm  
 Sample : Initial Calibration  
 Misc : 0.5/1.0 ppm std 8270.LL  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 2 12:41 2008

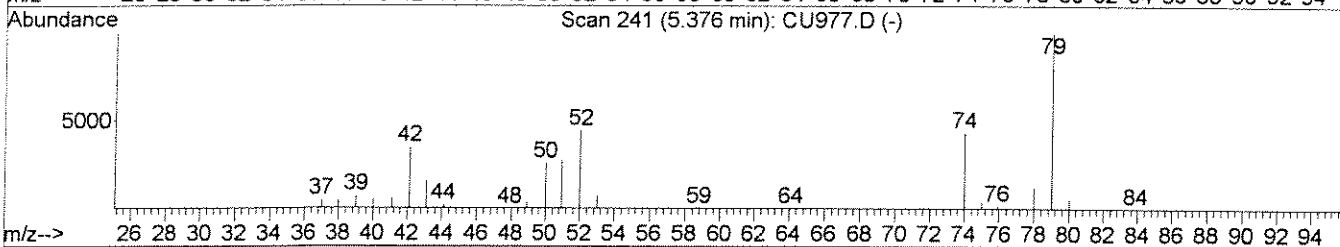
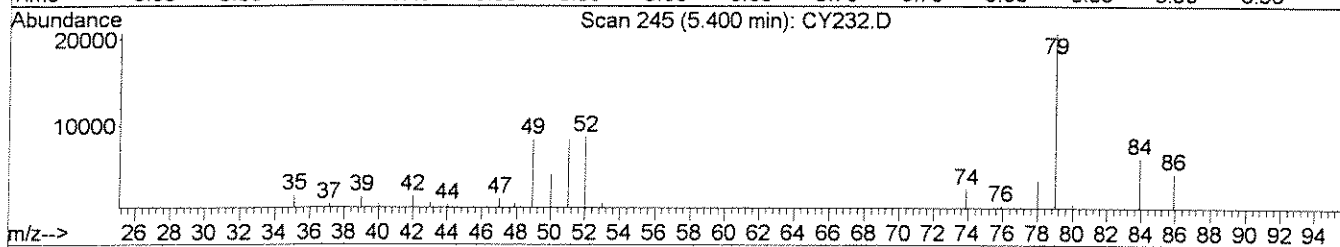
Vial: 4  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 12:41:17 2008  
 Response via : Single Level Calibration



Ion 79.00 (78.70 to 79.70): CY232.D  
 Ion 52.00 (51.70 to 52.70): CY232.D  
 Ion 50.00 (49.70 to 50.70): CY232.D



TIC: CY232.D

(3) Pyridine

5.40min 0.50ppm m

response 68801

Ion	Exp%	Act%
79.00	100	100
52.00	42.10	42.15
50.00	21.00	20.96
0.00	0.00	0.00

*Handwritten signature and date: Z.Miao 7/2/08*



Data File : J:\ACQUADATA\5973B\DATA\070108\CY233.D Vial: 5  
 Acq On : 1 Jul 2008 1:02 pm Operator: Z.Miao  
 Sample : Initial Calibration Inst : 5973-B  
 Misc : 1.0/2.0 ppm std 8270.LL Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 2 12:43 2008 Quant Results File: LVI0701.RES

Quant Method : J:\ACQUADATA\5...\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 12:43:07 2008  
 Response via : Initial Calibration  
 DataAcq Meth : LVI0701

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) d4-1,4-Dichlorobenzene	10.13	152	74353	1.00	ppm	0.00
4) d8-Naphthalene	11.45	136	269991	1.00	ppm	0.00
10) d10-Acenaphthene	13.03	164	180843	1.00	ppm	0.00
18) d10-Phenanthrene	14.22	188	269618	1.00	ppm	0.00
26) d12-Chrysene	17.04	240	271714	1.00	ppm	0.00
33) d12-Perylene	19.78	264	217720	1.00	ppm	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev (Min)
5) SURR4,NITROBENZENE-D5	10.76	82	165561	1.02	ppm	0.00
Spiked Amount 2.000	Range 22 - 124		Recovery =	51.00%		
11) SURR5,2-FLUOROBIPHENYL	12.42	172	243945	1.00	ppm	0.00
Spiked Amount 2.000	Range 27 - 114		Recovery =	50.00%		
28) SURR6,TERPHENYL-D14	15.63	244	230515	0.99	ppm	0.00
Spiked Amount 2.000	Range 23 - 139		Recovery =	49.50%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	4.35	88	135457	1.89	ppm	100
3) Pyridine	5.38	79	136233m	0.98	ppm	
6) Nitrobenzene	10.78	77	162770	0.96	ppm	100
7) Naphthalene	11.47	128	269032	0.97	ppm	100
8) 2-Methylnaphthalene	12.10	142	203319	1.04	ppm	100
9) 1-Methylnaphthalene	12.20	142	186785	1.00	ppm	100
12) Acenaphthylene	12.90	152	293602	0.97	ppm	100
13) Dimethyl phthalate	12.78	163	218465	1.09	ppm	100
14) Acenaphthene	13.06	153	189077	0.99	ppm	100
15) Dibenzofuran	13.19	168	282659	0.99	ppm	100
16) Fluorene	13.49	166	219868	0.97	ppm	100
17) Diethylphthalate	13.37	149	222455	1.08	ppm	100
19) Hexachlorobenzene	13.99	284	73948	1.01	ppm	100
20) Phenanthrene	14.24	178	258367	1.01	ppm	100
21) Anthracene	14.28	178	251060	1.00	ppm	100
22) Carbazole	14.38	167	207815	1.07	ppm	100
23) Octachlorostyrene	15.12	380	17865	1.09	ppm	100
24) Di-n-butylphthalate	14.63	149	290775	1.05	ppm	100
25) Fluoranthene	15.27	202	295790	0.98	ppm	100
27) Pyrene	15.51	202	307945	0.99	ppm	100
29) Butylbenzylphthalate	16.20	149	127861	1.07	ppm	100
30) bis(2-Ethylhexyl)phthalate	17.02	149	372196	2.00	ppm	100
31) Benzo(a)anthracene	17.02	228	278432	0.95	ppm	100
32) Chrysene	17.09	228	273959	0.95	ppm	100
34) Di-n-octylphthalate	18.01	149	270440	1.10	ppm	100
35) Benzo(b)Fluoranthene	18.91	252	272829	0.94	ppm	100

(#) = qualifier out of range (m) = manual integration  
 CY233.D LVI0701.M Wed Jul 02 13:01:36 2008

Data File : J:\ACQUDATA\5973B\DATA\070108\CY233.D  
 Acq On : 1 Jul 2008 1:02 pm  
 Sample : Initial Calibration  
 Misc : 1.0/2.0 ppm std 8270.LL  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 2 12:43 2008

Vial: 5  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

Quant Results File: LVI0701.RES

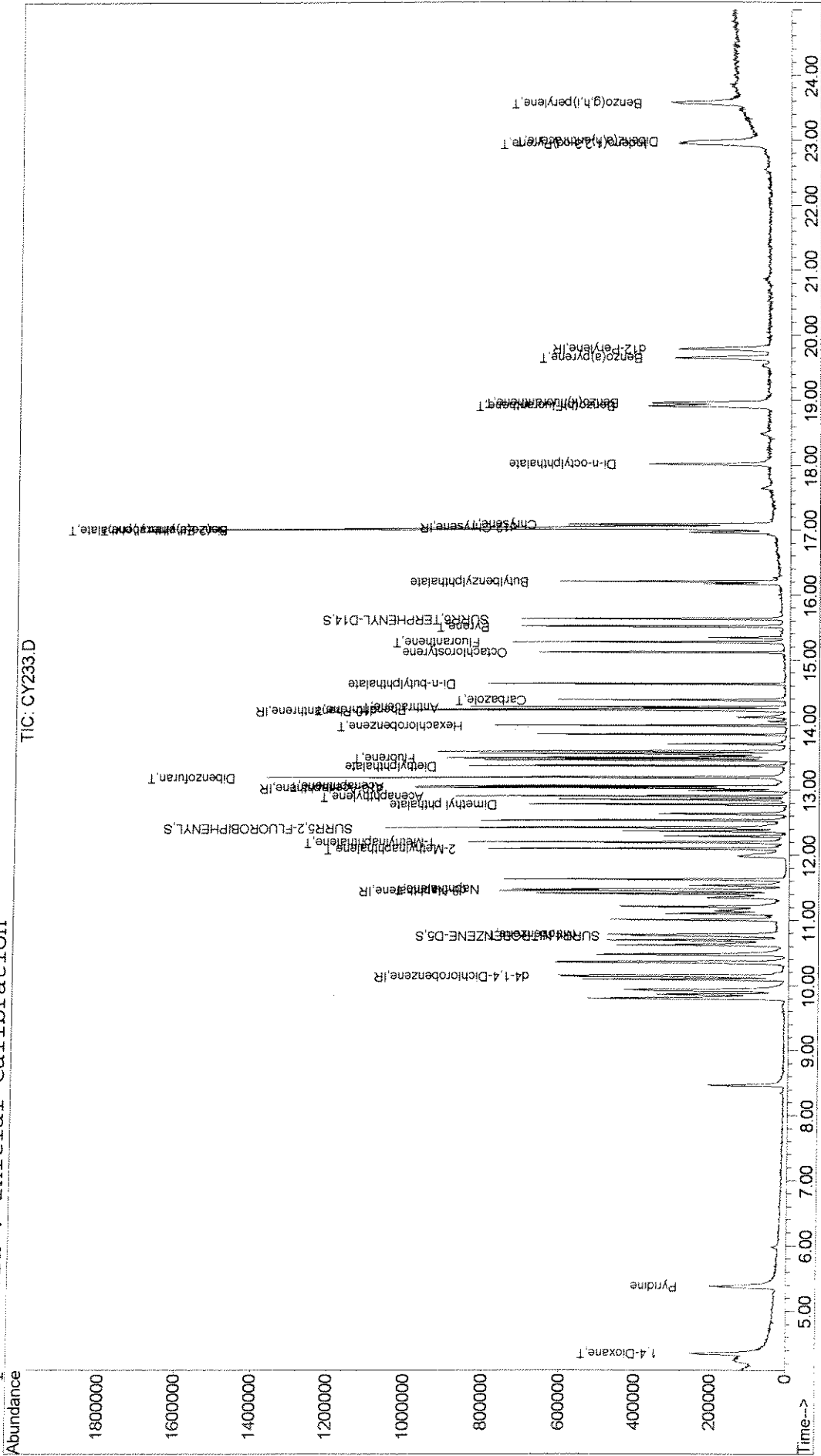
Quant Method : J:\ACQUDATA\5...\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 12:43:07 2008  
 Response via : Initial Calibration  
 DataAcq Meth : LVI0701

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
36) Benzo(k)fluoranthene	18.95	252	261975	0.97	ppm	100
37) Benzo(a)pyrene	19.64	252	237103	0.95	ppm	100
38) Indeno(1,2,3-cd)Pyrene	22.94	276	259207	0.91	ppm	100
39) Dibenz(a,h)anthracene	22.98	278	205786	0.93	ppm	100
40) Benzo(g,h,i)perylene	23.57	276	249914	0.97	ppm	100

Quantitation Report

Data File : J:\ACQDATA\5973B\DATA\070108\CY233.D Vial: 5  
 Acq On : 1 Jul 2008 1:02 pm Operator: Z.Miao  
 Sample : Initial Calibration Inst : 5973-B  
 Misc : 1.0/2.0 ppm std 8270.LL Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 2 12:43 2008 Quant Results File: LVI0701.RES

Method : J:\ACQDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 13:00:22 2008  
 Response via : Initial Calibration



00315

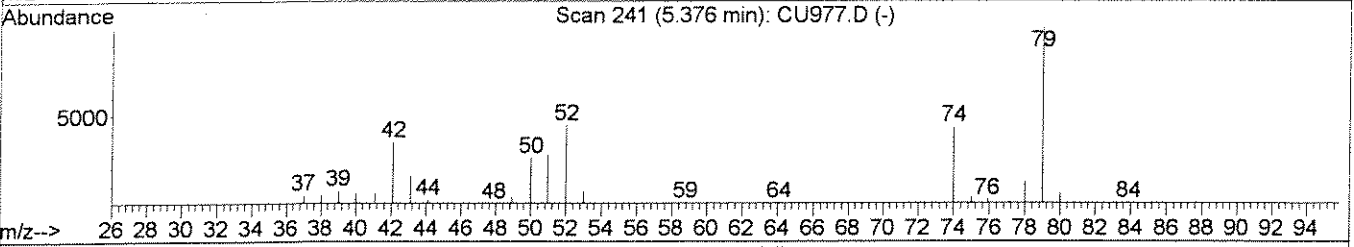
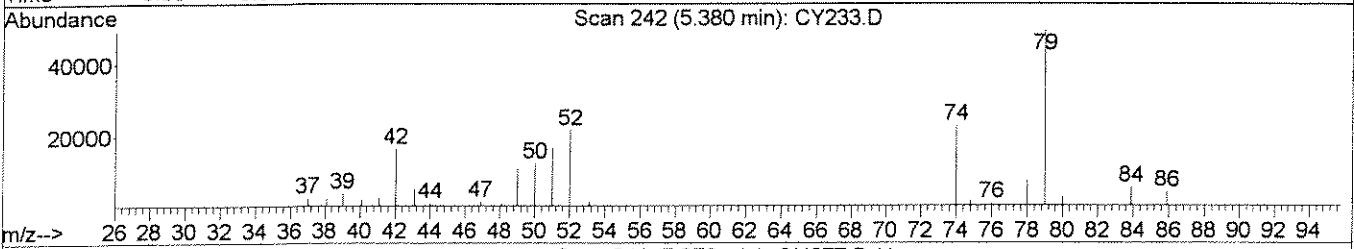
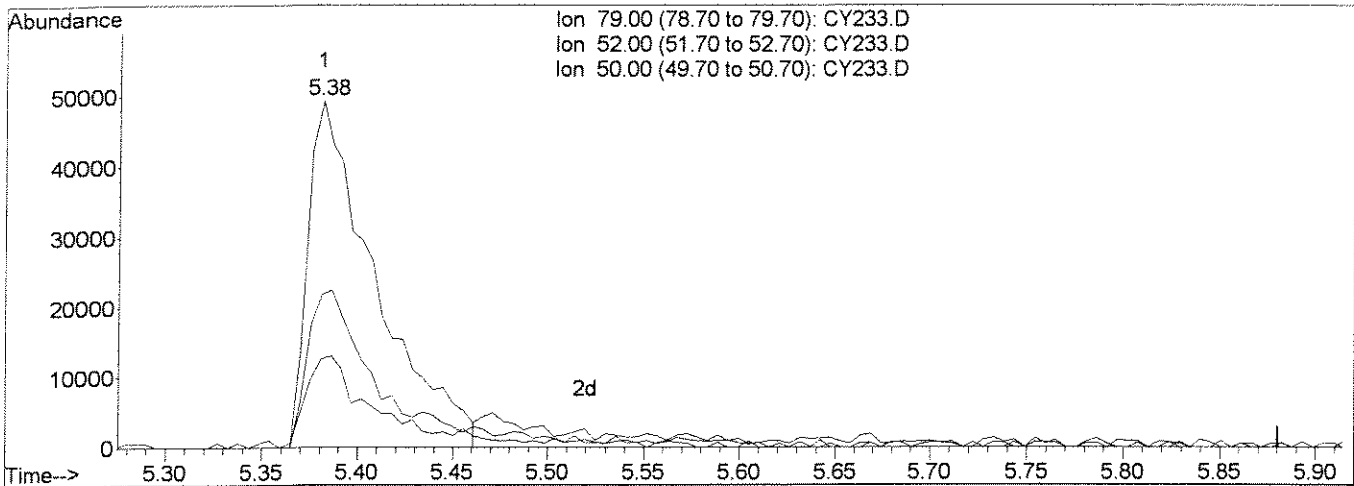
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\070108\CY233.D  
 Acq On : 1 Jul 2008 1:02 pm  
 Sample : Initial Calibration  
 Misc : 1.0/2.0 ppm std 8270.LL  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 2 12:43 2008

Vial: 5  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 12:43:07 2008  
 Response via : Single Level Calibration



TIC: CY233.D

(3) Pyridine

5.38min 0.87ppm

response 121209

Ion	Exp%	Act%
79.00	100	100
52.00	42.50	42.53
50.00	24.60	24.61
0.00	0.00	0.00

B

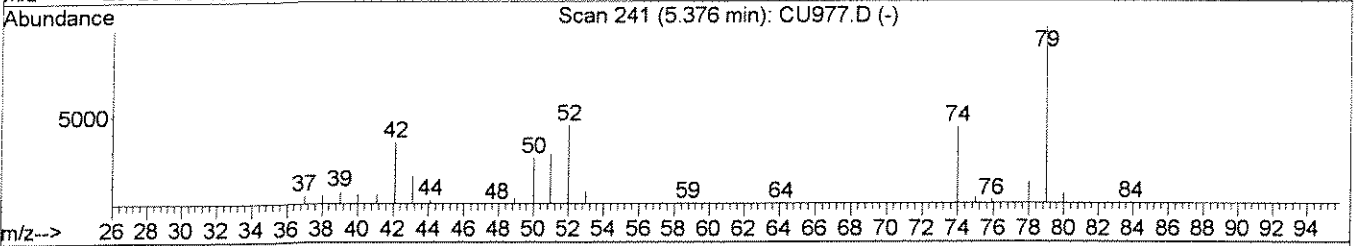
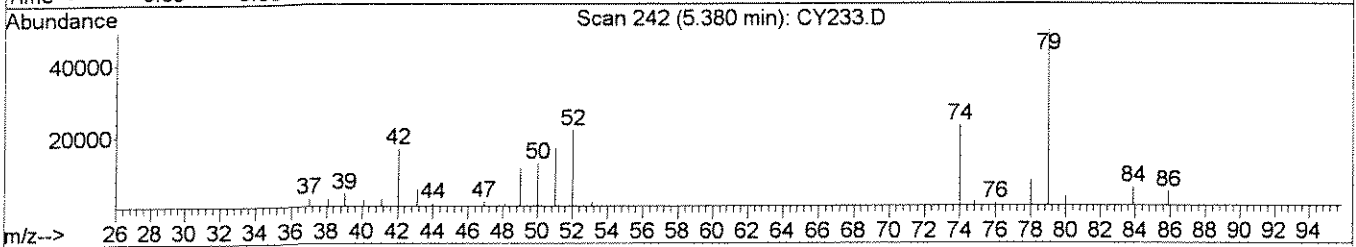
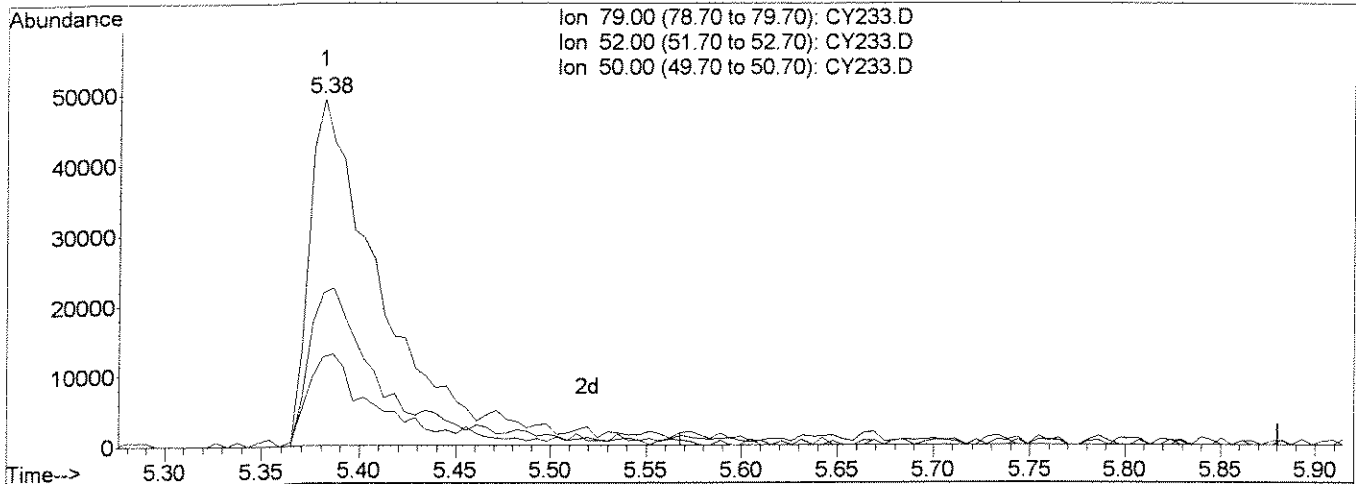
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\070108\CY233.D  
 Acq On : 1 Jul 2008 1:02 pm  
 Sample : Initial Calibration  
 Misc : 1.0/2.0 ppm std 8270.LL  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 2 12:43 2008

Vial: 5  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 12:43:07 2008  
 Response via : Single Level Calibration



TIC: CY233.D

(3) Pyridine

5.38min 0.98ppm m

response 136233

Ion	Exp%	Act%
79.00	100	100
52.00	42.50	43.99
50.00	24.60	25.39
0.00	0.00	0.00

*Handwritten signature and date: Z.Miao 7/2/08*

Data File : J:\ACQUADATA\5973B\DATA\070108\CY234.D  
 Acq On : 1 Jul 2008 1:49 pm  
 Sample : Initial Calibration  
 Misc : 2.0/4.0 ppm std 8270.LL  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 2 12:33 2008

Vial: 6  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

Quant Results File: LVI0701.RES

Quant Method : J:\ACQUADATA\5...\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 12:33:46 2008  
 Response via : Initial Calibration  
 DataAcq Meth : LVI0701

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	10.14	152	76509	1.00	ppm	0.00
4) d8-Naphthalene	11.45	136	280482	1.00	ppm	0.00
10) d10-Acenaphthene	13.03	164	182626	1.00	ppm	0.00
18) d10-Phenanthrene	14.22	188	284665	1.00	ppm	0.00
26) d12-Chrysene	17.04	240	282584	1.00	ppm	0.00
33) d12-Perylene	19.78	264	231475	1.00	ppm	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
5) SURR4,NITROBENZENE-D5	10.76	82	367393	2.18	ppm	0.00
Spiked Amount 2.000	Range 22 - 124		Recovery	=	109.00%	
11) SURR5,2-FLUOROBIPHENYL	12.42	172	515726	2.09	ppm	0.00
Spiked Amount 2.000	Range 27 - 114		Recovery	=	104.50%	
28) SURR6,TERPHENYL-D14	15.63	244	513402	2.11	ppm	0.00
Spiked Amount 2.000	Range 23 - 139		Recovery	=	105.50%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	4.34	88	284989	3.87	ppm	100
3) Pyridine	5.37	79	299525	2.17	ppm	100
6) Nitrobenzene	10.78	77	381661	2.17	ppm	100
7) Naphthalene	11.47	128	580520	2.02	ppm	100
8) 2-Methylnaphthalene	12.10	142	417117	2.06	ppm	100
9) 1-Methylnaphthalene	12.20	142	400750	2.07	ppm	100
12) Acenaphthylene	12.90	152	644397	2.11	ppm	100
13) Dimethyl phthalate	12.77	163	472413	2.33	ppm	100
14) Acenaphthene	13.06	153	394392	2.04	ppm	100
15) Dibenzofuran	13.19	168	615836	2.13	ppm	100
16) Fluorene	13.49	166	483082	2.12	ppm	100
17) Diethylphthalate	13.37	149	489855	2.35	ppm	100
19) Hexachlorobenzene	13.99	284	156192	2.01	ppm	100
20) Phenanthrene	14.24	178	558365	2.06	ppm	100
21) Anthracene	14.28	178	554636	2.10	ppm	100
22) Carbazole	14.38	167	465108	2.27	ppm	100
23) Octachlorostyrene	15.11	380	32555	1.82	ppm	100
24) Di-n-butylphthalate	14.63	149	644637	2.21	ppm	100
25) Fluoranthene	15.27	202	660338	2.07	ppm	100
27) Pyrene	15.52	202	681581	2.12	ppm	100
29) Butylbenzylphthalate	16.20	149	297820	2.40	ppm	100
30) bis(2-Ethylhexyl)phthalate	17.02	149	837778	4.33	ppm	100
31) Benzo(a)anthracene	17.02	228	637511	2.08	ppm	100
32) Chrysene	17.08	228	631274	2.11	ppm	100
34) Di-n-octylphthalate	18.02	149	633578	2.43	ppm	100
35) Benzo(b)Fluoranthene	18.91	252	655291	2.12	ppm	100

(#) = qualifier out of range (m) = manual integration  
 CY234.D LVI0701.M Wed Jul 02 13:01:43 2008

Data File : J:\ACQUDATA\5973B\DATA\070108\CY234.D Vial: 6  
 Acq On : 1 Jul 2008 1:49 pm Operator: Z.Miao  
 Sample : Initial Calibration Inst : 5973-B  
 Misc : 2.0/4.0 ppm std 8270.LL Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 2 12:33 2008 Quant Results File: LVI0701.RES

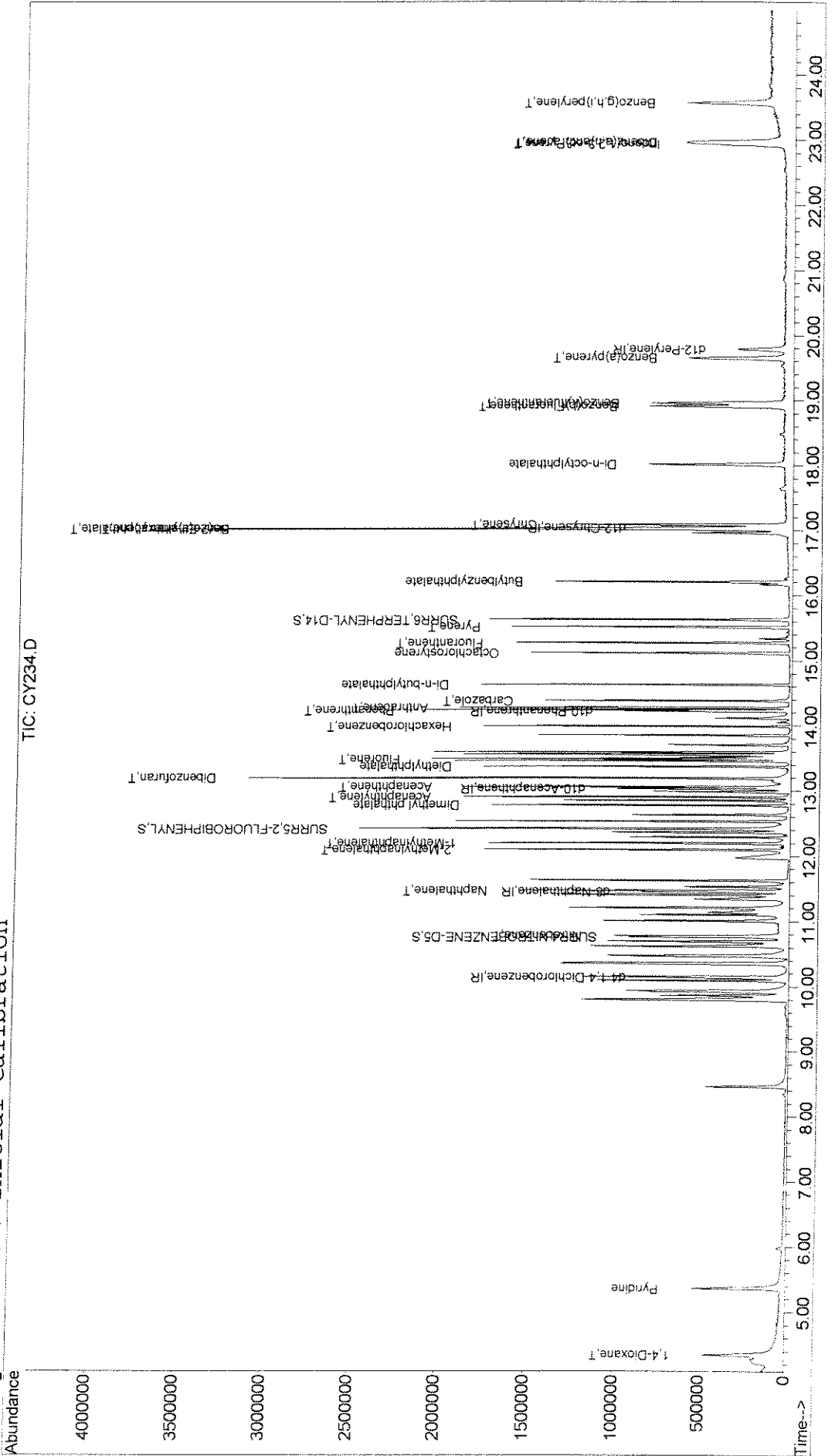
Quant Method : J:\ACQUDATA\5...\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 12:33:46 2008  
 Response via : Initial Calibration  
 DataAcq Meth : LVI0701

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
36) Benzo(k)fluoranthene	18.96	252	600601	2.08	ppm	100
37) Benzo(a)pyrene	19.64	252	566664	2.13	ppm	100
38) Indeno(1,2,3-cd)Pyrene	22.94	276	634373	1.88	ppm	100
39) Dibenz(a,h)anthracene	22.97	278	494595	2.09	ppm	100
40) Benzo(g,h,i)perylene	23.57	276	567566	2.06	ppm	100

Quantitation Report

Data File : J:\ACQUDATA\5973B\DATA\070108\CY234.D Vial: 6  
Acq On : 1 Jul 2008 1:49 pm Operator: Z.Miao  
Sample : Initial Calibration Inst : 5973-B  
Misc : 2.0/4.0 ppm std 8270.LL Multiplr: 1.00  
MS Integration Params: RTEINT.P  
Quant Time: Jul 2 12:33 2008 Quant Results File: LVI0701.RES

Method : J:\ACQUDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
Title : 8270 BNA ANALYSIS  
Last Update : Wed Jul 02 13:00:22 2008  
Response via : Initial Calibration



00326



Data File : J:\ACQUDATA\5973B\DATA\070108\CY235.D  
 Acq On : 1 Jul 2008 2:36 pm  
 Sample : Initial Calibration  
 Misc : 3.0/6.0 ppm std 8270.LL  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 2 12:44 2008

Vial: 7  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

Quant Results File: LVI0701.RES

Quant Method : J:\ACQUDATA\5...\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 12:44:46 2008  
 Response via : Initial Calibration  
 DataAcq Meth : LVI0701

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	10.13	152	74313	1.00	ppm	0.00
4) d8-Naphthalene	11.45	136	268538	1.00	ppm	0.00
10) d10-Acenaphthene	13.03	164	181563	1.00	ppm	0.00
18) d10-Phenanthrene	14.22	188	286429	1.00	ppm	0.00
26) d12-Chrysene	17.05	240	290812	1.00	ppm	0.00
33) d12-Perylene	19.78	264	230158	1.00	ppm	0.00

#### System Monitoring Compounds

5) SURR4,NITROBENZENE-D5	10.76	82	510116	3.16	ppm	0.00
Spiked Amount 2.000	Range	22 - 124	Recovery	=	158.00%#	
11) SURR5,2-FLUOROBIPHENYL	12.42	172	706111	2.88	ppm	0.00
Spiked Amount 2.000	Range	27 - 114	Recovery	=	144.00%#	
28) SURR6,TERPHENYL-D14	15.63	244	738238	2.95	ppm	0.00
Spiked Amount 2.000	Range	23 - 139	Recovery	=	147.50%#	

#### Target Compounds

						Qvalue
2) 1,4-Dioxane	4.34	88	409582	5.73	ppm	100
3) Pyridine	5.36	79	431518	3.05	ppm	100
6) Nitrobenzene	10.77	77	537027	3.19	ppm	100
7) Naphthalene	11.47	128	812180	2.95	ppm	100
8) 2-Methylnaphthalene	12.09	142	590641	3.05	ppm	100
9) 1-Methylnaphthalene	12.19	142	554624	2.99	ppm	100
12) Acenaphthylene	12.90	152	898623	2.96	ppm	100
13) Dimethyl phthalate	12.78	163	669604	3.32	ppm	100
14) Acenaphthene	13.06	153	562538	2.93	ppm	100
15) Dibenzofuran	13.19	168	836398	2.91	ppm	100
16) Fluorene	13.49	166	679885	3.00	ppm	100
17) Diethylphthalate	13.36	149	686884	3.31	ppm	100
19) Hexachlorobenzene	13.99	284	228960	2.93	ppm	100
20) Phenanthrene	14.24	178	784625	2.88	ppm	100
21) Anthracene	14.27	178	794622	2.99	ppm	100
22) Carbazole	14.38	167	646347	3.13	ppm	100
23) Octachlorostyrene	15.12	380	50751	2.76	ppm	100
24) Di-n-butylphthalate	14.63	149	922417	3.14	ppm	100
25) Fluoranthene	15.27	202	923243	2.88	ppm	100
27) Pyrene	15.51	202	960898	2.90	ppm	100
29) Butylbenzylphthalate	16.21	149	420149	3.29	ppm	100
30) bis(2-Ethylhexyl)phthalate	17.02	149	1209582	6.07	ppm	100
31) Benzo(a)anthracene	17.02	228	928031	2.95	ppm	100
32) Chrysene	17.08	228	905913	2.94	ppm	100
34) Di-n-octylphthalate	18.02	149	907941	3.50	ppm	100
35) Benzo(b)Fluoranthene	18.91	252	951476	3.09	ppm	100

(#) = qualifier out of range (m) = manual integration

CY235.D LVI0701.M Wed Jul 02 13:02:51 2008

Data File : J:\ACQUDATA\5973B\DATA\070108\CY235.D  
 Acq On : 1 Jul 2008 2:36 pm  
 Sample : Initial Calibration  
 Misc : 3.0/6.0 ppm std 8270.LL  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 2 12:44 2008

Vial: 7  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

Quant Results File: LVI0701.RES

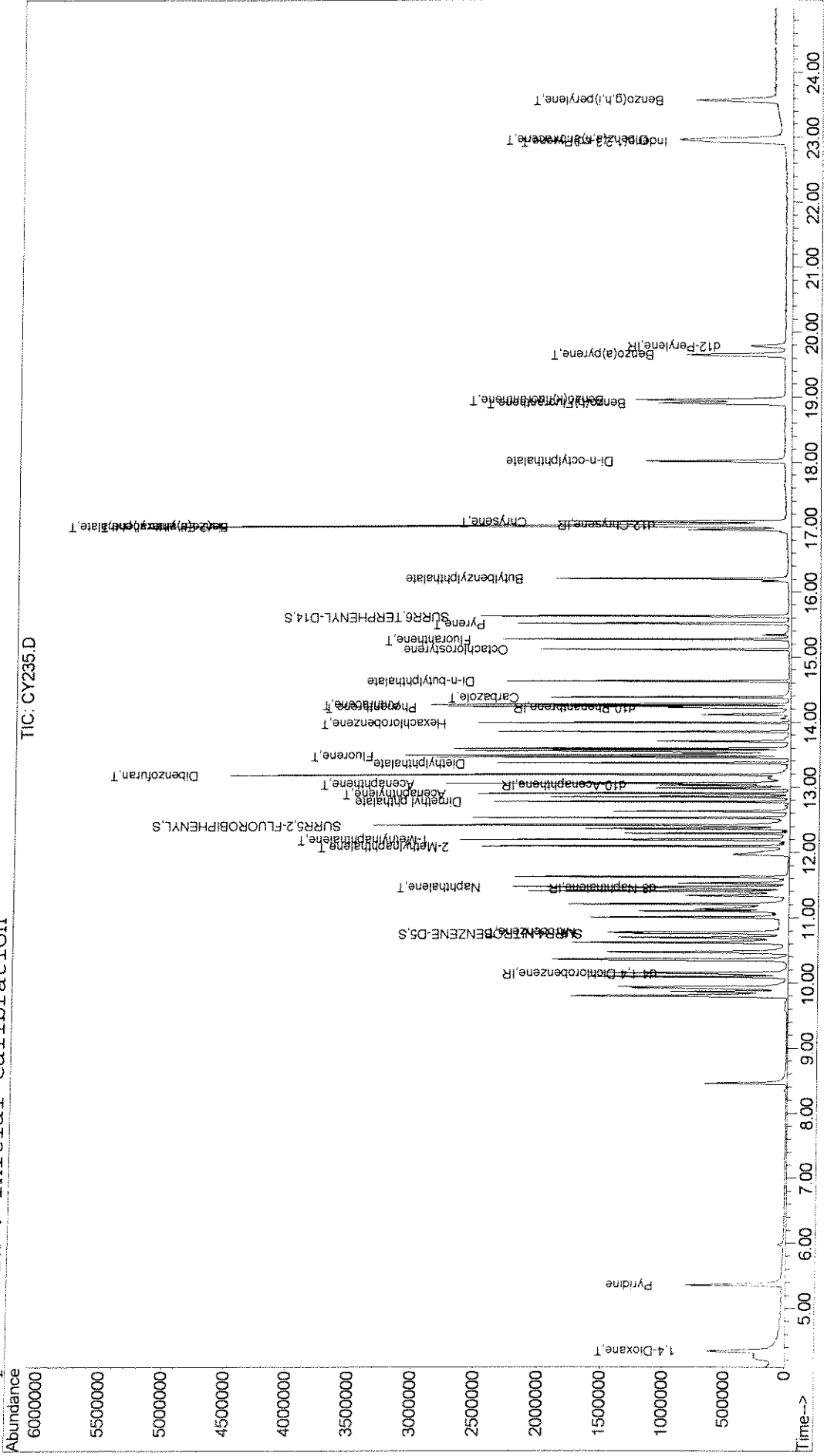
Quant Method : J:\ACQUDATA\5...\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 12:44:46 2008  
 Response via : Initial Calibration  
 DataAcq Meth : LVI0701

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
36) Benzo(k)fluoranthene	18.96	252	900284	3.14	ppm	100
37) Benzo(a)pyrene	19.65	252	792985	3.00	ppm	100
38) Indeno(1,2,3-cd)Pyrene	22.93	276	913515	2.65	ppm	100
39) Dibenz(a,h)anthracene	22.96	278	733005	3.12	ppm	100
40) Benzo(g,h,i)perylene	23.57	276	809955	2.96	ppm	100

Quantitation report

Data File : J:\ACQDATA\5973B\DATA\070108\CY235.D  
Acq On : 1 Jul 2008 2:36 pm  
Sample : Initial Calibration  
Misc : 3.0/6.0 ppm std 8270.LL  
MS Integration Params: RTEINT.P  
Quant Time: Jul 2 12:44 2008  
Vial: 7  
Operator: Z.Miao  
Inst : 5973-B  
Multiplr: 1.00  
Quant Results File: LVI0701.RES

Method : J:\ACQDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
Title : 8270 BNA ANALYSIS  
Last Update : Wed Jul 02 13:01:54 2008  
Response via : Initial Calibration



00323

Data File : J:\ACQUDATA\5973B\DATA\070108\CY236.D

Vial: 8

Acq On : 1 Jul 2008 3:23 pm

Operator: Z.Miao

Sample : Initial Calibration

Inst : 5973-B

Misc : 4.0/8.0 ppm std 8270.LL

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Jul 2 12:46 2008

Quant Results File: LVI0701.RES

Quant Method : J:\ACQUDATA\5...\LVI0701.M (RTE Integrator)

Title : 8270 BNA ANALYSIS

Last Update : Wed Jul 02 12:46:10 2008

Response via : Initial Calibration

DataAcq Meth : LVI0701

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	10.14	152	74484	1.00	ppm	0.00
4) d8-Naphthalene	11.45	136	270355	1.00	ppm	0.00
10) d10-Acenaphthene	13.03	164	182176	1.00	ppm	0.00
18) d10-Phenanthrene	14.22	188	293114	1.00	ppm	0.00
26) d12-Chrysene	17.04	240	288336	1.00	ppm	0.00
33) d12-Perylene	19.78	264	233590	1.00	ppm	0.00

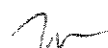
## System Monitoring Compounds

5) SURR4, NITROBENZENE-D5	10.76	82	717533	4.36	ppm	0.00
Spiked Amount	2.000	Range	22 - 124	Recovery	=	218.00%#
11) SURR5, 2-FLUOROBIPHENYL	12.42	172	975774	3.96	ppm	0.00
Spiked Amount	2.000	Range	27 - 114	Recovery	=	198.00%#
28) SURR6, TERPHENYL-D14	15.63	244	1021986	4.12	ppm	0.00
Spiked Amount	2.000	Range	23 - 139	Recovery	=	206.00%#

## Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	4.34	88	554580	7.66	ppm	100
3) Pyridine	5.35	79	626739	4.35	ppm	100
6) Nitrobenzene	10.78	77	758437	4.40	ppm	100
7) Naphthalene	11.47	128	1086496	3.93	ppm	100
8) 2-Methylnaphthalene	12.10	142	794598	4.06	ppm	100
9) 1-Methylnaphthalene	12.20	142	740837	3.96	ppm	100
12) Acenaphthylene	12.90	152	1233089	4.05	ppm	100
13) Dimethyl phthalate	12.77	163	917699	4.55	ppm	100
14) Acenaphthene	13.06	153	775625	4.03	ppm	100
15) Dibenzofuran	13.19	168	1133560	3.94	ppm	100
16) Fluorene	13.49	166	930187	4.11	ppm	100
17) Diethylphthalate	13.37	149	955371	4.59	ppm	100
19) Hexachlorobenzene	13.99	284	322236	4.01	ppm	100
20) Phenanthrene	14.24	178	1091975	3.90	ppm	100
21) Anthracene	14.28	178	1081345	3.97	ppm	100
22) Carbazole	14.38	167	891166	4.15	ppm	100
23) Octachlorostyrene	15.12	380	75693	4.01	ppm	100
24) Di-n-butylphthalate	14.63	149	1262526	4.18	ppm	100
25) Fluoranthene	15.27	202	1300254	3.97	ppm	100
27) Pyrene	15.52	202	1327752	4.02	ppm	100
29) Butylbenzylphthalate	16.20	149	599367	4.66	ppm	100
30) bis(2-Ethylhexyl)phthalate	17.02	149	1681755	8.34	ppm	100
31) Benzo(a)anthracene	17.02	228	1311339	4.18	ppm	100
32) Chrysene	17.09	228	1252559	4.09	ppm	100
34) Di-n-octylphthalate	18.02	149	1308076	4.88	ppm	100
35) Benzo(b)Fluoranthene	18.91	252	1295386	4.16	ppm	100

(#) = qualifier out of range (m) = manual integration  
 CY236.D LVI0701.M Wed Jul 02 13:02:59 2008



Data File : J:\ACQUDATA\5973B\DATA\070108\CY236.D

Vial: 8

Acq On : 1 Jul 2008 3:23 pm

Operator: Z.Miao

Sample : Initial Calibration

Inst : 5973-B

Misc : 4.0/8.0 ppm std 8270.LL

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Jul 2 12:46 2008

Quant Results File: LVI0701.RES

Quant Method : J:\ACQUDATA\5...\LVI0701.M (RTE Integrator)

Title : 8270 BNA ANALYSIS

Last Update : Wed Jul 02 12:46:10 2008

Response via : Initial Calibration

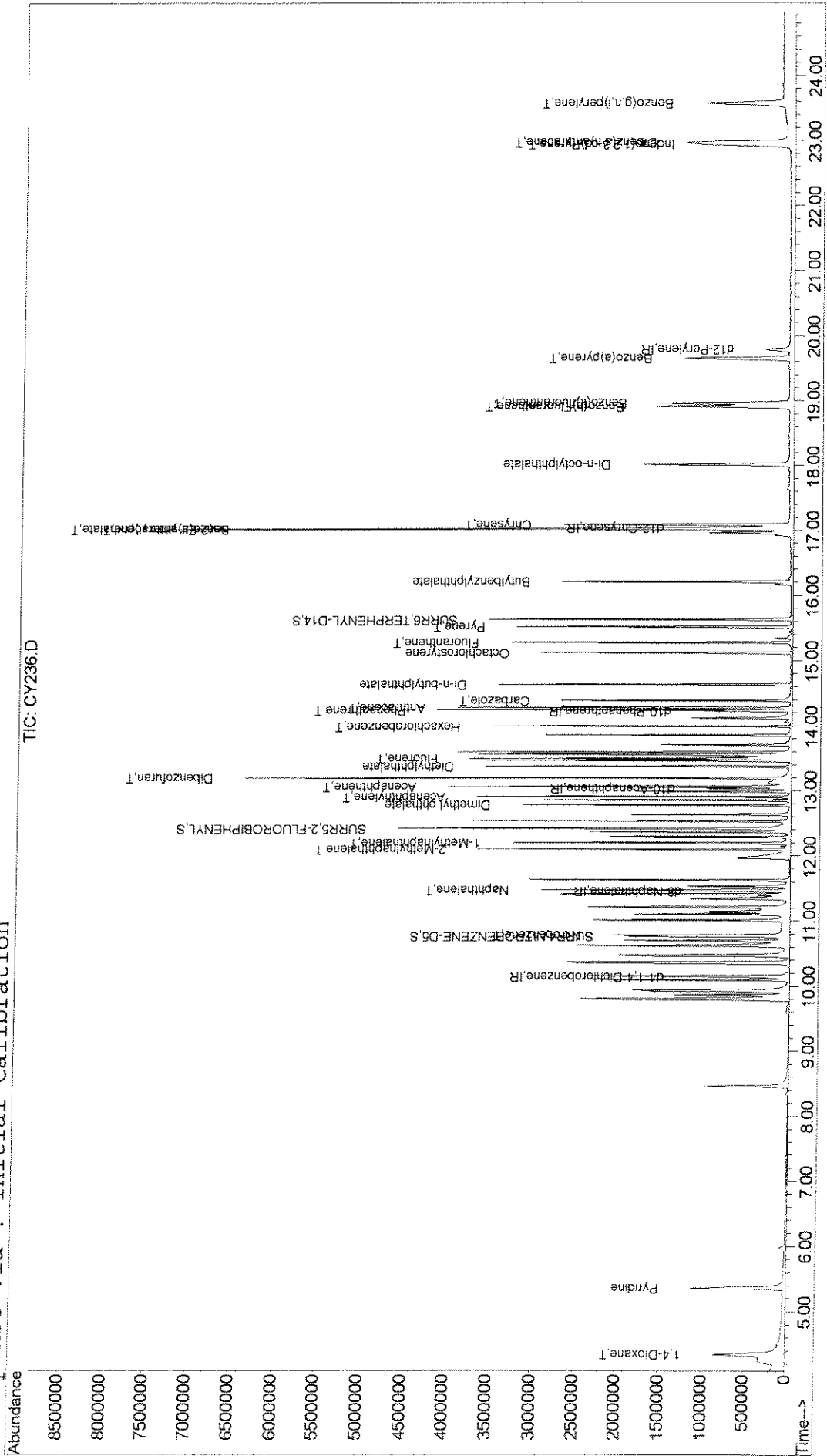
DataAcq Meth : LVI0701

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
36) Benzo(k)fluoranthene	18.96	252	1237717	4.31	ppm	100
37) Benzo(a)pyrene	19.65	252	1140391	4.28	ppm	100
38) Indeno(1,2,3-cd)Pyrene	22.93	276	1298370	3.78	ppm	100
39) Dibenz(a,h)anthracene	22.97	278	1054316	4.57	ppm	100
40) Benzo(g,h,i)perylene	23.57	276	1139141	4.16	ppm	100

-----  
(#) = qualifier out of range (m) = manual integration

Data File : J:\ACQDATA\5973B\DATA\070108\CY236.D Vial: 8  
 Acq On : 1 Jul 2008 3:23 pm Operator: Z.Miao  
 Sample : Initial Calibration Inst : 5973-B  
 Misc : 4.0/8.0 ppm std 8270.LL Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 2 12:46 2008 Quant Results File: LVI0701.RES

Method : J:\ACQDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 13:01:54 2008  
 Response via : Initial Calibration



00326

Data File : J:\ACQUDATA\5973B\DATA\070108\CY237.D  
 Acq On : 1 Jul 2008 4:09 pm  
 Sample : Initial Calibration  
 Misc : 5.0/10 ppm std 8270.LL  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 2 12:47 2008

Vial: 9  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

Quant Results File: LVI0701.RES

Quant Method : J:\ACQUDATA\5...\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 12:47:28 2008  
 Response via : Initial Calibration  
 DataAcq Meth : LVI0701

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	10.14	152	77111	1.00	ppm	0.00
4) d8-Naphthalene	11.45	136	274005	1.00	ppm	0.00
10) d10-Acenaphthene	13.03	164	186871	1.00	ppm	0.00
18) d10-Phenanthrene	14.22	188	298364	1.00	ppm	0.00
26) d12-Chrysene	17.05	240	305254	1.00	ppm	0.00
33) d12-Perylene	19.78	264	247176	1.00	ppm	0.00

#### System Monitoring Compounds

5) SURR4,NITROBENZENE-D5	10.76	82	908874	5.52	ppm	0.00
Spiked Amount 2.000	Range 22 - 124		Recovery =	276.00%#		
11) SURR5,2-FLUOROBIPHENYL	12.42	172	1199942	4.87	ppm	0.00
Spiked Amount 2.000	Range 27 - 114		Recovery =	243.50%#		
28) SURR6,TERPHENYL-D14	15.63	244	1309179	5.08	ppm	0.00
Spiked Amount 2.000	Range 23 - 139		Recovery =	254.00%#		

#### Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	4.35	88	689448	9.30	ppm	99
3) Pyridine	5.36	79	777823	5.31	ppm	99
6) Nitrobenzene	10.78	77	937959	5.43	ppm	99
7) Naphthalene	11.47	128	1356842	4.94	ppm	98
8) 2-Methylnaphthalene	12.10	142	981511	5.04	ppm	98
9) 1-Methylnaphthalene	12.20	142	924275	5.00	ppm	98
12) Acenaphthylene	12.90	152	1542770	5.07	ppm	98
13) Dimethyl phthalate	12.78	163	1155868	5.74	ppm	99
14) Acenaphthene	13.06	153	975841	5.07	ppm	98
15) Dibenzofuran	13.19	168	1448347	5.05	ppm	100
16) Fluorene	13.49	166	1193390	5.31	ppm	98
17) Diethylphthalate	13.37	149	1204613	5.78	ppm	97
19) Hexachlorobenzene	13.99	284	406102	5.09	ppm	98
20) Phenanthrene	14.24	178	1381433	4.98	ppm	99
21) Anthracene	14.28	178	1376533	5.11	ppm	99
22) Carbazole	14.38	167	1124126	5.17	ppm	100
23) Octachlorostyrene	15.12	380	93414	5.50	ppm	81
24) Di-n-butylphthalate	14.63	149	1591910	5.30	ppm	98
25) Fluoranthene	15.27	202	1667813	5.15	ppm	99
27) Pyrene	15.51	202	1723091	5.00	ppm	99
29) Butylbenzylphthalate	16.20	149	779525	5.81	ppm	99
30) bis(2-Ethylhexyl)phthalate	17.02	149	2152037	10.18	ppm	99
31) Benzo(a)anthracene	17.02	228	1688261	5.17	ppm	97
32) Chrysene	17.09	228	1588012	4.99	ppm	98
34) Di-n-octylphthalate	18.02	149	1688041	6.10	ppm	98
35) Benzo(b)Fluoranthene	18.91	252	1686131	5.29	ppm	96

(#) = qualifier out of range (m) = manual integration  
 CY237.D LVI0701.M Wed Jul 02 13:03:06 2008



Data File : J:\ACQUDATA\5973B\DATA\070108\CY237.D  
 Acq On : 1 Jul 2008 4:09 pm  
 Sample : Initial Calibration  
 Misc : 5.0/10 ppm std 8270.LL  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 2 12:47 2008

Vial: 9  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

Quant Results File: LVI0701.RES

Quant Method : J:\ACQUDATA\5...\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 12:47:28 2008  
 Response via : Initial Calibration  
 DataAcq Meth : LVI0701

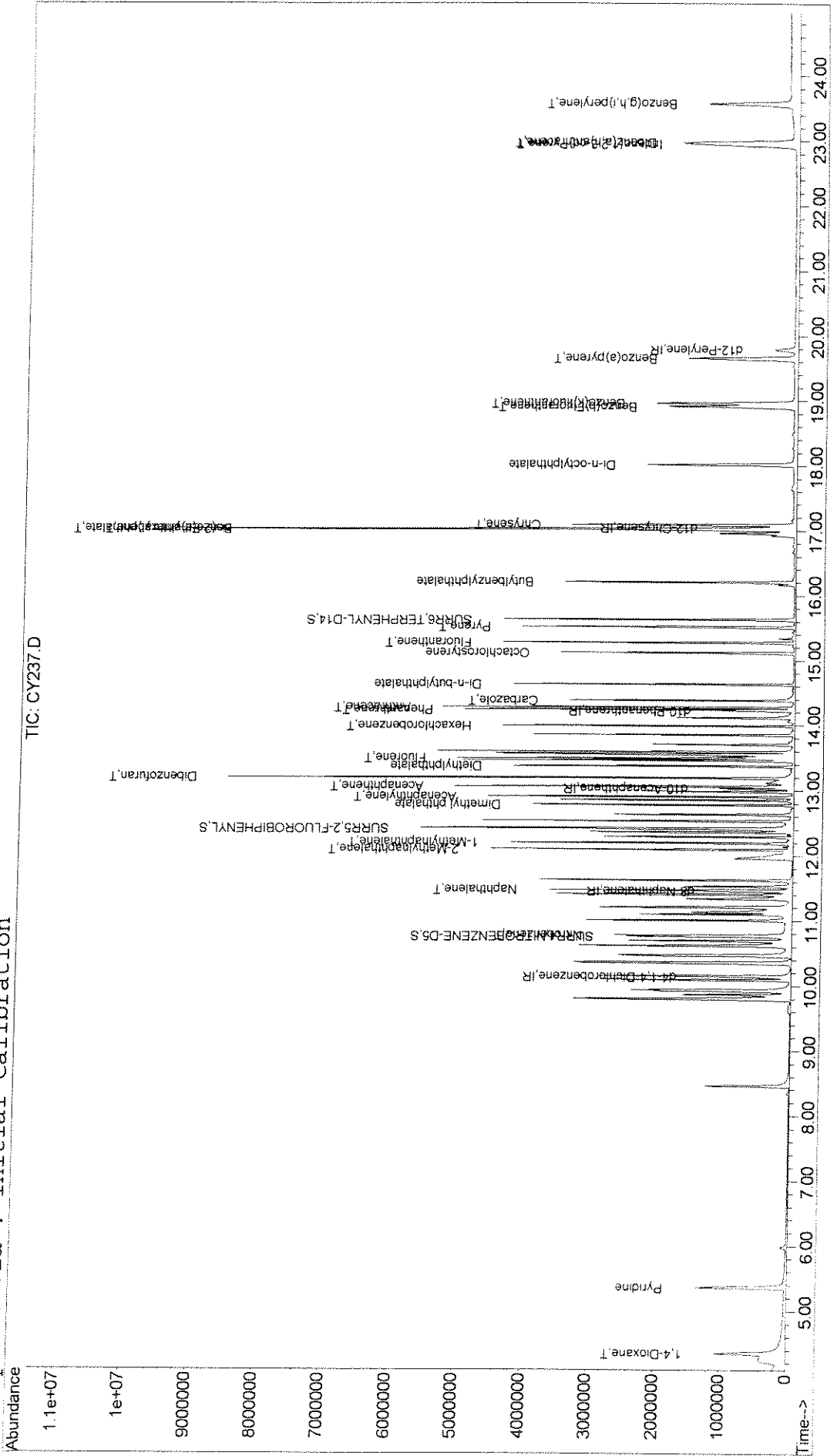
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
36) Benzo(k)fluoranthene	18.96	252	1602282	5.47	ppm	97
37) Benzo(a)pyrene	19.65	252	1474092	5.41	ppm	98
38) Indeno(1,2,3-cd)Pyrene	22.95	276	1701248	5.55	ppm	98
39) Dibenz(a,h)anthracene	22.98	278	1376620	6.02	ppm	99
40) Benzo(g,h,i)perylene	23.57	276	1484893	5.33	ppm	99



Quantitation Report

Data File : J:\ACQDATA\5973B\DATA\070108\CY237.D Vial: 9  
 Acq On : 1 Jul 2008 4:09 pm Operator: Z.Miao  
 Sample : Initial Calibration Inst : 5973-B  
 Misc : 5.0/10 ppm std 8270.LL Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 2 12:47 2008 Quant Results File: LVI0701.RES

Method : J:\ACQDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 13:01:54 2008  
 Response via : Initial Calibration



00329

Data File : J:\ACQUDATA\5973B\DATA\070108\CY238.D  
 Acq On : 1 Jul 2008 4:56 pm  
 Sample : Initial Calibration  
 Misc : 10/20 ppm std 8270.LL  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 2 12:48 2008

Vial: 10  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

Quant Results File: LVI0701.RES

Quant Method : J:\ACQUDATA\5...\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 12:48:45 2008  
 Response via : Initial Calibration  
 DataAcq Meth : LVI0701

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	10.14	152	74975	1.00	ppm	0.00
4) d8-Naphthalene	11.45	136	270985	1.00	ppm	0.00
10) d10-Acenaphthene	13.03	164	182281	1.00	ppm	0.00
18) d10-Phenanthrene	14.22	188	298273	1.00	ppm	0.00
26) d12-Chrysene	17.05	240	300082	1.00	ppm	0.00
33) d12-Perylene	19.78	264	243577	1.00	ppm	0.00

System Monitoring Compounds

5) SURR4,NITROBENZENE-D5	10.76	82	1815683	10.86	ppm	0.00
Spiked Amount 2.000	Range 22 - 124		Recovery =	543.00%#		
11) SURR5,2-FLUOROBIPHENYL	12.42	172	2263630	9.23	ppm	0.00
Spiked Amount 2.000	Range 27 - 114		Recovery =	461.50%#		
28) SURR6,TERPHENYL-D14	15.63	244	2733314	10.56	ppm	0.00
Spiked Amount 2.000	Range 23 - 139		Recovery =	528.00%#		

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	4.35	88	1370789	18.66	ppm	95
3) Pyridine	5.35	79	1586670	10.83	ppm	98
6) Nitrobenzene	10.78	77	1881714	10.76	ppm	98
7) Naphthalene	11.47	128	2469538	8.89	ppm	95
8) 2-Methylnaphthalene	12.10	142	1883074	9.55	ppm	96
9) 1-Methylnaphthalene	12.20	142	1777638	9.50	ppm	95
12) Acenaphthylene	12.90	152	2786700	9.18	ppm	93
13) Dimethyl phthalate	12.78	163	2191327	10.90	ppm	97
14) Acenaphthene	13.06	153	1857110	9.66	ppm	98
15) Dibenzofuran	13.19	168	2695489	9.41	ppm	91
16) Fluorene	13.49	166	2281448	10.14	ppm	98
17) Diethylphthalate	13.37	149	2305684	11.07	ppm	97
19) Hexachlorobenzene	13.99	284	868440	10.63	ppm	89
20) Phenanthrene	14.24	178	2656473	9.35	ppm	93
21) Anthracene	14.28	178	2698798	9.78	ppm	93
22) Carbazole	14.38	167	2052738	9.21	ppm	97
24) Di-n-butylphthalate	14.63	149	2986710	9.73	ppm	93
25) Fluoranthene	15.27	202	3208060	9.66	ppm	94
27) Pyrene	15.52	202	3359366	9.70	ppm	93
29) Butylbenzylphthalate	16.21	149	1612741	11.90	ppm	98
31) Benzo(a)anthracene	17.03	228	3773079	11.49	ppm	95
32) Chrysene	17.09	228	3270761	10.25	ppm	96
34) Di-n-octylphthalate	18.02	149	3517738	12.44	ppm	97
35) Benzo(b)Fluoranthene	18.92	252	3499540	10.86	ppm	100
36) Benzo(k)fluoranthene	18.98	252	3415486	11.54	ppm	100
37) Benzo(a)pyrene	19.67	252	3160873	11.49	ppm	99

(#) = qualifier out of range (m) = manual integration  
 CY238.D LVI0701.M Wed Jul 02 13:03:12 2008



Data File : J:\ACQUDATA\5973B\DATA\070108\CY238.D  
 Acq On : 1 Jul 2008 4:56 pm  
 Sample : Initial Calibration  
 Misc : 10/20 ppm std 8270.LL  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 2 12:48 2008

Vial: 10  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

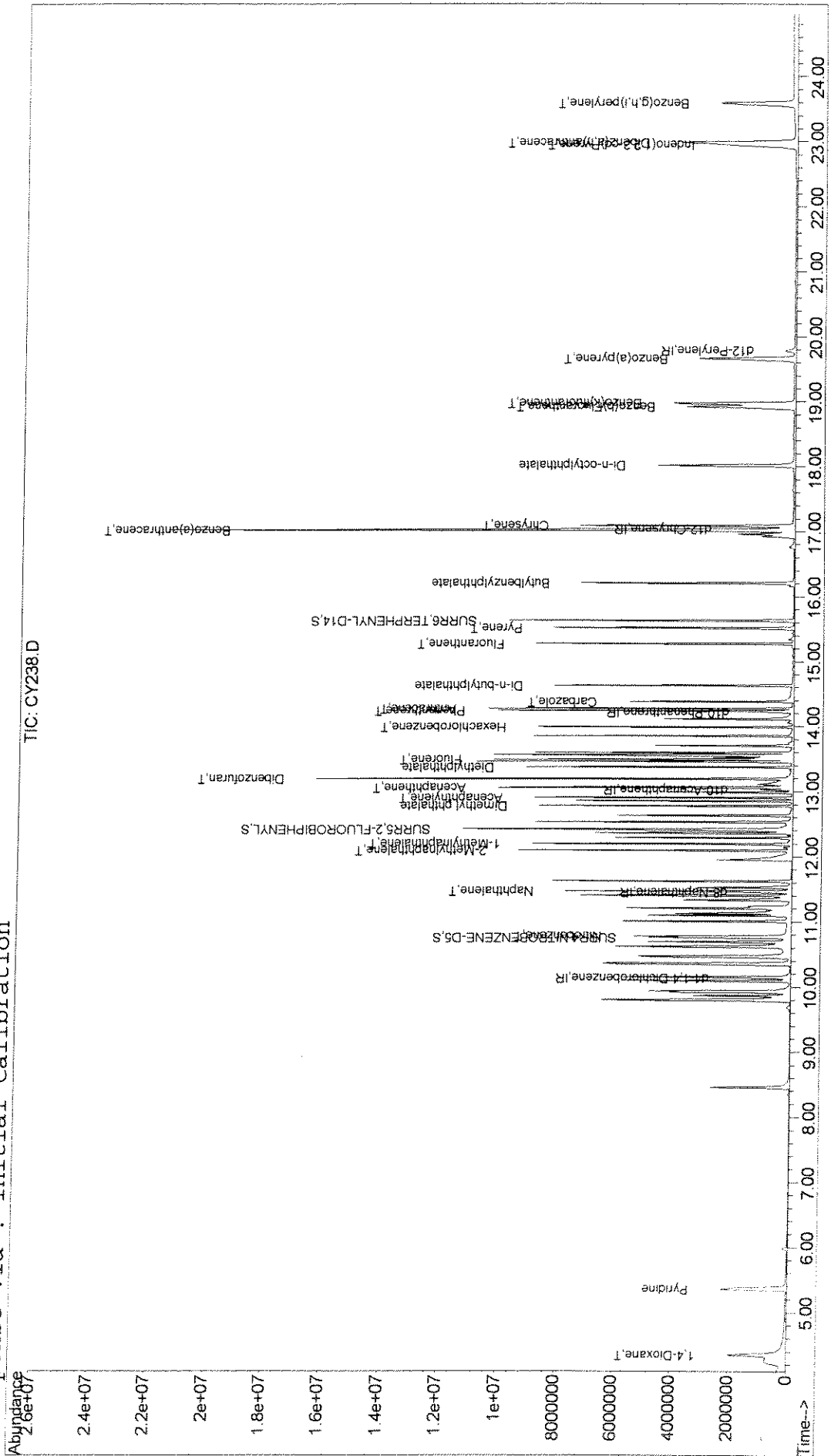
Quant Results File: LVI0701.RES

Quant Method : J:\ACQUDATA\5...\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 12:48:45 2008  
 Response via : Initial Calibration  
 DataAcq Meth : LVI0701

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) Indeno(1,2,3-cd)Pyrene	22.95	276	3670826	10.87	ppm	99
39) Dibenz(a,h)anthracene	22.99	278	3071101	13.24	ppm	98
40) Benzo(g,h,i)perylene	23.59	276	3117440	11.08	ppm	98

Data File : J:\ACQDATA\5973B\DATA\070108\CY238.D Vial: 10  
 Acq On : 1 Jul 2008 4:56 pm Operator: Z.Miao  
 Sample : Initial Calibration Inst : 5973-B  
 Misc : 10/20 ppm std 8270.LL Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 2 12:48 2008 Quant Results File: LVI0701.RES

Method : J:\ACQDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 13:01:54 2008  
 Response via : Initial Calibration



00332

Data File : J:\ACQUADATA\5973B\DATA\070108\CY229.D  
 Acq On : 1 Jul 2008 9:54 am  
 Sample : BLK  
 Misc : 07/01/2008 1.0 8270LL  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 2 14:52 2008

Vial: 1  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

Quant Results File: LVI0701.RES

Quant Method : J:\ACQUADATA\5...\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 13:01:54 2008  
 Response via : Initial Calibration  
 DataAcq Meth : LVI0701

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	10.14	152	88469	1.00	ppm	0.00
4) d8-Naphthalene	11.45	136	315150	1.00	ppm	0.00
10) d10-Acenaphthene	13.03	164	199827	1.00	ppm	0.00
18) d10-Phenanthrene	14.22	188	285211	1.00	ppm	0.00
26) d12-Chrysene	17.05	240	268465	1.00	ppm	0.00
33) d12-Perylene	19.79	264	219074	1.00	ppm	0.01

System Monitoring Compounds

5) SURR4,NITROBENZENE-D5	0.00	82	0	0.00	ppm	
Spiked Amount	2.000	Range	22 - 124	Recovery	=	0.00%#
11) SURR5,2-FLUOROBIPHENYL	0.00	172	0	0.00	ppm	
Spiked Amount	2.000	Range	27 - 114	Recovery	=	0.00%#
28) SURR6,TERPHENYL-D14	0.00	244	0	0.00	ppm	
Spiked Amount	2.000	Range	23 - 139	Recovery	=	0.00%#

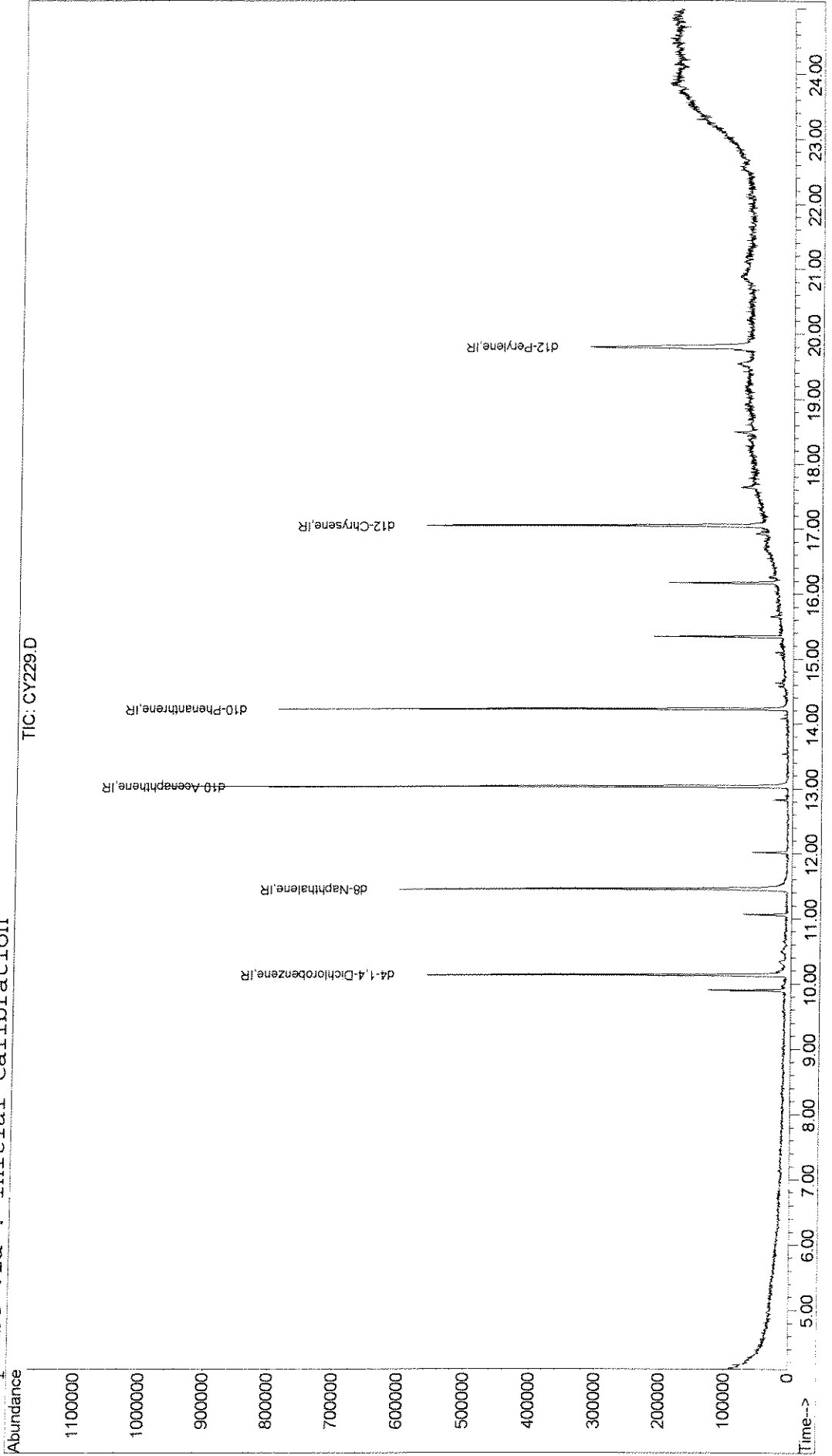
Target Compounds

Qvalue

Quantitation Report

Data File : J:\ACQUDATA\5973B\DATA\070108\CY229.D  
Acq On : 1 Jul 2008 9:54 am Vial: 1  
Sample : BLK Operator: Z.Miao  
Misc : 07/01/2008 1.0 8270LL Inst : 5973-B  
MS Integration Params: RTEINT.P Multiplr: 1.00  
Quant Time: Jul 2 14:52 2008 Quant Results File: LVI0701.RES

Method : J:\ACQUDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
Title : 8270 BNA ANALYSIS  
Last Update : Wed Jul 02 13:01:54 2008  
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : J:\ACQUATA\5973B\DATA\070108\CY239.D  
 Acq On : 1 Jul 2008 5:43 pm  
 Sample : Icv #1  
 Misc : 2.0 ppm 8270.LL  
 MS Integration Params: RTEINT.P

Vial: 11  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

*CR: # 23+39*

Method : J:\ACQUATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 13:01:54 2008  
 Response via : Multiple Level Calibration

*at 1.0 ppm*

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	IR d4-1,4-Dichlorobenzene	1.000	1.000	0.0	107	0.00
2	T 1,4-Dioxane	0.980	0.950	<del>3.1</del>	112	0.02
3	Pyridine	1.954	6.164	<del>215.5#</del>	362#	0.00
4	IR d8-Naphthalene	1.000	1.000	0.0	111	0.00
5	S SURR4,NITROBENZENE-D5	0.617	1.199	<del>94.3#</del>	216#	0.00
6	T Nitrobenzene	0.646	1.185	<del>-83.4#</del>	218#	0.00
7	T Naphthalene	1.026	1.003	2.2	111	0.00
8	T 2-Methylnaphthalene	0.727	0.725	0.3	107	0.00
9	T 1-Methylnaphthalene	0.691	0.696	-0.7	111	0.00
10	IR d10-Acenaphthene	1.000	1.000	0.0	111	0.00
11	S SURR5,2-FLUOROBIPHENYL	1.345	2.549	<del>-89.5#</del>	209#	0.00
12	T Acenaphthylene	1.666	1.705	-2.3	116	0.00
13	Dimethyl phthalate	1.207	1.282	-6.2	117	0.00
14	T Acenaphthene	1.055	1.056	-0.1	112	0.00
15	T Dibenzofuran	1.572	1.575	-0.2	111	0.00
16	T Fluorene	1.235	1.253	-1.5	114	0.00
17	Diethylphthalate	1.253	1.328	-6.0	119	0.00
18	IR d10-Phenanthrene	1.000	1.000	0.0	108	0.00
19	T Hexachlorobenzene	0.274	0.276	-0.7	109	0.00
20	T Phenanthrene	0.952	0.977	-2.6	110	0.00
21	T Anthracene	0.925	1.001	-8.2	116	0.00
22	T Carbazole	0.747	0.805	-7.8	113	0.00
23	Octachlorostyrene	0.056	0.054	3.6	88	0.00
24	Di-n-butylphthalate	1.115	3.441	<del>208.6#</del>	344#	0.00
25	T Fluoranthene	1.113	1.167	-4.9	115	0.00
26	IR d12-Chrysene	1.000	1.000	0.0	109	0.00
27	T Pyrene	1.154	1.159	-0.4	112	0.00
28	S SURR6, TERPHENYL-D14	0.863	1.848	<del>-114.1#</del>	238#	0.00
29	Butylbenzylphthalate	0.506	0.488	3.6	113	0.00
30	T bis(2-Ethylhexyl)phthalate	0.713	1.077	<del>51.1#</del>	172	0.00
31	T Benzo(a)anthracene	1.094	1.096	-0.2	117	0.00
32	T Chrysene	1.064	1.073	-0.8	116	0.00
33	IR d12-Perylene	1.000	1.000	0.0	109	0.00
34	Di-n-octylphthalate	1.356	1.336	1.5	117	0.00
35	T Benzo(b)Fluoranthene	1.322	1.328	-0.5	115	0.00
36	T Benzo(k)fluoranthene	1.215	1.305	-7.4	118	0.00

(#) = Out of Range  
 CY239.D LVI0701.M

Wed Jul 02 13:05:41 2008

*Z*

00335

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\5973B\DATA\070108\CY239.D Vial: 11  
 Acq On : 1 Jul 2008 5:43 pm Operator: Z.Miao  
 Sample : Icv #1 Inst : 5973-B  
 Misc : 2.0 ppm 8270.LL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : J:\ACQUDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 13:01:54 2008  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
37 T	Benzo(a)pyrene	1.129	1.122	0.6	112	0.00
38 T	Indeno(1,2,3-cd)Pyrene	1.237	1.251	-1.1	114	0.00
39 T	Dibenz(a,h)anthracene	0.952	0.970	-1.9	112	0.00
40 T	Benzo(g,h,i)perylene	1.155	1.133	1.9	107	0.00



Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\5973B\DATA\070108\CY239.D  
 Acq On : 1 Jul 2008 5:43 pm  
 Sample : Icv #1  
 Misc : 2.0 ppm 8270.LL  
 MS Integration Params: RTEINT.P

Vial: 11  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

*LR: # 23 + 38  
 at 1.0 ppm*

Method : J:\ACQUDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 13:01:54 2008  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	IR d4-1,4-Dichlorobenzene	1.000	1.000	0.0	107	0.00
2	T 1,4-Dioxane	2.000	1.940	3.0	112	0.02
3	Pyridine	1.000	3.155	-215.5#	362	0.00
4	IR d8-Naphthalene	1.000	1.000	0.0	111	0.00
5	S SURR4,NITROBENZENE-D5	1.000	1.942	-94.2#	216	0.00
6	T Nitrobenzene	1.000	1.836	-83.6#	218	0.00
7	T Naphthalene	1.000	0.978	2.2	111	0.00
8	T 2-Methylnaphthalene	1.000	0.997	0.3	107	0.00
9	T 1-Methylnaphthalene	1.000	1.008	-0.8	111	0.00
10	IR d10-Acenaphthene	1.000	1.000	0.0	111	0.00
11	S SURR5,2-FLUOROBIPHENYL	1.000	1.895	-89.5#	209	0.00
12	T Acenaphthylene	1.000	1.023	-2.3	116	0.00
13	Dimethyl phthalate	1.000	1.062	-6.2	117	0.00
14	T Acenaphthene	1.000	1.001	-0.1	112	0.00
15	T Dibenzofuran	1.000	1.002	-0.2	111	0.00
16	T Fluorene	1.000	1.015	-1.5	114	0.00
17	Diethylphthalate	1.000	1.060	-6.0	119	0.00
18	IR d10-Phenanthrene	1.000	1.000	0.0	108	0.00
19	T Hexachlorobenzene	1.000	1.009	-0.9	109	0.00
20	T Phenanthrene	1.000	1.026	-2.6	110	0.00
21	T Anthracene	1.000	1.082	-8.2	116	0.00
22	T Carbazole	1.000	1.078	-7.8	113	0.00
23	Octachlorostyrene	1.000	0.908	9.2	88	0.00
24	Di-n-butylphthalate	1.000	3.086	-208.6#	344	0.00
25	T Fluoranthene	1.000	1.048	-4.8	115	0.00
26	IR d12-Chrysene	1.000	1.000	0.0	109	0.00
27	T Pyrene	1.000	1.005	-0.5	112	0.00
28	S SURR6,TERPHENYL-D14	1.000	2.143	-114.3#	238	0.00
29	Butylbenzylphthalate	1.000	0.965	3.5	113	0.00
30	T bis(2-Ethylhexyl)phthalate	2.000	3.020	-51.0#	172	0.00
31	T Benzo(a)anthracene	1.000	1.002	-0.2	117	0.00
32	T Chrysene	1.000	1.009	-0.9	116	0.00
33	IR d12-Perylene	1.000	1.000	0.0	109	0.00
34	Di-n-octylphthalate	1.000	0.985	1.5	117	0.00
35	T Benzo(b)Fluoranthene	1.000	1.004	-0.4	115	0.00
36	T Benzo(k)fluoranthene	1.000	1.074	-7.4	118	0.00

(#) = Out of Range  
 CY239.D LVI0701.M

Wed Jul 02 13:07:08 2008

*Z.Miao*

Evaluate Continuing Calibration Report

Data File : J:\ACQUADATA\5973B\DATA\070108\CY239.D Vial: 11  
 Acq On : 1 Jul 2008 5:43 pm Operator: Z.Miao  
 Sample : Icv #1 Inst : 5973-B  
 Misc : 2.0 ppm 8270.LL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : J:\ACQUADATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 13:01:54 2008  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
37 T	Benzo(a)pyrene	1.000	0.994	0.6	112	0.00
38 T	Indeno(1,2,3-cd)Pyrene	1.000	1.011	-1.1	114	0.00
39 T	Dibenz(a,h)anthracene	1.000	0.958	4.2	112	0.00
40 T	Benzo(g,h,i)perylene	1.000	0.981	1.9	107	0.00

Evaluate Continuing Calibration Report

Data File : J:\ACQUADATA\5973B\DATA\070108\CY239.D  
 Acq On : 1 Jul 2008 5:43 pm  
 Sample : Icv #1  
 Misc : 2.0 ppm 8270.LL  
 MS Integration Params: RTEINT.P

Vial: 11  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

*at 2.0ppm  
 use #5, 11, 28  
 only*

Method : J:\ACQUADATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 13:01:54 2008  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 IR	d4-1,4-Dichlorobenzene	1.000	1.000	0.0	104	0.00
2 T	1,4-Dioxane	0.980	0.475	51.5#	53	0.02
3	Pyridine	1.954	3.082	-57.7#	164	0.00
4 IR	d8-Naphthalene	1.000	1.000	0.0	107	0.00
5 S	SURR4,NITROBENZENE-D5	0.617	0.599	2.9	97	0.00
6 T	Nitrobenzene	0.646	0.593	8.2	93	0.00
7 T	Naphthalene	1.026	0.502	51.1#	52	0.00
8 T	2-Methylnaphthalene	0.727	0.363	50.1#	52	0.00
9 T	1-Methylnaphthalene	0.691	0.348	49.6#	52	0.00
10 IR	d10-Acenaphthene	1.000	1.000	0.0	109	0.00
11 S	SURR5,2-FLUOROBIPHENYL	1.345	1.274	5.3	99	0.00
12 T	Acenaphthylene	1.666	0.852	48.9#	53	0.00
13	Dimethyl phthalate	1.207	0.641	46.9#	54	0.00
14 T	Acenaphthene	1.055	0.528	50.0#	54	0.00
15 T	Dibenzofuran	1.572	0.788	49.9#	51	0.00
16 T	Fluorene	1.235	0.626	49.3#	52	0.00
17	Diethylphthalate	1.253	0.664	47.0#	54	0.00
18 IR	d10-Phenanthrene	1.000	1.000	0.0	102	0.00
19 T	Hexachlorobenzene	0.274	0.138	49.6#	51	0.00
20 T	Phenanthrene	0.952	0.488	48.7#	51	0.00
21 T	Anthracene	0.925	0.500	45.9#	52	0.00
22 T	Carbazole	0.747	0.403	46.1#	50	0.00
23	Octachlorostyrene	0.056	0.027#	51.8#	48#	0.00
24	Di-n-butylphthalate	1.115	1.720	-54.3#	155	0.00
25 T	Fluoranthene	1.113	0.584	47.5#	51	0.00
26 IR	d12-Chrysene	1.000	1.000	0.0	105	0.00
27 T	Pyrene	1.154	0.580	49.7#	51	0.00
28 S	SURR6, TERPHENYL-D14	0.863	0.924	-7.1	107	0.00
29	Butylbenzylphthalate	0.506	0.244	51.8#	49#	0.00
30 T	bis(2-Ethylhexyl)phthalate	0.713	0.538	24.5#	76	0.00
31 T	Benzo(a)anthracene	1.094	0.548	49.9#	51	0.00
32 T	Chrysene	1.064	0.536	49.6#	51	0.00
33 IR	d12-Perylene	1.000	1.000	0.0	102	0.00
34	Di-n-octylphthalate	1.356	0.668	50.7#	50#	0.00
35 T	Benzo(b)Fluoranthene	1.322	0.664	49.8#	48#	0.00
36 T	Benzo(k)fluoranthene	1.215	0.653	46.3#	51	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\5973B\DATA\070108\CY239.D Vial: 11  
 Acq On : 1 Jul 2008 5:43 pm Operator: Z.Miao  
 Sample : Icv #1 Inst : 5973-B  
 Misc : 2.0 ppm 8270.LL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : J:\ACQUDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 13:01:54 2008  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
37 T	Benzo(a)pyrene	1.129	0.561	50.3#	47#	0.00
38 T	Indeno(1,2,3-cd)Pyrene	1.237	0.626	49.4#	47#	0.00
39 T	Dibenz(a,h)anthracene	0.952	0.485	49.1#	46#	0.00
40 T	Benzo(g,h,i)perylene	1.155	0.567	50.9#	47#	0.00

Data File : J:\ACQUDATA\5973B\DATA\070108\CY239.D  
 Acq On : 1 Jul 2008 5:43 pm  
 Sample : Icv #1  
 Misc : 2.0 ppm 8270.LL  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 2 13:04 2008

Vial: 11  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

Quant Results File: LVI0701.RES

Quant Method : J:\ACQUDATA\5...\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 13:01:54 2008  
 Response via : Initial Calibration  
 DataAcq Meth : LVI0701

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	10.13	152	79900	1.00	ppm	0.00
4) d8-Naphthalene	11.45	136	298767	1.00	ppm	0.00
10) d10-Acenaphthene	13.03	164	199937	1.00	ppm	0.00
18) d10-Phenanthrene	14.22	188	290817	1.00	ppm	0.00
26) d12-Chrysene	17.05	240	297250	1.00	ppm	0.00
33) d12-Perylene	19.78	264	236956	1.00	ppm	0.00

System Monitoring Compounds

5) SURR4,NITROBENZENE-D5	10.76	82	358111	1.94	ppm	0.00
Spiked Amount	2.000	Range	22 - 124	Recovery	=	97.00%
11) SURR5,2-FLUOROBIPHENYL	12.42	172	509603	1.89	ppm	0.00
Spiked Amount	2.000	Range	27 - 114	Recovery	=	94.50%
28) SURR6,TERPHENYL-D14	15.63	244	549353	2.14	ppm	0.00
Spiked Amount	2.000	Range	23 - 139	Recovery	=	107.00%

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	4.36	88	151889	1.94	ppm	95
3) Pyridine	5.37	79	492536	3.16	ppm	97
6) Nitrobenzene	10.78	77	354070	1.84	ppm	73
7) Naphthalene	11.47	128	299704	0.98	ppm	98
8) 2-Methylnaphthalene	12.10	142	216713	1.00	ppm	98
9) 1-Methylnaphthalene	12.19	142	207973	1.01	ppm	93
12) Acenaphthylene	12.90	152	340888	1.02	ppm	98
13) Dimethyl phthalate	12.78	163	256411	1.06	ppm	99
14) Acenaphthene	13.05	153	211176	1.00	ppm	98
15) Dibenzofuran	13.19	168	314915	1.00	ppm	94
16) Fluorene	13.49	166	250450	1.01	ppm	95
17) Diethylphthalate	13.37	149	265544	1.06	ppm	98
19) Hexachlorobenzene	13.99	284	80345	1.01	ppm	94
20) Phenanthrene	14.24	178	284099	1.03	ppm	97
21) Anthracene	14.27	178	291102	1.08	ppm	96
22) Carbazole	14.38	167	234215	1.08	ppm	96
23) Octachlorostyrene	15.12	380	15716	0.91	ppm	87
24) Di-n-butylphthalate	14.63	149	1000684	3.09	ppm	98
25) Fluoranthene	15.27	202	339512	1.05	ppm	98
27) Pyrene	15.51	202	344598	1.00	ppm	98
29) Butylbenzylphthalate	16.21	149	145097	0.97	ppm	97
30) bis(2-Ethylhexyl)phthalate	17.01	149	640071	3.02	ppm	98
31) Benzo(a)anthracene	17.02	228	325778	1.00	ppm	94
32) Chrysene	17.08	228	318928	1.01	ppm	98
34) Di-n-octylphthalate	18.01	149	316580	0.99	ppm	95
35) Benzo(b)Fluoranthene	18.91	252	314742	1.00	ppm	94

(#) = qualifier out of range (m) = manual integration  
 CY239.D LVI0701.M Wed Jul 02 13:05:05 2008

Data File : J:\ACQUDATA\5973B\DATA\070108\CY239.D  
 Acq On : 1 Jul 2008 5:43 pm  
 Sample : Icv #1  
 Misc : 2.0 ppm 8270.LL  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 2 13:04 2008

Vial: 11  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

Quant Results File: LVI0701.RES

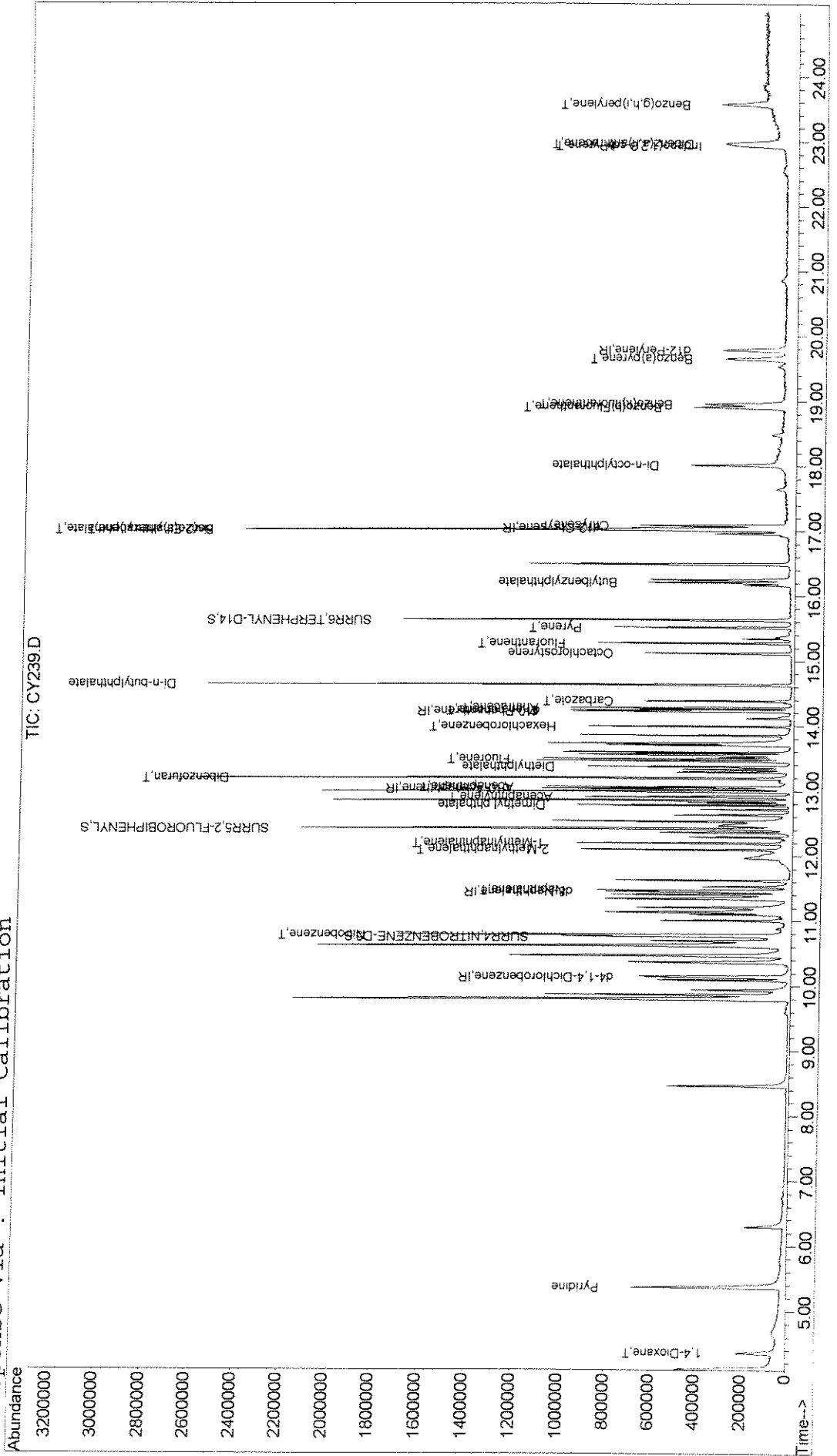
Quant Method : J:\ACQUDATA\5...\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 13:01:54 2008  
 Response via : Initial Calibration  
 DataAcq Meth : LVI0701

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
36) Benzo(k)fluoranthene	18.96	252	309302	1.07	ppm	96
37) Benzo(a)pyrene	19.65	252	265948	0.99	ppm	94
38) Indeno(1,2,3-cd)Pyrene	22.93	276	296527	1.01	ppm	99
39) Dibenz(a,h)anthracene	22.97	278	229739	0.96	ppm	97
40) Benzo(g,h,i)perylene	23.57	276	268517	0.98	ppm	98

Quantitation Report

Data File : J:\ACQUDATA\5973B\DATA\070108\CY239.D  
 Acq On : 1 Jul 2008 5:43 pm  
 Sample : Icv #1  
 Misc : 2.0 ppm 8270.LL  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 2 13:04 2008  
 Vial: 11  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00  
 Quant Results File: LVI0701.RES

Method : J:\ACQUDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 13:01:54 2008  
 Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\5973B\DATA\070108\CY240.D  
 Acq On : 1 Jul 2008 6:30 pm  
 Sample : Icv #2  
 Misc : 2.0 ppm 8270.LL  
 MS Integration Params: RTEINT.P

Vial: 12  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

*at 2ppm*

*use #3,24 only*

Method : J:\ACQUDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 13:01:54 2008  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev (min)
1 IR	d4-1,4-Dichlorobenzene	1.000	1.000	0.0	109	0.00
2 T	1,4-Dioxane	0.980	0.505	48.5#	59	0.00
<u>3</u>	Pyridine	1.954	1.969	-0.8	110	0.00
4 IR	d8-Naphthalene	1.000	1.000	0.0	106	0.00
5 S	SURR4,NITROBENZENE-D5	0.617	0.001#	99.8#	0#	0.00
6 T	Nitrobenzene	0.646	0.000#	100.0#	0#	-10.78#
7 T	Naphthalene	1.026	0.000#	100.0#	0#	-11.47#
8 T	2-Methylnaphthalene	0.727	0.001#	99.9#	0#	0.00
9 T	1-Methylnaphthalene	0.691	0.001#	99.9#	0#	-0.11
10 IR	d10-Acenaphthene	1.000	1.000	0.0	107	0.00
11 S	SURR5,2-FLUOROBIPHENYL	1.345	0.003#	99.8#	0#	0.00
12 T	Acenaphthylene	1.666	0.001#	99.9#	0#	0.00
13	Dimethyl phthalate	1.207	0.001#	99.9#	0#	0.14
14 T	Acenaphthene	1.055	0.000#	100.0#	0#	-13.06#
15 T	Dibenzofuran	1.572	0.002#	99.9#	0#	0.00
16 T	Fluorene	1.235	0.000#	100.0#	0#	-13.49#
17	Diethylphthalate	1.253	0.001#	99.9#	0#	0.00
18 IR	d10-Phenanthrene	1.000	1.000	0.0	99	0.00
19 T	Hexachlorobenzene	0.274	0.000#	100.0#	0#	-13.99#
20 T	Phenanthrene	0.952	0.000#	100.0#	0#	-14.24#
21 T	Anthracene	0.925	0.000#	100.0#	0#	-14.28#
22 T	Carbazole	0.747	0.004#	99.5#	1#	0.24
23	Octachlorostyrene	0.056	0.000#	100.0#	0#	-15.11#
<u>24</u>	Di-n-butylphthalate	1.115	1.180	-5.8	104	0.00
25 T	Fluoranthene	1.113	0.000#	100.0#	0#	-15.27#
26 IR	d12-Chrysene	1.000	1.000	0.0	98	0.00
27 T	Pyrene	1.154	0.000#	100.0#	0#	0.00
28 S	SURR6, TERPHENYL-D14	0.863	0.002#	99.8#	0#	0.02
29	Butylbenzylphthalate	0.506	0.001#	99.8#	0#	0.00
30 T	bis(2-Ethylhexyl)phthalate	0.713	0.381	46.6#	51	0.00
31 T	Benzo(a)anthracene	1.094	0.000#	100.0#	0#	0.00
32 T	Chrysene	1.064	0.000#	100.0#	0#	0.00
33 IR	d12-Perylene	1.000	1.000	0.0	94	0.00
34	Di-n-octylphthalate	1.356	0.000#	100.0#	0#	-18.02#
35 T	Benzo(b)Fluoranthene	1.322	0.000#	100.0#	0#	-18.91#
36 T	Benzo(k)fluoranthene	1.215	0.000#	100.0#	0#	-18.96#

*Zm*



Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\5973B\DATA\070108\CY240.D  
 Acq On : 1 Jul 2008 6:30 pm  
 Sample : Icv #2  
 Misc : 2.0 ppm 8270.LL  
 MS Integration Params: RTEINT.P

Vial: 12  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

Method : J:\ACQUDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 13:01:54 2008  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
37 T	Benzo(a)pyrene	1.129	0.001#	99.9#	0#	0.15
38 T	Indeno(1,2,3-cd)Pyrene	1.237	0.000#	100.0#	0#	-22.94#
39 T	Dibenz(a,h)anthracene	0.952	0.000#	100.0#	0#	0.07
40 T	Benzo(g,h,i)perylene	1.155	0.000#	100.0#	0#	0.07

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\5973B\DATA\070108\CY240.D  
 Acq On : 1 Jul 2008 6:30 pm  
 Sample : Icv #2  
 Misc : 2.0 ppm 8270.LL  
 MS Integration Params: RTEINT.P

Vial: 12  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

*at 1.0 ppm*

Method : J:\ACQUDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 13:01:54 2008  
 Response via : Multiple Level Calibration

*use #2 + 3 only*

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 IR	d4-1,4-Dichlorobenzene	1.000	1.000	0.0	112	0.00
2 T	1,4-Dioxane	0.980	1.011	-3.2	124	0.00
3	Pyridine	1.954	3.938	-101.5#	241#	0.00
4 IR	d8-Naphthalene	1.000	1.000	0.0	111	0.00
5 S	SURR4,NITROBENZENE-D5	0.617	0.003#	99.5#	1#	0.00
6 T	Nitrobenzene	0.646	0.000#	100.0#	0#	-10.78#
7 T	Naphthalene	1.026	0.000#	100.0#	0#	-11.47#
8 T	2-Methylnaphthalene	0.727	0.002#	99.7#	0#	0.00
9 T	1-Methylnaphthalene	0.691	0.002#	99.7#	0#	-0.11
10 IR	d10-Acenaphthene	1.000	1.000	0.0	108	0.00
11 S	SURR5,2-FLUOROBIPHENYL	1.345	0.006#	99.6#	0#	0.00
12 T	Acenaphthylene	1.666	0.001#	99.9#	0#	0.00
13	Dimethyl phthalate	1.207	0.003#	99.8#	0#	0.14
14 T	Acenaphthene	1.055	0.000#	100.0#	0#	-13.06#
15 T	Dibenzofuran	1.572	0.004#	99.7#	0#	0.00
16 T	Fluorene	1.235	0.000#	100.0#	0#	-13.49#
17	Diethylphthalate	1.253	0.002#	99.8#	0#	0.00
18 IR	d10-Phenanthrene	1.000	1.000	0.0	105	0.00
19 T	Hexachlorobenzene	0.274	0.000#	100.0#	0#	-13.99#
20 T	Phenanthrene	0.952	0.000#	100.0#	0#	-14.24#
21 T	Anthracene	0.925	0.000#	100.0#	0#	-14.28#
22 T	Carbazole	0.747	0.009#	98.8#	1#	0.24
23	Octachlorostyrene	0.056	0.000#	100.0#	0#	-15.11#
24	Di-n-butylphthalate	1.115	2.359	-111.6#	230#	0.00
25 T	Fluoranthene	1.113	0.000#	100.0#	0#	-15.27#
26 IR	d12-Chrysene	1.000	1.000	0.0	102	0.00
27 T	Pyrene	1.154	0.001#	99.9#	0#	0.00
28 S	SURR6, TERPHENYL-D14	0.863	0.003#	99.7#	0#	0.02
29	Butylbenzylphthalate	0.506	0.002#	99.6#	0#	0.00
30 T	bis(2-Ethylhexyl)phthalate	0.713	0.762	-6.9	114	0.00
31 T	Benzo(a)anthracene	1.094	0.001#	99.9#	0#	0.00
32 T	Chrysene	1.064	0.001#	99.9#	0#	0.00
33 IR	d12-Perylene	1.000	1.000	0.0	100	0.00
34	Di-n-octylphthalate	1.356	0.000#	100.0#	0#	-18.02#
35 T	Benzo(b)Fluoranthene	1.322	0.000#	100.0#	0#	-18.91#
36 T	Benzo(k)fluoranthene	1.215	0.000#	100.0#	0#	-18.96#

(#) = Out of Range

*[Handwritten signature]*

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\5973B\DATA\070108\CY240.D Vial: 12  
 Acq On : 1 Jul 2008 6:30 pm Operator: Z.Miao  
 Sample : Icv #2 Inst : 5973-B  
 Misc : 2.0 ppm 8270.LL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : J:\ACQUDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 13:01:54 2008  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
37 T	Benzo(a)pyrene	1.129	0.003#	99.7#	0#	0.15
38 T	Indeno(1,2,3-cd)Pyrene	1.237	0.000#	100.0#	0#	-22.94#
39 T	Dibenz(a,h)anthracene	0.952	0.001#	99.9#	0#	0.07
40 T	Benzo(g,h,i)perylene	1.155	0.001#	99.9#	0#	0.07

Data File : J:\ACQUDATA\5973B\DATA\070108\CY240.D  
 Acq On : 1 Jul 2008 6:30 pm  
 Sample : Icv #2  
 Misc : 2.0 ppm 8270.LL  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 2 13:14 2008

Vial: 12  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

Quant Results File: LVI0701.RES

Quant Method : J:\ACQUDATA\5...\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 13:01:54 2008  
 Response via : Initial Calibration  
 DataAcq Meth : LVI0701

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	10.13	152	83305	1.00	ppm	0.00
4) d8-Naphthalene	11.45	136	298341	1.00	ppm	0.00
10) d10-Acenaphthene	13.03	164	195576	1.00	ppm	0.00
18) d10-Phenanthrene	14.22	188	283206	1.00	ppm	0.00
26) d12-Chrysene	17.05	240	278333	1.00	ppm	0.00
33) d12-Perylene	19.79	264	217856	1.00	ppm	0.00

System Monitoring Compounds

5) SURR4,NITROBENZENE-D5	10.77	82	845	0.00	ppm	0.00
Spiked Amount	2.000	Range	22 - 124	Recovery	=	0.00%#
11) SURR5,2-FLUOROBIPHENYL	12.42	172	1153	0.00	ppm	0.00
Spiked Amount	2.000	Range	27 - 114	Recovery	=	0.00%#
28) SURR6,TERPHENYL-D14	15.64	244	962	0.00	ppm	0.02
Spiked Amount	2.000	Range	23 - 139	Recovery	=	0.00%#

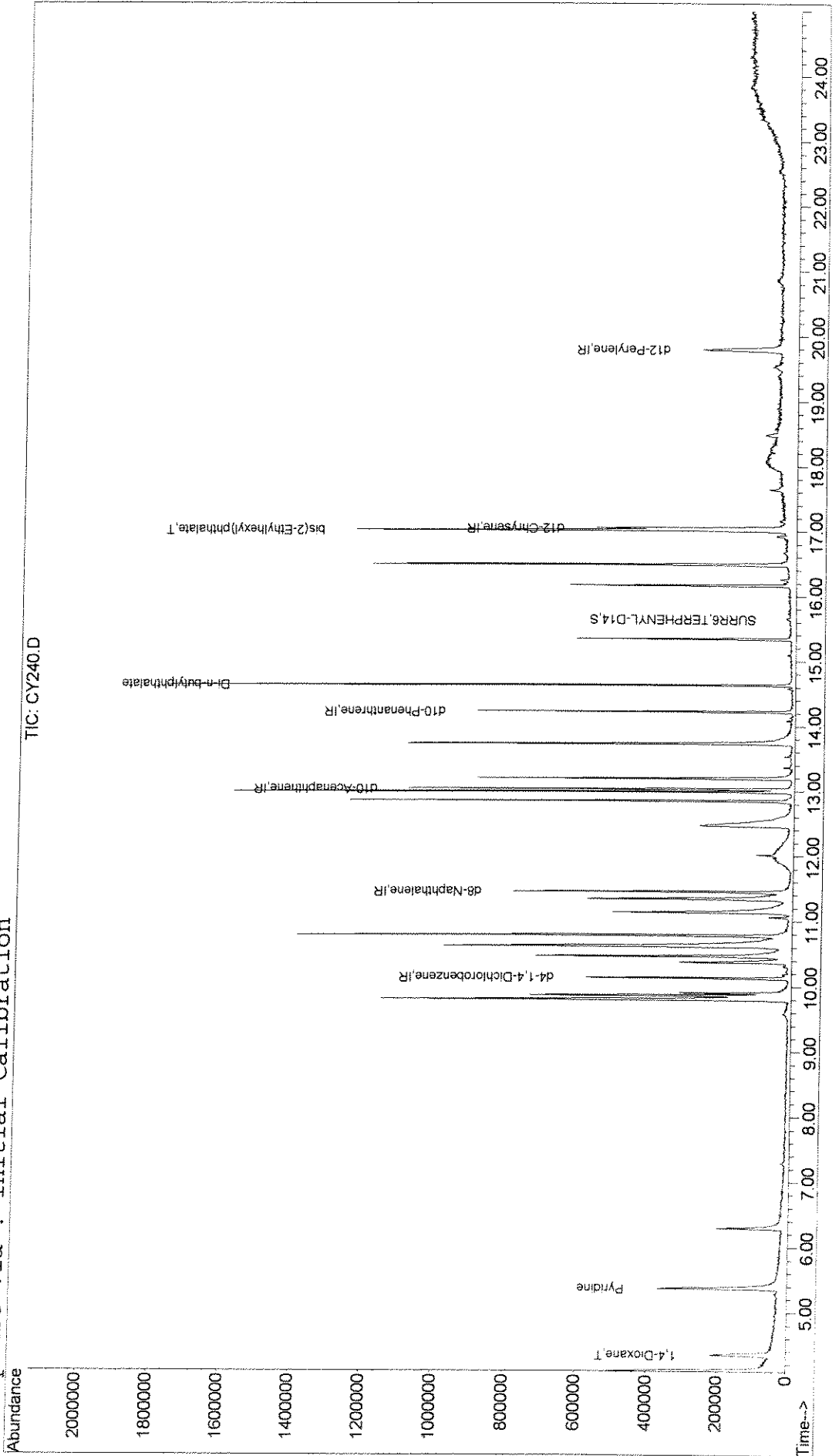
Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	4.35	88	168410	2.06	ppm	81
3) Pyridine	5.36	79	328025	2.02	ppm	98
24) Di-n-butylphthalate	14.63	149	668185	2.12	ppm	99
30) bis(2-Ethylhexyl)phthalate	17.02	149	424271	2.14	ppm	100

Quantitation Report

Data File : J:\ACQUDATA\5973B\DATA\070108\CY240.D  
Acq On : 1 Jul 2008 6:30 pm Vial: 12  
Sample : Icv #2 Operator: Z.Miao  
Misc : 2.0 ppm 8270.LL Inst : 5973-B  
MS Integration Params: RTEINT.P Multiplr: 1.00  
Quant Time: Jul 2 13:14 2008 Quant Results File: LVI0701.RES

Method : J:\ACQUDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
Title : 8270 BNA ANALYSIS  
Last Update : Wed Jul 02 13:01:54 2008  
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\5973B\DATA\070208\CY242.D  
 Acq On : 2 Jul 2008 2:00 pm  
 Sample : CALIBRATION CHECK  
 Misc : 2.0 /4.0 PPM STD 8270.LL  
 MS Integration Params: RTEINT.P

Vial: 1  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

CR: #23+39

Method : J:\ACQUDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 13:01:54 2008  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	IR d4-1,4-Dichlorobenzene	1.000	1.000	0.0	88	0.00
2	T 1,4-Dioxane	0.980	1.005	-2.6	95	0.00
3	Pyridine	1.954	2.020	-3.4	91	0.00
4	IR d8-Naphthalene	1.000	1.000	0.0	91	0.00
5	S SURR4,NITROBENZENE-D5	0.617	0.652	-5.7	91	0.00
6	T Nitrobenzene	0.646	0.668	-3.4	89	0.00
7	T Naphthalene	1.026	1.035	-0.9	91	0.00
8	T 2-Methylnaphthalene	0.727	0.769	-5.8	94	0.00
9	T 1-Methylnaphthalene	0.691	0.716	-3.6	91	0.00
10	IR d10-Acenaphthene	1.000	1.000	0.0	91	0.00
11	S SURR5,2-FLUOROBIPHENYL	1.345	1.383	-2.8	89	0.00
12	T Acenaphthylene	1.666	1.728	-3.7	89	0.00
13	Dimethyl phthalate	1.207	1.284	-6.4	90	0.00
14	T Acenaphthene	1.055	1.095	-3.8	92	0.00
15	T Dibenzofuran	1.572	1.684	-7.1	90	0.00
16	T Fluorene	1.235	1.317	-6.6	90	0.00
17	Diethylphthalate	1.253	1.330	-6.1	90	0.00
18	IR d10-Phenanthrene	1.000	1.000	0.0	91	0.00
19	T Hexachlorobenzene	0.274	0.283	-3.3	94	0.00
20	T Phenanthrene	0.952	0.965	-1.4	90	0.00
21	T Anthracene	0.925	0.967	-4.5	90	0.00
22	T Carbazole	0.747	0.798	-6.8	89	0.00
23	Octachlorostyrene	0.056	0.069	-23.2#	111	0.00
24	Di-n-butylphthalate	1.115	1.168	-4.8	94	0.00
25	T Fluoranthene	1.113	1.164	-4.6	91	0.00
26	IR d12-Chrysene	1.000	1.000	0.0	90	0.00
27	T Pyrene	1.154	1.227	-6.3	92	0.00
28	S SURR6, TERPHENYL-D14	0.863	0.913	-5.8	91	0.00
29	Butylbenzylphthalate	0.506	0.525	-3.8	90	0.00
30	T bis(2-Ethylhexyl)phthalate	0.713	0.755	-5.9	92	0.00
31	T Benzo(a)anthracene	1.094	1.144	-4.6	92	0.00
32	T Chrysene	1.064	1.095	-2.9	89	0.00
33	IR d12-Perylene	1.000	1.000	0.0	89	0.00
34	Di-n-octylphthalate	1.356	1.343	1.0	87	0.00
35	T Benzo(b)Fluoranthene	1.322	1.386	-4.8	87	0.00
36	T Benzo(k)fluoranthene	1.215	1.381	-13.7	94	0.00

(#) = Out of Range  
 CY242.D LVI0701.M

Thu Jul 03 11:41:53 2008

Page 1

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Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\5973B\DATA\070208\CY242.D Vial: 1  
 Acq On : 2 Jul 2008 2:00 pm Operator: Z.Miao  
 Sample : CALIBRATION CHECK Inst : 5973-B  
 Misc : 2.0 /4.0 PPM STD 8270.LL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : J:\ACQUDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 13:01:54 2008  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev (min)
37 T	Benzo(a)pyrene	1.129	1.206	-6.8	87	0.00
38 T	Indeno(1,2,3-cd)Pyrene	1.237	1.296	-4.8	84	0.00
39 T	Dibenz(a,h)anthracene	0.952	0.993	-4.3	82	0.00
40 T	Benzo(g,h,i)perylene	1.155	1.200	-3.9	87	0.00

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\5973B\DATA\070208\CY242.D Vial: 1  
 Acq On : 2 Jul 2008 2:00 pm Operator: Z.Miao  
 Sample : CALIBRATION CHECK Inst : 5973-B  
 Misc : 2.0 /4.0 PPM STD 8270.LL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : J:\ACQUDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 13:01:54 2008  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	IR d4-1,4-Dichlorobenzene	1.000	1.000	0.0	88	0.00
2	T 1,4-Dioxane	4.000	4.102	-2.6	95	0.00
3	Pyridine	2.000	2.068	-3.4	91	0.00
4	IR d8-Naphthalene	1.000	1.000	0.0	91	0.00
5	S SURR4,NITROBENZENE-D5	2.000	2.114	-5.7	91	0.00
6	T Nitrobenzene	2.000	2.070	-3.5	89	0.00
7	T Naphthalene	2.000	2.018	-0.9	91	0.00
8	T 2-Methylnaphthalene	2.000	2.115	-5.8	94	0.00
9	T 1-Methylnaphthalene	2.000	2.075	-3.8	91	0.00
10	IR d10-Acenaphthene	1.000	1.000	0.0	91	0.00
11	S SURR5,2-FLUOROBIPHENYL	2.000	2.057	-2.8	89	0.00
12	T Acenaphthylene	2.000	2.074	-3.7	89	0.00
13	Dimethyl phthalate	2.000	2.127	-6.3	90	0.00
14	T Acenaphthene	2.000	2.075	-3.8	92	0.00
15	T Dibenzofuran	2.000	2.143	-7.1	90	0.00
16	T Fluorene	2.000	2.133	-6.7	90	0.00
17	Diethylphthalate	2.000	2.122	-6.1	90	0.00
18	IR d10-Phenanthrene	1.000	1.000	0.0	91	0.00
19	T Hexachlorobenzene	2.000	2.064	-3.2	94	0.00
20	T Phenanthrene	2.000	2.026	-1.3	90	0.00
21	T Anthracene	2.000	2.091	-4.6	90	0.00
22	T Carbazole	2.000	2.135	-6.7	89	0.00
23	Octachlorostyrene	2.000	2.247	-12.3	111	0.00
24	Di-n-butylphthalate	2.000	2.095	-4.8	94	0.00
25	T Fluoranthene	2.000	2.092	-4.6	91	0.00
26	IR d12-Chrysene	1.000	1.000	0.0	90	0.00
27	T Pyrene	2.000	2.127	-6.3	92	0.00
28	S SURR6, TERPHENYL-D14	2.000	2.117	-5.8	91	0.00
29	Butylbenzylphthalate	2.000	2.077	-3.8	90	0.00
30	T bis(2-Ethylhexyl)phthalate	4.000	4.235	-5.9	92	0.00
31	T Benzo(a)anthracene	2.000	2.092	-4.6	92	0.00
32	T Chrysene	2.000	2.060	-3.0	89	0.00
33	IR d12-Perylene	1.000	1.000	0.0	89	0.00
34	Di-n-octylphthalate	2.000	1.980	1.0	87	0.00
35	T Benzo(b)Fluoranthene	2.000	2.097	-4.8	87	0.00
36	T Benzo(k)fluoranthene	2.000	2.274	-13.7	94	0.00

(#) = Out of Range

CY242.D LVI0701.M

Thu Jul 03 11:41:36 2008

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00352



Evaluate Continuing Calibration Report

Data File : J:\ACQUADATA\5973B\DATA\070208\CY242.D Vial: 1  
 Acq On : 2 Jul 2008 2:00 pm Operator: Z.Miao  
 Sample : CALIBRATION CHECK Inst : 5973-B  
 Misc : 2.0 /4.0 PPM STD 8270.LL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : J:\ACQUADATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 13:01:54 2008  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
37 T	Benzo(a)pyrene	2.000	2.136	-6.8	87	0.00
38 T	Indeno(1,2,3-cd)Pyrene	2.000	2.094	-4.7	84	0.00
39 T	Dibenz(a,h)anthracene	2.000	1.853	7.4	82	0.00
40 T	Benzo(g,h,i)perylene	2.000	2.078	-3.9	87	0.00

Data File : J:\ACQUDATA\5973B\DATA\070208\CY242.D  
 Acq On : 2 Jul 2008 2:00 pm  
 Sample : CALIBRATION CHECK  
 Misc : 2.0 /4.0 PPM STD 8270.LL  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 2 14:25 2008

Vial: 1  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

Quant Results File: LVI0701.RES

Quant Method : J:\ACQUDATA\5...\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 13:01:54 2008  
 Response via : Initial Calibration  
 DataAcq Meth : LVI0701

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	10.13	152	67213	1.00	ppm	0.00
4) d8-Naphthalene	11.45	136	254882	1.00	ppm	0.00
10) d10-Acenaphthene	13.03	164	165402	1.00	ppm	0.00
18) d10-Phenanthrene	14.22	188	259383	1.00	ppm	0.00
26) d12-Chrysene	17.05	240	255347	1.00	ppm	0.00
33) d12-Perylene	19.78	264	205106	1.00	ppm	0.00

## System Monitoring Compounds

5) SURR4,NITROBENZENE-D5	10.76	82	332550	2.11	ppm	0.00
Spiked Amount	2.000	Range	22 - 124	Recovery	=	105.50%
11) SURR5,2-FLUOROBIPHENYL	12.42	172	457622	2.06	ppm	0.00
Spiked Amount	2.000	Range	27 - 114	Recovery	=	103.00%
28) SURR6,TERPHENYL-D14	15.63	244	466195	2.12	ppm	0.00
Spiked Amount	2.000	Range	23 - 139	Recovery	=	106.00%

## Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	4.35	88	270140	4.10	ppm	90
3) Pyridine	5.36	79	271501	2.07	ppm	98
6) Nitrobenzene	10.78	77	340565	2.07	ppm	98
7) Naphthalene	11.47	128	527487	2.02	ppm	98
8) 2-Methylnaphthalene	12.10	142	392086	2.11	ppm	95
9) 1-Methylnaphthalene	12.19	142	365200	2.07	ppm	95
12) Acenaphthylene	12.90	152	571606	2.07	ppm	98
13) Dimethyl phthalate	12.78	163	424866	2.13	ppm	99
14) Acenaphthene	13.05	153	362100	2.08	ppm	97
15) Dibenzofuran	13.19	168	557170	2.14	ppm	98
16) Fluorene	13.49	166	435519	2.13	ppm	99
17) Diethylphthalate	13.37	149	439858	2.12	ppm	98
19) Hexachlorobenzene	13.99	284	146650	2.06	ppm	92
20) Phenanthrene	14.24	178	500434	2.03	ppm	98
21) Anthracene	14.27	178	501900	2.09	ppm	99
22) Carbazole	14.38	167	413772	2.14	ppm	98
23) Octachlorostyrene	15.12	380	35975	2.25	ppm	89
24) Di-n-butylphthalate	14.63	149	605924	2.10	ppm	99
25) Fluoranthene	15.27	202	604069	2.09	ppm	99
27) Pyrene	15.51	202	626738	2.13	ppm	98
29) Butylbenzylphthalate	16.21	149	268270	2.08	ppm	96
30) bis(2-Ethylhexyl)phthalate	17.01	149	770968	4.23	ppm	100
31) Benzo(a)anthracene	17.02	228	584352	2.09	ppm	97
32) Chrysene	17.08	228	559377	2.06	ppm	97
34) Di-n-octylphthalate	18.02	149	550794	1.98	ppm	99
35) Benzo(b)Fluoranthene	18.91	252	568683	2.10	ppm	98

(#) = qualifier out of range (m) = manual integration  
 CY242.D LVI0701.M Thu Jul 03 11:40:39 2008

Data File : J:\ACQUADATA\5973B\DATA\070208\CY242.D  
 Acq On : 2 Jul 2008 2:00 pm  
 Sample : CALIBRATION CHECK  
 Misc : 2.0 /4.0 PPM STD 8270.LL  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 2 14:25 2008

Vial: 1  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

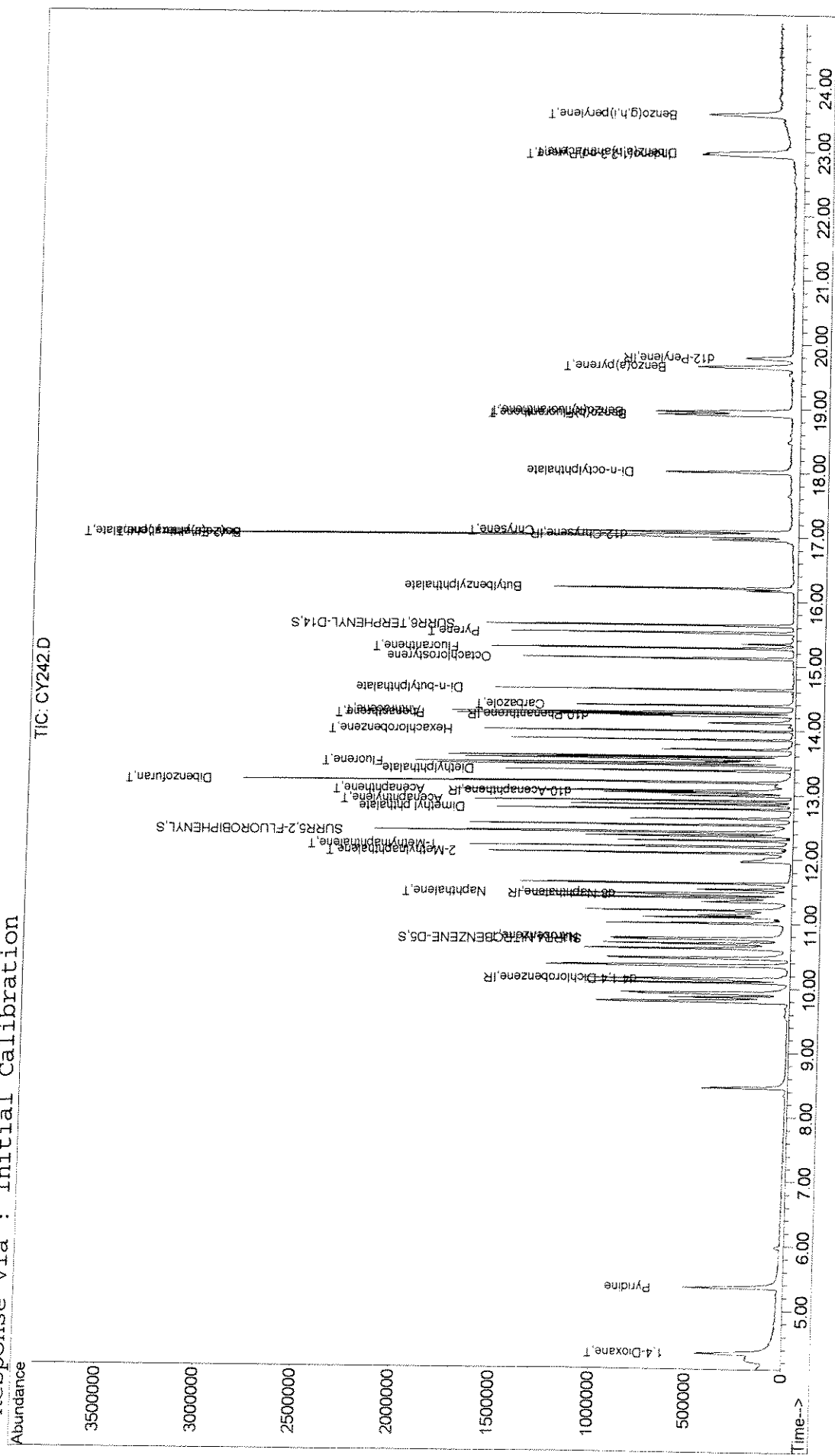
Quant Results File: LVI0701.RES

Quant Method : J:\ACQUADATA\5...\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Jul 02 13:01:54 2008  
 Response via : Initial Calibration  
 DataAcq Meth : LVI0701

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
36) Benzo(k)fluoranthene	18.95	252	566681	2.27	ppm	98
37) Benzo(a)pyrene	19.65	252	494816	2.14	ppm	93
38) Indeno(1,2,3-cd)Pyrene	22.94	276	531481	2.09	ppm	96
39) Dibenz(a,h)anthracene	22.97	278	407198	1.85	ppm	97
40) Benzo(g,h,i)perylene	23.56	276	492104	2.08	ppm	97

Quantitation Report

Data File : J:\ACQDATA\5973B\DATA\070208\CY242.D  
Acq On : 2 Jul 2008 2:00 pm  
Sample : CALIBRATION CHECK  
Misc : 2.0 / 4.0 PPM STD 8270.LL  
MS Integration Params: RTEINT.P  
Quant Time: Jul 2 14:25 2008  
Vial: 1  
Operator: Z.Miao  
Inst : 5973-B  
Multiplr: 1.00  
Quant Results File: LVI0701.RES  
Method : J:\ACQDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
Title : 8270 BNA ANALYSIS  
Last Update : Wed Jul 02 13:01:54 2008  
Response via : Initial Calibration



00356

Data File : J:\ACQUDATA\5973B\DATA\070108\CY228.D  
 Acq On : 1 Jul 2008 9:07 am  
 Sample : TUNE CHECK  
 Misc : 20 ng DFTPP  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 1 9:33 2008

Vial: 1  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

Quant Results File: DFTPPLVI.RES

Quant Method : J:\ACQUDATA\5...\DFTPPLVI.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Mon Jun 16 10:40:11 2008  
 Response via : Initial Calibration  
 DataAcq Meth : DFTPPLVI

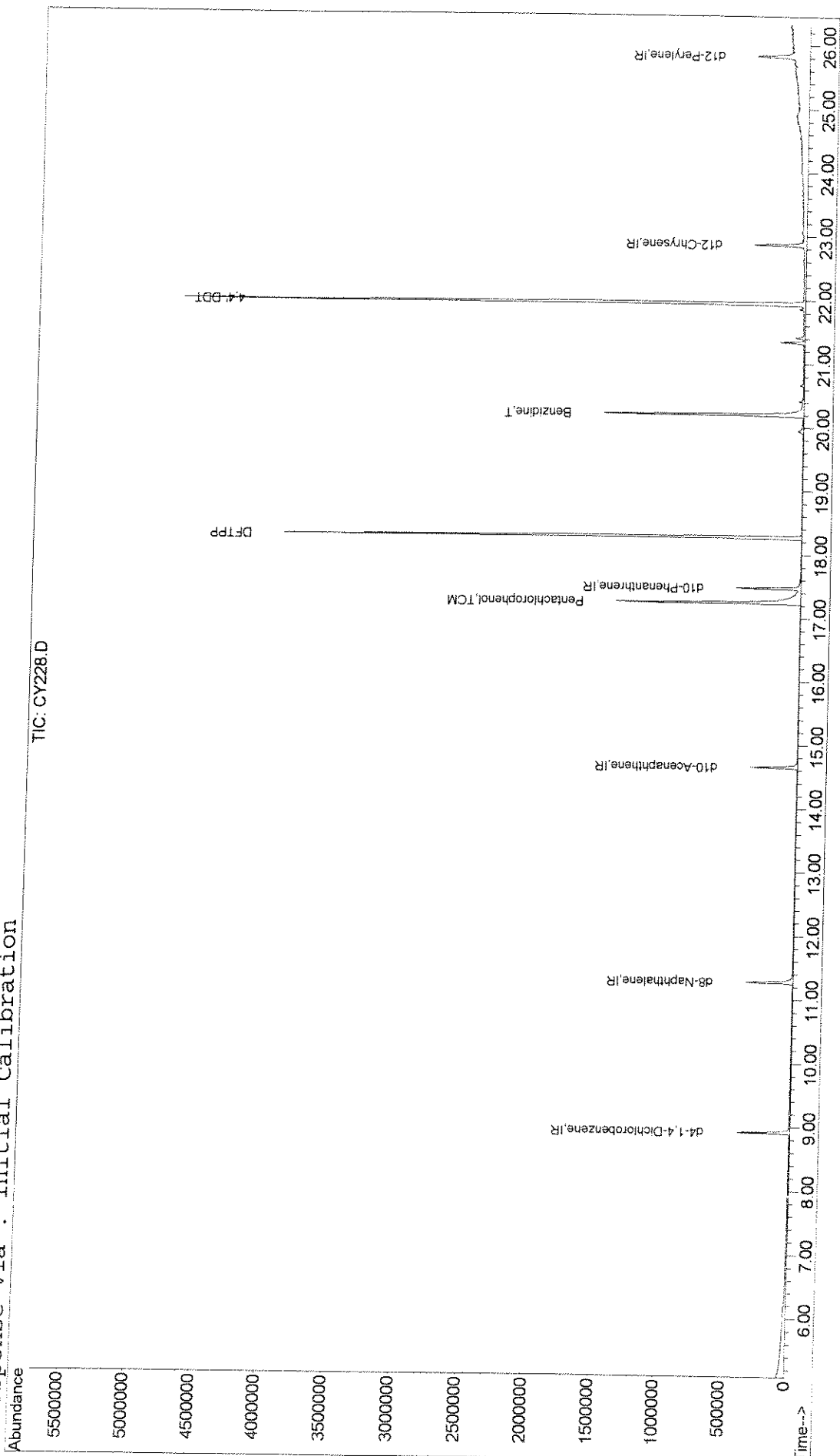
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	8.92	152	73930	1.00	ppb	0.00
2) d8-Naphthalene	11.27	136	272494	1.00	ppb	0.00
3) d10-Acenaphthene	14.65	164	132863	1.00	ppb	0.00
4) d10-Phenanthrene	17.47	188	269589	1.00	ppb	0.00
10) d12-Chrysene	22.87	240	258105	1.00	ppb	0.00
12) d12-Perylene	25.83	264	214940	1.00	ppb	0.00

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
5) Pentachlorophenol	17.24	266	329266	9.60	ppb	96
6) DFTPP	18.27	198	543305	11.58	ppb	96
9) 4,4'-DDT	21.94	235	1190262	9.45	ppb	99
11) Benzidine	20.20	184	1050380	7.72	ppb	98

Quantitation Report

Data File : J:\ACQUDATA\5973B\DATA\070108\CY228.D  
Acq On : 1 Jul 2008 9:07 am Vial: 1  
Sample : TUNE CHECK Operator: Z.Miao  
Misc : 20 ng DFTPP Inst : 5973-B  
MS Integration Params: RTEINT.P Multiplr: 1.00  
Quant Time: Jul 1 9:33 2008 Quant Results File: DFTPPLVI.RES

Method : J:\ACQUDATA\5973B\METHODS\DFTPPLVI.M (RTE Integrator)  
Title : 8270 BNA ANALYSIS  
Last Update : Mon Jun 16 10:40:11 2008  
Response via : Initial Calibration



00358

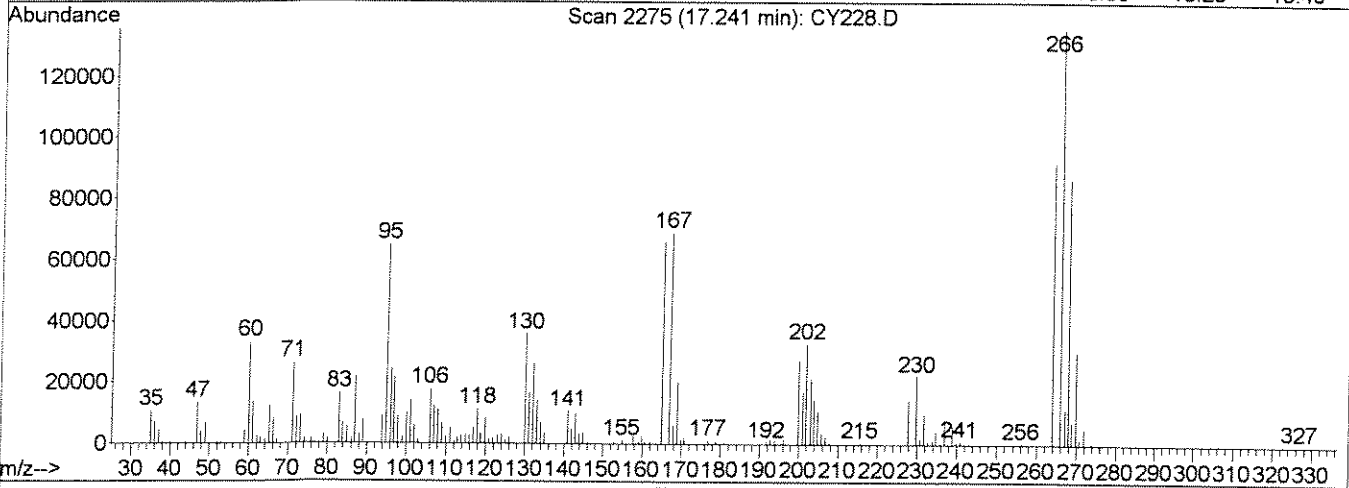
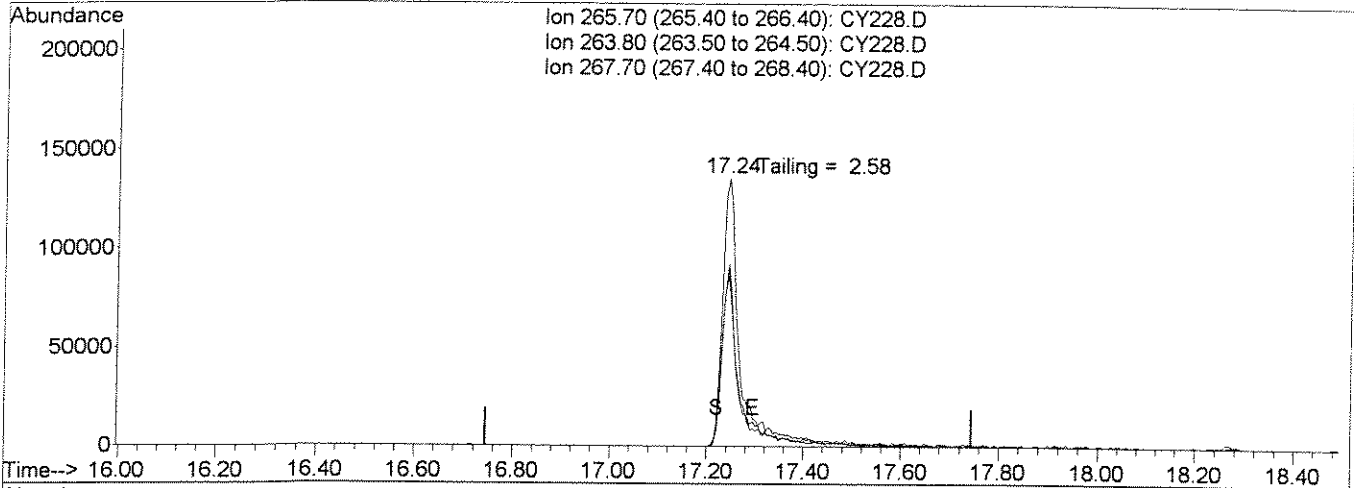
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\070108\CY228.D  
 Acq On : 1 Jul 2008 9:07 am  
 Sample : TUNE CHECK  
 Misc : 20 ng DFTPP  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 1 9:33 2008

Vial: 1  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\DFTPPLVI.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Mon Jun 16 10:40:11 2008  
 Response via : Single Level Calibration



TIC: CY228.D

(5) Pentachlorophenol (TCM)

17.24min 9.60ppb

response 329266

Ion	Exp%	Act%
265.70	100	100
263.80	63.80	67.72
267.70	65.10	63.51
0.00	0.00	0.00

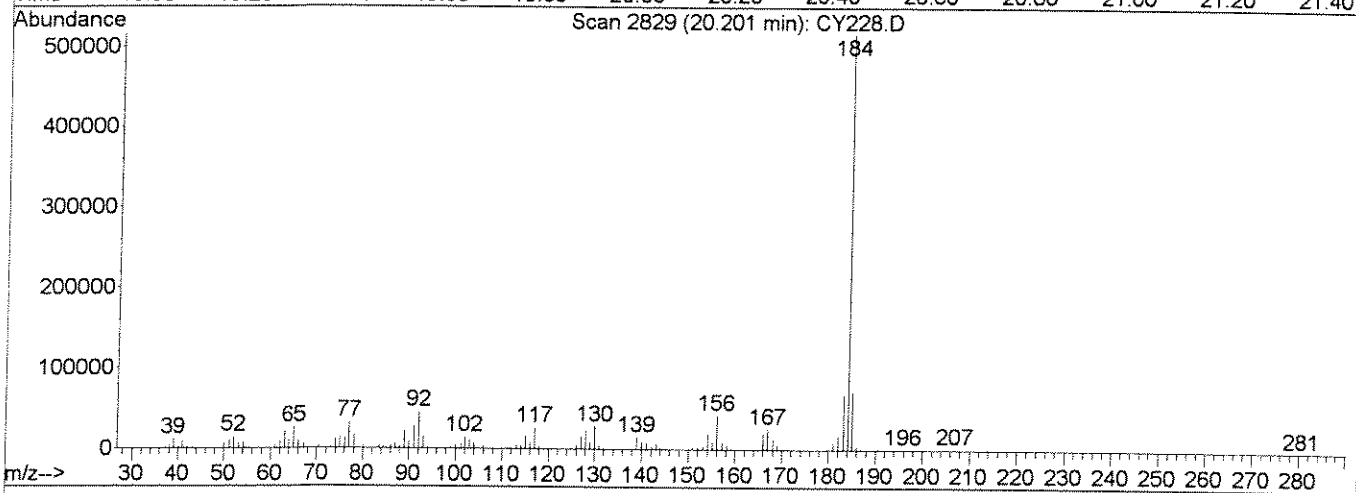
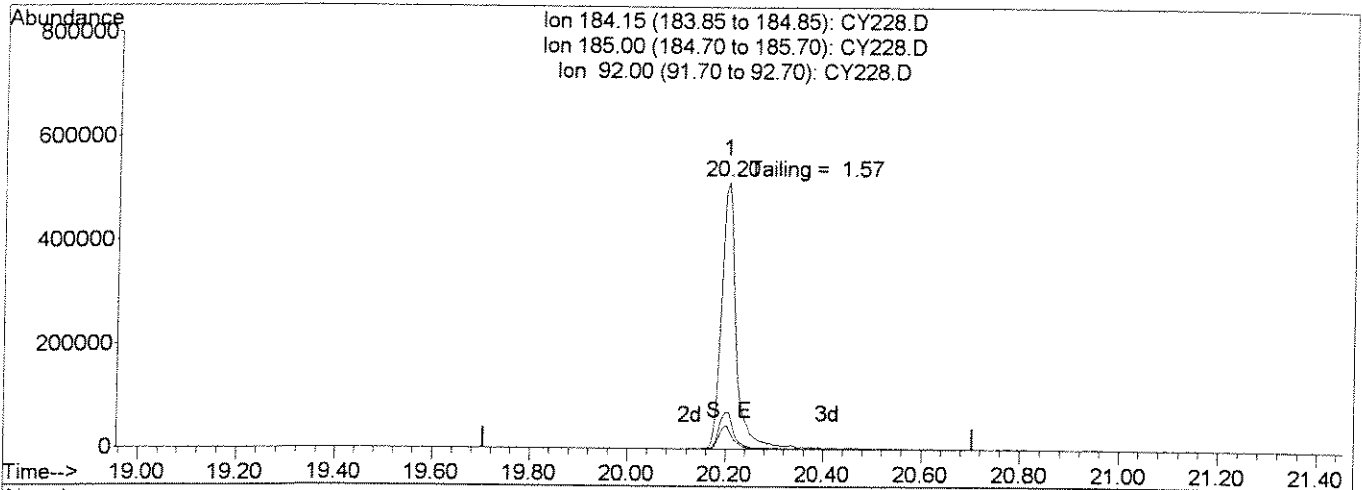
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\070108\CY228.D  
 Acq On : 1 Jul 2008 9:07 am  
 Sample : TUNE CHECK  
 Misc : 20 ng DFTPP  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 1 9:33 2008

Vial: 1  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\DFTPPLVI.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Mon Jun 16 10:40:11 2008  
 Response via : Single Level Calibration



TIC: CY228.D

(11) Benzidine (T)

20.20min 7.72ppb

response 1050380

Ion	Exp%	Act%
184.15	100	100
185.00	14.60	13.84
92.00	7.50	8.76
0.00	0.00	0.00



Data File : J:\ACQUDATA\5973B\DATA\070208\CY241.D  
 Acq On : 2 Jul 2008 1:12 pm  
 Sample : TUNE CHECK  
 Misc : 20 ng DFTPP  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 2 13:38 2008

Vial: 1  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

Quant Results File: DFTPPLVI.RES

Quant Method : J:\ACQUDATA\5...\DFTPPLVI.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Mon Jun 16 10:40:11 2008  
 Response via : Initial Calibration  
 DataAcq Meth : DFTPPLVI

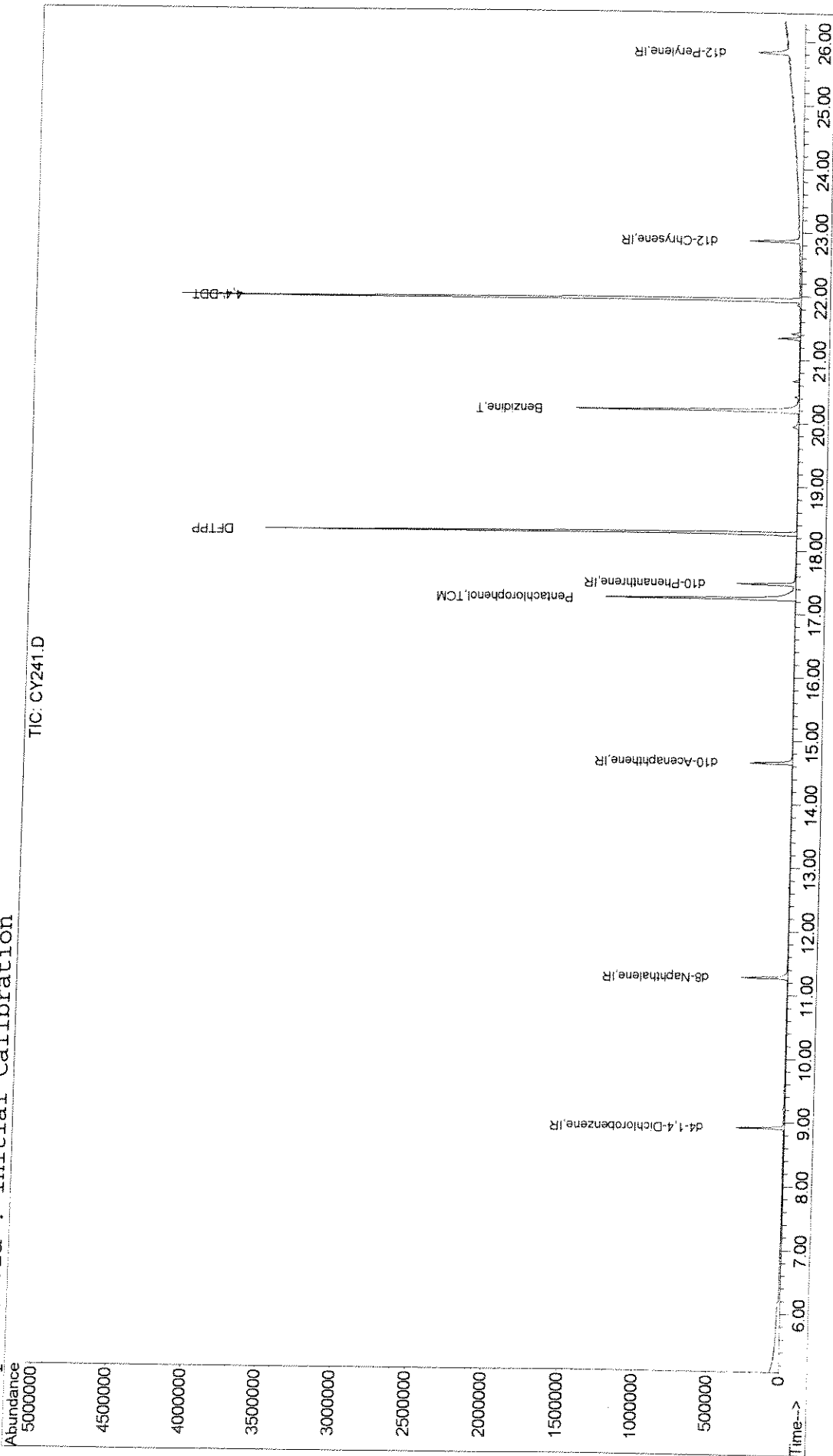
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) d4-1,4-Dichlorobenzene	8.92	152	61332	1.00	ppb	0.00
2) d8-Naphthalene	11.27	136	220816	1.00	ppb	0.00
3) d10-Acenaphthene	14.65	164	116008	1.00	ppb	0.00
4) d10-Phenanthrene	17.47	188	234539	1.00	ppb	0.00
10) d12-Chrysene	22.87	240	220225	1.00	ppb	0.00
12) d12-Perylene	25.83	264	172053	1.00	ppb	0.00

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
5) Pentachlorophenol	17.24	266	280563	9.41	ppb	99
6) DFTPP	18.27	198	459497	11.26	ppb	95
9) 4,4'-DDT	21.94	235	1069624	9.76	ppb	99
11) Benzidine	20.20	184	1043535	8.99	ppb	99

Quantitation Report

Data File : J:\ACQUDATA\5973B\DATA\070208\CY241.D  
Acq On : 2 Jul 2008 1:12 pm Vial: 1  
Sample : TUNE CHECK Operator: Z.Miao  
Misc : 20 ng DFTPP Inst : 5973-B  
MS Integration Params: RTEINT.P Multiplr: 1.00  
Quant Time: Jul 2 13:38 2008 Quant Results File: DFTPLVI.RES

Method : J:\ACQUDATA\5973B\METHODS\DFTPLVI.M (RTE Integrator)  
Title : 8270 BNA ANALYSIS  
Last Update : Mon Jun 16 10:40:11 2008  
Response via : Initial Calibration



00362

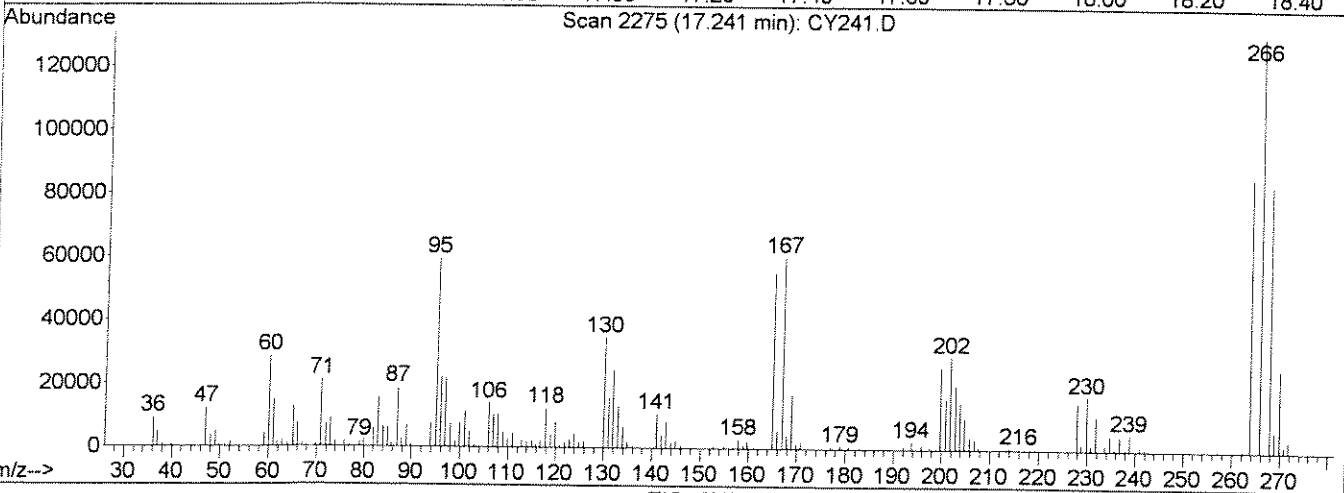
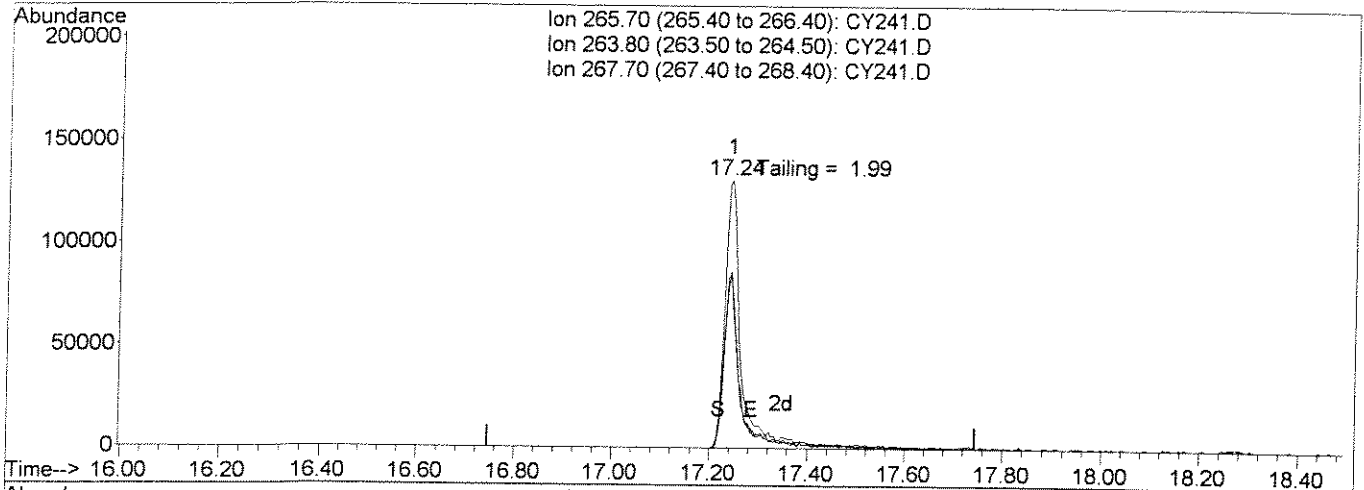
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\070208\CY241.D  
 Acq On : 2 Jul 2008 1:12 pm  
 Sample : TUNE CHECK  
 Misc : 20 ng DFTPP  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 2 13:38 2008

Vial: 1  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\DFTPLVI.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Mon Jun 16 10:40:11 2008  
 Response via : Single Level Calibration



TIC: CY241.D

(5) Pentachlorophenol (TCM)

17.24min 9.41ppb

response 280563

Ion	Exp%	Act%
265.70	100	100
263.80	63.80	65.28
267.70	65.10	64.59
0.00	0.00	0.00

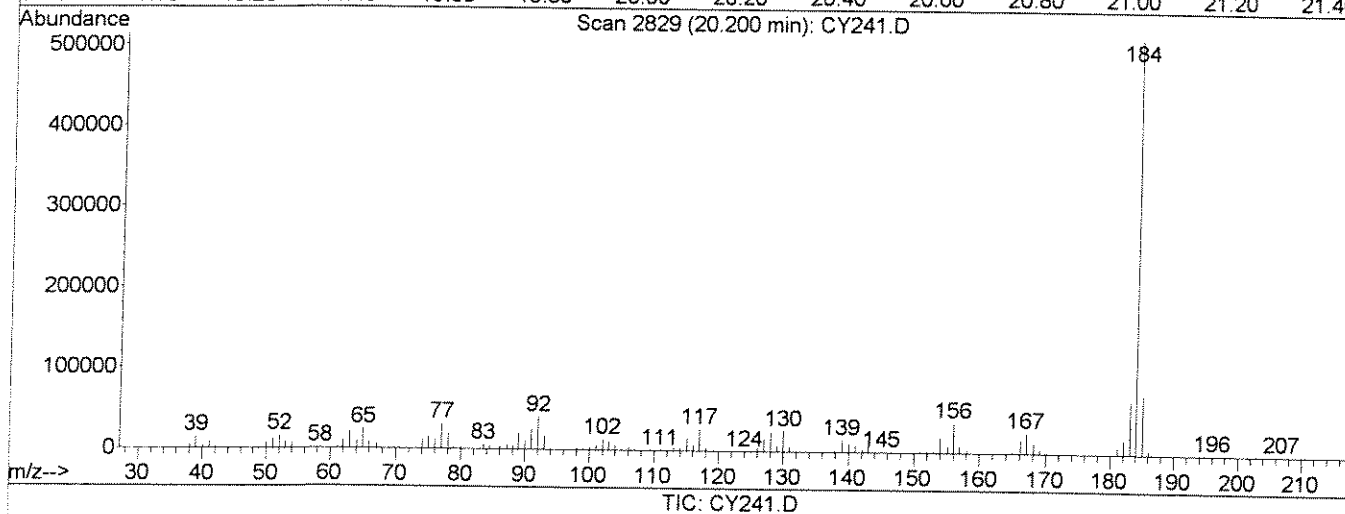
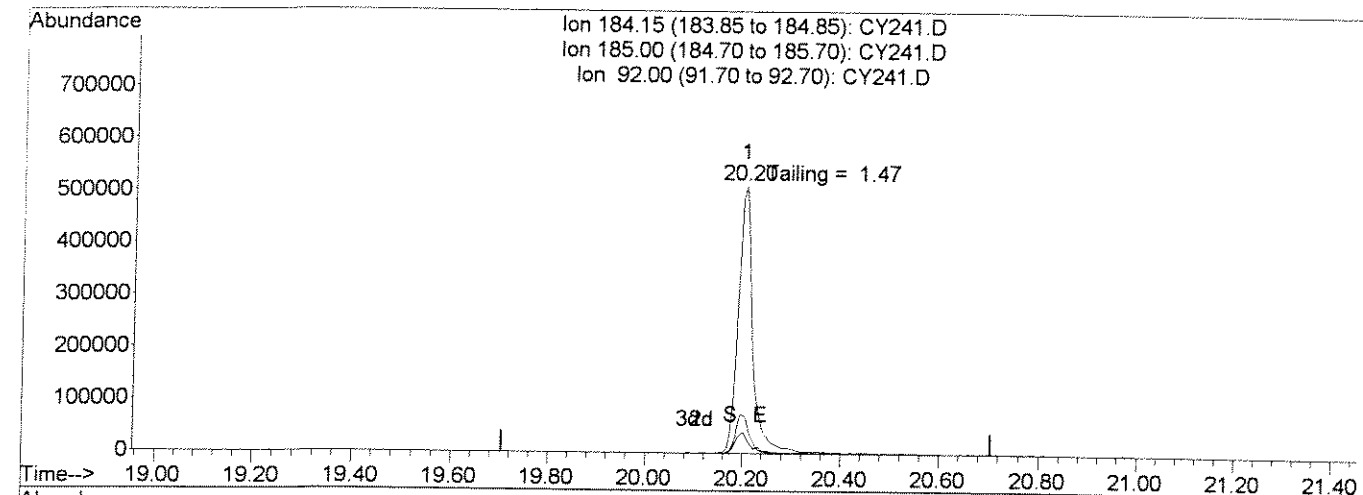
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\070208\CY241.D  
 Acq On : 2 Jul 2008 1:12 pm  
 Sample : TUNE CHECK  
 Misc : 20 ng DFTPP  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 2 13:38 2008

Vial: 1  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\DFTPLVI.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Mon Jun 16 10:40:11 2008  
 Response via : Single Level Calibration



(11) Benzidine (T)

20.20min 8.99ppb

response 1043535

Ion	Exp%	Act%
184.15	100	100
185.00	14.60	14.11
92.00	7.50	7.99
0.00	0.00	0.00

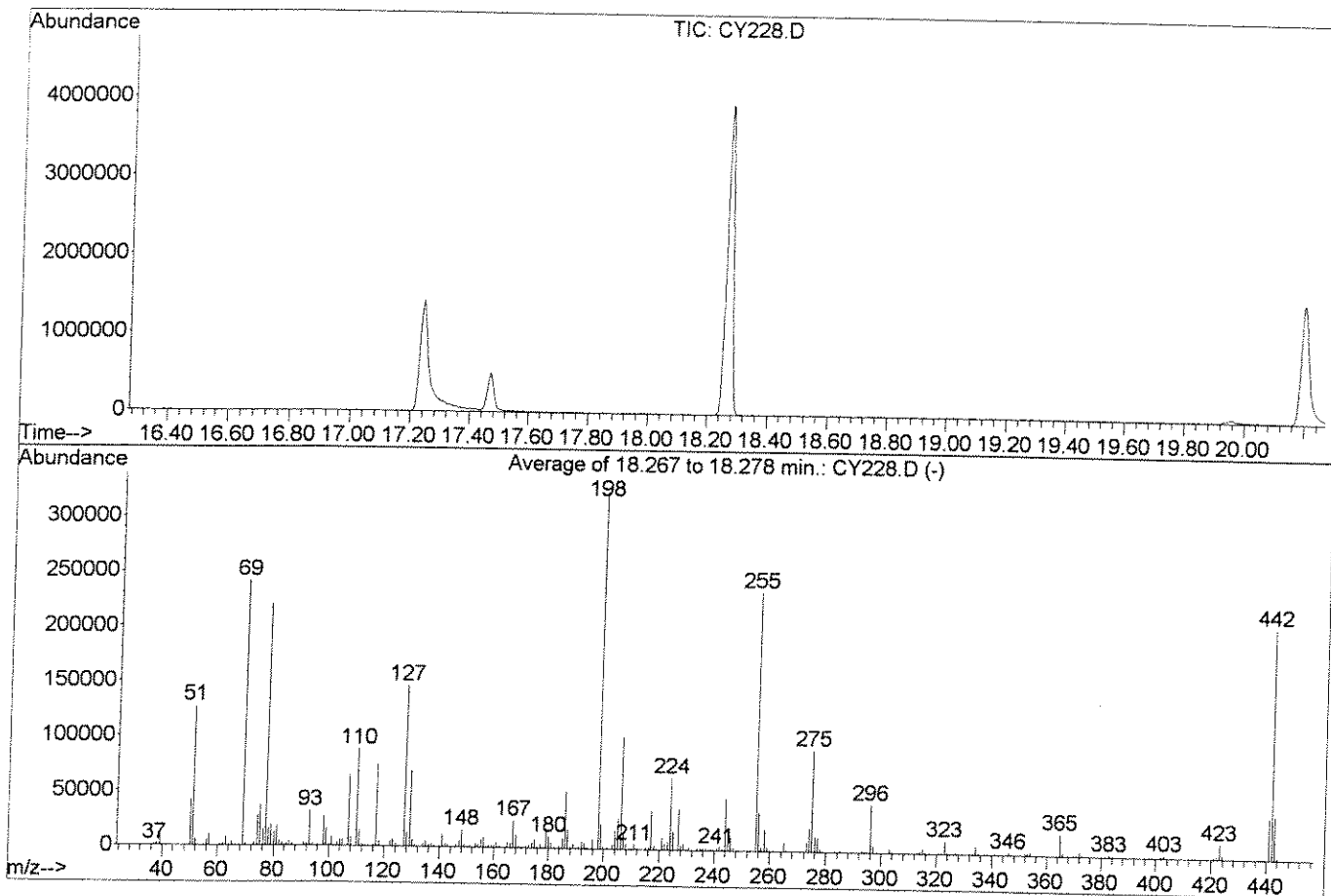
# **SEMIVOLATILE ORGANICS**

## **RAW QC DATA**

DFTPP

Data File : J:\ACQUDATA\5973B\DATA\070108\CY228.D  
 Acq On : 1 Jul 2008 9:07 am  
 Sample : TUNE CHECK  
 Misc : 20 ng DFTPP  
 MS Integration Params: RTEINT.P  
 Method : J:\ACQUDATA\5973B\METHODS\DFTPLVI.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS

Vial: 1  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00



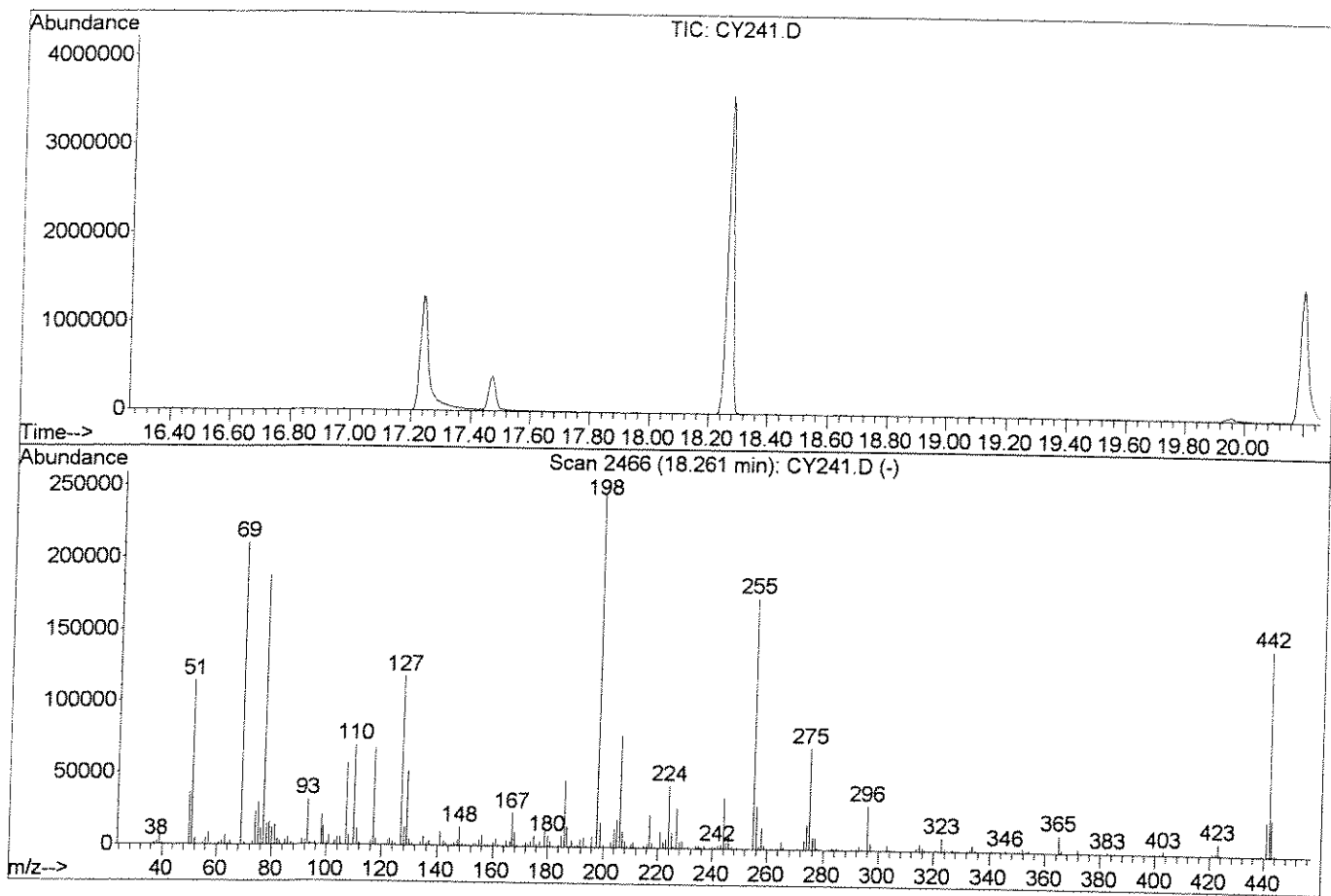
Spectrum Information: Average of 18.267 to 18.278 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	39.3	127035	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	74.5	241173	PASS
70	69	0.00	2	0.7	1587	PASS
127	198	40	60	45.2	146216	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	323563	PASS
199	198	5	9	6.8	21933	PASS
275	198	10	30	28.5	92176	PASS
365	198	1	100	6.1	19616	PASS
441	443	0.01	100	96.2	37597	PASS
442	198	40	100	64.8	209621	PASS
443	442	17	23	18.6	39064	PASS

DFTPP

Data File : J:\ACQUDATA\5973B\DATA\070208\CY241.D  
 Acq On : 2 Jul 2008 1:12 pm  
 Sample : TUNE CHECK  
 Misc : 20 ng DFTPP  
 MS Integration Params: RTEINT.P  
 Method : J:\ACQUDATA\5973B\METHODS\DFTPLVI.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS

Vial: 1  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00



Spectrum Information: Scan 2466

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	46.3	114284	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	85.2	210085	PASS
70	69	0.00	2	0.7	1539	PASS
127	198	40	60	47.8	117854	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	246714	PASS
199	198	5	9	7.0	17240	PASS
275	198	10	30	28.6	70672	PASS
365	198	1	100	4.9	12098	PASS
441	443	0.01	100	91.6	23840	PASS
442	198	40	100	58.2	143552	PASS
443	442	17	23	18.1	26040	PASS

COLUMBIA ANALYTICAL SERVICES

EXTRACTABLE ORGANICS

METHOD 8270C.NEVA

Reported: 07/30/08

Project Reference:

Client Sample ID : METHOD BLANK

Date Sampled : Order #: 1114611 Sample Matrix: WATER  
 Date Received: Submission #: Analytical Run 163388

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED : 07/02/08			
DATE ANALYZED : 07/02/08			
ANALYTICAL DILUTION: 1.00			
ACENAPHTHENE	0.20	0.20 U	UG/L
ACENAPHTHYLENE	0.20	0.20 U	UG/L
ANTHRACENE	0.20	0.20 U	UG/L
BENZO (A) ANTHRACENE	0.20	0.20 U	UG/L
BENZO (A) PYRENE	0.20	0.20 U	UG/L
BENZO (B) FLUORANTHENE	0.20	0.20 U	UG/L
BENZO (G, H, I) PERYLENE	0.20	0.20 U	UG/L
BENZO (K) FLUORANTHENE	0.20	0.20 U	UG/L
BUTYL BENZYL PHTHALATE	5.0	5.0 U	UG/L
DI-N-BUTYLPHthalate	5.0	5.0 U	UG/L
INDENO (1, 2, 3-CD) PYRENE	0.20	0.20 U	UG/L
CHRYSENE	0.20	0.20 U	UG/L
DIBENZO (A, H) ANTHRACENE	0.20	0.20 U	UG/L
DIETHYLPHthalate	5.0	5.0 U	UG/L
DIMETHYL PHTHALATE	5.0	5.0 U	UG/L
1, 4-DIOXANE	2.0	2.0 U	UG/L
BIS (2-ETHYLHEXYL) PHTHALATE	5.0	5.0 U	UG/L
FLUORANTHENE	0.20	0.20 U	UG/L
FLUORENE	0.20	0.20 U	UG/L
HEXACHLORO BENZENE	0.20	0.20 U	UG/L
2-METHYLNAPHTHALENE	0.20	0.20 U	UG/L
NAPHTHALENE	0.20	0.060 J	UG/L
NITROBENZENE	0.20	0.20 U	UG/L
OCTACHLOROSTYRENE	0.20	0.20 U	UG/L
DI-N-OCTYL PHTHALATE	5.0	5.0 U	UG/L
PHENANTHRENE	0.20	0.20 U	UG/L
PYRENE	0.20	0.20 U	UG/L
PYRIDINE	2.0	2.0 U	UG/L

SURROGATE RECOVERIES

QC LIMITS

TERPHENYL-d14	(45 - 135 %)	105	%
NITROBENZENE-d5	(45 - 135 %)	85	%
2-FLUOROBIPHENYL	(45 - 135 %)	84	%



Data File : J:\ACQUADATA\5973B\DATA\070208\CY244.D Vial: 3  
 Acq On : 2 Jul 2008 4:02 pm Operator: Z.Miao  
 Sample : 1114611 1.0 Inst : 5973-B  
 Misc : 07/02/2008 1.0 8270LL BLK Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 3 12:06 2008 Quant Results File: LVI0701.RES

Quant Method : J:\ACQUADATA\5...\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Thu Jul 03 11:44:55 2008  
 Response via : Initial Calibration  
 DataAcq Meth : LVI0701

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) d4-1,4-Dichlorobenzene	10.14	152	57358	1.00	ppm	0.00
4) d8-Naphthalene	11.45	136	202181	1.00	ppm	0.00
10) d10-Acenaphthene	13.03	164	132141	1.00	ppm	0.00
18) d10-Phenanthrene	14.22	188	195890	1.00	ppm	0.00
26) d12-Chrysene	17.05	240	188852	1.00	ppm	0.00
33) d12-Perylene	19.78	264	150111	1.00	ppm	0.00

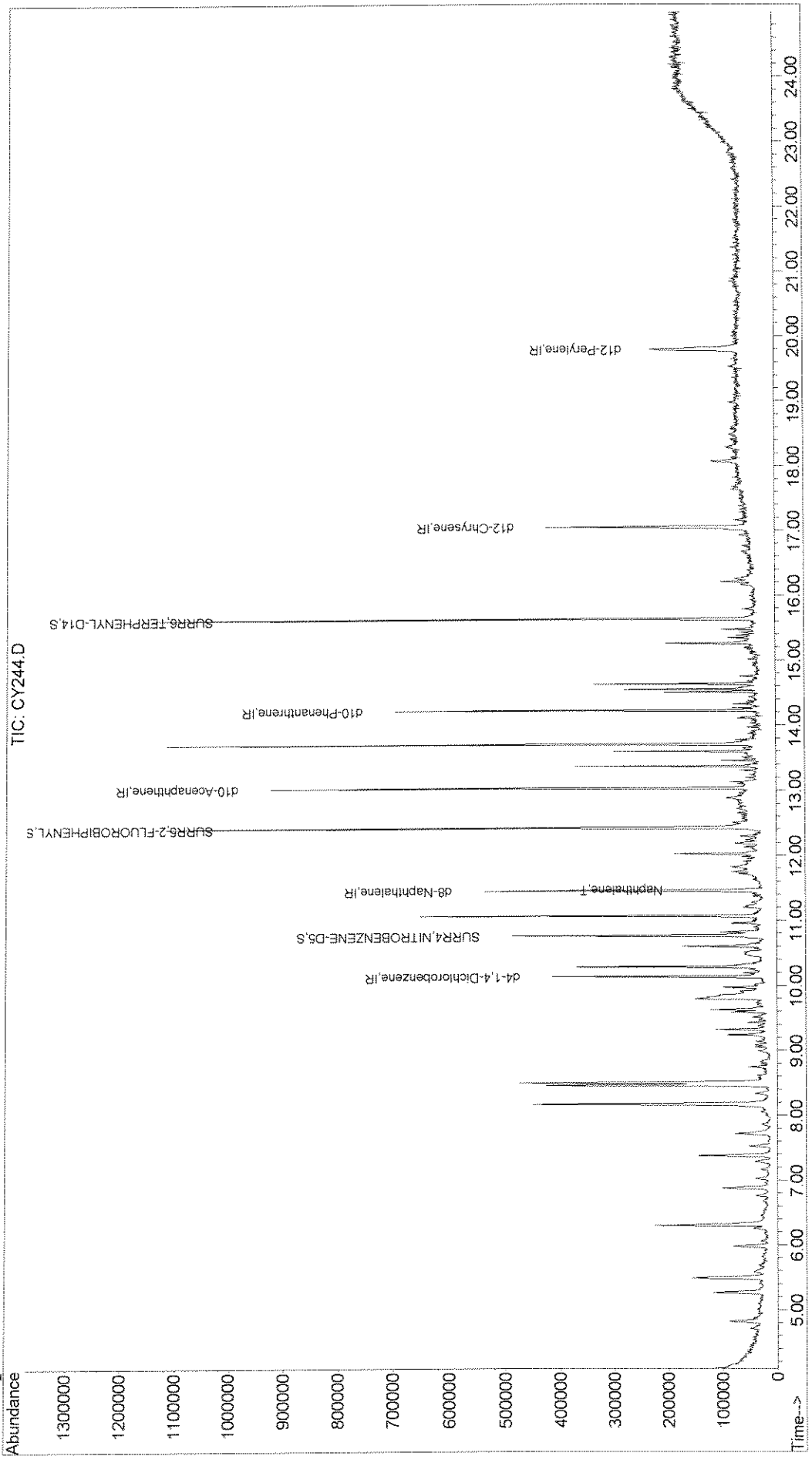
System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev (Min)
5) SURR4,NITROBENZENE-D5	10.76	82	210565	1.69	ppm	0.00
Spiked Amount 2.000	Range 22 - 124		Recovery =	84.50%		
11) SURR5,2-FLUOROBIPHENYL	12.42	172	299219	1.68	ppm	0.00
Spiked Amount 2.000	Range 27 - 114		Recovery =	84.00%		
28) SURR6,TERPHENYL-D14	15.63	244	341342	2.10	ppm	0.00
Spiked Amount 2.000	Range 23 - 139		Recovery =	105.00%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
7) Naphthalene	11.47	128	12521	0.06	ppm	86

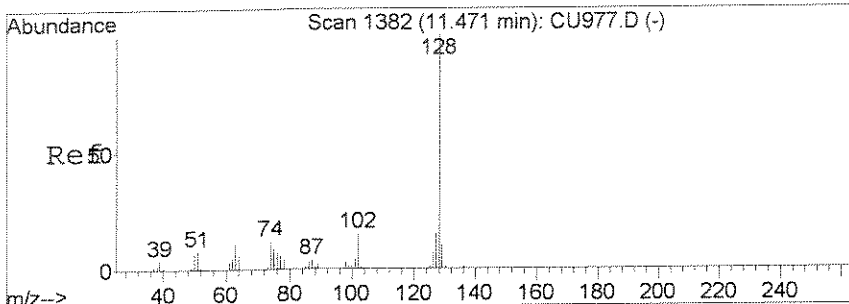
Quantitation Report

Data File : J:\ACQDATA\5973B\DATA\070208\CY244.D Vial: 3  
Acq On : 2 Jul 2008 4:02 pm Operator: Z.Miao  
Sample : 1114611 1.0 Inst : 5973-B  
Misc : 07/02/2008 1.0 8270LL BLK Multiplr: 1.00  
MS Integration Params: RTEINT.P  
Quant Time: Jul 3 12:06 2008 Quant Results File: LVI0701.RES

Method : J:\ACQDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
Title : 8270 BNA ANALYSIS  
Last Update : Thu Jul 03 11:44:55 2008  
Response via : Initial Calibration

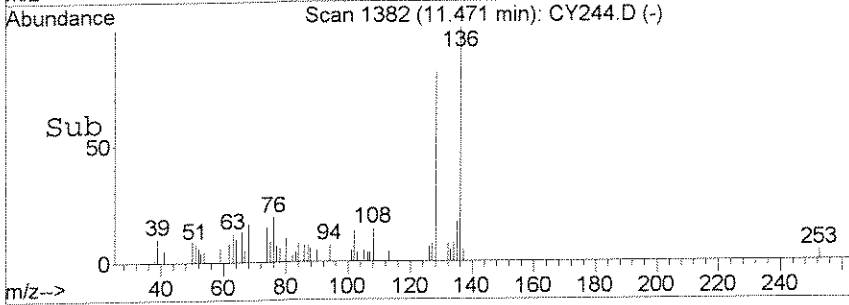
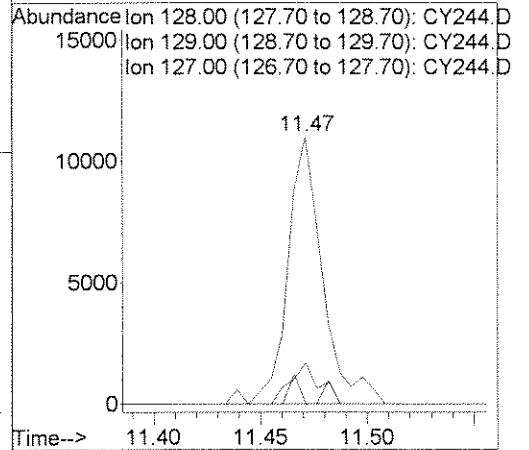
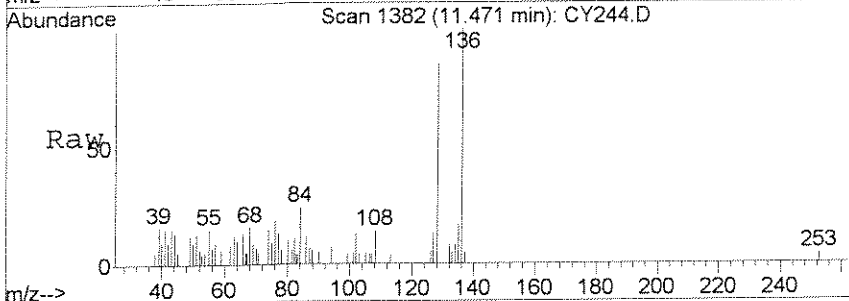


00370



#7  
 Naphthalene  
 Concen: 0.06 ppm  
 RT: 11.47 min Scan# 1382  
 Delta R.T. 0.01 min  
 Lab File: CY244.D  
 Acq: 2 Jul 2008 4:02 pm

Tgt Ion	Ratio	Lower	Upper
128	100		
129	0.0	0.0	41.6
127	15.3	0.0	44.7



COLUMBIA ANALYTICAL SERVICES

EXTRACTABLE ORGANICS

METHOD 8270C.NEVA

Reported: 09/03/08

Project Reference:

Client Sample ID : BLANK SPIKE

Date Sampled : Order #: 1114612 Sample Matrix: WATER  
 Date Received: Submission #: Analytical Run 163388

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED : 07/02/08			
DATE ANALYZED : 07/02/08			
ANALYTICAL DILUTION: 1.00			
ACENAPHTHENE	0.20	0.47	UG/L
ACENAPHTHYLENE	0.20	0.45	UG/L
ANTHRACENE	0.20	0.41	UG/L
BENZO (A) ANTHRACENE	0.20	0.44	UG/L
BENZO (A) PYRENE	0.20	0.38	UG/L
BENZO (B) FLUORANTHENE	0.20	0.51	UG/L
BENZO (G, H, I) PERYLENE	0.20	0.44	UG/L
BENZO (K) FLUORANTHENE	0.20	0.48	UG/L
BUTYL BENZYL PHTHALATE	5.0	0.56 J	UG/L
DI-N-BUTYLPHthalate	5.0	1.4 J	UG/L
INDENO (1, 2, 3-CD) PYRENE	0.20	0.43	UG/L
CHRYSENE	0.20	0.46	UG/L
DIBENZO (A, H) ANTHRACENE	0.20	0.45	UG/L
DIETHYLPHthalate	5.0	0.64 J	UG/L
DIMETHYL PHTHALATE	5.0	0.52 J	UG/L
1, 4-DIOXANE	2.0	2.3	UG/L
BIS (2-ETHYLHEXYL) PHTHALATE	5.0	4.8 J	UG/L
FLUORANTHENE	0.20	0.48	UG/L
FLUORENE	0.20	0.47	UG/L
HEXACHLORO BENZENE	0.20	0.42	UG/L
2-METHYLNAPHTHALENE	0.20	0.41	UG/L
NAPHTHALENE	0.20	0.44	UG/L
NITROBENZENE	0.20	0.45	UG/L
OCTACHLOROSTYRENE	0.20	0.42	UG/L
DI-N-OCTYL PHTHALATE	5.0	0.43 J	UG/L
PHENANTHRENE	0.20	0.49	UG/L
PYRENE	0.20	0.46	UG/L
PYRIDINE	2.0	0.15 J	UG/L

SURROGATE RECOVERIES

QC LIMITS

TERPHENYL-d14	(45 - 135 %)	96	%
NITROBENZENE-d5	(45 - 135 %)	88	%
2-FLUOROBIPHENYL	(45 - 135 %)	86	%

00372

Data File : J:\ACQUDATA\5973B\DATA\070208\CY245.D  
 Acq On : 2 Jul 2008 4:50 pm  
 Sample : 1114612 1.0  
 Misc : 07/02/2008 1.0 8270LL LCS  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 3 12:07 2008

Vial: 4  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

Quant Results File: LVI0701.RES

Quant Method : J:\ACQUDATA\5...\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Thu Jul 03 11:44:55 2008  
 Response via : Initial Calibration  
 DataAcq Meth : LVI0701

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) d4-1,4-Dichlorobenzene	10.14	152	59817	1.00	ppm	0.00
4) d8-Naphthalene	11.45	136	212873	1.00	ppm	0.00
10) d10-Acenaphthene	13.03	164	135803	1.00	ppm	0.00
18) d10-Phenanthrene	14.22	188	203647	1.00	ppm	0.00
26) d12-Chrysene	17.04	240	209546	1.00	ppm	0.00
33) d12-Perylene	19.79	264	167323	1.00	ppm	0.01

#### System Monitoring Compounds

5) SURR4,NITROBENZENE-D5	10.76	82	230595	1.76	ppm	0.00
Spiked Amount 2.000	Range 22 - 124		Recovery =	88.00%		
11) SURR5,2-FLUOROBIPHENYL	12.42	172	315129	1.72	ppm	0.00
Spiked Amount 2.000	Range 27 - 114		Recovery =	86.00%		
28) SURR6,TERPHENYL-D14	15.63	244	347176	1.92	ppm	0.00
Spiked Amount 2.000	Range 23 - 139		Recovery =	96.00%		

#### Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	4.35	88	132865	2.27	ppm	93
3) Pyridine	5.44	79	17775m	0.15	ppm	
6) Nitrobenzene	10.78	77	62466	0.45	ppm	97
7) Naphthalene	11.47	128	95002	0.44	ppm	94
8) 2-Methylnaphthalene	12.10	142	63022	0.41	ppm	97
9) 1-Methylnaphthalene	12.20	142	61713	0.42	ppm	97
12) Acenaphthylene	12.90	152	101207	0.45	ppm	97
13) Dimethyl phthalate	12.78	163	85937	0.52	ppm	97
14) Acenaphthene	13.06	153	67580	0.47	ppm	100
15) Dibenzofuran	13.19	168	96537	0.45	ppm	93
16) Fluorene	13.49	166	78630	0.47	ppm	97
17) Diethylphthalate	13.37	149	108918	0.64	ppm	98
19) Hexachlorobenzene	13.99	284	23555	0.42	ppm	97
20) Phenanthrene	14.24	178	94809	0.49	ppm	97
21) Anthracene	14.28	178	77679	0.41	ppm	95
22) Carbazole	14.39	167	77636	0.51	ppm	98
23) Octachlorostyrene	15.12	380	4717m	0.42	ppm	
24) Di-n-butylphthalate	14.63	149	325307	1.43	ppm	98
25) Fluoranthene	15.27	202	109856	0.48	ppm	97
27) Pyrene	15.51	202	111782	0.46	ppm	99
29) Butyl benzyl phthalate	16.21	149	58838	0.56	ppm	93
30) bis(2-Ethylhexyl)phthalate	17.02	149	715688	4.79	ppm	98
31) Benzo(a)anthracene	17.02	228	101254	0.44	ppm	96
32) Chrysene	17.09	228	102782	0.46	ppm	97
34) Di-n-octyl phthalate	18.01	149	98371	0.43	ppm	95
35) Benzo(b)Fluoranthene	18.91	252	112146	0.51	ppm	93

(#) = qualifier out of range (m) = manual integration

CY245.D LVI0701.M Thu Jul 03 12:08:20 2008

Data File : J:\ACQUADATA\5973B\DATA\070208\CY245.D  
 Acq On : 2 Jul 2008 4:50 pm  
 Sample : 1114612 1.0  
 Misc : 07/02/2008 1.0 8270LL LCS  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 3 12:07 2008

Vial: 4  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

Quant Results File: LVI0701.RES

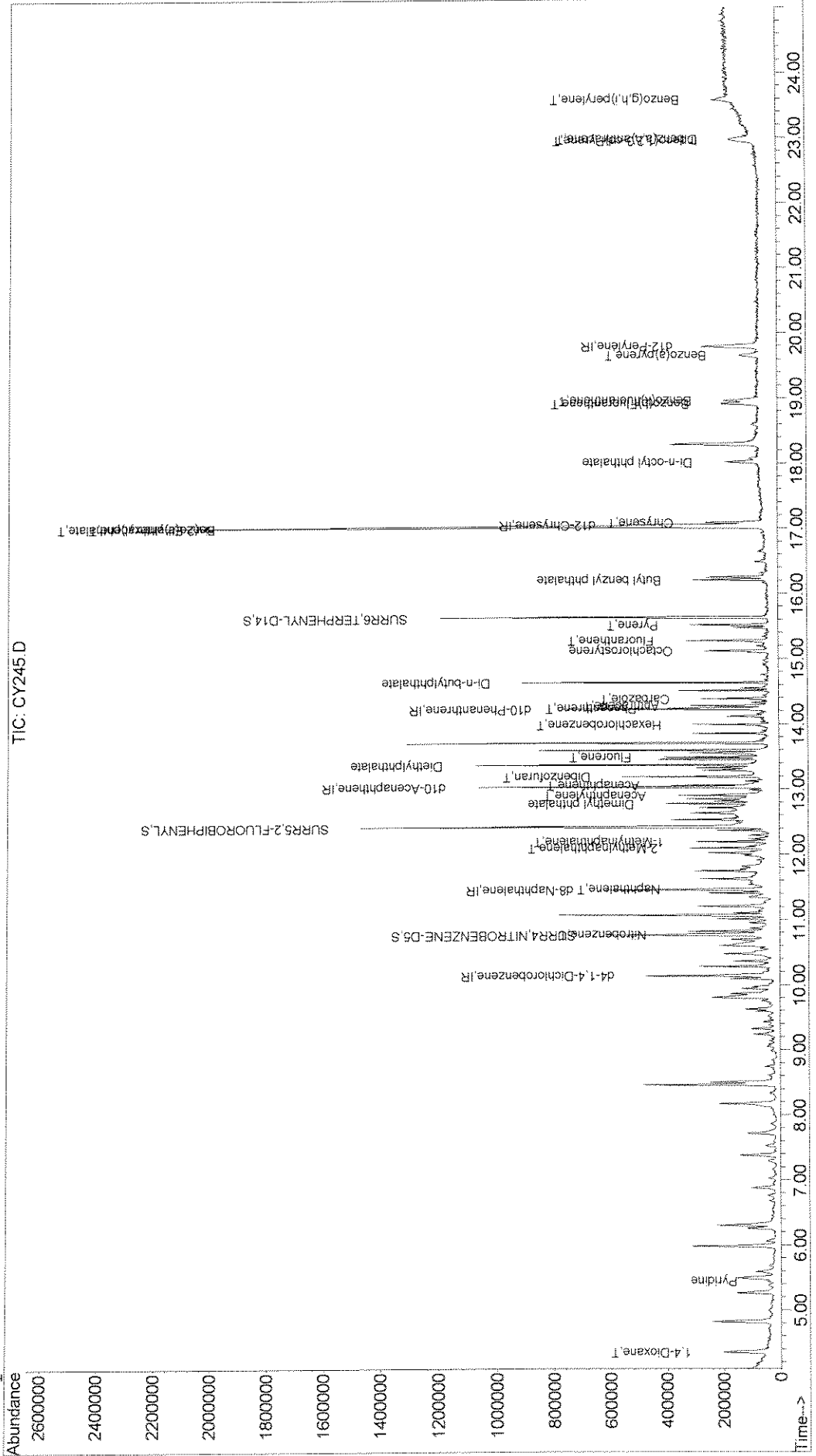
Quant Method : J:\ACQUADATA\5...\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Thu Jul 03 11:44:55 2008  
 Response via : Initial Calibration  
 DataAcq Meth : LVI0701

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
36) Benzo(k)fluoranthene	18.96	252	97740	0.48	ppm	93
37) Benzo(a)pyrene	19.66	252	71263	0.38	ppm	96
38) Indeno(1,2,3-cd)Pyrene	22.95	276	89576	0.43	ppm	97
39) Dibenz(a,h)anthracene	22.98	278	66267	0.45	ppm	83
40) Benzo(g,h,i)perylene	23.57	276	84950	0.44	ppm	98

Quantitation Report

Data File : J:\ACQDATA\5973B\DATA\070208\CY245.D Vial: 4  
 Acq On : 2 Jul 2008 4:50 pm Operator: Z.Miao  
 Sample : 1114612 1.0 Inst : 5973-B  
 Misc : 07/02/2008 1.0 8270LL LCS Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 3 12:07 2008 Quant Results File: LVI0701.RES

Method : J:\ACQDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Thu Jul 03 11:44:55 2008  
 Response via : Initial Calibration



00375

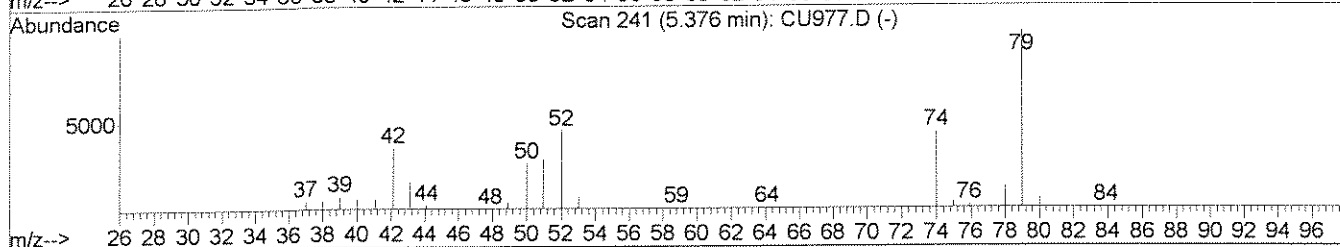
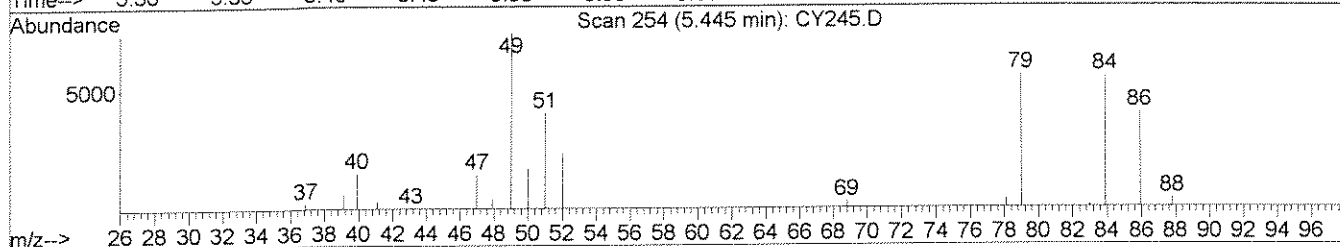
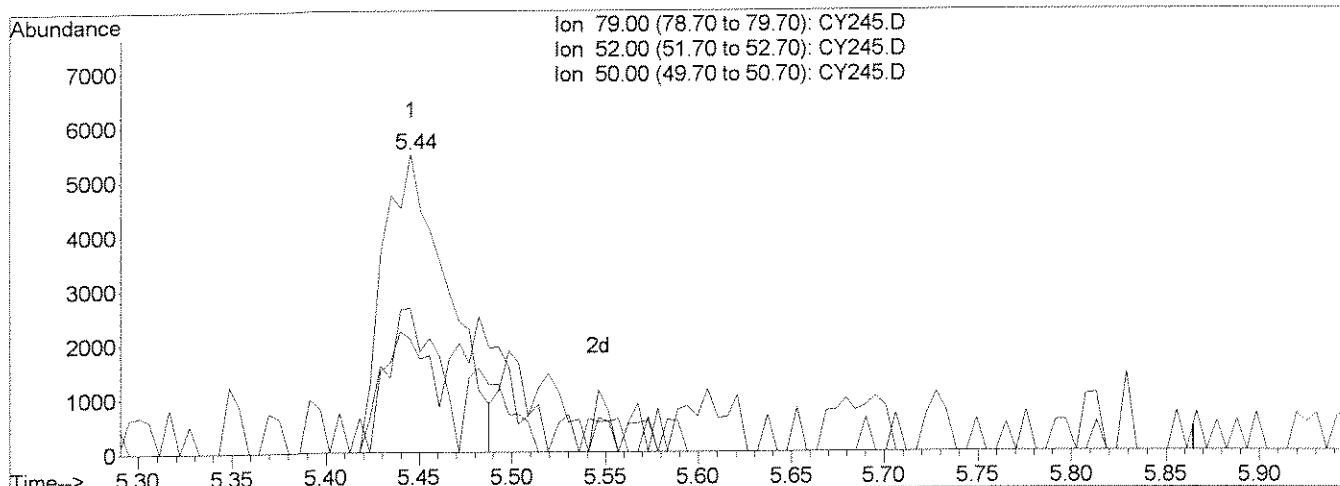
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\070208\CY245.D  
 Acq On : 2 Jul 2008 4:50 pm  
 Sample : 1114612 1.0  
 Misc : 07/02/2008 1.0 8270LL LCS  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 3 11:47 2008

Vial: 4  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Thu Jul 03 11:44:55 2008  
 Response via : Single Level Calibration



TIC: CY245.D

(3) Pyridine

5.44min 0.11ppm

response 13218

Ion	Exp%	Act%
79.00	100	100
52.00	47.80	40.34
50.00	24.70	22.40
0.00	0.00	0.00

15



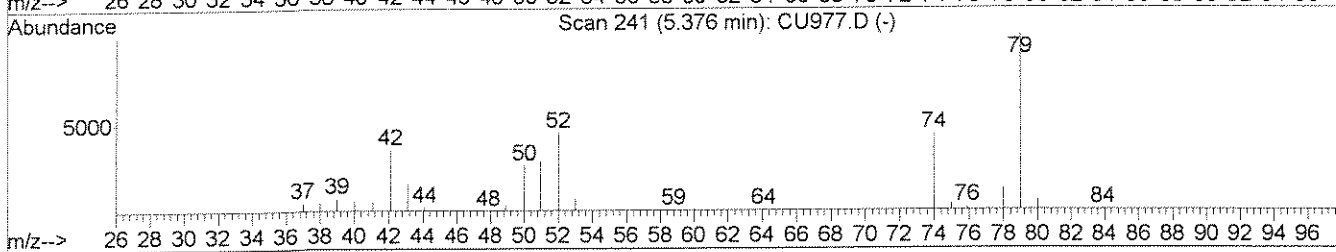
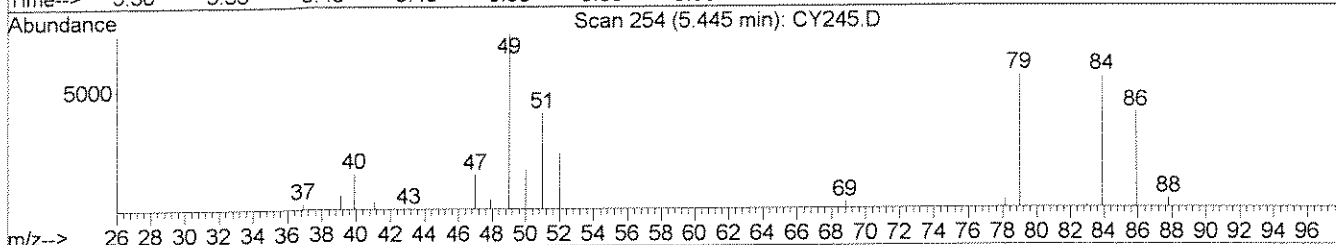
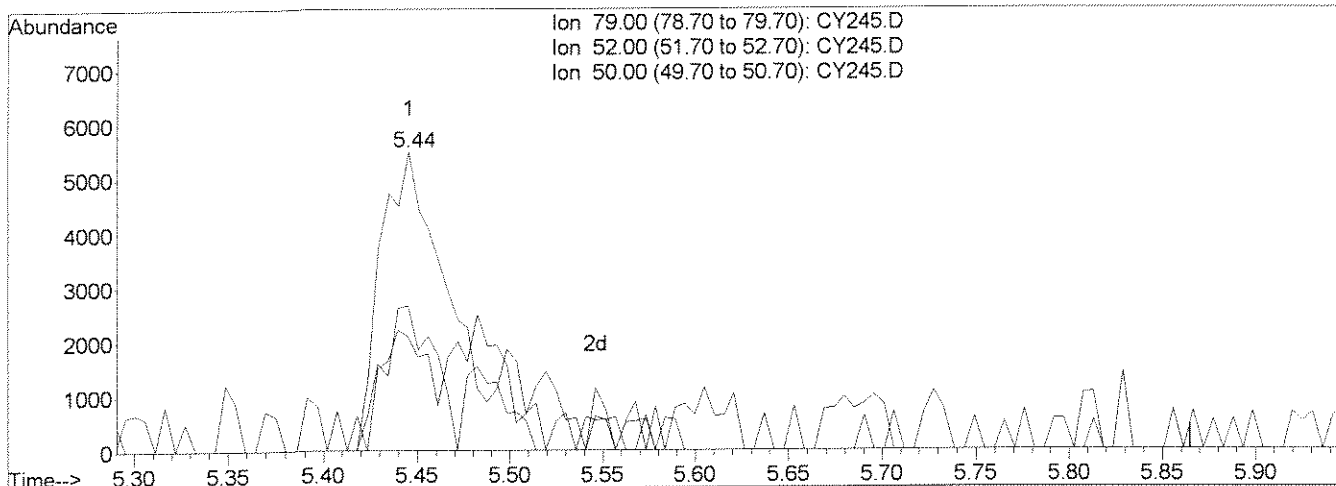
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\070208\CY245.D  
 Acq On : 2 Jul 2008 4:50 pm  
 Sample : 1114612 1.0  
 Misc : 07/02/2008 1.0 8270LL LCS  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 3 12:07 2008

Vial: 4  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Thu Jul 03 11:44:55 2008  
 Response via : Single Level Calibration



TIC: CY245.D

(3) Pyridine

5.44min 0.15ppm m

response 17775

Ion	Exp%	Act%
79.00	100	100
52.00	47.80	48.37
50.00	24.70	38.10
0.00	0.00	0.00

*A 7/3/08* *MW 7/3*

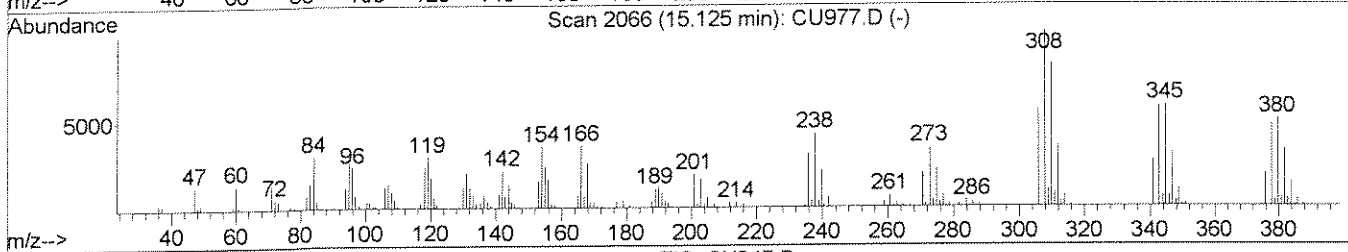
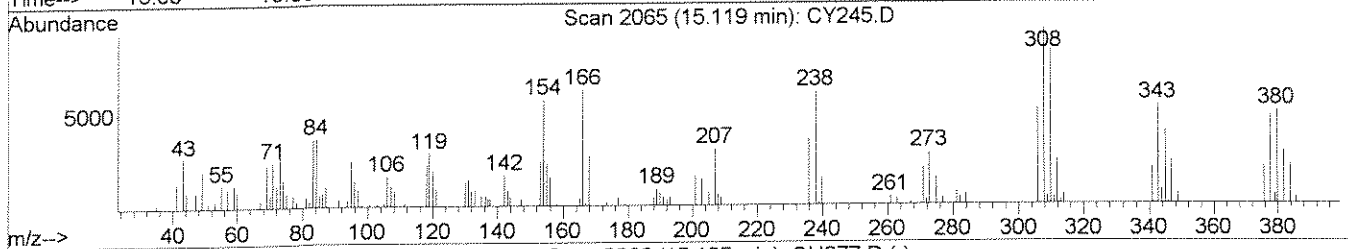
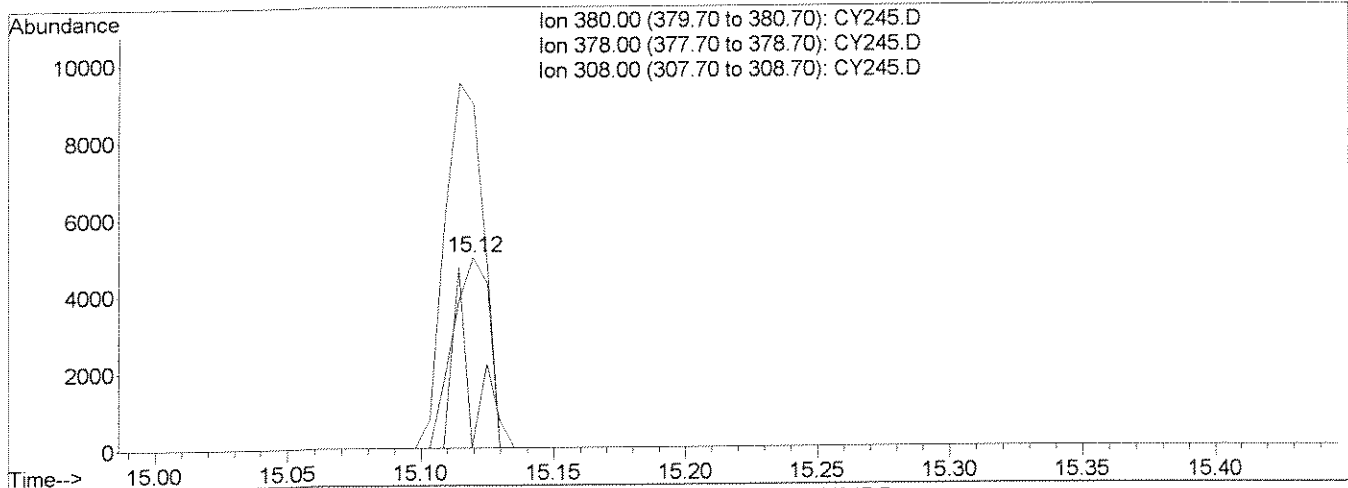
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\070208\CY245.D  
 Acq On : 2 Jul 2008 4:50 pm  
 Sample : 1114612 1.0  
 Misc : 07/02/2008 1.0 8270LL LCS  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 3 12:07 2008

Vial: 4  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Thu Jul 03 11:44:55 2008  
 Response via : Multiple Level Calibration



TIC: CY245.D

(23) Octachlorostyrene

15.12min 0.42ppm

response 4716

Ion	Exp%	Act%
380.00	100	100
378.00	78.80	0.00#
308.00	201.70	179.74
0.00	0.00	0.00



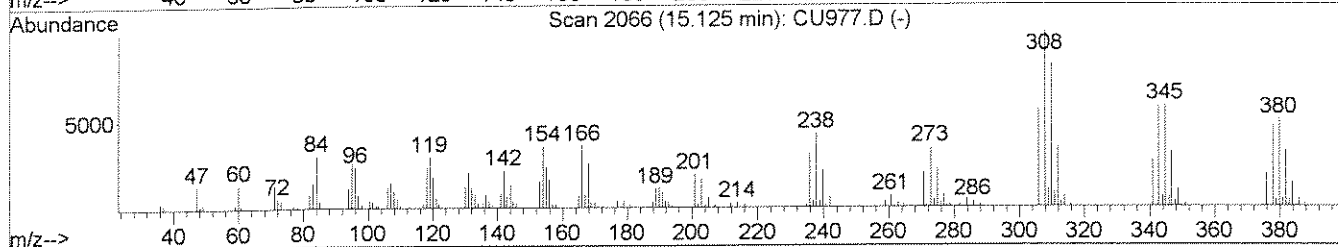
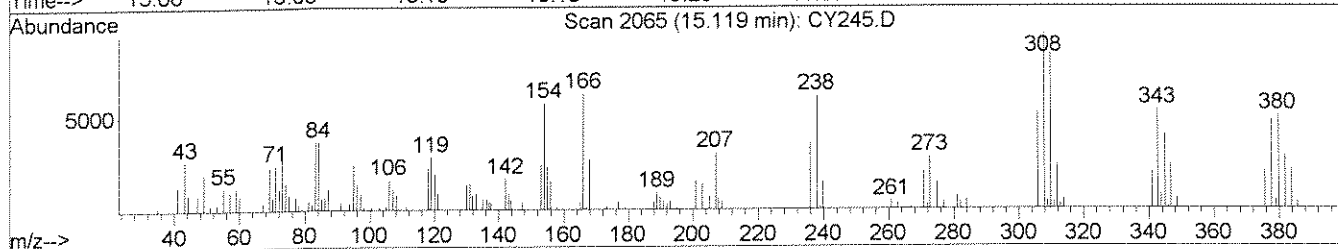
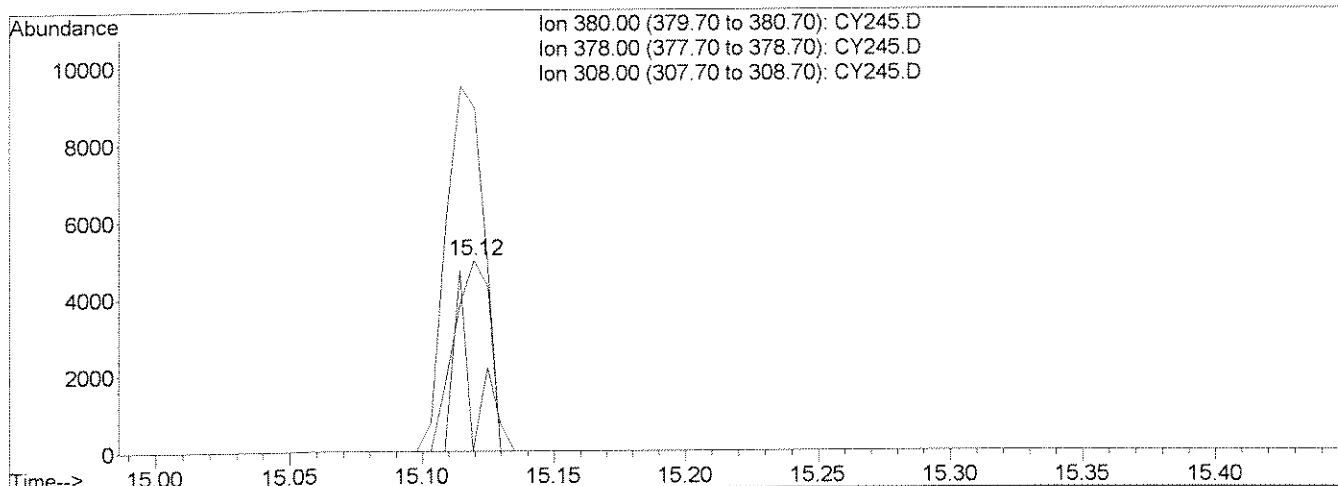
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\070208\CY245.D  
 Acq On : 2 Jul 2008 4:50 pm  
 Sample : 1114612 1.0  
 Misc : 07/02/2008 1.0 8270LL LCS  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 3 12:07 2008

Vial: 4  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Thu Jul 03 11:44:55 2008  
 Response via : Multiple Level Calibration



TIC: CY245.D

(23) Octachlorostyrene

15.12min 0.42ppm m

response 4717

Ion	Exp%	Act%
380.00	100	100
378.00	78.80	0.00#
308.00	201.70	179.74
0.00	0.00	0.00

*Handwritten:* 7/3/08 MW 7/3

COLUMBIA ANALYTICAL SERVICES

EXTRACTABLE ORGANICS  
 METHOD 8270C.NEVA  
 Reported: 09/03/08

Project Reference:  
 Client Sample ID : BLANK SPIKE DUPLICATE

Date Sampled : Order #: 1114613 Sample Matrix: WATER  
 Date Received: Submission #: Analytical Run 163388

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED : 07/02/08			
DATE ANALYZED : 07/02/08			
ANALYTICAL DILUTION: 1.00			
ACENAPHTHENE	0.20	0.49	UG/L
ACENAPHTHYLENE	0.20	0.43	UG/L
ANTHRACENE	0.20	0.44	UG/L
BENZO (A) ANTHRACENE	0.20	0.46	UG/L
BENZO (A) PYRENE	0.20	0.39	UG/L
BENZO (B) FLUORANTHENE	0.20	0.48	UG/L
BENZO (G, H, I) PERYLENE	0.20	0.48	UG/L
BENZO (K) FLUORANTHENE	0.20	0.53	UG/L
BUTYL BENZYL PHTHALATE	5.0	0.56 J	UG/L
DI-N-BUTYLPHthalate	5.0	1.2 J	UG/L
INDENO (1, 2, 3-CD) PYRENE	0.20	0.46	UG/L
CHRYSENE	0.20	0.46	UG/L
DIBENZO (A, H) ANTHRACENE	0.20	0.51	UG/L
DIETHYLPHthalate	5.0	0.63 J	UG/L
DIMETHYL PHTHALATE	5.0	0.55 J	UG/L
1, 4-DIOXANE	2.0	2.3	UG/L
BIS (2-ETHYLHEXYL) PHTHALATE	5.0	4.9 J	UG/L
FLUORANTHENE	0.20	0.52	UG/L
FLUORENE	0.20	0.46	UG/L
HEXACHLORO BENZENE	0.20	0.41	UG/L
2-METHYLNAPHTHALENE	0.20	0.44	UG/L
NAPHTHALENE	0.20	0.45	UG/L
NITROBENZENE	0.20	0.47	UG/L
OCTACHLOROSTYRENE	0.20	0.30	UG/L
DI-N-OCTYL PHTHALATE	5.0	0.45 J	UG/L
PHENANTHRENE	0.20	0.49	UG/L
PYRENE	0.20	0.47	UG/L
PYRIDINE	2.0	0.30 J	UG/L

SURROGATE RECOVERIES	QC LIMITS		
TERPHENYL-d14	(45 - 135 %)	101	%
NITROBENZENE-d5	(45 - 135 %)	89	%
2-FLUOROBIPHENYL	(45 - 135 %)	90	%

00380

Data File : J:\ACQUDATA\5973B\DATA\070208\CY246.D  
 Acq On : 2 Jul 2008 5:38 pm  
 Sample : 1114613 1.0  
 Misc : 07/02/2008 1.0 8270LL LCSD  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 3 12:10 2008

Vial: 5  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

Quant Results File: LVI0701.RES

Quant Method : J:\ACQUDATA\5...\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Thu Jul 03 11:44:55 2008  
 Response via : Initial Calibration  
 DataAcq Meth : LVI0701

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) d4-1,4-Dichlorobenzene	10.13	152	59901	1.00	ppm	0.00
4) d8-Naphthalene	11.45	136	208458	1.00	ppm	0.00
10) d10-Acenaphthene	13.03	164	137616	1.00	ppm	0.00
18) d10-Phenanthrene	14.22	188	202438	1.00	ppm	0.00
26) d12-Chrysene	17.04	240	211840	1.00	ppm	0.00
33) d12-Perylene	19.79	264	168768	1.00	ppm	0.00

System Monitoring Compounds

5) SURR4,NITROBENZENE-D5	10.76	82	227853	1.77	ppm	0.00
Spiked Amount 2.000	Range 22 - 124		Recovery =	88.50%		
11) SURR5,2-FLUOROBIPHENYL	12.42	172	331991	1.79	ppm	0.00
Spiked Amount 2.000	Range 27 - 114		Recovery =	89.50%		
28) SURR6,TERPHENYL-D14	15.63	244	369404	2.02	ppm	0.00
Spiked Amount 2.000	Range 23 - 139		Recovery =	101.00%		

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	4.36	88	133458	2.27	ppm	85
3) Pyridine	5.42	79	35521	0.30	ppm	94
6) Nitrobenzene	10.78	77	63584	0.47	ppm	95
7) Naphthalene	11.47	128	95796	0.45	ppm	99
8) 2-Methylnaphthalene	12.10	142	66302	0.44	ppm	98
9) 1-Methylnaphthalene	12.20	142	65681	0.46	ppm	93
12) Acenaphthylene	12.90	152	98021	0.43	ppm	96
13) Dimethyl phthalate	12.78	163	91634	0.55	ppm	98
14) Acenaphthene	13.06	153	70732	0.49	ppm	99
15) Dibenzofuran	13.19	168	97992	0.45	ppm	98
16) Fluorene	13.49	166	77364	0.46	ppm	95
17) Diethylphthalate	13.37	149	109147	0.63	ppm	96
19) Hexachlorobenzene	13.99	284	22976	0.41	ppm	96
20) Phenanthrene	14.24	178	94677	0.49	ppm	99
21) Anthracene	14.28	178	82526	0.44	ppm	94
22) Carbazole	14.38	167	80230	0.53	ppm	98
23) Octachlorostyrene	15.12	380	3195m	0.30	ppm	
24) Di-n-butylphthalate	14.63	149	269066	1.19	ppm	99
25) Fluoranthene	15.27	202	117704	0.52	ppm	97
27) Pyrene	15.52	202	114045	0.47	ppm	96
29) Butyl benzyl phthalate	16.21	149	60498	0.56	ppm	99
30) bis(2-Ethylhexyl)phthalate	17.02	149	745791	4.94	ppm	100
31) Benzo(a)anthracene	17.02	228	106824	0.46	ppm	96
32) Chrysene	17.08	228	104104	0.46	ppm	96
34) Di-n-octyl phthalate	18.02	149	101980	0.45	ppm	100
35) Benzo(b)Fluoranthene	18.91	252	107119	0.48	ppm	94

(#) = qualifier out of range (m) = manual integration

Data File : J:\ACQUADATA\5973B\DATA\070208\CY246.D  
Acq On : 2 Jul 2008 5:38 pm  
Sample : 1114613 1.0  
Misc : 07/02/2008 1.0 8270LL LCSD  
MS Integration Params: RTEINT.P  
Quant Time: Jul 3 12:10 2008

Vial: 5  
Operator: Z.Miao  
Inst : 5973-B  
Multiplr: 1.00

Quant Results File: LVI0701.RES

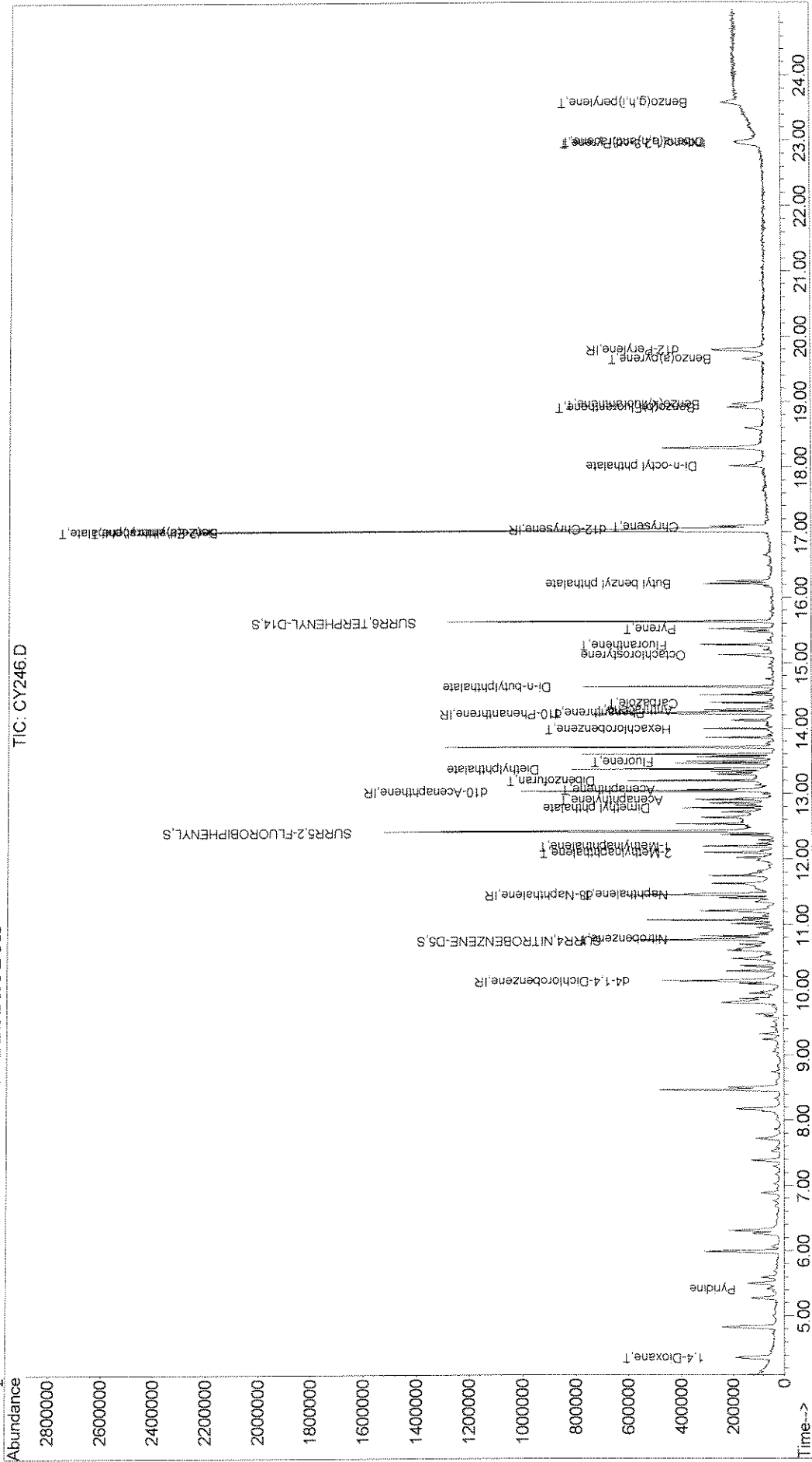
Quant Method : J:\ACQUADATA\5...\LVI0701.M (RTE Integrator)  
Title : 8270 BNA ANALYSIS  
Last Update : Thu Jul 03 11:44:55 2008  
Response via : Initial Calibration  
DataAcq Meth : LVI0701

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
36) Benzo(k)fluoranthene	18.96	252	108623	0.53	ppm	96
37) Benzo(a)pyrene	19.65	252	74796	0.39	ppm	78
38) Indeno(1,2,3-cd)Pyrene	22.95	276	95551	0.46	ppm	92
39) Dibenz(a,h)anthracene	22.98	278	78283m	0.51	ppm	
40) Benzo(g,h,i)perylene	23.58	276	93491m	0.48	ppm	

Quantitation report

Data File : J:\ACQDATA\5973B\DATA\070208\CY246.D Vial: 5  
 Acq On : 2 Jul 2008 5:38 pm Operator: Z.Miao  
 Sample : 1114613 1.0 Inst : 5973-B  
 Misc : 07/02/2008 1.0 8270LL LCSD Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 3 12:10 2008 Quant Results File: LVI0701.RES

Method : J:\ACQDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Thu Jul 03 11:44:55 2008  
 Response via : Initial Calibration



00383

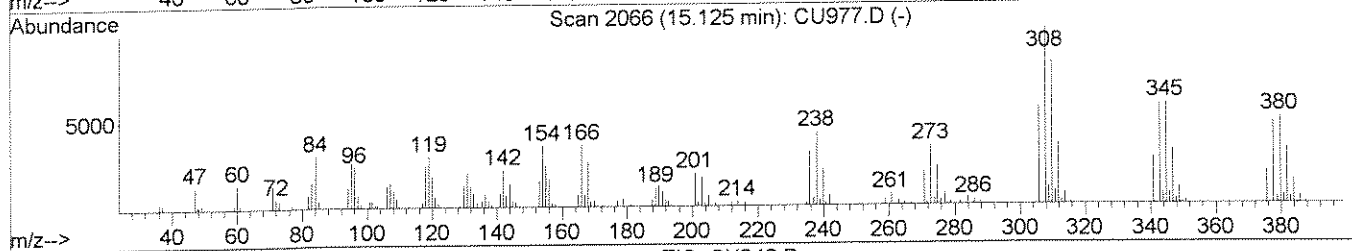
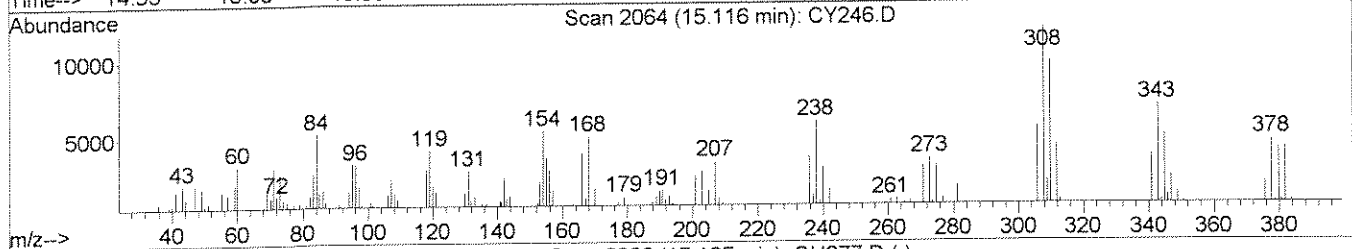
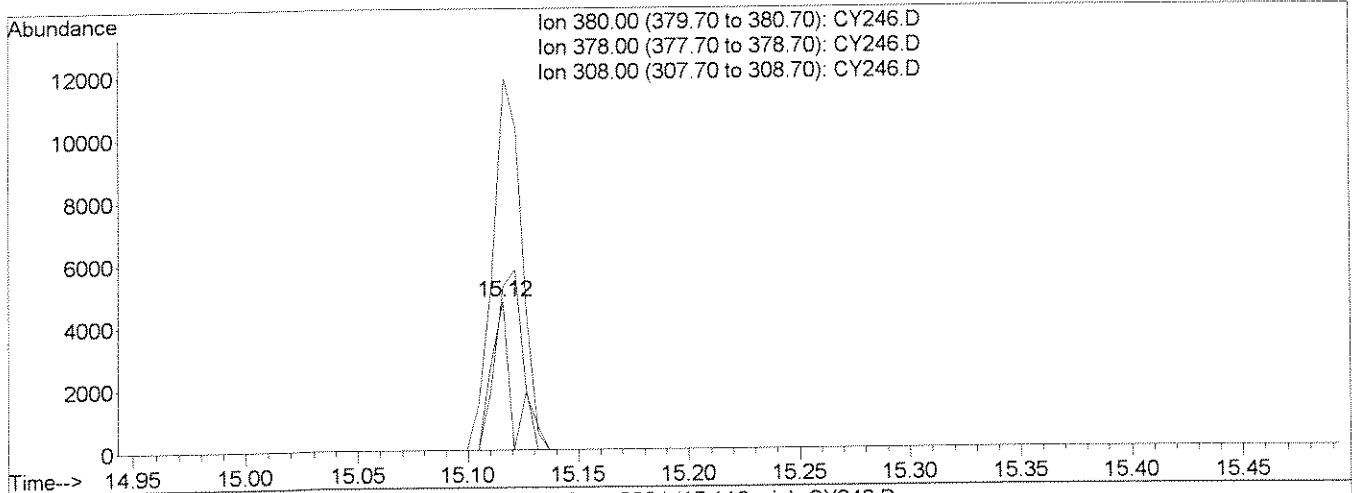
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\070208\CY246.D  
 Acq On : 2 Jul 2008 5:38 pm  
 Sample : 1114613 1.0  
 Misc : 07/02/2008 1.0 8270LL LCSD  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 3 11:47 2008

Vial: 5  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Thu Jul 03 11:44:55 2008  
 Response via : Multiple Level Calibration



TIC: CY246.D

(23) Octachlorostyrene

15.12min 0.30ppm

response 3195

Ion	Exp%	Act%
380.00	100	100
378.00	78.80	110.05#
308.00	201.70	250.36
0.00	0.00	0.00

B



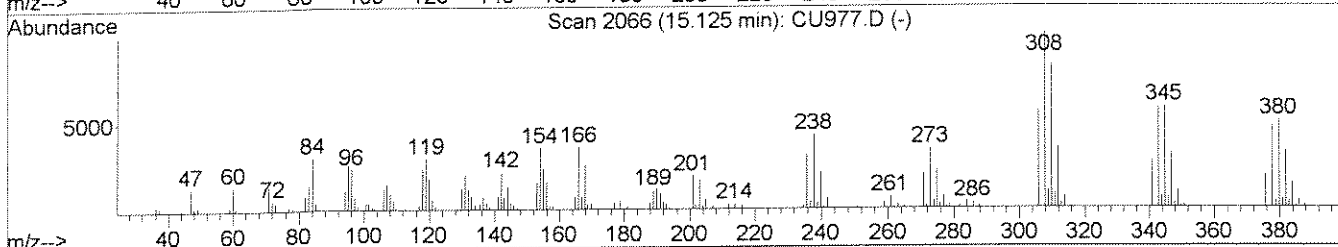
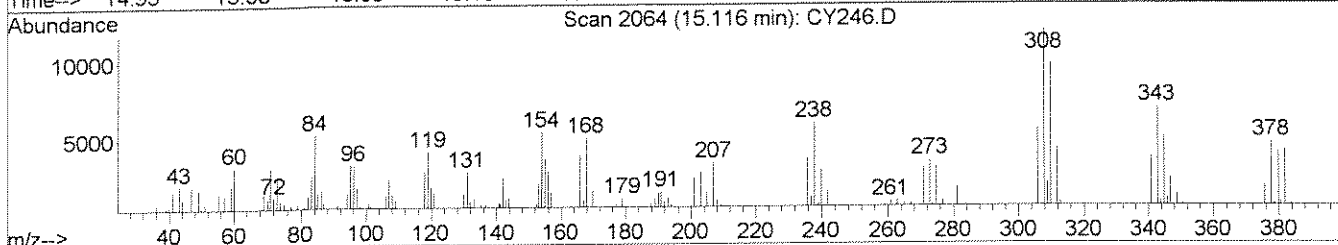
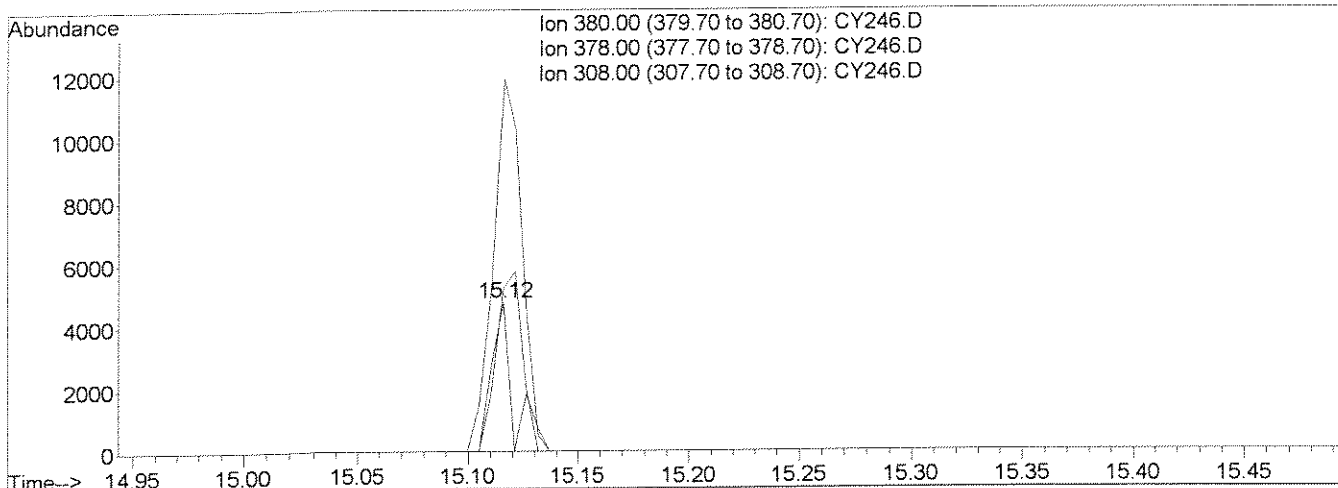
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\070208\CY246.D  
 Acq On : 2 Jul 2008 5:38 pm  
 Sample : 1114613 1.0  
 Misc : 07/02/2008 1.0 8270LL LCSD  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 3 12:09 2008

Vial: 5  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Thu Jul 03 11:44:55 2008  
 Response via : Multiple Level Calibration



TIC: CY246.D

(23) Octachlorostyrene

15.12min 0.30ppm m

response 3195

Ion	Exp%	Act%
380.00	100	100
378.00	78.80	113.21#
308.00	201.70	293.77#
0.00	0.00	0.00

*Handwritten:* MW 7/3/08

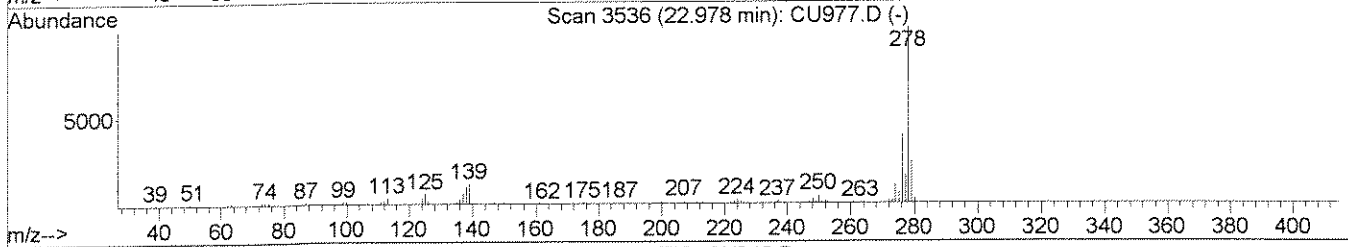
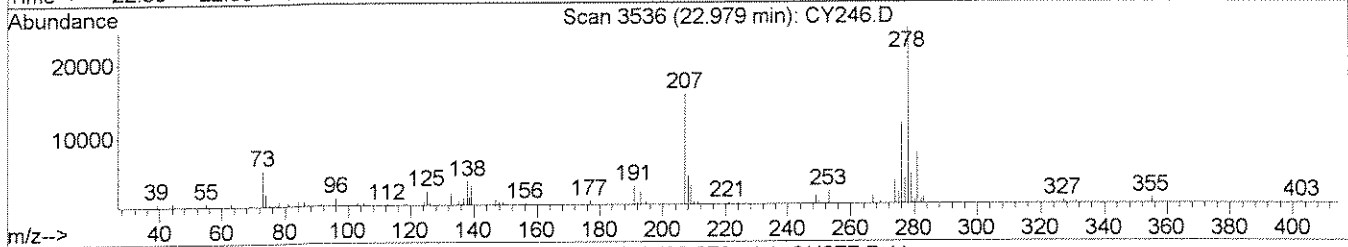
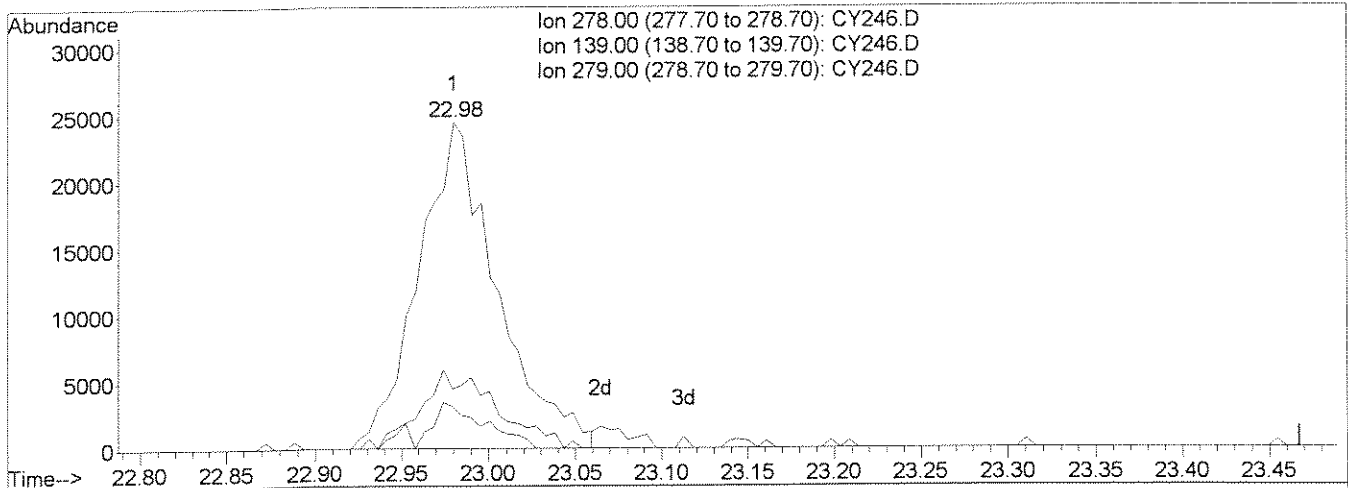
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\070208\CY246.D  
 Acq On : 2 Jul 2008 5:38 pm  
 Sample : 1114613 1.0  
 Misc : 07/02/2008 1.0 8270LL LCSD  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 3 12:09 2008

Vial: 5  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Thu Jul 03 11:44:55 2008  
 Response via : Multiple Level Calibration



(39) Dibenz(a,h)anthracene (T)

22.98min 0.50ppm

response 76093

Ion	Exp%	Act%
278.00	100	100
139.00	9.70	13.03
279.00	24.40	18.73
0.00	0.00	0.00



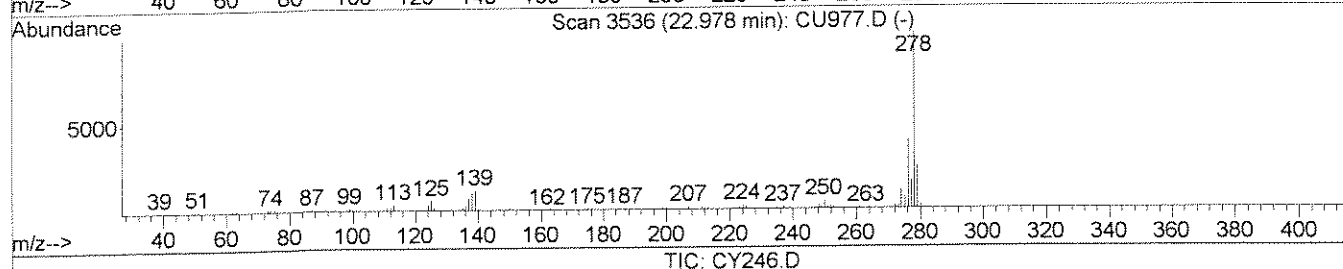
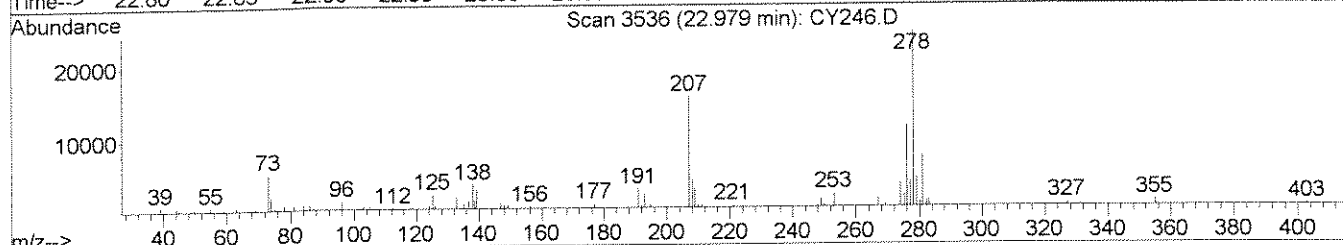
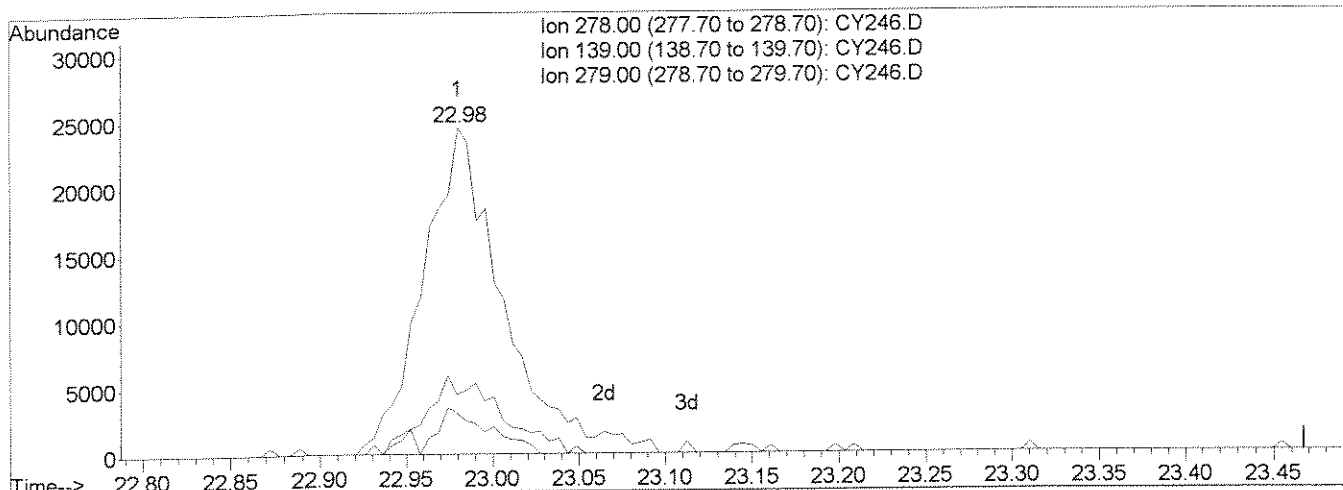
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\070208\CY246.D  
 Acq On : 2 Jul 2008 5:38 pm  
 Sample : 1114613 1.0  
 Misc : 07/02/2008 1.0 8270LL LCSD  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 3 12:09 2008

Vial: 5  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Thu Jul 03 11:44:55 2008  
 Response via : Multiple Level Calibration



(39) Dibenz(a,h)anthracene (T)

22.98min 0.51ppm m

response 78283

Ion	Exp%	Act%
278.00	100	100
139.00	9.70	12.71
279.00	24.40	18.28
0.00	0.00	0.00

*Handwritten:* 7/3/08  
 MV 7/3

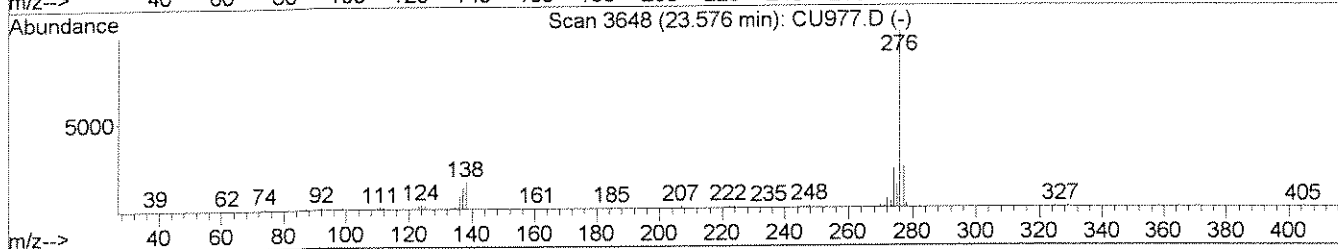
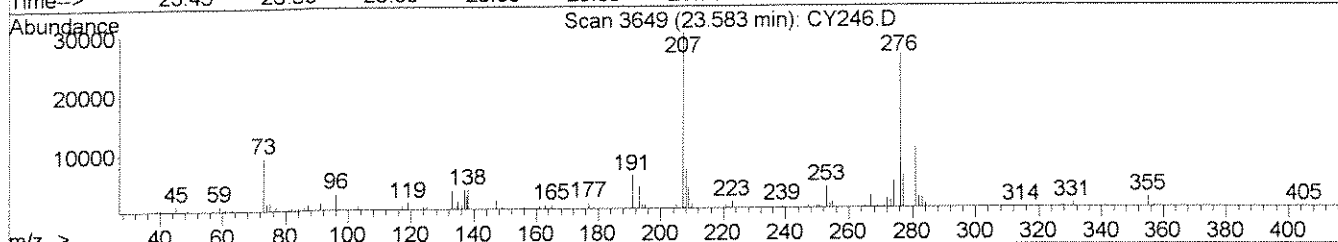
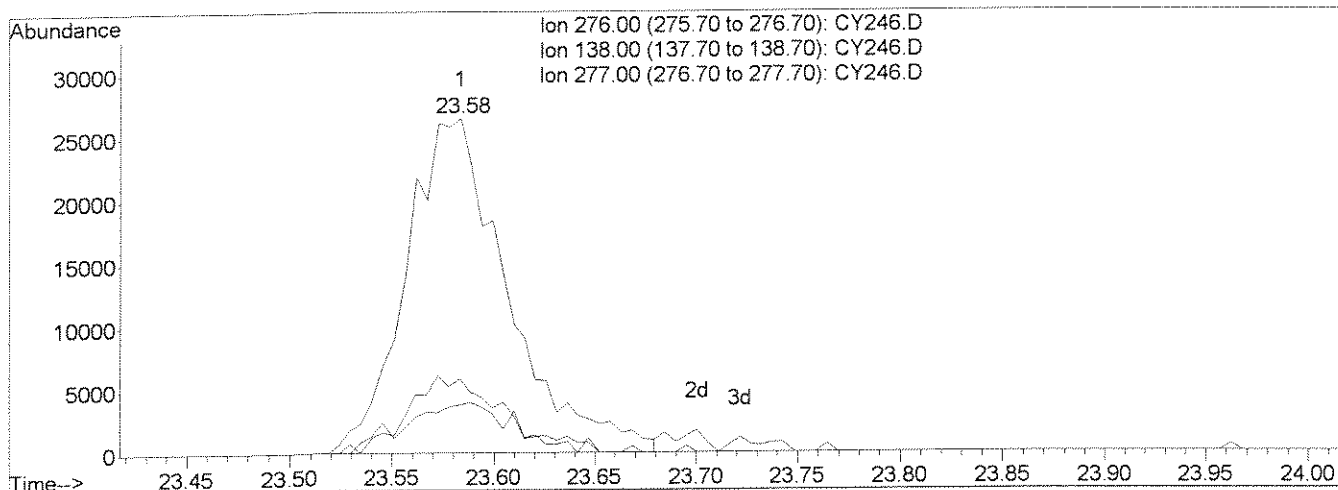
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\070208\CY246.D  
 Acq On : 2 Jul 2008 5:38 pm  
 Sample : 1114613 1.0  
 Misc : 07/02/2008 1.0 8270LL LCSD  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 3 12:09 2008

Vial: 5  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Thu Jul 03 11:44:55 2008  
 Response via : Multiple Level Calibration



TIC: CY246.D

(40) Benzo(g,h,i)perylene (T)

23.58min 0.47ppm

response 91525

Ion	Exp%	Act%
276.00	100	100
138.00	15.50	14.61
277.00	23.90	22.47
0.00	0.00	0.00

15

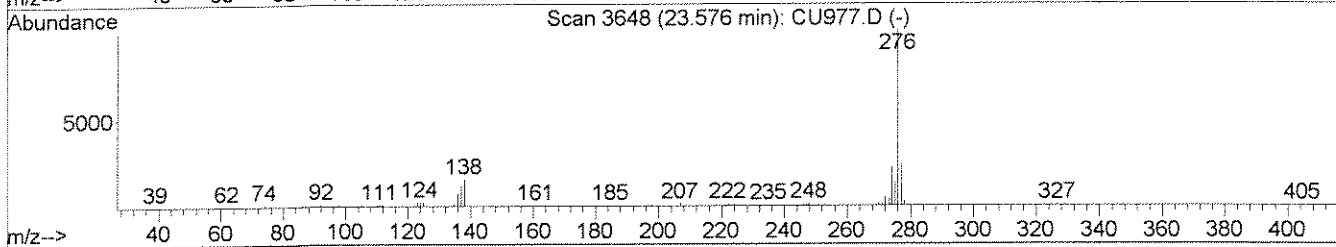
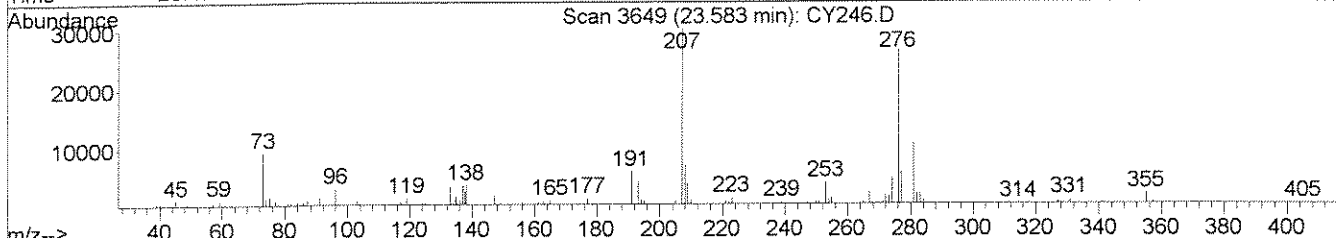
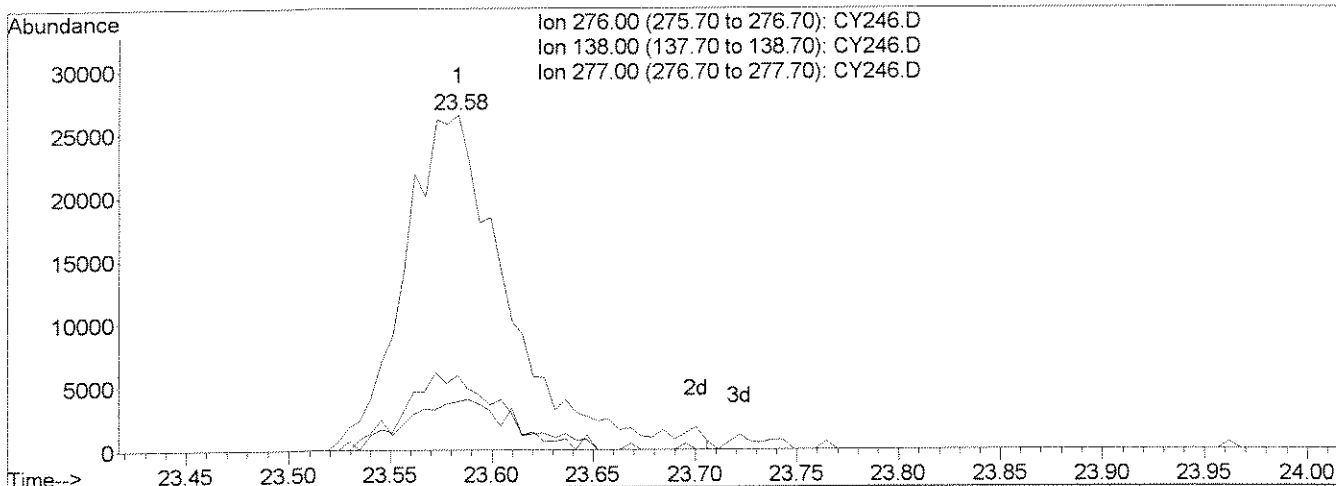
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\070208\CY246.D  
 Acq On : 2 Jul 2008 5:38 pm  
 Sample : 1114613 1.0  
 Misc : 07/02/2008 1.0 8270LL LCSD  
 MS Integration Params: RTEINT.P  
 Quant Time: Jul 3 12:10 2008

Vial: 5  
 Operator: Z.Miao  
 Inst : 5973-B  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0701.M (RTE Integrator)  
 Title : 8270 BNA ANALYSIS  
 Last Update : Thu Jul 03 11:44:55 2008  
 Response via : Multiple Level Calibration



TIC: CY246.D

(40) Benzo(g,h,i)perylene (T)

23.58min 0.48ppm m

response 93491

Ion	Exp%	Act%
276.00	100	100
138.00	15.50	14.36
277.00	23.90	22.08
0.00	0.00	0.00

*Z. Miao* 7/3/08  
 MU 7/3

Extraction Tech: LE / 7/2/2008  
 Concentration Tech: LE  
 40 Day HT: LE  
 Client / Sub. #: 1114611  
 Spiked By: LE  
 Spk Witness: LE  
 Initial Wt. (g) or Volume (ml): 1.000  
 Sample ID: 1113695  
 Prep Method:  3540C  3510C  3580A  
 Analysis (Test) Requested: 8270C.NEVA  
 Appearance (see key): Clear  
 Prep Method:  3550B  3520C  
 Spiked By: LE  
 Spk Witness: LE  
 Initial Wt. (g) or Volume (ml): 1.000  
 Sample ID: 1113696  
 Prep Method:  3540C  3510C  3580A  
 Analysis (Test) Requested: 8270C.NEVA  
 Appearance (see key): Clear  
 Prep Method:  3550B  3520C  
 Spiked By: LE  
 Spk Witness: LE  
 Initial Wt. (g) or Volume (ml): 1.000  
 Sample ID: 1113697  
 Prep Method:  3540C  3510C  3580A  
 Analysis (Test) Requested: 8270C.NEVA  
 Appearance (see key): Clear  
 Prep Method:  3550B  3520C  
 Spiked By: LE  
 Spk Witness: LE  
 Initial Wt. (g) or Volume (ml): 1.000  
 Sample ID: 1113698  
 Prep Method:  3540C  3510C  3580A  
 Analysis (Test) Requested: 8270C.NEVA  
 Appearance (see key): Clear  
 Prep Method:  3550B  3520C  
 Spiked By: LE  
 Spk Witness: LE  
 Initial Wt. (g) or Volume (ml): 1.000  
 Sample ID: 1113774  
 Prep Method:  3540C  3510C  3580A  
 Analysis (Test) Requested: 8270C.LLDI  
 Appearance (see key): Clear  
 Prep Method:  3550B  3520C  
 Spiked By: LE  
 Spk Witness: LE  
 Initial Wt. (g) or Volume (ml): 1.000  
 Sample ID: 1113775  
 Prep Method:  3540C  3510C  3580A  
 Analysis (Test) Requested: 8270C.LLDI  
 Appearance (see key): Clear  
 Prep Method:  3550B  3520C  
 Spiked By: LE  
 Spk Witness: LE  
 Initial Wt. (g) or Volume (ml): 1.000  
 Sample ID: 1113776  
 Prep Method:  3540C  3510C  3580A  
 Analysis (Test) Requested: 8270C.LLDI  
 Appearance (see key): Clear  
 Prep Method:  3550B  3520C  
 Spiked By: LE  
 Spk Witness: LE  
 Initial Wt. (g) or Volume (ml): 1.000  
 Sample ID: 1113777  
 Prep Method:  3540C  3510C  3580A  
 Analysis (Test) Requested: 8270C.LLDI  
 Appearance (see key): Clear  
 Prep Method:  3550B  3520C  
 Spiked By: LE  
 Spk Witness: LE  
 Initial Wt. (g) or Volume (ml): 1.000  
 Sample ID: 1113778  
 Prep Method:  3540C  3510C  3580A  
 Analysis (Test) Requested: 8270C.LLDI  
 Appearance (see key): Clear  
 Prep Method:  3550B  3520C

Client / Sub. #	Sample ID	Initial Wt. (g) or Volume (ml)	Appearance (see key)	Analysis (Test) Requested	Check		Conc.		Final Volume (ml)	Date Complete	Comments / Emulsions
					REC'D	BN > 11	Acid < 2	Date			
1114611	• BLK	1.000	Clear	8270LL					1ml	7/2	
1114611	• LCS	1.000		8270LL							
1114611	• LCS	1.000		8270LL							
R44768	• 1113695	1.000		8270C.NEVA							
	• 1113696	1.000		8270C.NEVA							
	• 1113697	1.000		8270C.NEVA							
	• 1113698	1.000		8270C.NEVA							
R44775	• 1113699	1.000		8270C.NEVA							
	• 1113774	1.000		8270C.LLDI							
	• 1113775	1.000		8270C.LLDI							
	• 1113776	1.000		8270C.LLDI							
	• 1113777	1.000		8270C.LLDI							
	• 1113778	1.000		8270C.LLDI							

All 7/2/08  
 (All samples spiked with Surrogate; LCS/LCSD, MS/MSD had spike added.)

Spikes:  AE/BN Surrogate Amt. \_\_\_\_\_ Conc. \_\_\_\_\_ ppm Lot# \_\_\_\_\_  
 BN Surrogate Amt. \_\_\_\_\_ Conc. \_\_\_\_\_ ppm Lot# \_\_\_\_\_  
 LL PAH Spike Amt. \_\_\_\_\_ Conc. \_\_\_\_\_ ppm Lot# \_\_\_\_\_  
 8270 LCS MIX 1 Amt. \_\_\_\_\_ Conc. \_\_\_\_\_ ppm Lot# \_\_\_\_\_  
 Custom List Spike Amt. \_\_\_\_\_ Conc. \_\_\_\_\_ ppm Lot# \_\_\_\_\_  
 Benzidine Spike Amt. \_\_\_\_\_ Conc. \_\_\_\_\_ ppm Lot# \_\_\_\_\_  
 Pyridine, CS spike Amt. \_\_\_\_\_ Conc. \_\_\_\_\_ ppm Lot# \_\_\_\_\_  
 osthachlorogenic acid spike Amt. \_\_\_\_\_ Conc. \_\_\_\_\_ ppm Lot# \_\_\_\_\_  
 Other: \_\_\_\_\_ Amt. \_\_\_\_\_ Conc. \_\_\_\_\_ ppm Lot# \_\_\_\_\_

Clean-Ups:  None

Method Summary:  
 1000ml sample extracted with 60mls MeCl2 3x at a Ph<2 for 2 min. repeat at pH >11.

Solvents:  50:50 Ace:MeCl2 Lot # \_\_\_\_\_  
 MeCl2 Lot # 0-34477-X  
 Acetone Lot # \_\_\_\_\_

Hexane Lot# \_\_\_\_\_  
 Ether Lot# \_\_\_\_\_  
 Sodium Sulfate Lot# 0-34586-K

Sulfuric Acid Lot# 0-345-38-P  
 Sodium Hydroxide Lot# 0-344-36-A  
 Other: \_\_\_\_\_ Lot# \_\_\_\_\_

0-559-209A

7/1/08

Tune check 20ng VPTPP VPTLVI.m

1 BK

203 H	2	Initial calibration 0.1/0.2 ppm LVI0701.m
I	3	0.2/0.4 ppm
J	4	0.5/1.0 ppm
K	5	1.0/2.0 ppm
L	6	2.0/4.0
M	7	3.6/6.0
N	8	4.0/8.0
O	9	5.0/10.0
		10.0/20.0

7-559754E 10

559-204A 11 ECU#1

559-173E 12 ECU#2

CY228	YT 9:07 AM
CY 229	Ym
30	YS
31	YS
32	YS
CY 233	YS
34	YS
35	YS
36	YS
37	YS
CY 238	YS
39	Yc
CY 240	Yc

- CY234
- 76509
- 280482
- 182626
- 384665
- 282584
- 231475





**PESTICIDES**  
**QC SUMMARY**

COLUMBIA ANALYTICAL SERVICES

QUALITY CONTROL SUMMARY: LABORATORY CONTROL SAMPLE  
WATER

Spiked Order No. : 1117895

Dup Spiked Order No. : 1117896

Client ID:

Test: 8081A.NEVA

Analytical Units: UG/L

Run Number : 164027

ANALYTE	SPIKE ADDED	SAMPLE CONCENT.	BLANK SPIKE		BLANK SPIKE DUP.				QC LIMITS
			FOUND	% REC.	FOUND	% REC.	RPD	RPD	REC.
ALDRIN	0.10	0	0.074	74	0.079	79	7	30	50 - 130
ALPHA-BHC	0.10	0	0.097	97	0.094	94	3	30	50 - 130
BETA-BHC	0.10	0	0.089	89	0.097	97	9	30	50 - 130
GAMMA-BHC	0.10	0	0.086	86	0.088	88	2	30	50 - 130
DELTA-BHC	0.10	0	0.094	94	0.091	91	3	30	50 - 130
ALPHA-CHLORDANE	0.10	0	0.098	98	0.095	95	3	30	50 - 130
GAMMA-CHLORDANE	0.10	0	0.100	100	0.099	99	1	30	50 - 130
4,4'-DDE	0.10	0	0.100	100	0.099	99	1	30	50 - 130
4,4'-DDT	0.10	0	0.100	100	0.095	95	5	30	50 - 130
DIELDRIN	0.10	0	0.110	110	0.110	110	0	30	50 - 130
ALPHA-ENDOSULFAN	0.10	0	0.100	100	0.099	99	1	30	50 - 130
BETA-ENDOSULFAN	0.10	0	0.100	100	0.097	97	3	30	50 - 130
ENDOSULFAN SULFATE	0.10	0	0.097	97	0.096	96	1	30	50 - 130
ENDRIN	0.10	0	0.099	99	0.100	100	1	30	50 - 130
ENDRIN ALDEHYDE	0.10	0	0.084	84	0.079	79	6	30	50 - 130
ENDRIN KETONE	0.10	0	0.100	100	0.098	98	2	30	50 - 130
HEPTACHLOR	0.10	0	0.082	82	0.081	81	1	30	50 - 130
HEPTACHLOR EPOXIDE	0.10	0	0.100	100	0.098	98	2	30	50 - 130
HEXACHLOROBENZENE	0.25	0	0.200	80	0.190	76	5	30	50 - 130
METHOXYCHLOR	1.0	0	0.590	59	0.580	58	2	30	50 - 130
4,4'-TDE (DDD)	0.10	0	0.096	96	0.100	100	4	30	50 - 130

*Method Blank Summary*

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**Lab Name:** Columbia Analytical Services    **Contract:** ENSR  
**Lab Code:** 10145    **Case.No.:** R2844768    **SAS No.:** \_\_\_\_\_    **SDG No.:** M-79B  
**Lab Sample ID** 1117894 1.0    **Lab File ID:** EY134.D  
**Matrix:** WATER    **Level:** (low/med)  
**Date extracted:** 07/01/08    **Extraction:** (Sepf/Cont/Sonc) Sepf  
**Date analyzed:** (1) 7/16/2008    **Date analyzed:** (2) 7/16/2008  
**Time analyzed:** (1) 16:26    **Time analyzed:** (2) 16:26  
**Instrument ID:** (1) 6890D    **Instrument ID:** (2) 6890D  
**GC Column(1)** (1) STx-CLP    **GC Column(2)** (2) STx-CLPII

*This Method Blank Applies to the Following Sample, MS, and MSD:*

<i>EPA Sample No.</i>	<i>Lab Sample No.</i>	<i>Date Analyzed 1</i>	<i>Date Analyzed 2</i>
PBLK1MS	1117895 1.0	7/16/2008	7/16/2008
PBLK1MSD	1117896 1.0	7/16/2008	7/16/2008
M-79B	1113695 1.0	7/16/2008	7/16/2008
M-126B	1113696 1.0	7/16/2008	7/16/2008
M-84B	1113697 1.0	7/17/2008	7/17/2008
M-14ADBFB	1113698 1.0	7/17/2008	7/17/2008
M-14ABF	1113699 1.0	7/17/2008	7/17/2008
M-126B	1113696 10.0	7/17/2008	7/17/2008

DETECTION LIMIT STUDY

METHOD	8081
MATRIX	WATER
SAMPLE PREP. METHOD	3510
INSTRUMENT ID	6890-D
DETECTOR	ECD
COLUMN	STX-CLP

MDL       IDL

DATE: 9/25/2007

ANALYST: Meghan Pedro

Compound/Analyte	Spike Conc. (ug/L)	Trial #								Mean (ug/L)	Std. Dev.	CALC. MDL (ug/L)	MRL** (ug/L)
		1	2	3	4	5	6	7	8				
1 4,4'-DDD	0.02	0.0198	0.0190	0.0191	0.0212	0.0239	0.0213	0.0198	0.0237	0.0206	0.0017	0.0052	0.10
2 4,4'-DDE	0.02	0.0190	0.0187	0.0185	0.0193	0.0214	0.0195	0.0186	0.0195	0.0193	0.0010	0.0030	0.10
3 4,4'-DDT	0.02	0.0201	0.0169	0.0171	0.0190	0.0204	0.0212	0.0177	0.0179	0.0189	0.0017	0.0052	0.10
4 Aldrin	0.02	0.0146	0.0145	0.0147	0.0142	0.0143	0.0144	0.0131	0.0120	0.0143	0.0006	0.0017	0.05
5 Alpha-BHC	0.02	0.0161	0.0159	0.0166	0.0159	0.0160	0.0160	0.0151	0.0159	0.0159	0.0005	0.0014	0.05
6 Alpha-Endosulfan	0.02	0.0188	0.0186	0.0190	0.0185	0.0193	0.0194	0.0181	0.0196	0.0188	0.0005	0.0014	0.05
7 Alpha-Chlordane	0.02	0.0201	0.0196	0.0196	0.0195	0.0216	0.0207	0.0194	0.0209	0.0201	0.0008	0.0024	0.05
8 Beta-BHC	0.02	0.0224	0.0224	0.0229	0.0227	0.0233	0.0235	0.0217	0.0232	0.0227	0.0006	0.0018	0.05
9 Beta-Endosulfan	0.02	0.0196	0.0212	0.0207	0.0201	0.0207	0.0204	0.0191	0.0208	0.0203	0.0007	0.0022	0.10
10 Chlordane	0.25	0.2467	0.2275	0.1551	0.1871	0.2480	0.2403	0.2555	0.2608	0.2276	0.0373	0.1118	0.25
11 Delta-BHC	0.02	0.0163	0.0164	0.0168	0.0163	0.0175	0.0170	0.0157	0.0173	0.0166	0.0006	0.0018	0.05
12 Dieldrin	0.02	0.0201	0.0189	0.0190	0.0201	0.0254	0.0215	0.0210	0.0218	0.0208	0.0022	0.0066	0.10
13 Endosulfan Sulfate	0.02	0.0200	0.0192	0.0205	0.0192	0.0202	0.0200	0.0184	0.0200	0.0196	0.0007	0.0022	0.10
14 Endrin	0.02	0.0191	0.0181	0.0183	0.0187	0.0230	0.0199	0.0193	0.0203	0.0195	0.0017	0.0050	0.10
15 Endrin Aldehyde	0.02	0.0076	0.0058	0.0059	0.0066	0.0093	0.0068	0.0092	0.0083	0.0073	0.0014	0.0043	0.10
16 Endrin Ketone	0.02	0.0194	0.0193	0.0190	0.0197	0.0227	0.0241	0.0193	0.0208	0.0205	0.0020	0.0061	0.10
17 Fenpith	1.0	0.7150	0.7546	0.7395	0.7683	0.7625	0.7436	0.7398	0.72038	0.74617	0.0178	0.0533	1.0
18 Gamma-BHC	0.02	0.0170	0.0169	0.0175	0.0169	0.0171	0.0173	0.0161	0.0171	0.0170	0.0004	0.0013	0.05
19 Gamma-Chlordane	0.02	0.0188	0.0188	0.0189	0.0187	0.0192	0.0193	0.0178	0.0191	0.0188	0.0005	0.0014	0.05
20 Heptachlor	0.02	0.0177	0.0173	0.0176	0.0175	0.0179	0.0177	0.0163	0.0158	0.0174	0.0005	0.0016	0.05
21 Heptachlor E	0.02	0.0194	0.0193	0.0197	0.0194	0.0193	0.0195	0.0184	0.0197	0.0193	0.0004	0.0012	0.05
22 Hexachlorobenzene	0.050	0.0539	0.0532	0.0551	0.0563	0.0527	0.0540	0.0482	0.0470	0.05335	0.0025	0.0076	0.05
23 Kepone	5.0	4.0250	4.0558	4.0321	4.0549	4.0776	3.8710	3.4729	3.6527	3.94132	0.2176	0.6529	5.0
24 Methoxychlor	0.10	0.0981	0.0949	0.0979	0.0976	0.1009	0.1010	0.0954	0.1034	0.0980	0.0024	0.0071	0.50
1 Toxaphene	1.0	1.0272	1.0421	1.1694	1.0031	0.8421	0.8611	0.8387	0.7823	0.9457	0.1338	0.4014	1.0

DETECTION LIMIT STUDY

METHOD	8081
MATRIX	WATER
SAMPLE PREP METHOD	3510
INSTRUMENT ID	6890-D
DETECTOR	ECD
COLUMN	STX-CLP11

MDL  IDL

DATE: 9/25/2007

ANALYST: Meghan Pedro

Compound/Analyte	Spike Conc. (ug/L)								Mean (ug/L)	Std. Dev.	CALC. MDL (ug/L)	MRL** (ug/L)
	1	2	3	4	5	6	7	8				
1 4,4'-DDD	0.02	0.0201	0.0205	0.0207	0.0220	0.0217	0.0204	0.0226	0.0210	0.0007	0.0022	0.10
2 4,4'-DDE	0.02	0.0205	0.0202	0.0204	0.0238	0.0206	0.0207	0.0224	0.0211	0.0013	0.0038	0.10
3 4,4'-DDT	0.02	0.0197	0.0207	0.0223	0.0331	0.0244	0.0228	0.0256	0.0237	0.0044	0.0133	0.10
4 Aldrin	0.02	0.0172	0.0171	0.0168	0.0172	0.0169	0.0152	0.0141	0.0168	0.0007	0.0022	0.05
5 Alpha-BHC	0.02	0.0178	0.0176	0.0181	0.0173	0.0176	0.0163	0.0174	0.0178	0.0010	0.0031	0.05
6 Alpha-Endosulfan	0.02	0.0213	0.0210	0.0203	0.0221	0.0210	0.0206	0.0221	0.0211	0.0006	0.0017	0.05
7 Alpha-Chlordane	0.02	0.0205	0.0204	0.0199	0.0208	0.0203	0.0194	0.0206	0.0202	0.0004	0.0013	0.05
8 Beta-BHC	0.02	0.0211	0.0217	0.0214	0.0214	0.0214	0.0204	0.0209	0.0213	0.0005	0.0015	0.05
9 Beta-Endosulfan	0.02	0.0237	0.0264	0.0228	0.0296	0.0298	0.0238	0.0247	0.0260	0.0028	0.0084	0.10
10 Chlordane	0.25	0.2491	0.2365	0.1967	0.2535	0.2638	0.2761	0.2873	0.2410	0.0411	0.1232	0.25
11 Delta-BHC	0.02	0.0138	0.0133	0.0133	0.0155	0.0149	0.0134	0.0145	0.0140	0.0009	0.0026	0.05
12 Dieldrin	0.02	0.0242	0.0230	0.0230	0.0309	0.0242	0.0257	0.0267	0.0248	0.0029	0.0087	0.10
13 Endosulfan Sulfate	0.02	0.0204	0.0203	0.0207	0.0209	0.0205	0.0201	0.0216	0.0205	0.0003	0.0008	0.10
14 Endrin	0.02	0.0206	0.0206	0.0203	0.0214	0.0207	0.0207	0.0212	0.0207	0.0004	0.0011	0.10
15 Endrin Aldehyde	0.02	0.0251	0.0130	0.0269	0.0695	0.0383	0.0241	0.0279	0.0300	0.0195	0.0584	0.10
16 Endrin Ketone	0.02	0.0215	0.0292	0.0274	0.0219	0.0216	0.0238	0.0230	0.0251	0.0038	0.0113	0.10
17 Fenphur	1.0	0.7345	0.7603	0.8502	0.7777	0.8187	0.7589	0.72531	0.78786	0.04106	0.1232	1.0
18 Gamma-BHC	0.02	0.0180	0.0181	0.0178	0.0178	0.0182	0.0170	0.0180	0.0179	0.0004	0.0013	0.05
19 Gamma-Chlordane	0.02	0.0222	0.0218	0.0231	0.0239	0.0223	0.0222	0.0222	0.0227	0.0008	0.0025	0.05
20 Heptachlor	0.02	0.0211	0.0216	0.0210	0.0211	0.0218	0.0202	0.0195	0.0212	0.0006	0.0017	0.05
21 Heptachlor E	0.02	0.0242	0.0235	0.0240	0.0252	0.0243	0.0238	0.0249	0.0240	0.0006	0.0018	0.05
22 Hexachlorobenzene	0.05	0.0493	0.0483	0.0492	0.0482	0.0504	0.0434	0.0434	0.0484	0.0024	0.0072	0.05
23 Kepone	5.0	6.4669	6.7480	6.6614	6.8935	6.7852	6.3811	6.6288	6.67675	0.1875	0.5625	5.0
24 Methoxychlor	0.10	0.1058	0.0999	0.1037	0.1070	0.1060	0.1030	0.1109	0.1040	0.0025	0.0075	0.50
1 Toxaphene	1.0	1.1593	1.0911	1.1250	0.9799	1.0548	1.0204	0.9350	1.0674	0.0855	0.2564	1.0

**PESTICIDES**  
**SAMPLE DATA**

COLUMBIA ANALYTICAL SERVICES

EXTRACTABLE ORGANICS

METHOD 8081A.NEVA

Reported: 07/30/08

ENSR International

Project Reference: TRONOX PHASE B INVESTIGATION PROJ# 04020-023-4312

Client Sample ID : M-79B

Date Sampled : 06/29/08 14:31 Order #: 1113695 Sample Matrix: WATER  
Date Received: 07/01/08 Submission #: R2844768 Analytical Run 164027

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED : 07/01/08			
DATE ANALYZED : 07/16/08			
ANALYTICAL DILUTION: 1.00			
ALDRIN	0.047	0.047 U	UG/L
ALPHA-BHC	0.047	0.047 U	UG/L
BETA-BHC	0.047	0.047 U	UG/L
GAMMA-BHC	0.047	0.047 U	UG/L
DELTA-BHC	0.047	0.047 U	UG/L
ALPHA-CHLORDANE	0.047	0.047 U	UG/L
GAMMA-CHLORDANE	0.047	0.047 U	UG/L
CHLORDANE	0.24	0.24 U	UG/L
4,4'-DDE	0.047	0.047 U	UG/L
4,4'-DDT	0.047	0.047 U	UG/L
DIELDRIN	0.094	0.094 U	UG/L
ALPHA-ENDOSULFAN	0.047	0.047 U	UG/L
BETA-ENDOSULFAN	0.094	0.094 U	UG/L
ENDOSULFAN SULFATE	0.094	0.094 U	UG/L
ENDRIN	0.047	0.047 U	UG/L
ENDRIN ALDEHYDE	0.094	0.094 U	UG/L
ENDRIN KETONE	0.094	0.094 U	UG/L
HEPTACHLOR	0.047	0.047 U	UG/L
HEPTACHLOR EPOXIDE	0.047	0.14	UG/L
HEXACHLORO BENZENE	0.047	0.047 U	UG/L
METHOXYCHLOR	0.47	0.47 U	UG/L
4,4'-TDE (DDD)	0.047	0.047 U	UG/L
TOXAPHENE	0.94	0.94 U	UG/L

SURROGATE RECOVERIES

QC LIMITS

DECACHLOROBIPHENYL (DCB)	(40 - 140 %)	83	%
TETRACHLORO-META-XYLENE	(40 - 140 %)	80	%

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
 Data File : ey142.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 16 Jul 2008 9:10 pm  
 Operator : M.PEDRO  
 Sample : 1113695 1.0  
 Misc : 07/01/08 212 ensr 8081 r44768  
 ALS Vial : 24 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 17 07:53:20 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
-----						
System Monitoring Compounds						
1) S SURR1,Tetrac	9.43	9.32	1606.9E6	6036.3E6	79.626	74.596
Spiked Amount	100.000	Range 30 - 150	Recovery =		79.63%	74.60%
25) S SURR2,Decachloro	17.60	17.85	1438.5E6	4586.2E6	82.363	83.272
Spiked Amount	100.000	Range 30 - 150	Recovery =		82.36%	83.27%
Target Compounds						
3) tc alpha-BHC	10.43	10.39	271.5E6	1067.8E6	8.783	8.998
9) tc Heptachlor E	13.07	12.98	591.6E6	2446.3E6	25.989m	30.427m
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
-----						

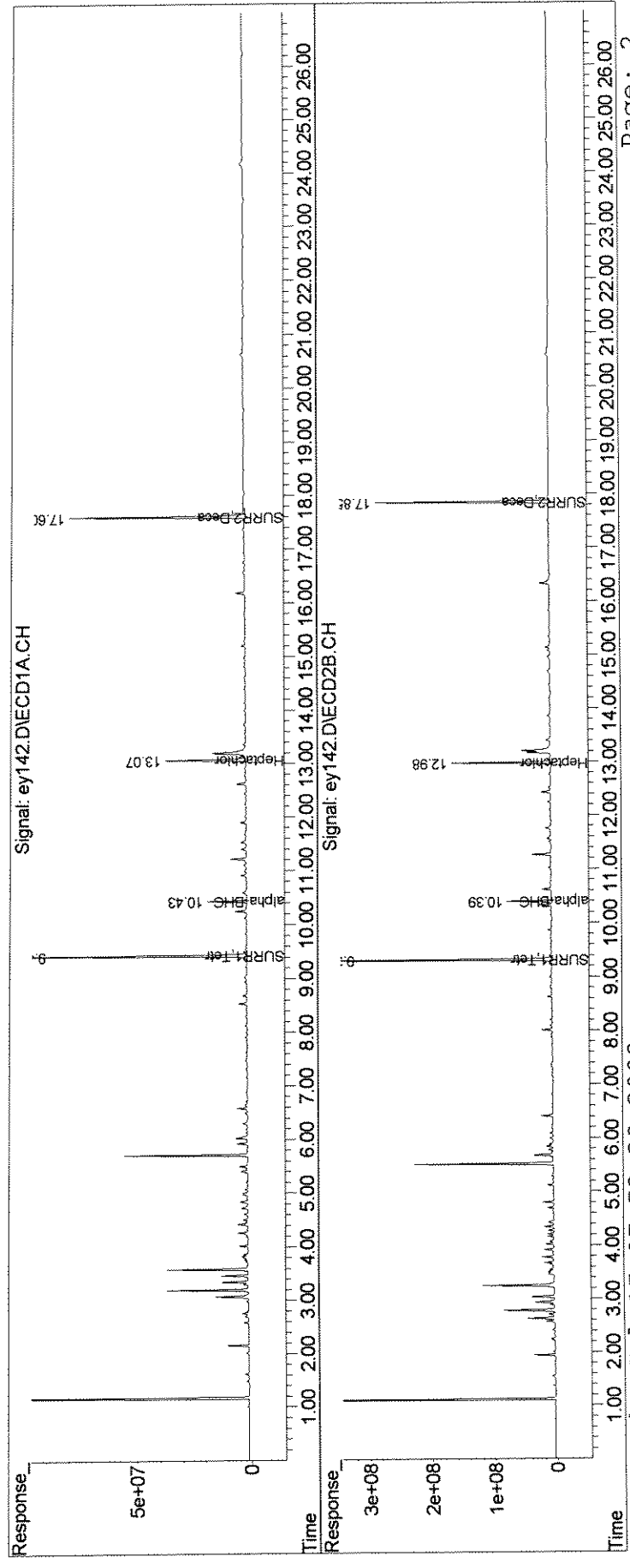
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.



Data Path : J:\ACQUDATA\6890D\DATA\071608\  
Data File : ey142.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 16 Jul 2008 9:10 pm  
Operator : M.PEDRO  
Sample : 1113695 1.0  
Misc : 07/01/08 212 ensr 8081 r44768  
ALS Vial : 24 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 17 07:53:20 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 13:38:39 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STX-CLP Signal #2 Phase: STX-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

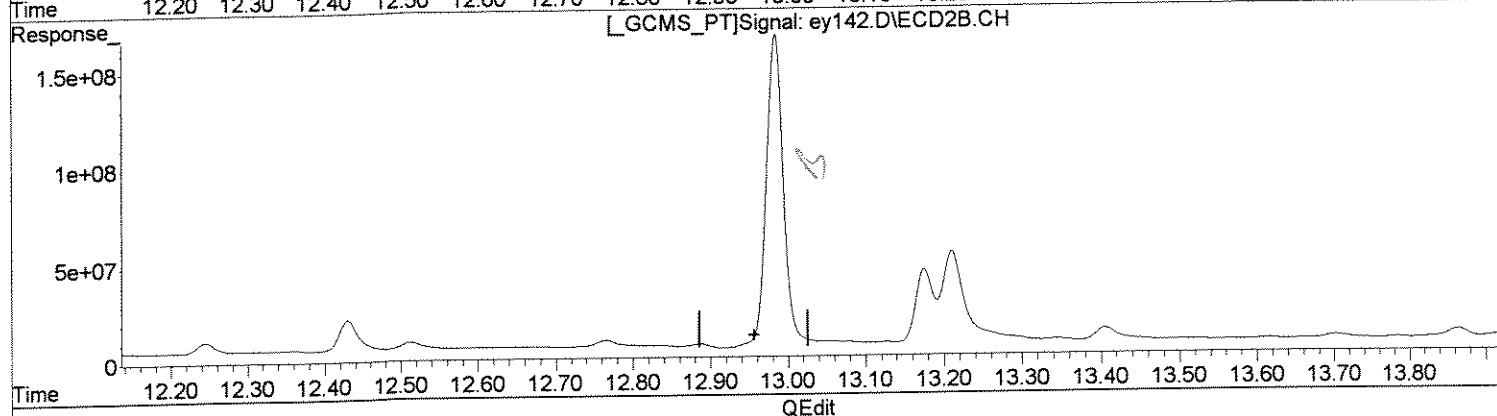
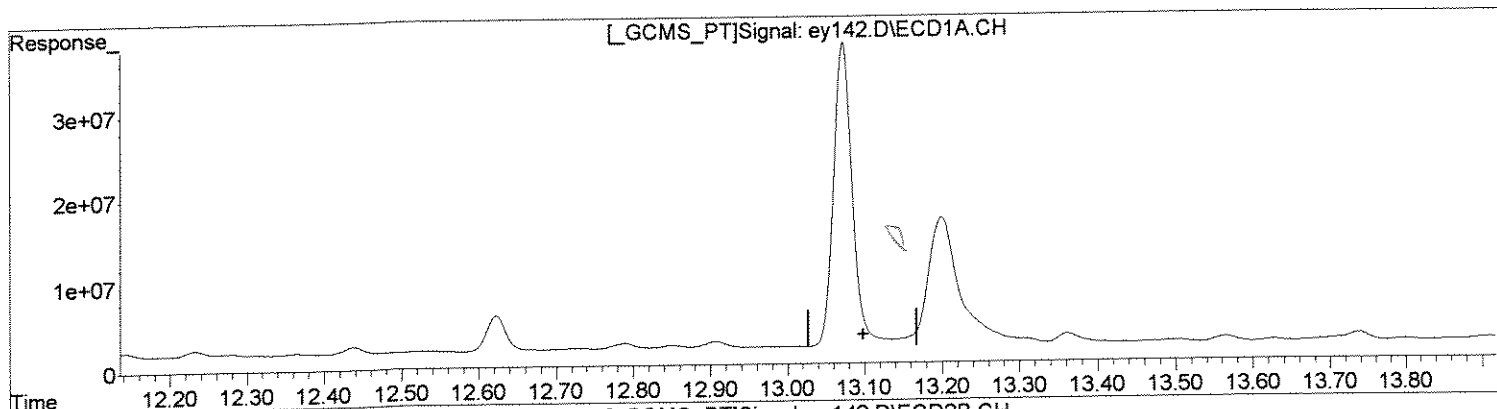


Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
Data File : ey142.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 16 Jul 2008 9:10 pm  
Operator : M.PEDRO  
Sample : 1113695 1.0  
Misc : 07/01/08 212 ensr 8081 r44768  
ALS Vial : 24 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 17 06:58:25 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 13:38:39 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



(9) Heptachlor E (tc)  
0.00min 0.000ug/l  
response 0

(9) Heptachlor E #2 (tc)  
0.00min 0.000ug/l  
response 0

*PK*

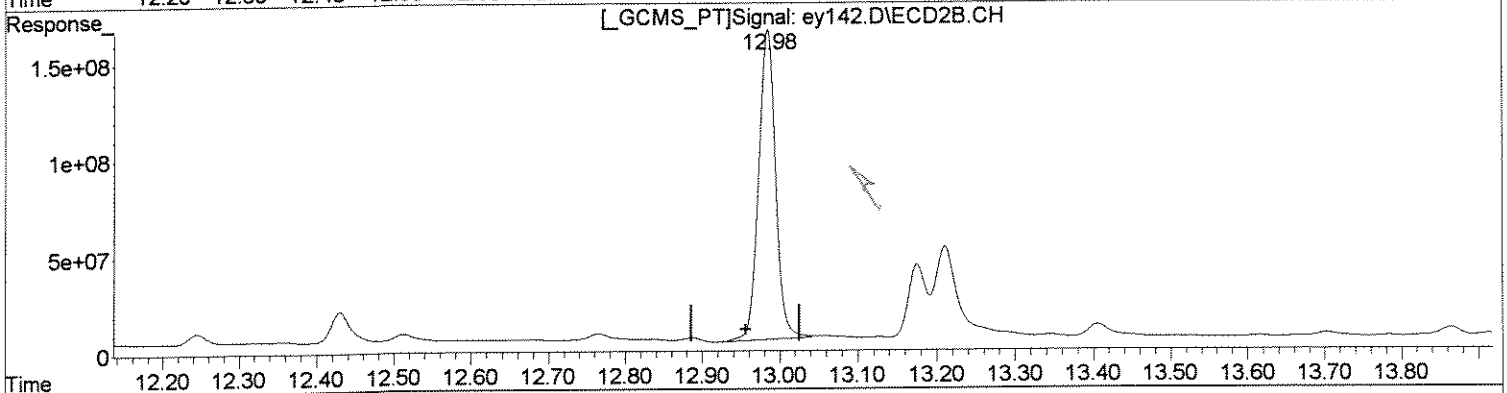
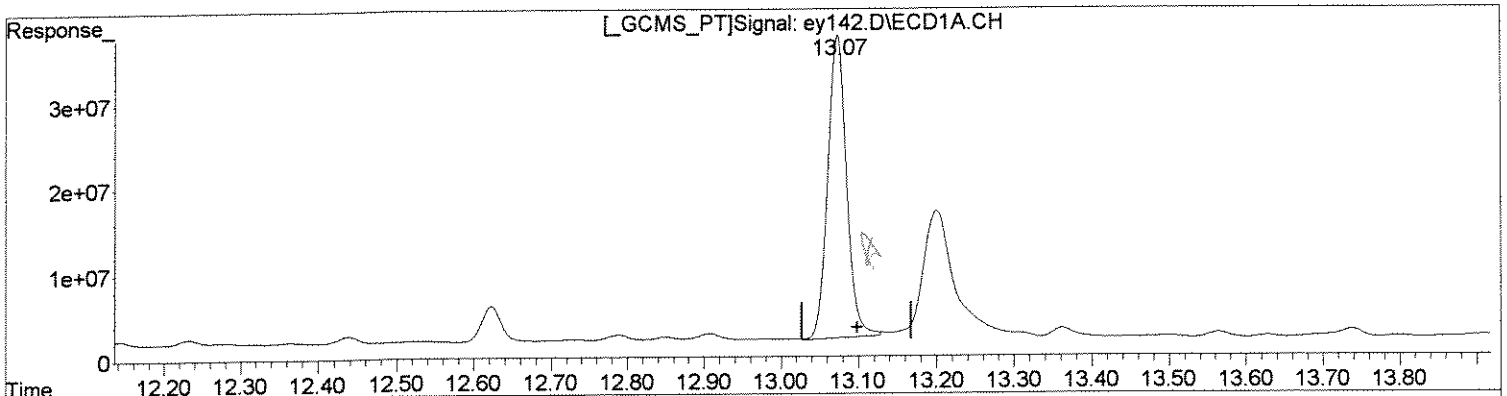
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
Data File : ey142.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 16 Jul 2008 9:10 pm  
Operator : M.PEDRO  
Sample : 1113695 1.0  
Misc : 07/01/08 212 ensr 8081 r44768  
ALS Vial : 24 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 17 06:58:25 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 13:38:39 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



(9) Heptachlor E (tc)  
13.07min 25.989ug/l m  
response 591561380

(9) Heptachlor E #2 (tc)  
12.98min 30.427ug/l m  
response 2446258355

*Handwritten signatures and initials:*  
M.P. 7/17  
M.P. 7/17

Data Path : J:\ACQUADATA\6890D\DATA\071608\  
 Data File : EY142.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 16 Jul 2008 9:10 pm  
 Operator : M.PEDRO  
 Sample : 1113695 1.0  
 Misc : 07/01/08 212 ensr 8081 r44768  
 ALS Vial : 24 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 17 06:58:25 2008  
 Quant Method : J:\ACQUADATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
-----						
System Monitoring Compounds						
1) S SURR1,Tetrac	9.43	9.32	1606.9E6	6036.3E6	79.626	74.596
Spiked Amount	100.000	Range	30 - 150	Recovery	= 79.63%	74.60%
25) S SURR2,Decachloro	17.60	17.85	1438.5E6	4586.2E6	82.363	83.272
Spiked Amount	100.000	Range	30 - 150	Recovery	= 82.36%	83.27%
Target Compounds						
2) TC HEXACHLORO BENZEN	10.13	10.14	30214143	89356303	1.028	0.735 #
3) tc alpha-BHC	10.43	10.39	271.5E6	1067.8E6	8.783	8.998
4) tcm gamma-BHC (L	10.96	10.96	5921996	65455190	0.210	0.623 #
5) tcm Heptachlor	11.71	0.00	11529696	0	0.413	N.D. #
6) tcm Aldrin	0.00	12.09	0	147.0E6	N.D.	1.613 #
7) tc beta-BHC	11.10	0.00	29669814	0	2.584	N.D. #
8) tc delta-BHC	11.40	11.56	59587604	178.6E6	2.191	1.730
10) tc alpha-Endosu	0.00	13.52	0	45864097	N.D.	0.646 #
11) tc gamma-Chlord	0.00	13.21	0	1134.1E6	N.D.	13.826 #
12) tc alpha-Chlord	13.50	0.00	18091656	0	0.846	N.D. #
13) tc 4,4'-DDE	13.56	13.67	19903044	32116426	0.914	0.419 #
14) tcm Dieldrin	0.00	13.91	0	50837348	N.D.	0.650 #
15) tcm Endrin	14.40	14.34	18724162	32545266	0.904	0.483 #
16) tc KEPONE	14.42	14.54	10403900	22709951	1.422	0.988 #
17) tc beta-Endosul	0.00	14.66	0	42883312	N.D.	0.668 #
18) tc 4,4'-DDD	14.48	0.00	11771468	0	0.654	N.D. #
19) tcm 4,4'-DDT	14.86	14.96	10042535	105.4E6	0.525	1.608 #
20) tc Endrin Aldeh	15.36	15.18	9413966	30174440	0.641	0.615
21) tc Endosulfan S	15.98	0.00	13789319	0	0.819	N.D. #
22) tc Methoxychlor	15.56	0.00	13221630	0	1.420	N.D. #
23) tc FAMPHUR	16.27	0.00	17095731	0	1.260	N.D. #
24) tc Endrin Keton	16.37	16.33	15791775	315.1E6	0.816	5.023 #
26) L8C Toxaphene	14.82	0.00	21355100	0	53.540	N.D. #
27) L8C Toxaphene {2}	14.89	15.08	17441112	74722765	49.024	82.826 #
28) L8C Toxaphene {3}	15.50	15.18	13022734	30174440	19.349	16.141
29) L8C Toxaphene {4}	16.37	0.00	15791775	0	19.294	N.D. #

*Ground*

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
 Data File : EY142.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 16 Jul 2008 9:10 pm  
 Operator : M.PEDRO  
 Sample : 1113695 1.0  
 Misc : 07/01/08 212 ensr 8081 r44768  
 ALS Vial : 24 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 17 06:58:25 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

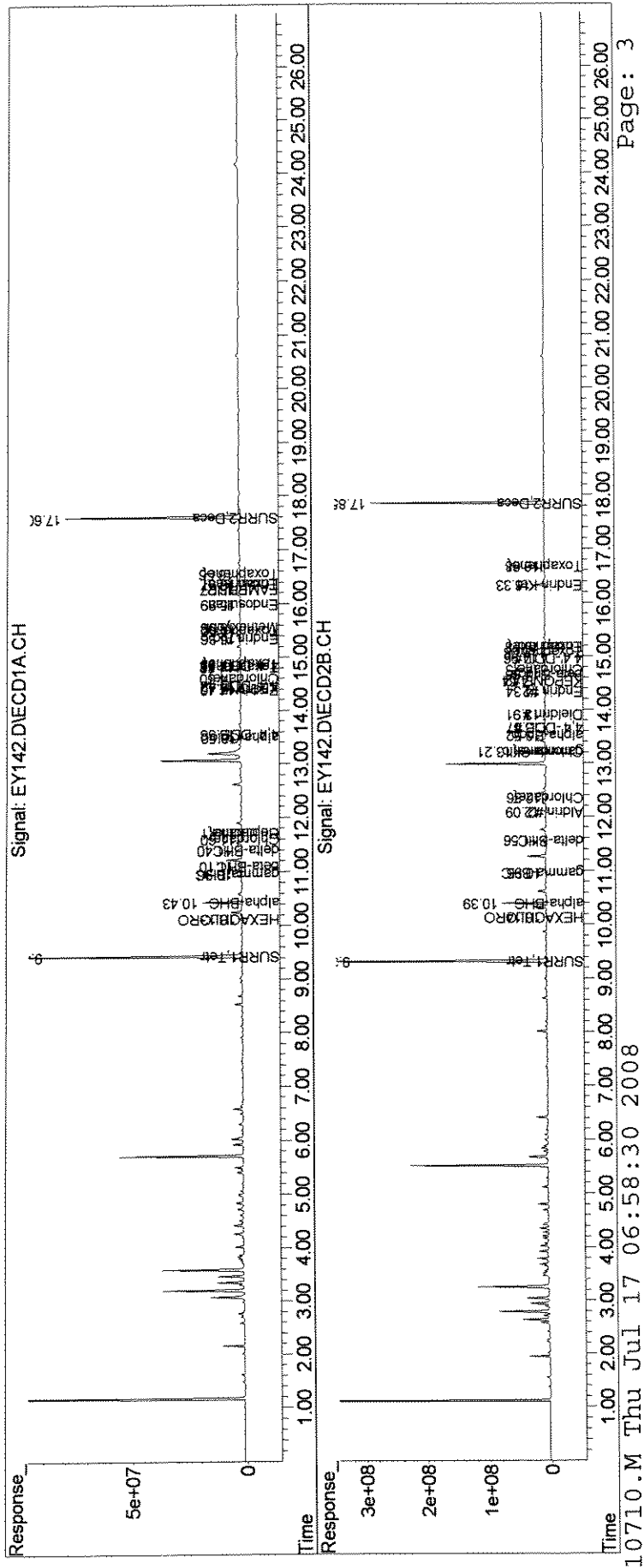
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
30) L8C Toxaphene{5}	16.56	16.68	42717236	25591193	64.177	11.342 #
Sum Toxaphene			110.3E6	130.5E6	205.383	110.309
Average Toxaphene					41.077	36.770
31) L9C Chlordane	11.60	0.00	20382070	0	25.565	N.D. #
32) L9C Chlordane{2}	11.71	0.00	11529696	0	10.235	N.D. #
33) L9C Chlordane{3}	0.00	12.36	0	62967851	N.D.	17.590 #
34) L9C Chlordane{4}	0.00	13.21	0	1134.1E6	N.D.	113.173 #
35) L9C Chlordane{5}	14.61	14.75	26909968	18419300	28.800	5.222 #
Sum Chlordane			58821735	1215.5E6	64.599	135.985
Average Chlordane					21.533	45.328

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
Data File : EY142.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 16 Jul 2008 9:10 pm  
Operator : M.PEDRO  
Sample : 1113695 1.0  
Misc : 07/01/08 212 ensr 8081 r44768  
ALS Vial : 24 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 17 06:58:25 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 13:38:39 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STX-CLP Signal #2 Phase: STX-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



60406

COLUMBIA ANALYTICAL SERVICES

EXTRACTABLE ORGANICS  
 METHOD 8081A.NEVA  
 Reported: 08/11/08

ENSR International

Project Reference: TRONOX PHASE B INVESTIGATION PROJ# 04020-023-4312  
 Client Sample ID : M-126B

Date Sampled : 06/29/08 14:44 Order #: 1113696 Sample Matrix: WATER  
 Date Received: 07/01/08 Submission #: R2844768 Analytical Run 164027

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED	: 07/01/08		
DATE ANALYZED	: 07/16/08		
ANALYTICAL DILUTION:	1.00		
ALDRIN	0.049	0.049 U	UG/L
ALPHA-BHC	0.049	0.049 U	UG/L
BETA-BHC	0.049	0.049 U	UG/L
GAMMA-BHC	0.049	0.084	UG/L
DELTA-BHC	0.049	0.049 U	UG/L
ALPHA-CHLORDANE	0.049	0.049 U	UG/L
GAMMA-CHLORDANE	0.049	0.049 U	UG/L
CHLORDANE	0.24	0.24 U	UG/L
4,4'-DDE	0.049	0.049 U	UG/L
4,4'-DDT	0.049	0.049 U	UG/L
DIELDRIN	0.097	0.097 U	UG/L
ALPHA-ENDOSULFAN	0.049	0.049 U	UG/L
BETA-ENDOSULFAN	0.097	0.097 U	UG/L
ENDOSULFAN SULFATE	0.097	0.097 U	UG/L
ENDRIN	0.049	0.049 U	UG/L
ENDRIN ALDEHYDE	0.097	0.097 U	UG/L
ENDRIN KETONE	0.097	0.097 U	UG/L
HEPTACHLOR	0.049	0.049 U	UG/L
HEPTACHLOR EPOXIDE	0.049	1.8 E	UG/L
HEXACHLOROBENZENE	0.049	0.049 U	UG/L
METHOXYCHLOR	0.49	0.49 U	UG/L
4,4'-TDE (DDD)	0.049	0.049 U	UG/L
TOXAPHENE	0.97	0.97 U	UG/L

<u>SURROGATE RECOVERIES</u>	<u>QC LIMITS</u>		
DECACHLOROBIPHENYL (DCB)	(40 - 140 %)	86	%
TETRACHLORO-META-XYLENE	(40 - 140 %)	79	%

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
 Data File : ey143.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 16 Jul 2008 9:46 pm  
 Operator : M.PEDRO  
 Sample : 1113696 1.0  
 Misc : 07/01/08 206 ensr 8081 r44768  
 ALS Vial : 25 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 17 07:54:41 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
1) S SURR1,Tetrac	9.43	9.32	1589.7E6	5888.2E6	78.774	72.766
Spiked Amount	100.000	Range 30 - 150	Recovery =		78.77%	72.77%
25) S SURR2,Decachloro	17.60	17.85	1440.4E6	4708.7E6	82.470	85.496
Spiked Amount	100.000	Range 30 - 150	Recovery =		82.47%	85.50%
Target Compounds						
4) tcm gamma-BHC (L	10.96	10.96	449.3E6	1814.4E6	15.927	17.268
9) tc Heptachlor E	13.07	12.98	7509.7E6	30192.3E6	329.927m	375.542m
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000

*M/17 Rep 1/6*

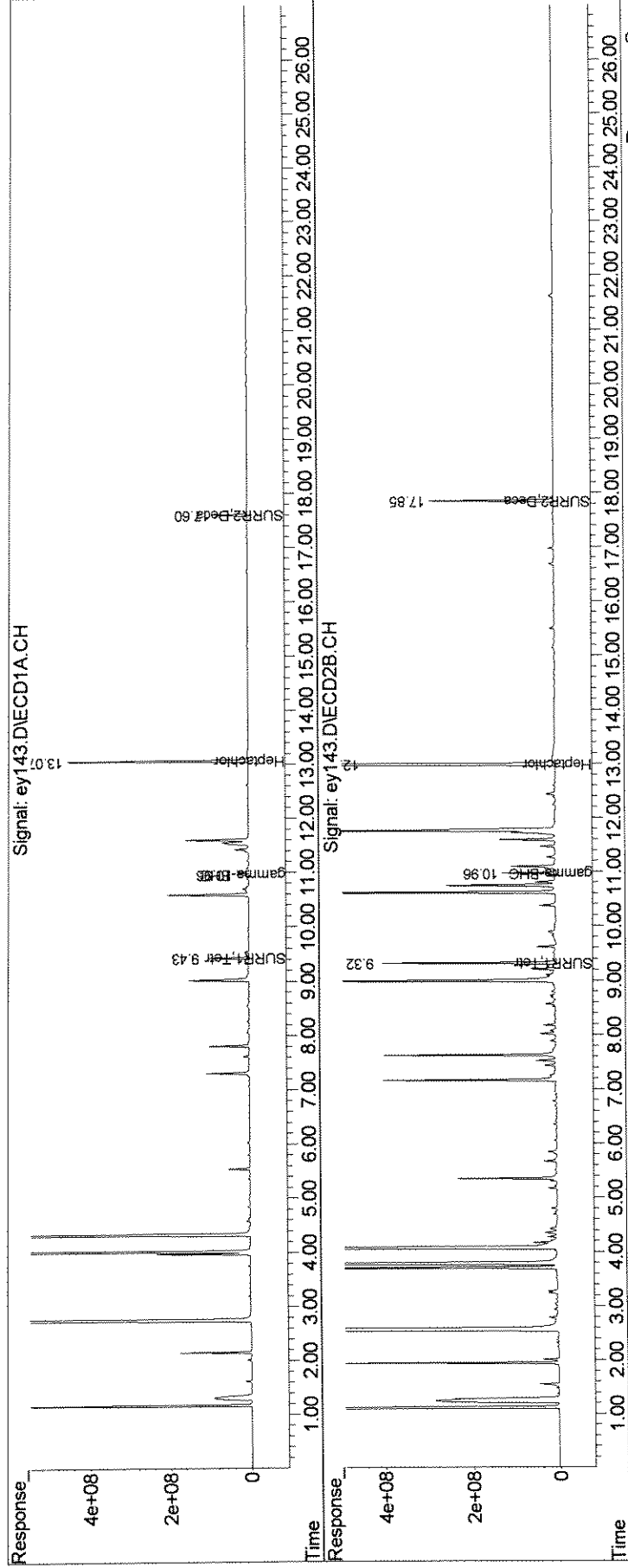
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.



Data Path : J:\ACQUDATA\6890D\DATA\071608\  
Data File : ey143.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 16 Jul 2008 9:46 pm  
Operator : M.PEDRO  
Sample : 1113696 1.0  
Misc : 07/01/08 206 ensr 8081 r44768  
ALS Vial : 25 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 17 07:54:41 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 13:38:39 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STX-CLP Signal #2 Phase: STX-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

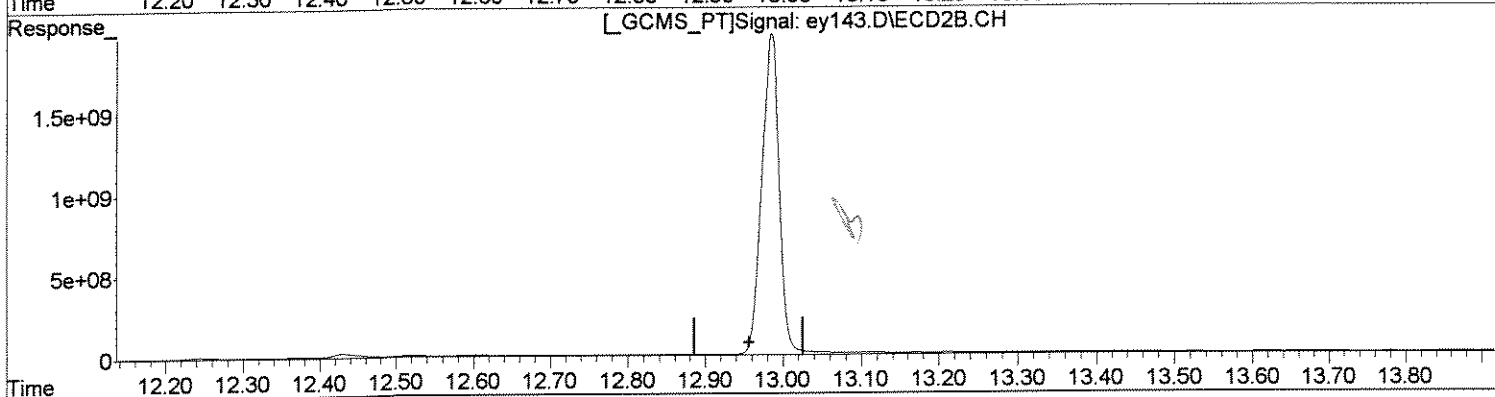
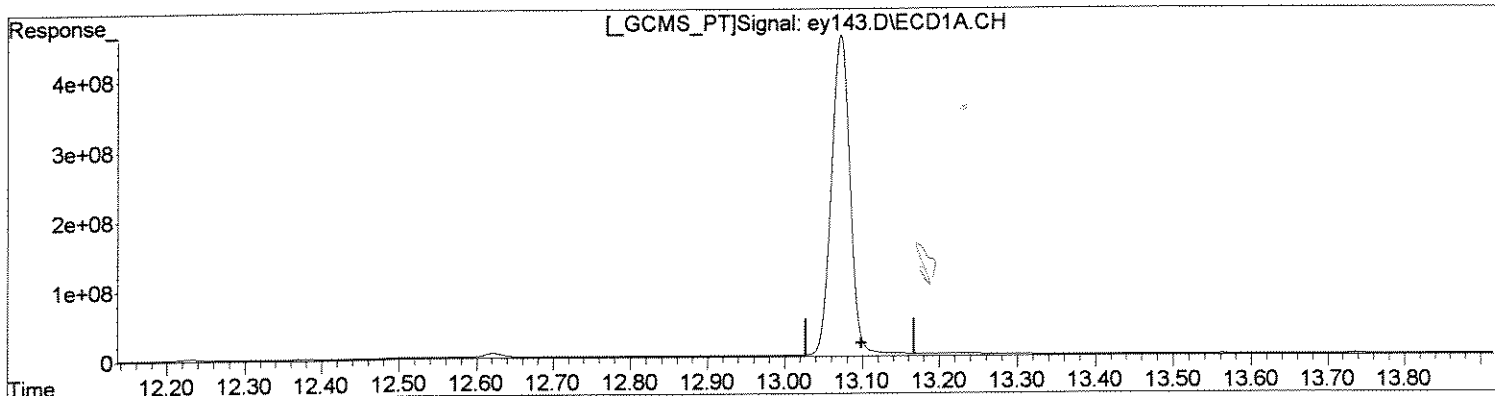


Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
Data File : ey143.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 16 Jul 2008 9:46 pm  
Operator : M.PEDRO  
Sample : 1113696 1.0  
Misc : 07/01/08 206 ensr 8081 r44768  
ALS Vial : 25 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 17 06:58:32 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 13:38:39 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



QEdit

(9) Heptachlor E (tc)  
0.00min 0.000ug/l  
response 0

*Asc*

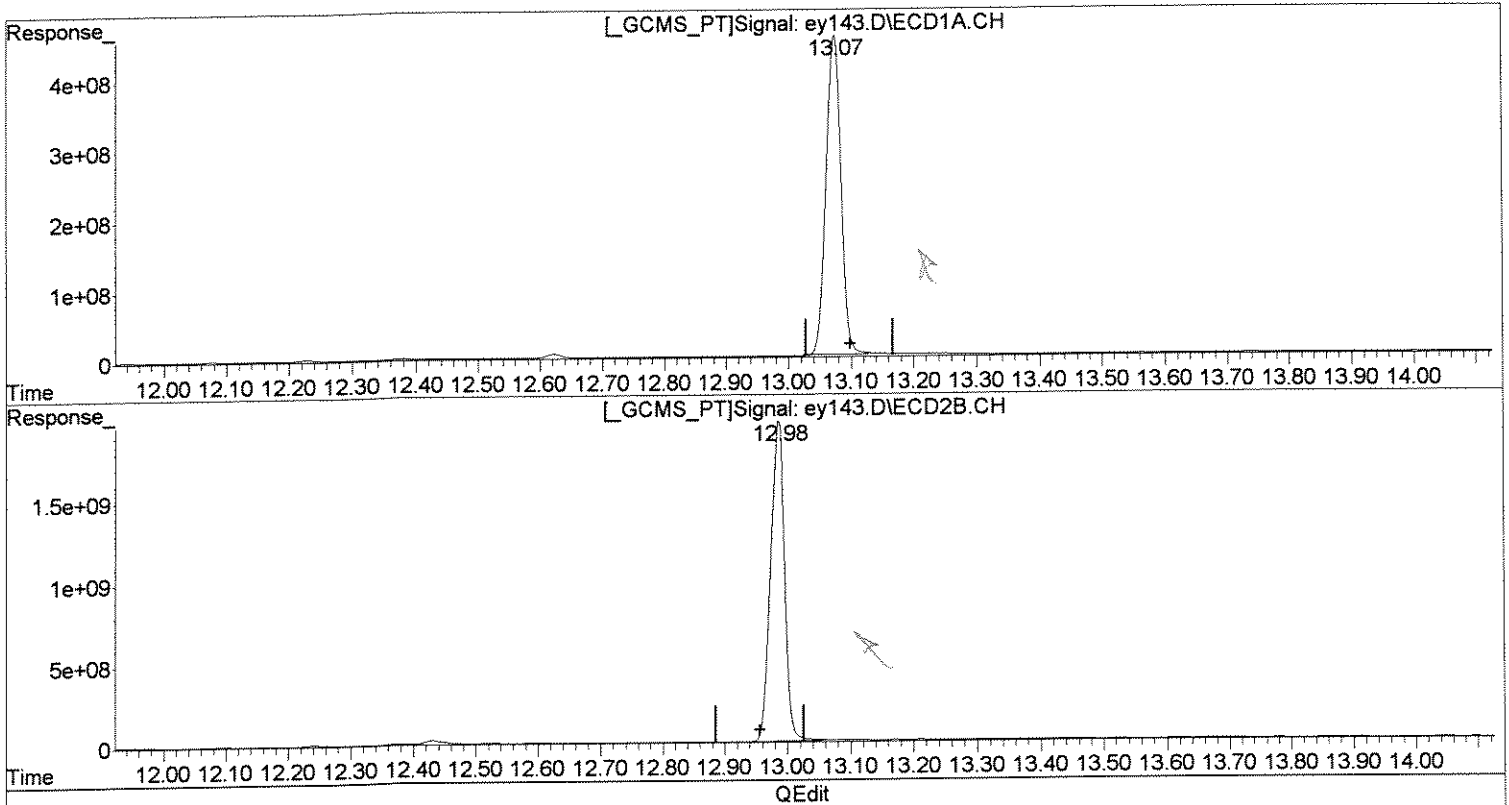
(9) Heptachlor E #2 (tc)  
0.00min 0.000ug/l  
response 0

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
Data File : ey143.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 16 Jul 2008 9:46 pm  
Operator : M.PEDRO  
Sample : 1113696 1.0  
Misc : 07/01/08 206 ensr 8081 r44768  
ALS Vial : 25 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 17 06:58:32 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 13:38:39 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



(9) Heptachlor E (tc)  
13.07min 329.927ug/l m  
response 7509659879

(9) Heptachlor E #2 (tc)  
12.98min 375.542ug/l m  
response 30192259843

*Handwritten:* MW 7/17

*Handwritten:* MW 7/17

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
 Data File : EY143.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 16 Jul 2008 9:46 pm  
 Operator : M.PEDRO  
 Sample : 1113696 1.0  
 Misc : 07/01/08 206 ensr 8081 r44768  
 ALS Vial : 25 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 17 06:58:32 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
----------	------	------	--------	--------	------	------

System Monitoring Compounds

1) S SURR1,Tetrac	9.43	9.32	1589.7E6	5888.2E6	78.774	72.766
Spiked Amount	100.000	Range	30 - 150	Recovery =	78.77%	72.77%
2) S SURR2,Decachloro	17.60	17.85	1440.4E6	4708.7E6	82.470	85.496
Spiked Amount	100.000	Range	30 - 150	Recovery =	82.47%	85.50%

Target Compounds

2) TC HEXACHLORO BENZEN	10.12	10.14	32334416	39779457	1.100	0.327 #
3) tc alpha-BHC	10.43	0.00	54598489	0	1.766	N.D. #
4) tcm gamma-BHC (L	10.96	10.96	449.3E6	1814.4E6	15.927	17.268
5) tcm Heptachlor	11.72	0.00	39412139	0	1.410	N.D. #
6) tcm Aldrin	0.00	12.10	0	115.9E6	N.D.	1.272 #
8) tc delta-BHC	11.39	11.58	135.6E6	2077.1E6	4.986	20.119 #
10) tc alpha-Endosu	13.67	13.53	16422731	53949107	0.803	0.760
11) tc gamma-Chlord	0.00	13.21	0	153.6E6	N.D.	1.872 #
13) tc 4,4'-DDE	13.56	13.67	20893767	47935341	0.959	0.625 #
14) tcm Dieldrin	0.00	13.91	0	54725875	N.D.	0.699 #
15) tcm Endrin	14.39	14.34	18855196	31457755	0.910	0.467 #
16) tc KEPONE	14.43	0.00	18136150	0	2.479	N.D. #
17) tc beta-Endosul	0.00	14.65	0	43262124	N.D.	0.674 #
18) tc 4,4'-DDD	0.00	14.49	0	18856800	N.D.	0.303 #
19) tcm 4,4'-DDT	0.00	14.96	0	85008978	N.D.	1.298 #
20) tc Endrin Aldeh	15.36	15.18	11325014	87527690	0.772	1.785 #
23) tc FAMPHUR	16.29	0.00	8722112	0	0.643	N.D. #
24) tc Endrin Keton	16.40	16.30	18373506	80236209	0.949	1.279 #
26) L8C Toxaphene	14.82	0.00	26454326	0	66.324	N.D. #
28) L8C Toxaphene {3}	15.50	15.18	16368474	87527690	24.320	46.821 #
29) L8C Toxaphene {4}	16.35	16.44	20245808	38524745	24.736	20.002
30) L8C Toxaphene {5}	16.55	16.68	98415319	233.3E6	147.856	103.374 #
Sum Toxaphene			161.5E6	359.3E6	263.236	170.197
Average Toxaphene					65.809	56.732
31) L9C Chlordane	11.60	11.40	2689.2E6	96421011	3372.934	29.819 #

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
 Data File : EY143.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 16 Jul 2008 9:46 pm  
 Operator : M.PEDRO  
 Sample : 1113696 1.0  
 Misc : 07/01/08 206 ensr 8081 r44768  
 ALS Vial : 25 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 17 06:58:32 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

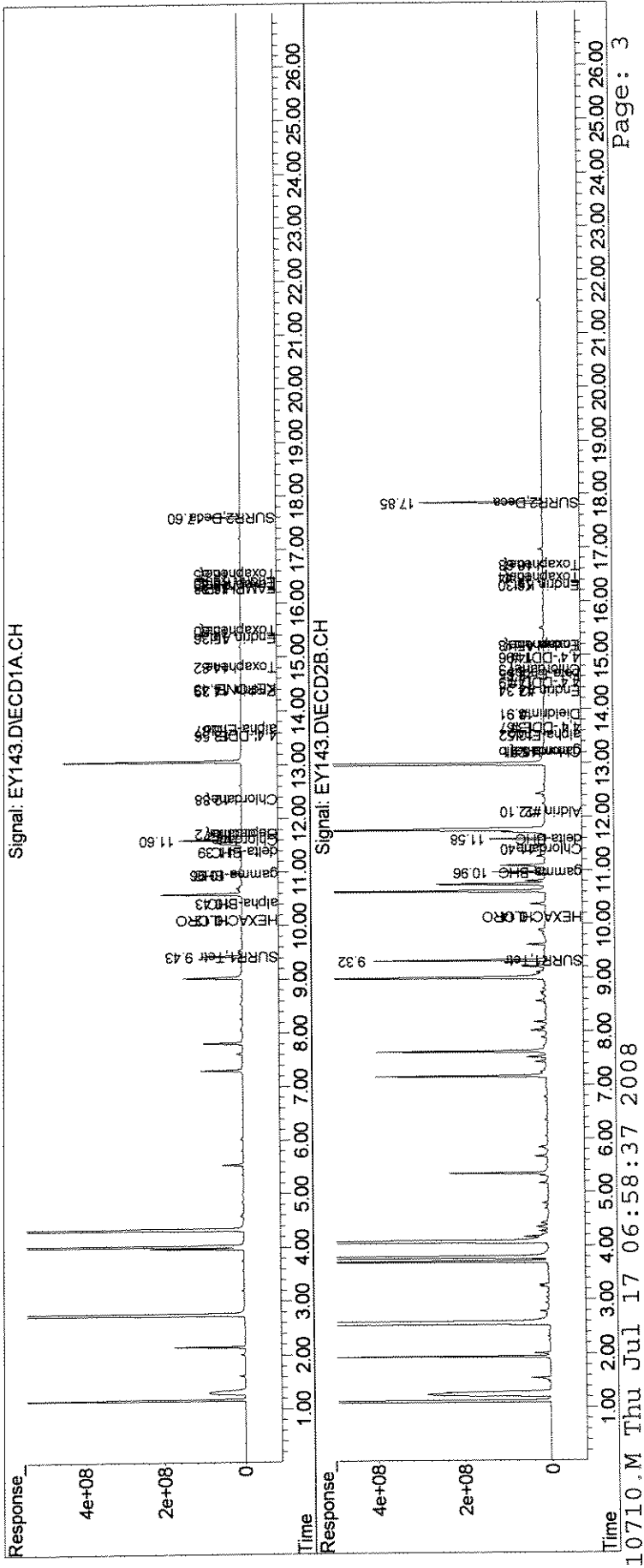
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
32) L9C Chlordane {2}	11.72	0.00	39412139	0	34.985	N.D. #
33) L9C Chlordane {3}	12.38	0.00	36544913	0	35.425	N.D. #
34) L9C Chlordane {4}	0.00	13.21	0	153.6E6	N.D.	15.327 #
35) L9C Chlordane {5}	0.00	14.74	0	21102700	N.D.	5.982 #
Sum Chlordane			2765.1E6	271.1E6	3443.344	51.129
Average Chlordane					1147.781	17.043

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
Data File : EY143.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 16 Jul 2008 9:46 pm  
Operator : M.PEDRO  
Sample : 1113696 1.0  
Misc : 07/01/08 206 ensr 8081 r44768  
ALS Vial : 25 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 17 06:58:32 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 13:38:39 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
Signal #1 Phase : STX-CLP Signal #2 Phase: STX-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



11004

COLUMBIA ANALYTICAL SERVICES

EXTRACTABLE ORGANICS  
 METHOD 8081A.NEVA  
 Reported: 08/14/08

ENSR International

Project Reference: TRONOX PHASE B INVESTIGATION PROJ# 04020-023-4312

Client Sample ID : M-126B

Date Sampled : 06/29/08 14:44 Order #: 1113696 Sample Matrix: WATER  
 Date Received: 07/01/08 Submission #: R2844768 Analytical Run 0

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED	: 06/30/08		
DATE ANALYZED	: 07/17/08		
ANALYTICAL DILUTION:	10.00		
ALDRIN	0.049	0.49 U	UG/L
ALPHA-BHC	0.049	0.49 U	UG/L
BETA-BHC	0.049	0.49 U	UG/L
GAMMA-BHC	0.049	0.49 U	UG/L
DELTA-BHC	0.049	0.49 U	UG/L
ALPHA-CHLORDANE	0.049	0.49 U	UG/L
GAMMA-CHLORDANE	0.049	0.49 U	UG/L
CHLORDANE	0.24	2.4 U	UG/L
4,4'-DDE	0.049	0.49 U	UG/L
4,4'-DDT	0.049	0.49 U	UG/L
DIELDRIN	0.097	0.97 U	UG/L
ALPHA-ENDOSULFAN	0.049	0.49 U	UG/L
BETA-ENDOSULFAN	0.097	0.97 U	UG/L
ENDOSULFAN SULFATE	0.097	0.97 U	UG/L
ENDRIN	0.049	0.49 U	UG/L
ENDRIN ALDEHYDE	0.097	0.97 U	UG/L
ENDRIN KETONE	0.097	0.97 U	UG/L
HEPTACHLOR	0.049	0.49 U	UG/L
HEPTACHLOR EPOXIDE	0.049	1.9 D	UG/L
HEXACHLOROBENZENE	0.049	0.49 U	UG/L
METHOXYCHLOR	0.49	4.9 U	UG/L
4,4'-TDE (DDD)	0.049	0.49 U	UG/L
TOXAPHENE	0.97	9.7 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
DECACHLOROBIPHENYL (DCB)	(40 - 140 %)	91	%
TETRACHLORO-META-XYLENE	(40 - 140 %)	76	%

Data Path : J:\ACQUDATA\6890D\DATA\071708\  
 Data File : ey158.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 17 Jul 2008 1:18 pm  
 Operator : M.PEDRO  
 Sample : 1113696 10.0  
 Misc : 06/30/08 ~~2.0~~<sup>20%</sup> ensr r44768 8081 R3  
 ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 18 07:43:41 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
-----						
System Monitoring Compounds						
1) S SURR1,Tetrac	9.43	9.32	137.7E6	617.6E6	6.825m	7.632m
Spiked Amount	100.000	Range 30 - 150	Recovery =		6.83%#	7.63%#
25) S SURR2,Decachloro	17.60	17.85	145.4E6	498.7E6	8.325	9.055
Spiked Amount	100.000	Range 30 - 150	Recovery =		8.32%#	9.05%#
Target Compounds						
4) tcm gamma-BHC (L)	10.96	10.96	36601606	192.8E6	1.298	1.834 #
9) tc Heptachlor E	13.07	12.98	811.2E6	3219.4E6	35.641	40.045m
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
-----						

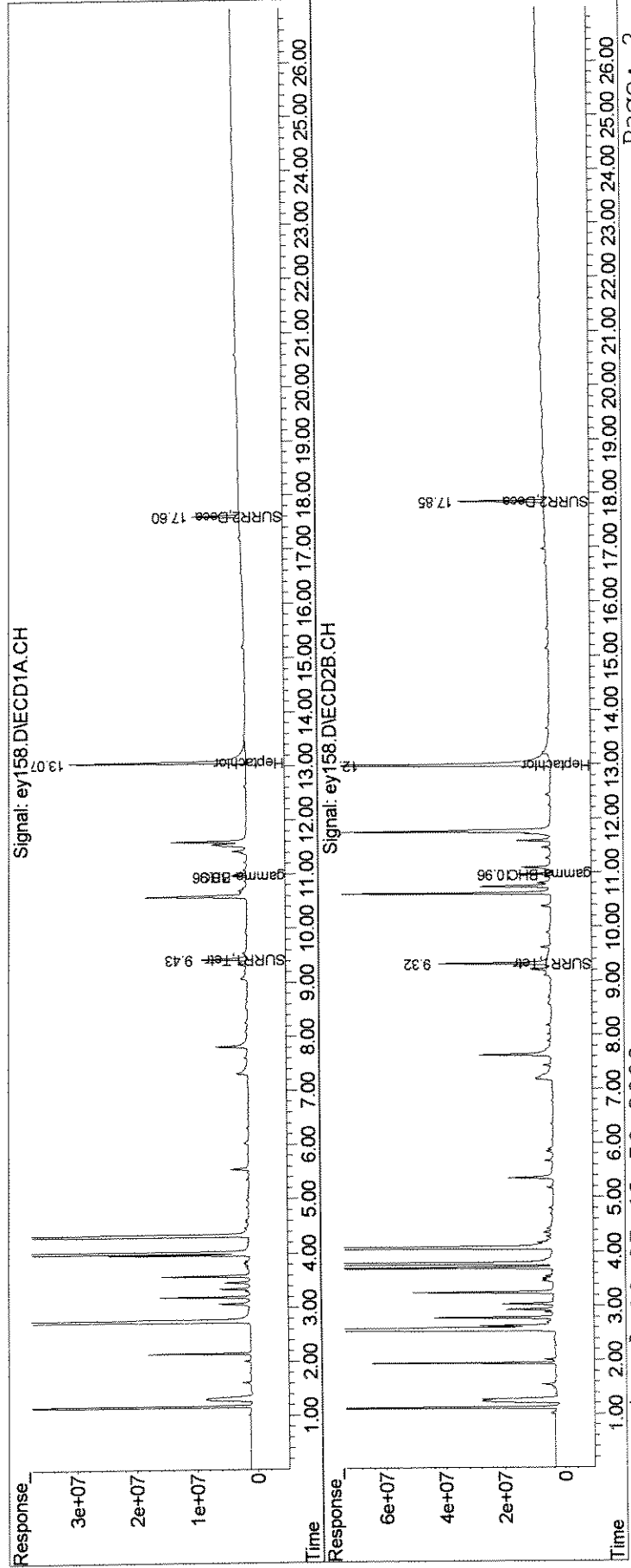
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.



Data Path : J:\ACQUDATA\6890D\DATA\071708\  
Data File : ey158.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 17 Jul 2008 1:18 pm  
Operator : M.PEDRO  
Sample : 1113696 10.0  
Misc : 06/30/08 3.0 ensr r44768 8081  
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 18 07:43:41 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 13:38:39 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



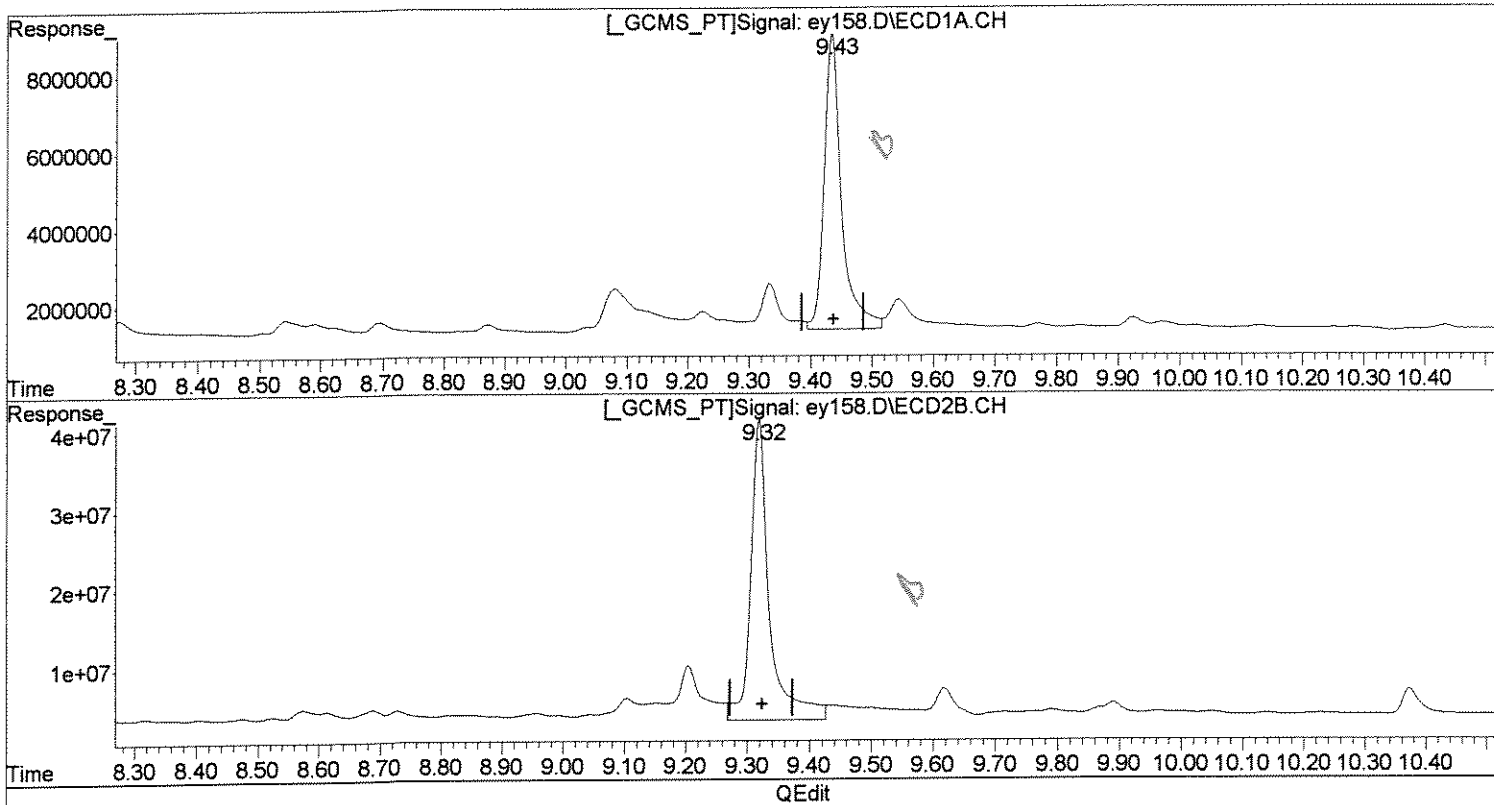
00417

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071708\  
Data File : ey158.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 17 Jul 2008 1:18 pm  
Operator : M.PEDRO  
Sample : 1113696 10.0  
Misc : 06/30/08 3.0 ensr r44768 8081  
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 18 07:15:12 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 13:38:39 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



(1) SURR1,Tetrac (S)  
9.43min 7.476ug/l  
response 150863988

(1) SURR1,Tetrac #2 (S)  
9.32min 9.809ug/l  
response 793758585

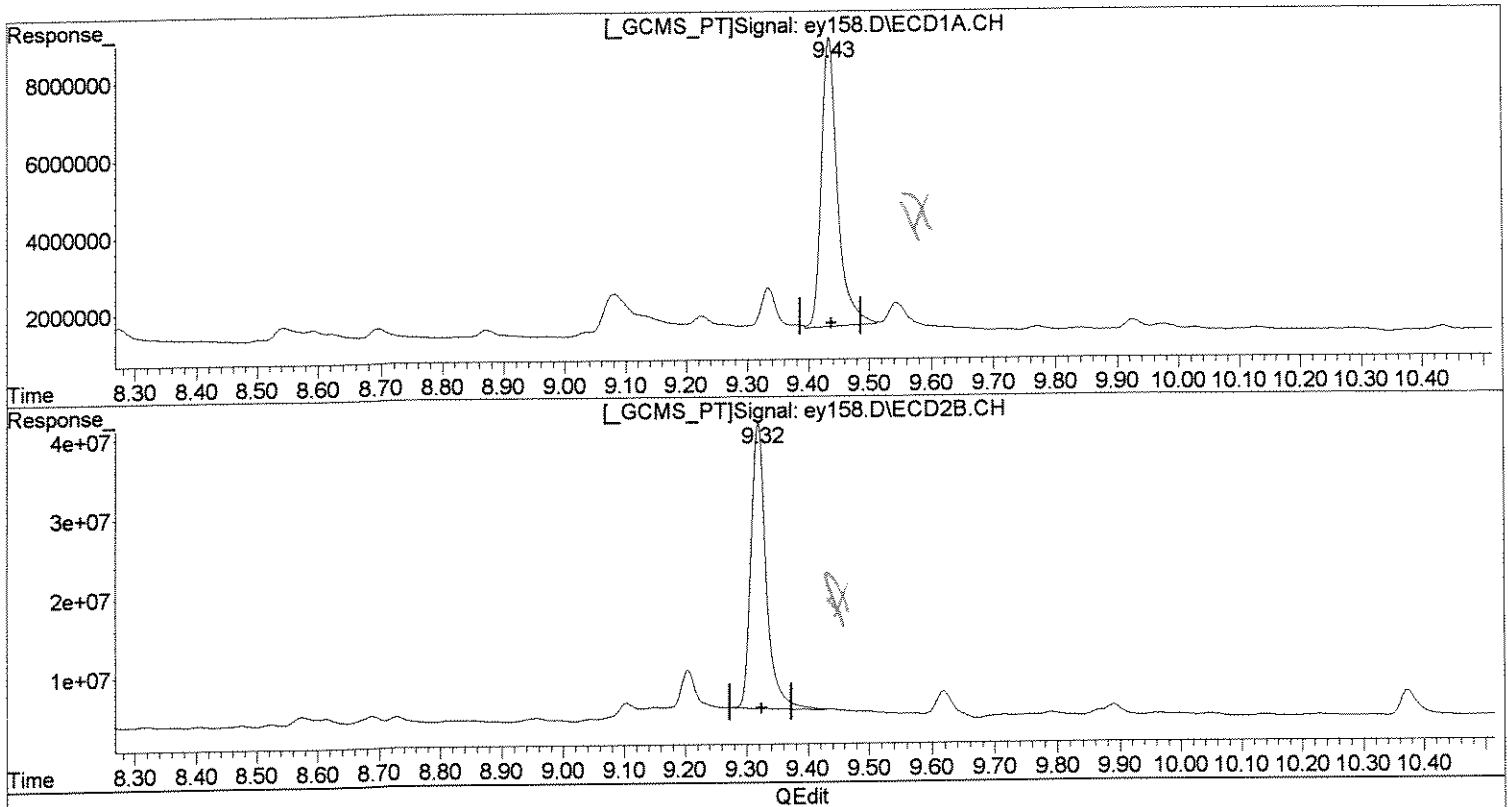
*Handwritten signature*

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071708\  
Data File : ey158.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 17 Jul 2008 1:18 pm  
Operator : M.PEDRO  
Sample : 1113696 10.0  
Misc : 06/30/08 3.0 ensr r44768 8081  
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 18 07:15:12 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 13:38:39 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



(1) SURR1,Tetrac (S)  
9.43min 6.825ug/lm  
response 137726214

(1) SURR1,Tetrac #2 (S)  
9.32min 7.632ug/lm  
response 617607899

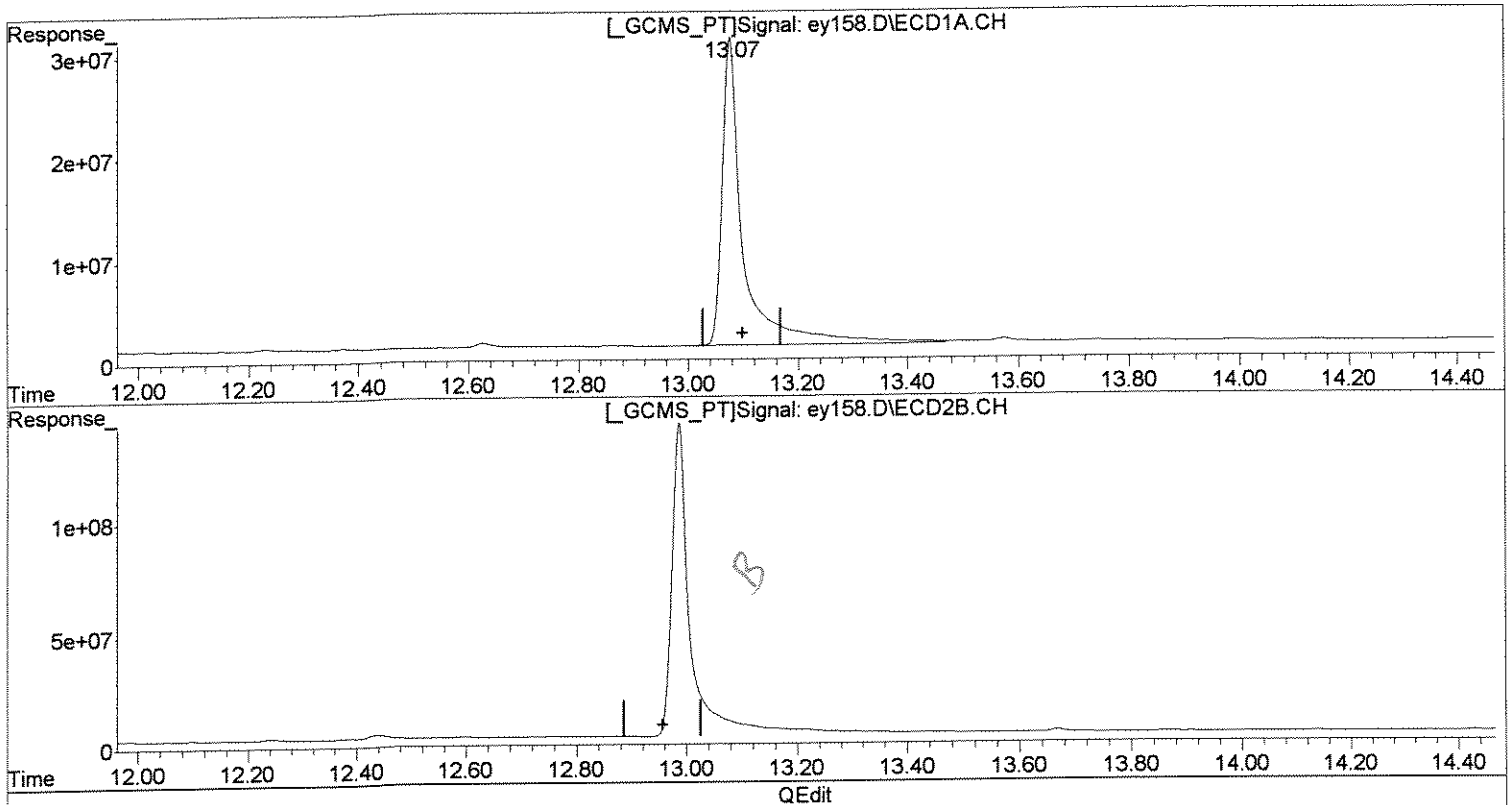
MW 7/18 MW 7/18

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071708\  
Data File : ey158.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 17 Jul 2008 1:18 pm  
Operator : M.PEDRO  
Sample : 1113696 10.0  
Misc : 06/30/08 3.0 ensr r44768 8081  
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 18 07:15:12 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 13:38:39 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



(9) Heptachlor E (tc)  
13.07min 35.641ug/l  
response 811242410

(9) Heptachlor E #2 (tc)  
0.00min 0.000ug/l  
response 0

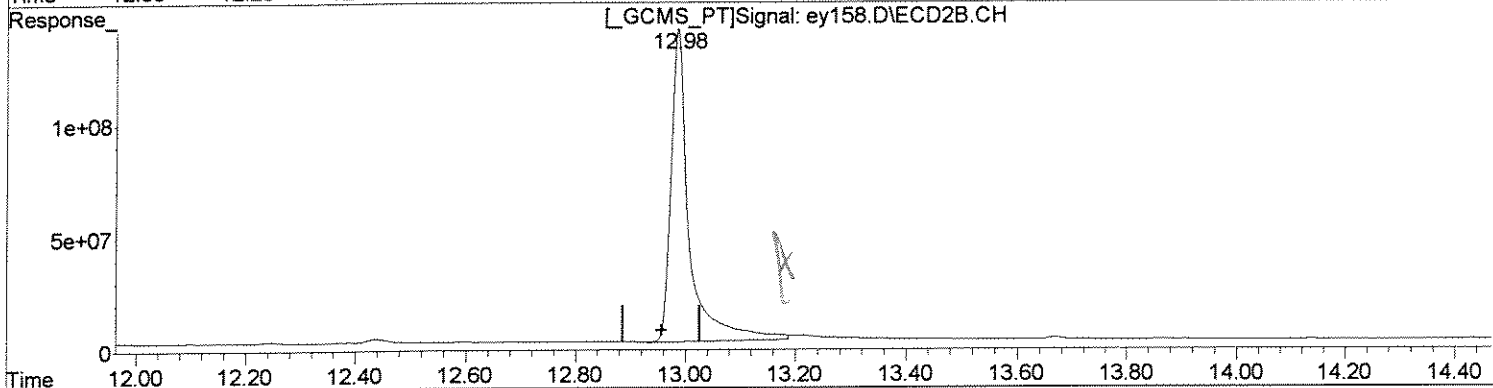
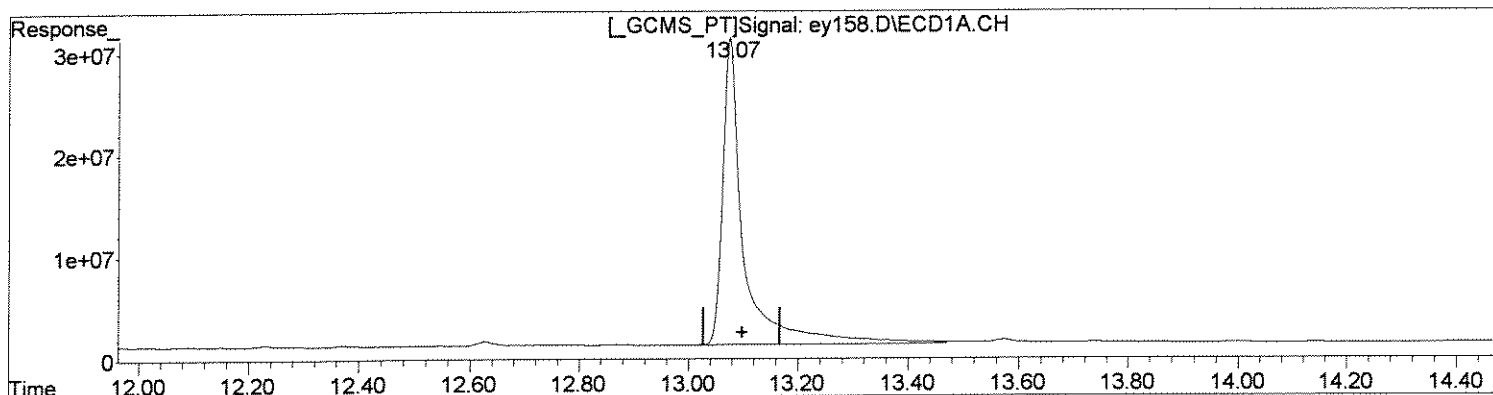
*Base*

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071708\  
Data File : ey158.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 17 Jul 2008 1:18 pm  
Operator : M.PEDRO  
Sample : 1113696 10.0  
Misc : 06/30/08 3.0 ensr r44768 8081  
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 18 07:15:12 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 13:38:39 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



(9) Heptachlor E (tc)  
13.07min 35.641ug/l  
response 811242410

*Handwritten signatures and dates:*  
MJP 7/18  
MJP 7/18

(9) Heptachlor E #2 (tc)  
12.98min 40.045ug/l m  
response 3219441171

Data Path : J:\ACQUDATA\6890D\DATA\071708\  
 Data File : EY158.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 17 Jul 2008 1:18 pm  
 Operator : M.PEDRO  
 Sample : 1113696 10.0  
 Misc : 06/30/08 3.0 ensr r44768 8081  
 ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 18 07:15:12 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
-----						
System Monitoring Compounds						
1) S SURR1,Tetrac	9.43	9.32	150.9E6	793.8E6	7.476	9.809 #
Spiked Amount	100.000	Range 30 - 150	Recovery =		7.48%#	9.81%#
25) S SURR2,Decachloro	17.60	17.85	145.4E6	498.7E6	8.325	9.055
Spiked Amount	100.000	Range 30 - 150	Recovery =		8.32%#	9.05%#
Target Compounds						
2) TC HEXACHLORO BENZEN	0.00	10.14	0	21991208	N.D.	0.181 #
3) tc alpha-BHC	10.43	0.00	3438494	0	0.111	N.D. #
4) tcm gamma-BHC (L	10.96	10.96	36601606	192.8E6	1.298	1.834 #
6) tcm Aldrin	0.00	12.10	0	27291810	N.D.	0.300 #
8) tc delta-BHC	11.39	11.58	11362695	222.8E6	0.418	2.158 #
9) tc Heptachlor E	13.07	0.00	811.2E6	0	35.641	N.D. #
11) tc gamma-Chlord	0.00	13.21	0	239.0E6	N.D.	2.914 #
12) tc alpha-Chlord	13.50	0.00	6217217	0	0.291	N.D. #
13) tc 4,4'-DDE	13.57	13.67	12270348	53513169	0.563	0.698
14) tcm Dieldrin	0.00	13.91	0	15082321	N.D.	0.193 #
15) tcm Endrin	0.00	14.34	0	2768016	N.D.	0.041 #
16) tc KEPONE	0.00	14.53	0	2414619	N.D.	0.105 #
17) tc beta-Endosul	0.00	14.66	0	3272332	N.D.	0.051 #
19) tcm 4,4'-DDT	0.00	14.95	0	13838637	N.D.	0.211 #
20) tc Endrin Aldeh	0.00	15.18	0	9769993	N.D.	0.199 #
24) tc Endrin Keton	0.00	16.30	0	3273177	N.D.	0.052 #
27) L8C Toxaphene {2}	0.00	15.09	0	2848702	N.D.	3.158 #
28) L8C Toxaphene {3}	0.00	15.18	0	9769993	N.D.	5.226 #
29) L8C Toxaphene {4}	0.00	16.44	0	3822866	N.D.	1.985 #
30) L8C Toxaphene {5}	16.56	16.69	5911362	16426606	8.881	7.280
Sum Toxaphene			5911362	32868166	8.881	17.649
Average Toxaphene					8.881	4.412
31) L9C Chlordane	11.60	11.40	255.8E6	20574731	320.887	6.363 #
34) L9C Chlordane {4}	0.00	13.21	0	239.0E6	N.D.	23.850 #
Sum Chlordane			255.8E6	259.6E6	320.887	30.213

*Original*

Data Path : J:\ACQUDATA\6890D\DATA\071708\  
 Data File : EY158.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 17 Jul 2008 1:18 pm  
 Operator : M.PEDRO  
 Sample : 1113696 10.0  
 Misc : 06/30/08 3.0 ensr r44768 8081  
 ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 18 07:15:12 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
Average Chlordane					320.887	15.106

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.





COLUMBIA ANALYTICAL SERVICES

EXTRACTABLE ORGANICS

METHOD 8081A.NEVA

Reported: 07/30/08

ENSR International

Project Reference: TRONOX PHASE B INVESTIGATION PROJ# 04020-023-4312

Client Sample ID : M-84B

Date Sampled : 06/29/08 15:00 Order #: 1113697 Sample Matrix: WATER  
Date Received: 07/01/08 Submission #: R2844768 Analytical Run 164027

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED : 07/01/08			
DATE ANALYZED : 07/17/08			
ANALYTICAL DILUTION: 1.00			
ALDRIN	0.049	0.049 U	UG/L
ALPHA-BHC	0.049	0.049 U	UG/L
BETA-BHC	0.049	0.049 U	UG/L
GAMMA-BHC	0.049	0.049 U	UG/L
DELTA-BHC	0.049	0.049 U	UG/L
ALPHA-CHLORDANE	0.049	0.049 U	UG/L
GAMMA-CHLORDANE	0.049	0.049 U	UG/L
CHLORDANE	0.25	0.25 U	UG/L
4,4'-DDE	0.049	0.049 U	UG/L
4,4'-DDT	0.049	0.049 U	UG/L
DIELDRIN	0.098	0.098 U	UG/L
ALPHA-ENDOSULFAN	0.049	0.049 U	UG/L
BETA-ENDOSULFAN	0.098	0.098 U	UG/L
ENDOSULFAN SULFATE	0.098	0.098 U	UG/L
ENDRIN	0.049	0.049 U	UG/L
ENDRIN ALDEHYDE	0.098	0.098 U	UG/L
ENDRIN KETONE	0.098	0.098 U	UG/L
HEPTACHLOR	0.049	0.049 U	UG/L
HEPTACHLOR EPOXIDE	0.049	0.049 U	UG/L
HEXACHLOROBENZENE	0.049	0.049 U	UG/L
METHOXYCHLOR	0.49	0.49 U	UG/L
4,4'-TDE (DDD)	0.049	0.049 U	UG/L
TOXAPHENE	0.98	0.98 U	UG/L

SURROGATE RECOVERIES

QC LIMITS

DECACHLOROBIPHENYL (DCB)	(40 - 140 %)	99	%
TETRACHLORO-META-XYLENE	(40 - 140 %)	85	%

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
 Data File : ey147.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 17 Jul 2008 12:08 am  
 Operator : M.PEDRO  
 Sample : 1113697 1.0  
 Misc : 07/01/08 204 ensr r44768 8081  
 ALS Vial : 29 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 17 09:24:56 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

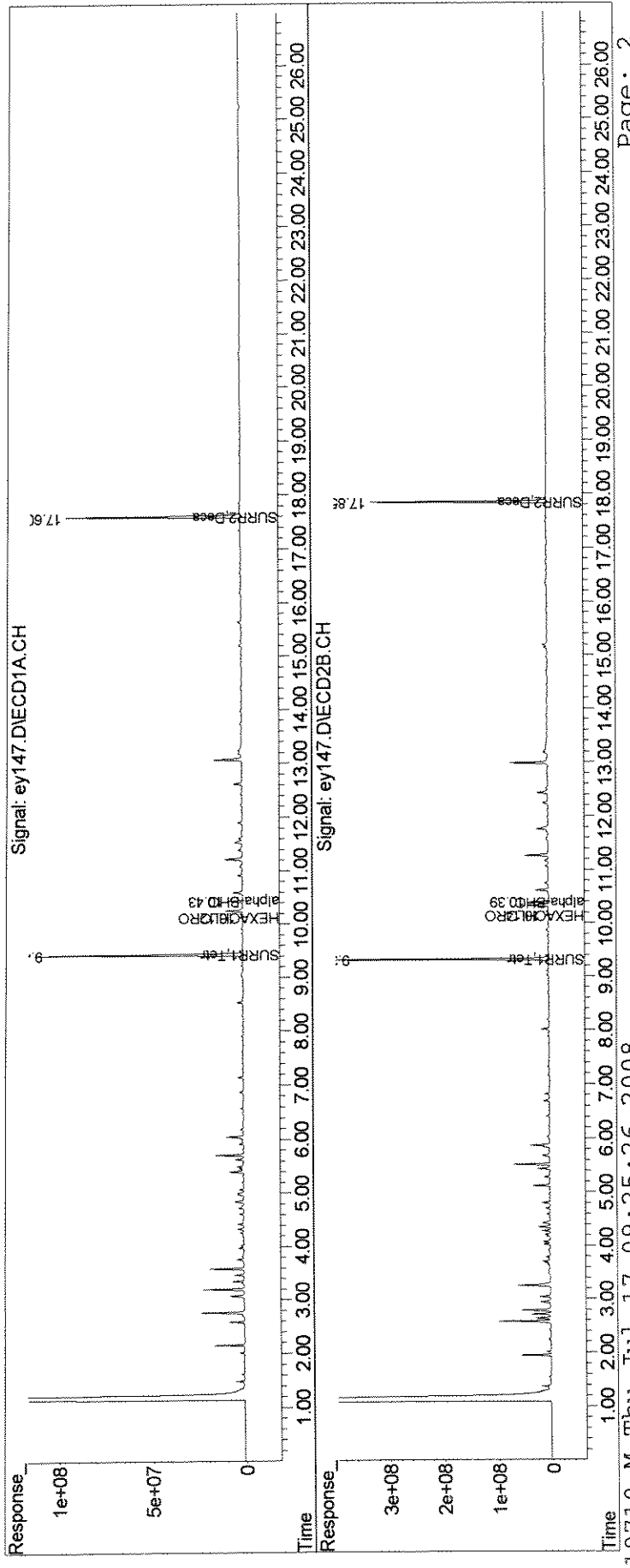
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/1	ug/1
-----						
System Monitoring Compounds						
1) S SURR1,Tetrac	9.43	9.32	1724.6E6	6575.7E6	85.457	81.262
Spiked Amount	100.000	Range 30 - 150	Recovery =		85.46%	81.26%
25) S SURR2,Decachloro	17.60	17.85	1626.9E6	5473.1E6	93.149	99.376
Spiked Amount	100.000	Range 30 - 150	Recovery =		93.15%	99.38%
Target Compounds						
2) TC HEXACHLOROBENZEN	10.13	10.14	35339604	153.5E6	1.203	1.263
3) tc alpha-BHC	10.43	10.39	135.2E6	535.0E6	4.375	4.508
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
-----						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
Data File : ey147.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 17 Jul 2008 12:08 am  
Operator : M.PEDRO  
Sample : 1113697 1.0  
Misc : 07/01/08 204 ensr r44768 8081  
ALS Vial : 29 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 17 09:24:56 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 13:38:39 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STX-CLP Signal #2 Phase: STX-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



00427

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
 Data File : EY147.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 17 Jul 2008 12:08 am  
 Operator : M.PEDRO  
 Sample : 1113697 1.0  
 Misc : 07/01/08 204 ensr r44768 8081  
 ALS Vial : 29 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 17 06:59:00 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
----------	------	------	--------	--------	------	------

System Monitoring Compounds							
1) S	SURR1,Tetrac	9.43	9.32	1724.6E6	6575.7E6	85.457	81.262
	Spiked Amount	100.000	Range 30 - 150	Recovery =		85.46%	81.26%
2) S	SURR2,Decachloro	17.60	17.85	1626.9E6	5473.1E6	93.149	99.376
	Spiked Amount	100.000	Range 30 - 150	Recovery =		93.15%	99.38%

*Arbul*

Target Compounds							
		RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
2) TC	HEXACHLORO BENZEN	10.13	10.14	35339604	153.5E6	1.203	1.263
3) tc	alpha-BHC	10.43	10.39	135.2E6	535.0E6	4.375	4.508
4) tcm	gamma-BHC (L	10.96	10.96	10835596	68483445	0.384	0.652 #
5) tcm	Heptachlor	11.71	0.00	11865975	0	0.425	N.D. #
6) tcm	Aldrin	0.00	12.09	0	76401701	N.D.	0.839 #
7) tc	beta-BHC	11.10	0.00	22062524	0	1.921	N.D. #
8) tc	delta-BHC	11.39	11.56	68963999	77600963	2.536	0.752 #
10) tc	alpha-Endosu	0.00	13.52	0	115.6E6	N.D.	1.629 #
11) tc	gamma-Chlord	0.00	13.21	0	176.4E6	N.D.	2.151 #
12) tc	alpha-Chlord	13.46	0.00	16401225	0	0.767	N.D. #
13) tc	4,4'-DDE	13.56	13.70	25899530	118.7E6	1.189	1.549 #
14) tcm	Dieldrin	0.00	13.91	0	40987323	N.D.	0.524 #
15) tcm	Endrin	14.40	14.34	25879912	31641567	1.249	0.470 #
17) tc	beta-Endosul	0.00	14.66	0	36414219	N.D.	0.567 #
18) tc	4,4'-DDD	14.48	0.00	7793935	0	0.433	N.D. #
19) tcm	4,4'-DDT	14.85	14.96	11228665	91051411	0.587	1.390 #
20) tc	Endrin Aldeh	15.35	15.18	5336468	182.7E6	0.364	3.725 #
21) tc	Endosulfan S	15.99	15.55	10801618	5769842	0.641	0.101 #
22) tc	Methoxychlor	15.57	0.00	7020862	0	0.754	N.D. #
23) tc	FAMPHUR	16.27	0.00	13437025	0	0.990	N.D. #
24) tc	Endrin Keton	16.37	16.33	5219125	67769774	0.270	1.080 #
26) L8C	Toxaphene	14.82	14.80	15157530	29698702	38.002	15.349 #
27) L8C	Toxaphene {2}	0.00	15.09	0	33102220	N.D.	36.692 #
28) L8C	Toxaphene {3}	15.50	15.18	9981223	182.7E6	14.830	97.722 #
29) L8C	Toxaphene {4}	16.37	16.44	5219125	50785554	6.377	26.367 #
30) L8C	Toxaphene {5}	16.55	16.68	14239504	18845916	21.393	8.352 #

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
 Data File : EY147.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 17 Jul 2008 12:08 am  
 Operator : M.PEDRO  
 Sample : 1113697 1.0  
 Misc : 07/01/08 204 ensr r44768 8081  
 ALS Vial : 29 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 17 06:59:00 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

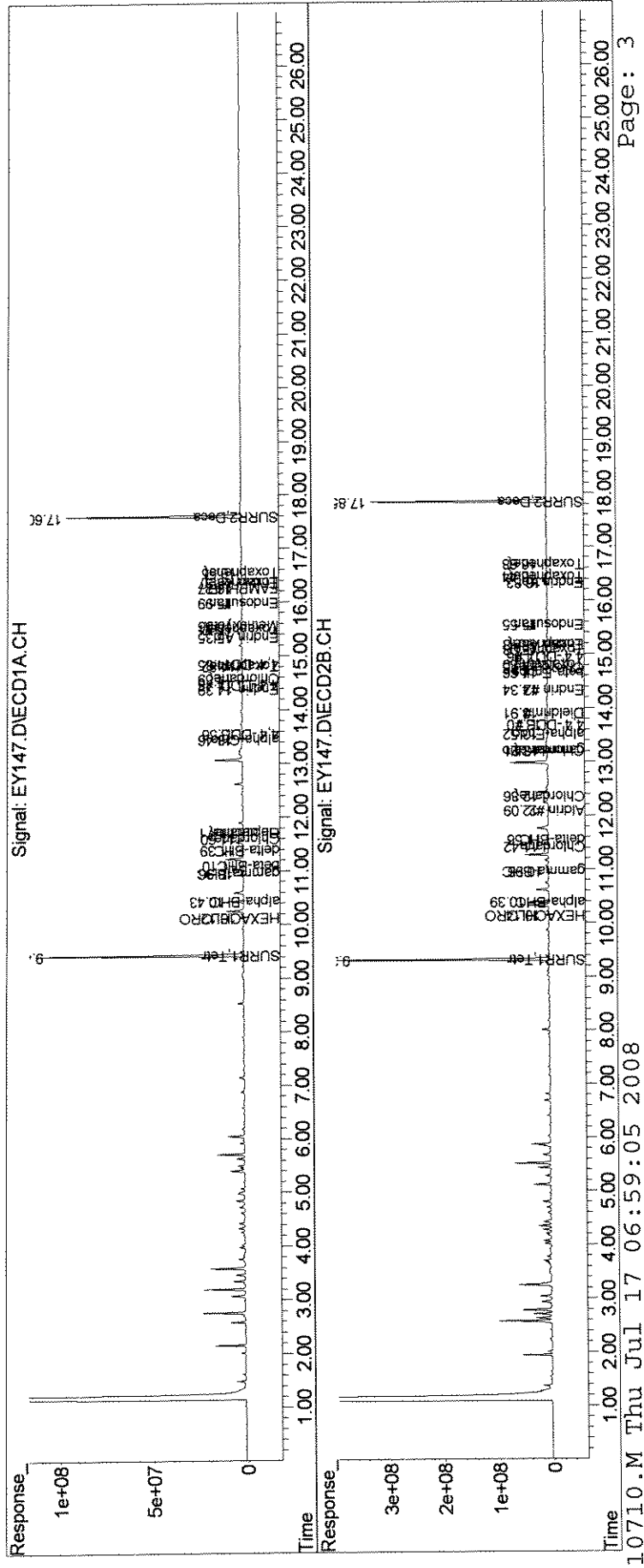
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
Sum Toxaphene			44597382	315.1E6	80.601	184.483
Average Toxaphene					20.150	36.897
1) L9C Chlordane	11.60	11.42	38021890	18471675	47.690	5.713 #
2) L9C Chlordane {2}	11.71	0.00	11865975	0	10.533	N.D. #
3) L9C Chlordane {3}	0.00	12.36	0	61046953	N.D.	17.053 #
4) L9C Chlordane {4}	0.00	13.21	0	176.4E6	N.D.	17.607 #
5) L9C Chlordane {5}	14.59	14.76	7618380	19697293	8.153	5.584 #
Sum Chlordane			57506245	275.7E6	66.376	45.957
Average Chlordane					22.125	11.489

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
Data File : EY147.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 17 Jul 2008 12:08 am  
Operator : M.PEDRO  
Sample : 1113697 1.0  
Misc : 07/01/08 204 ensr r44768 8081  
ALS Vial : 29 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 17 06:59:00 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 13:38:39 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STX-CLP Signal #2 Phase: STX-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



03430

COLUMBIA ANALYTICAL SERVICES

EXTRACTABLE ORGANICS

METHOD 8081A.NEVA

Reported: 07/30/08

ENSR International

Project Reference: TRONOX PHASE B INVESTIGATION PROJ# 04020-023-4312

Client Sample ID : M-14ADBF

Date Sampled : 06/30/08                      Order #: 1113698                      Sample Matrix: WATER  
 Date Received: 07/01/08                      Submission #: R2844768                      Analytical Run 164027

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED	: 07/01/08		
DATE ANALYZED	: 07/17/08		
ANALYTICAL DILUTION:	1.00		
ALDRIN	0.048	0.048 U	UG/L
ALPHA-BHC	0.048	0.048 U	UG/L
BETA-BHC	0.048	0.048 U	UG/L
GAMMA-BHC	0.048	0.048 U	UG/L
DELTA-BHC	0.048	0.048 U	UG/L
ALPHA-CHLORDANE	0.048	0.048 U	UG/L
GAMMA-CHLORDANE	0.048	0.048 U	UG/L
CHLORDANE	0.24	0.24 U	UG/L
4,4'-DDE	0.048	0.048 U	UG/L
4,4'-DDT	0.048	0.048 U	UG/L
DIELDRIN	0.096	0.096 U	UG/L
ALPHA-ENDOSULFAN	0.048	0.048 U	UG/L
BETA-ENDOSULFAN	0.096	0.096 U	UG/L
ENDOSULFAN SULFATE	0.096	0.096 U	UG/L
ENDRIN	0.048	0.048 U	UG/L
ENDRIN ALDEHYDE	0.096	0.096 U	UG/L
ENDRIN KETONE	0.096	0.096 U	UG/L
HEPTACHLOR	0.048	0.048 U	UG/L
HEPTACHLOR EPOXIDE	0.048	0.30	UG/L
HEXACHLOROBENZENE	0.048	0.048 U	UG/L
METHOXYCHLOR	0.48	0.48 U	UG/L
4,4'-TDE (DDD)	0.048	0.048 U	UG/L
TOXAPHENE	0.96	0.96 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
DECACHLOROBIPHENYL (DCB)	(40 - 140 %)	105	%
TETRACHLORO-META-XYLENE	(40 - 140 %)	85	%

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
 Data File : ey148.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 17 Jul 2008 12:44 am  
 Operator : M.PEDRO  
 Sample : 1113698 1.0  
 Misc : 07/01/08 208 ensr r44768 8081  
 ALS Vial : 30 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 17 09:27:21 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
----------	------	------	--------	--------	------	------

-----  
 System Monitoring Compounds

1) S SURR1,Tetrac	9.43	9.32	1715.5E6	6548.9E6	85.007	80.931
Spiked Amount	100.000	Range	30 - 150	Recovery =	85.01%	80.93%
25) S SURR2,Decachloro	17.60	17.85	1763.7E6	5768.1E6	100.984	104.731
Spiked Amount	100.000	Range	30 - 150	Recovery =	100.98%	104.73%

Target Compounds

9) tc Heptachlor E	13.07	12.98	1201.2E6	5019.5E6	52.774m	62.434m
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000

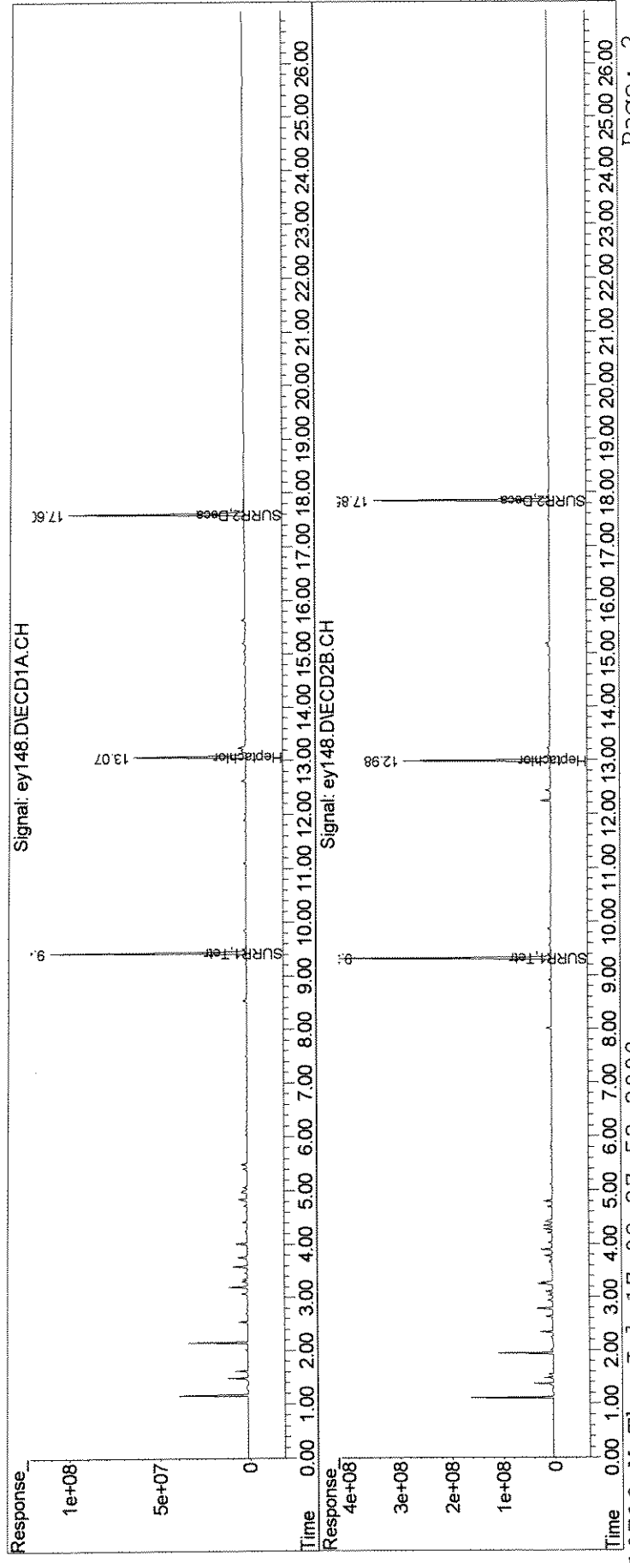
-----  
 (f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.



Data Path : J:\ACQUDATA\6890D\DATA\071608\  
Data File : ey148.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 17 Jul 2008 12:44 am  
Operator : M.PEDRO  
Sample : 1113698 1.0  
Misc : 07/01/08 208 ensr r44768 8081  
ALS Vial : 30 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 17 09:27:21 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 13:38:39 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STX-CLP Signal #2 Phase: STX-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

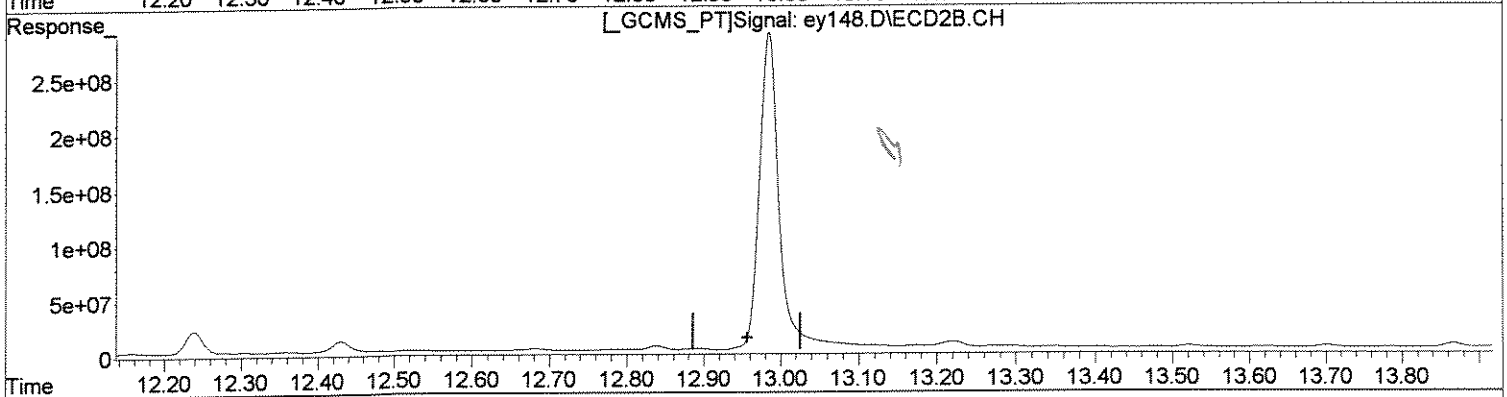
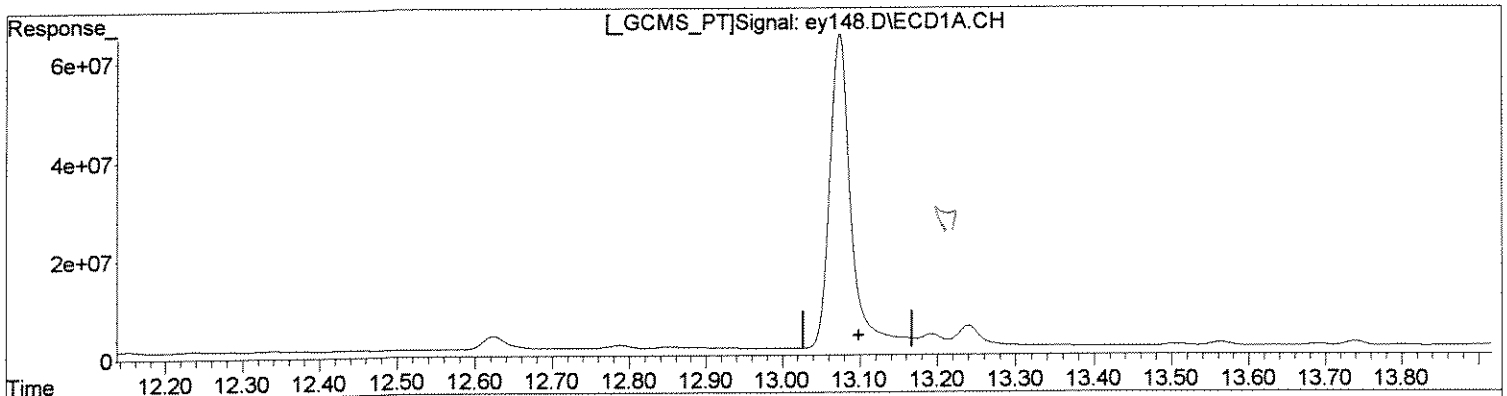


Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
Data File : ey148.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 17 Jul 2008 12:44 am  
Operator : M.PEDRO  
Sample : 1113698 1.0  
Misc : 07/01/08 208 ensr r44768 8081  
ALS Vial : 30 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 17 06:59:07 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 13:38:39 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



QEdit

(9) Heptachlor E (tc)  
0.00min 0.000ug/l  
response 0

(9) Heptachlor E #2 (tc)  
0.00min 0.000ug/l  
response 0

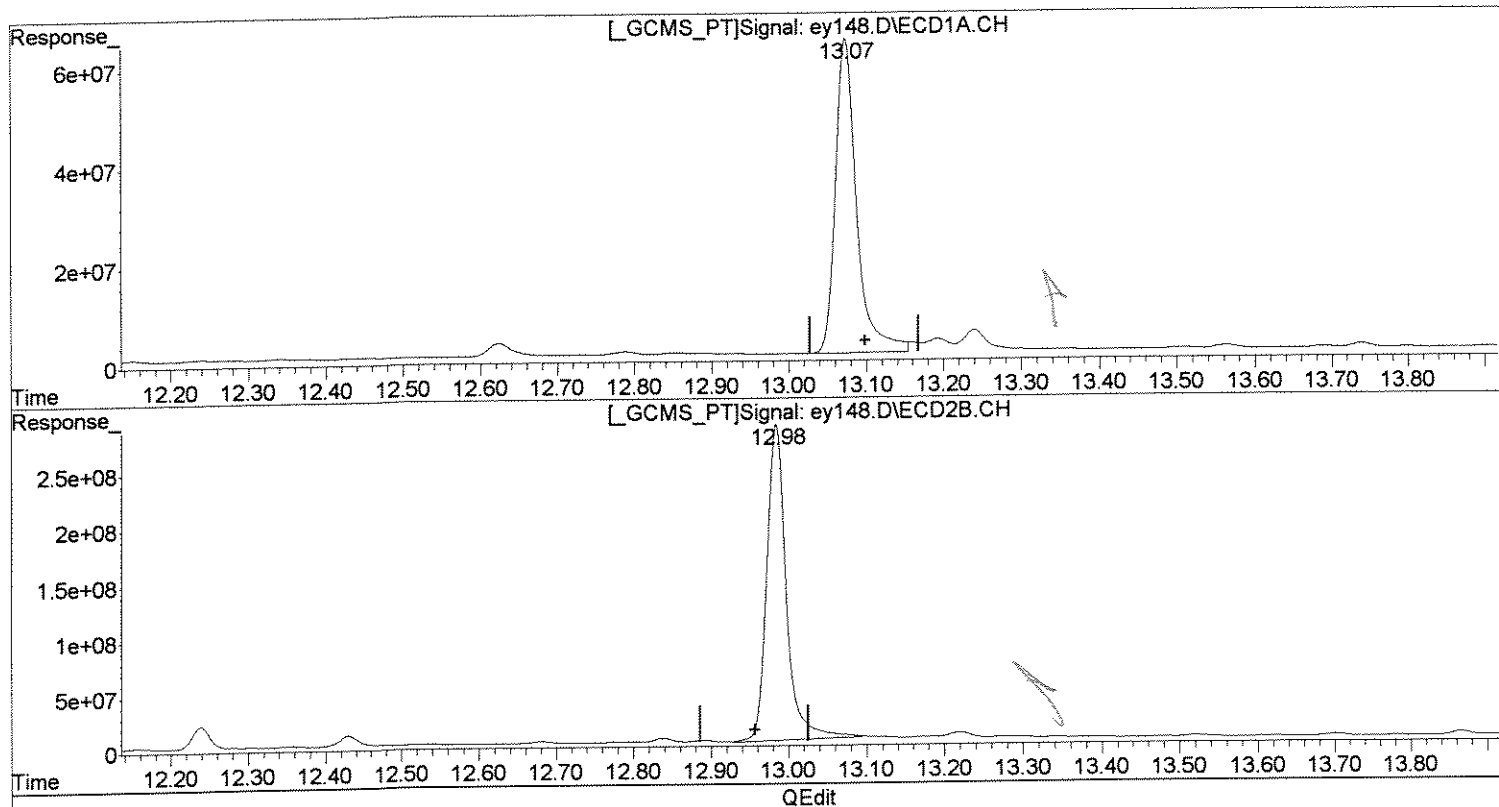
*PRC*

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
Data File : ey148.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 17 Jul 2008 12:44 am  
Operator : M.PEDRO  
Sample : 1113698 1.0  
Misc : 07/01/08 208 ensr r44768 8081  
ALS Vial : 30 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 17 06:59:07 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 13:38:39 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



(9) Heptachlor E (tc)  
13.07min 52.774ug/l m  
response 1201219241

(9) Heptachlor E #2 (tc)  
12.98min 62.434ug/l m  
response 5019470419

60/7/7

60/7/7

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
 Data File : EY148.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 17 Jul 2008 12:44 am  
 Operator : M.PEDRO  
 Sample : 1113698 1.0  
 Misc : 07/01/08 208 ensr r44768 8081  
 ALS Vial : 30 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 17 06:59:07 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/1	ug/1
-----						
System Monitoring Compounds						
1) S SURR1,Tetrac	9.43	9.32	1715.5E6	6548.9E6	85.007	80.931
Spiked Amount	100.000	Range	30 - 150	Recovery	= 85.01%	80.93%
25) S SURR2,Decachloro	17.60	17.85	1763.7E6	5768.1E6	100.984	104.731
Spiked Amount	100.000	Range	30 - 150	Recovery	= 100.98%	104.73%
Target Compounds						
2) TC HEXACHLORO BENZEN	10.13	10.14	5862520	17201526	0.199	0.142 #
3) tc alpha-BHC	10.42	10.40	19370805	28097747	0.627	0.237 #
4) tcm gamma-BHC (L	0.00	10.96	0	20780660	N.D.	0.198 #
5) tcm Heptachlor	0.00	11.66	0	64700471	N.D.	0.645 #
6) tcm Aldrin	0.00	12.09	0	21543577	N.D.	0.236 #
7) tc beta-BHC	11.10	11.11	25375156	18643982	2.210	0.413 #
8) tc delta-BHC	11.40	11.57	8947876	78455282	0.329	0.760 #
10) tc alpha-Endosu	13.69	13.52	10906714	70910388	0.533	0.999 #
11) tc gamma-Chlord	0.00	13.22	0	170.0E6	N.D.	2.072 #
13) tc 4,4'-DDE	13.56	13.70	20095505	74766895	0.923	0.975
14) tcm Dieldrin	0.00	13.91	0	32625962	N.D.	0.417 #
15) tcm Endrin	14.40	14.34	21450108	17909242	1.035	0.266 #
17) tc beta-Endosul	14.74	14.66	2531153	38028806	0.136	0.592 #
19) tcm 4,4'-DDT	0.00	14.96	0	79703691	N.D.	1.217 #
20) tc Endrin Aldehy	15.36	15.18	7995077	154.6E6	0.545	3.151 #
26) L8C Toxaphene	14.81	14.80	33025931	11950296	82.800	6.176 #
27) L8C Toxaphene {2}	0.00	15.08	0	25377070	N.D.	28.129 #
28) L8C Toxaphene {3}	0.00	15.18	0	154.6E6	N.D.	82.677 #
29) L8C Toxaphene {4}	0.00	16.43	0	25311573	N.D.	13.142 #
30) L8C Toxaphene {5}	16.55	16.68	17609718	4461987	26.456	1.977 #
Sum Toxaphene			50635649	221.7E6	109.256	132.101
Average Toxaphene					54.628	26.420
31) L9C Chlordane	11.61	0.00	3737618	0	4.688	N.D. #
32) L9C Chlordane {2}	0.00	11.66	0	64700471	N.D.	14.379 #
33) L9C Chlordane {3}	0.00	12.36	0	25769523	N.D.	7.199 #

*original*

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
 Data File : EY148.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 17 Jul 2008 12:44 am  
 Operator : M.PEDRO  
 Sample : 1113698 1.0  
 Misc : 07/01/08 208 ensr r44768 8081  
 ALS Vial : 30 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 17 06:59:07 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

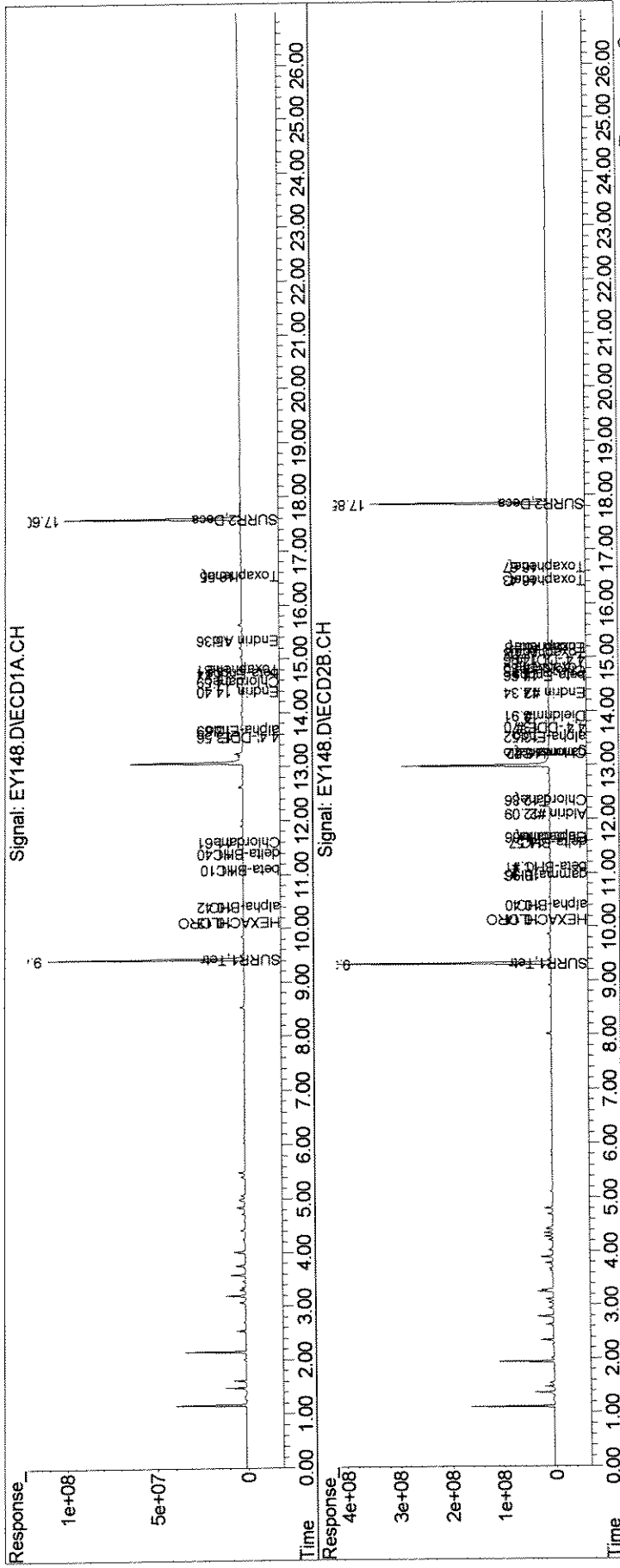
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
4) L9C Chlordane{4}	0.00	13.22	0	170.0E6	N.D.	16.960 #
5) L9C Chlordane{5}	14.59	14.76	6497615	10694736	6.954	3.032 #
Sum Chlordane			10235233	271.1E6	11.642	41.570
Average Chlordane					5.821	10.393

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
Data File : EY148.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 17 Jul 2008 12:44 am  
Operator : M.PEDRO  
Sample : 1113698 1.0  
Misc : 07/01/08 208 ensr r44768 8081  
ALS Vial : 30 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 17 06:59:07 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 13:38:39 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STX-CLP Signal #2 Phase: STX-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



COLUMBIA ANALYTICAL SERVICES

EXTRACTABLE ORGANICS  
 METHOD 8081A.NEVA  
 Reported: 07/30/08

ENSR International

Project Reference: TRONOX PHASE B INVESTIGATION PROJ# 04020-023-4312

Client Sample ID : M-14ABF

Date Sampled : 06/30/08 10:38 Order #: 1113699 Sample Matrix: WATER  
 Date Received: 07/01/08 Submission #: R2844768 Analytical Run 164027

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED	: 07/01/08		
DATE ANALYZED	: 07/17/08		
ANALYTICAL DILUTION:	1.00		
ALDRIN	0.047	0.047 U	UG/L
ALPHA-BHC	0.047	0.047 U	UG/L
BETA-BHC	0.047	0.047 U	UG/L
GAMMA-BHC	0.047	0.047 U	UG/L
DELTA-BHC	0.047	0.047 U	UG/L
ALPHA-CHLORDANE	0.047	0.047 U	UG/L
GAMMA-CHLORDANE	0.047	0.047 U	UG/L
CHLORDANE	0.24	0.24 U	UG/L
4,4'-DDE	0.047	0.047 U	UG/L
4,4'-DDT	0.047	0.047 U	UG/L
DIELDRIN	0.094	0.094 U	UG/L
ALPHA-ENDOSULFAN	0.047	0.047 U	UG/L
BETA-ENDOSULFAN	0.094	0.094 U	UG/L
ENDOSULFAN SULFATE	0.094	0.094 U	UG/L
ENDRIN	0.047	0.047 U	UG/L
ENDRIN ALDEHYDE	0.094	0.094 U	UG/L
ENDRIN KETONE	0.094	0.094 U	UG/L
HEPTACHLOR	0.047	0.047 U	UG/L
HEPTACHLOR EPOXIDE	0.047	0.13	UG/L
HEXACHLORO BENZENE	0.047	0.047 U	UG/L
METHOXYCHLOR	0.47	0.47 U	UG/L
4,4'-TDE (DDD)	0.047	0.047 U	UG/L
TOXAPHENE	0.94	0.94 U	UG/L

SURROGATE RECOVERIES

QC LIMITS

DECACHLOROBIPHENYL (DCB)	(40 - 140 %)	84	%
TETRACHLORO-META-XYLENE	(40 - 140 %)	68	%

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
 Data File : ey149.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 17 Jul 2008 1:20 am  
 Operator : M.PEDRO  
 Sample : 1113699 1.0  
 Misc : 07/01/08 212 ensr r44768 8081  
 ALS Vial : 31 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 17 09:31:42 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
-----						
System Monitoring Compounds						
1) S SURR1,Tetrac	9.43	9.32	1367.5E6	5357.8E6	67.763	66.211
Spiked Amount	100.000	Range 30 - 150	Recovery =		67.76%	66.21%
25) S SURR2,Decachloro	17.61	17.85	1394.5E6	4626.1E6	79.846	83.995
Spiked Amount	100.000	Range 30 - 150	Recovery =		79.85%	84.00%
Target Compounds						
9) tc Heptachlor E	13.07	12.98	563.8E6	2259.7E6	24.769	28.107m
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
-----						

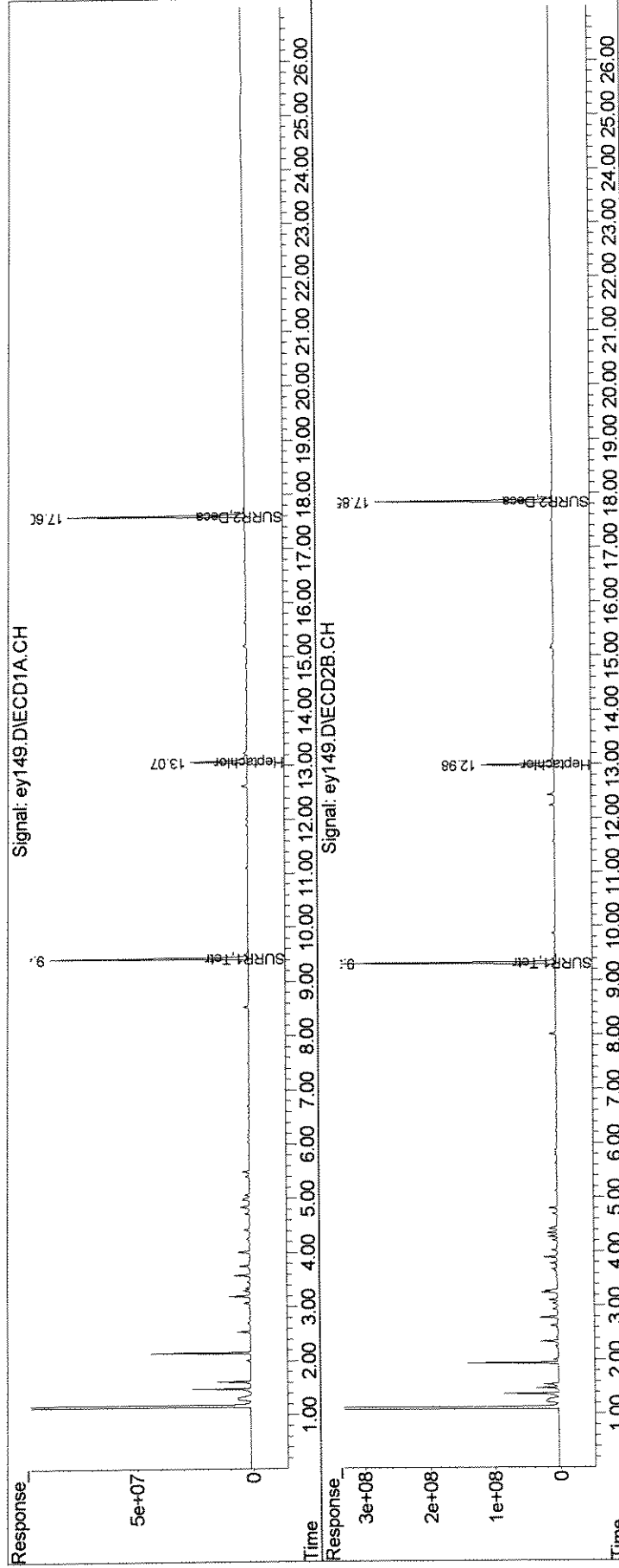
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.



Data Path : J:\ACQDATA\6890D\DATA\071608\  
Data File : ey149.D  
Signal(s) : Signal #1: ECDIA.CH Signal #2: ECD2B.CH  
Acq On : 17 Jul 2008 1:20 am  
Operator : M.PEDRO  
Sample : 1113699 1.0  
Misc : 07/01/08 212 ensr r44768 8081  
ALS Vial : 31 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 17 09:31:42 2008  
Quant Method : J:\ACQDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 13:38:39 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STX-CLP Signal #2 Phase: STX-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

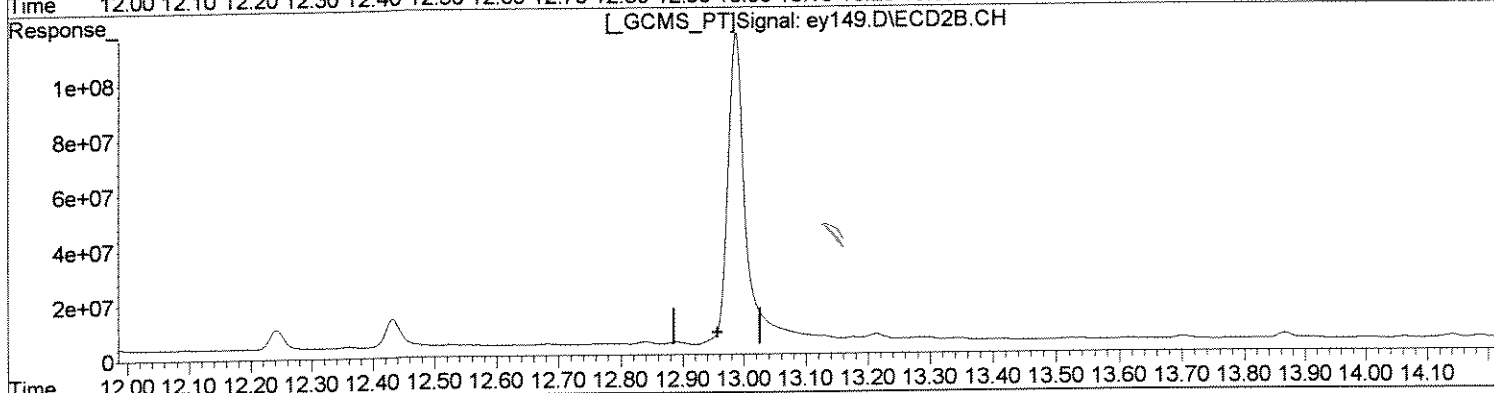
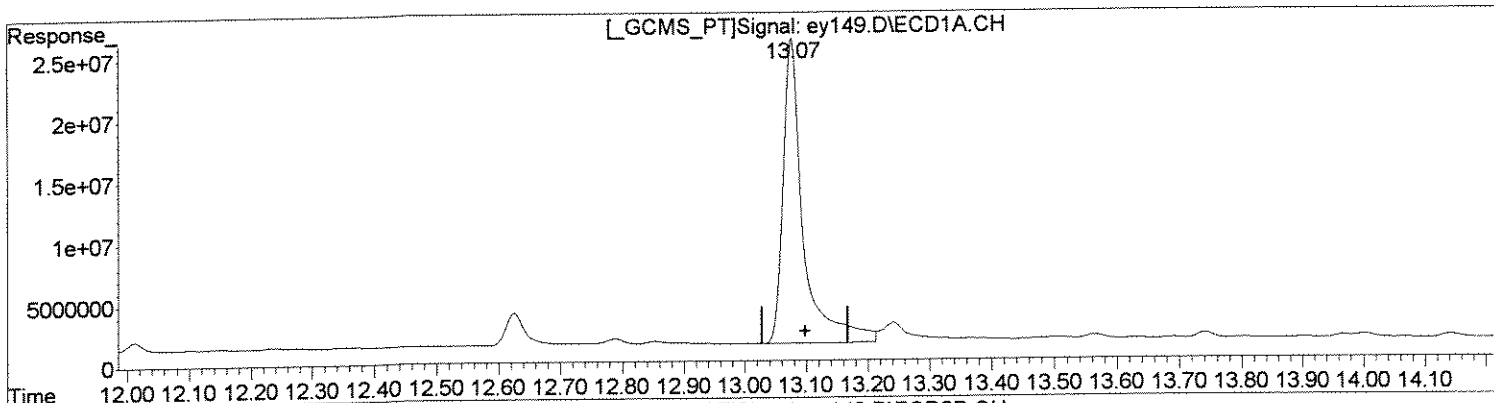


Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
Data File : ey149.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 17 Jul 2008 1:20 am  
Operator : M.PEDRO  
Sample : 1113699 1.0  
Misc : 07/01/08 212 ensr r44768 8081  
ALS Vial : 31 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 17 06:59:14 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 13:38:39 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



(9) Heptachlor E (tc)  
13.07min 24.769ug/l  
response 563778057

(9) Heptachlor E #2 (tc)  
0.00min 0.000ug/l  
response 0

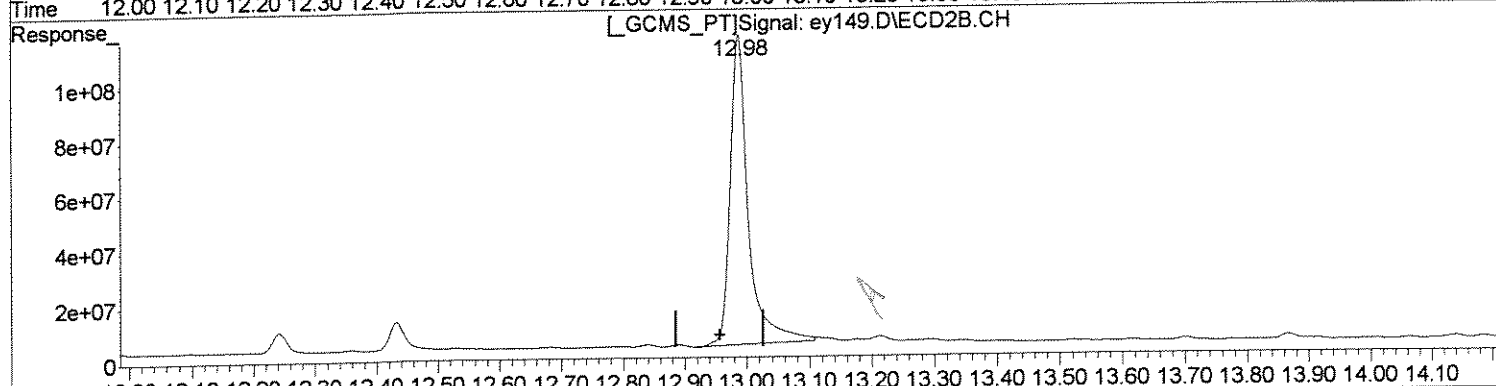
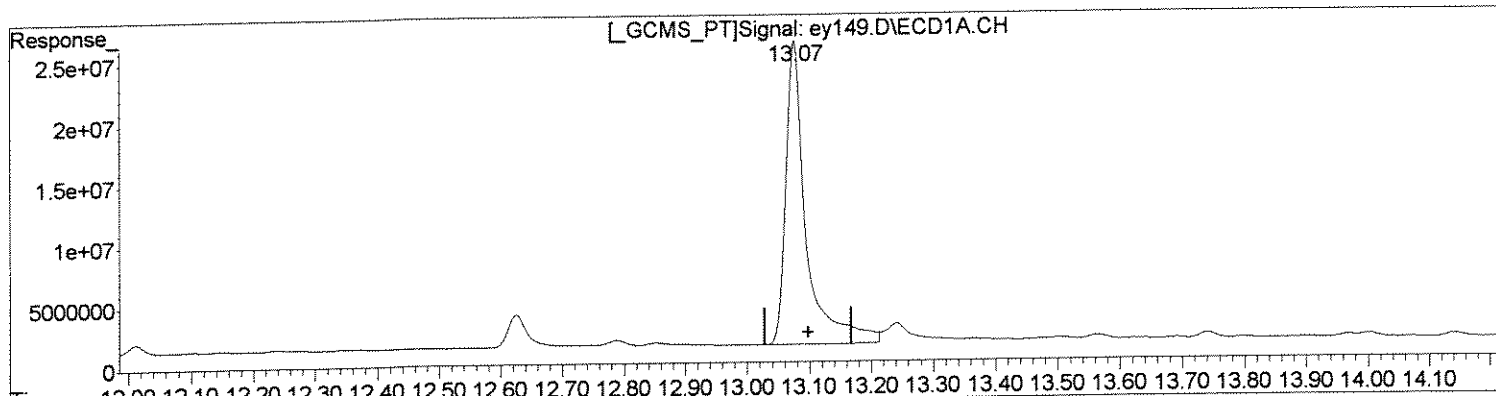
*PC*

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
Data File : ey149.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 17 Jul 2008 1:20 am  
Operator : M.PEDRO  
Sample : 1113699 1.0  
Misc : 07/01/08 212 ensr r44768 8081  
ALS Vial : 31 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 17 06:59:14 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 13:38:39 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



QEdit

(9) Heptachlor E (tc)  
13.07min 24.769ug/l  
response 563778057

(9) Heptachlor E #2 (tc)  
12.98min 28.107ug/l m  
response 2259691632

*Handwritten signature*

*Handwritten signature*

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
 Data File : EY149.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 17 Jul 2008 1:20 am  
 Operator : M.PEDRO  
 Sample : 1113699 1.0  
 Misc : 07/01/08 212 ensr r44768 8081  
 ALS Vial : 31 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 17 06:59:14 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/1	ug/1
----------	------	------	--------	--------	------	------

System Monitoring Compounds							
1) S	SURR1,Tetrac	9.43	9.32	1367.5E6	5357.8E6	67.763	66.211
	Spiked Amount	100.000	Range 30 - 150	Recovery =		67.76%	66.21%
25) S	SURR2,Decachloro	17.61	17.85	1394.5E6	4626.1E6	79.846	83.995
	Spiked Amount	100.000	Range 30 - 150	Recovery =		79.85%	84.00%

Target Compounds							
		RT#1	RT#2	Resp#1	Resp#2	ug/1	ug/1
2) TC	HEXACHLORO BENZEN	10.13	10.14	5822638	36831323	0.198	0.303 #
3) tc	alpha-BHC	10.42	10.40	9842773	14600592	0.318	0.123 #
4) tcm	gamma-BHC (L	0.00	10.96	0	14632118	N.D.	0.139 #
5) tcm	Heptachlor	11.72	11.65	14130992	21205939	0.506	0.211 #
6) tcm	Aldrin	0.00	12.09	0	13181407	N.D.	0.145 #
7) tc	beta-BHC	11.10	11.11	20379434	17630560	1.775	0.391 #
8) tc	delta-BHC	0.00	11.57	0	56486233	N.D.	0.547 #
9) tc	Heptachlor E	13.07	0.00	563.8E6	0	24.769	N.D. #
10) tc	alpha-Endosu	0.00	13.52	0	37353725	N.D.	0.526 #
11) tc	gamma-Chlord	0.00	13.21	0	80141952	N.D.	0.977 #
13) tc	4,4'-DDE	13.56	13.70	11154974	47177654	0.512	0.615
14) tcm	Dieldrin	0.00	13.91	0	20364480	N.D.	0.260 #
15) tcm	Endrin	14.40	14.34	8393733	9003600	0.405	0.134 #
17) tc	beta-Endosul	0.00	14.66	0	17561083	N.D.	0.274 #
19) tcm	4,4'-DDT	0.00	14.96	0	34604550	N.D.	0.528 #
20) tc	Endrin Aldeh	0.00	15.18	0	72927099	N.D.	1.487 #
26) L8C	Toxaphene	14.82	14.76	13912947	9886413	34.881	5.110 #
27) L8C	Toxaphene {2}	0.00	15.08	0	4938326	N.D.	5.474 #
28) L8C	Toxaphene {3}	0.00	15.18	0	72927099	N.D.	39.011 #
29) L8C	Toxaphene {4}	0.00	16.44	0	9539416	N.D.	4.953 #
30) L8C	Toxaphene {5}	16.55	16.68	9690230	3923740	14.558	1.739 #
	Sum Toxaphene			23603177	101.2E6	49.440	56.286
	Average Toxaphene					24.720	11.257

32) L9C	Chlordane {2}	11.72	11.65	14130992	21205939	12.544	4.713 #
33) L9C	Chlordane {3}	0.00	12.36	0	16541802	N.D.	4.621 #

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
 Data File : EY149.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 17 Jul 2008 1:20 am  
 Operator : M.PEDRO  
 Sample : 1113699 1.0  
 Misc : 07/01/08 212 ensr r44768 8081  
 ALS Vial : 31 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 17 06:59:14 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
4) L9C Chlordane{4}	0.00	13.21	0	80141952	N.D.	7.997 #
5) L9C Chlordane{5}	0.00	14.76	0	9886413	N.D.	2.803 #
Sum Chlordane			14130992	127.8E6	12.544	20.134
Average Chlordane					12.544	5.033

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.



**PESTICIDES**  
**STANDARDS DATA**

**Calibration Level Concentrations  
Columbia Analytical Services**

Analyte	Calib Mix	Level 1 ppb	Level 2 ppb	Level 3 ppb	Level 4 ppb	Level 5 ppb
alpha-BHC	Ind A	80	40	20	10	5
gamma-BHC	Ind A	80	40	20	10	5
DDD	Ind A	160	80	40	20	10
DDT	Ind A	160	80	40	20	10
Dieldrin	Ind A	160	80	40	20	10
alpha-Endosulfan	Ind A	80	40	20	10	5
Endrin	Ind A	160	80	40	20	10
Heptachlor	Ind A	80	40	20	10	5
Methoxychlor	Ind A	800	400	200	100	50
Surr.-DCB	Ind A	160	80	40	20	10
Surr.-TCMX	Ind A	80	40	20	10	5
Aldrin	Ind B	80	40	20	10	5
beta-BHC	Ind B	80	40	20	10	5
delta-BHC	Ind B	80	40	20	10	5
DDE	Ind B	160	80	40	20	10
alpha-Chlordane	Ind B	80	40	20	10	5
gamma-Chlordane	Ind B	80	40	20	10	5
beta-Endosulfan	Ind B	160	80	40	20	10
Endosulfan Sulfate	Ind B	160	80	40	20	10
Endrin Aldehyde	Ind B	160	80	40	20	10
Endrin Ketone	Ind B	160	80	40	20	10
Heptachlor Epoxide	Ind B	80	40	20	10	5
Surr.-DCB	Ind B	160	80	40	20	10
Surr.-TCMX	Ind B	80	40	20	10	5
PCB 1016	1016/1260	1000	750	500	750	100
PCB 1221	1221	1000		500		100
PCB 1232	1232	1000		500		100
PCB 1242	1242	1000		500		100
PCB 1248	1248	1000		500		100
PCB 1254	1254	1000		500		100
PCB 1260	1016/1260	1000	750	500	750	100
Chlordane	Chlor	500	250	100	50	25
Toxaphene	Tox	1000	750	500	250	100
Hexachlorobenzene	K/F/HCB	100	80	50	20	5
Kepone	K/F/HCB	2500	2000	1500	1000	500
Famphur	K/F/HCB	500	400	300	200	100



## Pesticide Initial Calibration of Multicomponent Analytes

Lab Name: Columbia Analytical Services Client: ENSR  
 Lab Code: 10145 Case.No.: R2844768 SAS No.: \_\_\_\_\_ SDG No.: M-79B  
 Instrument ID: 6890D Date Analyzed: 7/10/2008

GC Column(1) STx-CLP (ID): 0.32mm 30 GC Column(2) STx-CLPII (ID): 0.32mm 30

Compound	RT	RT Window		RT	RT Window	
		From	To		From	To
SURR1,Tetrac	9.44	9.39	9.49	9.32	9.27	9.37
HEXACHLOROBEN	10.13	10.06	10.20	10.14	10.07	10.21
alpha-BHC	10.44	10.39	10.49	10.40	10.35	10.45
gamma-BHC (L	10.97	10.92	11.02	10.97	10.92	11.02
Heptachlor	11.73	11.68	11.78	11.64	11.59	11.69
Aldrin	12.18	12.13	12.23	12.12	12.07	12.17
beta-BHC	11.12	11.07	11.17	11.12	11.07	11.17
delta-BHC	11.40	11.35	11.45	11.56	11.51	11.61
Heptachlor E	13.10	13.03	13.17	12.96	12.89	13.03
alpha-Endosu	13.68	13.61	13.75	13.52	13.45	13.59
gamma-Chlord	13.28	13.21	13.35	13.23	13.16	13.30
alpha-Chlord	13.48	13.41	13.55	13.44	13.37	13.51
4,4'-DDE	13.58	13.51	13.65	13.68	13.61	13.75
Dieldrin	14.03	13.96	14.10	13.91	13.84	13.98
Endrin	14.38	14.31	14.45	14.36	14.29	14.43
KEPONE	14.44	14.37	14.51	14.52	14.45	14.59
beta-Endosul	14.72	14.65	14.79	14.66	14.59	14.73
4,4'-DDD	14.46	14.39	14.53	14.50	14.43	14.57
4,4'-DDT	14.87	14.80	14.94	14.96	14.89	15.03
Endrin Aldeh	15.35	15.28	15.42	15.16	15.09	15.23
Endosulfan S	15.99	15.92	16.06	15.57	15.50	15.64
Methoxychlor	15.57	15.50	15.64	15.93	15.86	16.00
FAMPHUR	16.26	16.19	16.33	15.66	15.59	15.73
Endrin Keton	16.38	16.31	16.45	16.32	16.25	16.39
SURR2,Decachlorobip	17.62	17.52	17.72	17.86	17.76	17.96
Toxaphene	14.80	14.73	14.87	14.78	14.71	14.85
Toxaphene	14.89	14.82	14.96	15.06	14.99	15.13
Toxaphene	15.50	15.43	15.57	15.17	15.10	15.24

*Pesticide Initial Calibration of Multicomponent Analytes*Lab Name: Columbia Analytical ServicesClient: ENSRLab Code: 10145Case.No.: R2844768SAS No.: \_\_\_\_\_ SDG No.: M-79BInstrument ID: 6890DDate Analyzed: 7/10/2008GC Column(1) STx-CLP (ID): 0.32mm 30GC Column(2) STx-CLPII (ID): 0.32mm 30

Compound	RT	RT Window		RT	RT Window	
		From	To		From	To
Toxaphene	16.35	16.28	16.42	16.45	16.38	16.52
Toxaphene	16.54	16.47	16.61	16.68	16.61	16.75
Chlordane	11.60	11.53	11.67	11.42	11.35	11.49
Chlordane	11.72	11.65	11.79	11.64	11.57	11.71
Chlordane	12.40	12.33	12.47	12.35	12.28	12.42
Chlordane	13.28	13.21	13.35	13.23	13.16	13.30
Chlordane	14.61	14.54	14.68	14.73	14.66	14.80

Response Factor Report 6890D

Method Path : J:\ACQUDATA\6890D\METHODS\  
 Method File : 80810710.M  
 Title : 608/8081A PESTICIDES  
 Last Update : Fri Jul 11 13:38:39 2008  
 Response Via : Initial Calibration

Calibration Files

1 =ey040.D 2 =ey039.D 3 =ey038.D  
 4 =ey037.D 5 =ey036.D

Compound	1	2	3	4	5	Avg		%RSD
1) S SURR1,Tetrac	2.072	2.066	2.024	1.987	1.942	2.018	E7	2.71
2) TC HEXACHLOROBENZENE	2.817	2.786	2.862	2.968	3.259	2.939	E7	6.52
3) tc alpha-BHC	3.302	3.265	3.139	2.984	2.768	3.092	E7	7.11
4) tcm gamma-BHC (L	2.976	2.938	2.850	2.754	2.586	2.821	E7	5.55
5) tcm Heptachlor	2.869	2.879	2.823	2.756	2.645	2.794	E7	3.45
6) tcm Aldrin	2.616	2.561	2.501	2.432	2.270	2.476	E7	5.40
7) tc beta-BHC	1.184	1.149	1.125	1.129	1.155	1.148	E7	2.05
8) TC delta-BHC	2.941	2.850	2.743	2.620	2.445	2.720	E7	7.16
9) tc Heptachlor E	2.339	2.306	2.283	2.266	2.187	2.276	E7	2.49
10) tc alpha-Endosu	2.119	2.103	2.050	2.009	1.950	2.046	E7	3.38
11) tc gamma-Chlord	2.316	2.242	2.182	2.143	2.080	2.192	E7	4.14
12) tc alpha-Chlord	2.241	2.177	2.125	2.116	2.036	2.139	E7	3.57
13) tc 4,4'-DDE	2.269	2.251	2.198	2.153	2.020	2.178	E7	4.58
14) tcm Dieldrin	2.352	2.377	2.323	2.249	2.121	2.284	E7	4.51
15) tcm Endrin	2.149	2.161	2.099	2.033	1.916	2.072	E7	4.86
16) tc KEPONE	7.245	7.448	7.866	7.073	6.947	7.316	E6	4.93
17) tc beta-Endosul	1.931	1.900	1.869	1.853	1.742	1.859	E7	3.88
18) tc 4,4'-DDD	1.881	1.866	1.760	1.771	1.719	1.799	E7	3.92
19) tcm 4,4'-DDT	2.037	2.006	1.955	1.837	1.733	1.914	E7	6.60
20) tc Endrin Aldeh	1.537	1.491	1.478	1.442	1.391	1.468	E7	3.72
21) tc Endosulfan S	1.752	1.713	1.683	1.647	1.628	1.685	E7	2.96
22) tc Methoxychlor	9.056	9.410	9.489	9.446	9.163	9.313	E6	2.05
23) tc FAMPHUR	1.368	1.349	1.381	1.304	1.382	1.357	E7	2.39
24) tc Endrin Keton	2.016	1.980	1.941	1.908	1.837	1.936	E7	3.56
25) S SURR2,Decachlorobiphe	1.734	1.736	1.755	1.766	1.742	1.747	E7	0.77
26) L8C Toxaphene	4.434	4.272	3.868	3.906	3.463	3.989	E5	9.52
27) L8C Toxaphene {2}	3.697	3.864	3.135	3.774	3.318	3.558	E5	8.84
28) L8C Toxaphene {3}	7.460	7.255	6.396	6.539	6.003	6.730	E5	9.05
29) L8C Toxaphene {4}	9.022	8.758	7.774	8.004	7.368	8.185	E5	8.42
30) L8C Toxaphene {5}	7.460	7.237	6.348	6.466	5.771	6.656	E5	10.35
31) L9C Chlordane	8.222	8.007	7.903	7.812	7.920	7.973	E5	1.95
32) L9C Chlordane {2}	1.179	1.149	1.126	1.094	1.085	1.127	E6	3.45
33) L9C Chlordane {3}	0.995	0.995	1.027	1.049	1.091	1.032	E6	3.91
34) L9C Chlordane {4}	2.933	2.863	2.781	2.689	2.568	2.767	E6	5.19
35) L9C Chlordane {5}	0.936	0.908	0.903	0.912	1.013	0.934	E6	4.89

ignal #2 Calibration Files

1 =ey040.D 2 =ey039.D 3 =ey038.D  
 4 =ey037.D 5 =ey036.D

Compound	1	2	3	4	5	Avg		%RSD
1) S SURR1,Tetrac	7.722	8.021	8.178	8.344	8.194	8.092	E7	2.92
2) TC HEXACHLOROBENZENE	1.091	1.102	1.164	1.247	1.473	1.215	E8	12.91
3) tc alpha-BHC	1.167	1.201	1.209	1.205	1.152	1.187	E8	2.16
4) tcm gamma-BHC (L	1.039	1.066	1.068	1.063	1.017	1.051	E8	2.11

Method Path : J:\ACQUADATA\6890D\METHODS\  
 Method File : 80810710.M  
 Title : 608/8081A PESTICIDES  
 Last Update : Fri Jul 11 13:38:39 2008  
 Response Via : Initial Calibration

## Calibration Files

1 =ey040.D 2 =ey039.D 3 =ey038.D  
 4 =ey037.D 5 =ey036.D

Compound	1	2	3	4	5	Avg		%RSD
5) tcm Heptachlor	0.926	0.986	1.022	1.051	1.034	1.004	E8	4.93
6) tcm Aldrin	8.862	9.134	9.278	9.316	8.957	9.109	E7	2.17
7) tc beta-BHC	4.450	4.441	4.510	4.601	4.563	4.513	E7	1.54
8) tc delta-BHC	1.034	1.047	1.050	1.042	0.989	1.032	E8	2.43
9) tc Heptachlor E	7.618	7.923	8.147	8.351	8.159	8.040	E7	3.48
10) tc alpha-Endosu	6.804	7.099	7.297	7.140	7.146	7.097	E7	2.55
11) tc gamma-Chlord	8.117	8.221	8.259	8.266	8.150	8.203	E7	0.81
12) tc alpha-Chlord	7.719	7.783	7.826	7.857	7.650	7.767	E7	1.08
13) tc 4,4'-DDE	7.386	7.671	7.821	7.877	7.571	7.665	E7	2.58
14) tcm Dieldrin	7.354	7.810	7.994	8.121	7.844	7.824	E7	3.72
15) tcm Endrin	6.563	6.793	7.048	6.649	6.624	6.736	E7	2.88
16) tc KEPONE	2.256	2.407	2.395	2.230	2.209	2.299	E7	4.10
17) tc beta-Endosul	6.154	6.331	6.503	6.602	6.508	6.420	E7	2.77
18) tc 4,4'-DDD	6.062	6.278	6.298	6.323	6.159	6.224	E7	1.78
19) tcm 4,4'-DDT	6.535	6.671	6.661	6.603	6.284	6.551	E7	2.42
20) tc Endrin Aldeh	4.818	4.862	4.983	4.998	4.864	4.905	E7	1.64
21) tc Endosulfan S	5.632	5.698	5.796	5.809	5.638	5.715	E7	1.48
22) tc Methoxychlor	2.716	2.870	2.958	3.012	2.971	2.905	E7	4.06
23) tc FAMPHUR	4.121	4.088	4.210	4.030	4.443	4.178	E7	3.87
24) tc Endrin Keton	6.216	6.287	6.363	6.362	6.138	6.273	E7	1.55
25) S SURR2,Decachlorobiphe	5.395	5.447	5.563	5.537	5.595	5.508	E7	1.52
26) L8C Toxaphene	2.033	1.991	1.807	1.906	1.938	1.935	E6	4.46
27) L8C Toxaphene {2}	9.668	9.405	8.550	8.957	8.529	9.022	E5	5.64
28) L8C Toxaphene {3}	1.999	1.959	1.763	1.849	1.778	1.869	E6	5.67
29) L8C Toxaphene {4}	2.069	2.028	1.810	1.898	1.825	1.926	E6	6.10
30) L8C Toxaphene {5}	2.473	2.422	2.144	2.217	2.026	2.256	E6	8.34
31) L9C Chlordane	3.231	3.241	3.261	3.234	3.199	3.233	E6	0.69
32) L9C Chlordane {2}	4.448	4.552	4.594	4.512	4.391	4.500	E6	1.80
33) L9C Chlordane {3}	3.379	3.475	3.609	3.661	3.775	3.580	E6	4.34
34) L9C Chlordane {4}	1.009	1.020	1.023	0.991	0.967	1.002	E7	2.32
35) L9C Chlordane {5}	3.528	3.483	3.445	3.420	3.761	3.527	E6	3.87

(#) = Out of Range

Quantitation Report (QT Reviewed)

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
 Data File : EY036.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 10 Jul 2008 4:22 pm  
 Operator : M.PEDRO  
 Sample : indal  
 Misc : initial cal  
 ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 11 13:17:54 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 10:59:43 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

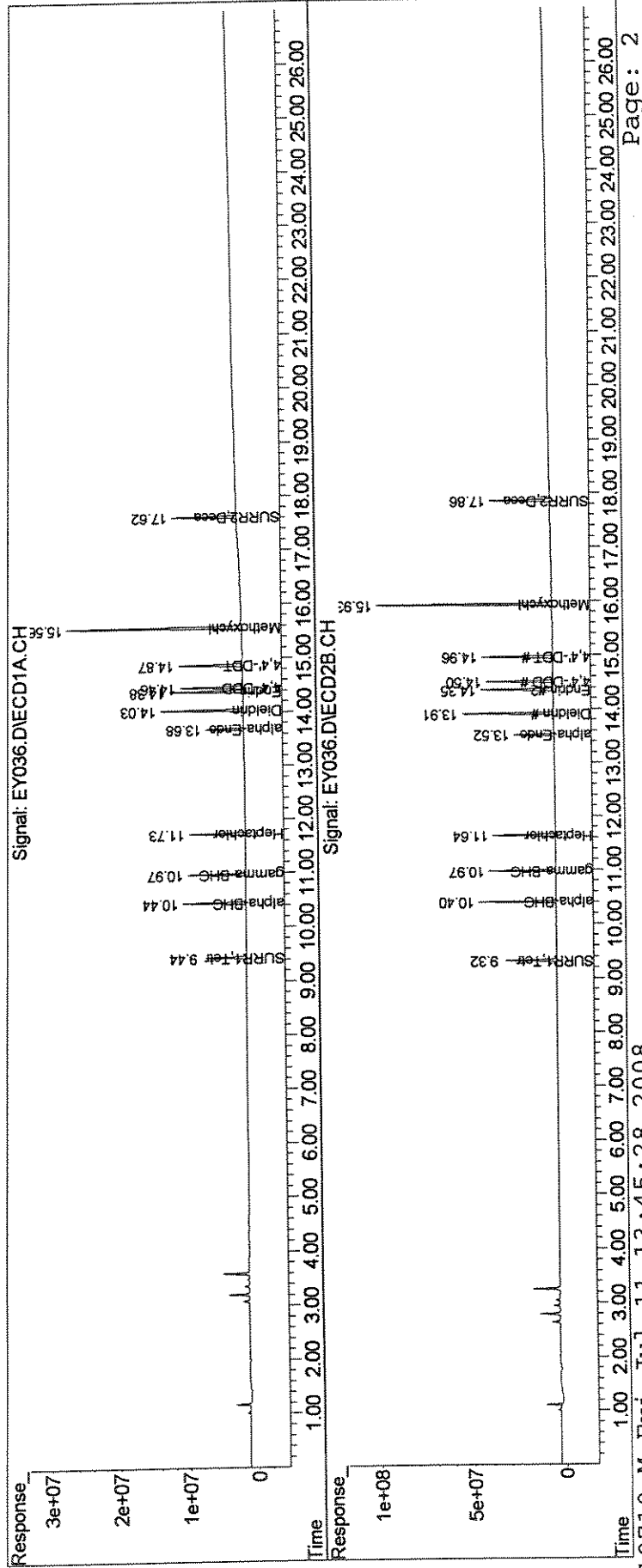
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
1) S SURR1,Tetrac	9.44	9.32	97082202	409.7E6	5.262	6.970 #
Spiked Amount	100.000	Range	30 - 150	Recovery =	5.26%#	6.97%#
5) S SURR2,Decachloro	17.62	17.86	174.2E6	559.5E6	10.180m	12.981m#
Spiked Amount	100.000	Range	30 - 150	Recovery =	10.18%#	12.98%#
Target Compounds						
3) tc alpha-BHC	10.44	10.40	138.4E6	576.0E6	4.848	6.467 #
4) tcm gamma-BHC (L)	10.97	10.97	129.3E6	508.5E6	4.985	6.292 #
5) tcm Heptachlor	11.73	11.64	132.3E6	516.8E6	5.003	6.513 #
0) tc alpha-Endosu	13.68	13.52	97505664	357.3E6	4.903	6.274 #
4) tcm Dieldrin	14.03	13.91	212.1E6	784.4E6	9.521	12.848 #
5) tcm Endrin	14.38	14.36	191.6E6	662.4E6	9.496	11.954 #
8) tc 4,4'-DDD	14.46	14.50	171.9E6	615.9E6	10.160	13.495 #
9) tcm 4,4'-DDT	14.87	14.96	173.3E6	628.4E6	9.367	12.977 #
2) tc Methoxychlor	15.57	15.93	458.1E6	1485.3E6	52.469	69.532 #
Sum Toxaphene			0	0	N.D.	N.D.
verage Toxaphene					0.000	0.000
Sum Chlordane			0	0	N.D.	N.D.
verage Chlordane					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
 Data File : EY036.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 10 Jul 2008 4:22 pm  
 Operator : M.PEDRO  
 Sample : indal  
 Misc : initial cal  
 ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 11 13:17:54 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 10:59:43 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STX-CLP Signal #2 Phase: STX-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

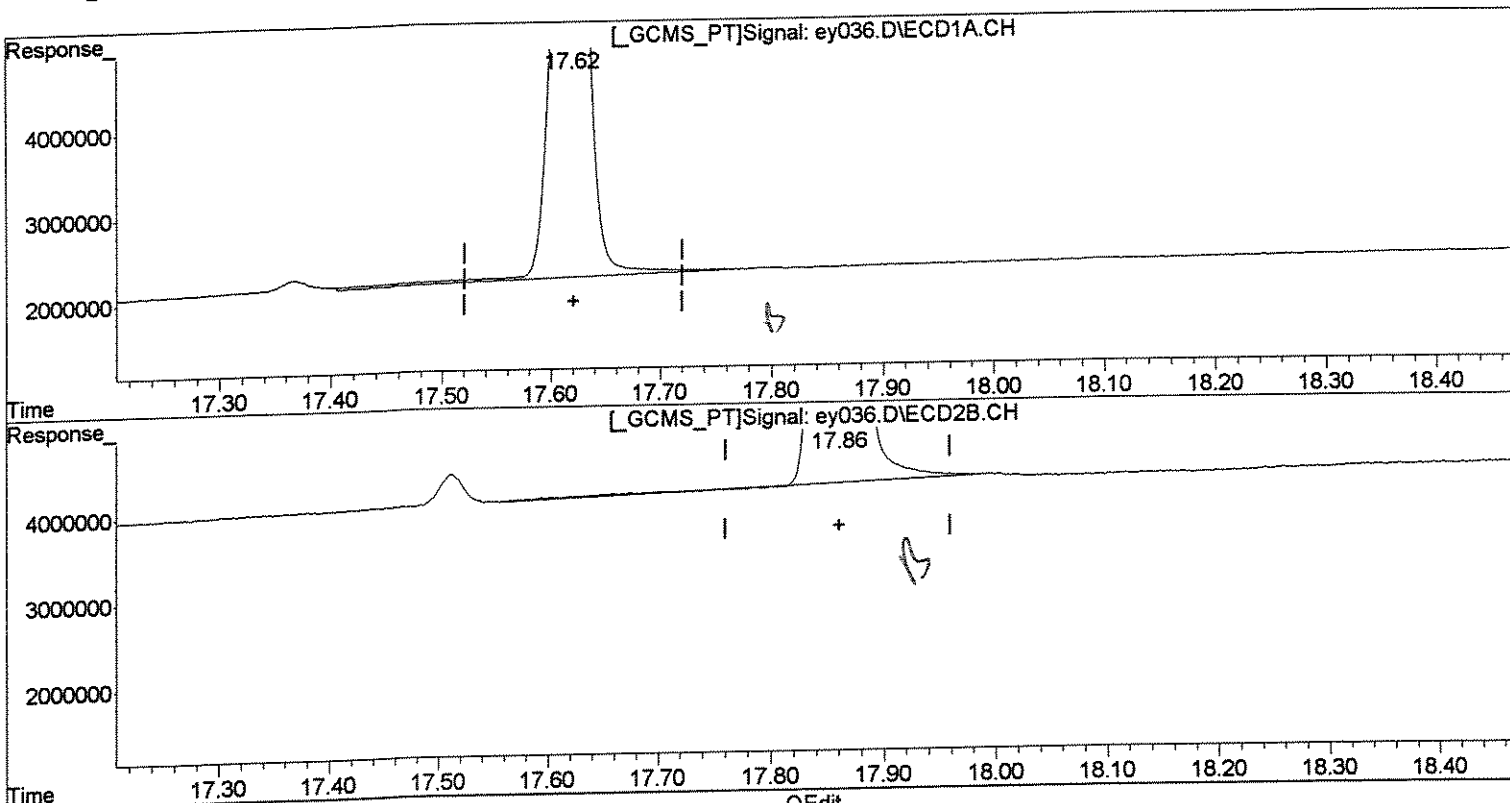


Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
 Data File : ey036.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 10 Jul 2008 4:22 pm  
 Operator : M.PEDRO  
 Sample : indal  
 Misc : initial cal  
 ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 11 11:00:18 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 10:59:43 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



(25) SURR2,Decachlorobiphenyl (S)  
 17.62min 10.429ug/l  
 response 178455978

(25) SURR2,Decachlorobiphenyl #2 (S)  
 17.86min 12.928ug/l  
 response 557208848

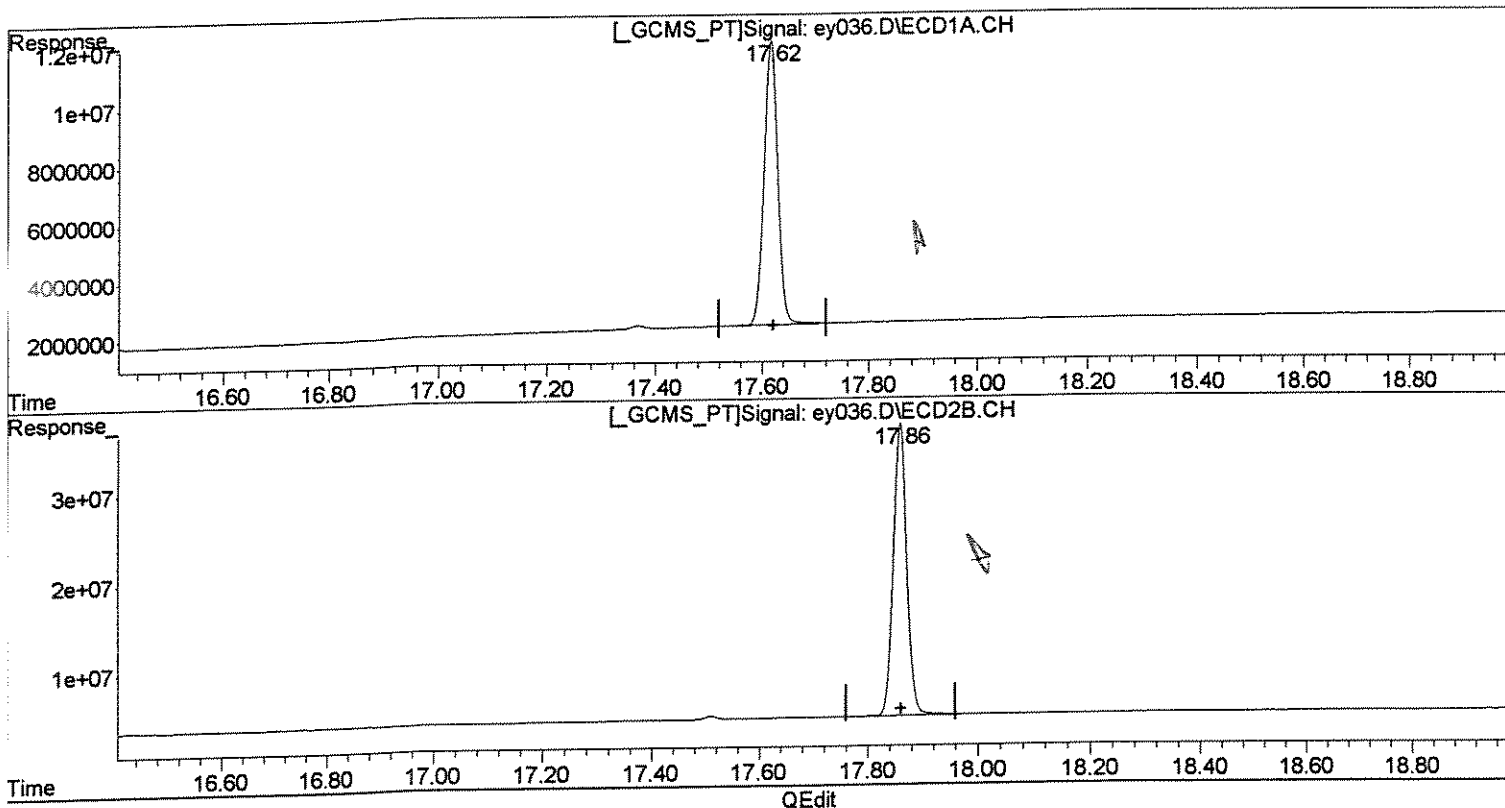
*back*

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
Data File : ey036.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 10 Jul 2008 4:22 pm  
Operator : M.PEDRO  
Sample : indal  
Misc : initial cal  
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 11 11:00:18 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 10:59:43 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



(25) SURR2,Decachlorobiphenyl (S)  
17.62min 10.180ug/l m  
response 174185870

(25) SURR2,Decachlorobiphenyl #2 (S)  
17.86min 12.981ug/l m  
response 559510438

*Handwritten notes:*  
17.62  
17.86  
MW 7/11



Data Path : J:\ACQUADATA\6890D\DATA\071008\  
 Data File : EY037.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 10 Jul 2008 4:58 pm  
 Operator : M.PEDRO  
 Sample : indaml  
 Misc : initial cal  
 ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 11 13:18:33 2008  
 Quant Method : J:\ACQUADATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 10:59:43 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

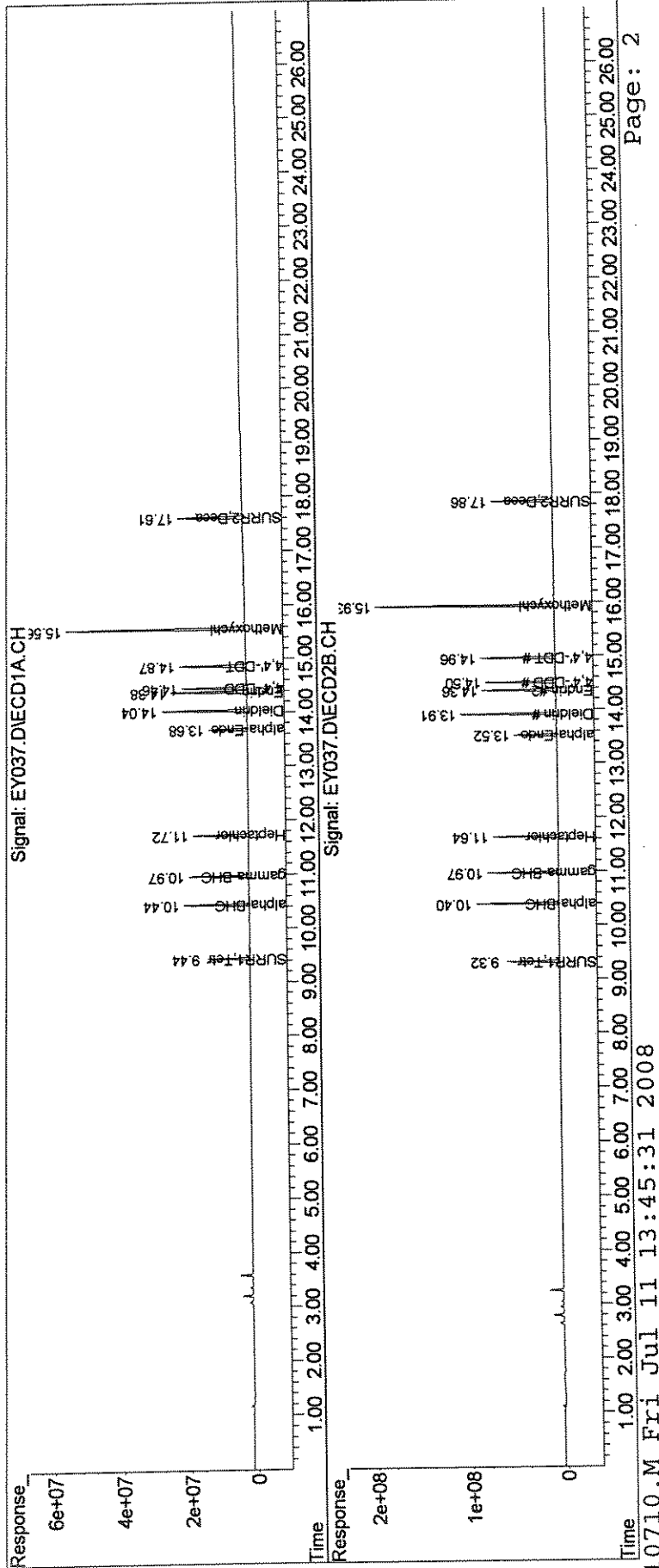
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/1	ug/1
-----						
System Monitoring Compounds						
1) S SURR1,Tetrac	9.44	9.32	198.7E6	834.4E6	10.772	14.196 #
Spiked Amount	100.000	Range 30 -	150	Recovery =	10.77%#	14.20%#
5) S SURR2,Decachloro	17.62	17.86	353.1E6	1107.5E6	20.637	25.694 #
Spiked Amount	100.000	Range 30 -	150	Recovery =	20.64%#	25.69%#
Target Compounds						
3) tc alpha-BHC	10.44	10.40	298.4E6	1204.8E6	10.456	13.526 #
4) tcm gamma-BHC (L	10.97	10.97	275.4E6	1063.5E6	10.615	13.159
5) tcm Heptachlor	11.73	11.64	275.6E6	1050.7E6	10.424	13.242 #
0) tc alpha-Endosu	13.68	13.52	200.9E6	714.0E6	10.099	12.537
4) tcm Dieldrin	14.04	13.91	449.8E6	1624.3E6	20.191	26.606 #
5) tcm Endrin	14.38	14.36	406.7E6	1329.9E6	20.155	23.998
8) tc 4,4'-DDD	14.46	14.50	354.2E6	1264.7E6	20.936	27.710 #
9) tcm 4,4'-DDT	14.87	14.96	367.4E6	1320.5E6	19.854	27.269 #
2) tc Methoxychlor	15.57	15.93	944.6E6	3012.0E6	108.184	141.000 #
Sum Toxaphene			0	0	N.D.	N.D.
verage Toxaphene					0.000	0.000
Sum Chlordane			0	0	N.D.	N.D.
verage Chlordane					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQDATA\6890D\DATA\071008\  
 Data File : EY037.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 10 Jul 2008 4:58 pm  
 Operator : M.PEDRO  
 Sample : indaml  
 Misc : initial cal  
 ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 11 13:18:33 2008  
 Quant Method : J:\ACQDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 10:59:43 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



80458

Quantitation Report (QT Reviewed)

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
 Data File : EY038.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 10 Jul 2008 5:33 pm  
 Operator : M.PEDRO  
 Sample : indam  
 Misc : initial cal  
 ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 11 13:19:21 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 10:59:43 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

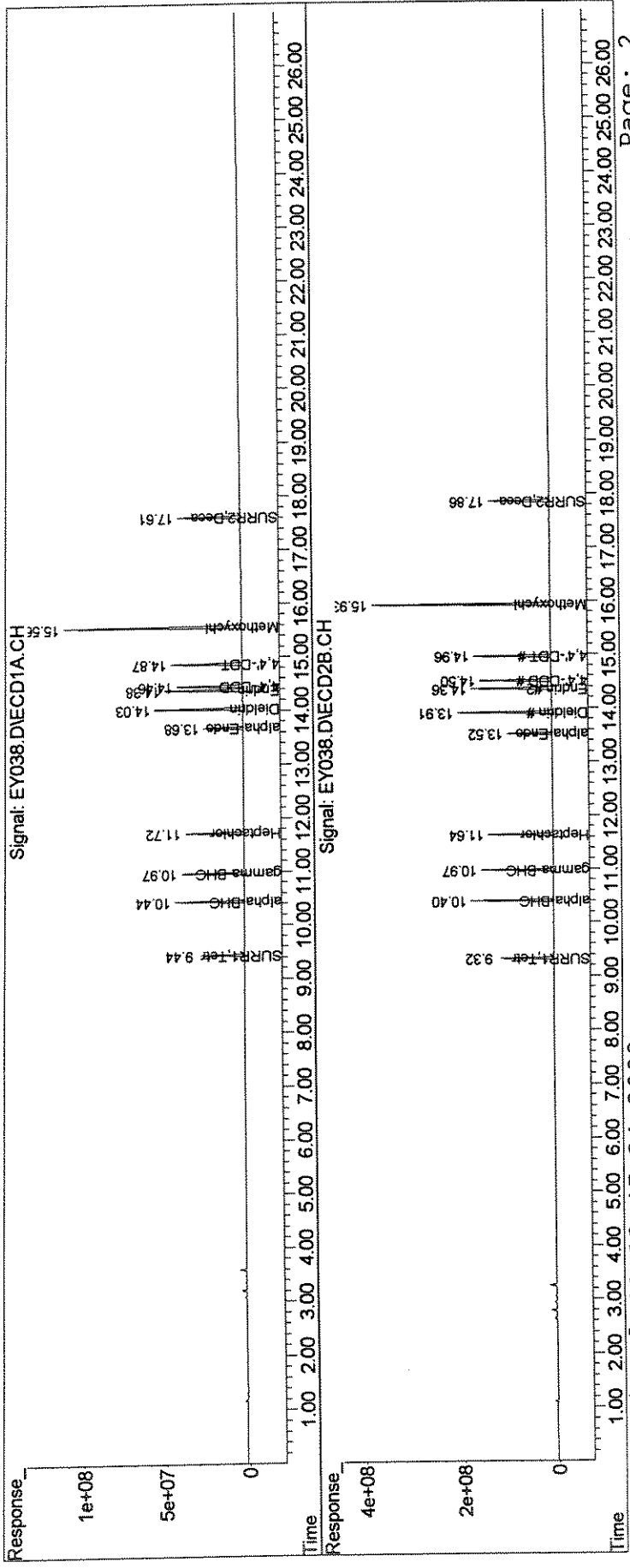
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
-----						
System Monitoring Compounds						
1) S SURR1,Tetrac	9.44	9.32	404.7E6	1635.7E6	21.936	27.829 #
Spiked Amount	100.000	Range 30 - 150	Recovery =		21.94%#	27.83%#
5) S SURR2,Decachloro	17.62	17.86	702.0E6	2225.3E6	41.028	51.629 #
Spiked Amount	100.000	Range 30 - 150	Recovery =		41.03%	51.63%
Target Compounds						
3) tc alpha-BHC	10.44	10.40	627.9E6	2417.9E6	21.999	27.144
4) tcm gamma-BHC (L	10.97	10.97	570.0E6	2135.3E6	21.973	26.420
5) tcm Heptachlor	11.72	11.64	564.6E6	2044.5E6	21.354	25.767
0) tc alpha-Endosu	13.68	13.52	410.0E6	1459.5E6	20.618	25.626
4) tcm Dieldrin	14.03	13.91	929.1E6	3197.5E6	41.702	52.376 #
5) tcm Endrin	14.38	14.36	839.8E6	2819.2E6	41.620	50.874
8) tc 4,4'-DDD	14.46	14.50	704.1E6	2519.1E6	41.617	55.197 #
9) tcm 4,4'-DDT	14.87	14.96	782.2E6	2664.4E6	42.268	55.020 #
2) tc Methoxychlor	15.57	15.93	1897.7E6	5916.8E6	217.348	276.977 #
Sum Toxaphene			0	0	N.D.	N.D.
verage Toxaphene					0.000	0.000
Sum Chlordane			0	0	N.D.	N.D.
verage Chlordane					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
 Data File : EY038.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 10 Jul 2008 5:33 pm  
 Operator : M.PEDRO  
 Sample : indam  
 Misc : initial cal  
 ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 11 13:19:21 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 10:59:43 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



80460

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
 Data File : EY039.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 10 Jul 2008 6:09 pm  
 Operator : M.PEDRO  
 Sample : indamh  
 Misc : initial cal  
 ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 11 13:20:06 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 10:59:43 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STX-CLP Signal #2 Phase: STX-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

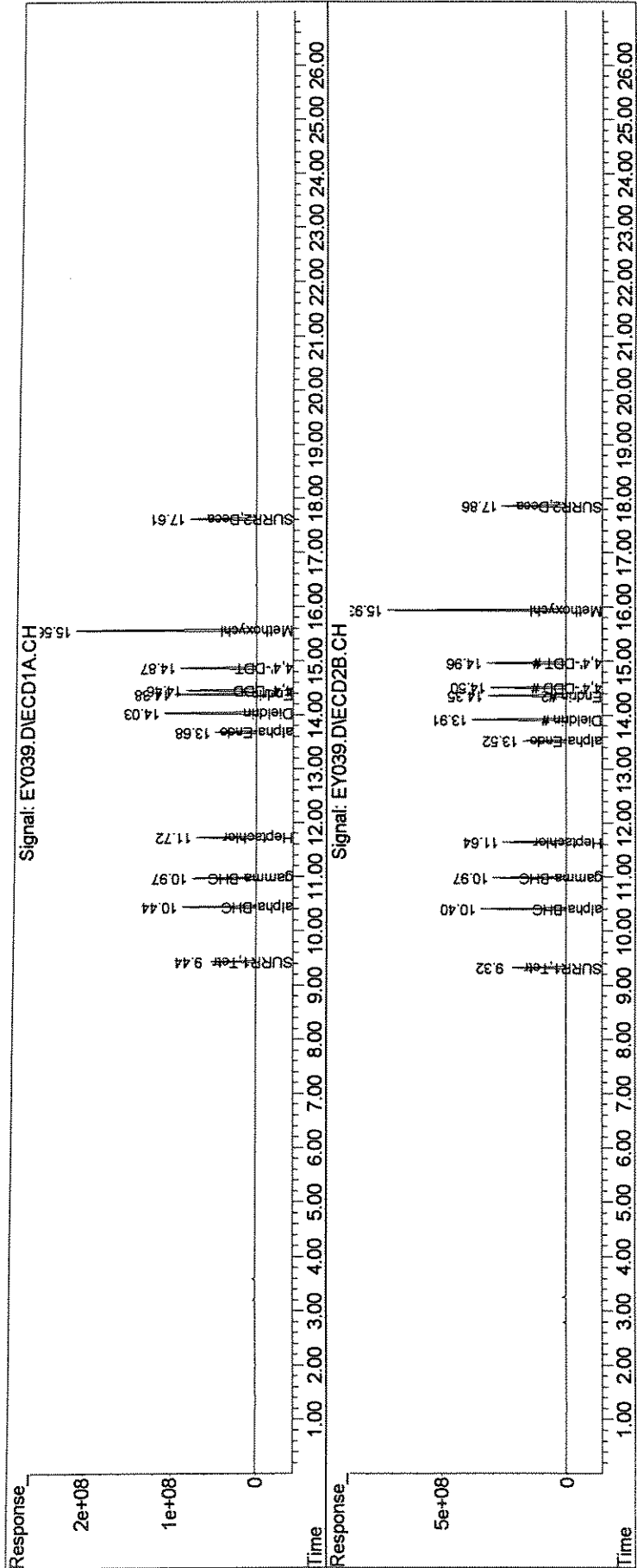
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
1) S SURR1,Tetrac	9.44	9.32	826.3E6	3208.5E6	44.783	54.588
Spiked Amount	100.000	Range	30 - 150	Recovery =	44.78%	54.59%
5) S SURR2,Decachloro	17.61	17.86	1388.6E6	4357.3E6	81.150	101.092
Spiked Amount	100.000	Range	30 - 150	Recovery =	81.15%	101.09%
Target Compounds						
3) tc alpha-BHC	10.44	10.40	1305.8E6	4804.3E6	45.751	53.935
4) tcm gamma-BHC (L	10.97	10.97	1175.0E6	4265.5E6	45.296	52.778
5) tcm Heptachlor	11.73	11.64	1151.4E6	3942.2E6	43.550	49.683
0) tc alpha-Endosu	13.68	13.52	841.0E6	2839.6E6	42.290	49.859
4) tcm Dieldrin	14.03	13.91	1901.4E6	6247.8E6	85.342	102.342
5) tcm Endrin	14.38	14.36	1729.0E6	5434.2E6	85.692	98.063
8) tc 4,4'-DDD	14.46	14.50	1492.8E6	5022.6E6	88.234	110.050
9) tcm 4,4'-DDT	14.87	14.96	1605.0E6	5336.8E6	86.732	110.206 #
2) tc Methoxychlor	15.56	15.93	3764.0E6	11479.8E6	431.095	537.392
Sum Toxaphene			0	0	N.D.	N.D.
verage Toxaphene					0.000	0.000
Sum Chlordane			0	0	N.D.	N.D.
verage Chlordane					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
 Data File : EY039.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 10 Jul 2008 6:09 pm  
 Operator : M.PEDRO  
 Sample : indamh  
 Misc : initial cal  
 ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 11 13:20:06 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 10:59:43 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



00462

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
 Data File : EY040.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 10 Jul 2008 6:44 pm  
 Operator : M.PEDRO  
 Sample : indah  
 Misc : initial cal  
 ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 11 13:20:46 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 10:59:43 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

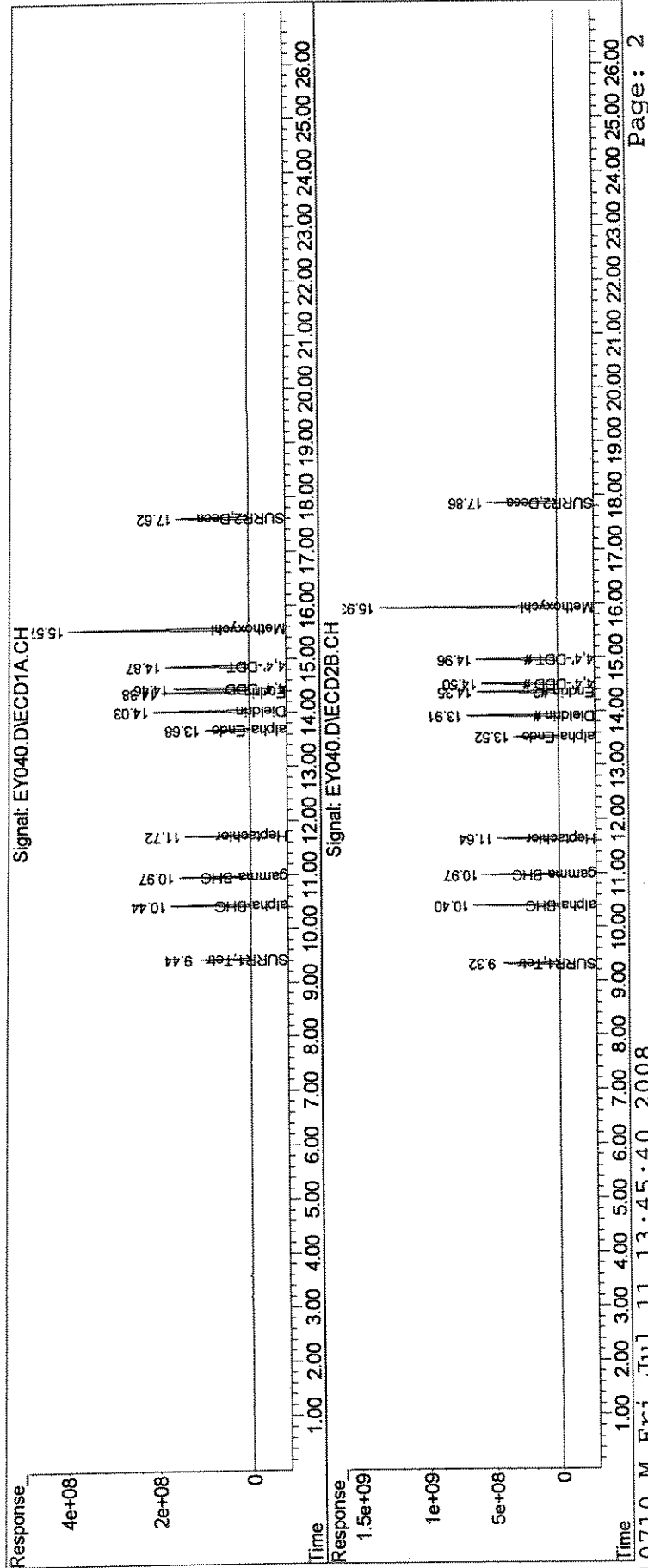
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
1) S SURR1, Tetrac	9.44	9.32	1657.4E6	6178.0E6	89.823	105.109
Spiked Amount	100.000	Range 30 - 150	Recovery =		89.82%	105.11%
5) S SURR2, Decachloro	17.62	17.86	2775.1E6	8632.3E6	162.184	200.274
Spiked Amount	100.000	Range 30 - 150	Recovery =		162.18%#	200.27%#
Target Compounds						
3) tc alpha-BHC	10.44	10.40	2641.8E6	9334.9E6	92.558	104.798
4) tcm gamma-BHC (L)	10.97	10.97	2380.5E6	8313.6E6	91.767	102.867
5) tcm Heptachlor	11.73	11.64	2295.6E6	7408.3E6	86.827	93.366
0) tc alpha-Endosu	13.68	13.52	1694.9E6	5442.9E6	85.223	95.567
4) tcm Dieldrin	14.03	13.91	3762.5E6	11766.0E6	168.877	192.732
5) tcm Endrin	14.38	14.35	3439.1E6	10501.3E6	170.446	189.499
8) tc 4,4'-DDD	14.46	14.50	3009.2E6	9698.6E6	177.865	212.505
9) tcm 4,4'-DDT	14.87	14.96	3258.9E6	10455.7E6	176.111	215.911
2) tc Methoxychlor	15.57	15.93	7245.1E6	21725.0E6	829.784	1016.991
Sum Toxaphene			0	0	N.D.	N.D.
verage Toxaphene					0.000	0.000
Sum Chlordane			0	0	N.D.	N.D.
verage Chlordane					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
 Data File : EY040.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 10 Jul 2008 6:44 pm  
 Operator : M.PEDRO  
 Sample : indah  
 Misc : initial cal  
 ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 11 13:20:46 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 10:59:43 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STX-CLP Signal #2 Phase: STX-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



00464



Quantitation Report (QT Reviewed)

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
 Data File : EY041.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 10 Jul 2008 7:20 pm  
 Operator : M.PEDRO  
 Sample : indbl  
 Misc : initial cal  
 ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 11 13:22:04 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 10:59:43 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

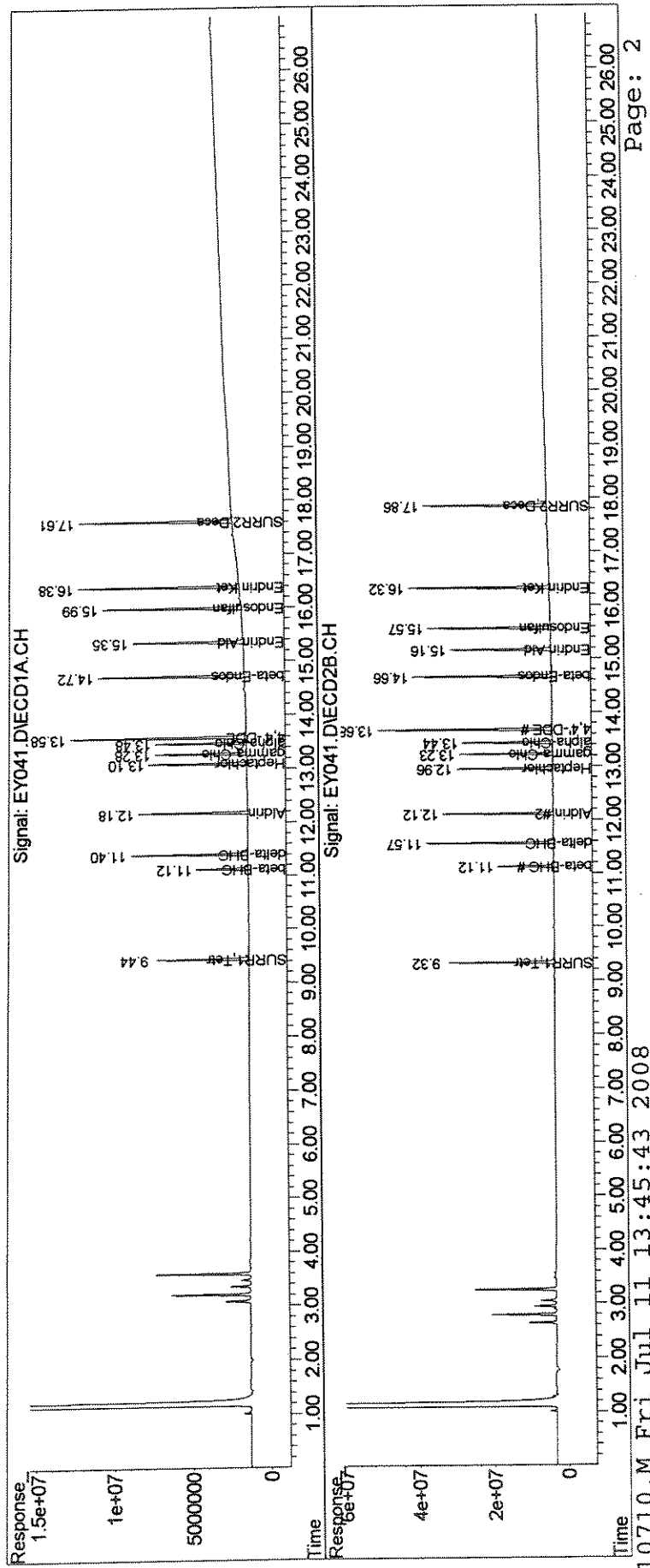
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
-----						
System Monitoring Compounds						
1) S SURR1,Tetrac	9.44	9.32	99289008	422.8E6	5.381	7.193 #
Spiked Amount	100.000	Range 30 - 150	Recovery =		5.38%#	7.19%#
5) S SURR2,Decachloro	17.61	17.86	177.6E6	573.0E6	10.382m	13.294m#
Spiked Amount	100.000	Range 30 - 150	Recovery =		10.38%#	13.29%#
Target Compounds						
6) tcm Aldrin	12.18	12.12	113.5E6	447.9E6	4.790	6.181 #
7) tc beta-BHC	11.12	11.12	57743920	228.1E6	5.349	6.651
8) tc delta-BHC	11.40	11.57	122.2E6	494.5E6	5.000	6.703 #
9) tc Heptachlor E	13.10	12.96	109.4E6	408.0E6	4.975	6.401 #
1) tc gamma-Chlord	13.28	13.23	104.0E6	407.5E6	4.916	6.441 #
2) tc alpha-Chlord	13.48	13.44	101.8E6	382.5E6	4.948	6.222 #
3) tc 4,4'-DDE	13.58	13.68	202.0E6	757.1E6	9.972	12.872 #
7) tc beta-Endosul	14.72	14.66	174.2E6	650.8E6	9.562	12.943 #
0) tc Endrin Aldeh	15.35	15.16	139.1E6	486.4E6	9.793	12.896 #
1) tc Endosulfan S	15.99	15.57	162.8E6	563.8E6	9.704	12.802 #
4) tc Endrin Keton	16.38	16.32	183.7E6	613.8E6	9.561m	12.523 #
Sum Toxaphene			0	0	N.D.	N.D.
verage Toxaphene					0.000	0.000
Sum Chlordane			0	0	N.D.	N.D.
verage Chlordane					0.000	0.000
-----						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
 Data File : EY041.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 10 Jul 2008 7:20 pm  
 Operator : M.PEDRO  
 Sample : indbl  
 Misc : initial cal  
 ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 11 13:22:04 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 10:59:43 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : STX-CLP Signal #2 Phase: STX-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



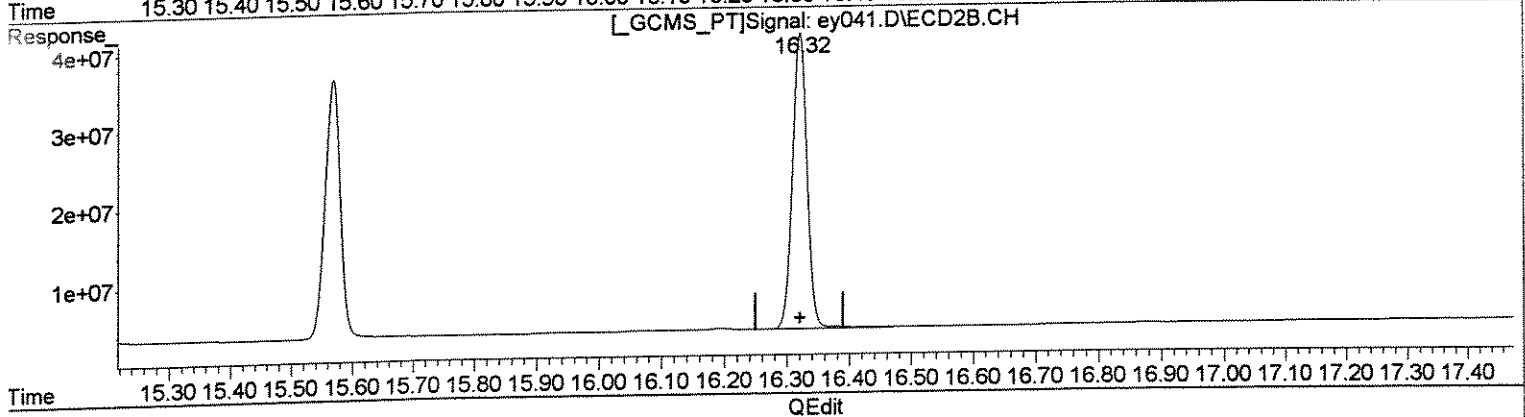
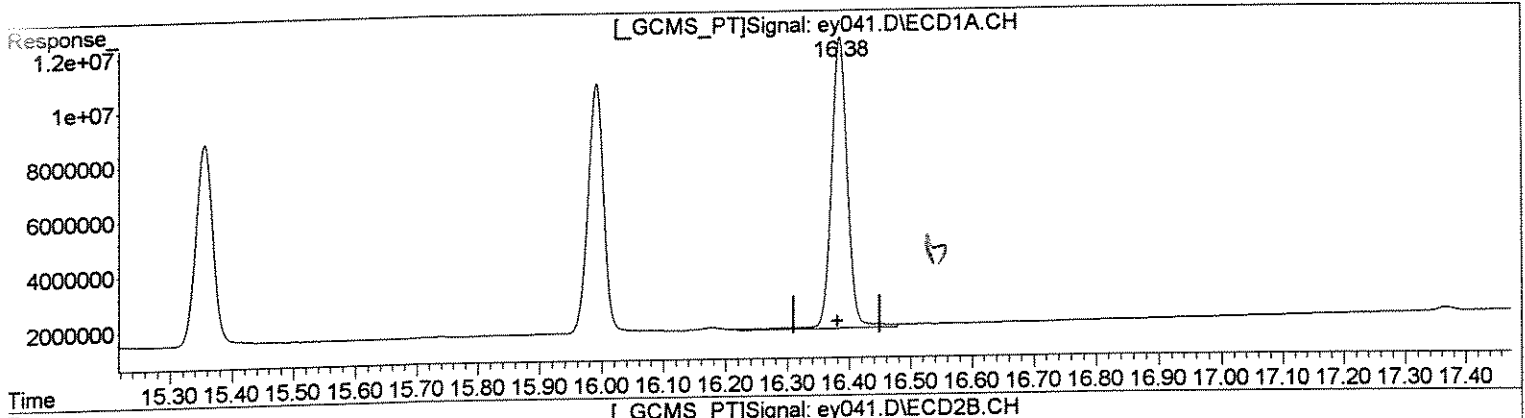
88455

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
Data File : ey041.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 10 Jul 2008 7:20 pm  
Operator : M.PEDRO  
Sample : indbl  
Misc : initial cal  
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 11 11:00:44 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 10:59:43 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



(24) Endrin Keton (tc)  
16.38min 9.960ug/l  
response 191325325

(24) Endrin Keton #2 (tc)  
16.32min 12.523ug/l  
response 613785726

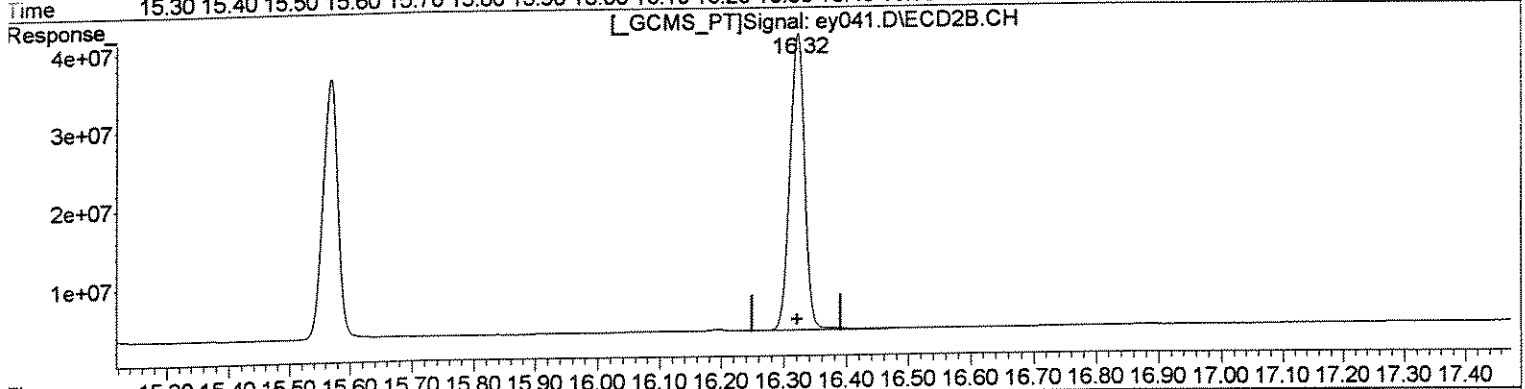
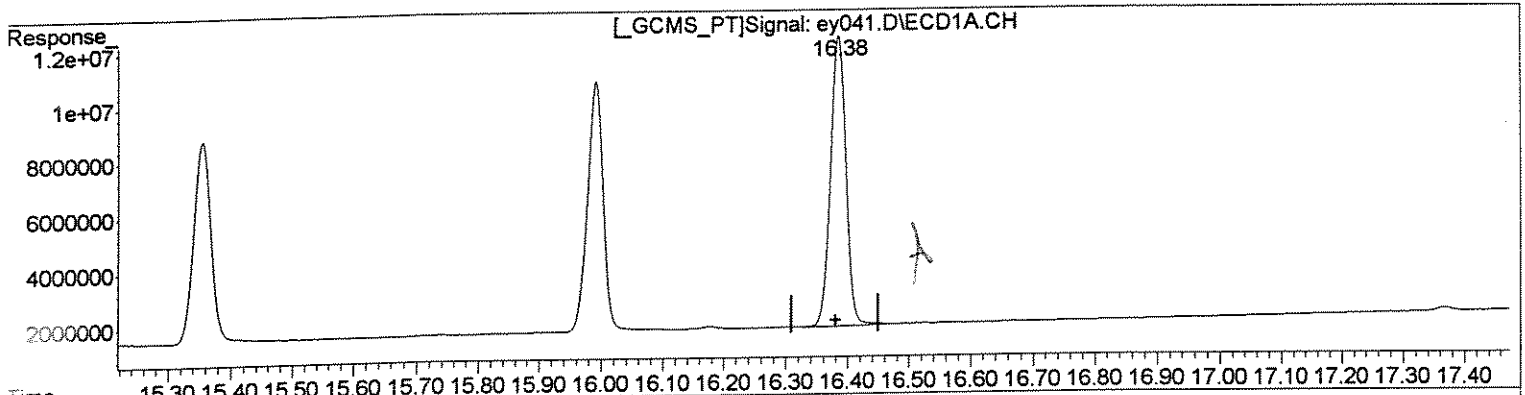
*Handwritten mark*

Quantitation Report (Qedit)

Data Path : J:\ACQUADATA\6890D\DATA\071008\  
Data File : ey041.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 10 Jul 2008 7:20 pm  
Operator : M.PEDRO  
Sample : indbl  
Misc : initial cal  
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 11 11:00:44 2008  
Quant Method : J:\ACQUADATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 10:59:43 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



(24) Endrin Keton (tc)  
16.38min 9.561ug/l m  
response 183675443

*MW 7/11*

*MW 7/14*

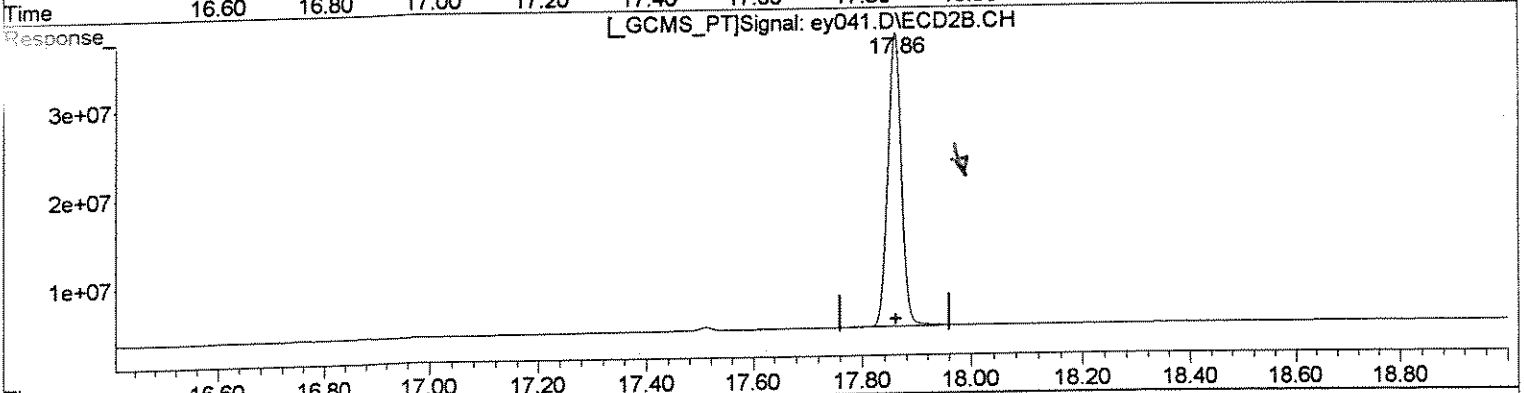
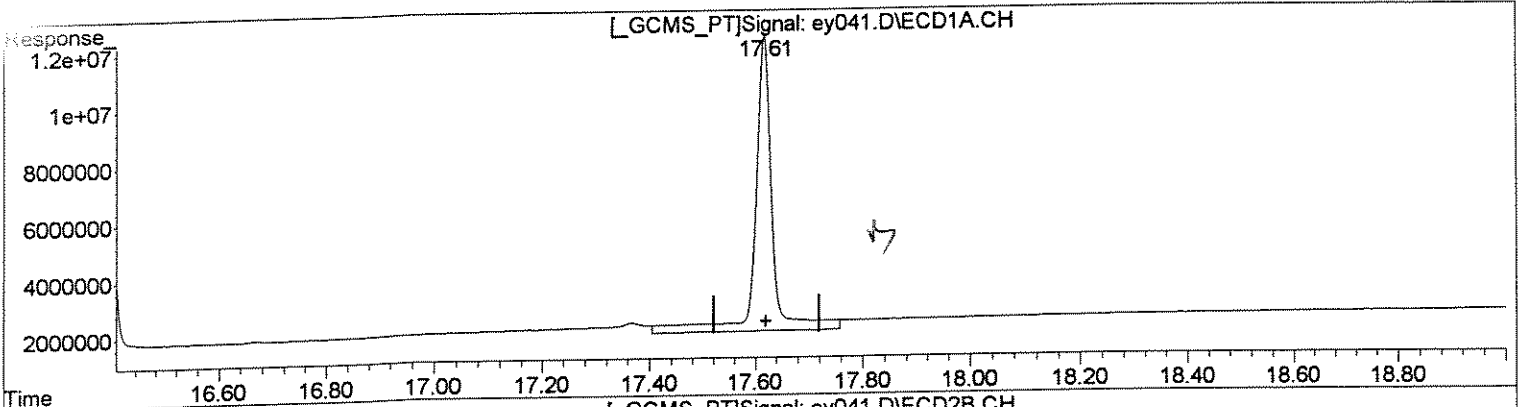
(24) Endrin Keton #2 (tc)  
16.32min 12.523ug/l  
response 613785726

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
Data File : ey041.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 10 Jul 2008 7:20 pm  
Operator : M.PEDRO  
Sample : indbl  
Misc : initial cal  
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 11 11:00:44 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 10:59:43 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



(25) SURRE2,Decachlorobiphenyl (S)  
17.61min 13.991ug/l  
response 239397924

(25) SURRE2,Decachlorobiphenyl #2 (S)  
17.86min 13.256ug/l  
response 571352336

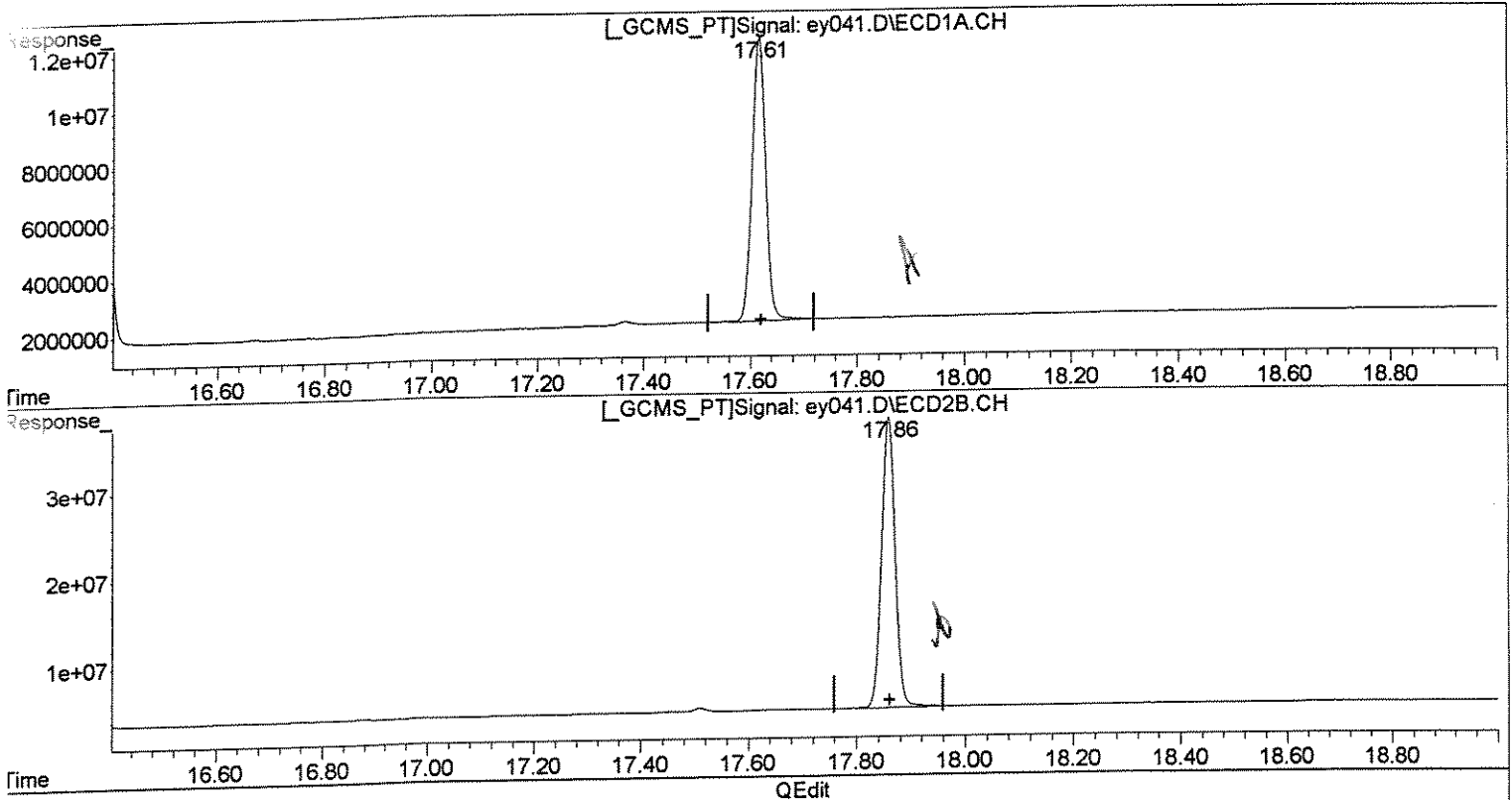
*Handwritten signature*

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
Data File : ey041.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 10 Jul 2008 7:20 pm  
Operator : M.PEDRO  
Sample : indbl  
Misc : initial cal  
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 11 11:00:44 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 10:59:43 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



(25) SURR2,Decachlorobiphenyl (S)  
17.61min 10.382ug/l m  
response 177648594

(25) SURR2,Decachlorobiphenyl #2 (S)  
17.86min 13.294ug/l m  
response 573007738

*MWC*  
*7/11*

*MWC*  
*7/11*

Data Path : J:\ACQUADATA\6890D\DATA\071008\  
 Data File : EY042.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 10 Jul 2008 7:55 pm  
 Operator : M.PEDRO  
 Sample : indbml  
 Misc : initial cal  
 ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 11 13:23:02 2008  
 Quant Method : J:\ACQUADATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 10:59:43 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

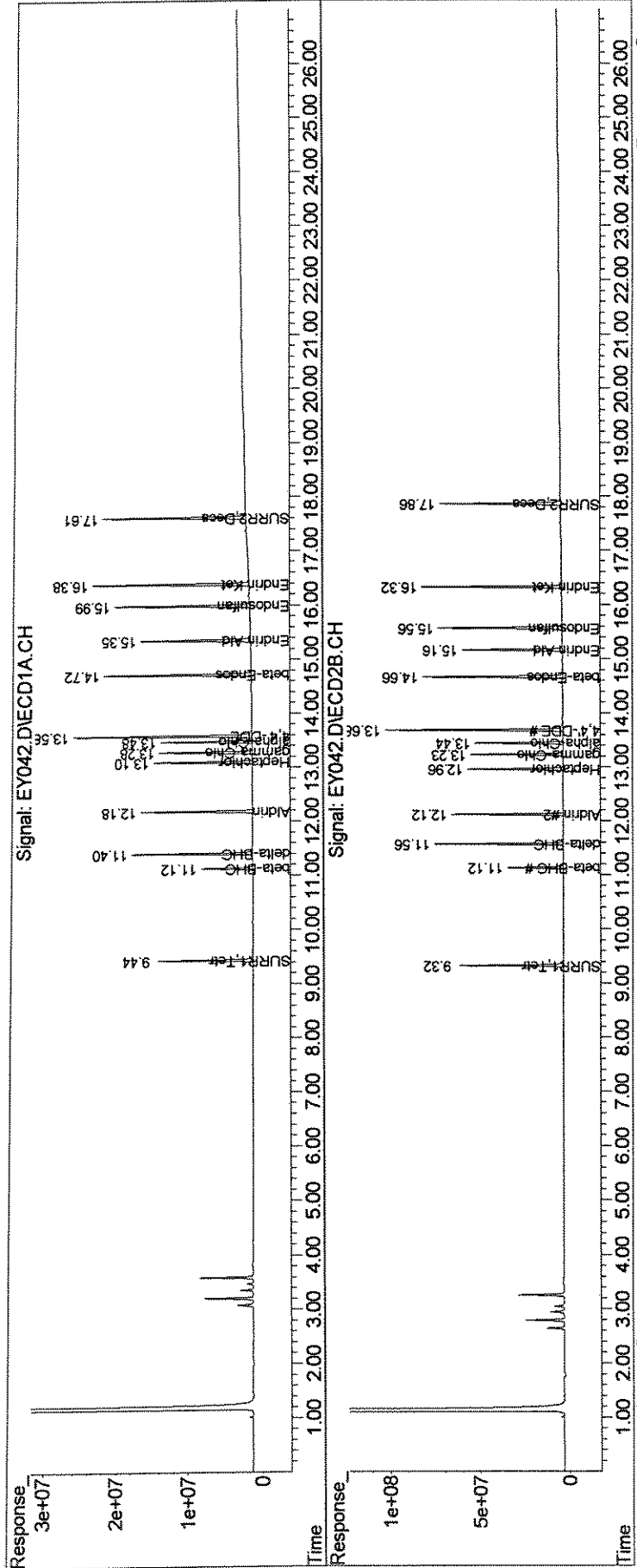
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
-----						
System Monitoring Compounds						
1) S SURR1,Tetrac	9.44	9.32	204.9E6	860.1E6	11.107	14.634 #
Spiked Amount	100.000	Range 30 - 150	Recovery =		11.11%#	14.63%#
5) S SURR2,Decachloro	17.61	17.86	354.6E6	1152.4E6	20.724m	26.736m#
Spiked Amount	100.000	Range 30 - 150	Recovery =		20.72%#	26.74%#
Target Compounds						
5) tcm Aldrin	12.18	12.12	243.2E6	931.6E6	10.261	12.857 #
7) tc beta-BHC	11.12	11.12	112.9E6	460.1E6	10.458	13.412 #
8) tc delta-BHC	11.40	11.56	262.0E6	1042.4E6	10.719	14.128 #
9) tc Heptachlor E	13.10	12.96	226.6E6	835.1E6	10.309	13.104 #
1) tc gamma-Chlord	13.28	13.23	214.3E6	826.6E6	10.130	13.066 #
2) tc alpha-Chlord	13.48	13.44	211.6E6	785.7E6	10.285	12.781
3) tc 4,4'-DDE	13.58	13.68	430.5E6	1575.5E6	21.259	26.788 #
7) tc beta-Endosul	14.72	14.66	370.5E6	1320.4E6	20.345	26.258 #
0) tc Endrin Aldeh	15.35	15.16	288.5E6	999.6E6	20.307	26.505 #
1) tc Endosulfan S	15.99	15.57	329.5E6	1161.9E6	19.643	26.384 #
4) tc Endrin Keton	16.38	16.32	381.5E6	1272.3E6	19.862	25.958 #
Sum Toxaphene			0	0	N.D.	N.D.
verage Toxaphene					0.000	0.000
Sum Chlordane			0	0	N.D.	N.D.
verage Chlordane					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQDATA\6890D\DATA\071008\  
 Data File : EY042.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 10 Jul 2008 7:55 pm  
 Operator : M.PEDRO  
 Sample : indbml  
 Misc : initial cal  
 ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 11 13:23:02 2008  
 Quant Method : J:\ACQDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 10:59:43 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STX-CLP Signal #2 Phase: STX-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



80472

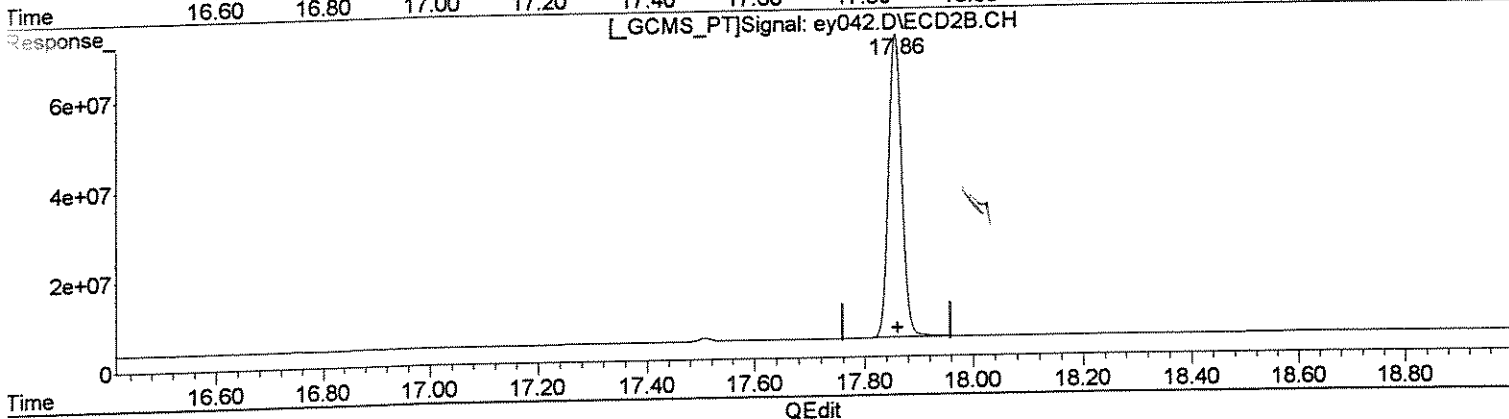
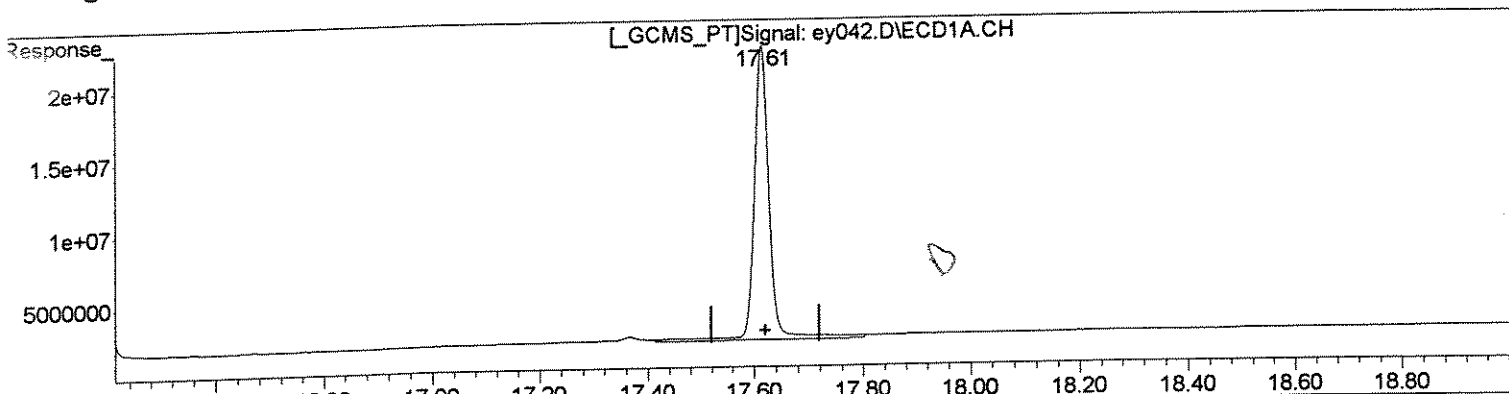


Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
Data File : ey042.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 10 Jul 2008 7:55 pm  
Operator : M.PEDRO  
Sample : indbml  
Misc : initial cal  
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 11 11:00:49 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 10:59:43 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



(25) SURR2,Decachlorobiphenyl (S)  
17.61min 23.226ug/l  
response 397418479

(25) SURR2,Decachlorobiphenyl #2 (S)  
17.86min 26.580ug/l  
response 1145666598

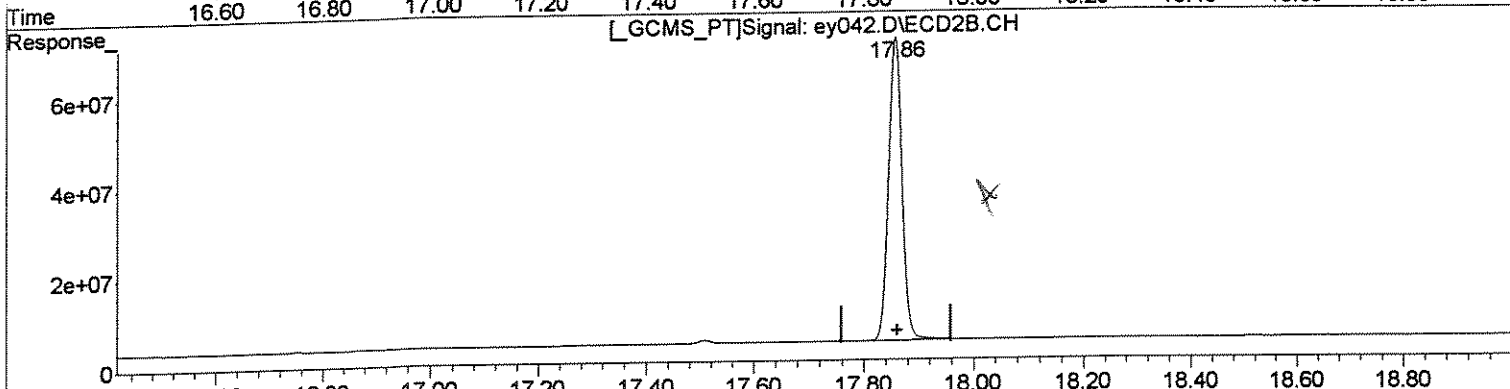
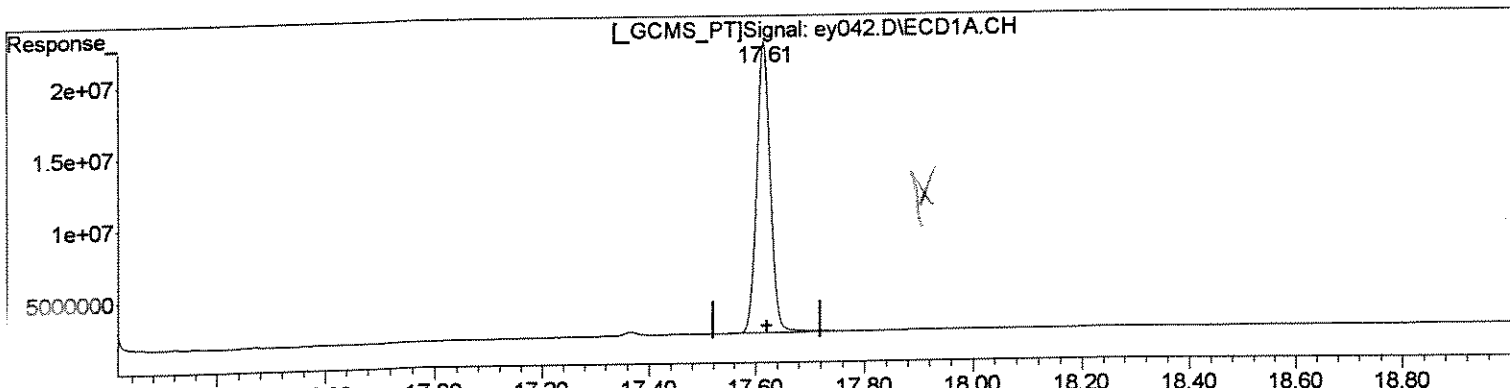
*Best*

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
Data File : ey042.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 10 Jul 2008 7:55 pm  
Operator : M.PEDRO  
Sample : indbml  
Misc : initial cal  
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 11 11:00:49 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 10:59:43 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



(25) SURR2,Decachlorobiphenyl (S)  
17.61min 20.724ug/l m  
response 354602418

(25) SURR2,Decachlorobiphenyl #2 (S)  
17.86min 26.736ug/l m  
response 1152403488

MWJ

MWJ

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
 Data File : EY043.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 10 Jul 2008 8:31 pm  
 Operator : M.PEDRO  
 Sample : indbm  
 Misc : initial cal  
 ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 11 13:23:35 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 10:59:43 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

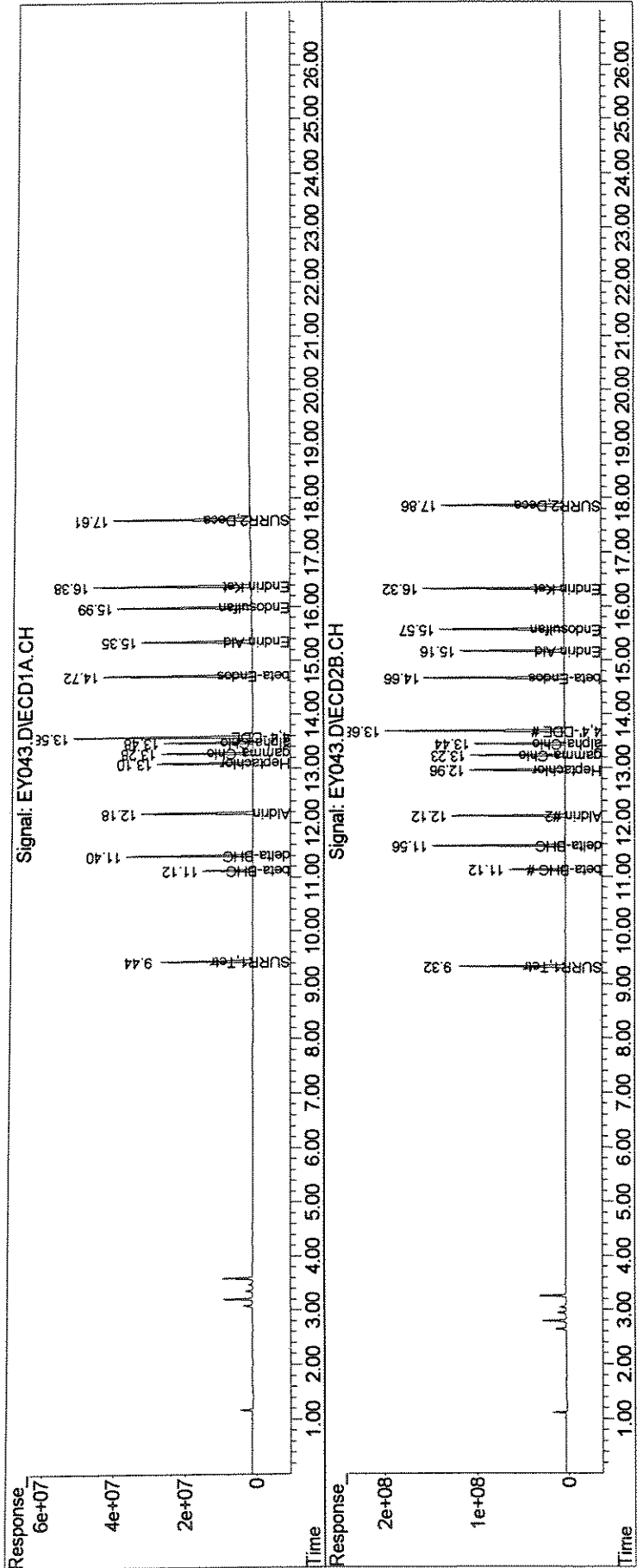
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
-----						
System Monitoring Compounds						
1) S SURR1,Tetrac	9.44	9.32	410.8E6	1669.3E6	22.266	28.401 #
Spiked Amount	100.000	Range 30 - 150	Recovery =		22.27%#	28.40%#
5) S SURR2,Decachloro	17.61	17.86	721.8E6	2252.2E6	42.185	52.252
Spiked Amount	100.000	Range 30 - 150	Recovery =		42.19%	52.25% <i>MJ</i>
Target Compounds						
6) tcm Aldrin	12.18	12.12	500.3E6	1855.6E6	21.111	25.608
7) tc beta-BHC	11.12	11.12	224.9E6	902.1E6	20.834	26.298 #
8) tc delta-BHC	11.40	11.56	548.6E6	2099.5E6	22.443	28.457 #
9) tc Heptachlor E	13.10	12.96	456.6E6	1629.3E6	20.773	25.567
1) tc gamma-Chlord	13.28	13.23	436.4E6	1651.8E6	20.635	26.108 #
2) tc alpha-Chlord	13.48	13.44	424.9E6	1565.2E6	20.658	25.459
3) tc 4,4'-DDE	13.58	13.68	879.2E6	3128.4E6	43.411	53.193
7) tc beta-Endosul	14.72	14.66	747.4E6	2601.3E6	41.037	51.732 #
0) tc Endrin Aldeh	15.35	15.16	591.1E6	1993.2E6	41.608	52.854 #
1) tc Endosulfan S	15.99	15.57	673.3E6	2318.5E6	40.139	52.648 #
4) tc Endrin Keton	16.38	16.32	776.4E6	2545.4E6	40.415	51.931 #
Sum Toxaphene			0	0	N.D.	N.D.
verage Toxaphene					0.000	0.000
Sum Chlordane			0	0	N.D.	N.D.
verage Chlordane					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
 Data File : EY043.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 10 Jul 2008 8:31 pm  
 Operator : M.PEDRO  
 Sample : indbm  
 Misc : initial cal  
 ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 11 13:23:35 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 10:59:43 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STX-CLP Signal #2 Phase: STX-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



00476

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
 Data File : EY044.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 10 Jul 2008 9:07 pm  
 Operator : M.PEDRO  
 Sample : indbmh  
 Misc : initial cal  
 ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 11 13:24:19 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 10:59:43 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

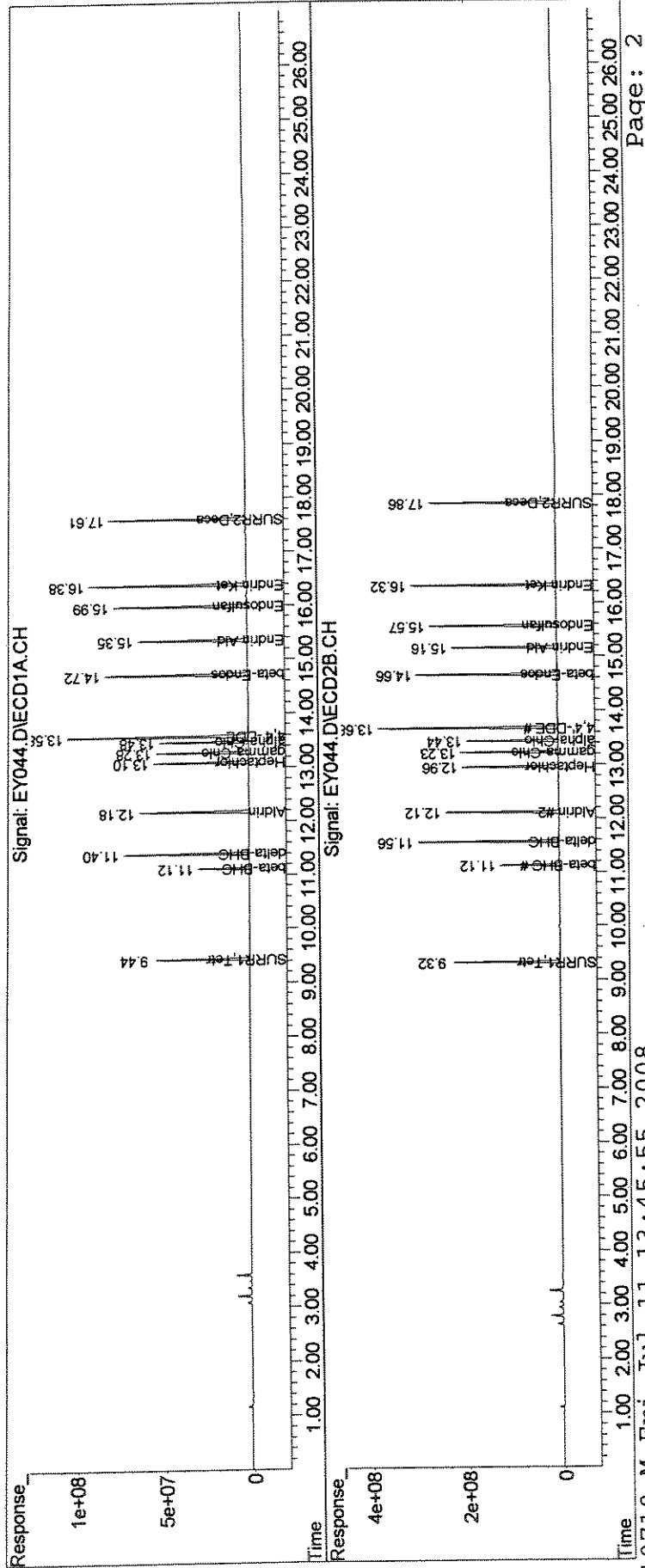
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/1	ug/1
-----						
System Monitoring Compounds						
1) S SURR1,Tetrac	9.44	9.32	833.9E6	3284.1E6	45.193	55.874
Spiked Amount	100.000	Range	30 - 150	Recovery =	45.19%	55.87%
5) S SURR2,Decachloro	17.61	17.86	1393.3E6	4433.6E6	81.430	102.861 #
Spiked Amount	100.000	Range	30 - 150	Recovery =	81.43%	102.86%
Target Compounds						
6) tcm Aldrin	12.18	12.12	1024.3E6	3653.6E6	43.222	50.422
7) tc beta-BHC	11.12	11.12	459.8E6	1776.5E6	42.587	51.791
8) tc delta-BHC	11.40	11.56	1140.0E6	4189.3E6	46.634	56.782
9) tc Heptachlor E	13.10	12.96	922.4E6	3169.4E6	41.967	49.733
1) tc gamma-Chlord	13.28	13.23	896.8E6	3288.5E6	42.403	51.979
2) tc alpha-Chlord	13.48	13.44	870.6E6	3113.2E6	42.324	50.639
3) tc 4,4'-DDE	13.58	13.68	1800.8E6	6137.1E6	88.920	104.350
7) tc beta-Endosul	14.72	14.66	1520.3E6	5065.0E6	83.475	100.727
0) tc Endrin Aldeh	15.35	15.16	1192.6E6	3889.3E6	83.950	103.129
1) tc Endosulfan S	15.99	15.57	1370.5E6	4558.8E6	81.704	103.521 #
4) tc Endrin Keton	16.38	16.32	1583.7E6	5029.7E6	82.442	102.616
Sum Toxaphene			0	0	N.D.	N.D.
verage Toxaphene					0.000	0.000
Sum Chlordane			0	0	N.D.	N.D.
verage Chlordane					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
 Data File : EY044.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 10 Jul 2008 9:07 pm  
 Operator : M.PEDRO  
 Sample : indbmh  
 Misc : initial cal  
 ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 11 13:24:19 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 10:59:43 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STX-CLP Signal #2 Phase: STX-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



00478

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
 Data File : EY045.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 10 Jul 2008 9:43 pm  
 Operator : M.PEDRO  
 Sample : indbh  
 Misc : initial cal  
 ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 11 13:25:04 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 10:59:43 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

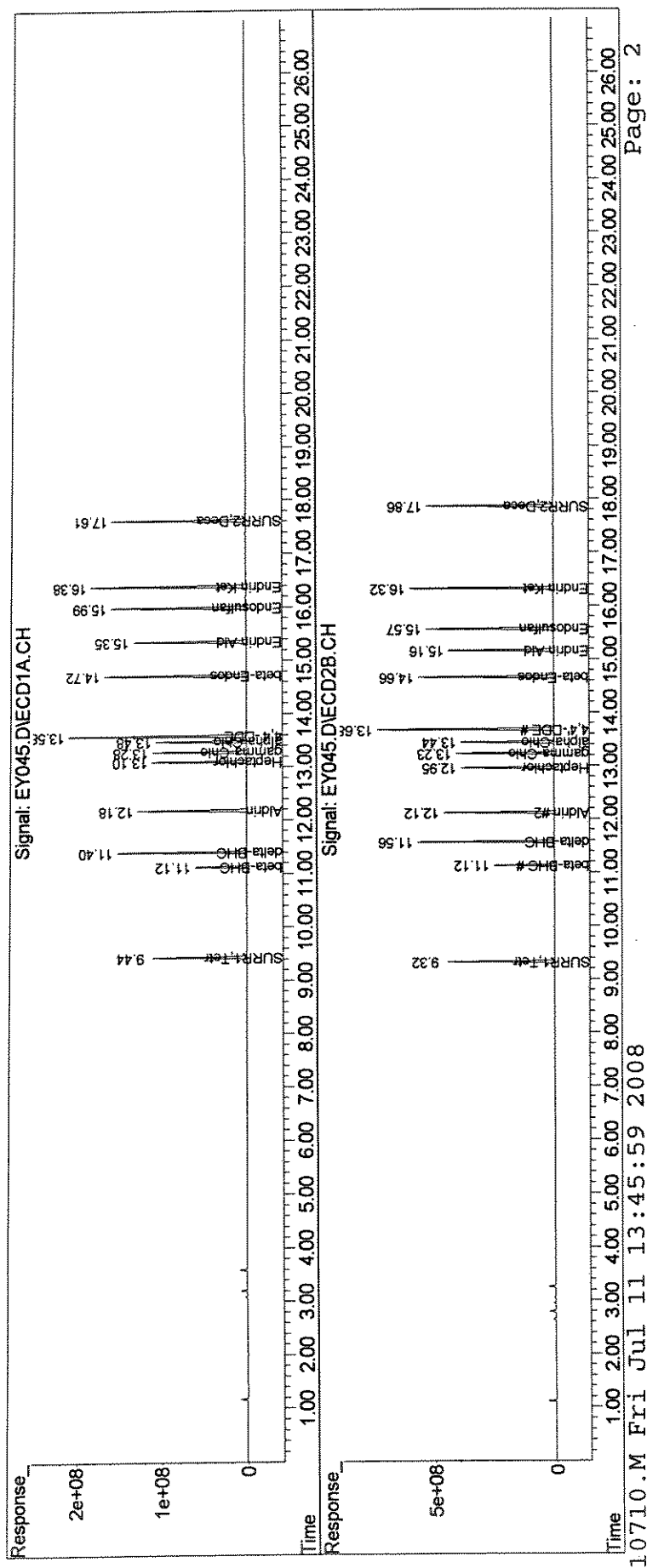
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
-----						
System Monitoring Compounds						
1) S SURR1,Tetrac	9.44	9.32	1698.4E6	6399.1E6	92.045	108.871
Spiked Amount	100.000	Range	30 - 150	Recovery =	92.05%	108.87%
S SURR2,Decachloro	17.61	17.86	2802.1E6	8858.3E6	163.760	205.517 #
Spiked Amount	100.000	Range	30 - 150	Recovery =	163.76%#	205.52%#
Target Compounds						
6) tcm Aldrin	12.18	12.12	2092.4E6	7089.4E6	88.296	97.837
7) tc beta-BHC	11.12	11.12	946.8E6	3559.9E6	87.703	103.782
8) tc delta-BHC	11.40	11.56	2352.5E6	8268.5E6	96.233	112.072
9) tc Heptachlor E	13.10	12.96	1870.9E6	6094.7E6	85.117	95.636
1) tc gamma-Chlord	13.28	13.23	1852.5E6	6493.4E6	87.585	102.635
2) tc alpha-Chlord	13.48	13.44	1792.8E6	6175.4E6	87.157	100.449
3) tc 4,4'-DDE	13.58	13.68	3631.2E6	11817.6E6	179.300	200.936
7) tc beta-Endosul	14.72	14.66	3089.8E6	9846.8E6	169.646	195.820
0) tc Endrin Aldeh	15.35	15.16	2459.2E6	7708.5E6	173.110	204.402
1) tc Endosulfan S	15.99	15.57	2803.1E6	9011.2E6	167.115	204.626
4) tc Endrin Keton	16.38	16.32	3226.3E6	9945.6E6	167.946	202.911
Sum Toxaphene			0	0	N.D.	N.D.
verage Toxaphene					0.000	0.000
Sum Chlordane			0	0	N.D.	N.D.
verage Chlordane					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
 Data File : EY045.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 10 Jul 2008 9:43 pm  
 Operator : M.PEDRO  
 Sample : indbh  
 Misc : initial cal  
 ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 11 13:25:04 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 10:59:43 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





Data Path : J:\ACQUDATA\6890D\DATA\071008\  
 Data File : EY046.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 10 Jul 2008 10:18 pm  
 Operator : M.PEDRO  
 Sample : kep/fam 1  
 Misc : initial cal  
 ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 11 13:26:04 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 10:59:43 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
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System Monitoring Compounds

Target Compounds

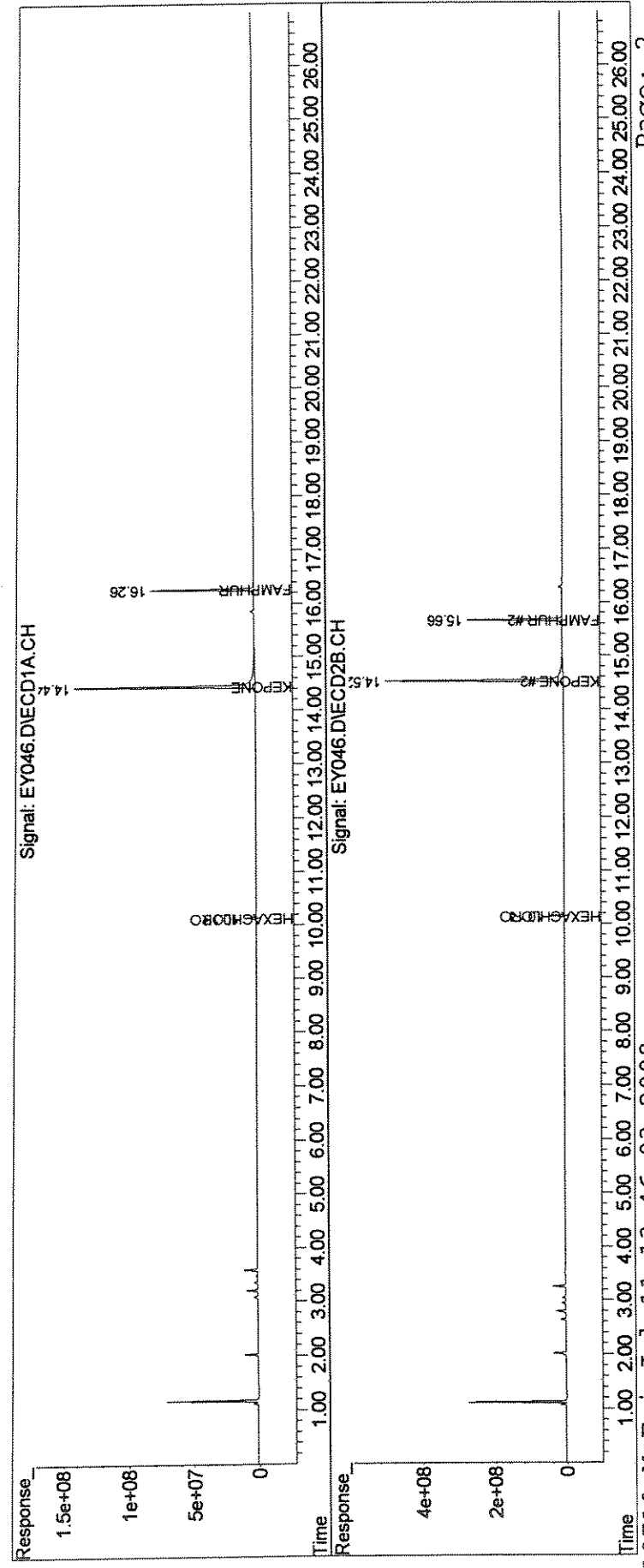
2) TC	HEXACHLOROBENZEN	10.13	10.14	162.9E6	736.6E6	5.742	7.892 #
6) tc	KEPONE	14.44	14.52	3473.6E6	11045.7E6	519.980	675.983 #
3) tc	FAMPHUR	16.26	15.66	1381.9E6	4443.2E6	108.103	151.268m#
	Sum Toxaphene			0	0	N.D.	N.D.
	verage Toxaphene					0.000	0.000
	Sum Chlordane			0	0	N.D.	N.D.
	verage Chlordane					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
Data File : EY046.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 10 Jul 2008 10:18 pm  
Operator : M.PEDRO  
Sample : kep/fam 1  
Misc : initial cal  
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 11 13:26:04 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 10:59:43 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



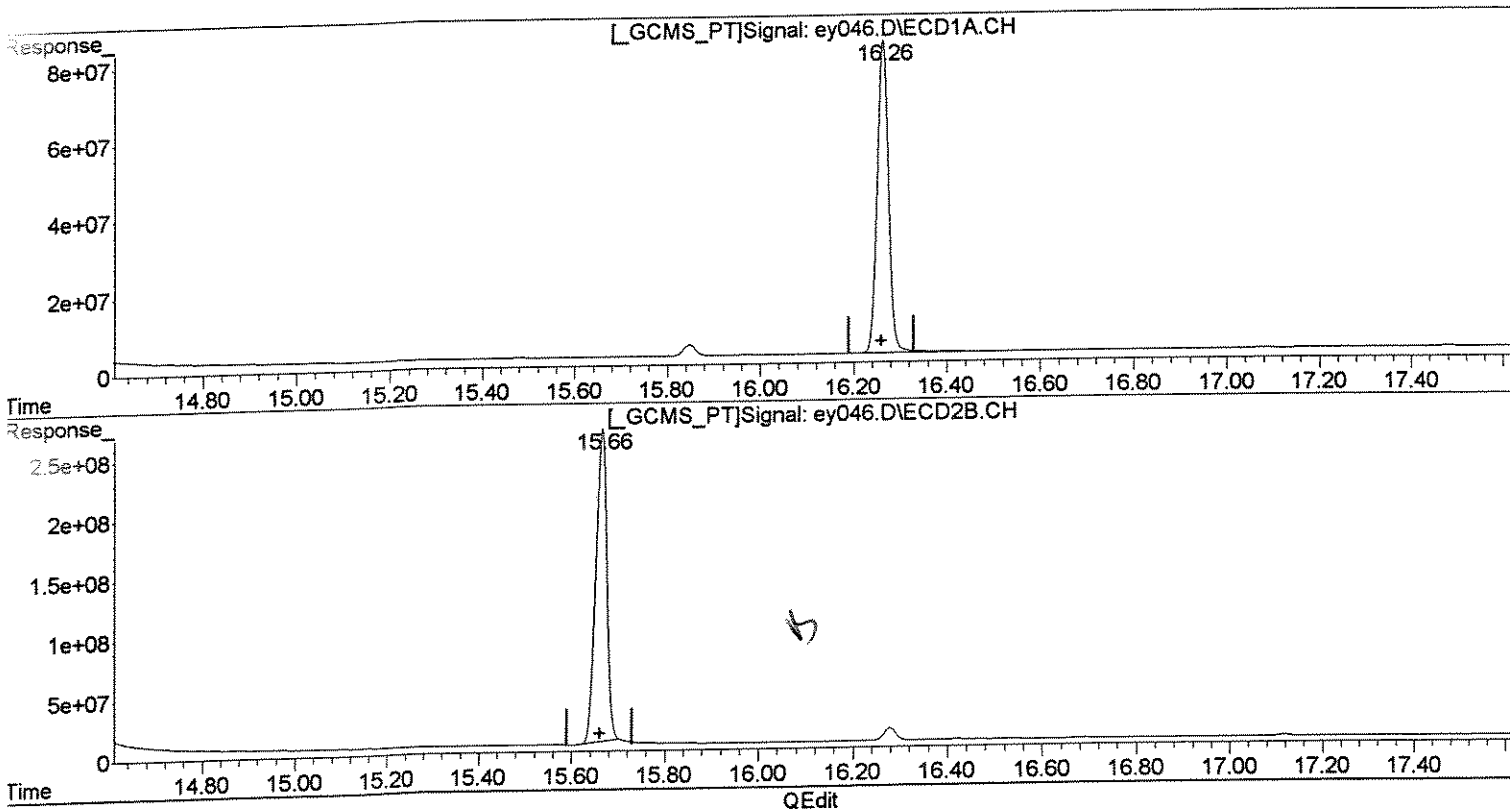
00482

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
Data File : ey046.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 10 Jul 2008 10:18 pm  
Operator : M.PEDRO  
Sample : kep/fam 1  
Misc : initial cal  
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 11 11:01:11 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 10:59:43 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



(23) FAMPHUR (tc)  
16.26min 108.103ug/l  
response 1381933679

(23) FAMPHUR #2 (tc)  
15.66min 145.872ug/l  
response 4284737536

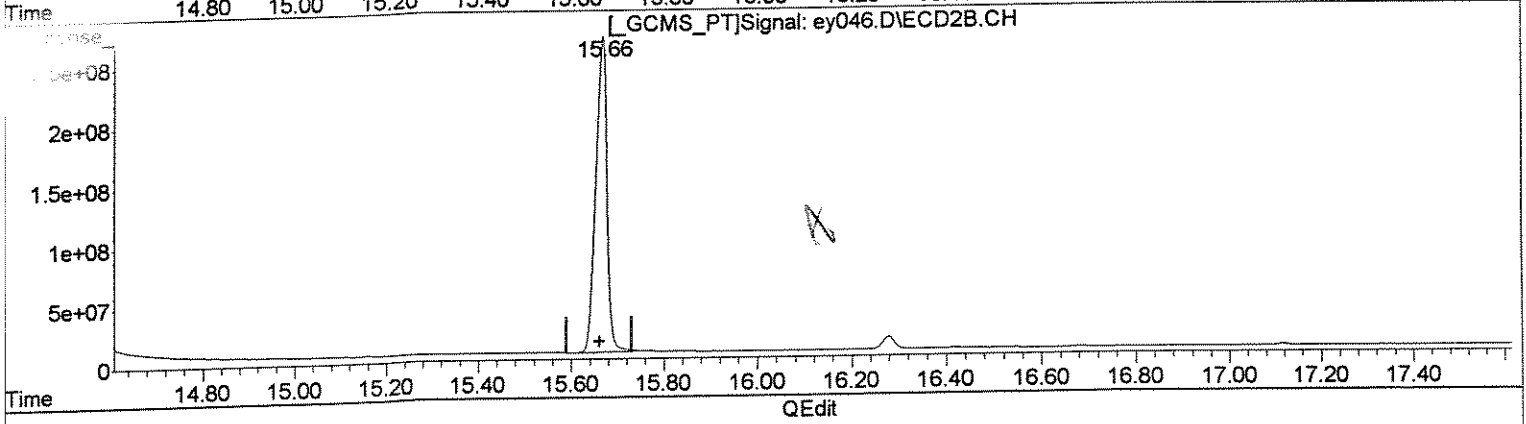
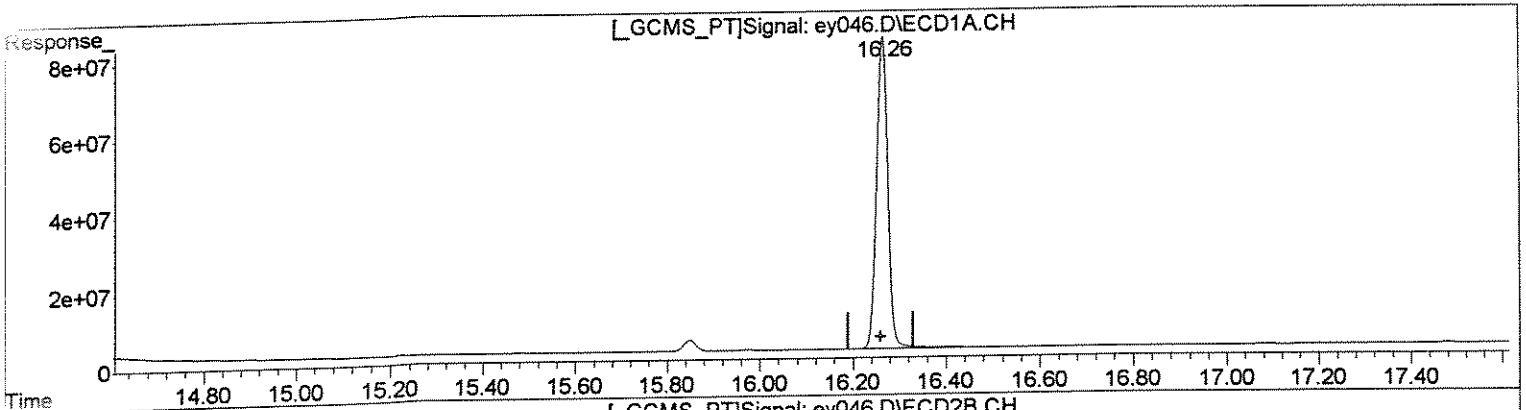
*Barker*

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
Data File : ey046.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 10 Jul 2008 10:18 pm  
Operator : M.PEDRO  
Sample : kep/fam 1  
Misc : initial cal  
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 11 11:01:11 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 10:59:43 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



(23) FAMPHUR (tc)  
16.26min 108.103ug/l  
response 1381933679

(23) FAMPHUR #2 (tc)  
15.66min 151.268ug/l m  
response 4443239687

*MW*  
*7/11*

*MW*  
*7/11*

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
 Data File : EY047.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 10 Jul 2008 10:54 pm  
 Operator : M.PEDRO  
 Sample : kep/fam ml  
 Misc : initial cal  
 ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 11 13:26:46 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 10:59:43 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
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System Monitoring Compounds

Target Compounds

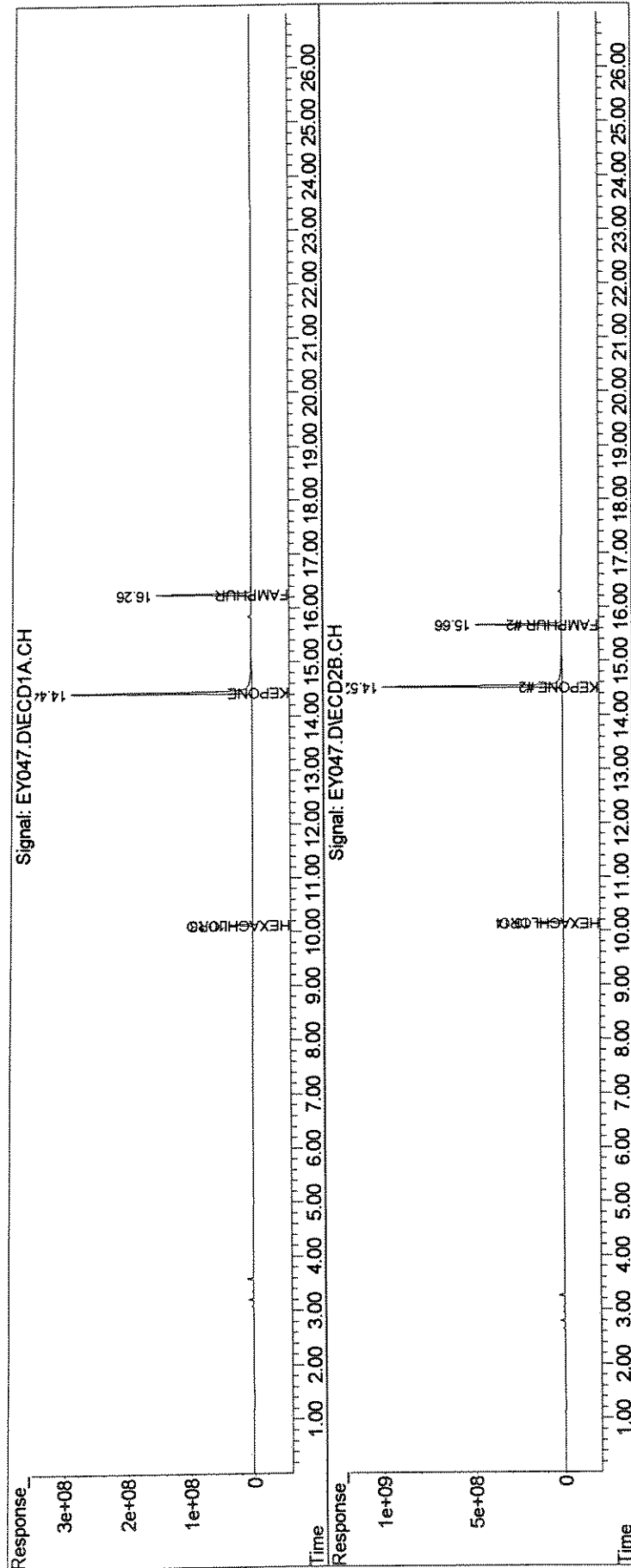
2) TC	HEXACHLOROBENZEN	10.13	10.14	593.6E6	2493.3E6	20.921	26.715 #
5) tc	KEPONE	14.44	14.52	7073.0E6	22302.5E6	1058.804	1364.882 #
3) tc	FAMPHUR	16.26	15.66	2607.6E6	8060.3E6	203.978	274.408m#
	Sum Toxaphene			0	0	N.D.	N.D.
	Average Toxaphene					0.000	0.000
	Sum Chlordane			0	0	N.D.	N.D.
	Average Chlordane					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
Data File : EY047.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 10 Jul 2008 10:54 pm  
Operator : M.PEDRO  
Sample : kep/fam ml  
Misc : initial cal  
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 11 13:26:46 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 10:59:43 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

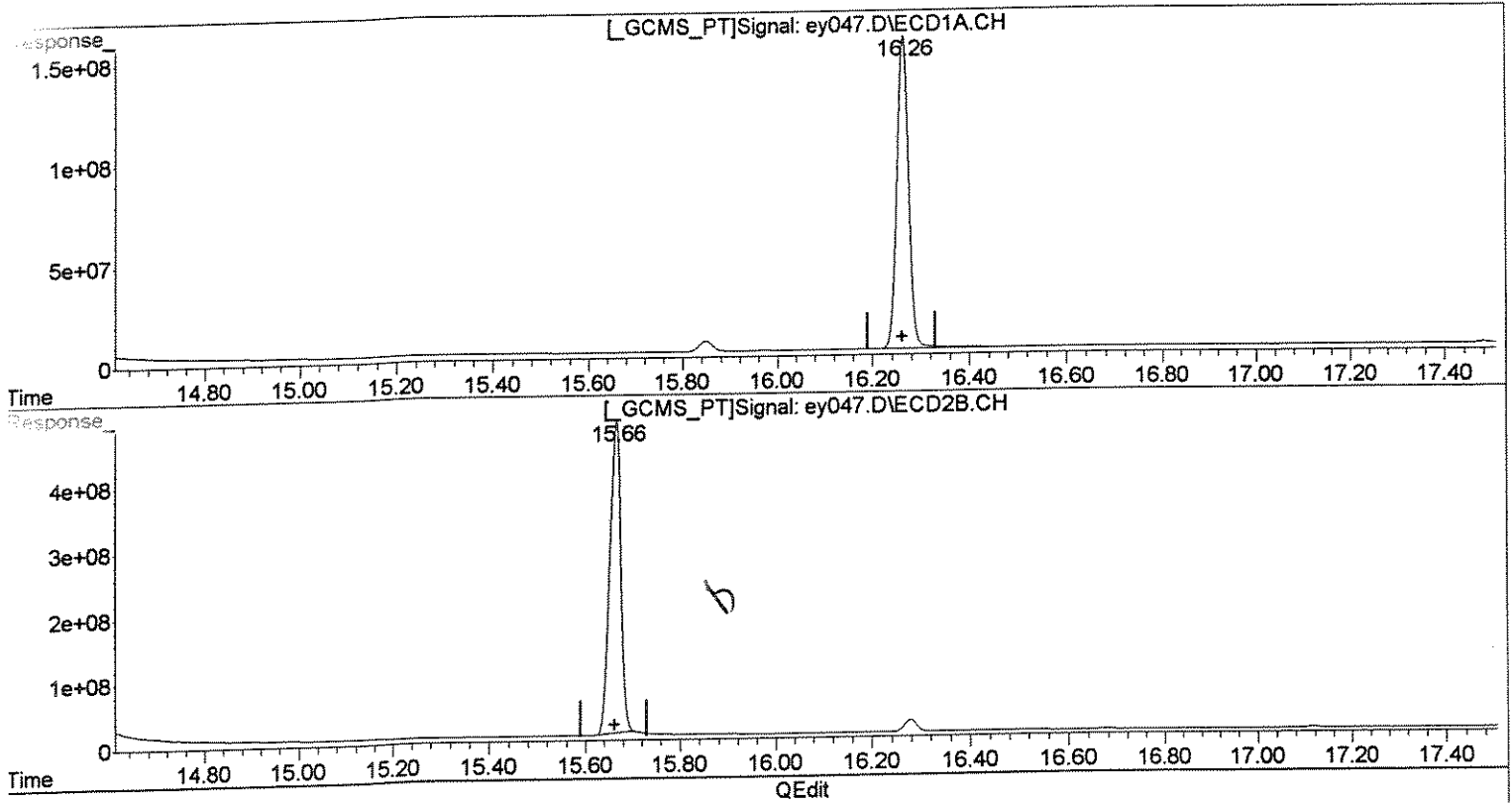


Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
Data File : ey047.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 10 Jul 2008 10:54 pm  
Operator : M.PEDRO  
Sample : kep/fam ml  
Misc : initial cal  
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 11 11:01:16 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 10:59:43 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



(23) FAMPHUR (tc)  
16.26min 203.978ug/l  
response 2607565281

*back*

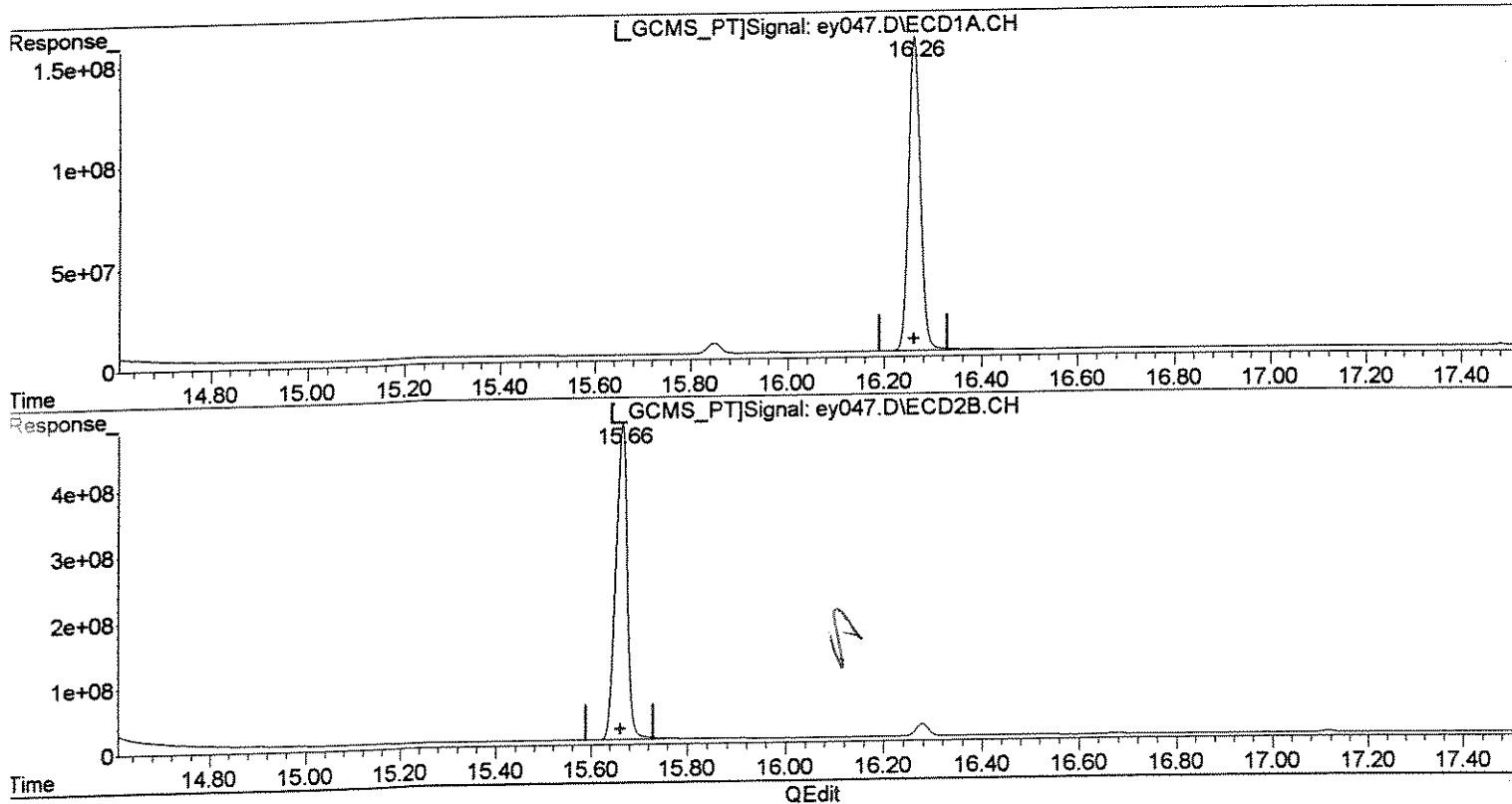
(23) FAMPHUR #2 (tc)  
15.66min 266.046ug/l  
response 7814660987

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
Data File : ey047.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 10 Jul 2008 10:54 pm  
Operator : M.PEDRO  
Sample : kep/fam ml  
Misc : initial cal  
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 11 11:01:16 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 10:59:43 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



(23) FAMPHUR (tc)  
16.26min 203.978ug/l  
response 2607565281

(23) FAMPHUR #2 (tc)  
15.66min 274.408ug/l m  
response 8060279415

*M.P.*  
*M.P.*



Data Path : J:\ACQUADATA\6890D\DATA\071008\  
 Data File : EY048.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 10 Jul 2008 11:30 pm  
 Operator : M.PEDRO  
 Sample : kep/fam m  
 Misc : initial cal  
 ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 11 13:27:27 2008  
 Quant Method : J:\ACQUADATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 10:59:43 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/1	ug/1
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System Monitoring Compounds

Target Compounds

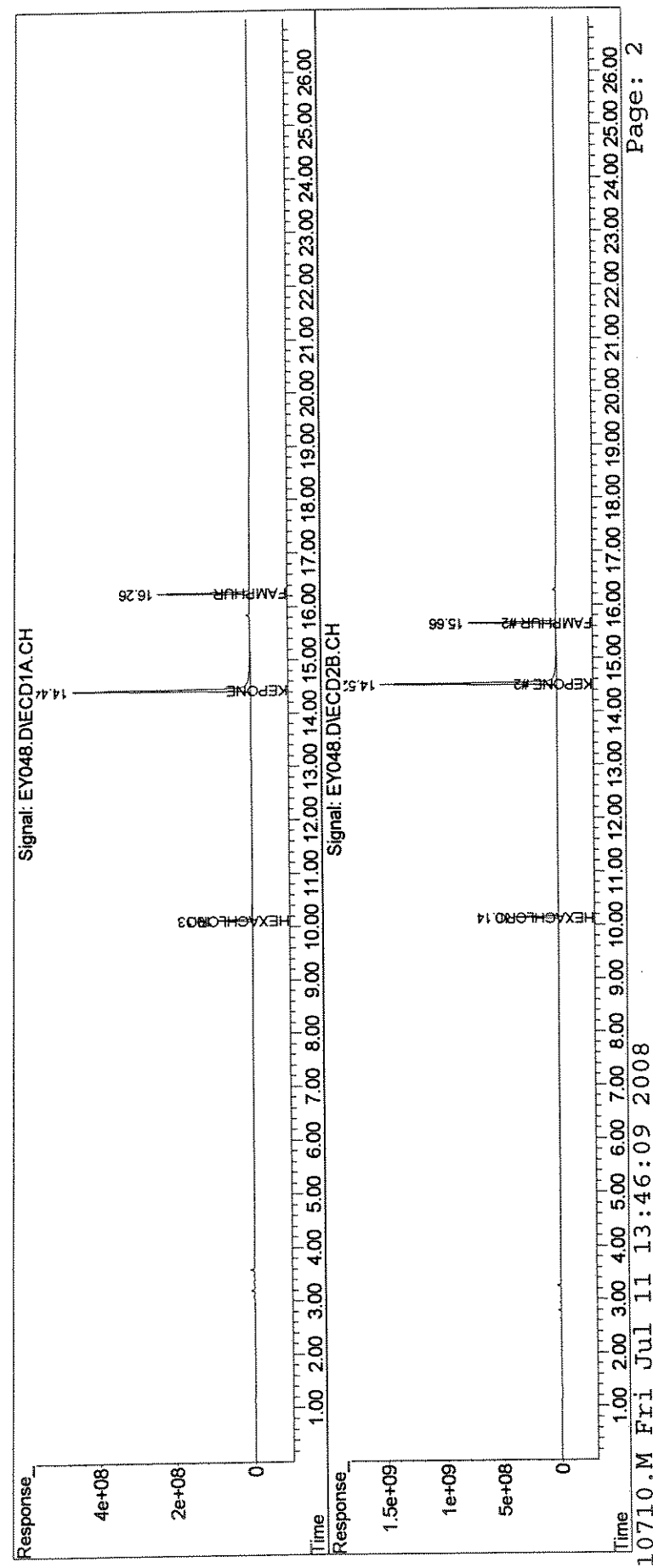
2) TC	HEXACHLOROBENZEN	10.13	10.14	1431.2E6	5821.2E6	50.439	62.371
6) tc	KEPONE	14.44	14.52	11799.2E6	35925.9E6	1766.294	2198.620
3) tc	FAMPHUR	16.26	15.66	4144.4E6	12629.1E6	324.195	429.952m#
	Sum Toxaphene			0	0	N.D.	N.D.
	verage Toxaphene					0.000	0.000
	Sum Chlordane			0	0	N.D.	N.D.
	verage Chlordane					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
 Data File : EY048.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 10 Jul 2008 11:30 pm  
 Operator : M.PEDRO  
 Sample : kep/fam m  
 Misc : initial cal  
 ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 11 13:27:27 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 10:59:43 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STX-CLP Signal #2 Phase: STX-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



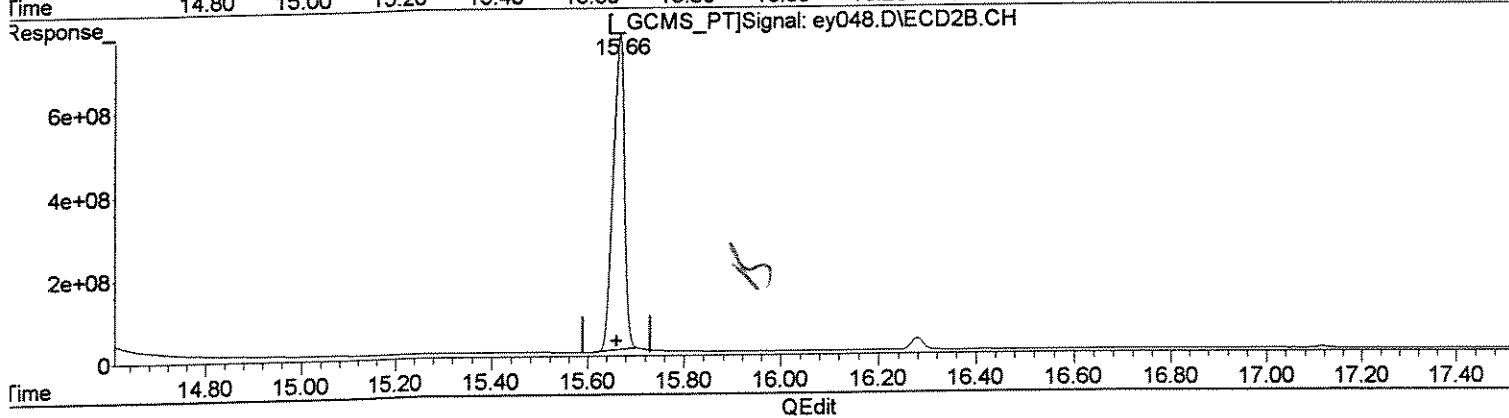
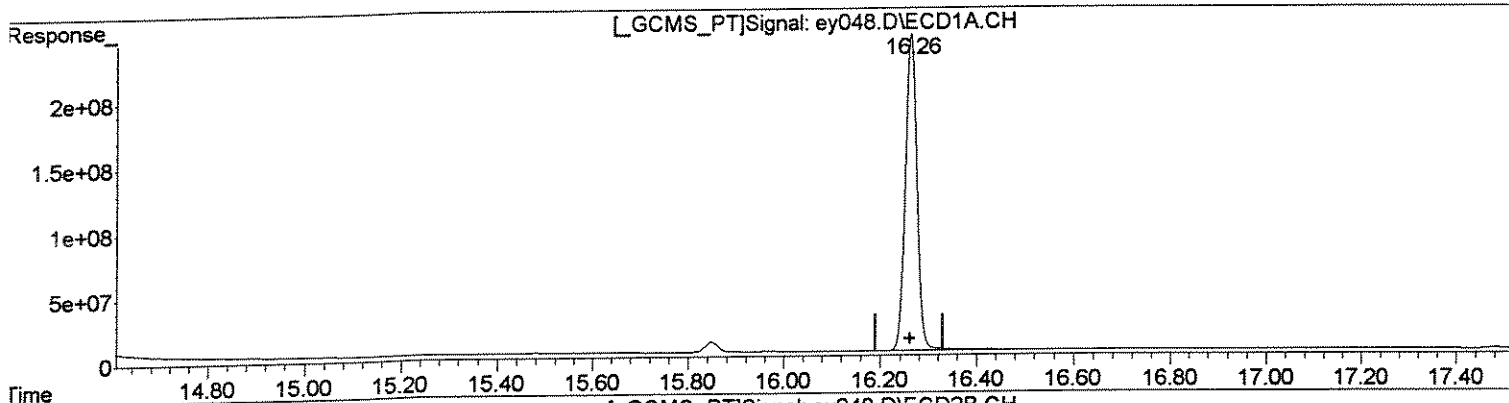
05100

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
Data File : ey048.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 10 Jul 2008 11:30 pm  
Operator : M.PEDRO  
Sample : kep/fam m  
Misc : initial cal  
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 11 11:01:21 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 10:59:43 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



(23) FAMPHUR (tc)  
16.26min 324.195ug/l  
response 4144352250

(23) FAMPHUR #2 (tc)  
15.66min 419.250ug/l  
response 12314769808

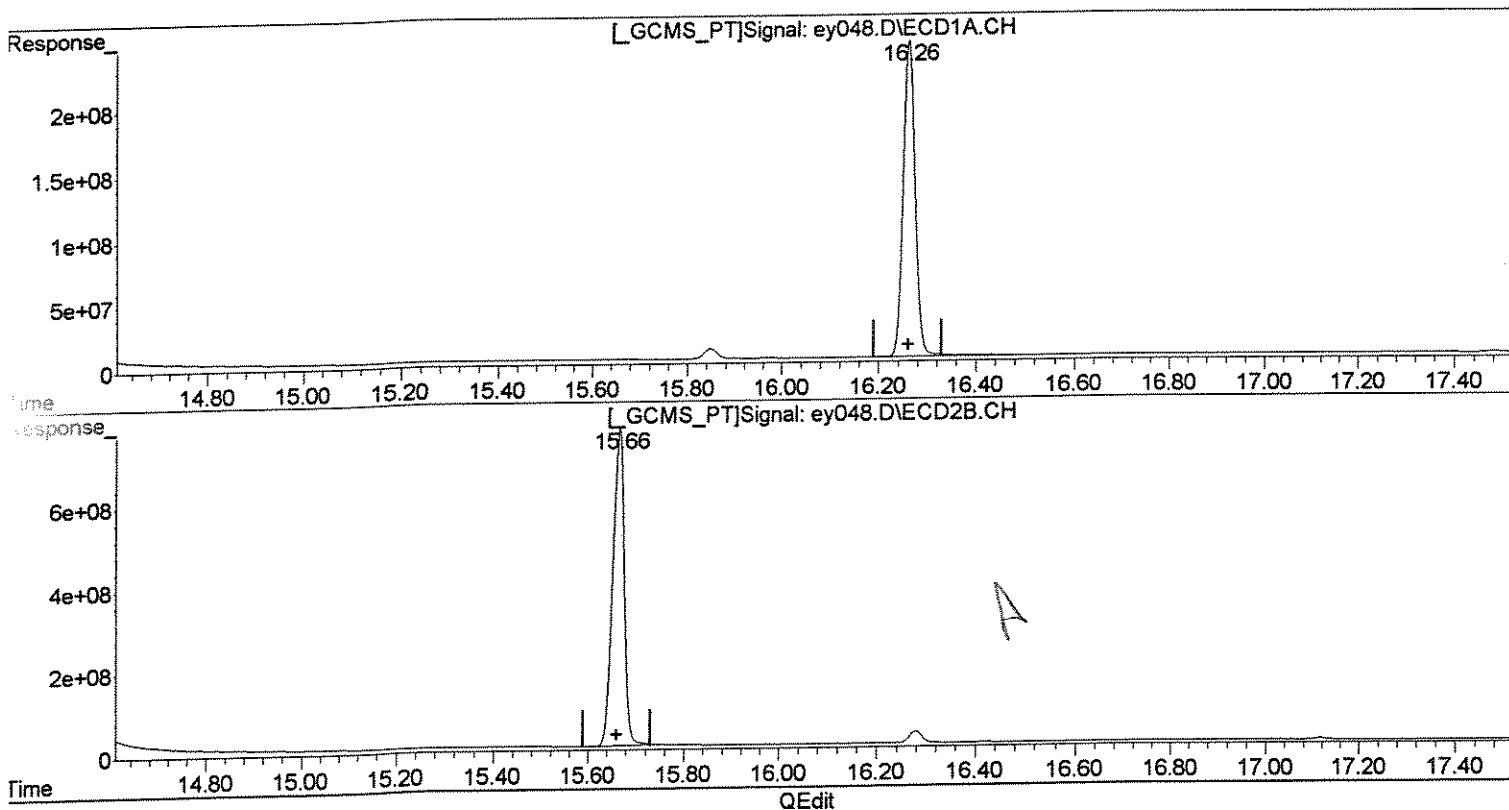
*Handwritten signature*

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
Data File : ey048.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 10 Jul 2008 11:30 pm  
Operator : M.PEDRO  
Sample : kep/fam m  
Misc : initial cal  
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 11 11:01:21 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 10:59:43 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



(23) FAMPHUR (tc)  
16.26min 324.195ug/l  
response 4144352250

(23) FAMPHUR #2 (tc)  
15.66min 429.952ug/l m  
response 12629107818

*MLP 7/11*      *MLP 7/11*

Quantitation Report (QT Reviewed)

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
 Data File : EY049.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11 Jul 2008 12:05 am  
 Operator : M.PEDRO  
 Sample : kep/fam mh  
 Misc : initial cal  
 ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 11 13:28:06 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 10:59:43 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/1	ug/1
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System Monitoring Compounds

Target Compounds

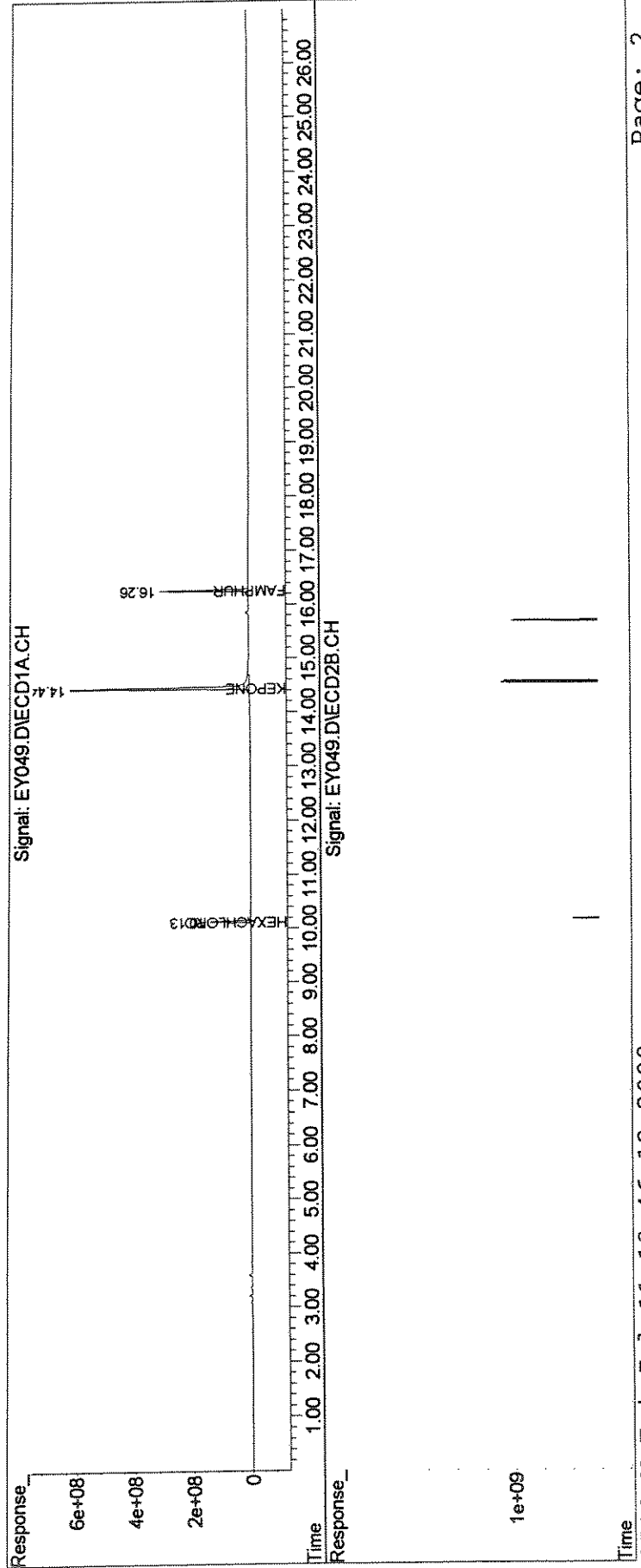
2) TC	HEXACHLOROBENZEN	10.13	10.14	2229.2E6	8817.5E6	78.559	94.475
6) tc	KEPONE	14.45	14.52	14895.0E6	48142.9E6	2229.728	2946.282 #
3) tc	FAMPHUR	16.26	15.66	5397.9E6	16350.4E6	422.254	556.643m#
	Sum Toxaphene			0	0	N.D.	N.D.
	verage Toxaphene					0.000	0.000
	um Chlordane			0	0	N.D.	N.D.
	verage Chlordane					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
 Data File : EY049.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11 Jul 2008 12:05 am  
 Operator : M.PEDRO  
 Sample : kep/fam mh  
 Misc : initial cal  
 ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 11 13:28:06 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 10:59:43 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



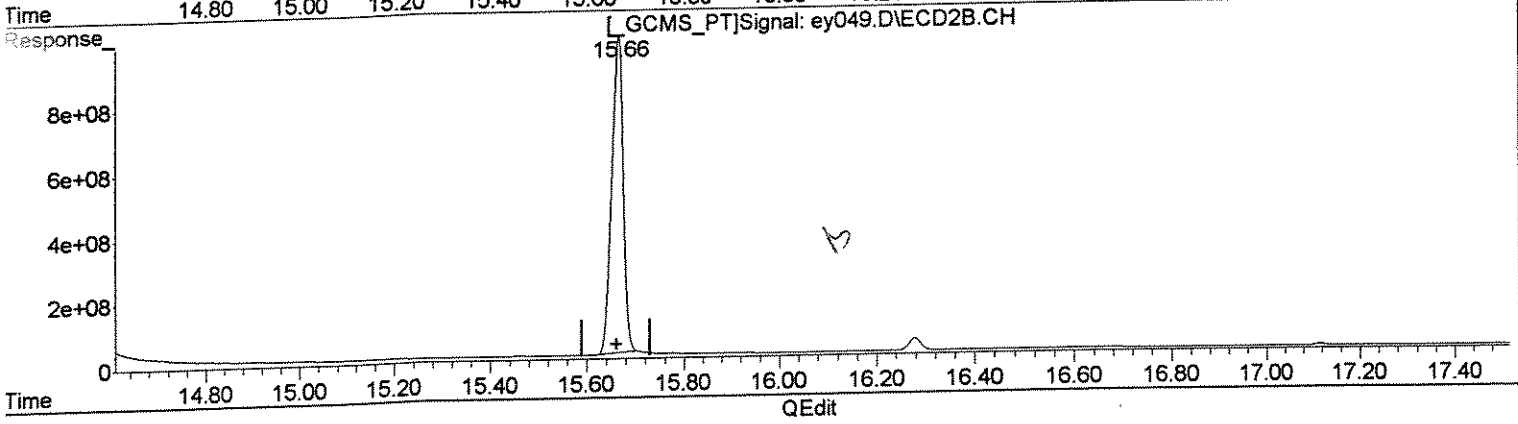
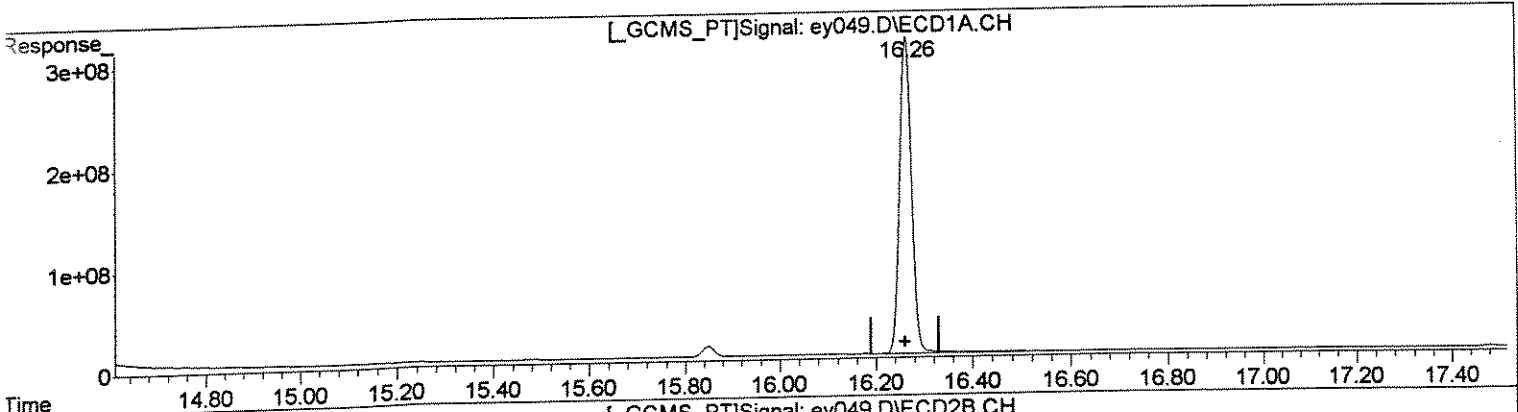
50705

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
Data File : ey049.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 11 Jul 2008 12:05 am  
Operator : M.PEDRO  
Sample : kep/fam mh  
Misc : initial cal  
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 11 11:01:25 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 10:59:43 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



(23) FAMPHUR (tc)  
16.26min 422.254ug/l  
response 5397900508

(23) FAMPHUR #2 (tc)  
15.66min 541.693ug/l  
response 15911309862

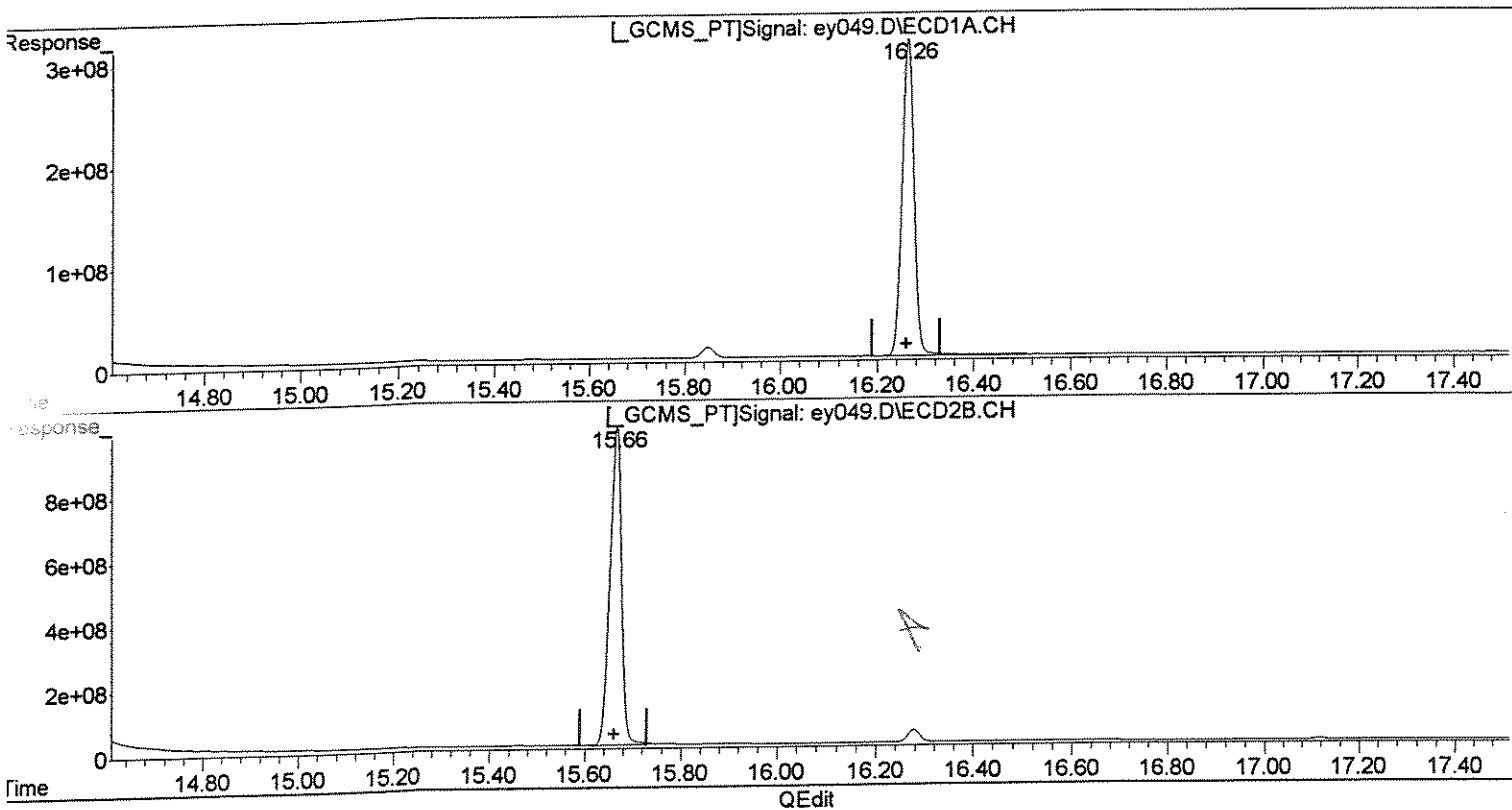
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Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
Data File : ey049.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 11 Jul 2008 12:05 am  
Operator : M.PEDRO  
Sample : kep/fam mh  
Misc : initial cal  
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 11 11:01:25 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 10:59:43 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



(23) FAMPHUR (tc)  
16.26min 422.254ug/l  
response 5397900508

(23) FAMPHUR #2 (tc)  
15.66min 556.643ug/l m  
response 16350447651

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Quantitation Report (QT Reviewed)

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
 Data File : EY050.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11 Jul 2008 12:41 am  
 Operator : M.PEDRO  
 Sample : kep/fam h  
 Misc : initial cal  
 ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 11 13:28:58 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 10:59:43 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
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System Monitoring Compounds

Target Compounds

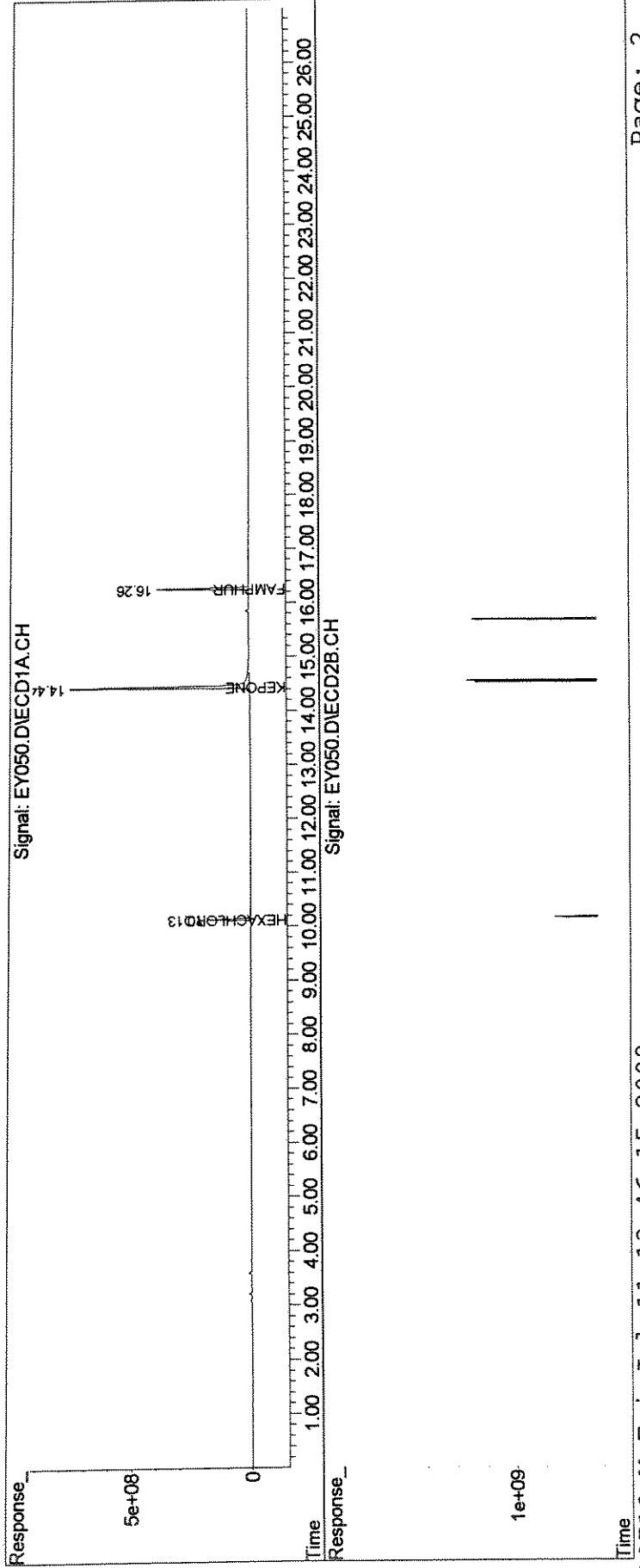
TC	HEXACHLOROBENZEN	10.13	10.14	2817.4E6	10905.2E6	99.289	116.843
cc	KEPONE	14.45	14.52	18112.3E6	56388.9E6	2711.335	3450.931 #
cc	FAMPHUR	16.26	15.66	6837.9E6	20604.6E6	534.897	701.472m#
	Sum Toxaphene			0	0	N.D.	N.D.
	verage Toxaphene					0.000	0.000
	Sum Chlordane			0	0	N.D.	N.D.
	verage Chlordane					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
Data File : EY050.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 11 Jul 2008 12:41 am  
Operator : M.PEDRO  
Sample : kep/fam h  
Misc : initial cal  
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 11 13:28:58 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 10:59:43 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STX-CLP Signal #2 Phase: STX-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

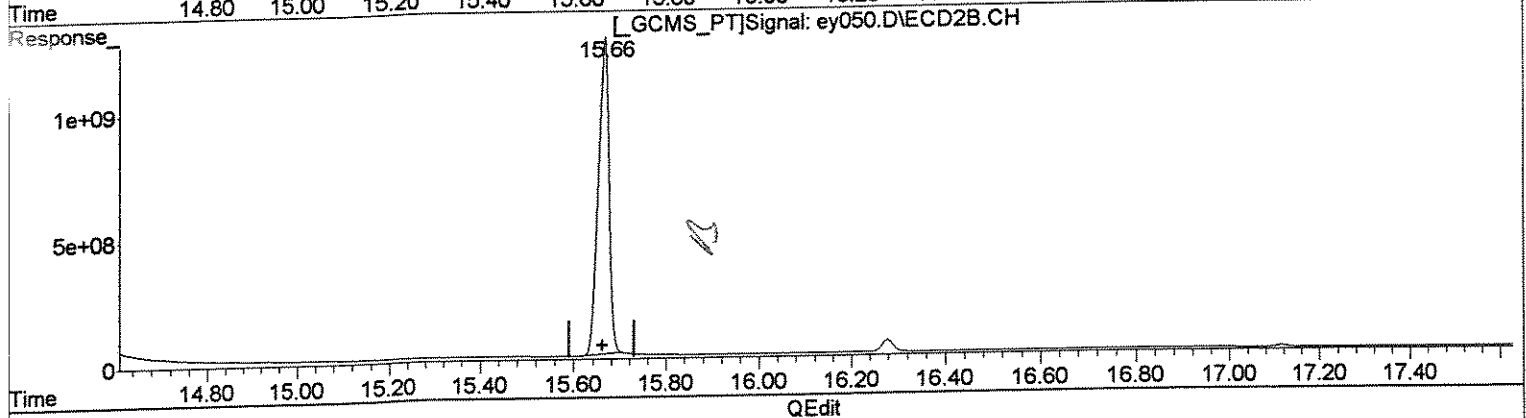
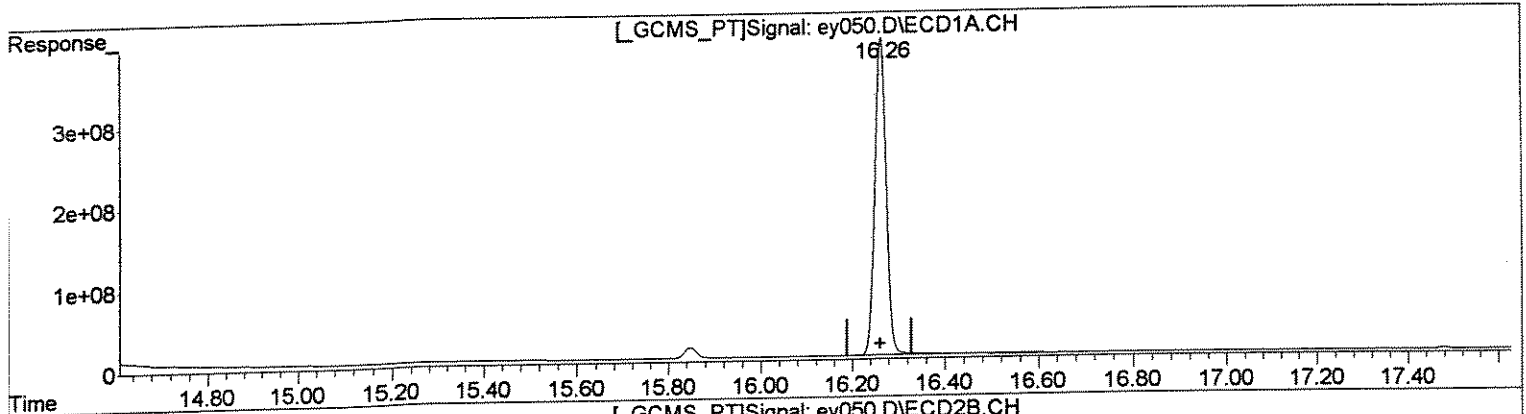


Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
 Data File : ey050.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11 Jul 2008 12:41 am  
 Operator : M.PEDRO  
 Sample : kep/fam h  
 Misc : initial cal  
 ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 11 11:01:29 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 10:59:43 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



(23) FAMPHUR (tc)  
 16.26min 534.897ug/l  
 response 6837873013

(23) FAMPHUR #2 (tc)  
 15.66min 682.980ug/l  
 response 20061395940

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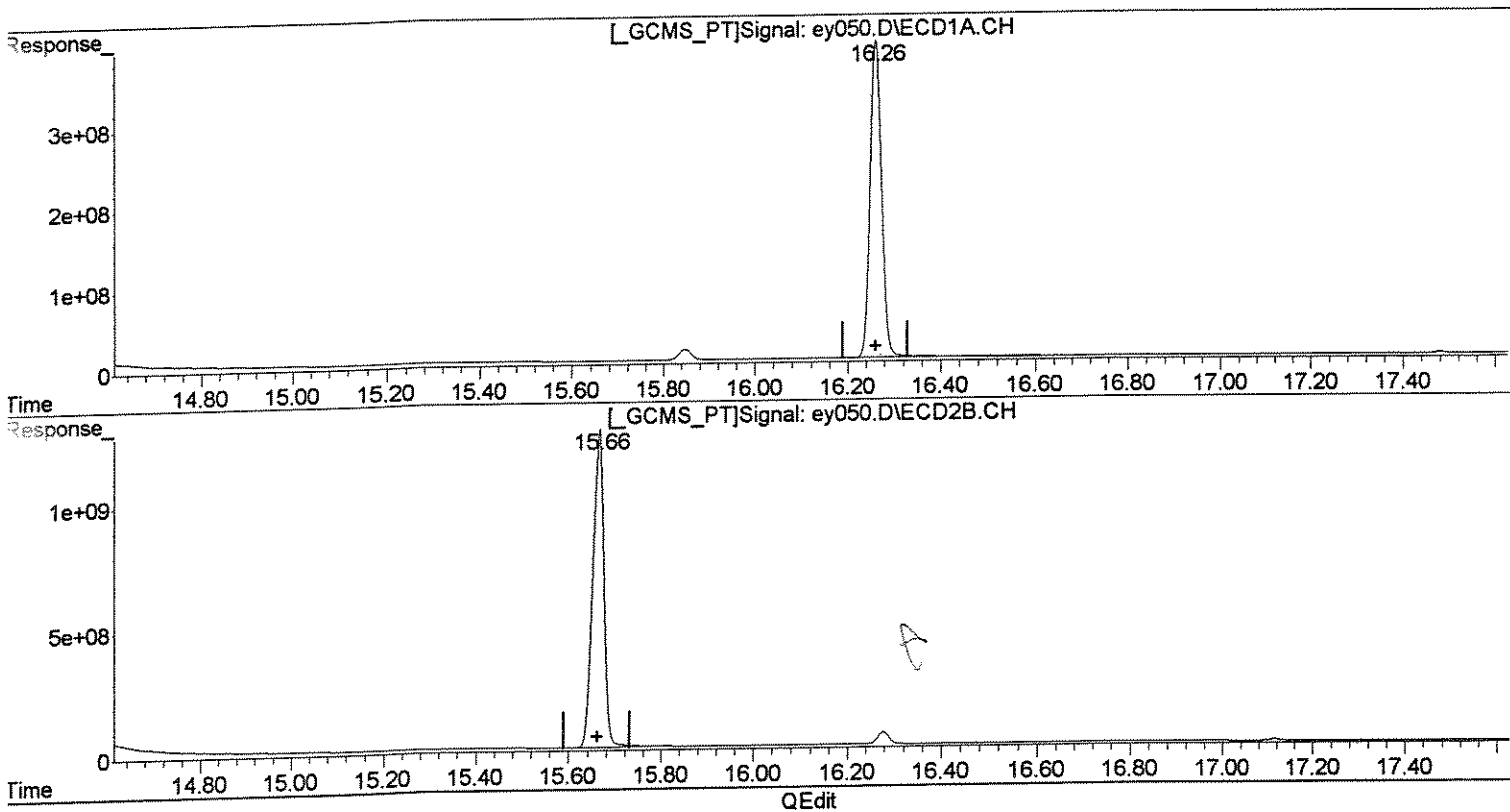
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
Data File : ey050.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 11 Jul 2008 12:41 am  
Operator : M.PEDRO  
Sample : kep/fam h  
Misc : initial cal  
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 11 11:01:29 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 10:59:43 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



(23) FAMPHUR (tc)  
16.26min 534.897ug/l  
response 6837873013

(23) FAMPHUR #2 (tc)  
15.66min 701.472ug/l m  
response 20604553043

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*MP*  
*7/11*

Quantitation Report (QT Reviewed)

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
 Data File : EY052.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11 Jul 2008 1:52 am  
 Operator : M.PEDRO  
 Sample : tox 1  
 Misc : initial cal  
 ALS Vial : 19 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 11 13:29:50 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 10:59:43 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

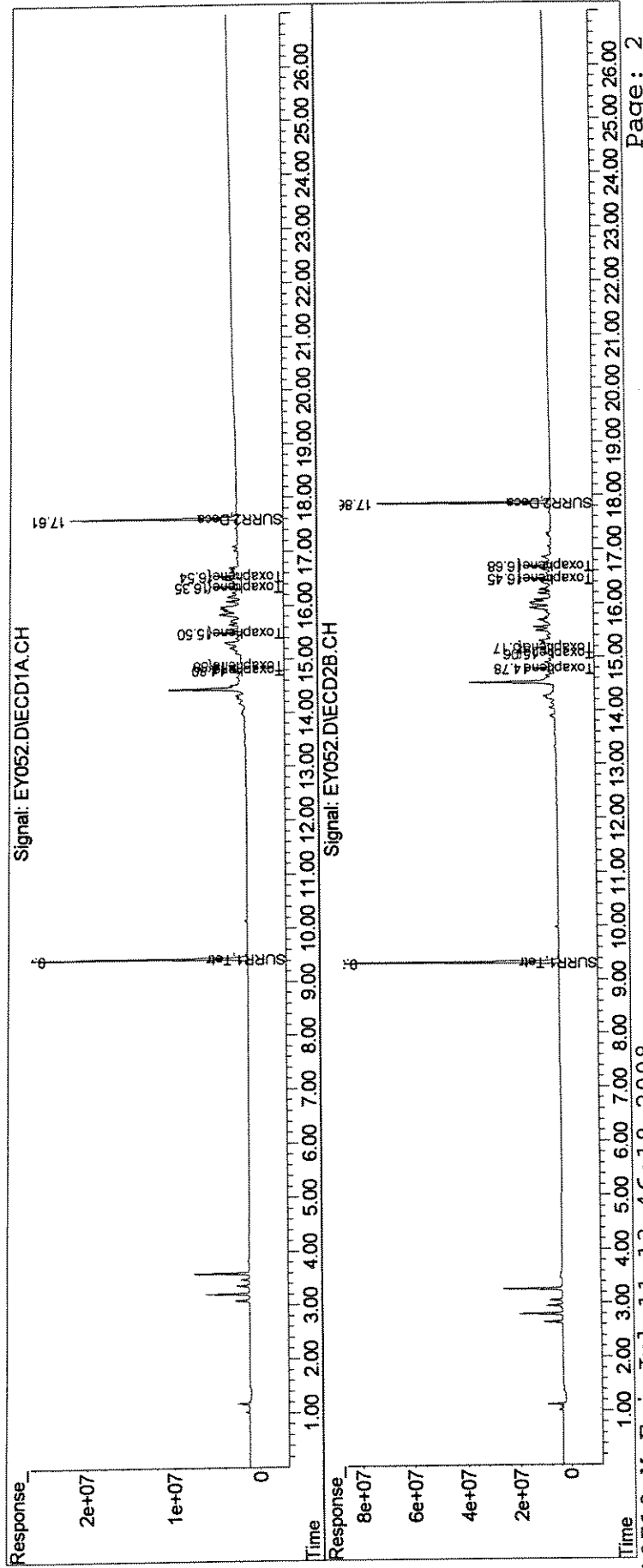
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
1) S SURR1,Tetrac	9.44	9.32	412.8E6	1693.2E6	22.371	28.807 #
Spiked Amount	100.000	Range 30 - 150	Recovery =		22.37%#	28.81%#
5) S SURR2,Decachloro	17.61	17.86	358.7E6	1152.1E6	20.965	26.730 #
Spiked Amount	100.000	Range 30 - 150	Recovery =		20.97%#	26.73%#
Target Compounds						
6) L8C Toxaphene	14.80	14.78	34630469	193.8E6	80.377m	138.631 #
7) L8C Toxaphene {2}	14.88	15.06	33184045	85286547	83.567m	109.986 #
8) L8C Toxaphene {3}	15.50	15.17	60026218	177.8E6	88.189	115.832 #
9) L8C Toxaphene {4}	16.35	16.45	73675628	182.5E6	79.715	123.180 #
0) L8C Toxaphene {5}	16.54	16.68	57709408	202.6E6	98.614	164.138 #
Sum Toxaphene			259.2E6	842.0E6	430.462	651.767
verage Toxaphene					86.092	130.353
Sum Chlordane			0	0	N.D.	N.D.
verage Chlordane					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQDATA\6890D\DATA\071008\  
Data File : EY052.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 11 Jul 2008 1:52 am  
Operator : M.PEDRO  
Sample : tox 1  
Misc : initial cal  
ALS Vial : 19 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 11 13:29:50 2008  
Quant Method : J:\ACQDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 10:59:43 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

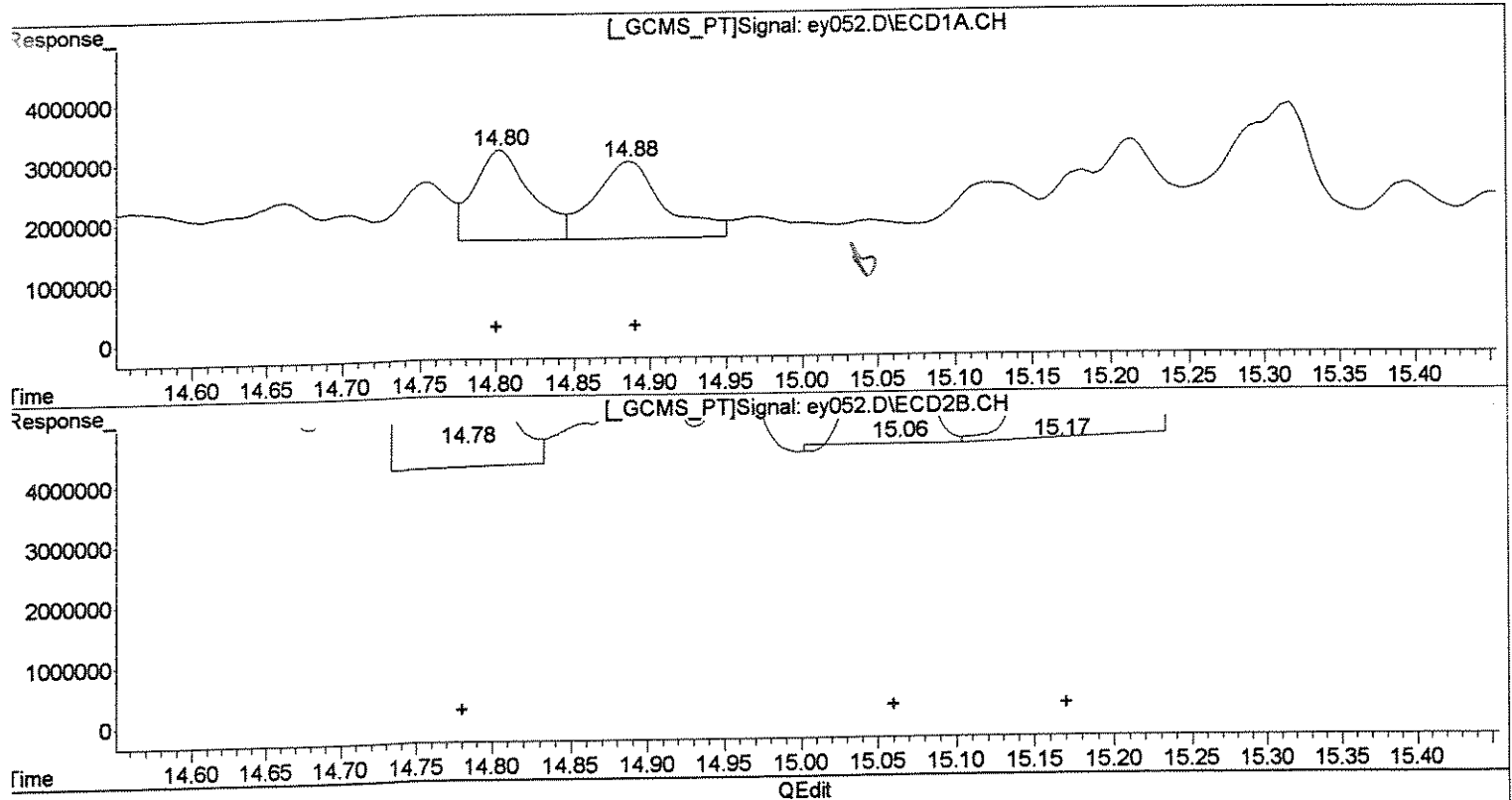


Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
 Data File : ey052.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11 Jul 2008 1:52 am  
 Operator : M.PEDRO  
 Sample : tox 1  
 Misc : initial cal  
 ALS Vial : 19 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 11 11:01:34 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 10:59:43 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



(26) Toxaphene (L8C)		
R.T.	Response	Conc
14.80	39043204	90.62
14.89	41383569	104.22
15.50	60026218	88.19
16.35	73675628	79.71
16.54	57709408	98.61
(26) Toxaphene #2 (L8C)		
R.T.	Response	Conc
14.78	193784941	138.63
15.06	85286547	109.99
15.17	177772552	115.83
16.45	182541318	123.18
16.68	202598619	164.14

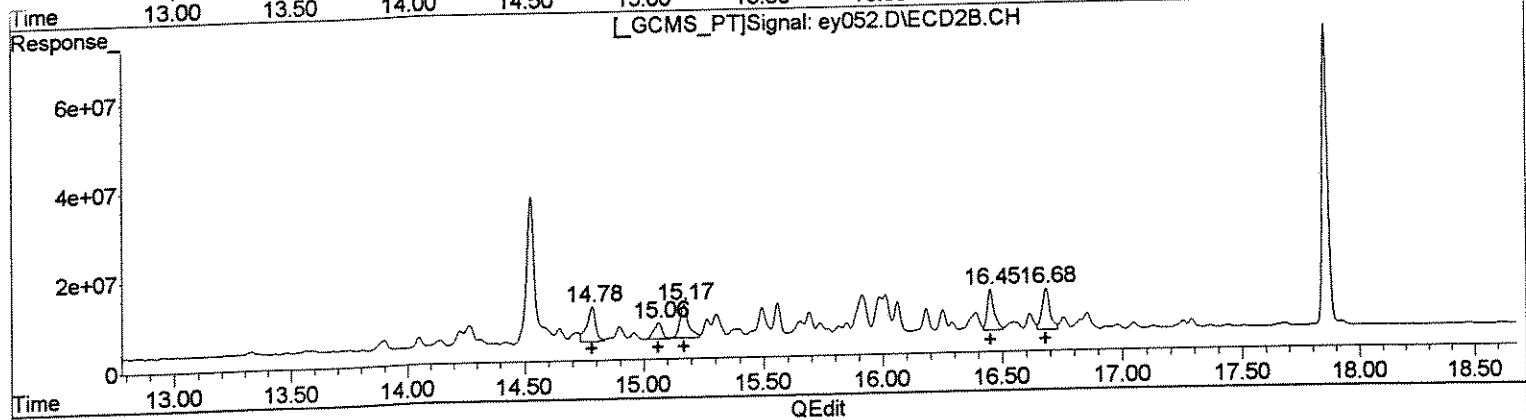
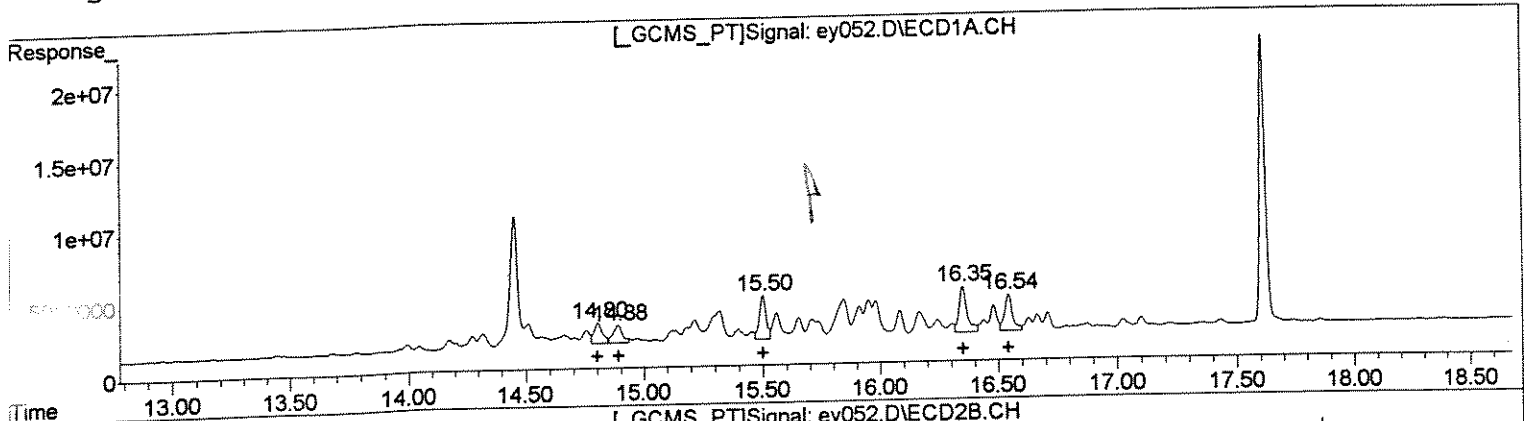
*Handwritten signature*

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
 Data File : ey052.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11 Jul 2008 1:52 am  
 Operator : M.PEDRO  
 Sample : tox 1  
 Misc : initial cal  
 ALS Vial : 19 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 11 11:01:34 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 10:59:43 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



(26) Toxaphene #2 (L8C)		
R.T.	Response	Conc
14.80	34630469	80.38
14.88	33184045	83.57
15.50	60026218	88.19
16.35	73675628	79.71
16.54	57709408	98.61
(26) Toxaphene #2 (L8C)		
R.T.	Response	Conc
14.78	193784941	138.63
15.06	85286547	109.99
15.17	177772552	115.83
16.45	182541318	123.18
16.68	202598619	164.14

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Quantitation Report (QT Reviewed)

Data Path : J:\ACQUADATA\6890D\DATA\071008\  
 Data File : EY053.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11 Jul 2008 2:27 am  
 Operator : M.PEDRO  
 Sample : tox ml  
 Misc : initial cal  
 ALS Vial : 20 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 11 13:30:20 2008  
 Quant Method : J:\ACQUADATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 10:59:43 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

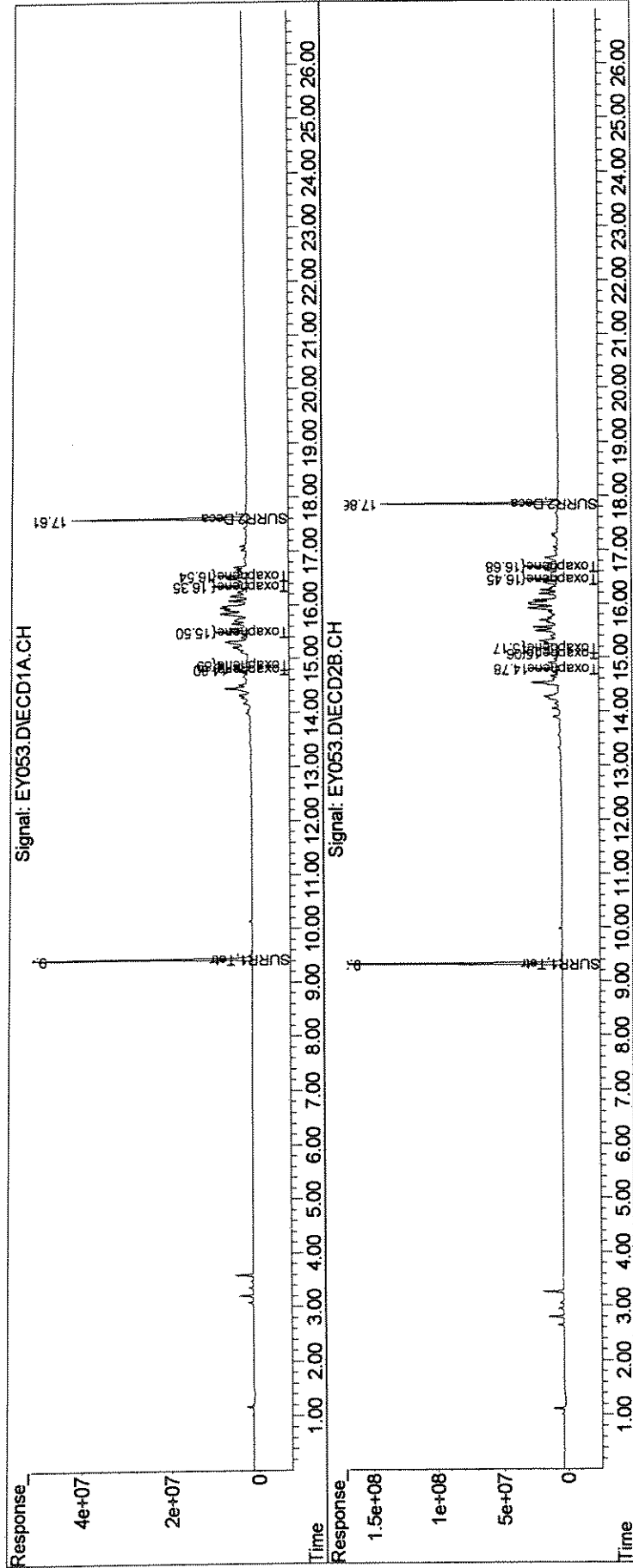
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
1) S SURR1,Tetrac	9.44	9.32	842.3E6	3371.8E6	45.651	57.366 #
Spiked Amount	100.000	Range 30 - 150	Recovery =		45.65%	57.37%
5) S SURR2,Decachloro	17.61	17.86	721.8E6	2303.7E6	42.185	53.447 #
Spiked Amount	100.000	Range 30 - 150	Recovery =		42.19%	53.45%
Target Compounds						
6) L8C Toxaphene	14.80	14.78	97648280	476.5E6	226.641	340.867 #
L8C Toxaphene {2}	14.89	15.06	94346720	223.9E6	237.592	288.764
L8C Toxaphene {3}	15.50	15.17	163.5E6	462.3E6	240.186	301.235 #
L8C Toxaphene {4}	16.35	16.45	200.1E6	474.6E6	216.503	320.238 #
0) L8C Toxaphene {5}	16.54	16.68	161.6E6	554.2E6	276.206	448.989 #
Sum Toxaphene			717.2E6	2191.5E6	1197.128	1700.093
verage Toxaphene					239.426	340.019
Sum Chlordane			0	0	N.D.	N.D.
verage Chlordane					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
Data File : EY053.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 11 Jul 2008 2:27 am  
Operator : M.PEDRO  
Sample : tox ml  
Misc : initial cal  
ALS Vial : 20 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 11 13:30:20 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 10:59:43 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



Data Path : J:\ACQUDATA\6890D\DATA\071008\  
 Data File : EY054.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11 Jul 2008 3:03 am  
 Operator : M.PEDRO  
 Sample : tox m  
 Misc : initial cal  
 ALS Vial : 21 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 11 13:30:46 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 10:59:43 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STX-CLP Signal #2 Phase: STX-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

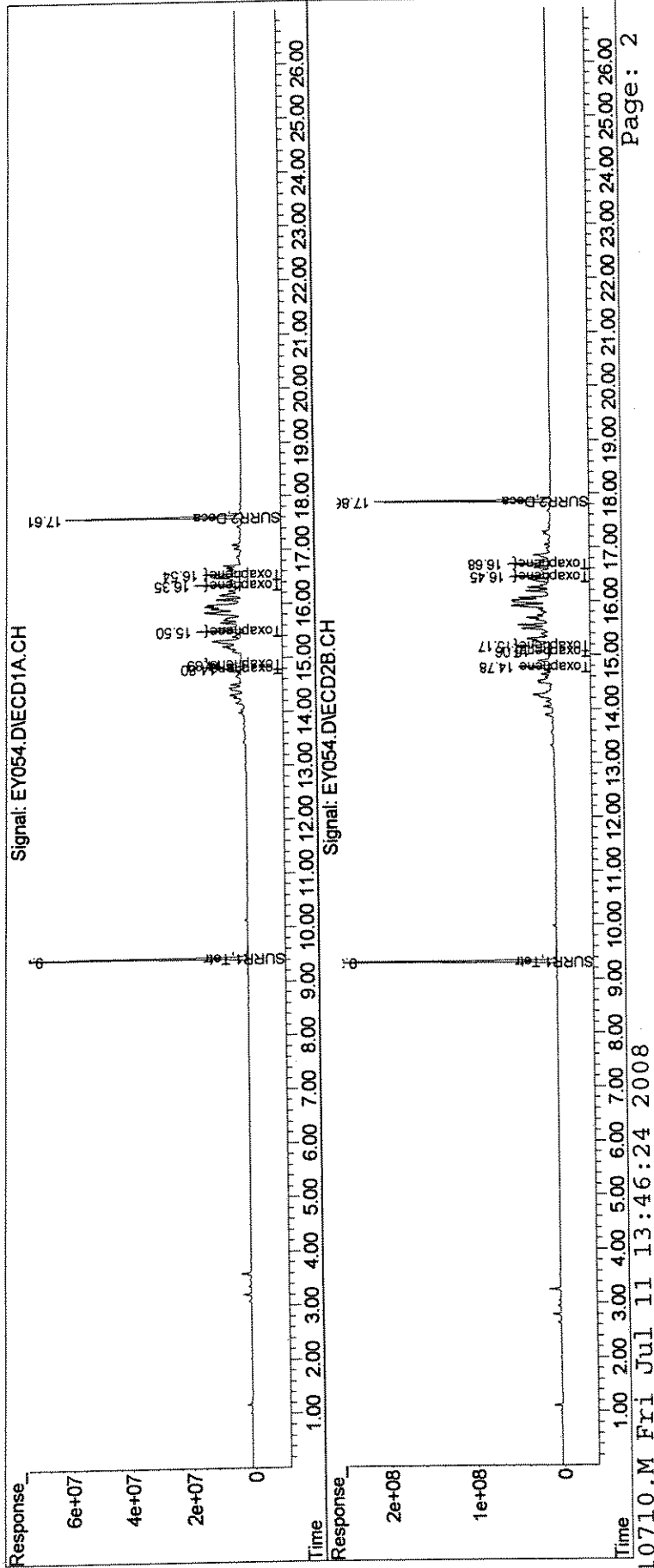
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
-----						
System Monitoring Compounds						
1) S SURR1,Tetrac	9.44	9.32	1264.2E6	4919.8E6	68.517	83.703
Spiked Amount	100.000	Range	30 - 150	Recovery =	68.52%	83.70%
5) S SURR2,Decachloro	17.61	17.86	1083.2E6	3430.6E6	63.305	79.592 #
Spiked Amount	100.000	Range	30 - 150	Recovery =	63.31%	79.59%
Target Compounds						
6) L8C Toxaphene	14.80	14.78	193.4E6	903.7E6	448.900	646.487 #
7) L8C Toxaphene {2}	14.89	15.06	156.8E6	427.5E6	394.754	551.305 #
8) L8C Toxaphene {3}	15.50	15.17	319.8E6	881.3E6	469.812	574.244
L8C Toxaphene {4}	16.35	16.45	388.7E6	904.9E6	420.536	610.608 #
L8C Toxaphene {5}	16.54	16.68	317.4E6	1072.1E6	542.332	868.541 #
Sum Toxaphene			1376.0E6	4189.4E6	2276.334	3251.185
verage Toxaphene					455.267	650.237
Sum Chlordane			0	0	N.D.	N.D.
verage Chlordane					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
Data File : EY054.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 11 Jul 2008 3:03 am  
Operator : M.PEDRO  
Sample : tox m  
Misc : initial cal  
ALS Vial : 21 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 11 13:30:46 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 10:59:43 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STX-CLP Signal #2 Phase: STX-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



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Quantitation Report (QT Reviewed)

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
 Data File : EY055.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11 Jul 2008 3:38 am  
 Operator : M.PEDRO  
 Sample : tox mh  
 Misc : initial cal  
 ALS Vial : 22 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 11 13:31:19 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 10:59:43 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

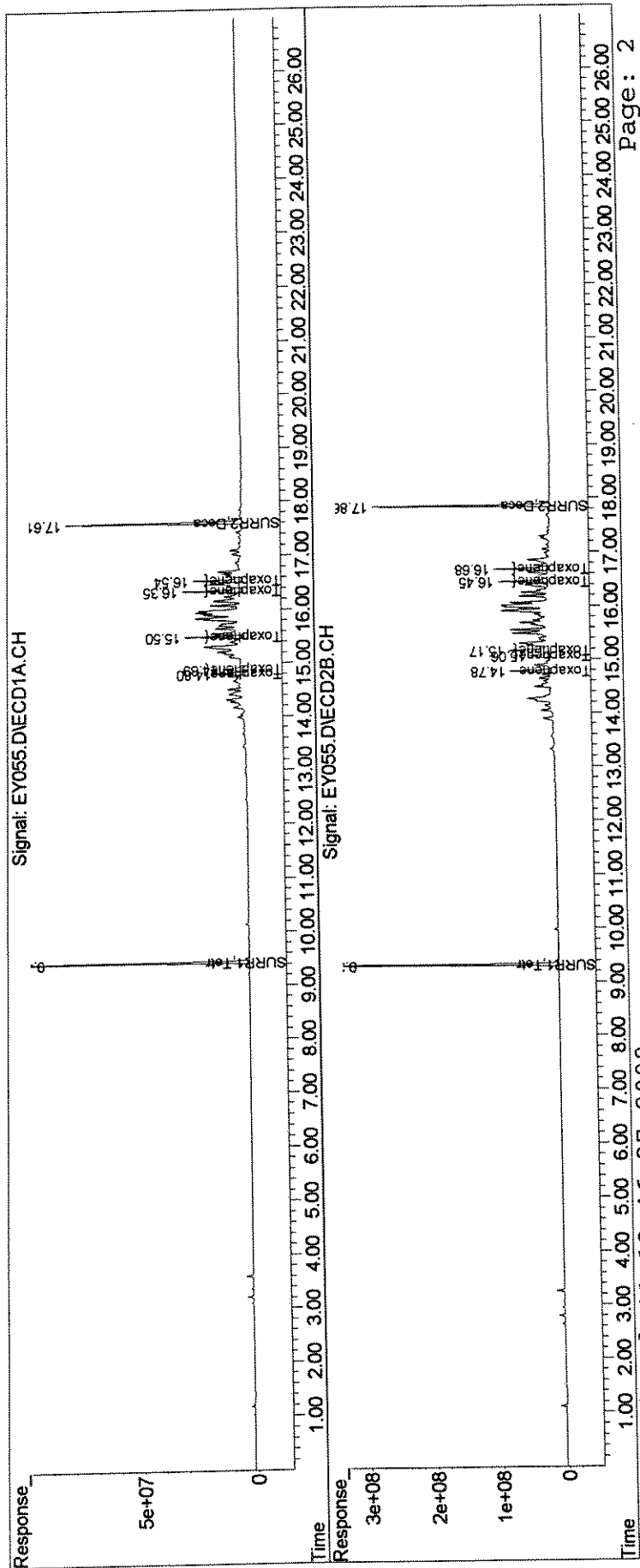
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
-----						
System Monitoring Compounds						
1) S SURR1,Tetrac	9.44	9.32	1706.9E6	6498.9E6	92.507	110.569
Spiked Amount	100.000	Range 30 - 150	Recovery =		92.51%	110.57%
5) S SURR2,Decachloro	17.61	17.86	1475.0E6	4619.1E6	86.204	107.165
Spiked Amount	100.000	Range 30 - 150	Recovery =		86.20%	107.16%
Target Compounds						
6) L8C Toxaphene	14.80	14.78	320.4E6	1493.0E6	743.593	1068.053 #
L8C Toxaphene {2}	14.89	15.06	289.8E6	705.3E6	729.833	909.615
L8C Toxaphene {3}	15.50	15.17	544.1E6	1469.1E6	799.415	957.199
9) L8C Toxaphene {4}	16.35	16.45	656.8E6	1520.8E6	710.669	1026.265 #
0) L8C Toxaphene {5}	16.54	16.68	542.8E6	1816.8E6	927.499	1471.888 #
Sum Toxaphene			2353.9E6	7005.0E6	3911.009	5433.020
verage Toxaphene					782.202	1086.604
Sum Chlordane			0	0	N.D.	N.D.
verage Chlordane					0.000	0.000
-----						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
 Data File : EY055.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11 Jul 2008 3:38 am  
 Operator : M.PEDRO  
 Sample : tox mh  
 Misc : initial cal  
 ALS Vial : 22 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 11 13:31:19 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 10:59:43 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STX-CLP Signal #2 Phase: STX-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



Quantitation Report (QT Reviewed)

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
 Data File : EY056.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11 Jul 2008 4:14 am  
 Operator : M.PEDRO  
 Sample : tox h  
 Misc : initial cal  
 ALS Vial : 23 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 11 13:31:46 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 10:59:43 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

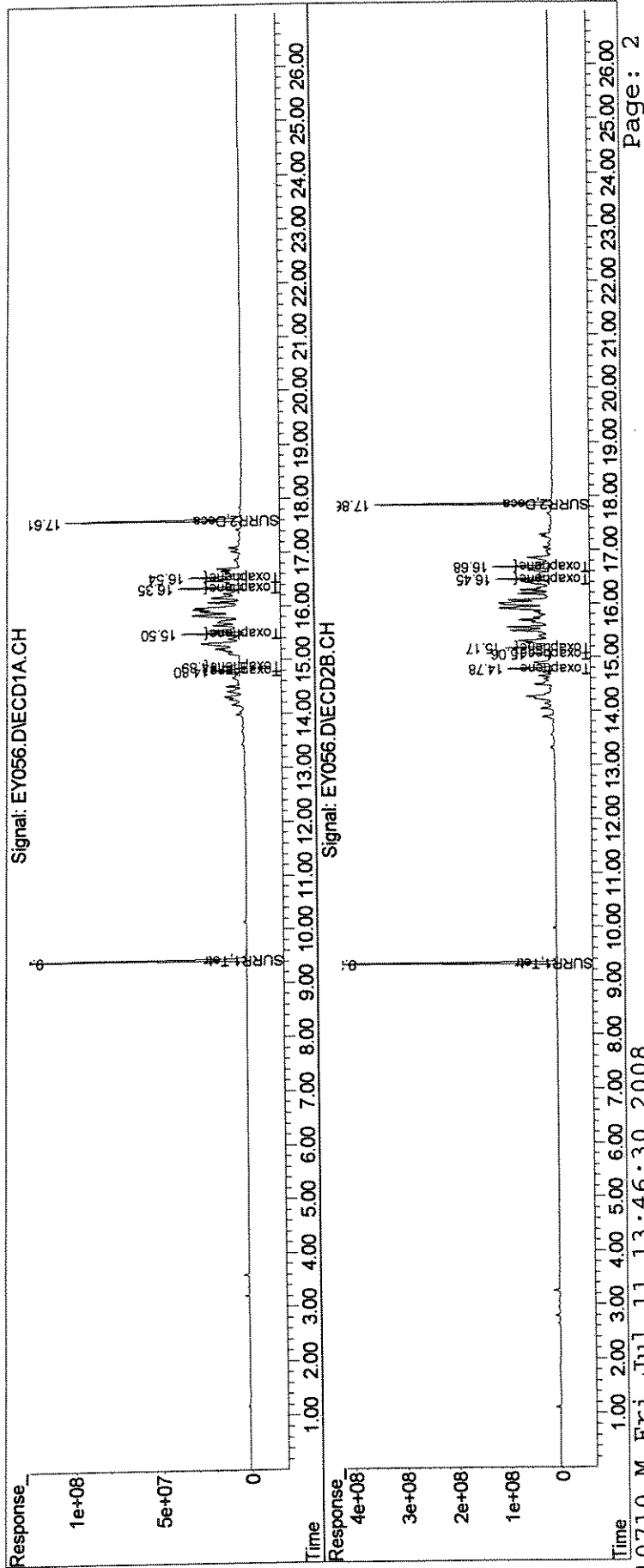
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/1	ug/1
System Monitoring Compounds						
1) S SURR1,Tetrac	9.44	9.32	2140.9E6	8008.4E6	116.031	136.250
Spiked Amount	100.000	Range 30 -	150	Recovery =	116.03%	136.25%
5) S SURR2,Decachloro	17.61	17.86	1866.9E6	5860.5E6	109.106	135.966
Spiked Amount	100.000	Range 30 -	150	Recovery =	109.11%	135.97%
Target Compounds						
6) L8C Toxaphene	14.80	14.78	443.4E6	2032.5E6	1029.229	1454.037 #
7) L8C Toxaphene {2}	14.89	15.06	369.7E6	966.8E6	930.998	1246.835 #
8) L8C Toxaphene {3}	15.50	15.17	746.0E6	1998.6E6	1095.947	1302.217
9) L8C Toxaphene {4}	16.35	16.45	902.2E6	2069.2E6	976.111	1396.316 #
0) L8C Toxaphene {5}	16.54	16.68	746.0E6	2472.7E6	1274.721	2003.280 #
Sum Toxaphene			3207.2E6	9539.8E6	5307.006	7402.686
verage Toxaphene					1061.401	1480.537
Sum Chlordane			0	0	N.D.	N.D.
verage Chlordane					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQDATA\6890D\DATA\071008\  
 Data File : EY056.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11 Jul 2008 4:14 am  
 Operator : M.PEDRO  
 Sample : tox h  
 Misc : initial cal  
 ALS Vial : 23 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 11 13:31:46 2008  
 Quant Method : J:\ACQDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 10:59:43 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STX-CLP Signal #2 Phase: STX-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



00512



Data Path : J:\ACQUDATA\6890D\DATA\071008\  
 Data File : EY057.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11 Jul 2008 4:49 am  
 Operator : M.PEDRO  
 Sample : chlor 1  
 Misc : initial cal  
 ALS Vial : 24 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 11 13:32:22 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 10:59:43 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

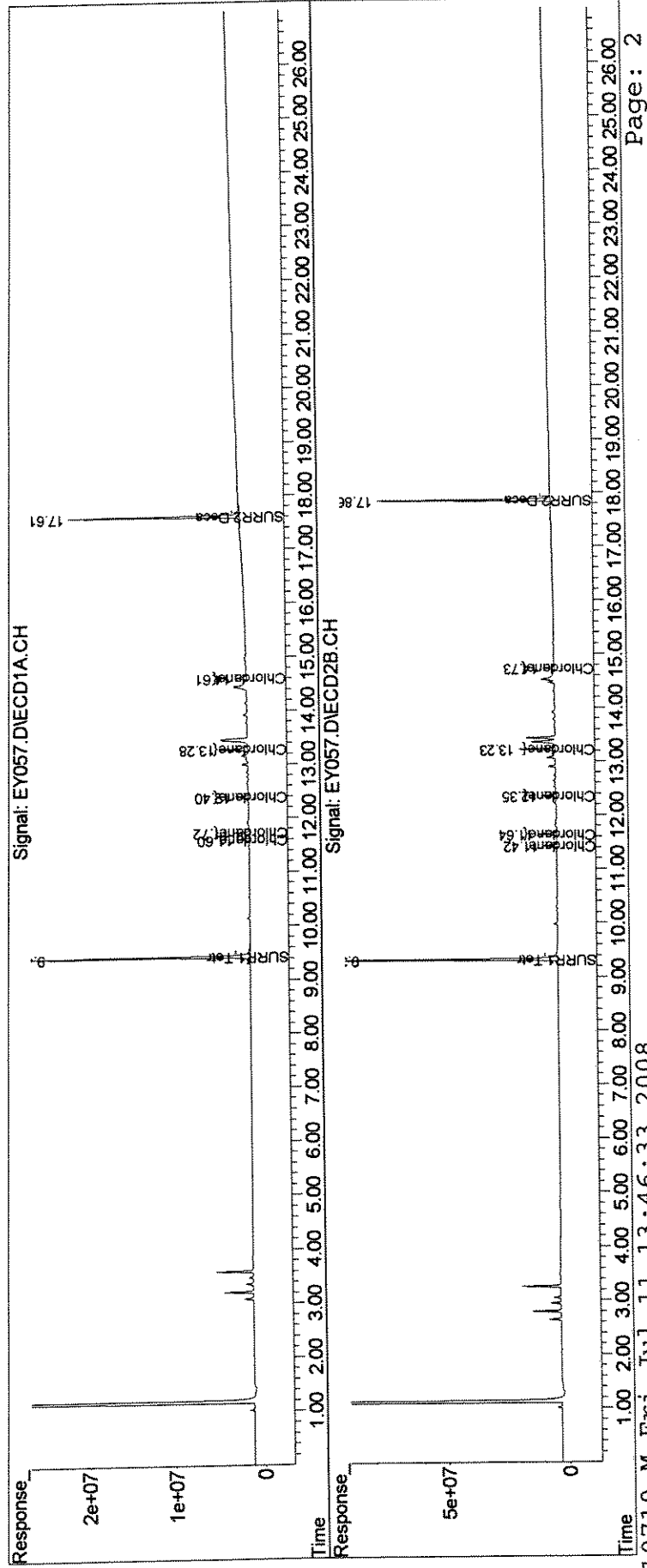
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/1	ug/1
System Monitoring Compounds						
1) S SURR1,Tetrac	9.44	9.32	416.4E6	1689.2E6	22.567	28.740 #
Spiked Amount	100.000	Range	30 - 150	Recovery =	22.57%#	28.74%#
5) S SURR2,Decachloro	17.61	17.86	379.3E6	1214.2E6	22.167	28.170 #
Spiked Amount	100.000	Range	30 - 150	Recovery =	22.17%#	28.17%#
Target Compounds						
Sum Toxaphene			0	0	N.D.	N.D.
verage Toxaphene					0.000	0.000
1) L9C Chlordane	11.60	11.42	19799636	79985155	26.545	31.488
2) L9C Chlordane {2}	11.72	11.64	27122912	109.8E6	25.314	33.209 #
3) L9C Chlordane {3}	12.40	12.35	27280528	94374008	28.224	35.662 #
4) L9C Chlordane {4}	13.28	13.23	64201779	241.9E6	23.986	36.655 #
5) L9C Chlordane {5}	14.61	14.73	25322117	94015327	28.093	36.725 #
Sum Chlordane			163.7E6	620.0E6	132.161	173.739
verage Chlordane					26.432	34.748

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
Data File : EY057.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 11 Jul 2008 4:49 am  
Operator : M.PEDRO  
Sample : chlor l  
Misc : initial cal  
ALS Vial : 24 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 11 13:32:22 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 10:59:43 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STX-CLP Signal #2 Phase: STX-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



Data Path : J:\ACQUDATA\6890D\DATA\071008\  
 Data File : EY058.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11 Jul 2008 5:25 am  
 Operator : M.PEDRO  
 Sample : chlor ml  
 Misc : initial cal  
 ALS Vial : 25 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 11 13:32:55 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 10:59:43 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

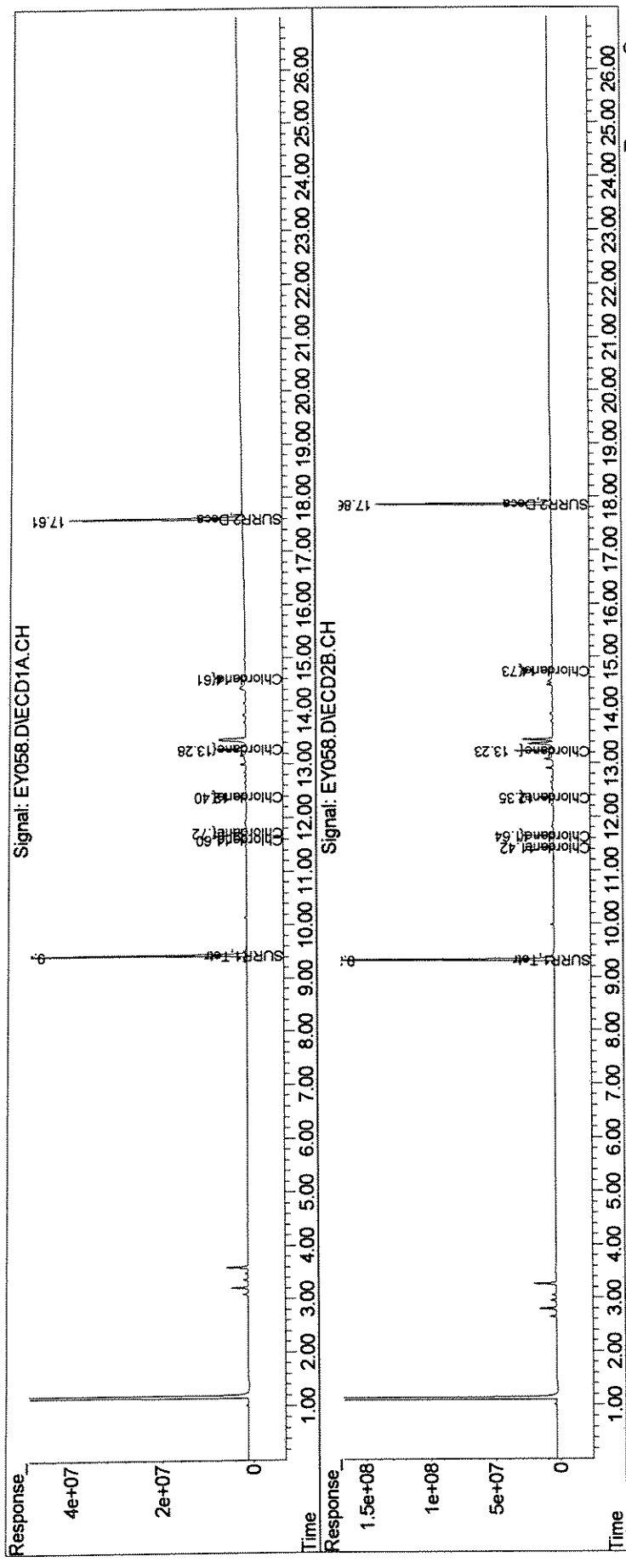
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
-----						
System Monitoring Compounds						
1) S SURR1,Tetrac	9.44	9.32	808.6E6	3239.3E6	43.825	55.111 #
Spiked Amount	100.000	Range	30 - 150	Recovery =	43.83%	55.11%
5) S SURR2,Decachloro	17.61	17.86	687.5E6	2311.4E6	40.181	53.625 #
Spiked Amount	100.000	Range	30 - 150	Recovery =	40.18%	53.63%
Target Compounds						
Sum Toxaphene			0	0	N.D.	N.D.
verage Toxaphene					0.000	0.000
L9C Chlordane	11.60	11.42	39061951	161.7E6	52.370	63.666
2) L9C Chlordane {2}	11.72	11.64	54692888	225.6E6	51.045	68.235 #
3) L9C Chlordane {3}	12.40	12.35	52450841	183.0E6	54.264	69.166 #
4) L9C Chlordane {4}	13.28	13.23	134.4E6	495.4E6	50.227	75.076 #
5) L9C Chlordane {5}	14.61	14.73	45606330	171.0E6	50.597	66.806 #
Sum Chlordane			326.3E6	1236.7E6	258.502	342.950
verage Chlordane					51.700	68.590
-----						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQDATA\6890D\DATA\071008\  
 Data File : EY058.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11 Jul 2008 5:25 am  
 Operator : M.PEDRO  
 Sample : chlor ml  
 Misc : initial cal  
 ALS Vial : 25 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 11 13:32:55 2008  
 Quant Method : J:\ACQDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 10:59:43 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



80810

Quantitation Report (QT Reviewed)

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
 Data File : EY059.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11 Jul 2008 6:00 am  
 Operator : M.PEDRO  
 Sample : chlor m  
 Misc : initial cal  
 ALS Vial : 26 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 11 13:33:27 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 10:59:43 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
----------	------	------	--------	--------	------	------

System Monitoring Compounds							
1) S	SURR1,Tetrac	9.44	9.32	1255.5E6	4842.2E6	68.045	82.383
	Spiked Amount	100.000	Range	30 - 150	Recovery	=	68.05%
5) S	SURR2,Decachloro	17.61	17.86	1060.9E6	3542.7E6	62.004	82.192 #
	Spiked Amount	100.000	Range	30 - 150	Recovery	=	62.00%

Target Compounds							
	Sum Toxaphene			0	0	N.D.	N.D.
	Average Toxaphene					0.000	0.000

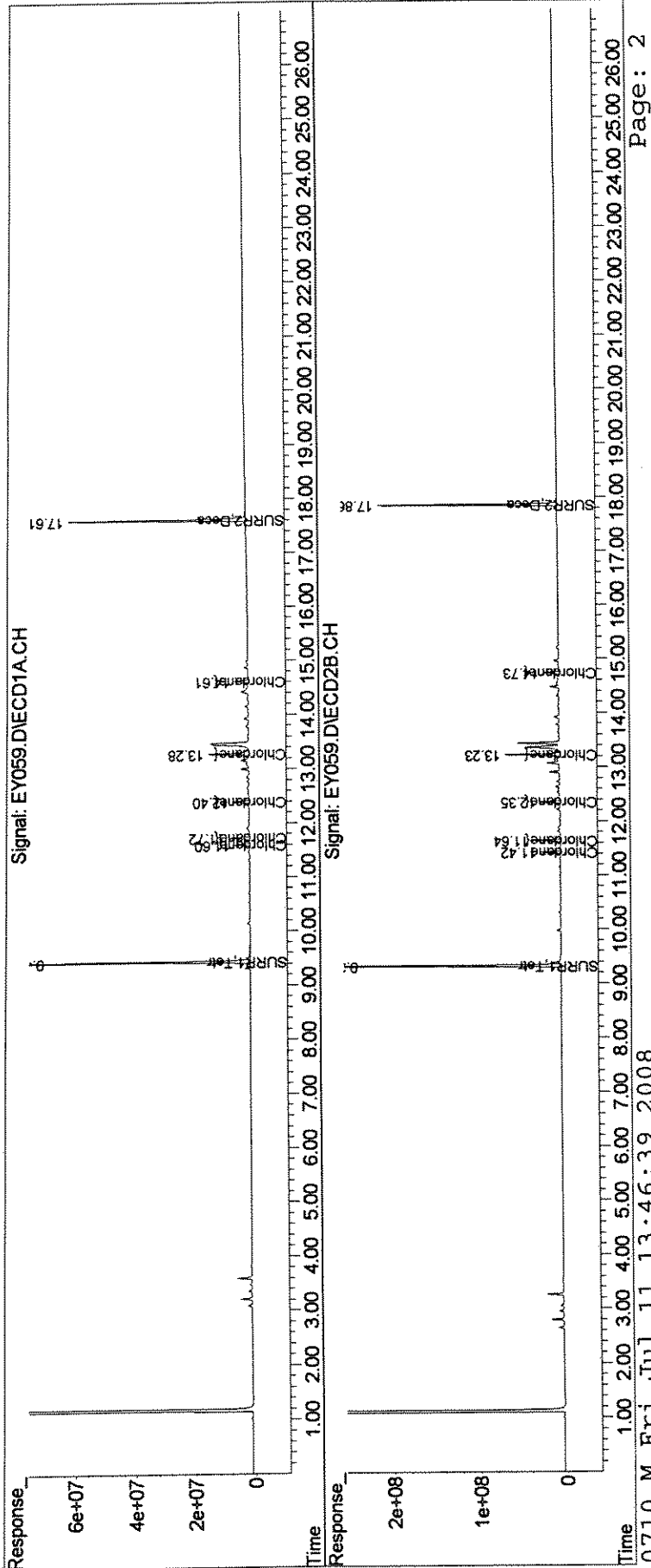
1) L9C	Chlordane	11.60	11.42	79025921	326.1E6	105.949	128.380
2) L9C	Chlordane {2}	11.72	11.64	112.6E6	459.4E6	105.083	138.964 #
3) L9C	Chlordane {3}	12.40	12.35	102.7E6	360.9E6	106.293	136.385 #
4) L9C	Chlordane {4}	13.28	13.23	278.1E6	1023.4E6	103.896	155.102 #
5) L9C	Chlordane {5}	14.61	14.73	90282055	344.5E6	100.162	134.568 #
	Sum Chlordane			662.7E6	2514.3E6	521.382	693.399
	Average Chlordane					104.276	138.680

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
 Data File : EY059.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11 Jul 2008 6:00 am  
 Operator : M.PEDRO  
 Sample : chlor m  
 Misc : initial cal  
 ALS Vial : 26 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 11 13:33:27 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 10:59:43 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : STX-CLP Signal #2 Phase: STX-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



00518

Data Path : J:\ACQUADATA\6890D\DATA\071008\  
 Data File : EY060.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11 Jul 2008 6:36 am  
 Operator : M.PEDRO  
 Sample : chlor mh  
 Misc : initial cal  
 ALS Vial : 27 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 11 13:33:59 2008  
 Quant Method : J:\ACQUADATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 10:59:43 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
-----						
System Monitoring Compounds						
1) S SURR1,Tetrac	9.44	9.32	1679.2E6	6361.7E6	91.006	108.235
Spiked Amount	100.000	Range	30 - 150	Recovery =	91.01%	108.23%
5) S SURR2,Decachloro	17.61	17.86	1405.6E6	4666.5E6	82.145	108.265 #
Spiked Amount	100.000	Range	30 - 150	Recovery =	82.14%	108.27%
Target Compounds						
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000
1) L9C Chlordane	11.60	11.42	200.2E6	810.3E6	268.371	319.010
2) L9C Chlordane {2}	11.72	11.64	287.4E6	1138.0E6	268.185	344.249 #
3) L9C Chlordane {3}	12.40	12.35	248.8E6	868.6E6	257.436	328.241 #
4) L9C Chlordane {4}	13.28	13.23	715.7E6	2550.7E6	267.376	386.561 #
5) L9C Chlordane {5}	14.61	14.73	227.1E6	870.8E6	251.929	340.150 #
Sum Chlordane			1679.1E6	6238.5E6	1313.297	1718.211
Average Chlordane					262.659	343.642
-----						

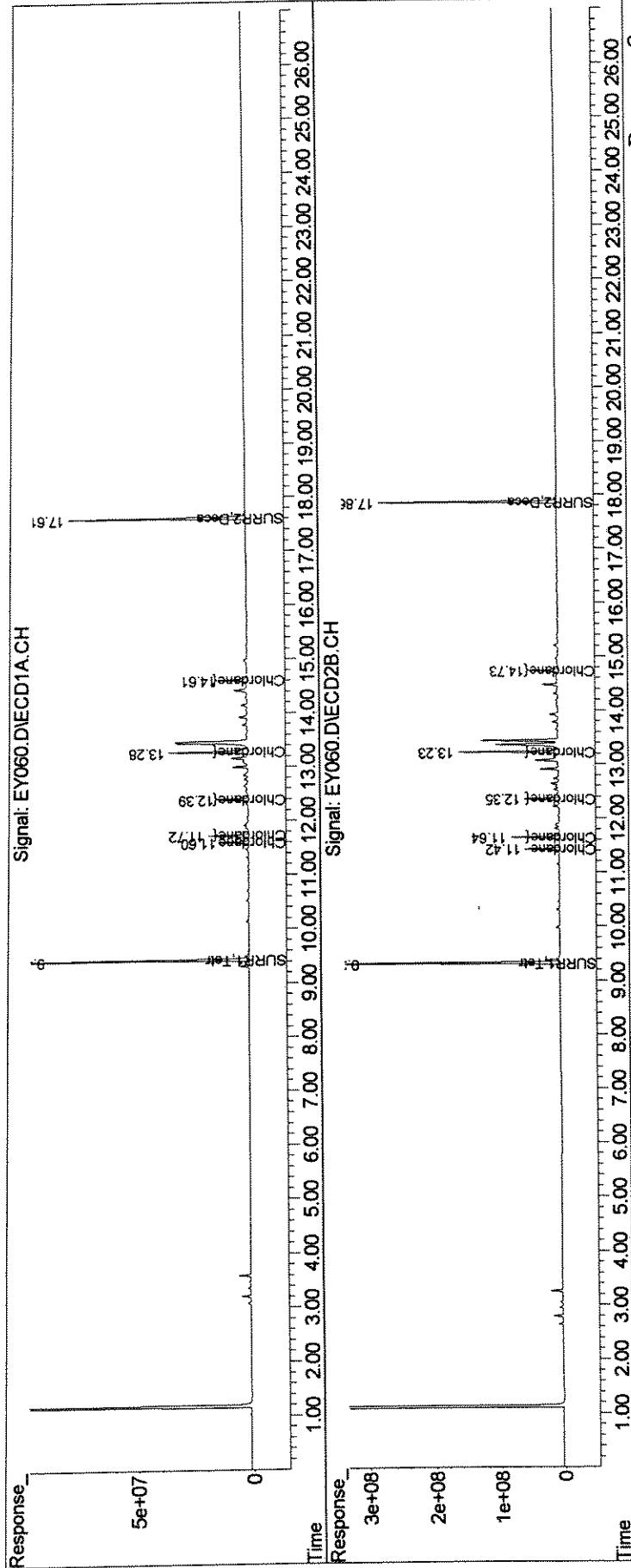
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

*Handwritten:* 2/11

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
 Data File : EY060.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11 Jul 2008 6:36 am  
 Operator : M.PEDRO  
 Sample : chlor mh  
 Misc : initial cal  
 ALS Vial : 27 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 11 13:33:59 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 10:59:43 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





Data Path : J:\ACQUDATA\6890D\DATA\071008\  
 Data File : EY061.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11 Jul 2008 7:11 am  
 Operator : M.PEDRO  
 Sample : chlor h  
 Misc : initial cal  
 ALS Vial : 28 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 11 13:34:29 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 10:59:43 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STX-CLP Signal #2 Phase: STX-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

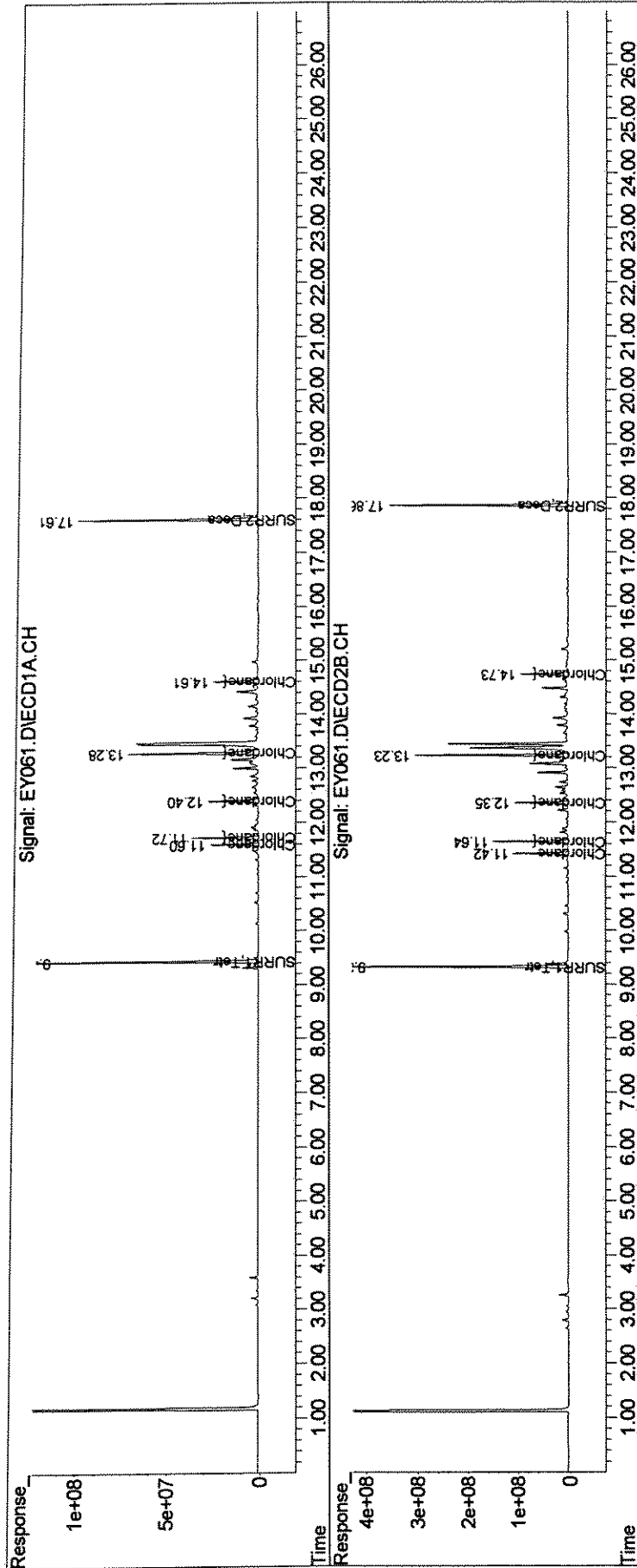
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
1) S SURR1,Tetrac	9.44	9.32	2102.5E6	7853.3E6	113.948	133.611
Spiked Amount	100.000	Range 30 - 150	Recovery =		113.95%	133.61%
2) S SURR2,Decachloro	17.61	17.86	1768.4E6	5883.7E6	103.349	136.504 #
Spiked Amount	100.000	Range 30 - 150	Recovery =		103.35%	136.50%
Target Compounds						
Sum Toxaphene			0	0	N.D.	N.D.
verage Toxaphene					0.000	0.000
1) L9C Chlordane	11.60	11.42	411.1E6	1615.6E6	551.164	636.032
2) L9C Chlordane {2}	11.72	11.64	589.3E6	2224.2E6	549.986	672.790
3) L9C Chlordane {3}	12.40	12.35	497.6E6	1689.7E6	514.766	638.509
4) L9C Chlordane {4}	13.28	13.23	1466.3E6	5042.9E6	547.807	764.260 #
5) L9C Chlordane {5}	14.61	14.73	467.9E6	1764.1E6	519.076	689.096 #
Sum Chlordane			3432.1E6	12336.5E6	2682.799	3400.687
verage Chlordane					536.560	680.137

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
Data File : EY061.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 11 Jul 2008 7:11 am  
Operator : M.PEDRO  
Sample : chlor h  
Misc : initial cal  
ALS Vial : 28 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 11 13:34:29 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 10:59:43 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



00522

Evaluate Continuing Calibration Report

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
 Data File : ey051.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11 Jul 2008 1:16 am  
 Operator : M.PEDRO  
 Sample : kep/fam icv  
 Misc : initial cal  
 ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 11 13:59:25 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
16 tc KEPONE	7.316	9.121 E6	-24.7#	116	0.00
23 tc FAMPHUR	13.568	14.423 E6	-6.3	104	0.00

Signal #2

16 tc KEPONE	22.994	29.181 E6	-26.9#	122	0.00
23 tc FAMPHUR	41.783	41.969 E6	-0.4	100	0.00

Evaluate Continuing Calibration Report - Not Found

1 S SURR1,Tetrac	20.181	0.000 E6	100.0#	0#	-9.44#
2 TC HEXACHLOROBENZENE	29.386	0.000 E6	100.0#	0#	-10.13#
3 tc alpha-BHC	30.916	0.000 E6	100.0#	0#	-10.44#
4 tcm gamma-BHC (L	28.206	0.000 E6	100.0#	0#	-10.97#
5 tcm Heptachlor	27.944	0.000 E6	100.0#	0#	-11.73#
6 tcm Aldrin	24.759	0.000 E6	100.0#	0#	-12.18#
7 tc beta-BHC	11.483	0.000 E6	100.0#	0#	-11.12#
8 TC delta-BHC	27.198	0.000 E6	100.0#	0#	-11.40#
9 tc Heptachlor E	22.762	0.000 E6	100.0#	0#	-13.10#
10 tc alpha-Endosu	20.460	0.000 E6	100.0#	0#	-13.68#
11 tc gamma-Chlord	21.924	0.000 E6	100.0#	0#	-13.28#
12 tc alpha-Chlord	21.387	0.000 E6	100.0#	0#	-13.48#
13 tc 4,4'-DDE	21.781	0.000 E6	100.0#	0#	-13.58#
14 tcm Dieldrin	22.843	0.000 E6	100.0#	0#	-14.03#
15 tcm Endrin	20.719	0.000 E6	100.0#	0#	-14.38#
17 tc beta-Endosul	18.589	0.000 E6	100.0#	0#	-14.72#
18 tc 4,4'-DDD	17.994	0.000 E6	100.0#	0#	-14.46#
19 tcm 4,4'-DDT	19.138	0.000 E6	100.0#	0#	-14.87#
20 tc Endrin Aldeh	14.678	0.000 E6	100.0#	0#	-15.35#
21 tc Endosulfan S	16.846	0.000 E6	100.0#	0#	-15.99#

Data Path : J:\ACQUADATA\6890D\DATA\071008\  
 Data File : ey051.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11 Jul 2008 1:16 am  
 Operator : M.PEDRO  
 Sample : kep/fam icv  
 Misc : initial cal  
 ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 11 13:59:25 2008  
 Quant Method : J:\ACQUADATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/1	ug/1
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System Monitoring Compounds

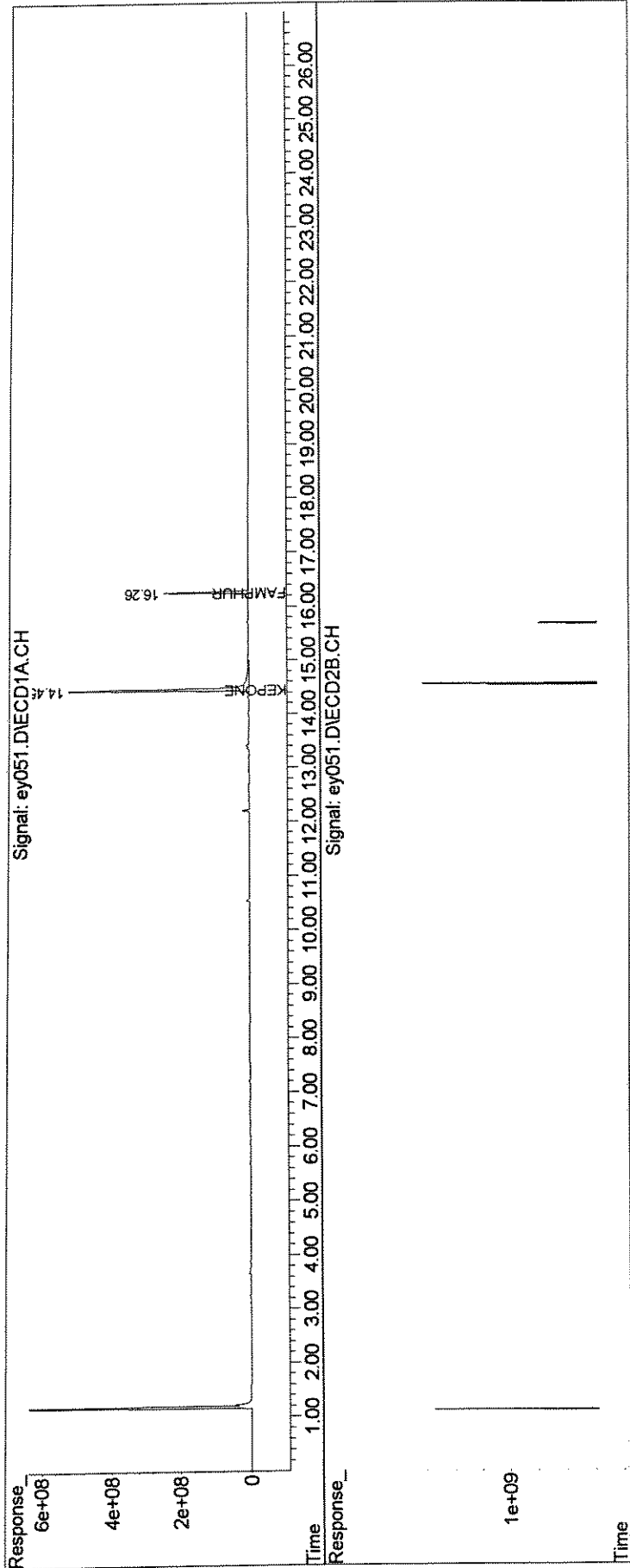
Target Compounds	RT#1	RT#2	Resp#1	Resp#2	ug/1	ug/1
6) tc KEPONE	14.45	14.53	13681.8E6	43771.0E6	1870.182	1903.560
3) tc FAMPHUR	16.26	15.66	4326.9E6	12590.6E6	318.894	301.331
Sum Toxaphene			0	0	N.D.	N.D.
verage Toxaphene					0.000	0.000
am Chlordane			0	0	N.D.	N.D.
age Chlordane					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
 Data File : ey051.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11 Jul 2008 1:16 am  
 Operator : M.PEDRO  
 Sample : kep/fam icv  
 Misc : initial cal  
 ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 11 13:59:25 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STX-CLP Signal #2 Phase: STX-CLPII  
 Signal #1 Info : 0.32nm 30m Signal #2 Info : 0.32mm 30m



689075

Evaluate Continuing Calibration Report

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
 Data File : ey062.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11 Jul 2008 7:47 am  
 Operator : M.PEDRO  
 Sample : pest icv  
 Misc : initial cal  
 ALS Vial : 29 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 11 14:00:16 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	AvgRF	CCRF	%Dev	Area%	Dev (Min)
3 tc alpha-BHC	30.916	30.355 E6	1.8	97	0.00
4 tcm gamma-BHC (L)	28.206	28.307 E6	-0.4	99	0.00
5 tcm Heptachlor	27.944	27.557 E6	1.4	98	0.00
6 tcm Aldrin	24.759	24.655 E6	0.4	99	0.00
7 tc beta-BHC	11.483	11.154 E6	2.9	99	0.00
8 TC delta-BHC	27.198	27.170 E6	0.1	99	0.00
9 tc Heptachlor E	22.762	22.338 E6	1.9	98	0.00
10 tc alpha-Endosu	20.460	20.836 E6	-1.8	102	0.00
11 tc gamma-Chlord	21.924	22.312 E6	-1.8	102	0.00
12 tc alpha-Chlord	21.387	20.826 E6	2.6	98	0.00
13 tc 4,4'-DDE	21.781	21.296 E6	2.2	97	0.00
14 tcm Dieldrin	22.843	22.323 E6	2.3	96	0.00
15 tcm Endrin	20.719	20.006 E6	3.4	95	0.00
17 tc beta-Endosul	18.589	17.934 E6	3.5	96	0.00
18 tc 4,4'-DDD	17.994	18.204 E6	-1.2	103	0.00
19 tcm 4,4'-DDT	19.138	20.191 E6	-5.5	103	0.00
20 tc Endrin Aldeh	14.678	14.754 E6	-0.5	100	0.00
21 tc Endosulfan S	16.846	16.754 E6	0.5	100	0.00
22 tc Methoxychlor	9.313	9.354 E6	-0.4	99	0.00
24 tc Endrin Keton	19.363	19.624 E6	-1.3	101	0.00

Signal #2

3 tc alpha-BHC	118.675	124.742 E6	-5.1	103	0.00
4 tcm gamma-BHC (L)	105.076	112.406 E6	-7.0	105	0.00
5 tcm Heptachlor	100.362	107.691 E6	-7.3	105	0.00
6 tcm Aldrin	91.095	95.996 E6	-5.4	103	0.00
7 tc beta-BHC	45.130	46.802 E6	-3.7	104	0.00
8 tc delta-BHC	103.241	107.314 E6	-3.9	102	0.00
9 tc Heptachlor E	80.396	83.886 E6	-4.3	103	0.00

Evaluate Continuing Calibration Report

Data Path : J:\ACQUADATA\6890D\DATA\071008\  
 Data File : ey062.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11 Jul 2008 7:47 am  
 Operator : M.PEDRO  
 Sample : pest icv  
 Misc : initial cal  
 ALS Vial : 29 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 11 14:00:16 2008  
 Quant Method : J:\ACQUADATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STX-CLP Signal #2 Phase: STX-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
10 tc alpha-Endosu	70.973	77.062 E6	-8.6	106	0.00
11 tc gamma-Chlord	82.026	88.038 E6	-7.3	107	0.00
12 tc alpha-Chlord	77.670	79.953 E6	-2.9	102	0.00
13 tc 4,4'-DDE	76.653	81.318 E6	-6.1	104	0.00
14 tcm Dieldrin	78.244	82.867 E6	-5.9	104	0.00
15 tcm Endrin	67.355	70.925 E6	-5.3	101	0.00
17 tc beta-Endosul	64.198	66.770 E6	-4.0	103	0.00
18 tc 4,4'-DDD	62.240	66.813 E6	-7.3	106	0.00
19 tcm 4,4'-DDT	65.507	73.501 E6	-12.2	110	0.00
20 tc Endrin Aldeh	49.048	52.288 E6	-6.6	105	0.00
21 tc Endosulfan S	57.148	60.068 E6	-5.1	104	0.00
22 tc Methoxychlor	29.053	31.243 E6	-7.5	106	0.00
24 tc Endrin Keton	62.732	67.113 E6	-7.0	105	0.00

Evaluate Continuing Calibration Report - Not Found

1 S SURR1,Tetrac	20.181	0.000 E6	100.0#	0#	-9.44#
2 TC HEXACHLOROBENZENE	29.386	0.000 E6	100.0#	0#	-10.13#
16 tc KEPONE	7.316	0.000 E6	100.0#	0#	-14.44#
23 tc FAMPHUR	13.568	0.000 E6	100.0#	0#	-16.26#
25 S SURR2,Decachlorobiphenyl	17.465	0.000 E6	100.0#	0#	-17.62#
26 L8C Toxaphene	398.866	0.000 E3	100.0#	0#	-14.80#
27 L8C Toxaphene {2}	355.770	0.000 E3	100.0#	0#	-14.89#
28 L8C Toxaphene {3}	673.043	0.000 E3	100.0#	0#	-15.50#
29 L8C Toxaphene {4}	818.490	0.000 E3	100.0#	0#	-16.35#
30 L8C Toxaphene {5}	665.615	0.000 E3	100.0#	0#	-16.54#
31 L9C Chlordane	797.278	0.000 E3	100.0#	0#	-11.60#
32 L9C Chlordane {2}	1.127	0.000 E6	100.0#	0#	-11.72#
33 L9C Chlordane {3}	1031.623	0.000 E3	100.0#	0#	-12.40#
34 L9C Chlordane {4}	2.767	0.000 E6	100.0#	0#	-13.28#

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
 Data File : ey062.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11 Jul 2008 7:47 am  
 Operator : M.PEDRO  
 Sample : pest icv  
 Misc : initial cal  
 ALS Vial : 29 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 11 14:00:16 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/1	ug/1
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System Monitoring Compounds

Target Compounds

3) tc alpha-BHC	10.44	10.40	607.1E6	2494.8E6	19.637	21.023
4) tcm gamma-BHC (L	10.97	10.97	566.1E6	2248.1E6	20.072	21.395
5) tcm Heptachlor	11.72	11.64	551.1E6	2153.8E6	19.723	21.460
6) tcm Aldrin	12.18	12.12	493.1E6	1919.9E6	19.916	21.076
7) tc beta-BHC	11.12	11.12	223.1E6	936.0E6	19.427	20.741
8) tc delta-BHC	11.40	11.56	543.4E6	2146.3E6	19.979	20.789
9) tc Heptachlor E	13.10	12.96	446.8E6	1677.7E6	19.628	20.868
10) tc alpha-Endosu	13.68	13.52	416.7E6	1541.2E6	20.367	21.716
11) tc gamma-Chlord	13.28	13.23	446.2E6	1760.8E6	20.354	21.466
12) tc alpha-Chlord	13.48	13.44	416.5E6	1599.1E6	19.475	20.588
13) tc 4,4'-DDE	13.58	13.68	851.9E6	3252.7E6	39.110	42.434
14) tcm Dieldrin	14.03	13.91	892.9E6	3314.7E6	39.090	42.363
15) tcm Endrin	14.38	14.35	800.2E6	2837.0E6	38.624	42.120
16) tc beta-Endosul	14.72	14.66	717.4E6	2670.8E6	38.591	41.602
17) tc 4,4'-DDD	14.45	14.50	728.2E6	2672.5E6	40.468	42.939
18) tcm 4,4'-DDT	14.87	14.96	807.7E6	2940.0E6	42.203	44.881
19) tc Endrin Aldeh	15.35	15.16	590.2E6	2091.5E6	40.208	42.643
20) tc Endosulfan S	15.99	15.57	670.2E6	2402.7E6	39.781	42.044
21) tc Methoxychlor	15.56	15.93	1870.7E6	6248.5E6	200.875	215.071
22) tc Endrin Keton	16.38	16.32	784.9E6	2684.5E6	40.538	42.794
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000

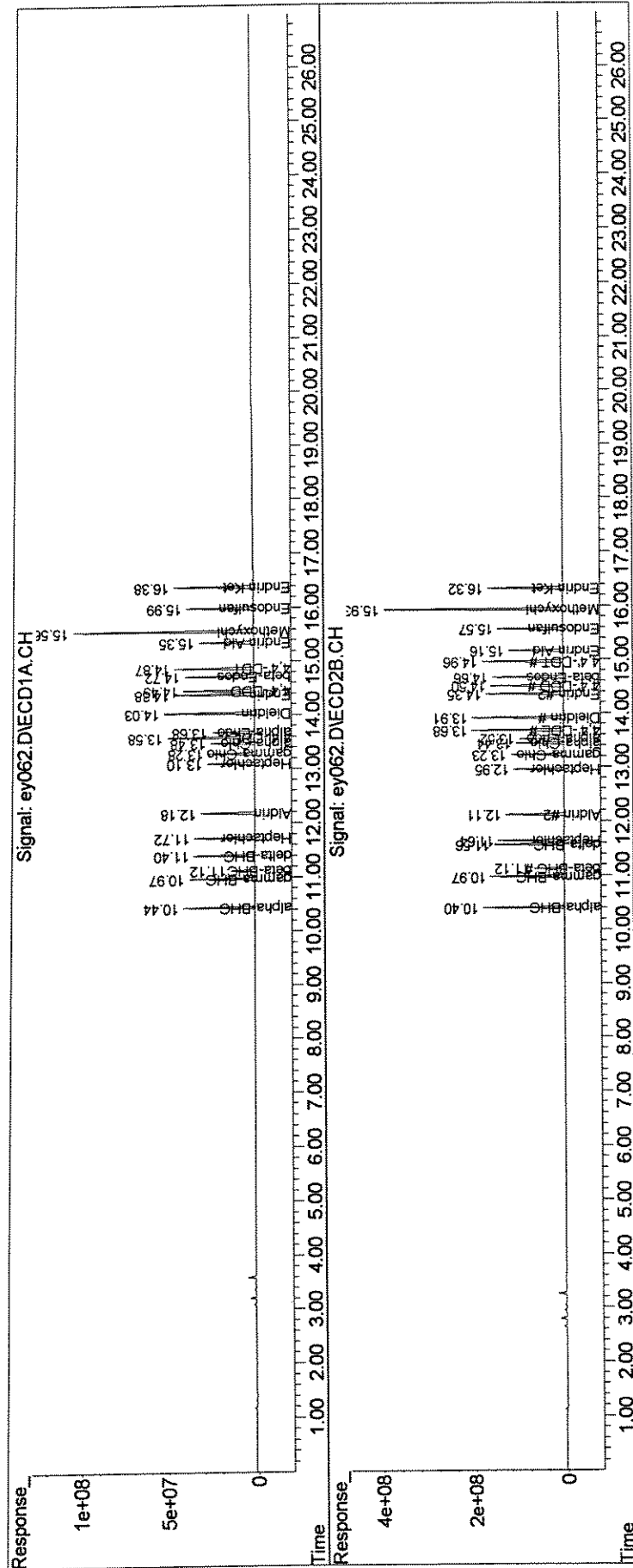
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.



Data Path : J:\ACQUDATA\6890D\DATA\071008\  
 Data File : ey062.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11 Jul 2008 7:47 am  
 Operator : M.PEDRO  
 Sample : pest icv  
 Misc : initial cal  
 ALS Vial : 29 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 11 14:00:16 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STX-CLP Signal #2 Phase: STX-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



Evaluate Continuing Calibration Report

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
 Data File : ey063.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11 Jul 2008 8:22 am  
 Operator : M.PEDRO  
 Sample : tox icv  
 Misc : initial cal  
 ALS Vial : 30 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 11 14:01:11 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	AvgRF	CCRF	%Dev	Area%	Dev (Min)
26 L8C Toxaphene	398.866	412.850 E3	-3.5	107	0.00
27 L8C Toxaphene {2}	355.770	335.533 E3	5.7	107	0.00
28 L8C Toxaphene {3}	673.043	686.981 E3	-2.1	107	0.00
29 L8C Toxaphene {4}	818.490	777.889 E3	5.0	100	0.00
30 L8C Toxaphene {5}	665.615	682.023 E3	-2.5	107	0.00

Signal #2

26 L8C Toxaphene	1.935	2.036 E6	-5.2	113	0.00
27 L8C Toxaphene {2}	902.165	969.151 E3	-7.4	113	0.00
28 L8C Toxaphene {3}	1.869	1.996 E6	-6.8	113	0.00
29 L8C Toxaphene {4}	1.926	2.059 E6	-6.9	114	0.00
30 L8C Toxaphene {5}	2.256	2.438 E6	-8.1	114	0.00

Evaluate Continuing Calibration Report - Not Found

1 S SURR1, Tetrac	20.181	0.000 E6	100.0#	0#	-9.44#
2 TC HEXACHLORO BENZENE	29.386	0.000 E6	100.0#	0#	-10.13#
3 tc alpha-BHC	30.916	0.000 E6	100.0#	0#	-10.44#
4 tcm gamma-BHC (L	28.206	0.000 E6	100.0#	0#	-10.97#
5 tcm Heptachlor	27.944	0.000 E6	100.0#	0#	-11.73#
6 tcm Aldrin	24.759	0.000 E6	100.0#	0#	-12.18#
7 tc beta-BHC	11.483	0.000 E6	100.0#	0#	-11.12#
8 TC delta-BHC	27.198	0.000 E6	100.0#	0#	-11.40#
9 tc Heptachlor E	22.762	0.000 E6	100.0#	0#	-13.10#
10 tc alpha-Endosu	20.460	0.000 E6	100.0#	0#	-13.68#
11 tc gamma-Chlord	21.924	0.000 E6	100.0#	0#	-13.28#
12 tc alpha-Chlord	21.387	0.000 E6	100.0#	0#	-13.48#
13 tc 4,4'-DDE	21.781	0.000 E6	100.0#	0#	-13.58#
14 tcm Dieldrin	22.843	0.000 E6	100.0#	0#	-14.03#

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
 Data File : ey063.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11 Jul 2008 8:22 am  
 Operator : M.PEDRO  
 Sample : tox icv  
 Misc : initial cal  
 ALS Vial : 30 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 11 14:01:11 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
-----						
System Monitoring Compounds						
Target Compounds						
6) L8C Toxaphene	14.80	14.78	206.4E6	1018.2E6	517.530	526.264
7) L8C Toxaphene {2}	14.89	15.06	167.8E6	484.6E6	471.560	537.126
8) L8C Toxaphene {3}	15.50	15.17	343.5E6	997.8E6	510.355	533.783
L8C Toxaphene {4}	16.35	16.45	388.9E6	1029.5E6	475.198	534.495
L8C Toxaphene {5}	16.54	16.69	341.0E6	1218.9E6	512.325	540.206
Sum Toxaphene			1447.6E6	4749.1E6	2486.968	2671.874
Average Toxaphene					497.394	534.375
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
-----						

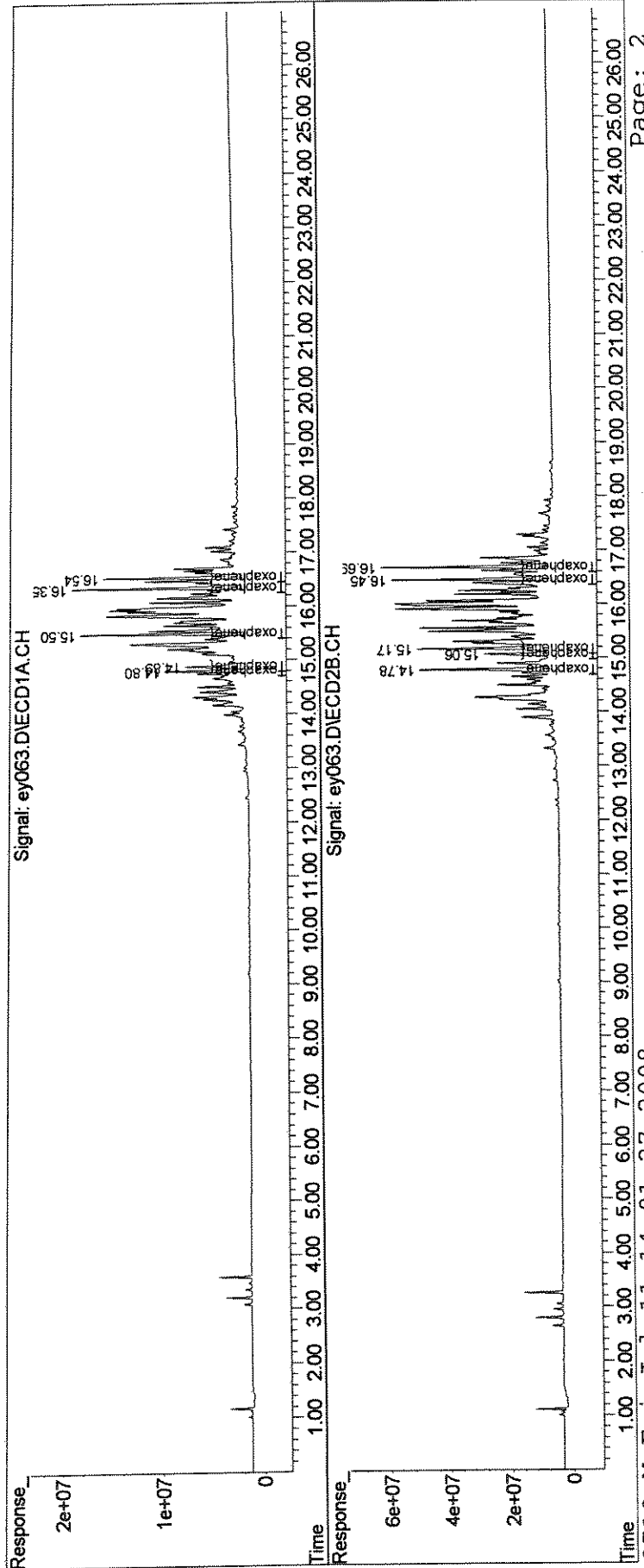
*MSP*  
*7/11*

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQDATA\6890D\DATA\071008\  
Data File : ey063.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 11 Jul 2008 8:22 am  
Operator : M.PEDRO  
Sample : tox icv  
Misc : initial cal  
ALS Vial : 30 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 11 14:01:11 2008  
Quant Method : J:\ACQDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 13:38:39 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



69532

Evaluate Continuing Calibration Report

Data Path : J:\ACQUADATA\6890D\DATA\071008\  
 Data File : ey064.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11 Jul 2008 8:58 am  
 Operator : M.PEDRO  
 Sample : chlor icv  
 Misc : initial cal  
 ALS Vial : 31 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 11 14:01:55 2008  
 Quant Method : J:\ACQUADATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	AvgRF	CCRF	%Dev	Area%	Dev (Min)
31 L9C Chlordane	797.278	820.303 E3	-2.9	104	0.00
32 L9C Chlordane {2}	1.127	1.172 E6	-4.0	104	0.00
33 L9C Chlordane {3}	1031.623	1067.503 E3	-3.5	104	0.00
34 L9C Chlordane {4}	2.767	2.904 E6	-5.0	104	0.00
35 L9C Chlordane {5}	934.381	931.627 E3	0.3	103	0.00

Signal #2

31 L9C Chlordane	3.233	3.427 E6	-6.0	105	0.00
32 L9C Chlordane {2}	4.500	4.829 E6	-7.3	105	0.00
33 L9C Chlordane {3}	3.580	3.799 E6	-6.1	105	0.00
34 L9C Chlordane {4}	10.021	10.792 E6	-7.7	105	0.00
35 L9C Chlordane {5}	3.527	3.634 E6	-3.0	105	0.00

Evaluate Continuing Calibration Report - Not Found

1 S SURR1,Tetrac	20.181	0.000 E6	100.0#	0#	-9.44#
2 TC HEXACHLOROBENZENE	29.386	0.000 E6	100.0#	0#	-10.13#
3 tc alpha-BHC	30.916	0.000 E6	100.0#	0#	-10.44#
4 tcm gamma-BHC (L	28.206	0.000 E6	100.0#	0#	-10.97#
5 tcm Heptachlor	27.944	0.000 E6	100.0#	0#	-11.73#
6 tcm Aldrin	24.759	0.000 E6	100.0#	0#	-12.18#
7 tc beta-BHC	11.483	0.000 E6	100.0#	0#	-11.12#
8 TC delta-BHC	27.198	0.000 E6	100.0#	0#	-11.40#
9 tc Heptachlor E	22.762	0.000 E6	100.0#	0#	-13.10#
10 tc alpha-Endosu	20.460	0.000 E6	100.0#	0#	-13.68#
11 tc gamma-Chlord	21.924	0.000 E6	100.0#	0#	-13.28#
12 tc alpha-Chlord	21.387	0.000 E6	100.0#	0#	-13.48#
13 tc 4,4'-DDE	21.781	0.000 E6	100.0#	0#	-13.58#
14 tcm Dieldrin	22.843	0.000 E6	100.0#	0#	-14.03#

Quantitation Report (QT Reviewed)

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
 Data File : ey064.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11 Jul 2008 8:58 am  
 Operator : M.PEDRO  
 Sample : chlor icv  
 Misc : initial cal  
 ALS Vial : 31 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 11 14:01:55 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/1	ug/1
System Monitoring Compounds						
Target Compounds			0	0	N.D.	N.D.
Sum Toxaphene					0.000	0.000
verage Toxaphene						
1) L9C Chlordane	11.60	11.42	82030317	342.7E6	102.888	105.999
L9C Chlordane {2}	11.72	11.64	117.2E6	482.9E6	104.032	107.322
L9C Chlordane {3}	12.40	12.35	106.8E6	379.9E6	103.478	106.122
4) L9C Chlordane {4}	13.28	13.23	290.4E6	1079.2E6	104.970	107.694
5) L9C Chlordane {5}	14.61	14.73	93162722	363.4E6	99.705	103.010
Sum Chlordane			689.5E6	2648.1E6	515.073	530.147
verage Chlordane					103.015	106.029

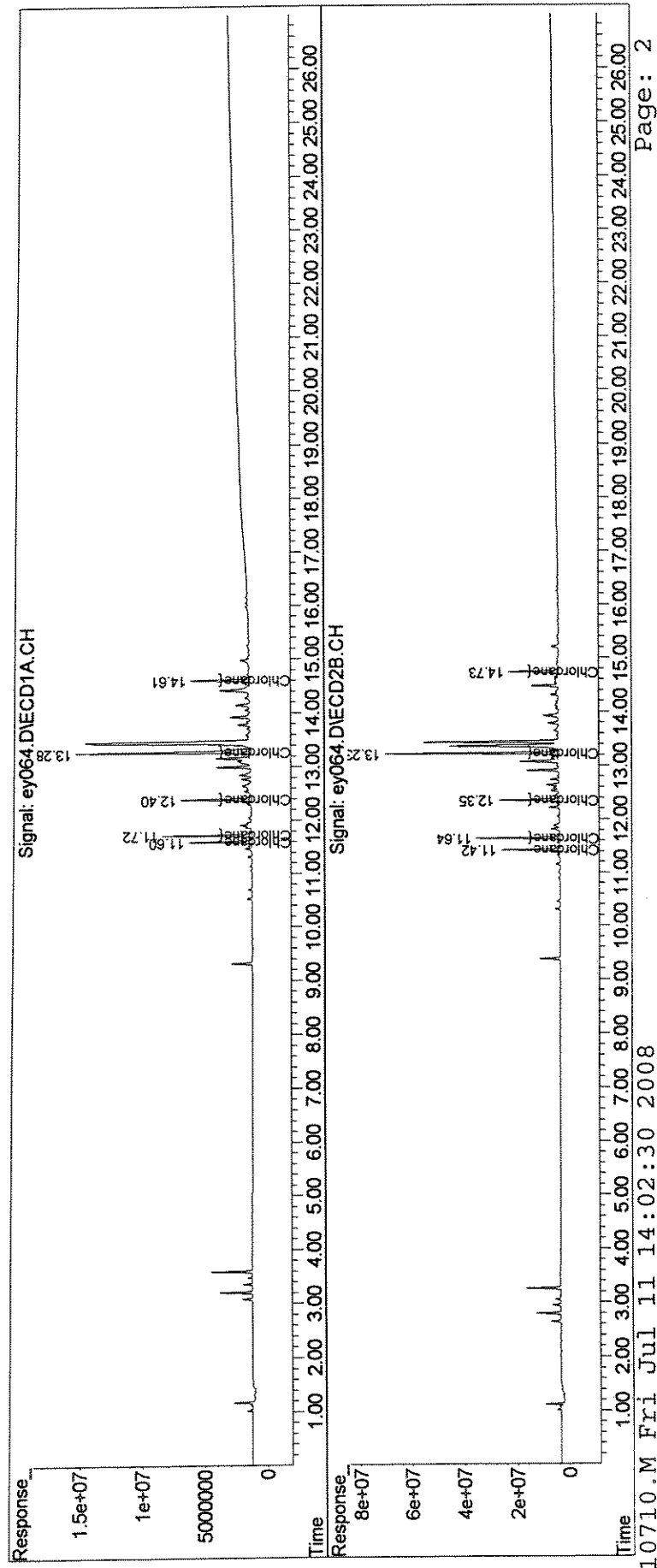
*MSP*  
*7/11*

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\071008\  
 Data File : ey064.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11 Jul 2008 8:58 am  
 Operator : M.PEDRO  
 Sample : chlor icv  
 Misc : initial cal  
 ALS Vial : 31 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 11 14:01:55 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STX-CLP Signal #2 Phase: STX-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



80810710.M

8D  
Pesticide Analytical Sequence

Lab Name: Columbia Analytical Client: ENSR  
 Lab Code: 10145 Case.No.: R2844768 SAS No.: \_\_\_\_\_ SDG M-79B  
 GC Column(1) STx-CLP (ID): 0.32mm  
 Instrument ID: 6890D

The analytical sequence of Performance Evaluation Mixtures, Blanks, Samples, and Standards is given below:

*Mean Surrogate RT from Initial Calibration*

TCX 9.44 DCB 17.62

<i>EPA Sample No.</i>	<i>Lab Sample ID</i>	<i>Date Analyzed</i>	<i>Time Analyzed</i>	<i>TCX rt_time</i>	<i>DCB rt_time</i>
indal	indal	7/10/2008	16:22	9.44	17.62
indaml	indaml	7/10/2008	16:58	9.44	17.62
indam	indam	7/10/2008	17:33	9.44	17.62
indamh	indamh	7/10/2008	18:09	9.44	17.61
indah	indah	7/10/2008	18:44	9.44	17.62
indbl	indbl	7/10/2008	19:20	9.44	17.61
indbml	indbml	7/10/2008	19:55	9.44	17.61
indbm	indbm	7/10/2008	20:31	9.44	17.61
indbmh	indbmh	7/10/2008	21:07	9.44	17.61
indbh	indbh	7/10/2008	21:43	9.44	17.61
kep/fam l	kep/fam l	7/10/2008	22:18	NA	NA
kep/fam ml	kep/fam ml	7/10/2008	22:54	NA	NA
kep/fam m	kep/fam m	7/10/2008	23:30	NA	NA
kep/fam mh	kep/fam mh	7/11/2008	0:05	NA	NA
kep/fam h	kep/fam h	7/11/2008	0:41	NA	NA
kep/fam icv	kep/fam icv	7/11/2008	1:16	NA	NA
tox l	tox l	7/11/2008	1:52	9.44	17.61
tox ml	tox ml	7/11/2008	2:27	9.44	17.61
tox m	tox m	7/11/2008	3:03	9.44	17.61
tox mh	tox mh	7/11/2008	3:38	9.44	17.61
tox h	tox h	7/11/2008	4:14	9.44	17.61

QC Limits

TCX = Tetrachloro-m-xylene (+/- 0.05 Minutes)

DCB = Decachlorobiphenyl (+/- 0.10 Minutes)

# Column used to flag retention time values with an

\* Values outside of QC

Form VIII Pest



8D  
Pesticide Analytical Sequence

Lab Name: Columbia Analytical Client: ENSR  
 Lab Code: 10145 Case.No.: R2844768 SAS No.: \_\_\_\_\_ SDG M-79B  
 GC Column(1) STx-CLP (ID): 0.32mm  
 Instrument ID: 6890D

The analytical sequence of Performance Evaluation Mixtures, Blanks, Samples, and Standards is given below:

*Mean Surrogate RT from Initial Calibration*

TCX 9.44 DCB 17.62

<i>EPA Sample No.</i>	<i>Lab Sample ID</i>	<i>Date Analyzed</i>	<i>Time Analyzed</i>	<i>TCX rt_time</i>	<i>DCB rt_time</i>
chlor l	chlor l	7/11/2008	4:49	9.44	17.61
chlor ml	chlor ml	7/11/2008	5:25	9.44	17.61
chlor m	chlor m	7/11/2008	6:00	9.44	17.61
chlor mh	chlor mh	7/11/2008	6:36	9.44	17.61
chlor h	chlor h	7/11/2008	7:11	9.44	17.61
pest icv	pest icv	7/11/2008	7:47	NA	NA
tox icv	tox icv	7/11/2008	8:22	NA	NA
chlor icv	chlor icv	7/11/2008	8:58	NA	NA
pem	pem	7/16/2008	7:28	9.44	17.62
ccv8a	ccv8a	7/16/2008	15:14	9.43	17.61
ccv8b	ccv8b	7/16/2008	15:50	9.43	17.61
PBLK1	1117894 1.0	7/16/2008	16:26	9.43	17.61
PBLK1MS	1117895 1.0	7/16/2008	17:01	9.43	17.61
PBLK1MSD	1117896 1.0	7/16/2008	17:37	9.43	17.60
ZZZZZ	ZZZZZ	7/16/2008	18:12	9.43	17.61
ZZZZZ	ZZZZZ	7/16/2008	18:48	9.43	17.61
ZZZZZ	ZZZZZ	7/16/2008	19:23	9.43	17.61
ZZZZZ	ZZZZZ	7/16/2008	19:59	9.43	17.60
ZZZZZ	ZZZZZ	7/16/2008	20:35	9.43	17.61
M-79B	1113695 1.0	7/16/2008	21:10	9.43	17.60
M-126B	1113696 1.0	7/16/2008	21:46	9.43	17.60

QC Limits

TCX = Tetrachloro-m-xylene (+/- 0.05 Minutes)

DCB = Decachlorobiphenyl (+/- 0.10 Minutes)

# Column used to flag retention time values with an

\* Values outside of QC

Form VIII Pest

## Pesticide Analytical Sequence

Lab Name: Columbia Analytical Client: ENSR  
 Lab Code: 10145 Case.No.: R2844768 SAS No.: \_\_\_\_\_ SDG M-79B  
 GC Column(1) STx-CLP (ID): 0.32mm  
 Instrument ID: 6890D

The analytical sequence of Performance Evaluation Mixtures, Blanks, Samples, and Standards is given below:

## Mean Surrogate RT from Initial Calibration

TCX 9.44 DCB 17.62

EPA Sample No.	Lab Sample ID	Date Analyzed	Time Analyzed	TCX rt_time	DCB rt_time
ccv9a	ccv9a	7/16/2008	22:21	9.43	17.61
ccv9b	ccv9b	7/16/2008	22:57	9.44	17.61
pem	pem	7/16/2008	23:33	9.44	17.61
M-84B	1113697 1.0	7/17/2008	0:08	9.43	17.60
M-14ADBF	1113698 1.0	7/17/2008	0:44	9.43	17.60
M-14ABF	1113699 1.0	7/17/2008	1:20	9.43	17.61
ccv10a	ccv10a	7/17/2008	1:55	9.44	17.61
ccv10b	ccv10b	7/17/2008	2:31	9.44	17.61
pem	pem	7/17/2008	9:44	9.44	17.61
ccv11a	ccv11a	7/17/2008	10:20	9.44	17.61
ccv11b	ccv11b	7/17/2008	10:56	9.44	17.61
ZZZZZ	ZZZZZ	7/17/2008	11:31	9.43	17.60
ZZZZZ	ZZZZZ	7/17/2008	12:07	9.43	17.60
ZZZZZ	ZZZZZ	7/17/2008	12:42	9.43	17.60
M-126B	1113696 10.0	7/17/2008	13:18	9.43	17.60
ZZZZZ	ZZZZZ	7/17/2008	13:53	9.43	17.60
ZZZZZ	ZZZZZ	7/17/2008	14:29	9.43	17.60
ZZZZZ	ZZZZZ	7/17/2008	15:05	9.43	17.60
ZZZZZ	ZZZZZ	7/17/2008	15:40	9.43	17.60
ccv12a	ccv12a	7/17/2008	16:16	9.44	17.61
ccv12b	ccv12b	7/17/2008	16:52	9.44	17.61

## QC Limits

TCX = Tetrachloro-m-xylene (+/- 0.05 Minutes)  
 DCB = Decachlorobiphenyl (+/- 0.10 Minutes)

# Column used to flag retention time values with an  
 \* Values outside of QC

Form VIII Pest

8D  
Pesticide Analytical Sequence

Lab Name: Columbia Analytical Contract: ENSR  
 Lab Code: 10145 Case.No.: R2844768 SAS No.: \_\_\_\_\_ SDG M-79B  
 GC Column(1) STx-CLPII (ID): 0.32mm  
 Instrument ID: 6890D

The analytical sequence of Performance Evaluation Mixtures, Blanks, Samples, and Standards is given below:

Mean Surrogate RT from Initial Calibration

EPA Sample No.	Lab Sample ID	Date Analyzed	Time Analyzed	TCX rt_time	DCB rt_time
				TCX 9.32	DCB 17.86
indal	indal	7/10/2008	16:22	9.32	17.86
indaml	indaml	7/10/2008	16:58	9.32	17.86
indam	indam	7/10/2008	17:33	9.32	17.86
indamh	indamh	7/10/2008	18:09	9.32	17.86
indah	indah	7/10/2008	18:44	9.32	17.86
indbl	indbl	7/10/2008	19:20	9.32	17.86
indbml	indbml	7/10/2008	19:55	9.32	17.86
indbm	indbm	7/10/2008	20:31	9.32	17.86
indbmh	indbmh	7/10/2008	21:07	9.32	17.86
indbh	indbh	7/10/2008	21:43	9.32	17.86
kep/fam l	kep/fam l	7/10/2008	22:18	NA	NA
kep/fam ml	kep/fam ml	7/10/2008	22:54	NA	NA
kep/fam m	kep/fam m	7/10/2008	23:30	NA	NA
kep/fam mh	kep/fam mh	7/11/2008	0:05	NA	NA
kep/fam h	kep/fam h	7/11/2008	0:41	NA	NA
kep/fam icv	kep/fam icv	7/11/2008	1:16	NA	NA
tox l	tox l	7/11/2008	1:52	9.32	17.86
tox ml	tox ml	7/11/2008	2:27	9.32	17.86
tox m	tox m	7/11/2008	3:03	9.32	17.86
tox mh	tox mh	7/11/2008	3:38	9.32	17.86
tox h	tox h	7/11/2008	4:14	9.32	17.86

QC Limits

TCX = Tetrachloro-m-xylene (+/- 0.05 Minutes)

DCB = Decachlorobiphenyl (+/- 0.10 Minutes)

# Column used to flag retention time values with an

\* Values outside of QC

Form VIII Pest

8D  
Pesticide Analytical Sequence

Lab Name: Columbia Analytical Contract: ENSR  
 Lab Code: 10145 Case.No.: R2844768 SAS No.: \_\_\_\_\_ SDG M-79B  
 GC Column(1) STx-CLPII (ID): 0.32mm  
 Instrument ID: 6890D

The analytical sequence of Performance Evaluation Mixtures, Blanks, Samples, and Standards is given below:

Mean Surrogate RT from Initial Calibration

TCX 9.32 DCB 17.86

EPA Sample No.	Lab Sample ID	Date Analyzed	Time Analyzed	TCX rt_time	DCB rt_time
chlor l	chlor l	7/11/2008	4:49	9.32	17.86
chlor ml	chlor ml	7/11/2008	5:25	9.32	17.86
chlor m	chlor m	7/11/2008	6:00	9.32	17.86
chlor mh	chlor mh	7/11/2008	6:36	9.32	17.86
chlor h	chlor h	7/11/2008	7:11	9.32	17.86
pest icv	pest icv	7/11/2008	7:47	NA	NA
tox icv	tox icv	7/11/2008	8:22	NA	NA
chlor icv	chlor icv	7/11/2008	8:58	NA	NA
pem	pem	7/16/2008	7:28	9.32	17.85
ccv8a	ccv8a	7/16/2008	15:14	9.32	17.85
ccv8b	ccv8b	7/16/2008	15:50	9.32	17.85
PBLK1	1117894 1.0	7/16/2008	16:26	9.32	17.85
PBLK1MS	1117895 1.0	7/16/2008	17:01	9.32	17.85
PBLK1MSD	1117896 1.0	7/16/2008	17:37	9.32	17.85
ZZZZZ	ZZZZZ	7/16/2008	18:12	9.32	17.85
ZZZZZ	ZZZZZ	7/16/2008	18:48	9.32	17.85
ZZZZZ	ZZZZZ	7/16/2008	19:23	9.32	17.85
ZZZZZ	ZZZZZ	7/16/2008	19:59	9.32	17.85
ZZZZZ	ZZZZZ	7/16/2008	20:35	9.32	17.85
M-79B	1113695 1.0	7/16/2008	21:10	9.32	17.85
M-126B	1113696 1.0	7/16/2008	21:46	9.32	17.85

QC Limits

TCX = Tetrachloro-m-xylene (+/- 0.05 Minutes)

DCB = Decachlorobiphenyl (+/- 0.10 Minutes)

# Column used to flag retention time values with an

\* Values outside of QC

Form VIII Pest

8D  
Pesticide Analytical Sequence

Lab Name: Columbia Analytical Contract: ENSR  
 Lab Code: 10145 Case.No.: R2844768 SAS No.: \_\_\_\_\_ SDG M-79B  
 GC Column(1) STx-CLPII (ID): 0.32mm  
 Instrument ID: 6890D

The analytical sequence of Performance Evaluation Mixtures, Blanks, Samples, and Standards is given below:

Mean Surrogate RT from Initial Calibration

TCX 9.32 DCB 17.86

EPA Sample No.	Lab Sample ID	Date Analyzed	Time Analyzed	TCX rt_time	DCB rt_time
ccv9a	ccv9a	7/16/2008	22:21	9.32	17.85
ccv9b	ccv9b	7/16/2008	22:57	9.32	17.85
pem	pem	7/16/2008	23:33	9.32	17.85
M-84B	1113697 1.0	7/17/2008	0:08	9.32	17.85
M-14ADBF	1113698 1.0	7/17/2008	0:44	9.32	17.85
M-14ABF	1113699 1.0	7/17/2008	1:20	9.32	17.85
ccv10a	ccv10a	7/17/2008	1:55	9.32	17.85
ccv10b	ccv10b	7/17/2008	2:31	9.32	17.85
pem	pem	7/17/2008	9:44	9.32	17.85
ccv11a	ccv11a	7/17/2008	10:20	9.32	17.85
ccv11b	ccv11b	7/17/2008	10:56	9.32	17.85
ZZZZZ	ZZZZZ	7/17/2008	11:31	9.32	17.85
ZZZZZ	ZZZZZ	7/17/2008	12:07	9.32	17.85
ZZZZZ	ZZZZZ	7/17/2008	12:42	9.32	17.85
M-126B	1113696 10.0	7/17/2008	13:18	9.32	17.85
ZZZZZ	ZZZZZ	7/17/2008	13:53	9.32	17.85
ZZZZZ	ZZZZZ	7/17/2008	14:29	9.32	17.85
ZZZZZ	ZZZZZ	7/17/2008	15:05	9.32	17.85
ZZZZZ	ZZZZZ	7/17/2008	15:40	9.31	17.85
ccv12a	ccv12a	7/17/2008	16:16	9.32	17.85
ccv12b	ccv12b	7/17/2008	16:52	9.32	17.85

QC Limits

TCX = Tetrachloro-m-xylene (+/- 0.05 Minutes)

DCB = Decachlorobiphenyl (+/- 0.10 Minutes)

# Column used to flag retention time values with an

\* Values outside of QC

Form VIII Pest

7D  
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name:	Columbia Analytical Services	Contract:		
Lab Code:	10145	Case No.:	SAS No.:	SDG No.:
GC Column (1):	STX-CLP	ID: 0.32 (mm)	Initial Calibration Date(s):	07/10/2008
EPA Sample No. (PEM):	PEM	Date Analyzed:	07/16/2008	
LAB Sample ID. (PEM):	PEM	Time Analyzed:	7:28	
4,4'-DDT % Breakdown (1):	1.3%	Endrin % Breakdown (1):	4.8%	
Combined % Breakdown (1):	6.1%			

LIMITS:

%D of amounts in PEM must be less than or equal to 25.0%  
4,4'-DDT breakdown must be less than or equal to 15.0%  
Endrin breakdown must be less than or equal to 15.0%  
Combined breakdown must be less than or equal to 30.0%

FORM VII PEST-1

7D  
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name:	Columbia Analytical Services	Contract:		
Lab Code:	10145	Case No.:	SAS No.:	SDG No.:
GC Column (2):	STX-CLPII	ID: 0.32 (mm)	Initial Calibration Date(s):	07/10/2008
EPA Sample No. (PEM):	PEM	Date Analyzed:	07/16/2008	
LAB Sample ID. (PEM):	PEM	Time Analyzed:	7:28	
4,4'-DDT % Breakdown (1):	1.7%	Endrin % Breakdown (1):	5.1%	
Combined % Breakdown (1):	6.8%			

LIMITS:

%D of amounts in PEM must be less than or equal to 25.0%  
4,4'-DDT breakdown must be less than or equal to 15.0%  
Endrin breakdown must be less than or equal to 15.0%  
Combined breakdown must be less than or equal to 30.0%

FORM VII PEST-1

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
 Data File : ey119.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 16 Jul 2008 7:28 am  
 Operator : M.PEDRO  
 Sample : pem  
 Misc : pest perform check  
 ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 17 07:12:16 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
1) S SURR1, Tetrac	9.44	9.32	379.9E6	1722.0E6	18.823	21.281
Spiked Amount	100.000	Range	30 - 150	Recovery =	18.82%#	21.28%#
15) S SURR2, Decachloro	17.62	17.85	349.5E6	1188.2E6	20.013	21.575
Spiked Amount	100.000	Range	30 - 150	Recovery =	20.01%#	21.57%#
Target Compounds						
3) tc alpha-BHC	10.44	10.39	278.0E6	1214.7E6	8.991	10.236
4) tcm gamma-BHC (L)	10.97	10.97	252.7E6	1079.9E6	8.959	10.277
7) tc beta-BHC	11.13	11.12	105.8E6	476.2E6	9.217	10.551
8) tc 4,4'-DDE	13.59	13.68	10556008	48411890	0.485	0.632 #
9) tcm Endrin	14.38	14.35	968.7E6	3382.8E6	46.754	50.223
10) tc 4,4'-DDD	14.47	14.51	14497648	64112232	0.806	1.030 #
11) tcm 4,4'-DDT	14.87	14.95	1931.6E6	6629.9E6	100.933	101.209
12) tc Endrin Aldehy	15.36	15.16	18504320	70439531	1.261	1.436
13) tc Methoxychlor	15.57	15.92	2327.0E6	7908.8E6	249.869	272.217
14) tc Endrin Keton	16.39	16.31	30751821	112.5E6	1.588	1.793
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000

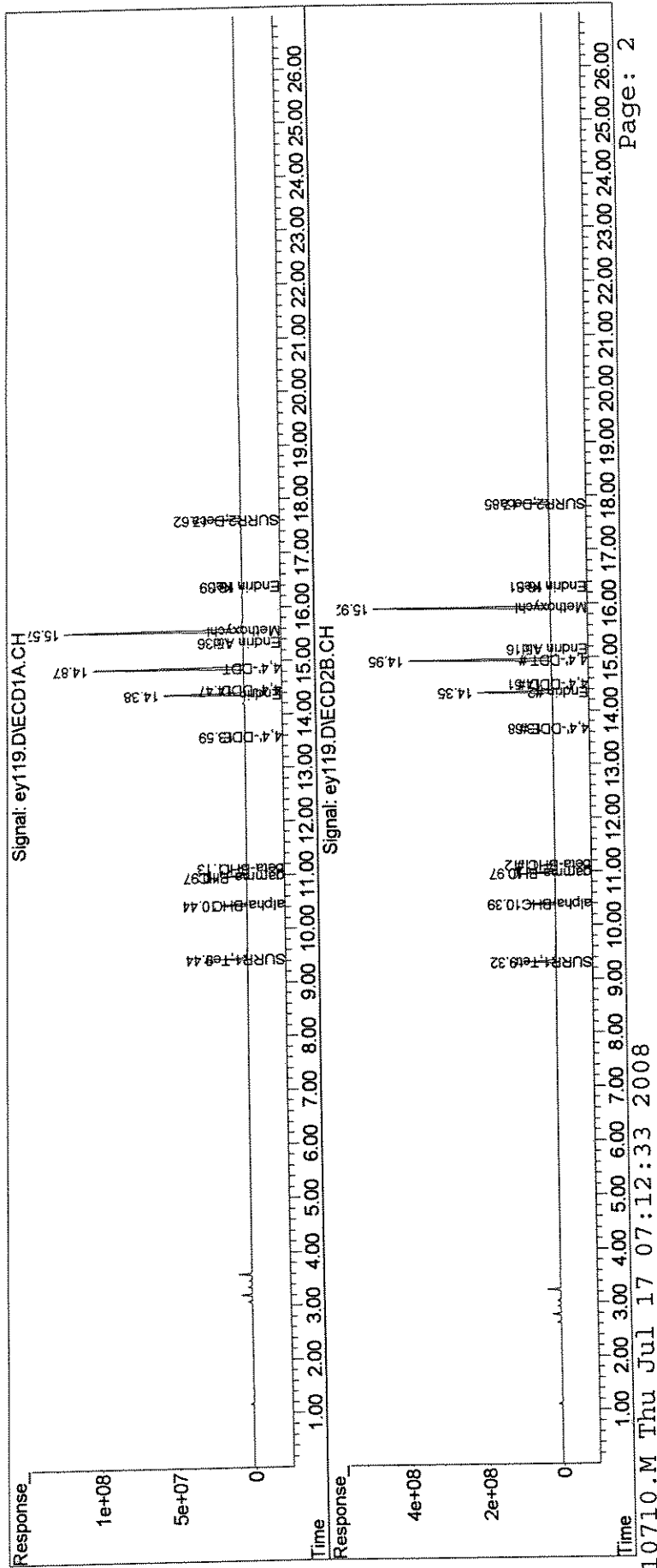
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.



Data Path : J:\ACQUDATA\6890D\DATA\071608\  
 Data File : ey119.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 16 Jul 2008 7:28 am  
 Operator : M.PEDRO  
 Sample : pem  
 Misc : pest perform check  
 ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 17 07:12:16 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STX-CLP Signal #2 Phase: STX-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



Evaluate Continuing Calibration Report

Data Path : J:\ACQUADATA\6890D\DATA\071608\  
 Data File : ey132.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 16 Jul 2008 3:14 pm  
 Operator : M.PEDRO  
 Sample : ccv8a  
 Misc : indam  
 ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 17 07:37:03 2008  
 Quant Method : J:\ACQUADATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	AvgRF	CCRF	%Dev	Area%	Dev (Min)
1 S SURR1,Tetrac	20.181	19.606 E6	2.8	95	0.00
3 tc alpha-BHC	30.916	31.240 E6	-1.0	96	0.00
4 tcm gamma-BHC (L	28.206	28.232 E6	-0.1	96	0.00
5 tcm Heptachlor	27.944	27.812 E6	0.5	97	0.00
10 tc alpha-Endosu	20.460	20.493 E6	-0.2	97	0.00
14 tcm Dieldrin	22.843	23.165 E6	-1.4	97	0.00
15 tcm Endrin	20.719	19.727 E6	4.8	91	-0.01
18 tc 4,4'-DDD	17.994	18.129 E6	-0.8	97	0.00
19 tcm 4,4'-DDT	19.138	19.425 E6	-1.5	97	0.00
22 tc Methoxychlor	9.313	8.866 E6	4.8	94	0.00
25 S SURR2,Decachlorobiphenyl	17.465	16.279 E6	6.8	94	0.00

Signal #2

1 S SURR1,Tetrac	80.920	79.843 E6	1.3	100	0.00
3 tc alpha-BHC	118.675	119.222 E6	-0.5	99	0.00
4 tcm gamma-BHC (L	105.076	105.347 E6	-0.3	99	0.00
5 tcm Heptachlor	100.362	99.720 E6	0.6	101	0.00
10 tc alpha-Endosu	70.973	71.260 E6	-0.4	100	0.00
14 tcm Dieldrin	78.244	77.303 E6	1.2	99	0.00
15 tcm Endrin	67.355	64.785 E6	3.8	95	0.00
18 tc 4,4'-DDD	62.240	58.958 E6	5.3	94	0.00
19 tcm 4,4'-DDT	65.507	63.181 E6	3.6	95	0.00
22 tc Methoxychlor	29.053	29.210 E6	-0.5	102	0.00
25 S SURR2,Decachlorobiphenyl	55.075	52.601 E6	4.5	97	0.00

Evaluate Continuing Calibration Report - Not Found

2 TC HEXACHLOROBENZENE	29.386	0.000 E6	100.0#	0#	-10.13#
6 tcm Aldrin	24.759	0.000 E6	100.0#	0#	-12.18#

Quantitation Report (QT Reviewed)

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
 Data File : ey132.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 16 Jul 2008 3:14 pm  
 Operator : M.PEDRO  
 Sample : ccv8a  
 Misc : indam  
 ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 17 07:37:03 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

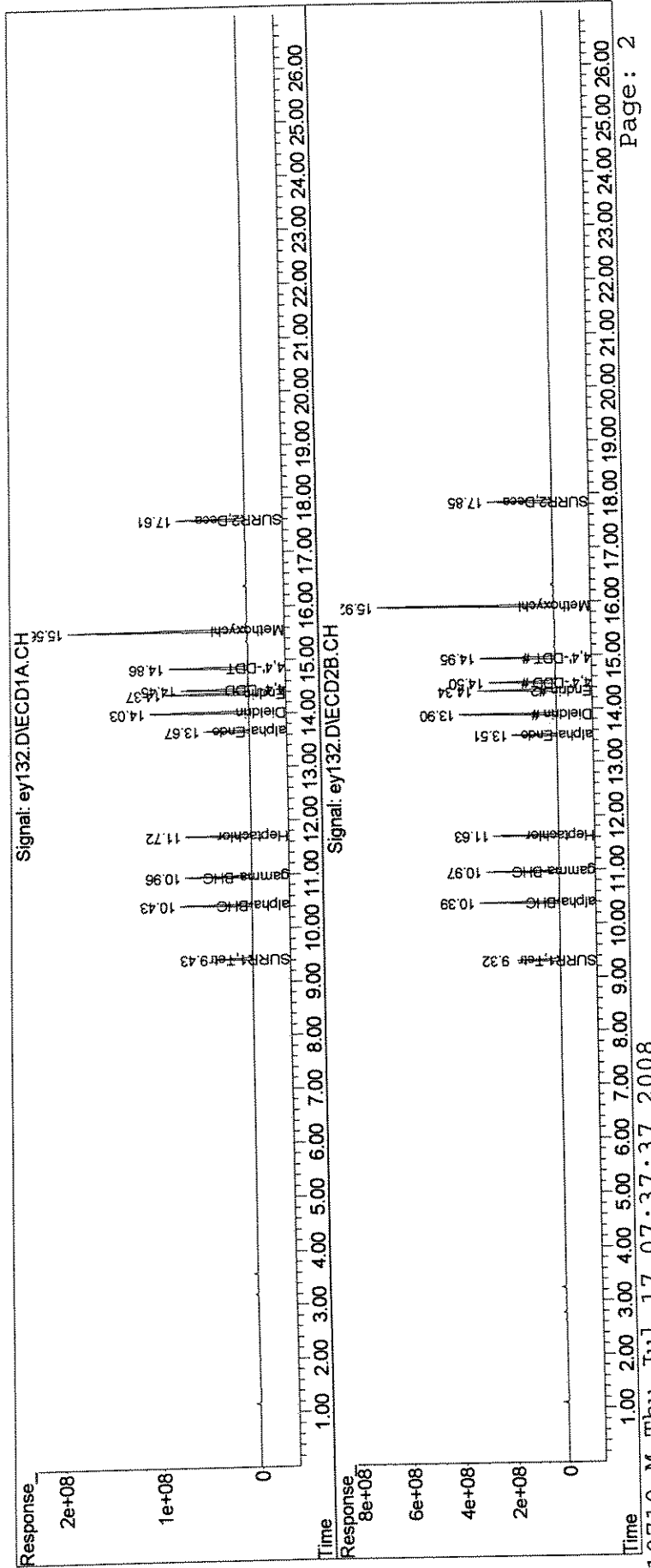
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
1) S SURR1,Tetrac	9.43	9.32	784.3E6	3193.7E6	38.862	39.467
Spiked Amount	100.000	Range	30 - 150	Recovery =	38.86%	39.47%
5) S SURR2,Decachloro	17.61	17.85	1302.3E6	4208.1E6	74.564	76.406
Spiked Amount	100.000	Range	30 - 150	Recovery =	74.56%	76.41%
Target Compounds						
3) tc alpha-BHC	10.44	10.39	1249.6E6	4768.9E6	40.419	40.185
tc gamma-BHC (L	10.96	10.97	1129.3E6	4213.9E6	40.036	40.103
tc Heptachlor	11.72	11.63	1112.5E6	3988.8E6	39.811	39.744
0) tc alpha-Endosu	13.67	13.51	819.7E6	2850.4E6	40.065	40.162
4) tcm Dieldrin	14.03	13.90	1853.2E6	6184.2E6	81.130	79.038
5) tcm Endrin	14.37	14.35	1578.1E6	5182.8E6	76.168	76.947
8) tc 4,4'-DDD	14.45	14.50	1450.3E6	4716.6E6	80.603	75.782
9) tcm 4,4'-DDT	14.86	14.95	1554.0E6	5054.5E6	81.201	77.159
2) tc Methoxychlor	15.56	15.92	3546.3E6	11683.9E6	380.802	402.155
Sum Toxaphene			0	0	N.D.	N.D.
verage Toxaphene					0.000	0.000
Sum Chlordane			0	0	N.D.	N.D.
verage Chlordane					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
 Data File : ey132.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 16 Jul 2008 3:14 pm  
 Operator : M.PEDRO  
 Sample : ccv8a  
 Misc : indam  
 ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 17 07:37:03 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



00548

Evaluate Continuing Calibration Report

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
 Data File : ey133.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 16 Jul 2008 3:50 pm  
 Operator : M.PEDRO  
 Sample : ccv8b  
 Misc : indbmh  
 ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 17 07:38:27 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	AvgRF	CCRF	%Dev	Area%	Dev (Min)
1 S SURR1,Tetrac	20.181	19.717 E6	2.3	95	0.00
6 tcm Aldrin	24.759	24.945 E6	-0.8	97	0.00
7 tc beta-BHC	11.483	11.236 E6	2.2	98	0.00
8 TC delta-BHC	27.198	27.370 E6	-0.6	96	0.00
9 tc Heptachlor E	22.762	22.579 E6	0.8	98	0.00
11 tc gamma-Chlord	21.924	22.096 E6	-0.8	99	0.00
12 tc alpha-Chlord	21.387	21.460 E6	-0.3	99	0.00
13 tc 4,4'-DDE	21.781	21.374 E6	1.9	95	0.00
17 tc beta-Endosul	18.589	18.659 E6	-0.4	98	0.00
20 tc Endrin Aldehy	14.678	14.145 E6	3.6	95	0.00
21 tc Endosulfan S	16.846	16.785 E6	0.4	98	0.00
24 tc Endrin Keton	19.363	19.243 E6	0.6	97	0.00
25 S SURR2,Decachlorobiphenyl	17.465	16.722 E6	4.3	96	0.00

Signal #2

1 S SURR1,Tetrac	80.920	83.548 E6	-3.2	104	0.00
6 tcm Aldrin	91.095	90.166 E6	1.0	99	0.00
7 tc beta-BHC	45.130	43.790 E6	3.0	99	0.00
8 tc delta-BHC	103.241	101.222 E6	2.0	97	0.00
9 tc Heptachlor E	80.396	79.412 E6	1.2	100	0.00
11 tc gamma-Chlord	82.026	80.750 E6	1.6	98	0.00
12 tc alpha-Chlord	77.670	76.333 E6	1.7	98	0.00
13 tc 4,4'-DDE	76.653	74.636 E6	2.6	97	0.00
17 tc beta-Endosul	64.198	62.065 E6	3.3	98	0.00
20 tc Endrin Aldehy	49.048	45.877 E6	6.5	94	0.00
21 tc Endosulfan S	57.148	55.935 E6	2.1	98	0.00
24 tc Endrin Keton	62.732	62.813 E6	-0.1	100	0.00
25 S SURR2,Decachlorobiphenyl	55.075	53.777 E6	2.4	99	0.00

Quantitation Report (QT Reviewed)

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
 Data File : ey133.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 16 Jul 2008 3:50 pm  
 Operator : M.PEDRO  
 Sample : ccv8b  
 Misc : indbmh  
 ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 17 07:38:27 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STX-CLP Signal #2 Phase: STX-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

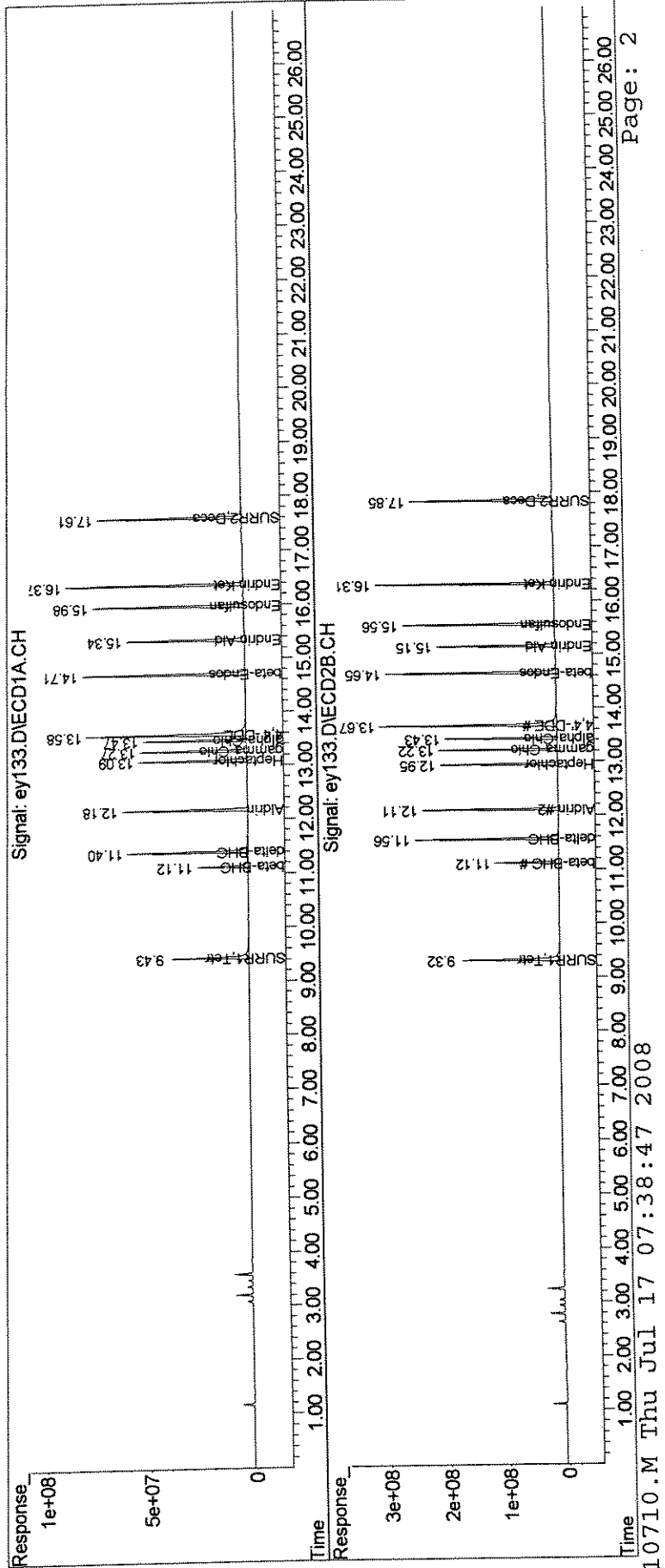
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
1) S SURR1,Tetrac	9.43	9.32	788.7E6	3341.9E6	39.081	41.299
Spiked Amount	100.000	Range 30 - 150	Recovery =		39.08%	41.30%
5) S SURR2,Decachloro	17.61	17.85	1337.8E6	4302.2E6	76.596	78.114
Spiked Amount	100.000	Range 30 - 150	Recovery =		76.60%	78.11%
Target Compounds						
6) tcm Aldrin	12.18	12.11	997.8E6	3606.7E6	40.301	39.592
7) tc beta-BHC	11.12	11.12	449.4E6	1751.6E6	39.139	38.812
8) tc delta-BHC	11.40	11.56	1094.8E6	4048.9E6	40.252	39.218
9) tc Heptachlor E	13.09	12.95	903.2E6	3176.5E6	39.679	39.510
1) tc gamma-Chlord	13.27	13.22	883.8E6	3230.0E6	40.313	39.378
2) tc alpha-Chlord	13.47	13.43	858.4E6	3053.3E6	40.135	39.311
3) tc 4,4'-DDE	13.58	13.67	1709.9E6	5970.9E6	78.505	77.895
7) tc beta-Endosul	14.71	14.65	1492.7E6	4965.2E6	80.302	77.343
0) tc Endrin Aldeh	15.34	15.15	1131.6E6	3670.2E6	77.096	74.829
1) tc Endosulfan S	15.98	15.56	1342.8E6	4474.8E6	79.709	78.302
4) tc Endrin Keton	16.37	16.31	1539.5E6	5025.0E6	79.506	80.103
Sum Toxaphene			0	0	N.D.	N.D.
verage Toxaphene					0.000	0.000
Sum Chlordane			0	0	N.D.	N.D.
verage Chlordane					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
 Data File : ey133.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 16 Jul 2008 3:50 pm  
 Operator : M.PEDRO  
 Sample : ccv8b  
 Misc : indbmh  
 ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 17 07:38:27 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STX-CLP Signal #2 Phase: STX-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



00551

Evaluate Continuing Calibration Report

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
 Data File : ey144.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 16 Jul 2008 10:21 pm  
 Operator : M.PEDRO  
 Sample : ccv9a  
 Misc : indamh  
 ALS Vial : 26 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 17 07:55:22 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	AvgRF	CCRF	%Dev	Area%	Dev (Min)
1 S SURR1,Tetrac	20.181	19.046 E6	5.6	92	0.00
3 tc alpha-BHC	30.916	30.593 E6	1.0	94	0.00
4 tcm gamma-BHC (L	28.206	27.780 E6	1.5	95	0.00
5 tcm Heptachlor	27.944	27.641 E6	1.1	96	0.00
10 tc alpha-Endosu	20.460	20.545 E6	-0.4	98	0.00
14 tcm Dieldrin	22.843	23.302 E6	-2.0	98	-0.01
15 tcm Endrin	20.719	18.984 E6	8.4	88	-0.01
18 tc 4,4'-DDD	17.994	17.929 E6	0.4	96	0.00
19 tcm 4,4'-DDT	19.138	19.581 E6	-2.3	98	0.00
22 tc Methoxychlor	9.313	8.714 E6	6.4	93	0.00
25 S SURR2,Decachlorobiphenyl	17.465	16.945 E6	3.0	98	0.00

Signal #2

1 S SURR1,Tetrac	80.920	82.221 E6	-1.6	103	0.00
3 tc alpha-BHC	118.675	119.941 E6	-1.1	100	0.00
4 tcm gamma-BHC (L	105.076	106.274 E6	-1.1	100	0.00
5 tcm Heptachlor	100.362	101.126 E6	-0.8	103	0.00
10 tc alpha-Endosu	70.973	72.458 E6	-2.1	102	-0.01
14 tcm Dieldrin	78.244	79.538 E6	-1.7	102	-0.01
15 tcm Endrin	67.355	63.878 E6	5.2	94	-0.01
18 tc 4,4'-DDD	62.240	61.591 E6	1.0	98	0.00
19 tcm 4,4'-DDT	65.507	65.993 E6	-0.7	99	0.00
22 tc Methoxychlor	29.053	29.514 E6	-1.6	103	0.00
25 S SURR2,Decachlorobiphenyl	55.075	56.677 E6	-2.9	104	-0.01

Evaluate Continuing Calibration Report - Not Found

2 TC HEXACHLOROBENZENE	29.386	0.000 E6	100.0#	0#	-10.13#
6 tcm Aldrin	24.759	0.000 E6	100.0#	0#	-12.18#



Quantitation Report (QT Reviewed)

Data Path : J:\ACQUADATA\6890D\DATA\071608\  
 Data File : ey144.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 16 Jul 2008 10:21 pm  
 Operator : M.PEDRO  
 Sample : ccv9a  
 Misc : indamh  
 ALS Vial : 26 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 17 07:55:22 2008  
 Quant Method : J:\ACQUADATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

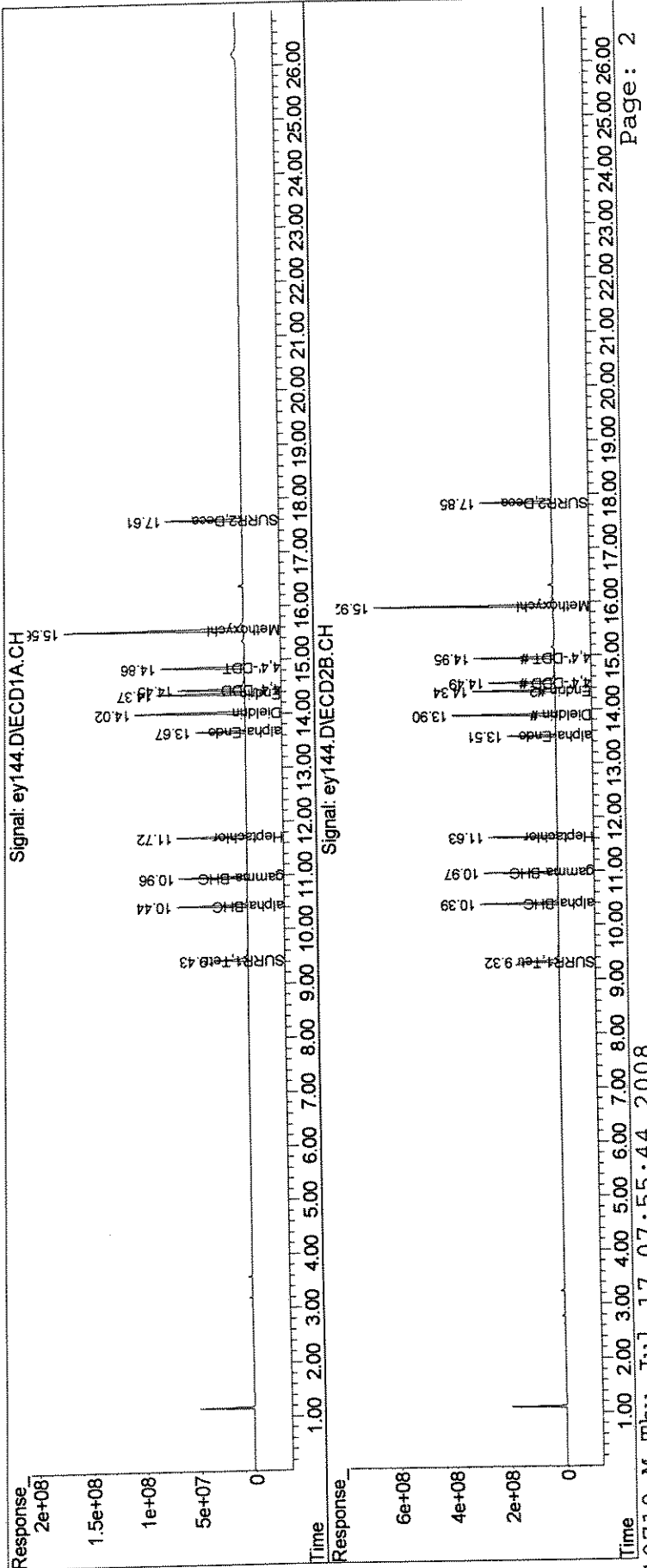
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
1) S SURR1,Tetrac	9.43	9.32	761.9E6	3288.8E6	37.752	40.643
Spiked Amount	100.000	Range 30 - 150	Recovery =		37.75%	40.64%
5) S SURR2,Decachloro	17.61	17.85	1355.6E6	4534.2E6	77.615	82.327
Spiked Amount	100.000	Range 30 - 150	Recovery =		77.61%	82.33%
Target Compounds						
3) tc alpha-BHC	10.44	10.39	1223.7E6	4797.7E6	39.582	40.427
4) tcm gamma-BHC (L	10.96	10.97	1111.2E6	4251.0E6	39.396	40.456
5) tcm Heptachlor	11.72	11.63	1105.6E6	4045.0E6	39.566	40.305
6) tc alpha-Endosu	13.67	13.51	821.8E6	2898.3E6	40.166	40.837
4) tcm Dieldrin	14.02	13.90	1864.1E6	6363.1E6	81.606	81.323
5) tcm Endrin	14.37	14.34	1518.7E6	5110.2E6	73.302	75.870
8) tc 4,4'-DDD	14.45	14.50	1434.3E6	4927.3E6	79.713	79.167
9) tcm 4,4'-DDT	14.86	14.95	1566.5E6	5279.5E6	81.853	80.594
2) tc Methoxychlor	15.56	15.92	3485.4E6	11805.5E6	374.265	406.338
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
 Data File : ey144.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 16 Jul 2008 10:21 pm  
 Operator : M.PEDRO  
 Sample : ccv9a  
 Misc : indamh  
 ALS Vial : 26 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 17 07:55:22 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STX-CLP Signal #2 Phase: STX-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



00554

Evaluate Continuing Calibration Report

Data Path : J:\ACQUADATA\6890D\DATA\071608\  
 Data File : ey145.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 16 Jul 2008 10:57 pm  
 Operator : M.PEDRO  
 Sample : ccv9b  
 Misc : indbmh  
 ALS Vial : 27 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 17 07:56:15 2008  
 Quant Method : J:\ACQUADATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STX-CLP Signal #2 Phase: STX-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	AvgRF	CCRF	%Dev	Area%	Dev (Min)
1 S SURR1,Tetrac	20.181	19.278 E6	4.5	93	0.00
6 tcm Aldrin	24.759	24.949 E6	-0.8	97	0.00
7 tc beta-BHC	11.483	11.038 E6	3.9	96	0.00
8 TC delta-BHC	27.198	26.399 E6	2.9	93	0.00
9 tc Heptachlor E	22.762	22.700 E6	0.3	98	0.00
11 tc gamma-Chlord	21.924	22.294 E6	-1.7	99	0.00
12 tc alpha-Chlord	21.387	21.636 E6	-1.2	99	0.00
13 tc 4,4'-DDE	21.781	21.084 E6	3.2	94	0.00
17 tc beta-Endosul	18.589	19.178 E6	-3.2	101	0.00
20 tc Endrin Aldehy	14.678	14.485 E6	1.3	97	0.00
21 tc Endosulfan S	16.846	17.130 E6	-1.7	100	0.00
24 tc Endrin Keton	19.363	19.780 E6	-2.2	100	0.00
25 S SURR2,Decachlorobiphenyl	17.465	17.307 E6	0.9	100	0.00

Signal #2

1 S SURR1,Tetrac	80.920	84.303 E6	-4.2	105	0.00
6 tcm Aldrin	91.095	92.739 E6	-1.8	102	0.00
7 tc beta-BHC	45.130	44.981 E6	0.3	101	0.00
8 tc delta-BHC	103.241	100.211 E6	2.9	96	0.00
9 tc Heptachlor E	80.396	81.236 E6	-1.0	103	0.00
11 tc gamma-Chlord	82.026	82.606 E6	-0.7	100	0.00
12 tc alpha-Chlord	77.670	78.557 E6	-1.1	101	0.00
13 tc 4,4'-DDE	76.653	77.646 E6	-1.3	101	0.00
17 tc beta-Endosul	64.198	64.933 E6	-1.1	103	0.00
20 tc Endrin Aldehy	49.048	48.473 E6	1.2	100	-0.01
21 tc Endosulfan S	57.148	58.474 E6	-2.3	103	0.00
24 tc Endrin Keton	62.732	65.236 E6	-4.0	104	0.00
25 S SURR2,Decachlorobiphenyl	55.075	56.766 E6	-3.1	104	0.00

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
 Data File : ey145.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 16 Jul 2008 10:57 pm  
 Operator : M.PEDRO  
 Sample : ccv9b  
 Misc : indbmh  
 ALS Vial : 27 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 17 07:56:15 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

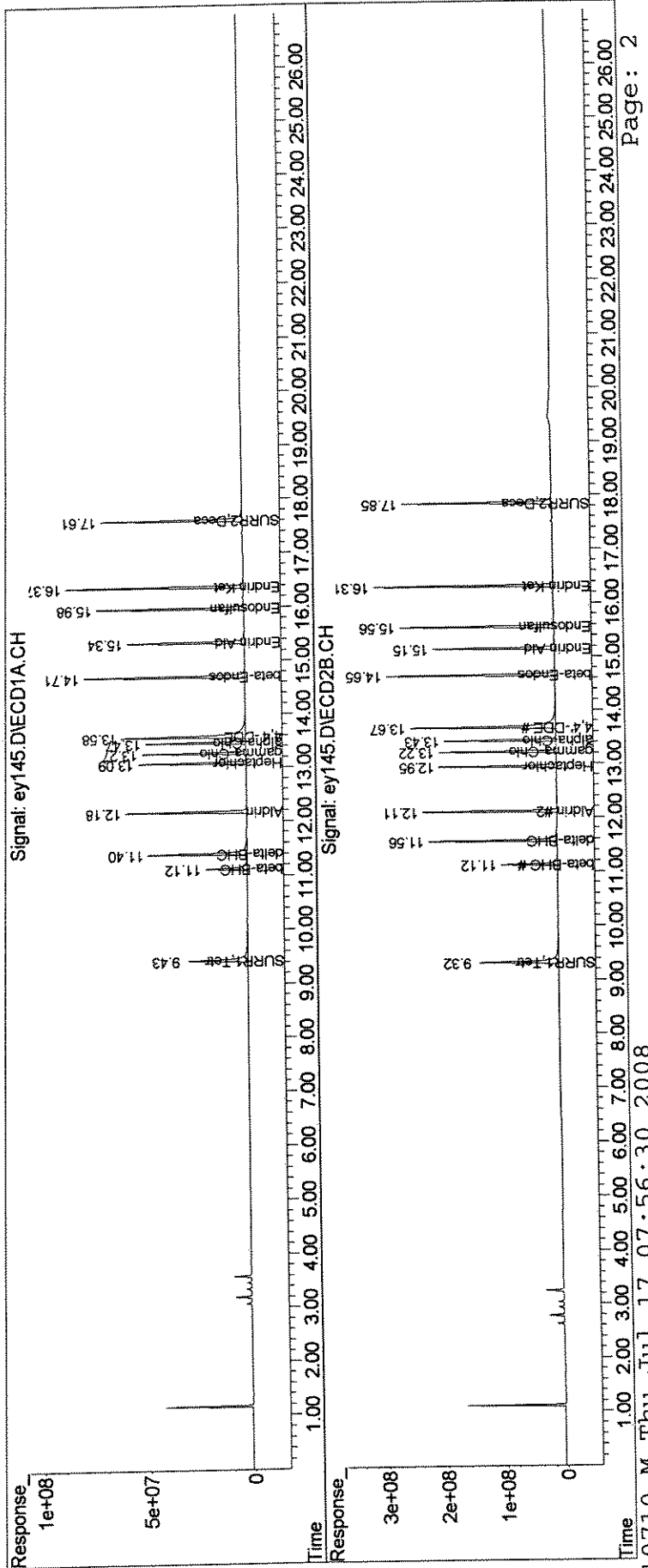
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/1	ug/1
System Monitoring Compounds						
1) S SURR1,Tetrac	9.44	9.32	771.1E6	3372.1E6	38.211	41.672
Spiked Amount	100.000	Range 30 - 150	Recovery =		38.21%	41.67%
5) S SURR2,Decachloro	17.61	17.85	1384.6E6	4541.3E6	79.277	82.456
Spiked Amount	100.000	Range 30 - 150	Recovery =		79.28%	82.46%
Target Compounds						
6) tcm Aldrin	12.18	12.11	998.0E6	3709.6E6	40.307	40.722
7) tc beta-BHC	11.12	11.12	441.5E6	1799.2E6	38.449	39.868
8) tc delta-BHC	11.40	11.56	1055.9E6	4008.4E6	38.824	38.826
9) tc Heptachlor E	13.09	12.95	908.0E6	3249.4E6	39.892	40.418
1) tc gamma-Chlord	13.27	13.22	891.8E6	3304.2E6	40.675	40.283
2) tc alpha-Chlord	13.47	13.43	865.5E6	3142.3E6	40.466	40.457
3) tc 4,4'-DDE	13.58	13.67	1686.7E6	6211.6E6	77.440	81.036
7) tc beta-Endosul	14.71	14.65	1534.2E6	5194.7E6	82.535	80.917
10) tc Endrin Aldeh	15.35	15.15	1158.8E6	3877.9E6	78.948	79.063
1) tc Endosulfan S	15.98	15.56	1370.4E6	4677.9E6	81.345	81.856
4) tc Endrin Keton	16.38	16.31	1582.4E6	5218.8E6	81.723	83.193
Sum Toxaphene			0	0	N.D.	N.D.
average Toxaphene					0.000	0.000
Sum Chlordane			0	0	N.D.	N.D.
average Chlordane					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
 Data File : ey145.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 16 Jul 2008 10:57 pm  
 Operator : M.PEDRO  
 Sample : ccv9b  
 Misc : indbmh  
 ALS Vial : 27 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 17 07:56:15 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STX-CLP Signal #2 Phase: STX-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



80557

7D  
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name:	Columbia Analytical Services	Contract:		
Lab Code:	10145	Case No.:	SAS No.:	SDG No.:
GC Column (1):	STX-CLP	ID: 0.32 (mm)	Initial Calibration Date(s):	07/10/2008
EPA Sample No. (PEM):	PEM	Date Analyzed:	07/16/2008	
LAB Sample ID. (PEM):	PEM	Time Analyzed:	23:33	
4,4'-DDT % Breakdown (1):	1.3%	Endrin % Breakdown (1):	11.7%	
Combined % Breakdown (1):	13.0%			

LIMITS:

%D of amounts in PEM must be less than or equal to 25.0%  
4,4'-DDT breakdown must be less than or equal to 15.0%  
Endrin breakdown must be less than or equal to 15.0%  
Combined breakdown must be less than or equal to 30.0%

FORM VII PEST-1

7D  
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name:	Columbia Analytical Services	Contract:		
Lab Code:	10145	Case No.:	SAS No.:	SDG No.:
GC Column (2):	STX-CLPII	ID: 0.32 (mm)	Initial Calibration Date(s):	07/10/2008
EPA Sample No. (PEM):	PEM	Date Analyzed:	07/16/2008	
LAB Sample ID. (PEM):	PEM	Time Analyzed:	23:33	
4,4'-DDT % Breakdown (1):	2.2%	Endrin % Breakdown (1):	12.0%	
Combined % Breakdown (1):	14.2%			

QC LIMITS:

%D of amounts in PEM must be less than or equal to 25.0%  
4,4'-DDT breakdown must be less than or equal to 15.0%  
Endrin breakdown must be less than or equal to 15.0%  
Combined breakdown must be less than or equal to 30.0%

FORM VII PEST-1

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
 Data File : ey146.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 16 Jul 2008 11:33 pm  
 Operator : M.PEDRO  
 Sample : pem  
 Misc : pest perform check  
 ALS Vial : 28 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 17 09:22:35 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
1) S SURR1,Tetrac	9.44	9.32	371.3E6	1687.6E6	18.398	20.855
Spiked Amount	100.000	Range 30 - 150	Recovery =		18.40%#	20.86%#
5) S SURR2,Decachloro	17.61	17.85	359.5E6	1231.0E6	20.581m	22.351m
Spiked Amount	100.000	Range 30 - 150	Recovery =		20.58%#	22.35%#
Target Compounds						
1) tc alpha-BHC	10.44	10.40	273.0E6	1203.9E6	8.831	10.145
2) tcm gamma-BHC (L	10.96	10.97	251.8E6	1072.1E6	8.928	10.203
3) tcm Heptachlor	0.00	11.66	0	3432986	N.D.	0.034 #
7) tc beta-BHC	11.12	11.12	117.4E6	472.4E6	10.222	10.468
3) tc 4,4'-DDE	13.58	13.68	10060298	58705317	0.462	0.766 #
5) tcm Endrin	14.37	14.34	902.4E6	3124.5E6	43.554	46.388
3) tc 4,4'-DDD	14.46	14.51	16670447	93021890	0.926	1.495 #
9) tcm 4,4'-DDT	14.86	14.95	1963.7E6	6745.8E6	102.612	102.978
0) tc Endrin Aldeh	15.35	15.16	48887142	185.4E6	3.331	3.780
2) tc Methoxychlor	15.56	15.92	2407.4E6	7926.2E6	258.508	272.816
4) tc Endrin Keton	16.38	16.31	70506498	241.2E6	3.641	3.845
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000

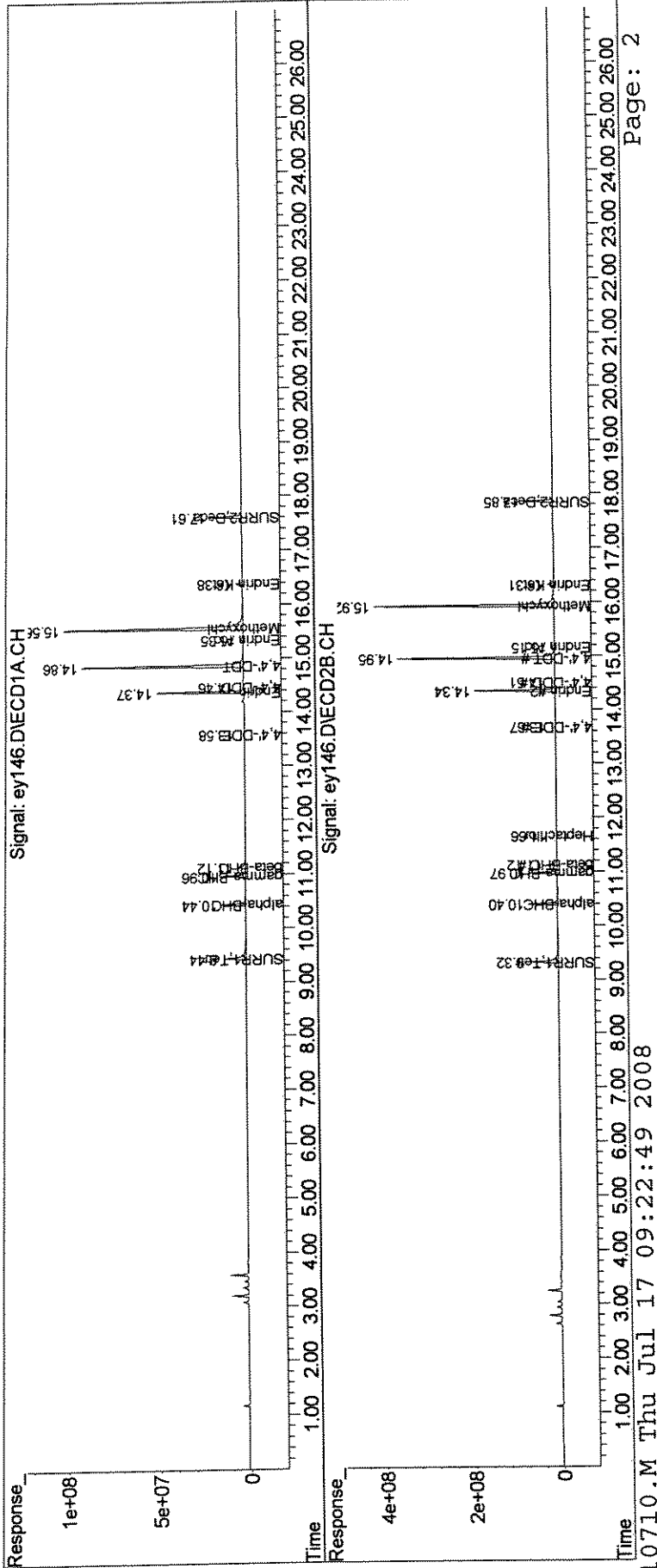
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.



Data Path : J:\ACQUDATA\6890D\DATA\071608\  
 Data File : ey146.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 16 Jul 2008 11:33 pm  
 Operator : M.PEDRO  
 Sample : pem  
 Misc : pest perform check  
 ALS Vial : 28 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 17 09:22:35 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STX-CLP Signal #2 Phase: STX-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

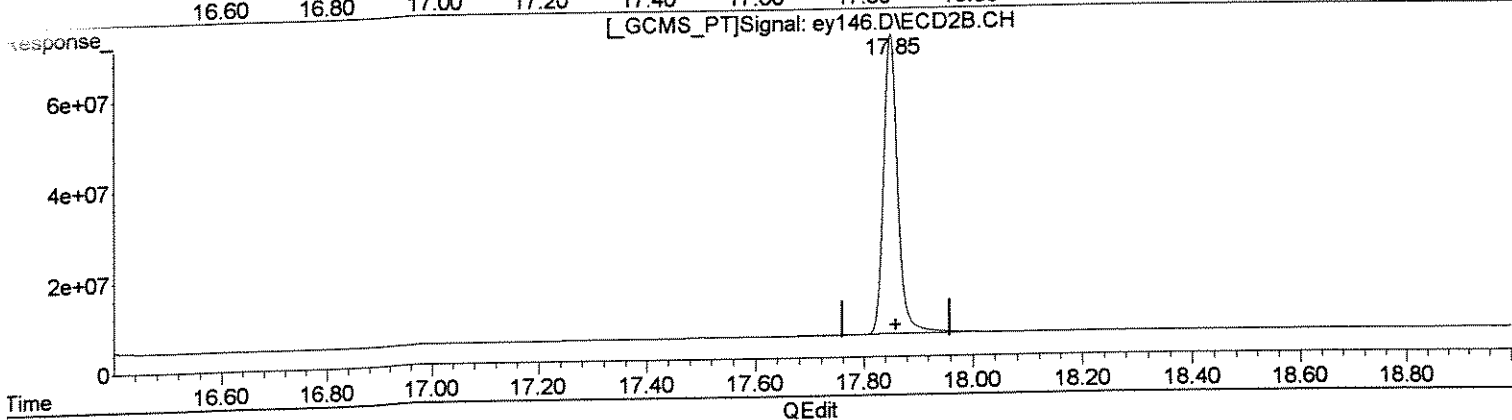
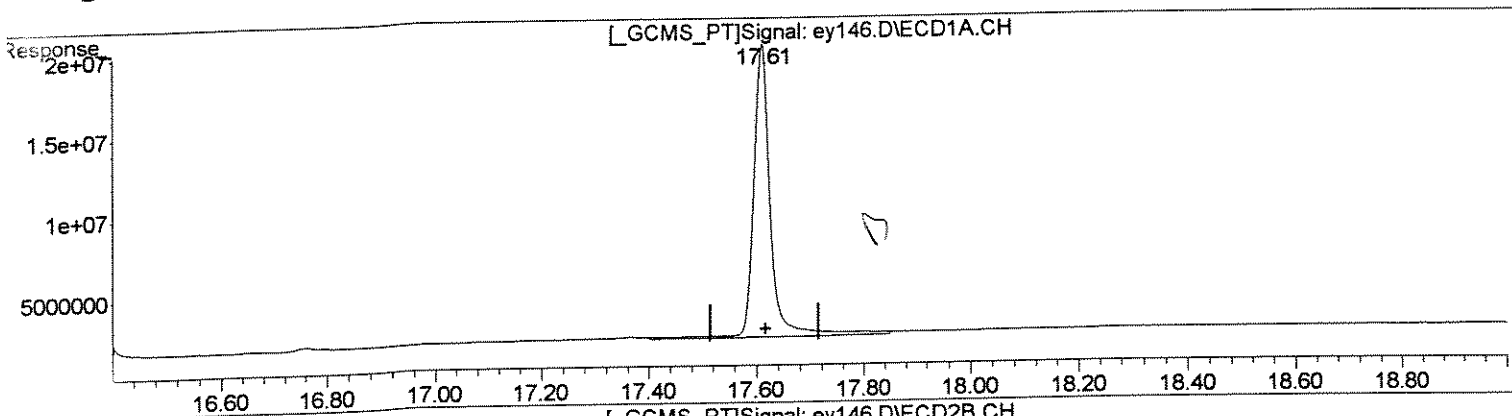


Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
Data File : ey146.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 16 Jul 2008 11:33 pm  
Operator : M.PEDRO  
Sample : pem  
Misc : pest perform check  
ALS Vial : 28 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 17 06:58:53 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 13:38:39 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



(25) SURR2,Decachlorobiphenyl (S)  
17.61min 22.543ug/l  
response 393716374

(25) SURR2,Decachlorobiphenyl #2 (S)  
17.85min 22.072ug/l  
response 1215628539

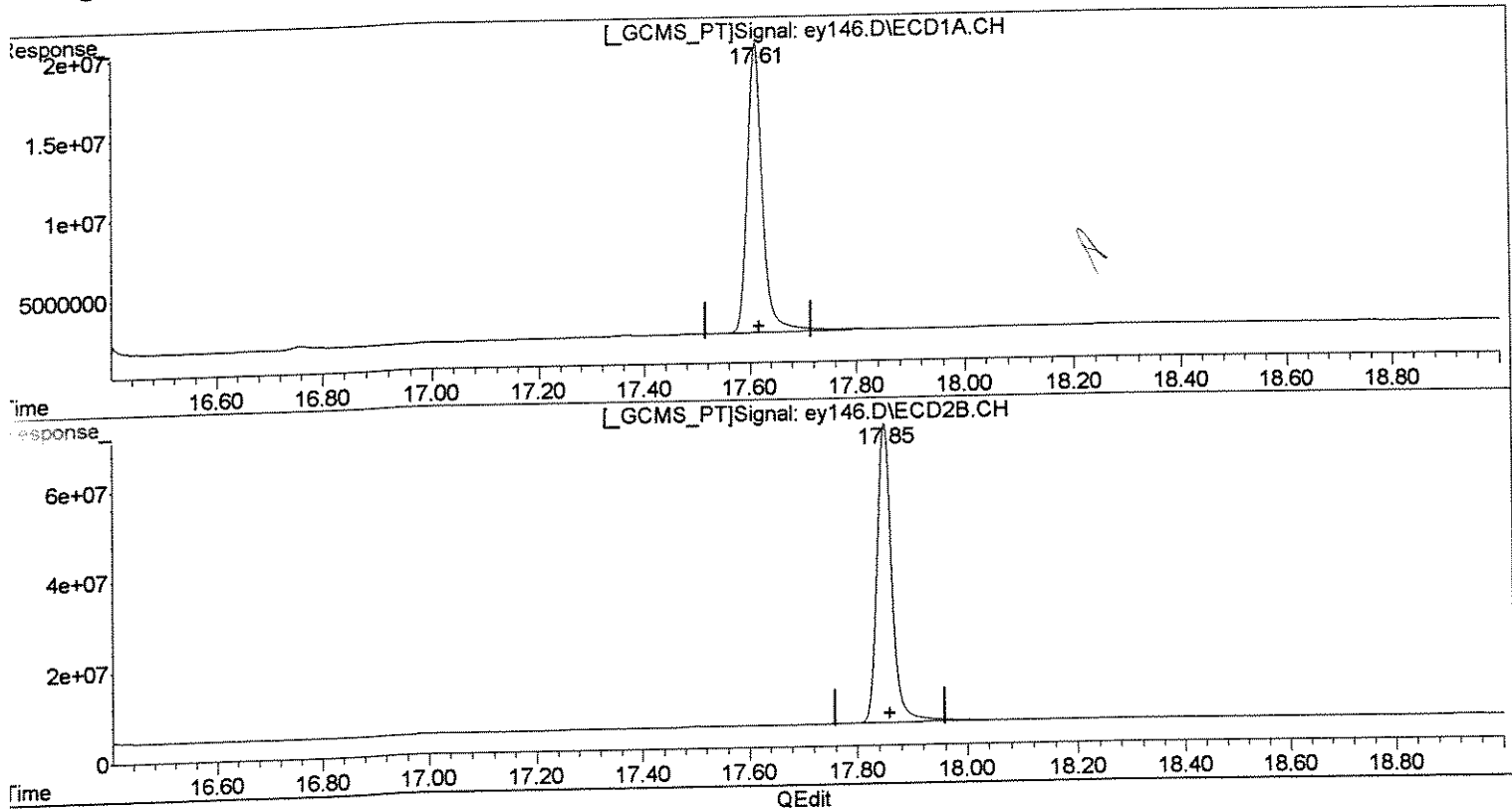
*Ball*

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
Data File : ey146.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 16 Jul 2008 11:33 pm  
Operator : M.PEDRO  
Sample : pem  
Misc : pest perform check  
ALS Vial : 28 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 17 06:58:53 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 13:38:39 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



(25) SURR2,Decachlorobiphenyl (S)  
17.61min 20.581ug/l m  
response 359462317

(25) SURR2,Decachlorobiphenyl #2 (S)  
17.85min 22.351ug/l m  
response 1231009686

*Handwritten signatures and dates:*  
M.P. 7/17  
M.P. 7/17

Evaluate Continuing Calibration Report

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
 Data File : ey150.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 17 Jul 2008 1:55 am  
 Operator : M.PEDRO  
 Sample : ccv10a  
 Misc : indamh  
 ALS Vial : 32 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 17 09:33:40 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	AvgRF	CCRF	%Dev	Area%	Dev (Min)
1 S SURR1, Tetrac	20.181	18.761 E6	7.0	91	0.00
3 tc alpha-BHC	30.916	30.126 E6	2.6	92	0.00
4 tcm gamma-BHC (L	28.206	27.573 E6	2.2	94	0.00
5 tcm Heptachlor	27.944	27.720 E6	0.8	96	0.00
10 tc alpha-Endosu	20.460	20.694 E6	-1.1	98	0.00
14 tcm Dieldrin	22.843	23.429 E6	-2.6	99	0.00
15 tcm Endrin	20.719	18.316 E6	11.6	85	-0.01
18 tc 4,4'-DDD	17.994	17.697 E6	1.7	95	0.00
19 tcm 4,4'-DDT	19.138	19.422 E6	-1.5	97	0.00
22 tc Methoxychlor	9.313	9.053 E6	2.8	96	0.00
25 S SURR2, Decachlorobiphenyl	17.465	17.251 E6	1.2	99	0.00

Signal #2

1 S SURR1, Tetrac	80.920	78.027 E6	3.6	97	0.00
3 tc alpha-BHC	118.675	120.379 E6	-1.4	100	0.00
4 tcm gamma-BHC (L	105.076	108.197 E6	-3.0	101	0.00
5 tcm Heptachlor	100.362	102.209 E6	-1.8	104	0.00
10 tc alpha-Endosu	70.973	73.452 E6	-3.5	103	-0.01
14 tcm Dieldrin	78.244	80.591 E6	-3.0	103	-0.01
15 tcm Endrin	67.355	60.917 E6	9.6	90	-0.01
18 tc 4,4'-DDD	62.240	61.909 E6	0.5	99	0.00
19 tcm 4,4'-DDT	65.507	67.290 E6	-2.7	101	0.00
22 tc Methoxychlor	29.053	29.466 E6	-1.4	103	0.00
25 S SURR2, Decachlorobiphenyl	55.075	57.105 E6	-3.7	105	0.00

Evaluate Continuing Calibration Report - Not Found

2 TC HEXACHLOROBENZENE	29.386	0.000 E6	100.0#	0#	-10.13#
6 tcm Aldrin	24.759	0.000 E6	100.0#	0#	-12.18#

Quantitation Report (QT Reviewed)

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
 Data File : ey150.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 17 Jul 2008 1:55 am  
 Operator : M.PEDRO  
 Sample : ccv10a  
 Misc : indamh  
 ALS Vial : 32 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 17 09:33:40 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

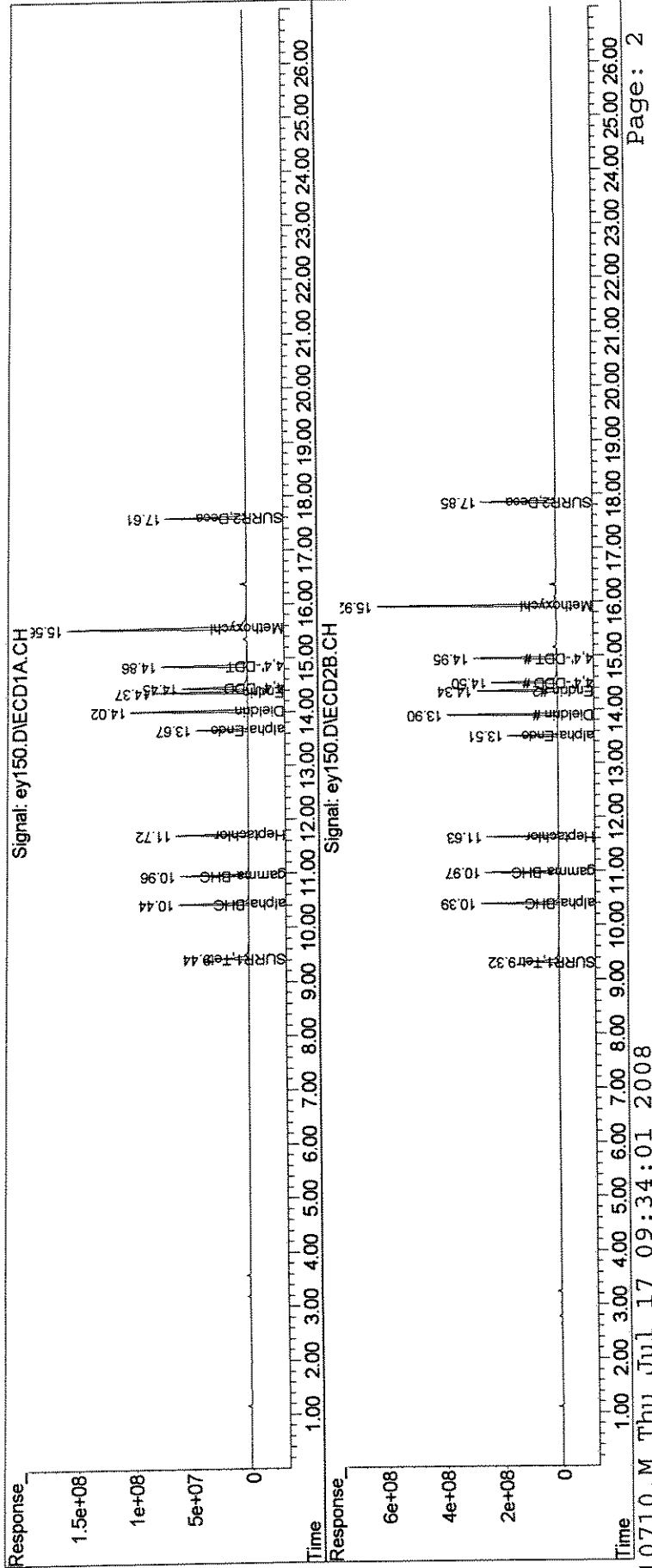
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
-----						
System Monitoring Compounds						
1) S SURR1,Tetrac	9.44	9.32	750.4E6	3121.1E6	37.185	38.570
Spiked Amount	100.000	Range 30 - 150	Recovery =		37.19%	38.57%
5) S SURR2,Decachloro	17.61	17.85	1380.1E6	4568.4E6	79.020	82.949
Spiked Amount	100.000	Range 30 - 150	Recovery =		79.02%	82.95%
Target Compounds						
3) tc alpha-BHC	10.44	10.39	1205.0E6	4815.2E6	38.978	40.574
4) tcm gamma-BHC (L	10.96	10.97	1102.9E6	4327.9E6	39.103	41.188
5) tcm Heptachlor	11.72	11.63	1108.8E6	4088.4E6	39.680	40.736
0) tc alpha-Endosu	13.67	13.51	827.8E6	2938.1E6	40.457	41.397
4) tcm Dieldrin	14.02	13.90	1874.3E6	6447.2E6	82.052	82.399
5) tcm Endrin	14.37	14.34	1465.3E6	4873.4E6	70.723	72.353
3) tc 4,4'-DDD	14.45	14.50	1415.8E6	4952.8E6	78.682	79.576
9) tcm 4,4'-DDT	14.86	14.95	1553.8E6	5383.2E6	81.190	82.178
2) tc Methoxychlor	15.56	15.92	3621.3E6	11786.2E6	388.853	405.675
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
-----						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
Data File : ey150.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 17 Jul 2008 1:55 am  
Operator : M.PEDRO  
Sample : ccv10a  
Misc : indamh  
ALS Vial : 32 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 17 09:33:40 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 13:38:39 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
Signal #1 Phase : STX-CLP Signal #2 Phase: STX-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



00566

Evaluate Continuing Calibration Report

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
 Data File : ey151.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 17 Jul 2008 2:31 am  
 Operator : M.PEDRO  
 Sample : ccv10b  
 Misc : indbmh  
 ALS Vial : 33 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 17 09:34:34 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1 S SURR1,Tetrac	20.181	18.934 E6	6.2	92	0.00
6 tcm Aldrin	24.759	25.048 E6	-1.2	98	0.00
7 tc beta-BHC	11.483	10.837 E6	5.6	94	0.00
8 TC delta-BHC	27.198	25.668 E6	5.6	90	0.00
9 tc Heptachlor E	22.762	22.746 E6	0.1	99	0.00
11 tc gamma-Chlord	21.924	22.353 E6	-2.0	100	0.00
12 tc alpha-Chlord	21.387	21.770 E6	-1.8	100	0.00
13 tc 4,4'-DDE	21.781	20.743 E6	4.8	92	0.00
17 tc beta-Endosul	18.589	19.267 E6	-3.6	101	0.00
20 tc Endrin Aldeh	14.678	14.510 E6	1.1	97	0.00
21 tc Endosulfan S	16.846	17.203 E6	-2.1	100	0.00
24 tc Endrin Keton	19.363	19.958 E6	-3.1	101	0.00
25 S SURR2,Decachlorobiphenyl	17.465	17.470 E6	-0.0	101	0.00

Signal #2

1 S SURR1,Tetrac	80.920	83.857 E6	-3.6	105	0.00
6 tcm Aldrin	91.095	94.525 E6	-3.8	103	0.00
7 tc beta-BHC	45.130	45.127 E6	0.0	102	0.00
8 tc delta-BHC	103.241	104.007 E6	-0.7	99	0.00
9 tc Heptachlor E	80.396	82.376 E6	-2.5	104	0.00
11 tc gamma-Chlord	82.026	83.828 E6	-2.2	102	0.00
12 tc alpha-Chlord	77.670	80.014 E6	-3.0	103	0.00
13 tc 4,4'-DDE	76.653	78.383 E6	-2.3	102	0.00
17 tc beta-Endosul	64.198	65.849 E6	-2.6	104	0.00
20 tc Endrin Aldeh	49.048	48.710 E6	0.7	100	-0.01
21 tc Endosulfan S	57.148	58.839 E6	-3.0	103	0.00
24 tc Endrin Keton	62.732	65.984 E6	-5.2	105	0.00
25 S SURR2,Decachlorobiphenyl	55.075	57.360 E6	-4.1	105	0.00

Quantitation Report (QT Reviewed)

Data Path : J:\ACQUADATA\6890D\DATA\071608\  
 Data File : ey151.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 17 Jul 2008 2:31 am  
 Operator : M.PEDRO  
 Sample : ccv10b  
 Misc : indbmh  
 ALS Vial : 33 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 17 09:34:34 2008  
 Quant Method : J:\ACQUADATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STX-CLP Signal #2 Phase: STX-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
1) S SURR1,Tetrac	9.44	9.32	757.4E6	3354.3E6	37.529	41.452
Spiked Amount	100.000	Range	30 - 150	Recovery =	37.53%	41.45%
5) S SURR2,Decachloro	17.61	17.85	1397.6E6	4588.8E6	80.023	83.319
Spiked Amount	100.000	Range	30 - 150	Recovery =	80.02%	83.32%
Target Compounds						
1) tc Aldrin	12.18	12.11	1001.9E6	3781.0E6	40.467	41.506
2) tc beta-BHC	11.12	11.12	433.5E6	1805.1E6	37.751	39.998
3) tc delta-BHC	11.40	11.56	1026.7E6	4160.3E6	37.750	40.297
4) tc Heptachlor E	13.09	12.95	909.9E6	3295.0E6	39.973	40.985
5) tc gamma-Chlord	13.27	13.22	894.1E6	3353.1E6	40.783	40.879
6) tc alpha-Chlord	13.47	13.43	870.8E6	3200.5E6	40.716	41.207
7) tc 4,4'-DDE	13.58	13.67	1659.5E6	6270.6E6	76.187	81.806
8) tc beta-Endosul	14.71	14.65	1541.4E6	5267.9E6	82.921	82.057
9) tc Endrin Aldehy	15.34	15.15	1160.8E6	3896.8E6	79.082	79.450
1) tc Endosulfan S	15.98	15.56	1376.2E6	4707.1E6	81.693	82.367
2) tc Endrin Keton	16.37	16.31	1596.6E6	5278.7E6	82.458	84.147
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000

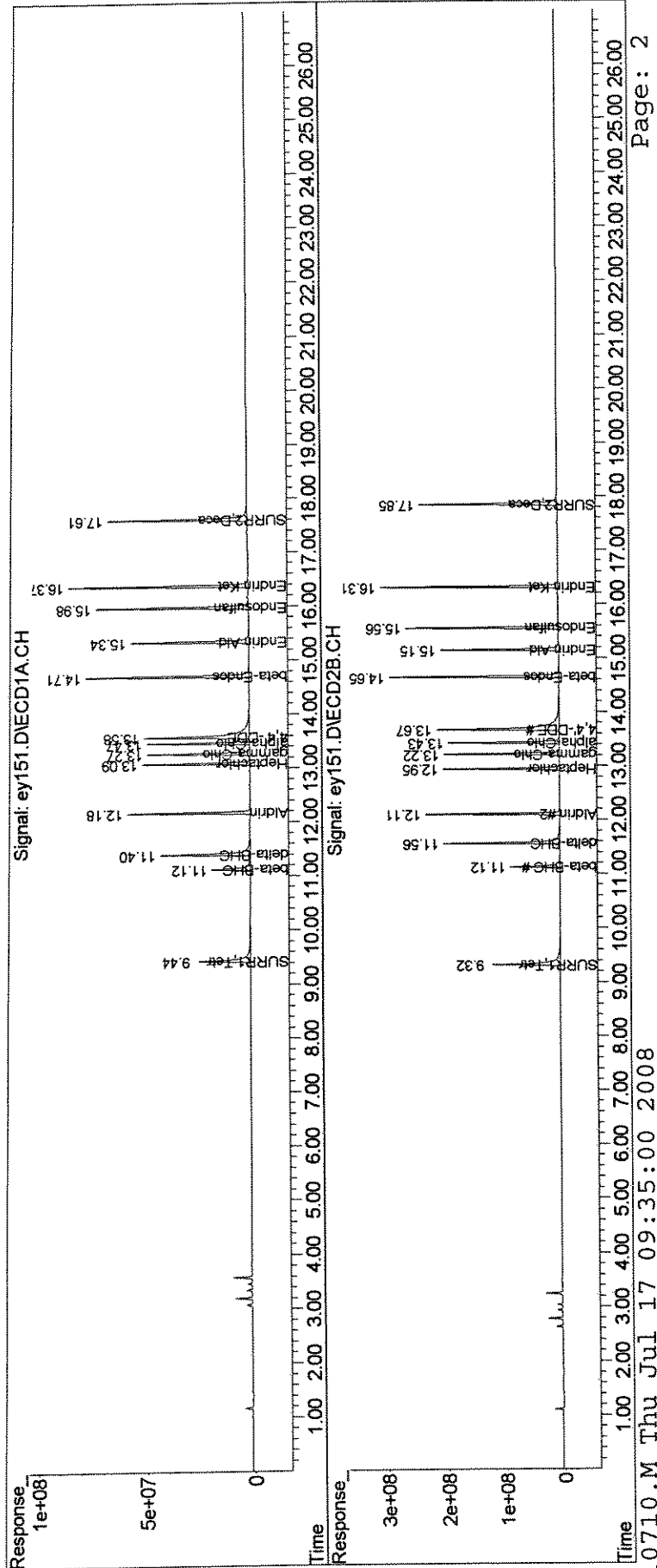
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.



Data Path : J:\ACQUDATA\6890D\DATA\071608\  
 Data File : ey151.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 17 Jul 2008 2:31 am  
 Operator : M.PEDRO  
 Sample : ccv10b  
 Misc : indbmh  
 ALS Vial : 33 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 17 09:34:34 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STX-CLP Signal #2 Phase: STX-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



7D  
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name:	Columbia Analytical Services	Contract:		
Lab Code:	10145	Case No.:	SAS No.:	SDG No.:
GC Column (1):	STX-CLP	ID: 0.32 (mm)	Initial Calibration Date(s):	07/10/2008
EPA Sample No. (PEM):	PEM	Date Analyzed:	07/17/2008	
LAB Sample ID. (PEM):	PEM	Time Analyzed:	9:44	
4,4'-DDT % Breakdown (1):	0.6%	Endrin % Breakdown (1):	12.0%	
Combined % Breakdown (1):	12.6%			

QC LIMITS:

%D of amounts in PEM must be less than or equal to 25.0%  
4,4'-DDT breakdown must be less than or equal to 15.0%  
Endrin breakdown must be less than or equal to 15.0%  
Combined breakdown must be less than or equal to 30.0%

FORM VII PEST-1

7D  
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name:	Columbia Analytical Services	Contract:		
Lab Code:	10145	Case No.:	SAS No.:	SDG No.:
GC Column (2):	STX-CLPII	ID: 0.32 (mm)	Initial Calibration Date(s):	07/10/2008
EPA Sample No. (PEM):	PEM		Date Analyzed:	07/17/2008
LAB Sample ID. (PEM):	PEM		Time Analyzed:	9:44
4,4'-DDT % Breakdown (1):	1.2%		Endrin % Breakdown (1):	11.9%
Combined % Breakdown (1):	13.1%			

%D of amounts in PEM must be less than or equal to 25.0%  
4,4'-DDT breakdown must be less than or equal to 15.0%  
Endrin breakdown must be less than or equal to 15.0%  
Combined breakdown must be less than or equal to 30.0%

FORM VII PEST-1

Data Path : J:\ACQUDATA\6890D\DATA\071708\  
 Data File : ey152.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 17 Jul 2008 9:44 am  
 Operator : M.PEDRO  
 Sample : pem  
 Misc : pest perform check  
 ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 17 10:56:14 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

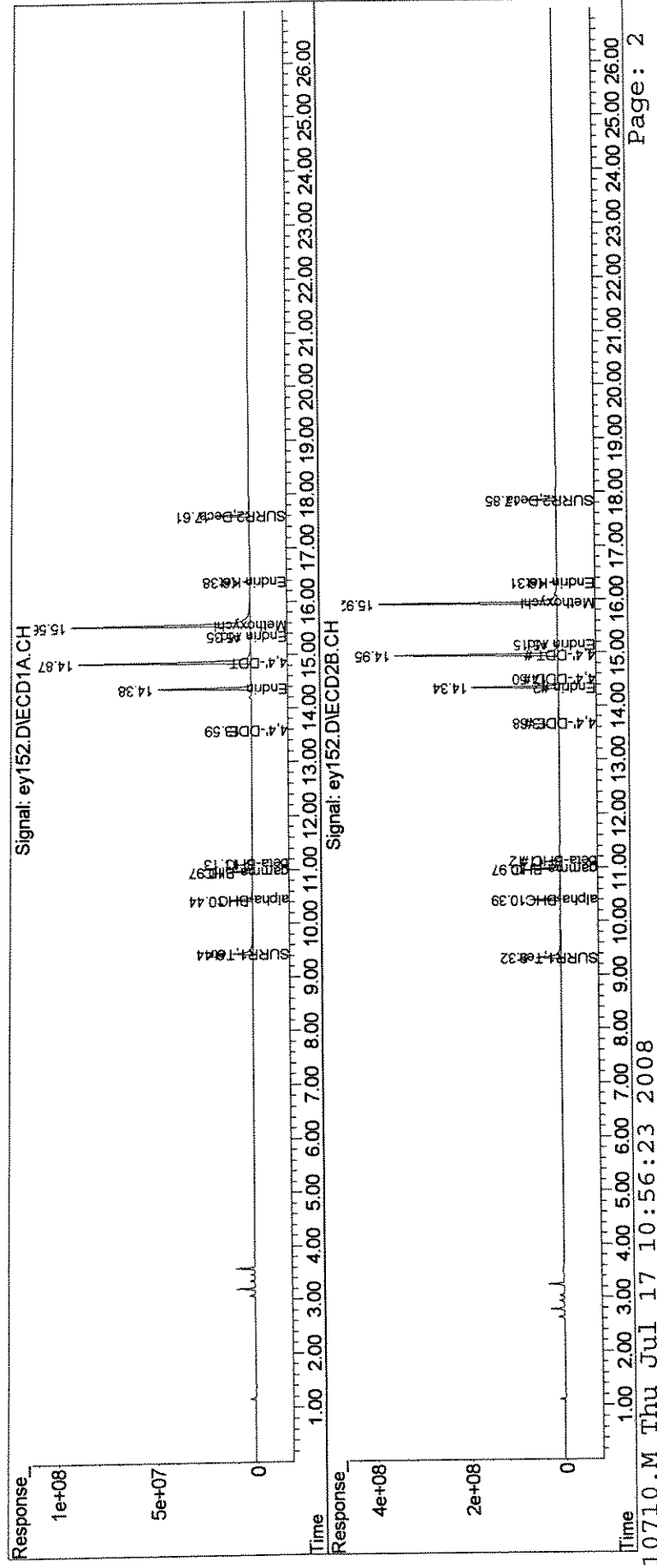
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
-----						
System Monitoring Compounds						
1) S SURR1,Tetrac	9.44	9.32	364.8E6	1656.1E6	18.074	20.466
Spiked Amount	100.000	Range	30 - 150	Recovery =	18.07%#	20.47%#
5) S SURR2,Decachloro	17.61	17.85	382.3E6	1246.1E6	21.889	22.625
Spiked Amount	100.000	Range	30 - 150	Recovery =	21.89%#	22.63%#
Target Compounds						
3) tc alpha-BHC	10.44	10.39	266.6E6	1237.1E6	8.622	10.424
4) tcm gamma-BHC (L)	10.97	10.97	246.4E6	1123.6E6	8.734	10.693
tc beta-BHC	11.13	11.12	118.5E6	500.5E6	10.323	11.091
3) tc 4,4'-DDE	13.59	13.68	12160463	70436106	0.558	0.919 #
5) tcm Endrin	14.38	14.34	906.3E6	3252.6E6	43.743	48.291
8) tc 4,4'-DDD	0.00	14.50	0	20615288	N.D.	0.331m#
9) tcm 4,4'-DDT	14.87	14.95	1991.4E6	7202.3E6	104.056	109.947
0) tc Endrin Aldehy	15.35	15.15	47359735	184.4E6	3.227m	3.759m
2) tc Methoxychlor	15.56	15.92	2412.7E6	8013.5E6	259.073	275.819
4) tc Endrin Keton	16.38	16.31	75738488	253.8E6	3.912	4.047m
Sum Toxaphene			0	0	N.D.	N.D.
verage Toxaphene					0.000	0.000
Sum Chlordane			0	0	N.D.	N.D.
verage Chlordane					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\071708\  
 Data File : ey152.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 17 Jul 2008 9:44 am  
 Operator : M.PEDRO  
 Sample : pem  
 Misc : pest perform check  
 ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 17 10:56:14 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STX-CLP Signal #2 Phase: STX-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



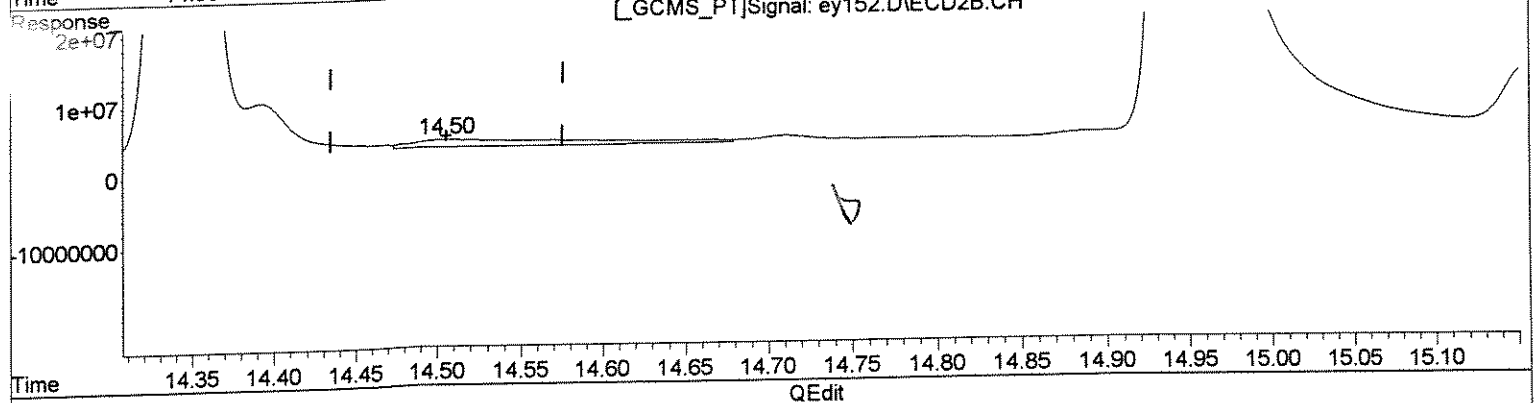
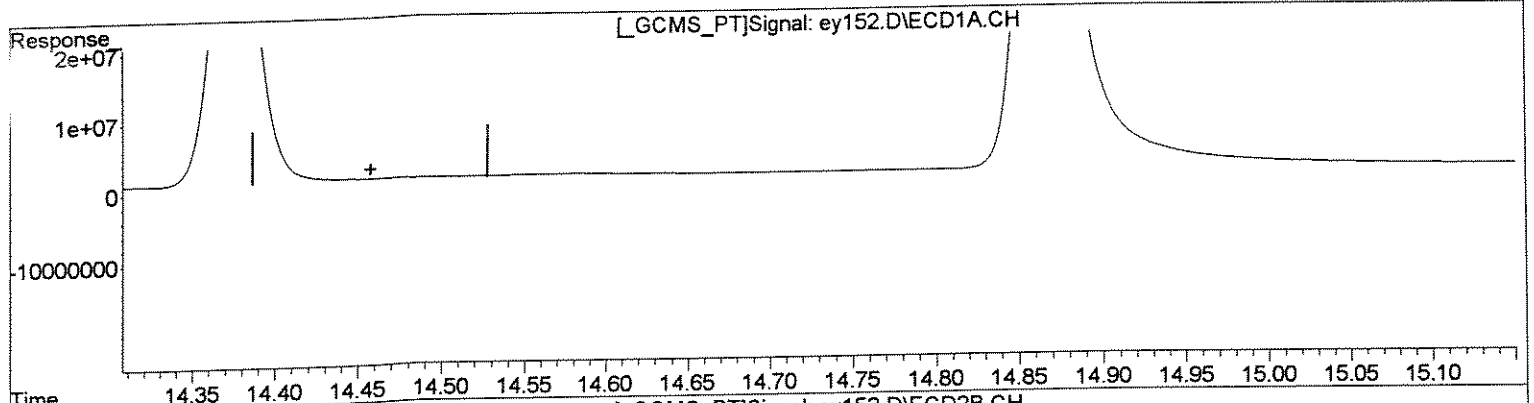
80810710.M

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071708\  
Data File : ey152.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 17 Jul 2008 9:44 am  
Operator : M.PEDRO  
Sample : pem  
Misc : pest perform check  
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 17 10:11:46 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 13:38:39 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



(18) 4,4'-DDD (tc)  
0.00min 0.000ug/l  
response 0

(18) 4,4'-DDD #2 (tc)  
14.50min 1.223ug/l  
response 76131584

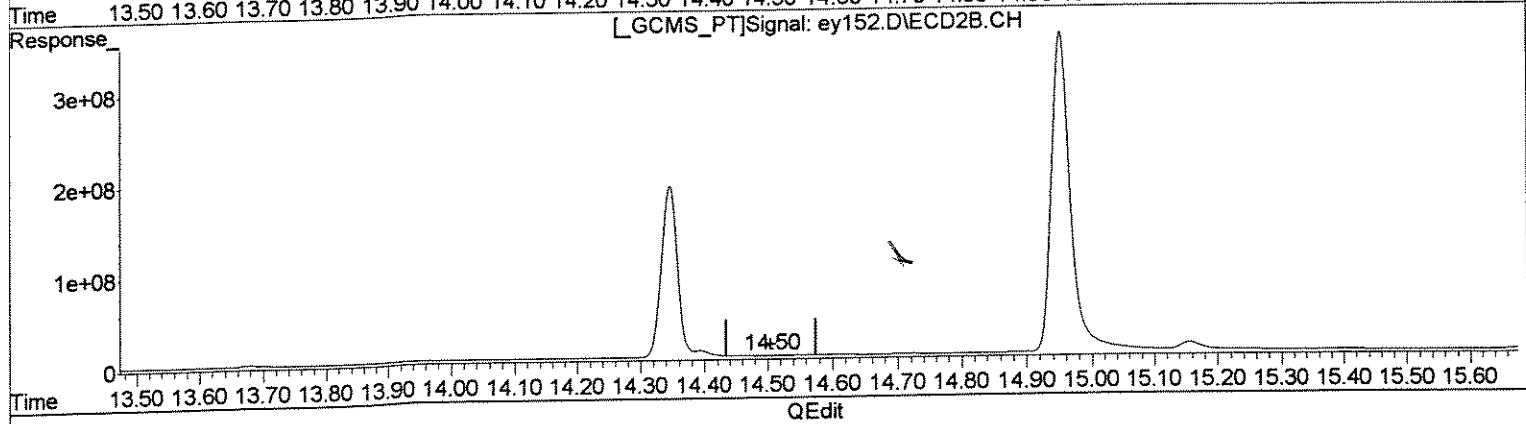
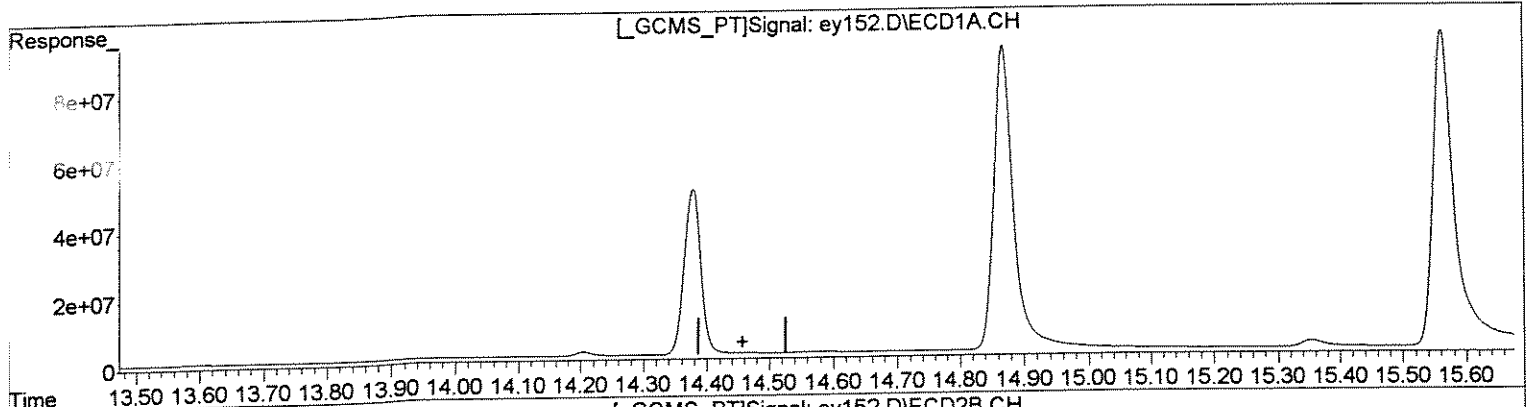
*best*

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071708\  
Data File : ey152.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 17 Jul 2008 9:44 am  
Operator : M.PEDRO  
Sample : pem  
Misc : pest perform check  
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 17 10:11:46 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 13:38:39 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



(18) 4,4'-DDD (tc)  
0.00min 0.000ug/l  
response 0

(18) 4,4'-DDD #2 (tc)  
14.50min 0.331ug/l m  
response 20615288

*MW/17*

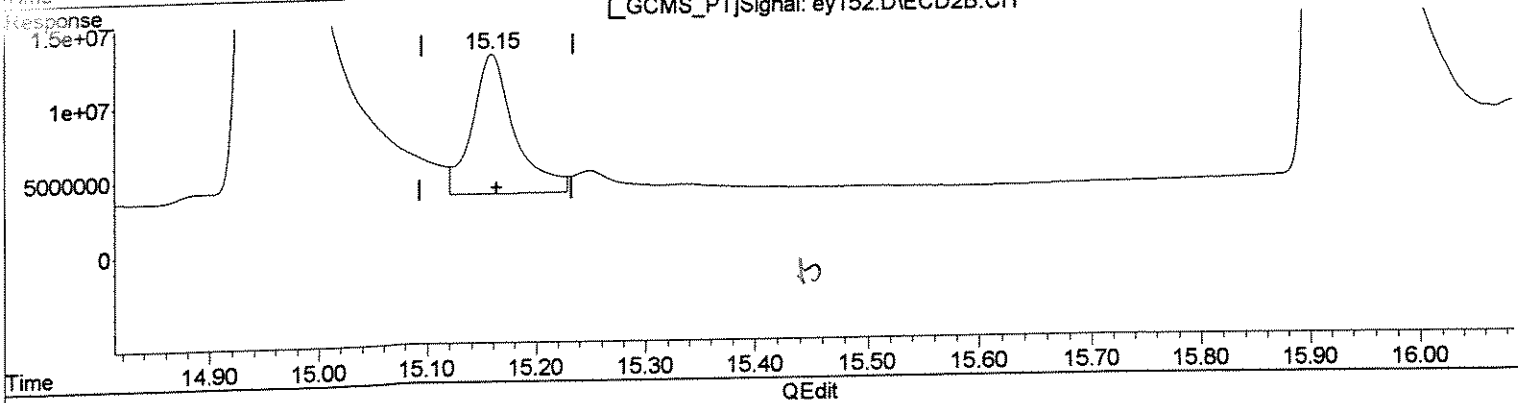
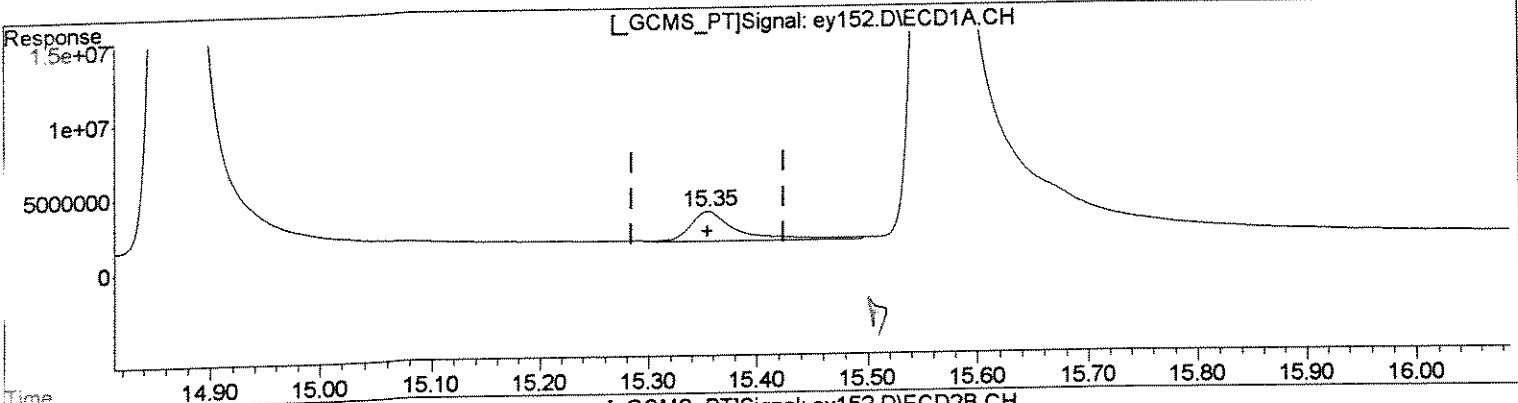
*MW/17*

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071708\  
Data File : ey152.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 17 Jul 2008 9:44 am  
Operator : M.PEDRO  
Sample : pem  
Misc : pest perform check  
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 17 10:11:46 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 13:38:39 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



(20) Endrin Aldeh (tc)  
15.35min 4.176ug/l  
response 61291116

(20) Endrin Aldeh #2 (tc)  
15.16min 5.196ug/l  
response 254857933

*Handwritten signature*

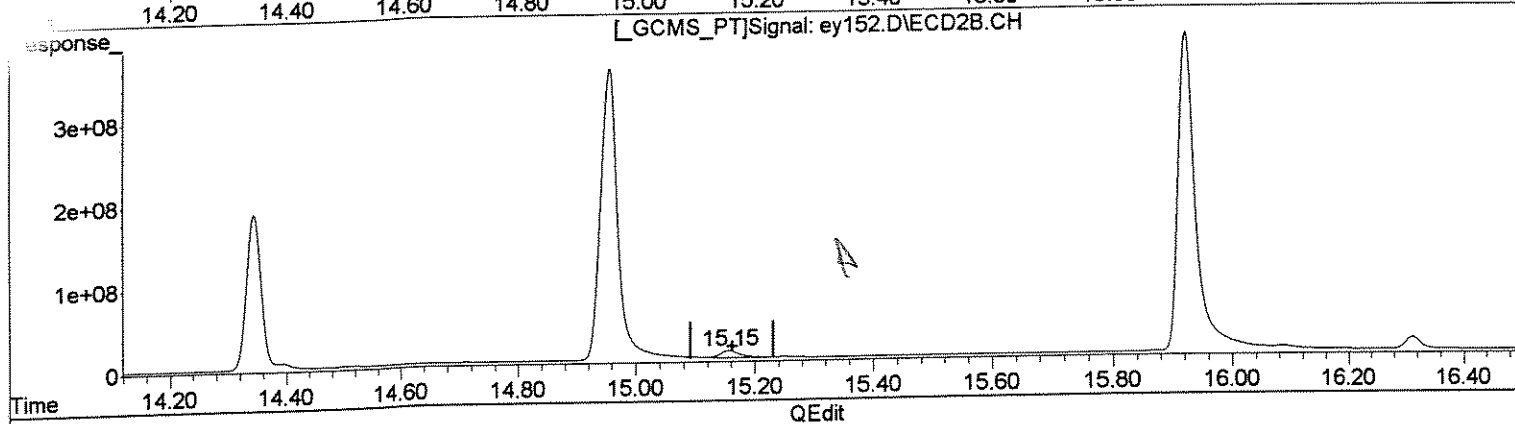
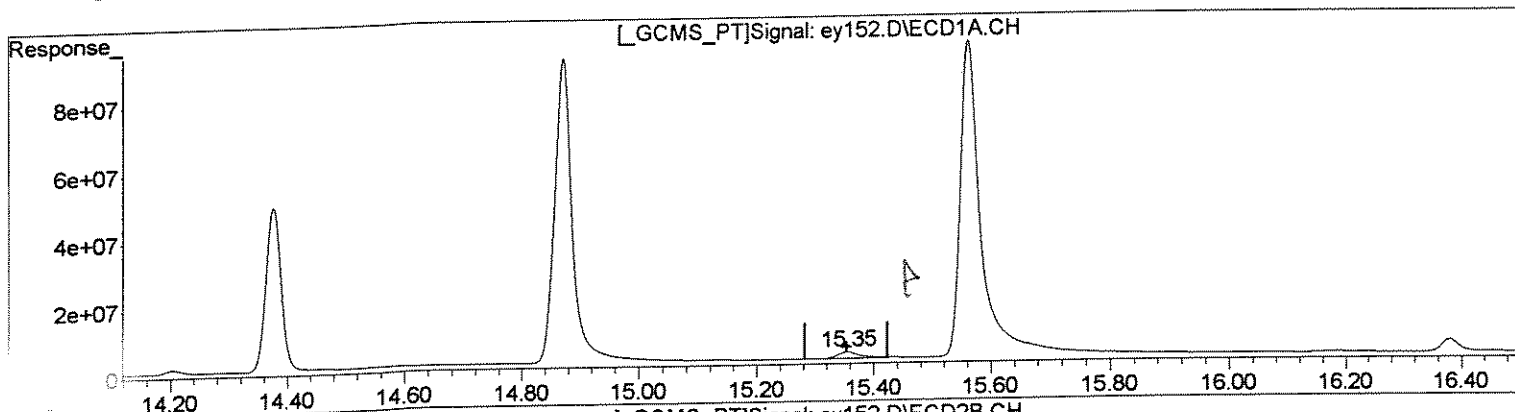


Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071708\  
Data File : ey152.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 17 Jul 2008 9:44 am  
Operator : M.PEDRO  
Sample : pem  
Misc : pest perform check  
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 17 10:11:46 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 13:38:39 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



(20) Endrin Aldeh (tc)  
15.35min 3.227ug/l m  
response 47359735

(20) Endrin Aldeh #2 (tc)  
15.15min 3.759ug/l m  
response 184358403

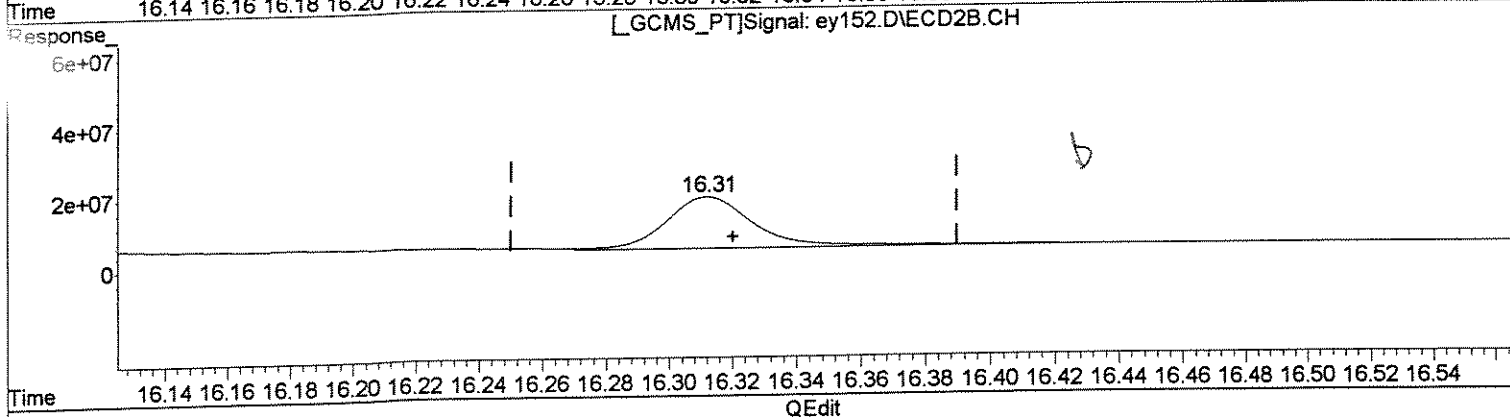
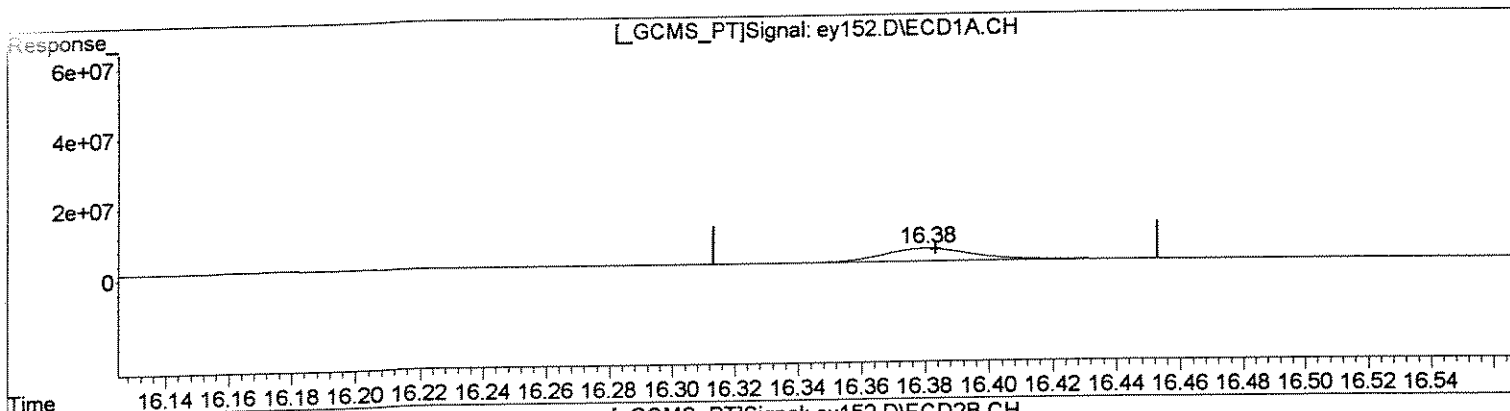
*MW 7/9*  
*W 7/18*

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071708\  
 Data File : ey152.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 17 Jul 2008 9:44 am  
 Operator : M.PEDRO  
 Sample : pem  
 Misc : pest perform check  
 ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 17 10:11:46 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



(24) Endrin Keton (tc)  
 16.38min 3.912ug/l  
 response 75738488

(24) Endrin Keton #2 (tc)  
 16.31min 4.621ug/l  
 response 289881836

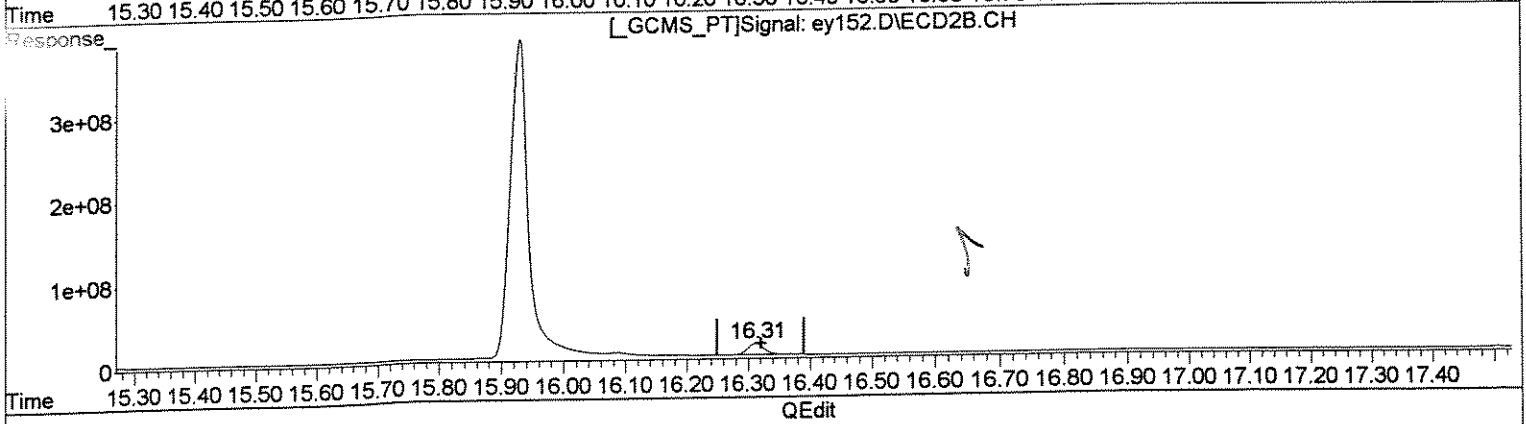
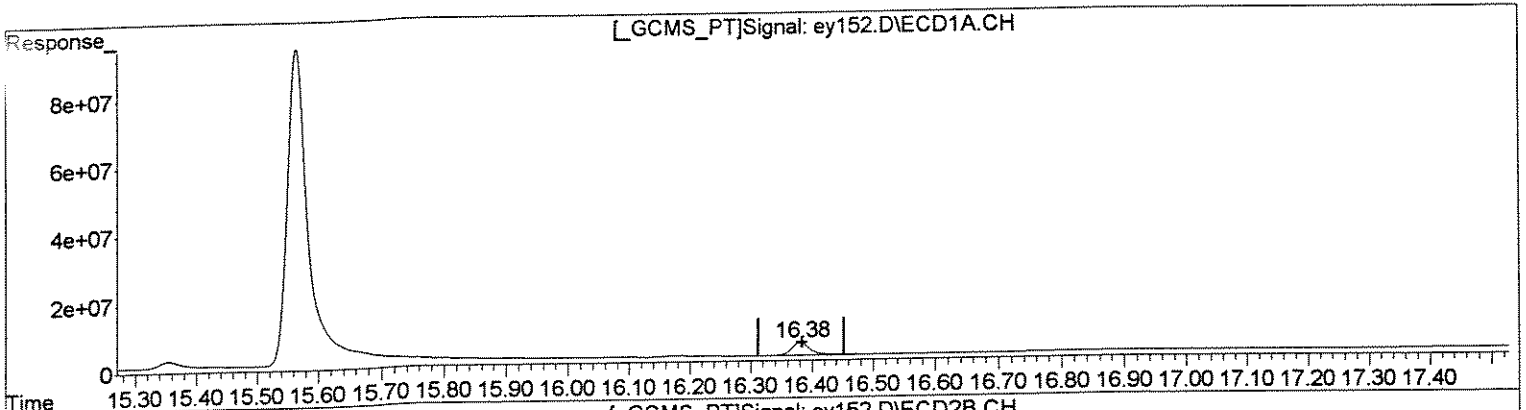
*Handwritten signature*

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071708\  
Data File : ey152.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 17 Jul 2008 9:44 am  
Operator : M.PEDRO  
Sample : pem  
Misc : pest perform check  
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 17 10:11:46 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 13:38:39 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



(24) Endrin Keton (tc)  
16.38min 3.912ug/l  
response 75738488

(24) Endrin Keton #2 (tc)  
16.31min 4.047ug/l m  
response 253848685

*mw*  
*7/17*  
*mw*  
*7/17*

Evaluate Continuing Calibration Report

Data Path : J:\ACQUDATA\6890D\DATA\071708\  
 Data File : ey153.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 17 Jul 2008 10:20 am  
 Operator : M.PEDRO  
 Sample : ccv11a  
 Misc : indam  
 ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 17 10:57:03 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1 S SURR1,Tetrac	20.181	18.389 E6	8.9	89	0.00
3 tc alpha-BHC	30.916	29.449 E6	4.7	90	0.00
4 tcm gamma-BHC (L	28.206	27.069 E6	4.0	92	0.00
5 tcm Heptachlor	27.944	27.613 E6	1.2	96	0.00
10 tc alpha-Endosu	20.460	20.609 E6	-0.7	98	0.00
14 tcm Dieldrin	22.843	23.291 E6	-2.0	98	0.00
15 tcm Endrin	20.719	17.433 E6	15.9#	81	-0.01
18 tc 4,4'-DDD	17.994	16.894 E6	6.1	91	0.00
19 tcm 4,4'-DDT	19.138	20.122 E6	-5.1	100	0.00
22 tc Methoxychlor	9.313	8.927 E6	4.1	95	0.00
25 S SURR2,Decachlorobiphenyl	17.465	17.284 E6	1.0	100	0.00

Signal #2

1 S SURR1,Tetrac	80.920	82.017 E6	-1.4	102	0.00
3 tc alpha-BHC	118.675	121.692 E6	-2.5	101	0.00
4 tcm gamma-BHC (L	105.076	110.097 E6	-4.8	103	0.00
5 tcm Heptachlor	100.362	103.719 E6	-3.3	105	0.00
10 tc alpha-Endosu	70.973	75.354 E6	-6.2	106	-0.01
14 tcm Dieldrin	78.244	82.786 E6	-5.8	106	-0.01
15 tcm Endrin	67.355	61.007 E6	9.4	90	-0.01
18 tc 4,4'-DDD	62.240	60.613 E6	2.6	97	0.00
19 tcm 4,4'-DDT	65.507	68.680 E6	-4.8	103	-0.01
22 tc Methoxychlor	29.053	28.844 E6	0.7	101	0.00
25 S SURR2,Decachlorobiphenyl	55.075	57.673 E6	-4.7	106	-0.01

Evaluate Continuing Calibration Report - Not Found

2 TC HEXACHLOROBENZENE	29.386	0.000 E6	100.0#	0#	-10.13#
6 tcm Aldrin	24.759	0.000 E6	100.0#	0#	-12.18#

Data Path : J:\ACQUDATA\6890D\DATA\071708\  
 Data File : ey153.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 17 Jul 2008 10:20 am  
 Operator : M.PEDRO  
 Sample : ccv11a  
 Misc : indam  
 ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 17 10:57:03 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

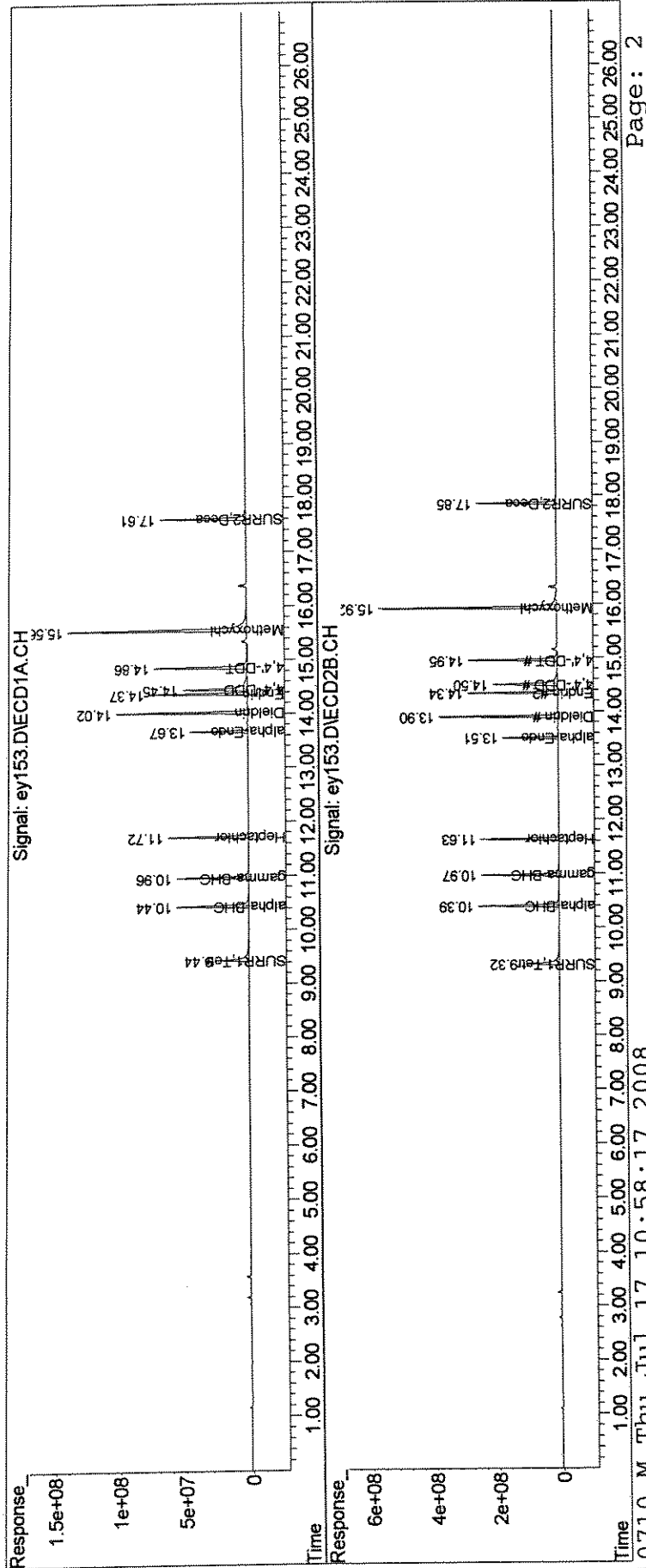
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
-----						
System Monitoring Compounds						
1) S SURR1,Tetrac	9.44	9.32	735.6E6	3280.7E6	36.450	40.542
Spiked Amount	100.000	Range 30 - 150	Recovery =		36.45%	40.54%
5) S SURR2,Decachloro	17.61	17.85	1382.8E6	4613.8E6	79.171	83.773
Spiked Amount	100.000	Range 30 - 150	Recovery =		79.17%	83.77%
Target Compounds						
3) tc alpha-BHC	10.44	10.39	1178.0E6	4867.7E6	38.102	41.017
4) tcm gamma-BHC (L	10.96	10.97	1082.8E6	4403.9E6	38.388	41.911
5) tcm Heptachlor	11.72	11.63	1104.5E6	4148.8E6	39.526	41.338
0) tc alpha-Endosu	13.67	13.51	824.4E6	3014.1E6	40.292	42.469
4) tcm Dieldrin	14.02	13.90	1863.3E6	6622.9E6	81.570	84.644
5) tcm Endrin	14.37	14.34	1394.6E6	4880.5E6	67.312	72.460
8) tc 4,4'-DDD	14.45	14.50	1351.5E6	4849.0E6	75.112	77.909
9) tcm 4,4'-DDT	14.86	14.95	1609.8E6	5494.4E6	84.117	83.875
2) tc Methoxychlor	15.56	15.92	3570.7E6	11537.5E6	383.417	397.116
Sum Toxaphene			0	0	N.D.	N.D.
verage Toxaphene					0.000	0.000
Sum Chlordane			0	0	N.D.	N.D.
verage Chlordane					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\071708\  
 Data File : ey153.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 17 Jul 2008 10:20 am  
 Operator : M.PEDRO  
 Sample : ccv11a  
 Misc : indam  
 ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 17 10:57:03 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



80582

Evaluate Continuing Calibration Report

Data Path : J:\ACQUDATA\6890D\DATA\071708\  
 Data File : ey154.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 17 Jul 2008 10:56 am  
 Operator : M.PEDRO  
 Sample : ccv11b  
 Misc : indbm  
 ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 17 11:51:35 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	AvgRF	CCRF	%Dev	Area%	Dev (Min)
1 S SURR1,Tetrac	20.181	18.273 E6	9.5	88	0.00
6 tcm Aldrin	24.759	24.663 E6	0.4	96	0.00
7 tc beta-BHC	11.483	10.539 E6	8.2	92	0.00
8 TC delta-BHC	27.198	24.944 E6	8.3	88	0.00
9 tc Heptachlor E	22.762	22.368 E6	1.7	97	0.00
10 tc gamma-Chlord	21.924	22.008 E6	-0.4	98	0.00
11 tc alpha-Chlord	21.387	21.448 E6	-0.3	99	0.00
13 tc 4,4'-DDE	21.781	19.875 E6	8.8	88	0.00
17 tc beta-Endosul	18.589	19.050 E6	-2.5	100	0.00
20 tc Endrin Aldehy	14.678	14.267 E6	2.8	96	0.00
21 tc Endosulfan S	16.846	16.924 E6	-0.5	99	0.00
24 tc Endrin Keton	19.363	19.643 E6	-1.4	99	0.00
25 S SURR2,Decachlorobiphenyl	17.465	17.306 E6	0.9	100	0.00

Signal #2

1 S SURR1,Tetrac	80.920	82.499 E6	-2.0	103	0.00
6 tcm Aldrin	91.095	95.150 E6	-4.5	104	0.00
7 tc beta-BHC	45.130	44.846 E6	0.6	101	0.00
8 tc delta-BHC	103.241	97.308 E6	5.7	93	0.00
9 tc Heptachlor E	80.396	82.403 E6	-2.5	104	-0.01
11 tc gamma-Chlord	82.026	84.441 E6	-2.9	103	0.00
12 tc alpha-Chlord	77.670	80.882 E6	-4.1	104	-0.01
13 tc 4,4'-DDE	76.653	78.158 E6	-2.0	102	0.00
17 tc beta-Endosul	64.198	66.052 E6	-2.9	104	-0.01
20 tc Endrin Aldehy	49.048	48.873 E6	0.4	101	-0.01
21 tc Endosulfan S	57.148	58.801 E6	-2.9	103	-0.01
24 tc Endrin Keton	62.732	65.898 E6	-5.0	105	-0.01
25 S SURR2,Decachlorobiphenyl	55.075	56.839 E6	-3.2	104	0.00



Data Path : J:\ACQUDATA\6890D\DATA\071708\  
 Data File : ey154.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 17 Jul 2008 10:56 am  
 Operator : M.PEDRO  
 Sample : ccv11b  
 Misc : indbm  
 ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 17 11:51:35 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STX-CLP Signal #2 Phase: STX-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/1	ug/1
System Monitoring Compounds						
1) S SURR1,Tetrac	9.44	9.32	730.9E6	3299.9E6	36.219	40.780
Spiked Amount	100.000	Range 30 - 150	Recovery =		36.22%	40.78%
5) S SURR2,Decachloro	17.61	17.85	1384.5E6	4547.2E6	79.272	82.563
Spiked Amount	100.000	Range 30 - 150	Recovery =		79.27%	82.56%
Target Compounds						
5) tcm Aldrin	12.18	12.11	986.5E6	3806.0E6	39.846	41.781
7) tc beta-BHC	11.12	11.12	421.6E6	1793.9E6	36.711	39.749
3) tc delta-BHC	11.40	11.56	997.8E6	3892.3E6	36.685	37.701
9) tc Heptachlor E	13.09	12.95	894.7E6	3296.1E6	39.308	40.999
1) tc gamma-Chlord	13.27	13.22	880.3E6	3377.7E6	40.153	41.178
2) tc alpha-Chlord	13.47	13.43	857.9E6	3235.3E6	40.113	41.654
3) tc 4,4'-DDE	13.58	13.67	1590.0E6	6252.6E6	72.998	81.570
7) tc beta-Endosul	14.71	14.65	1524.0E6	5284.1E6	81.984	82.310
0) tc Endrin Aldeh	15.34	15.15	1141.4E6	3909.8E6	77.761	79.715
1) tc Endosulfan S	15.98	15.56	1353.9E6	4704.1E6	80.369	82.315
4) tc Endrin Keton	16.37	16.31	1571.4E6	5271.9E6	81.155	84.038
Sum Toxaphene			0	0	N.D.	N.D.
verage Toxaphene					0.000	0.000
Sum Chlordane			0	0	N.D.	N.D.
verage Chlordane					0.000	0.000

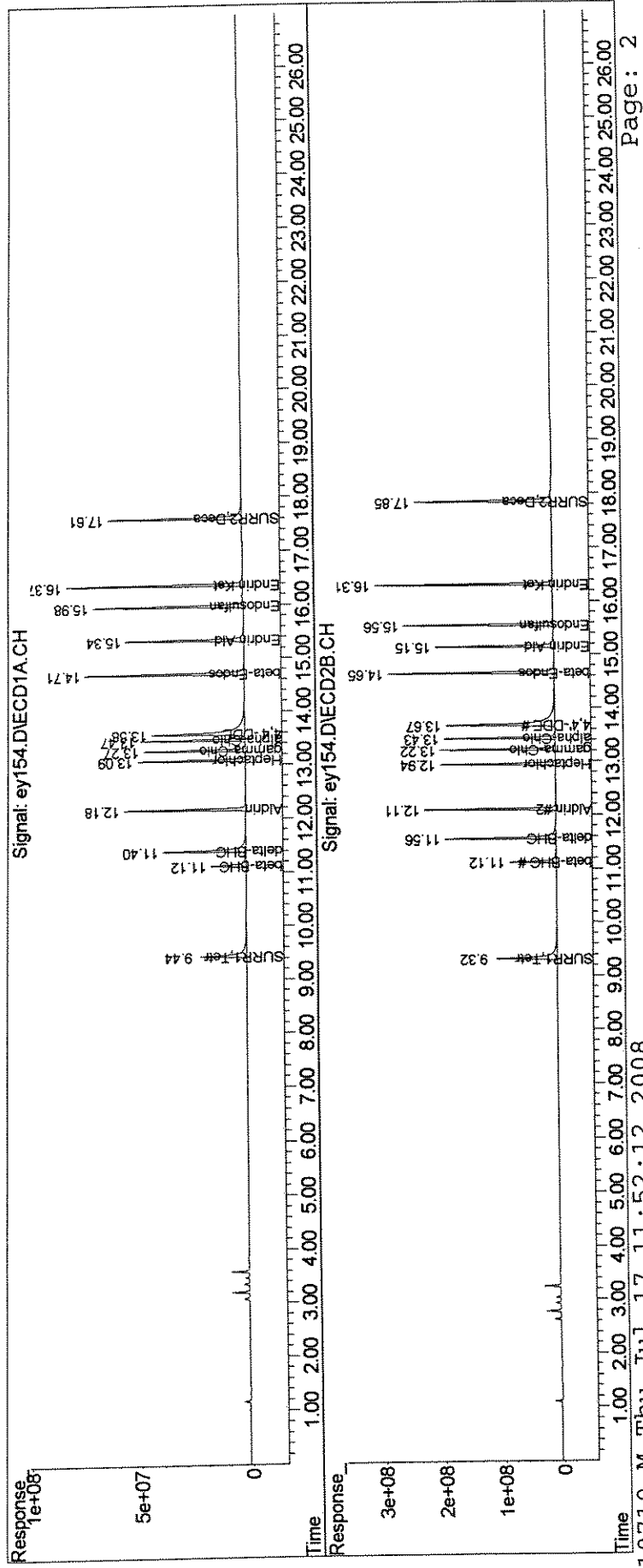
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.



Data Path : J:\ACQUDATA\6890D\DATA\071708\  
 Data File : ey154.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 17 Jul 2008 10:56 am  
 Operator : M.PEDRO  
 Sample : ccv11b  
 Misc : indbm  
 ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 17 11:51:35 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



Evaluate Continuing Calibration Report

Data Path : J:\ACQUDATA\6890D\DATA\071708\  
 Data File : ey163.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 17 Jul 2008 4:16 pm  
 Operator : M.PEDRO  
 Sample : ccv12a  
 Misc : indamh  
 ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 18 07:48:35 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STX-CLP Signal #2 Phase: STX-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1 S SURR1,Tetrac	20.181	18.709 E6	7.3	91	0.00
3 tc alpha-BHC	30.916	30.271 E6	2.1	93	0.00
4 tcm gamma-BHC (L	28.206	27.590 E6	2.2	94	0.00
5 tcm Heptachlor	27.944	27.745 E6	0.7	96	0.00
alpha-Endosu	20.460	20.682 E6	-1.1	98	-0.01
cm Dieldrin	22.843	23.487 E6	-2.8	99	-0.01
tc Endrin	20.719	17.665 E6	14.7	82	-0.01
18 tc 4,4'-DDD	17.994	17.681 E6	1.7	95	0.00
19 tcm 4,4'-DDT	19.138	19.978 E6	-4.4	100	0.00
22 tc Methoxychlor	9.313	9.183 E6	1.4	98	0.00
25 S SURR2,Decachlorobiphenyl	17.465	17.316 E6	0.9	100	0.00

Signal #2

1 S SURR1,Tetrac	80.920	80.590 E6	0.4	100	0.00
3 tc alpha-BHC	118.675	124.873 E6	-5.2	104	0.00
4 tcm gamma-BHC (L	105.076	112.118 E6	-6.7	105	0.00
5 tcm Heptachlor	100.362	104.981 E6	-4.6	107	0.00
10 tc alpha-Endosu	70.973	75.800 E6	-6.8	107	-0.01
14 tcm Dieldrin	78.244	82.453 E6	-5.4	106	-0.01
15 tcm Endrin	67.355	61.339 E6	8.9	90	-0.01
18 tc 4,4'-DDD	62.240	62.391 E6	-0.2	99	0.00
19 tcm 4,4'-DDT	65.507	70.162 E6	-7.1	105	-0.01
22 tc Methoxychlor	29.053	30.274 E6	-4.2	105	-0.01
25 S SURR2,Decachlorobiphenyl	55.075	59.015 E6	-7.2	108	-0.01

Evaluate Continuing Calibration Report - Not Found

2 TC HEXACHLORO BENZENE	29.386	0.000 E6	100.0#	0#	-10.13#
6 tcm Aldrin	24.759	0.000 E6	100.0#	0#	-12.18#

Quantitation Report (QT Reviewed)

Data Path : J:\ACQUADATA\6890D\DATA\071708\  
 Data File : ey163.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 17 Jul 2008 4:16 pm  
 Operator : M.PEDRO  
 Sample : ccv12a  
 Misc : indamh  
 ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 18 07:48:35 2008  
 Quant Method : J:\ACQUADATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
-----						
System Monitoring Compounds						
1) S SURR1,Tetrac	9.44	9.32	748.4E6	3223.6E6	37.083	39.837
Spiked Amount	100.000	Range 30 - 150	Recovery =		37.08%	39.84%
5) S SURR2,Decachloro	17.61	17.85	1385.3E6	4721.2E6	79.317	85.723
Spiked Amount	100.000	Range 30 - 150	Recovery =		79.32%	85.72%
Target Compounds						
3) tc alpha-BHC	10.44	10.40	1210.8E6	4994.9E6	39.165	42.089
4) tcm gamma-BHC (L)	10.96	10.97	1103.6E6	4484.7E6	39.126	42.681
5) tcm Heptachlor	11.72	11.63	1109.8E6	4199.2E6	39.715	41.841
0) tc alpha-Endosu	13.67	13.51	827.3E6	3032.0E6	40.435	42.720
4) tcm Dieldrin	14.02	13.90	1878.9E6	6596.2E6	82.255	84.303
5) tcm Endrin	14.37	14.34	1413.2E6	4907.1E6	68.208	72.854
8) tc 4,4'-DDD	14.45	14.50	1414.5E6	4991.3E6	78.609	80.195
9) tcm 4,4'-DDT	14.86	14.95	1598.3E6	5613.0E6	83.515	85.685
2) tc Methoxychlor	15.56	15.92	3673.1E6	12109.8E6	394.418	416.813
Sum Toxaphene			0	0	N.D.	N.D.
verage Toxaphene					0.000	0.000
Sum Chlordane			0	0	N.D.	N.D.
verage Chlordane					0.000	0.000

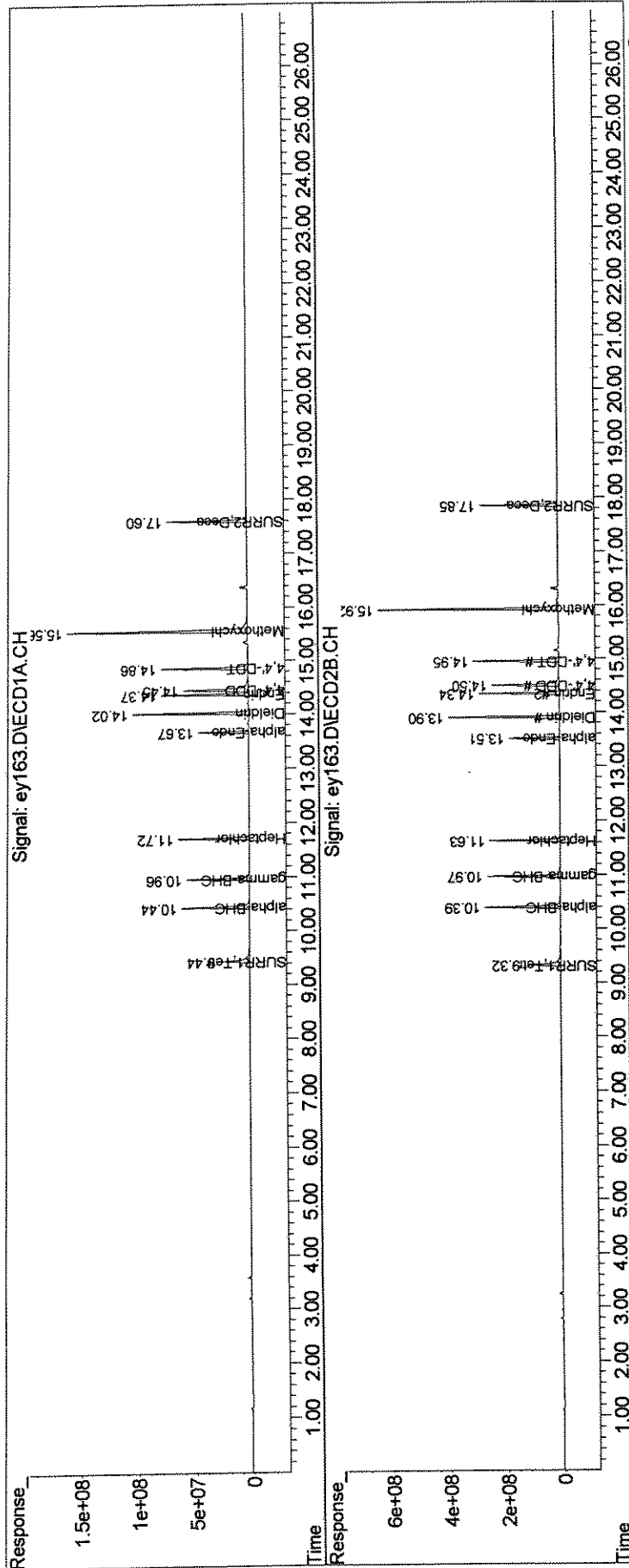
148  
118

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\071708\  
 Data File : ey163.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 17 Jul 2008 4:16 pm  
 Operator : M.PEDRO  
 Sample : ccv12a  
 Misc : indamh  
 ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 18 07:48:35 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



Evaluate Continuing Calibration Report

Data Path : J:\ACQUDATA\6890D\DATA\071708\  
 Data File : ey164.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 17 Jul 2008 4:52 pm  
 Operator : M.PEDRO  
 Sample : ccv12b  
 Misc : indbmh  
 ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 18 07:49:56 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	AvgRF	CCRF	%Dev	Area%	Dev (Min)
1 S SURR1,Tetrac	20.181	18.724 E6	7.2	91	0.00
6 tcm Aldrin	24.759	24.916 E6	-0.6	97	0.00
7 tc beta-BHC	11.483	10.790 E6	6.0	94	0.00
8 TC delta-BHC	27.198	26.108 E6	4.0	92	0.00
9 tc Heptachlor E	22.762	22.668 E6	0.4	98	0.00
11 tc gamma-Chlord	21.924	22.262 E6	-1.5	99	0.00
12 tc alpha-Chlord	21.387	21.711 E6	-1.5	100	0.00
13 tc 4,4'-DDE	21.781	20.391 E6	6.4	91	0.00
17 tc beta-Endosul	18.589	19.204 E6	-3.3	101	0.00
20 tc Endrin Aldeh	14.678	14.425 E6	1.7	97	0.00
21 tc Endosulfan S	16.846	17.208 E6	-2.1	100	-0.01
24 tc Endrin Keton	19.363	19.895 E6	-2.7	100	-0.01
25 S SURR2,Decachlorobiphenyl	17.465	17.386 E6	0.5	100	0.00

Signal #2

1 S SURR1,Tetrac	80.920	84.396 E6	-4.3	105	0.00
6 tcm Aldrin	91.095	96.777 E6	-6.2	106	-0.01
7 tc beta-BHC	45.130	46.291 E6	-2.6	104	0.00
8 tc delta-BHC	103.241	101.455 E6	1.7	97	0.00
9 tc Heptachlor E	80.396	84.020 E6	-4.5	106	-0.01
11 tc gamma-Chlord	82.026	86.230 E6	-5.1	105	-0.01
12 tc alpha-Chlord	77.670	82.737 E6	-6.5	106	-0.01
13 tc 4,4'-DDE	76.653	79.311 E6	-3.5	103	0.00
17 tc beta-Endosul	64.198	67.194 E6	-4.7	106	-0.01
20 tc Endrin Aldeh	49.048	49.591 E6	-1.1	102	-0.01
21 tc Endosulfan S	57.148	60.228 E6	-5.4	106	-0.01
24 tc Endrin Keton	62.732	67.346 E6	-7.4	107	-0.01
25 S SURR2,Decachlorobiphenyl	55.075	58.941 E6	-7.0	108	-0.01

Data Path : J:\ACQUDATA\6890D\DATA\071708\  
 Data File : ey164.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 17 Jul 2008 4:52 pm  
 Operator : M.PEDRO  
 Sample : ccv12b  
 Misc : indbmh  
 ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 18 07:49:56 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
1) S SURR1,Tetrac	9.44	9.32	748.9E6	3375.8E6	37.112	41.718
Spiked Amount	100.000	Range	30 - 150	Recovery =	37.11%	41.72%
5) S SURR2,Decachloro	17.61	17.85	1390.9E6	4715.3E6	79.638	85.616
Spiked Amount	100.000	Range	30 - 150	Recovery =	79.64%	85.62%
Target Compounds						
6) tcm Aldrin	12.18	12.11	996.7E6	3871.1E6	40.254	42.495
7) tc beta-BHC	11.12	11.12	431.6E6	1851.7E6	37.586	41.029
8) tc delta-BHC	11.40	11.56	1044.3E6	4058.2E6	38.396	39.308
9) tc Heptachlor E	13.09	12.94	906.7E6	3360.8E6	39.836	41.803
1) tc gamma-Chlord	13.27	13.22	890.5E6	3449.2E6	40.617	42.050
2) tc alpha-Chlord	13.47	13.43	868.4E6	3309.5E6	40.605	42.609
3) tc 4,4'-DDE	13.58	13.67	1631.3E6	6344.9E6	74.893	82.774
7) tc beta-Endosul	14.71	14.65	1536.3E6	5375.5E6	82.647	83.734
0) tc Endrin Aldeh	15.34	15.15	1154.0E6	3967.3E6	78.620	80.886
1) tc Endosulfan S	15.98	15.55	1376.6E6	4818.3E6	81.716	84.313
4) tc Endrin Keton	16.37	16.31	1591.6E6	5387.7E6	82.197	85.884
Sum Toxaphene			0	0	N.D.	N.D.
verage Toxaphene					0.000	0.000
Sum Chlordane			0	0	N.D.	N.D.
verage Chlordane					0.000	0.000

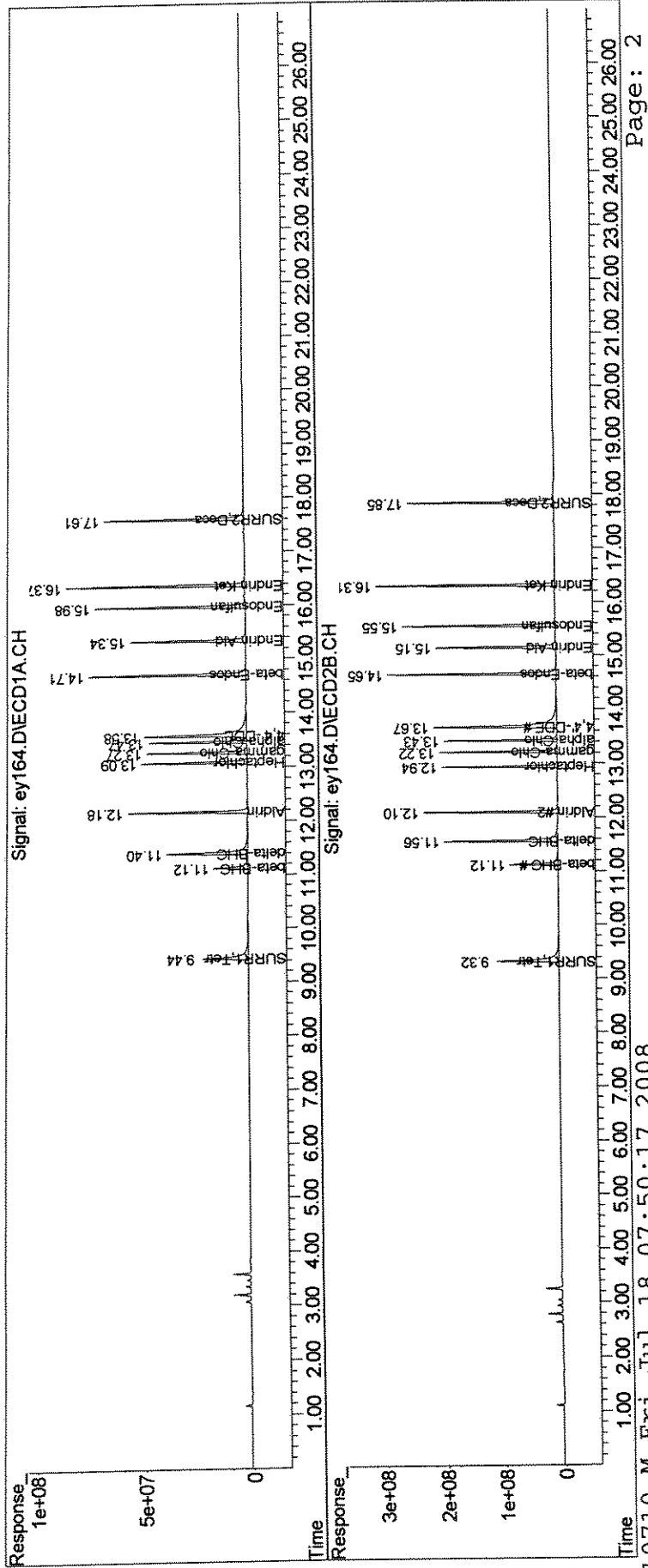
M  
1/16

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\071708\  
 Data File : ey164.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 17 Jul 2008 4:52 pm  
 Operator : M.PEDRO  
 Sample : ccv12b  
 Misc : indbmh  
 ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 18 07:49:56 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STX-CLP Signal #2 Phase: STX-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



10A

*Pesticide Identification Summary  
For Single Component Analytes*

NYSDEC Sample No.

M-79B

Lab Name: Columbia Analytical Services Contract: ENSR

Lab Code: 10145 Case.No.: R2844768 SAS No.: \_\_\_\_\_ SDG No.: M-79B

Lab Sample ID 1113695 1.0 Date analyzed: 7/16/2008

Instrument ID: 6890D Instrument ID: 6890D

GC Column(1) STx-CLP (ID) 0.32mm 30m GC Column(2) STx-CLPII (ID) 0.32mm 30m

*RT Window*

Analyte	Column	RT	From	To	Concentration	%RPD
<i>alpha-BHC</i>	1	10.43	10.39	10.49	0.04	
	2	10.39	10.35	10.45	0.04	2.47
<i>Heptachlor E</i>	1	13.07	13.03	13.17	0.12	
	2	12.98	12.89	13.03	0.14	15.74



10A

*Pesticide Identification Summary  
For Single Component Analytes*

NYSDEC Sample No.

**M-126B**

**Lab Name:** Columbia Analytical Services      **Contract:** ENSR  
**Lab Code:** 10145      **Case.No.:** R2844768      **SAS No.:** \_\_\_\_\_      **SDG No.:** M-79B  
**Lab Sample ID** 1113696 1.0      **Date analyzed:** 7/16/2008  
**Instrument ID:** 6890D      **Instrument ID:** 6890D  
**GC Column(1)** STx-CLP      **(ID)** 0.32mm 30m      **GC Column(2)** STx-CLPII      **(ID)** 0.32mm 30m

*RT Window*

<i>Analyte</i>	<i>Column</i>	<i>RT</i>	<i>From</i>	<i>To</i>	<i>Concentration</i>	<i>%RPD</i>
<i>gamma-BHC (L)</i>	<i>1</i>	10.96	10.92	11.02	0.08	
	<i>2</i>	10.96	10.92	11.02	0.08	8.07
<i>Heptachlor E</i>	<i>1</i>	13.07	13.03	13.17	1.60	
	<i>2</i>	12.98	12.89	13.03	1.82	12.93

10A

**Pesticide Identification Summary  
For Single Component Analytes**

NYSDEC Sample No.

M-126B DL

Lab Name: Columbia Analytical Services Contract: ENSR  
Lab Code: 10145 Case.No.: R2844768 SAS No.: \_\_\_\_\_ SDG No.: M-79B  
Lab Sample ID 1113696 10.0 Date analyzed: 7/17/2008  
Instrument ID: 6890D Instrument ID: 6890D  
GC Column(1) STx-CLP (ID) 0.32mm 30m GC Column(2) STx-CLPII (ID) 0.32mm 30m

*RT Window*

Analyte	Column	RT	From	To	Concentration	%RPD
<i>gamma-BHC (L</i>	1	10.96	10.92	11.02	0.06	
	2	10.96	10.92	11.02	0.09	33.87
<i>Heptachlor E</i>	1	13.07	13.03	13.17	1.73	
	2	12.98	12.89	13.03	1.94	11.63

10A

*Pesticide Identification Summary  
For Single Component Analytes*

NYSDEC Sample No.

M-84B

*Lab Name:* Columbia Analytical Services      *Contract:* ENSR  
*Lab Code:* 10145      *Case.No.:* R2844768      *SAS No.:* \_\_\_\_\_      *SDG No.:* M-79B  
*Lab Sample ID* 1113697 1.0      *Date analyzed:* 7/17/2008  
*Instrument ID:* 6890D      *Instrument ID:* 6890D  
*GC Column(1)* STx-CLP      *(ID)* 0.32mm 30m      *GC Column(2)* STx-CLPII      *(ID)* 0.32mm 30m

*RT Window*

<i>Analyte</i>	<i>Column</i>	<i>RT</i>	<i>From</i>	<i>To</i>	<i>Concentration</i>	<i>%RPD</i>
<i>alpha-BHC</i>	<i>1</i>	10.43	10.39	10.49	0.02	
	<i>2</i>	10.39	10.35	10.45	0.02	3.15
<i>HEXACHLOROBE</i>	<i>1</i>	10.13	10.06	10.20	0.01	
	<i>2</i>	10.14	10.07	10.21	0.01	4.88

10A

*Pesticide Identification Summary  
For Single Component Analytes*

NYSDEC Sample No.

M-14ADB

Lab Name: Columbia Analytical Services Contract: ENSR  
Lab Code: 10145 Case.No.: R2844768 SAS No.: \_\_\_\_\_ SDG No.: M-79B  
Lab Sample ID 1113698 1.0 Date analyzed: 7/17/2008  
Instrument ID: 6890D Instrument ID: 6890D  
GC Column(1) STx-CLP (ID) 0.32mm 30m GC Column(2) STx-CLPII (ID) 0.32mm 30m

*RT Window*

<i>Analyte</i>	<i>Column</i>	<i>RT</i>	<i>From</i>	<i>To</i>	<i>Concentration</i>	<i>%RPD</i>
<i>Heptachlor E</i>	<i>1</i>	13.07	13.03	13.17	0.25	
	<i>2</i>	12.98	12.89	13.03	0.30	16.77

10A

*Pesticide Identification Summary  
For Single Component Analytes*

NYSDEC Sample No.

M-14ABF

Lab Name: Columbia Analytical Services Contract: ENSR  
Lab Code: 10145 Case.No.: R2844768 SAS No.: \_\_\_\_\_ SDG No.: M-79B  
Lab Sample ID 1113699 1.0 Date analyzed: 7/17/2008  
Instrument ID: 6890D Instrument ID: 6890D  
GC Column(1) STx-CLP (ID) 0.32mm 30m GC Column(2) STx-CLPII (ID) 0.32mm 30m

*RT Window*

<i>Analyte</i>	<i>Column</i>	<i>RT</i>	<i>From</i>	<i>To</i>	<i>Concentration</i>	<i>%RPD</i>
<i>Heptachlor E</i>	<i>1</i>	13.07	13.03	13.17	0.12	
	<i>2</i>	12.98	12.89	13.03	0.13	12.63

**Pesticide Identification Summary  
For Single Component Analytes**

NYSDEC Sample No.

PBLK1MS
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**Lab Name:** Columbia Analytical Services      **Contract:** ENSR  
**Lab Code:** 10145      **Case.No.:** R2844768      **SAS No.:** \_\_\_\_\_      **SDG No.:** M-79B  
**Lab Sample ID** 1117895 1.0      **Date analyzed:** 7/16/2008  
**Instrument ID:** 6890D      **Instrument ID:** 6890D  
**GC Column(1)** STx-CLP      **(ID)** 0.32mm 30m      **GC Column(2)** STx-CLPII      **(ID)** 0.32mm 30m

*RT Window*

<i>Analyte</i>	<i>Column</i>	<i>RT</i>	<i>From</i>	<i>To</i>	<i>Concentration</i>	<i>%RPD</i>
4,4'-DDD	1	14.45	14.39	14.53	0.09	
	2	14.49	14.43	14.57	0.10	3.90
4,4'-DDE	1	13.57	13.51	13.65	0.09	
	2	13.67	13.61	13.75	0.10	11.75
4,4'-DDT	1	14.86	14.80	14.94	0.09	
	2	14.95	14.89	15.03	0.10	9.76
Aldrin	1	12.17	12.13	12.23	0.07	
	2	12.11	12.07	12.17	0.07	4.84
alpha-BHC	1	10.43	10.39	10.49	0.10	
	2	10.39	10.35	10.45	0.10	1.67
alpha-Chlord	1	13.47	13.41	13.55	0.10	
	2	13.43	13.37	13.51	0.09	3.52
alpha-Endosu	1	13.67	13.61	13.75	0.10	
	2	13.51	13.45	13.59	0.10	4.18
beta-BHC	1	11.12	11.07	11.17	0.09	
	2	11.12	11.07	11.17	0.08	5.18
beta-Endosul	1	14.71	14.65	14.79	0.09	
	2	14.65	14.59	14.73	0.10	7.75
delta-BHC	1	11.39	11.35	11.45	0.09	
	2	11.56	11.51	11.61	0.09	1.50
Dieldrin	1	14.02	13.96	14.10	0.10	
	2	13.90	13.84	13.98	0.11	14.12

10A

**Pesticide Identification Summary  
For Single Component Analytes**

NYSDEC Sample No.

PBLK1MS
---------

**Lab Name:** Columbia Analytical Services      **Contract:** ENSR  
**Lab Code:** 10145      **Case.No.:** R2844768      **SAS No.:** \_\_\_\_\_      **SDG No.:** M-79B  
**Lab Sample ID** 1117895 1.0      **Date analyzed:** 7/16/2008  
**Instrument ID:** 6890D      **Instrument ID:** 6890D  
**GC Column(1)** STx-CLP      **(ID)** 0.32mm 30m      **GC Column(2)** STx-CLPII      **(ID)** 0.32mm 30m

Analyte	Column	RT	RT Window		Concentration	%RPD
			From	To		
Endosulfan S	1	15.98	15.92	16.06	0.09	
	2	15.56	15.50	15.64	0.10	6.10
Endrin	1	14.37	14.31	14.45	0.10	
	2	14.34	14.29	14.43	0.10	2.56
Endrin Aldehy	1	15.34	15.28	15.42	0.08	
	2	15.15	15.09	15.23	0.08	10.03
Endrin Keton	1	16.37	16.31	16.45	0.10	
	2	16.31	16.25	16.39	0.10	4.49
gamma-BHC (L	1	10.96	10.92	11.02	0.08	
	2	10.96	10.92	11.02	0.09	4.95
gamma-Chlord	1	13.27	13.21	13.35	0.10	
	2	13.22	13.16	13.30	0.10	4.62
Heptachlor	1	11.72	11.68	11.78	0.08	
	2	11.63	11.59	11.69	0.08	6.06
Heptachlor E	1	13.09	13.03	13.17	0.09	
	2	12.95	12.89	13.03	0.10	12.65
HEXACHLOROBE	1	10.13	10.06	10.20	0.20	
	2	10.14	10.07	10.21	0.19	2.37
Methoxychlor	1	15.56	15.50	15.64	0.54	
	2	15.92	15.86	16.00	0.59	8.19

FORM X-CLP-PEST

00599

10A

**Pesticide Identification Summary  
For Single Component Analytes**

NYSDEC Sample No.

PBLK1MSD
----------

**Lab Name:** Columbia Analytical Services      **Contract:** ENSR  
**Lab Code:** 10145      **Case.No.:** R2844768      **SAS No.:** \_\_\_\_\_      **SDG No.:** M-79B  
**Lab Sample ID** 1117896 1.0      **Date analyzed:** 7/16/2008  
**Instrument ID:** 6890D      **Instrument ID:** 6890D  
**GC Column(1)** STx-CLP      **(ID)** 0.32mm 30m      **GC Column(2)** STx-CLPII      **(ID)** 0.32mm 30m

*RT Window*

<i>Analyte</i>	<i>Column</i>	<i>RT</i>	<i>From</i>	<i>To</i>	<i>Concentration</i>	<i>%RPD</i>
<i>4,4'-DDD</i>	<i>1</i>	14.45	14.39	14.53	0.09	
	<i>2</i>	14.49	14.43	14.57	0.10	8.58
<i>4,4'-DDE</i>	<i>1</i>	13.57	13.51	13.65	0.09	
	<i>2</i>	13.67	13.61	13.75	0.10	11.95
<i>4,4'-DDT</i>	<i>1</i>	14.86	14.80	14.94	0.09	
	<i>2</i>	14.95	14.89	15.03	0.10	8.03
<i>Aldrin</i>	<i>1</i>	12.18	12.13	12.23	0.08	
	<i>2</i>	12.11	12.07	12.17	0.08	0.06
<i>alpha-BHC</i>	<i>1</i>	10.43	10.39	10.49	0.09	
	<i>2</i>	10.39	10.35	10.45	0.09	0.21
<i>alpha-Chlord</i>	<i>1</i>	13.47	13.41	13.55	0.09	
	<i>2</i>	13.43	13.37	13.51	0.09	1.92
<i>alpha-Endosu</i>	<i>1</i>	13.67	13.61	13.75	0.09	
	<i>2</i>	13.51	13.45	13.59	0.10	4.35
<i>beta-BHC</i>	<i>1</i>	11.12	11.07	11.17	0.10	
	<i>2</i>	11.12	11.07	11.17	0.09	9.16
<i>beta-Endosul</i>	<i>1</i>	14.71	14.65	14.79	0.09	
	<i>2</i>	14.65	14.59	14.73	0.10	5.30
<i>delta-BHC</i>	<i>1</i>	11.39	11.35	11.45	0.09	
	<i>2</i>	11.56	11.51	11.61	0.09	0.99
<i>Dieldrin</i>	<i>1</i>	14.02	13.96	14.10	0.09	
	<i>2</i>	13.90	13.84	13.98	0.11	13.19

FORM X-CLP-PEST

000000



10A

**Pesticide Identification Summary  
For Single Component Analytes**

NYSDEC Sample No.

PBLK1MSD
----------

**Lab Name:** Columbia Analytical Services      **Contract:** ENSR  
**Lab Code:** 10145      **Case.No.:** R2844768      **SAS No.:** \_\_\_\_\_      **SDG No.:** M-79B  
**Lab Sample ID** 1117896 1.0      **Date analyzed:** 7/16/2008  
**Instrument ID:** 6890D      **Instrument ID:** 6890D  
**GC Column(1)** STx-CLP      **(ID)** 0.32mm 30m      **GC Column(2)** STx-CLPII      **(ID)** 0.32mm 30m

*RT Window*

<i>Analyte</i>	<i>Column</i>	<i>RT</i>	<i>From</i>	<i>To</i>	<i>Concentration</i>	<i>%RPD</i>
<i>Endosulfan S</i>	<i>1</i>	15.98	15.92	16.06	0.09	
	<i>2</i>	15.56	15.50	15.64	0.10	4.87
<i>Endrin</i>	<i>1</i>	14.37	14.31	14.45	0.09	
	<i>2</i>	14.34	14.29	14.43	0.10	7.66
<i>Endrin Aldehy</i>	<i>1</i>	15.34	15.28	15.42	0.07	
	<i>2</i>	15.15	15.09	15.23	0.08	12.34
<i>Endrin Keton</i>	<i>1</i>	16.37	16.31	16.45	0.09	
	<i>2</i>	16.31	16.25	16.39	0.10	3.17
<i>gamma-BHC (L</i>	<i>1</i>	10.96	10.92	11.02	0.09	
	<i>2</i>	10.96	10.92	11.02	0.09	3.24
<i>gamma-Chlord</i>	<i>1</i>	13.27	13.21	13.35	0.09	
	<i>2</i>	13.22	13.16	13.30	0.10	4.92
<i>Heptachlor</i>	<i>1</i>	11.72	11.68	11.78	0.08	
	<i>2</i>	11.63	11.59	11.69	0.08	5.45
<i>Heptachlor E</i>	<i>1</i>	13.09	13.03	13.17	0.09	
	<i>2</i>	12.95	12.89	13.03	0.10	9.84
<i>HEXACHLOROBE</i>	<i>1</i>	10.13	10.06	10.20	0.19	
	<i>2</i>	10.14	10.07	10.21	0.19	2.58
<i>Methoxychlor</i>	<i>1</i>	15.55	15.50	15.64	0.53	
	<i>2</i>	15.92	15.86	16.00	0.58	7.98

FORM X-CLP-PEST

00001

**PESTICIDES**  
**RAW QC DATA**



Data Path : J:\ACQUDATA\6890D\DATA\071608\  
 Data File : EY134.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 16 Jul 2008 4:26 pm  
 Operator : M.PEDRO  
 Sample : 1117894 1.0  
 Misc : 07/01/08 200 ensr 8081 blk  
 ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 17 06:57:26 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
<b>System Monitoring Compounds</b>						
1) S SURR1,Tetrac	9.43	9.32	1705.3E6	6286.1E6	84.502	77.683
Spiked Amount	100.000	Range 30 - 150	Recovery =		84.50%	77.68%
25) S SURR2,Decachloro	17.61	17.85	1380.6E6	4653.0E6	79.046	84.484
Spiked Amount	100.000	Range 30 - 150	Recovery =		79.05%	84.48%
<b>Target Compounds</b>						
2) TC HEXACHLOROBENZEN	10.13	0.00	30008225	0	1.021	N.D. #
3) tc alpha-BHC	10.44	10.40	51805780	137.5E6	1.676	1.159 #
5) tcm Heptachlor	11.71	0.00	50113817	0	1.793	N.D. #
6) tcm Aldrin	12.17	0.00	16472178	0	0.665	N.D. #
7) tc beta-BHC	11.10	0.00	91645080	0	7.981	N.D. #
8) tc delta-BHC	11.40	11.57	45788436	165.6E6	1.684	1.604 #
9) tc Heptachlor E	13.08	12.95	26952633	202.9E6	1.184	2.524 #
11) tc gamma-Chlord	0.00	13.21	0	188.2E6	N.D.	2.294 #
12) tc alpha-Chlord	13.50	13.42	53589215	100.8E6	2.506	1.297 #
13) tc 4,4'-DDE	13.56	13.70	43031956	177.1E6	1.976	2.311 #
14) tcm Dieldrin	0.00	13.91	0	97880377	N.D.	1.251 #
15) tcm Endrin	14.40	14.34	43348740	47304697	2.092	0.702 #
17) tc beta-Endosul	14.73	14.66	4919956	83290023	0.265	1.297 #
19) tcm 4,4'-DDT	14.85	14.96	14288618	160.2E6	0.747	2.445 #
20) tc Endrin Aldeh	15.36	15.14	14784058	127.6E6	1.007	2.601 #
21) tc Endosulfan S	15.98	0.00	6262094	0	0.372	N.D. #
22) tc Methoxychlor	15.56	0.00	2911311	0	0.313	N.D. #
23) tc FAMPHUR	16.26	15.67	3083504	2010643	0.227	0.048 #
24) tc Endrin Keton	16.37	16.30	2844018	13687047	0.147	0.218 #
26) L8C Toxaphene	14.82	14.79	24864306	59341497	62.338	30.670 #
27) L8C Toxaphene {2}	0.00	15.09	0	23014875	N.D.	25.511 #
28) L8C Toxaphene {3}	15.48	0.00	4949303	0	7.354	N.D. #
29) L8C Toxaphene {4}	16.37	0.00	2844018	0	3.475	N.D. #
30) L8C Toxaphene {5}	16.55	16.68	10953852	16112426	16.457	7.141 #
Sum Toxaphene			43611479	98468798	89.623	63.321
Average Toxaphene					22.406	21.107

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
 Data File : EY134.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 16 Jul 2008 4:26 pm  
 Operator : M.PEDRO  
 Sample : 1117894 1.0  
 Misc : 07/01/08 200 ensr 8081 blk  
 ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 17 06:57:26 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

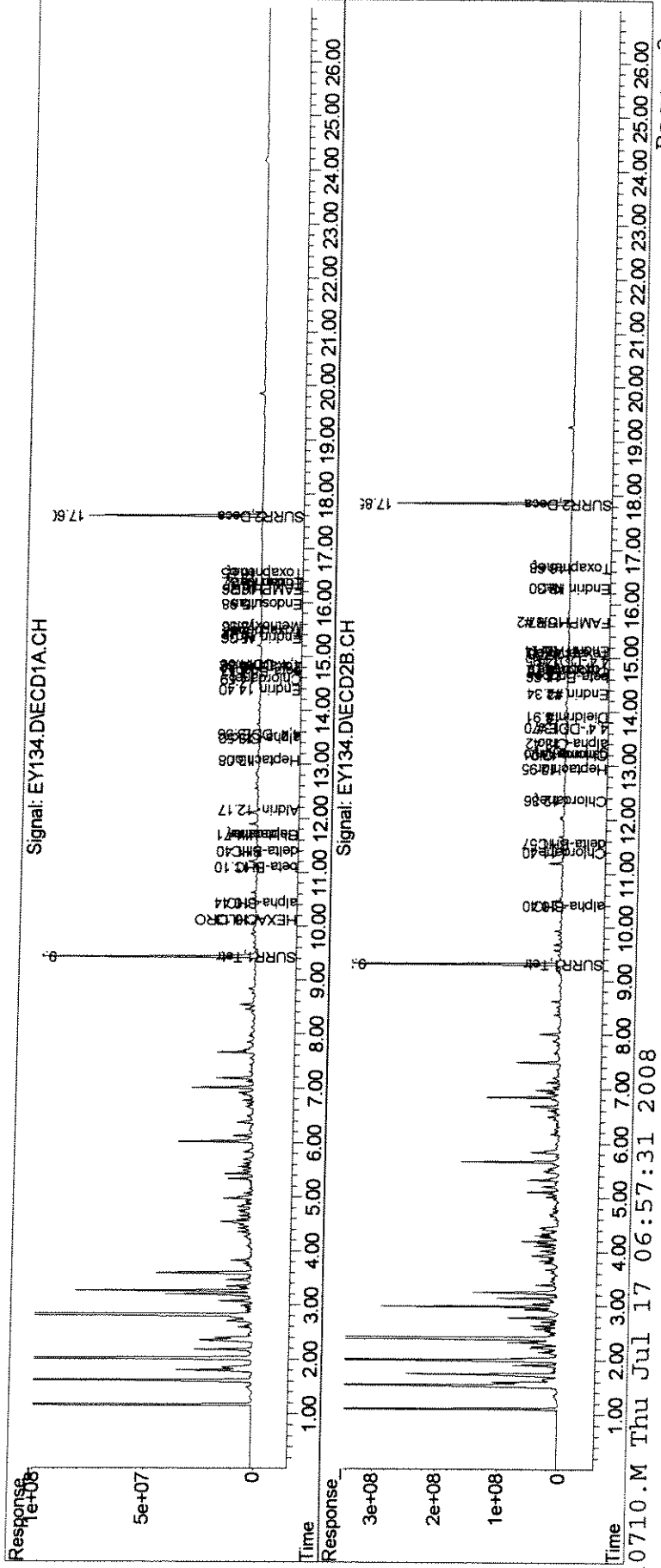
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
31) L9C Chlordane	0.00	11.40	0	192.0E6	N.D.	59.372 #
32) L9C Chlordane {2}	11.71	0.00	50113817	0	44.485	N.D. #
33) L9C Chlordane {3}	0.00	12.36	0	193.2E6	N.D.	53.975 #
34) L9C Chlordane {4}	0.00	13.21	0	188.2E6	N.D.	18.778 #
35) L9C Chlordane {5}	14.59	14.76	15080330	16358956	16.139	4.638 #
Sum Chlordane			65194148	589.7E6	60.624	136.763
Average Chlordane					30.312	34.191

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
 Data File : EY134.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 16 Jul 2008 4:26 pm  
 Operator : M.PEDRO  
 Sample : 1117894 1.0  
 Misc : 07/01/08 200 ensr 8081 blk  
 ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 17 06:57:26 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



COLUMBIA ANALYTICAL SERVICES

EXTRACTABLE ORGANICS  
 METHOD 8081A.NEVA  
 Reported: 09/03/08

Project Reference:  
 Client Sample ID : BLANK SPIKE

Date Sampled : Order #: 1117895 Sample Matrix: WATER  
 Date Received: Submission #: Analytical Run 164027

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED : 07/01/08			
DATE ANALYZED : 07/16/08			
ANALYTICAL DILUTION: 1.00			
ALDRIN	0.050	0.074	UG/L
ALPHA-BHC	0.050	0.097	UG/L
BETA-BHC	0.050	0.089	UG/L
GAMMA-BHC	0.050	0.086	UG/L
DELTA-BHC	0.050	0.094	UG/L
ALPHA-CHLORDANE	0.050	0.098	UG/L
GAMMA-CHLORDANE	0.050	0.10	UG/L
CHLORDANE	0.25	0.25 U	UG/L
4,4'-DDE	0.050	0.10	UG/L
4,4'-DDT	0.050	0.10	UG/L
DIELDRIN	0.10	0.11	UG/L
ALPHA-ENDOSULFAN	0.050	0.10	UG/L
BETA-ENDOSULFAN	0.10	0.10	UG/L
ENDOSULFAN SULFATE	0.10	0.097 J	UG/L
ENDRIN	0.050	0.099	UG/L
ENDRIN ALDEHYDE	0.10	0.084 J	UG/L
ENDRIN KETONE	0.10	0.10	UG/L
HEPTACHLOR	0.050	0.082	UG/L
HEPTACHLOR EPOXIDE	0.050	0.10	UG/L
HEXACHLOROBENZENE	0.050	0.20	UG/L
METHOXYCHLOR	0.50	0.59	UG/L
4,4'-TDE (DDD)	0.050	0.096	UG/L
TOXAPHENE	1.0	1.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
DECACHLOROBIPHENYL (DCB)	(40 - 140 %)	87	%
TETRACHLORO-META-XYLENE	(40 - 140 %)	83	%

00607

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
 Data File : ey135.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 16 Jul 2008 5:01 pm  
 Operator : M.PEDRO  
 Sample : 1117895 1.0  
 Misc : 07/01/08 200 ensr 8081 lcs  
 ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 17 07:42:15 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/1	ug/1
System Monitoring Compounds						
1) S SURR1,Tetrac	9.43	9.32	1678.2E6	6176.6E6	83.159	76.329
Spiked Amount	100.000	Range 30 - 150	Recovery =		83.16%	76.33%
25) S SURR2,Decachloro	17.61	17.85	1418.6E6	4785.5E6	81.226	86.890
Spiked Amount	100.000	Range 30 - 150	Recovery =		81.23%	86.89%
Target Compounds						
2) TC HEXACHLORO BENZEN	10.13	10.14	1165.7E6	4708.6E6	39.670	38.743
3) tc alpha-BHC	10.43	10.39	598.8E6	2260.5E6	19.370	19.048
4) tcm gamma-BHC (L	10.96	10.96	461.1E6	1805.1E6	16.346m	17.179m
5) tcm Heptachlor	11.72	11.63	434.0E6	1656.4E6	15.532m	16.504m
6) tcm Aldrin	12.17	12.11	349.0E6	1347.8E6	14.095m	14.796m
7) tc beta-BHC	11.12	11.12	204.9E6	764.7E6	17.841m	16.943m
8) tc delta-BHC	11.39	11.56	511.7E6	1912.6E6	18.815	18.526
9) tc Heptachlor E	13.09	12.95	401.0E6	1608.0E6	17.618m	20.001m
10) tc alpha-Endosu	13.67	13.51	392.7E6	1420.7E6	19.196	20.018
11) tc gamma-Chlord	13.27	13.22	426.3E6	1670.8E6	19.446	20.369
12) tc alpha-Chlord	13.47	13.43	420.7E6	1475.0E6	19.668	18.990
13) tc 4,4'-DDE	13.57	13.67	404.8E6	1602.6E6	18.585	20.907
14) tcm Dieldrin	14.02	13.90	445.0E6	1756.2E6	19.479	22.445
15) tcm Endrin	14.37	14.34	399.4E6	1332.4E6	19.277	19.781
17) tc beta-Endosul	14.71	14.65	343.8E6	1282.5E6	18.493	19.977m
18) tc 4,4'-DDD	14.45	14.49	330.6E6	1188.5E6	18.373	19.095m
19) tcm 4,4'-DDT	14.86	14.95	346.8E6	1309.1E6	18.123	19.985
20) tc Endrin Aldeh	15.34	15.15	222.5E6	822.1E6	15.156	16.760
21) tc Endosulfan S	15.98	15.56	307.9E6	1110.4E6	18.275	19.430
22) tc Methoxychlor	15.56	15.92	1007.2E6	3410.9E6	108.155	117.400
24) tc Endrin Keton	16.37	16.31	371.2E6	1258.0E6	19.172	20.053
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000



Data Path : J:\ACQUDATA\6890D\DATA\071608\  
 Data File : ey135.D  
 Signal (s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 16 Jul 2008 5:01 pm  
 Operator : M.PEDRO  
 Sample : 1117895 1.0  
 Misc : 07/01/08 200 ensr 8081 lcs  
 ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 17 07:42:15 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
-----						
-----						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

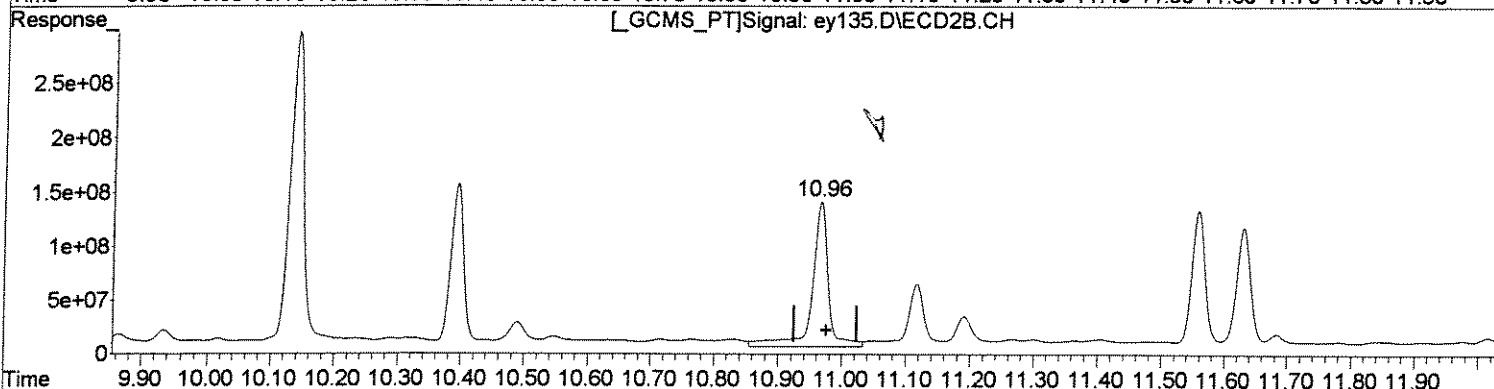
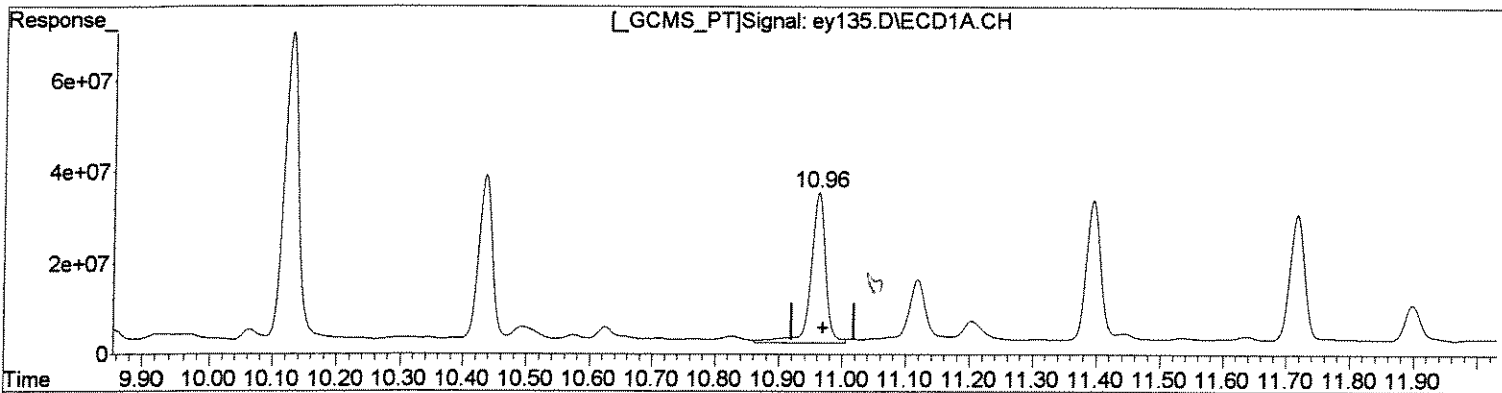


Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
Data File : ey135.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 16 Jul 2008 5:01 pm  
Operator : M.PEDRO  
Sample : 1117895 1.0  
Misc : 07/01/08 200 ensr 8081 lcs  
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 17 06:57:33 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 13:38:39 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



QEdit

(4) gamma-BHC (L (tcm))  
10.96min 19.546ug/l  
response 551320212

*BHP*

(4) gamma-BHC (L #2 (tcm))  
10.97min 22.853ug/l  
response 2401264353

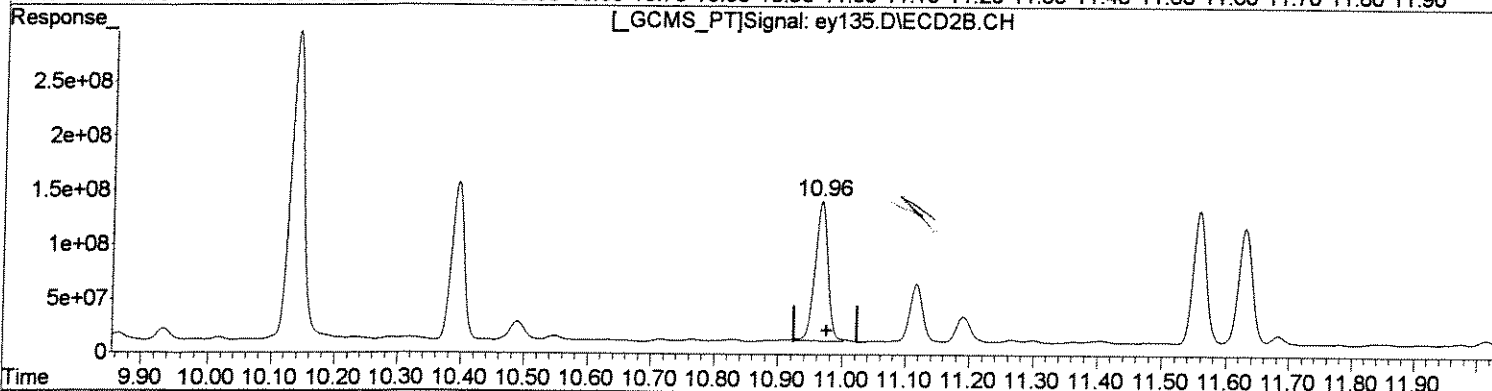
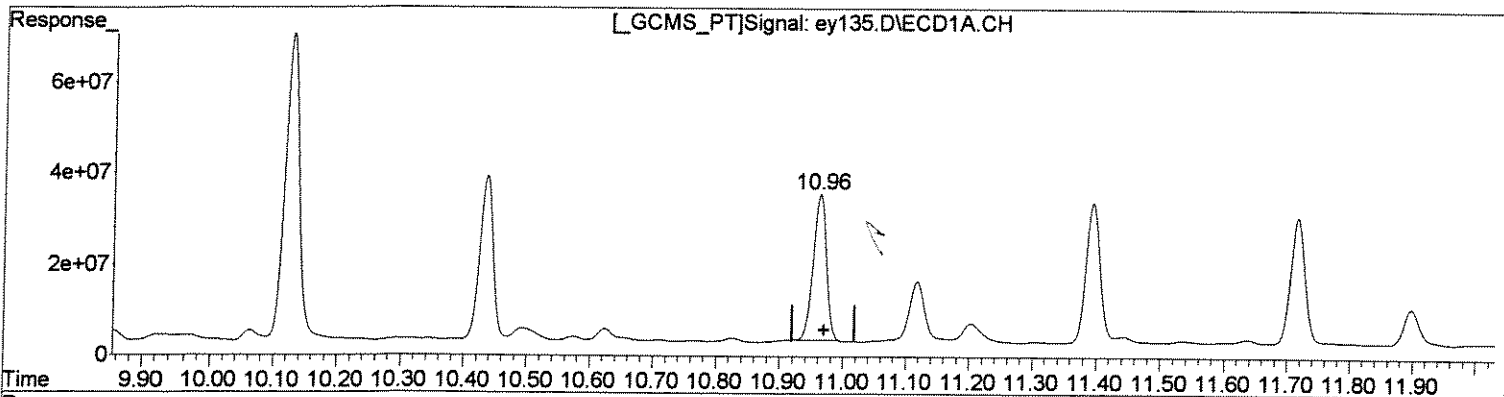
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
Data File : ey135.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 16 Jul 2008 5:01 pm  
Operator : M.PEDRO  
Sample : 1117895 1.0  
Misc : 07/01/08 200 ensr 8081 lcs  
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 17 06:57:33 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 13:38:39 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



QEdit

(4) gamma-BHC (L (tcm)  
10.96min 16.346ug/l m  
response 461060303

*16.346*

(4) gamma-BHC (L #2 (tcm)  
10.96min 17.179ug/l m  
response 1805114685

*17.179*

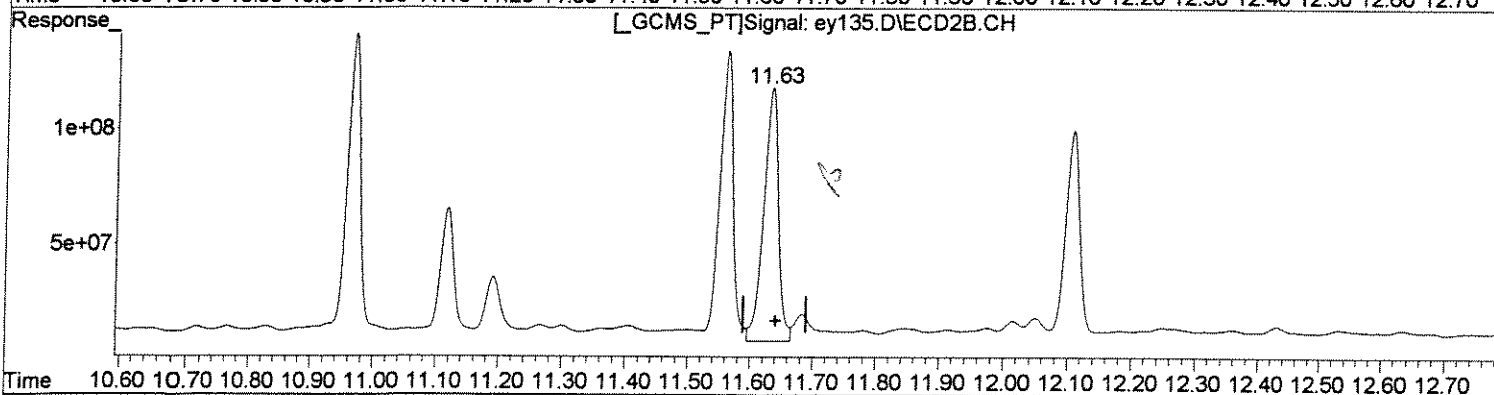
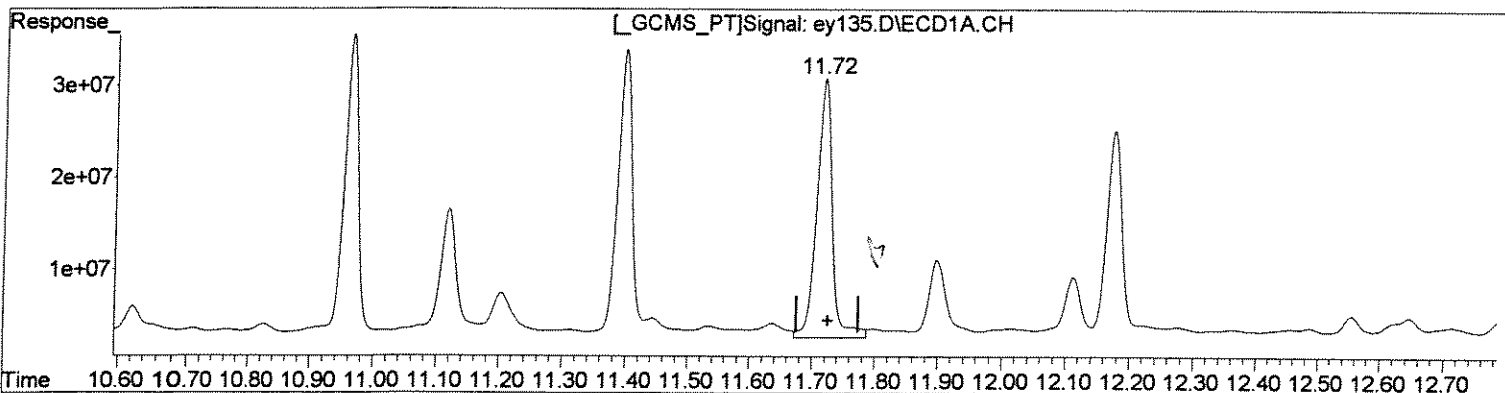
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
Data File : ey135.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 16 Jul 2008 5:01 pm  
Operator : M.PEDRO  
Sample : 1117895 1.0  
Misc : 07/01/08 200 ensr 8081 lcs  
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 17 06:57:33 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 13:38:39 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



QEdit

(5) Heptachlor (tcm)  
11.72min 17.578ug/l  
response 491193352

(5) Heptachlor #2 (tcm)  
11.63min 17.985ug/l  
response 1805022131

*Handwritten signature*

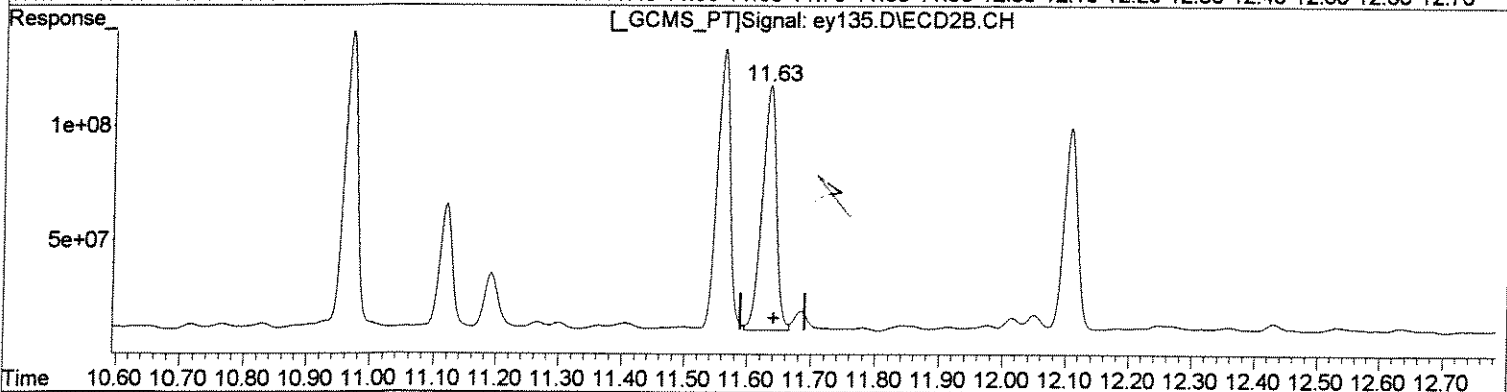
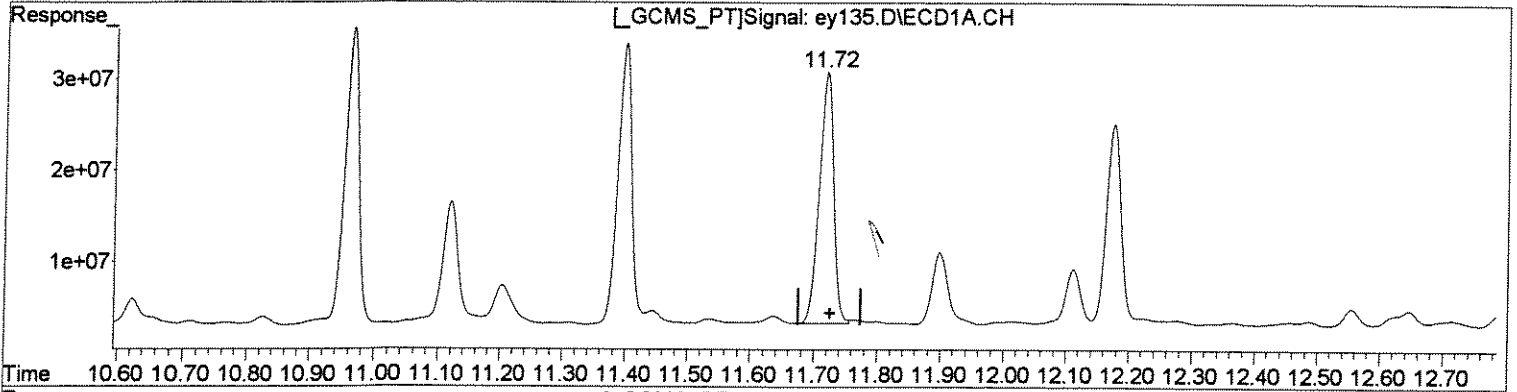
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
Data File : ey135.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 16 Jul 2008 5:01 pm  
Operator : M.PEDRO  
Sample : 1117895 1.0  
Misc : 07/01/08 200 ensr 8081 lcs  
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 17 06:57:33 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 13:38:39 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



QEdit

(5) Heptachlor (tcm)  
11.72min 15.532ug/l m  
response 434019251

(5) Heptachlor #2 (tcm)  
11.63min 16.504ug/l m  
response 1656359222

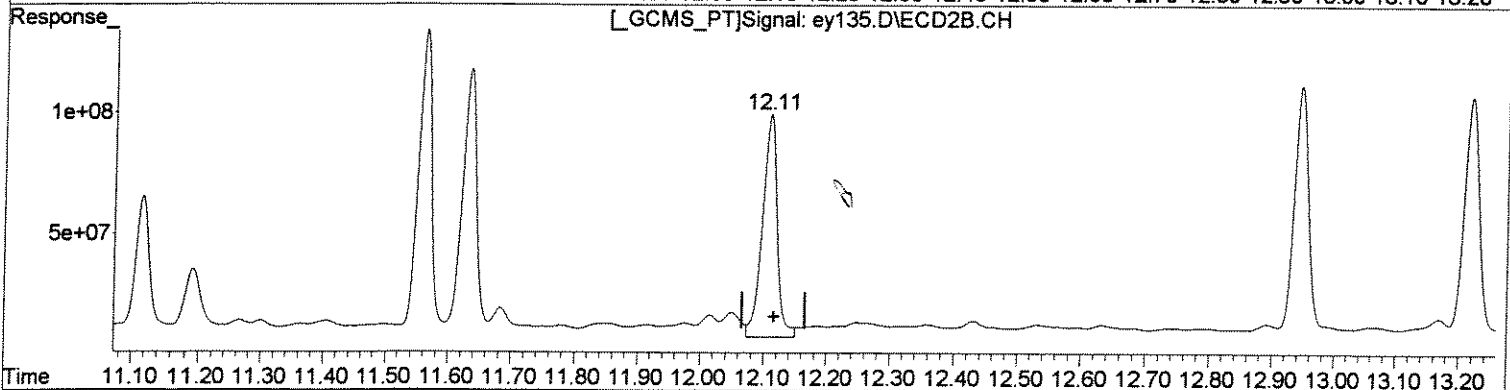
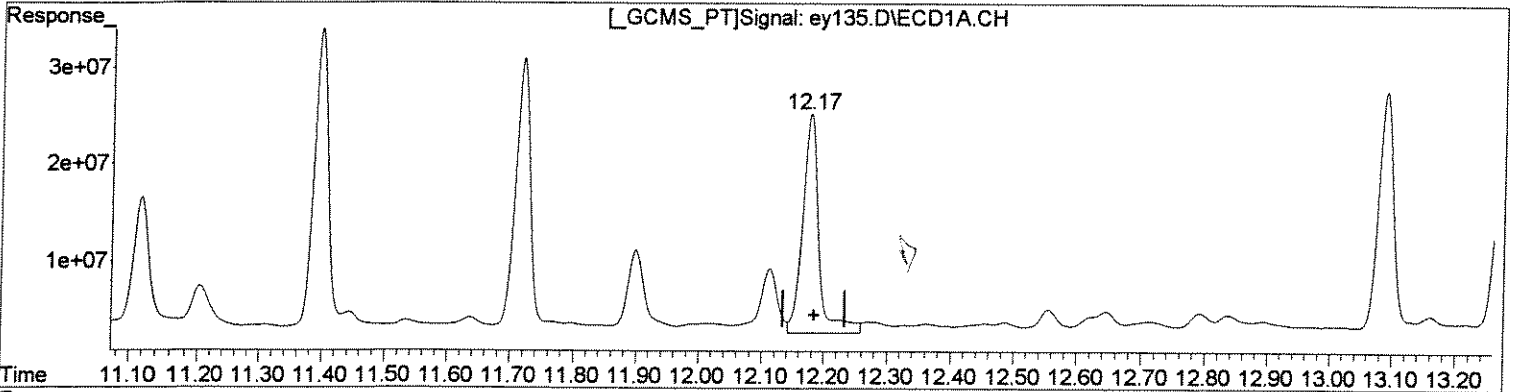
*Handwritten signatures and dates:*  
Ked 7/17  
mw 7/17

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
Data File : ey135.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 16 Jul 2008 5:01 pm  
Operator : M.PEDRO  
Sample : 1117895 1.0  
Misc : 07/01/08 200 ensr 8081 lcs  
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 17 06:57:33 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 13:38:39 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



(6) Aldrin (tcm)  
12.18min 16.702ug/l  
response 413516226

(6) Aldrin #2 (tcm)  
12.11min 16.358ug/l  
response 1490161201

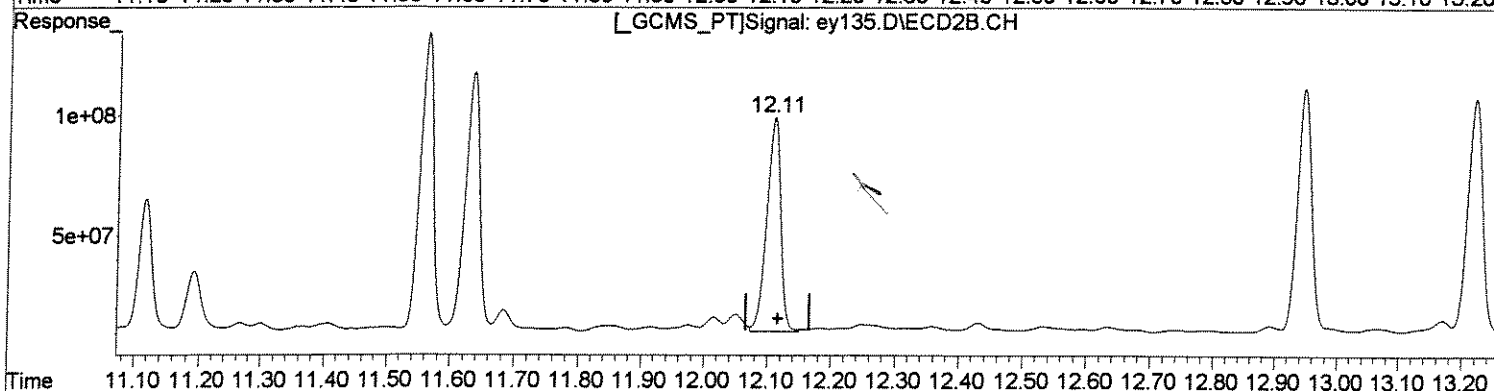
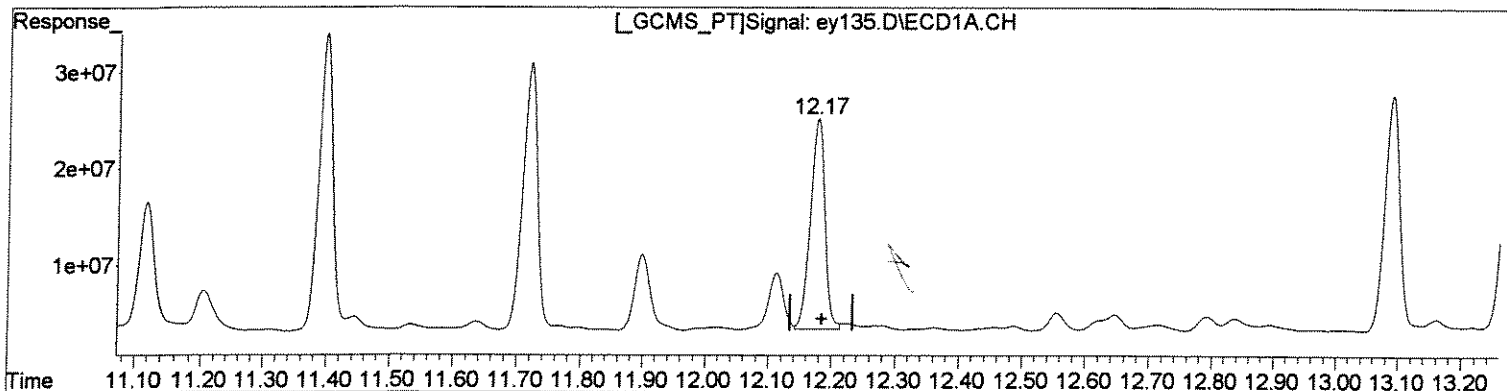
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
Data File : ey135.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 16 Jul 2008 5:01 pm  
Operator : M.PEDRO  
Sample : 1117895 1.0  
Misc : 07/01/08 200 ensr 8081 lcs  
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 17 06:57:33 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 13:38:39 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



QEdit

(6) Aldrin (tcm)  
12.17min 14.095ug/l m  
response 348981551

(6) Aldrin #2 (tcm)  
12.11min 14.796ug/l m  
response 1347842344

*Handwritten:* 12/17

*Handwritten:* 12/17

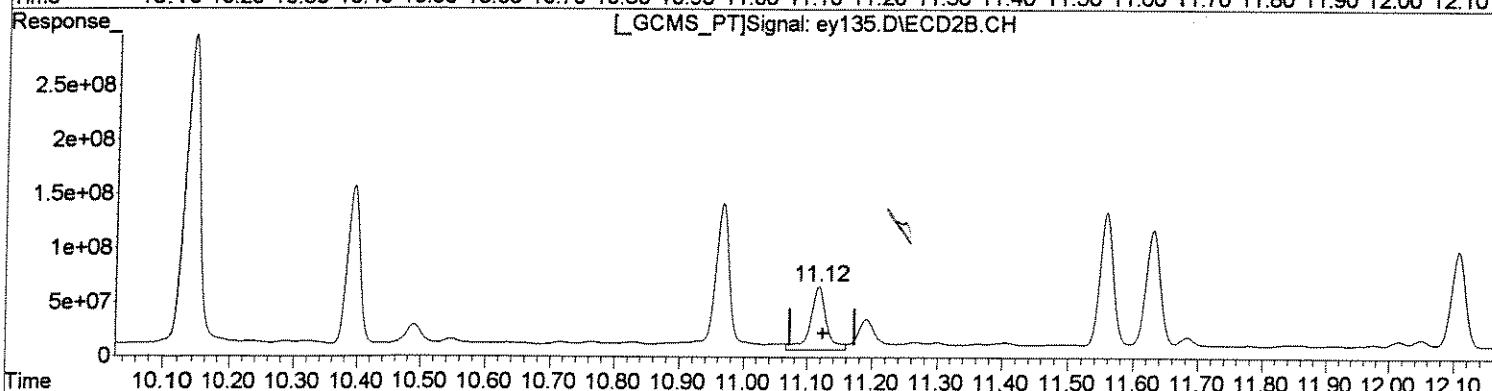
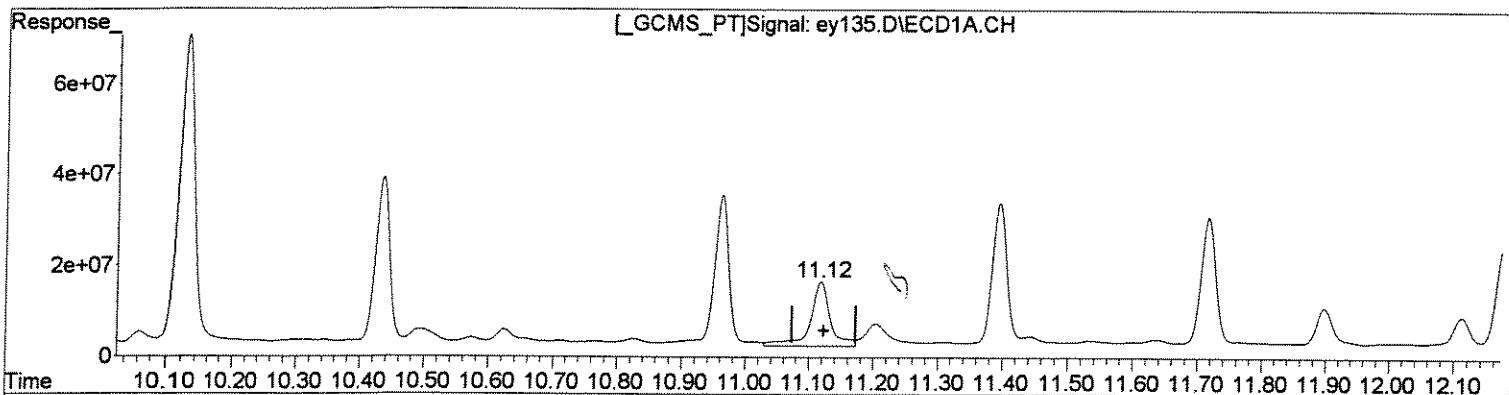


Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
Data File : ey135.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 16 Jul 2008 5:01 pm  
Operator : M.PEDRO  
Sample : 1117895 1.0  
Misc : 07/01/08 200 ensr 8081 lcs  
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 17 06:57:33 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 13:38:39 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



QEdit

(7) beta-BHC (tc)  
11.12min 27.074ug/l  
response 310886464

(7) beta-BHC #2 (tc)  
11.12min 22.685ug/l  
response 1023768377

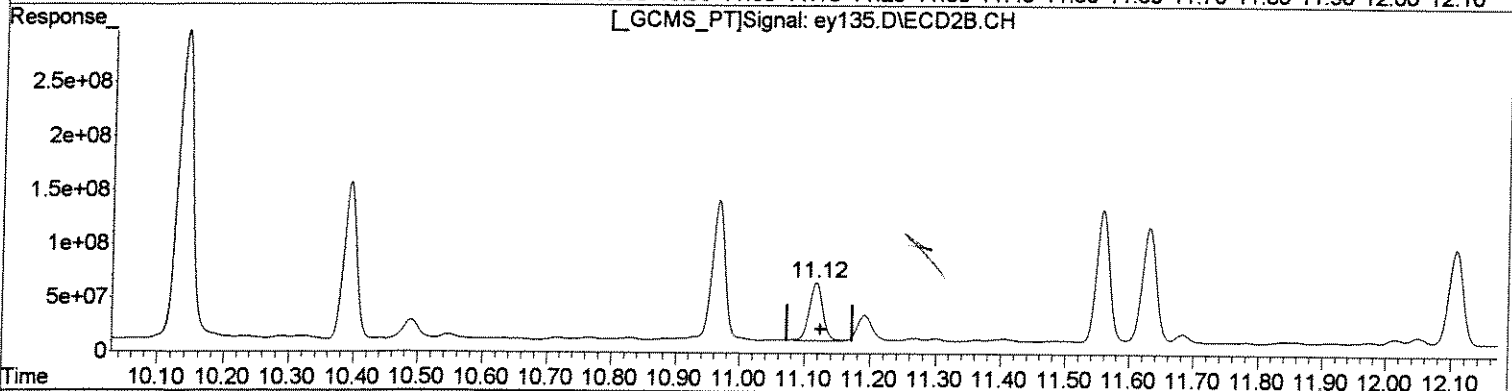
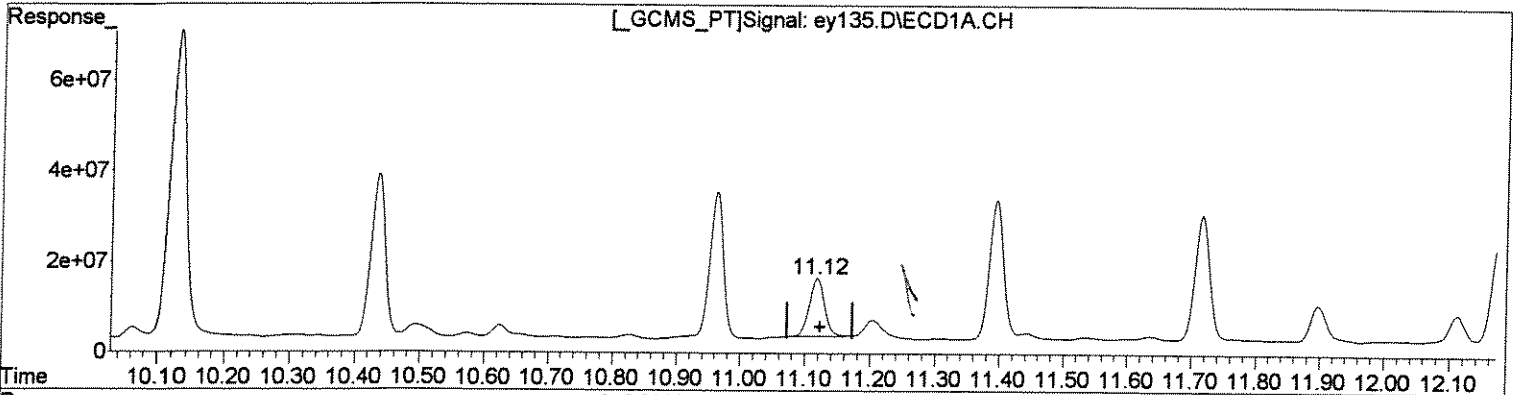
*beta*

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
Data File : ey135.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 16 Jul 2008 5:01 pm  
Operator : M.PEDRO  
Sample : 1117895 1.0  
Misc : 07/01/08 200 ensr 8081 lcs  
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 17 06:57:33 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 13:38:39 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



QEdit

(7) beta-BHC (tc)  
11.12min 17.841ug/l m  
response 204871392

(7) beta-BHC #2 (tc)  
11.12min 16.943ug/l m  
response 764656227

*MW*  
*7/17*

*MW*  
*7/17*

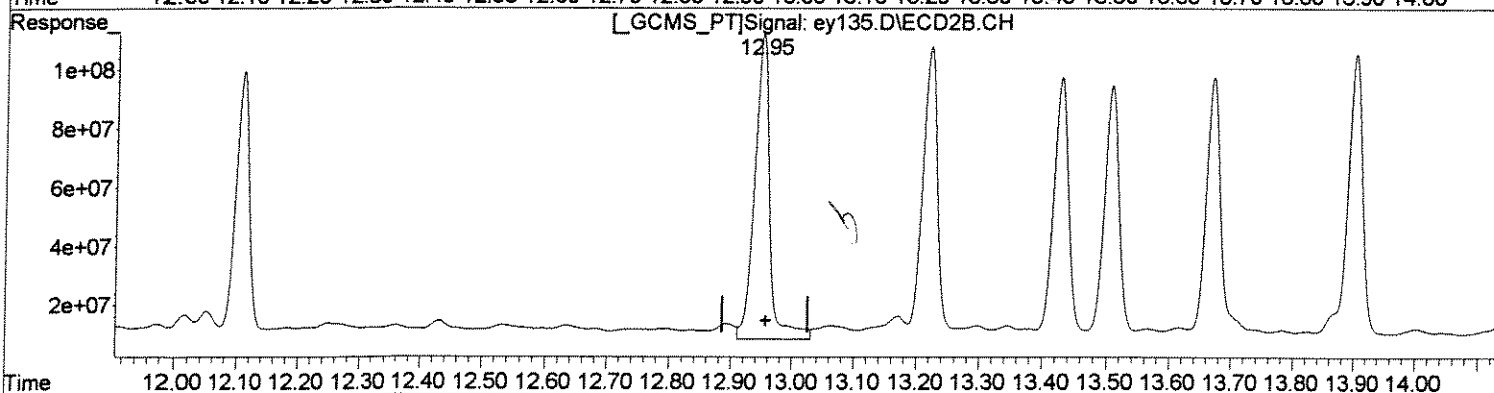
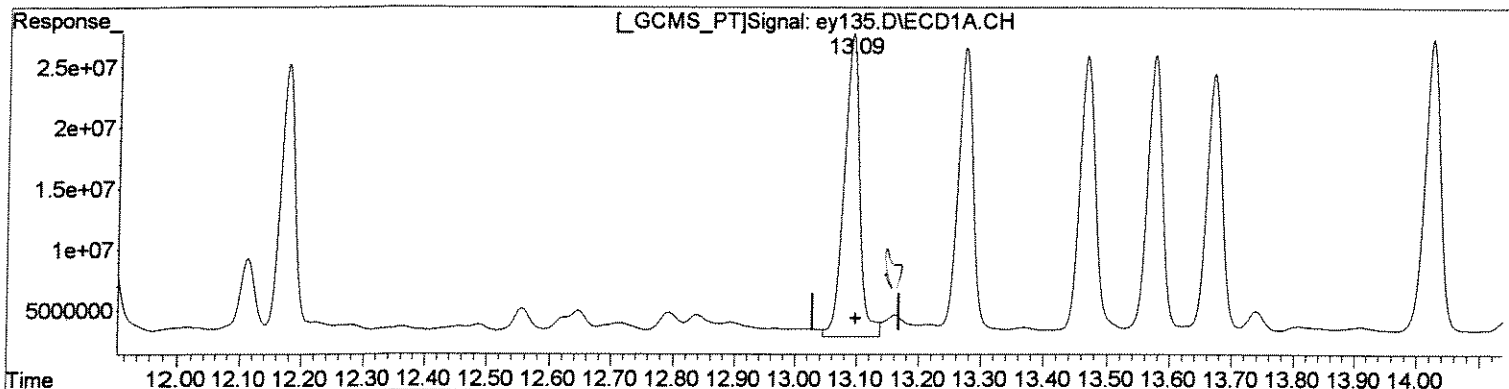
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
Data File : ey135.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 16 Jul 2008 5:01 pm  
Operator : M.PEDRO  
Sample : 1117895 1.0  
Misc : 07/01/08 200 ensr 8081 lcs  
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 17 06:57:33 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 13:38:39 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



QEdit

(9) Heptachlor E (tc)  
13.09min 19.193ug/l  
response 436864357

(9) Heptachlor E #2 (tc)  
12.95min 22.676ug/l  
response 1823057271

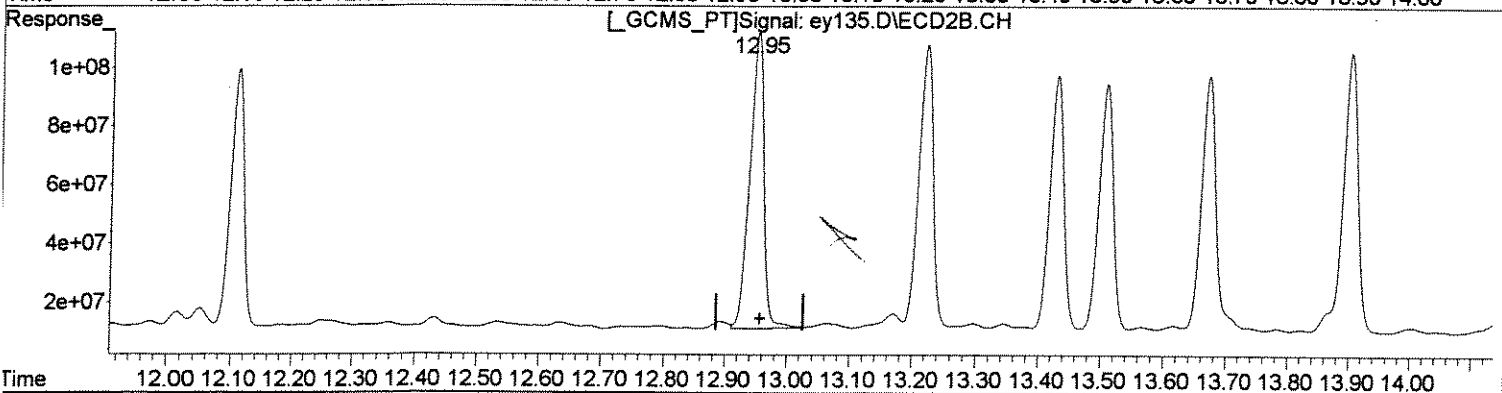
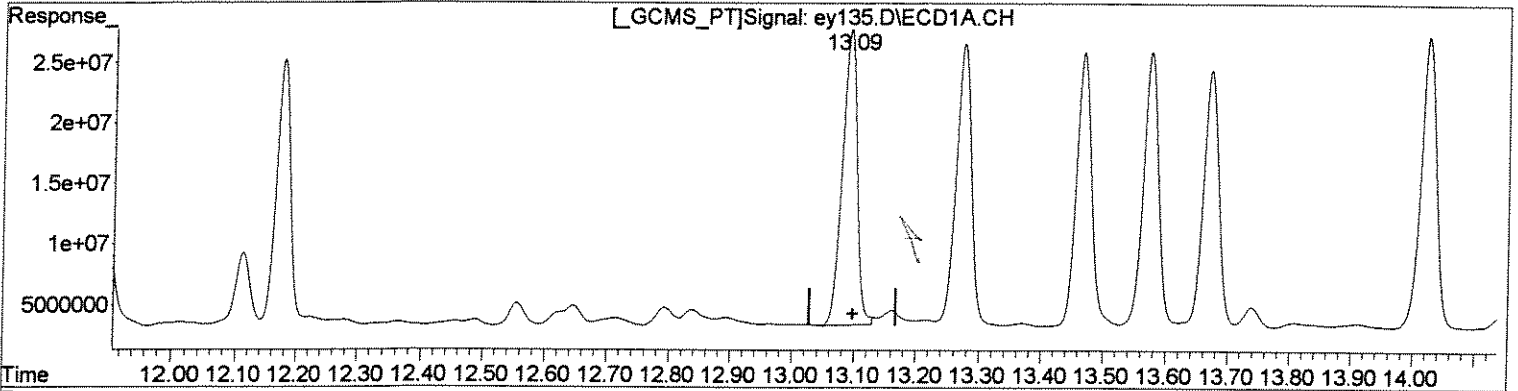
*Handwritten signature*

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
Data File : ey135.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 16 Jul 2008 5:01 pm  
Operator : M.PEDRO  
Sample : 1117895 1.0  
Misc : 07/01/08 200 ensr 8081 lcs  
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 17 06:57:33 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 13:38:39 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



(9) Heptachlor E (tc)  
13.09min 17.618ug/l m  
response 401021777

(9) Heptachlor E #2 (tc)  
12.95min 20.001ug/l m  
response 1608047163

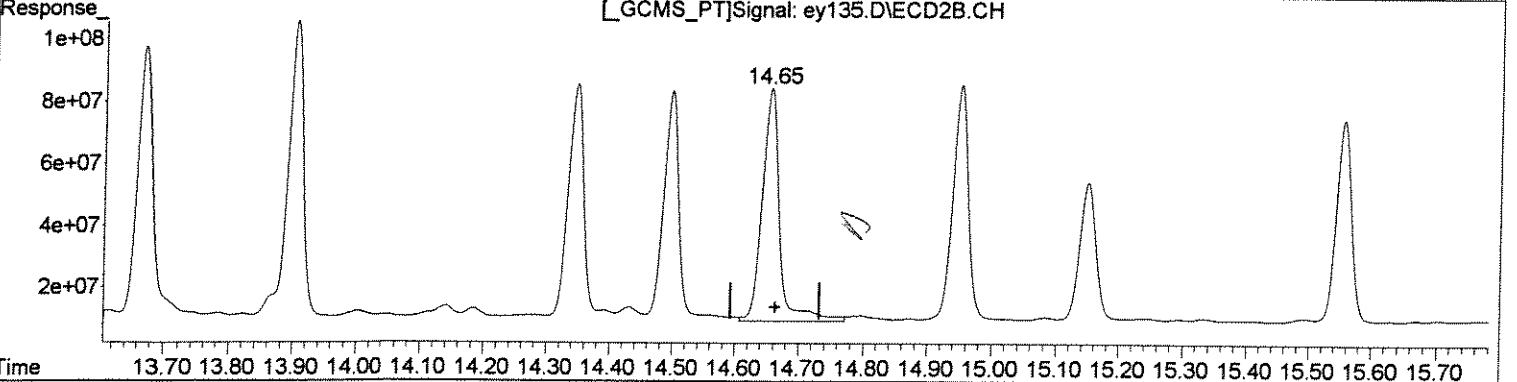
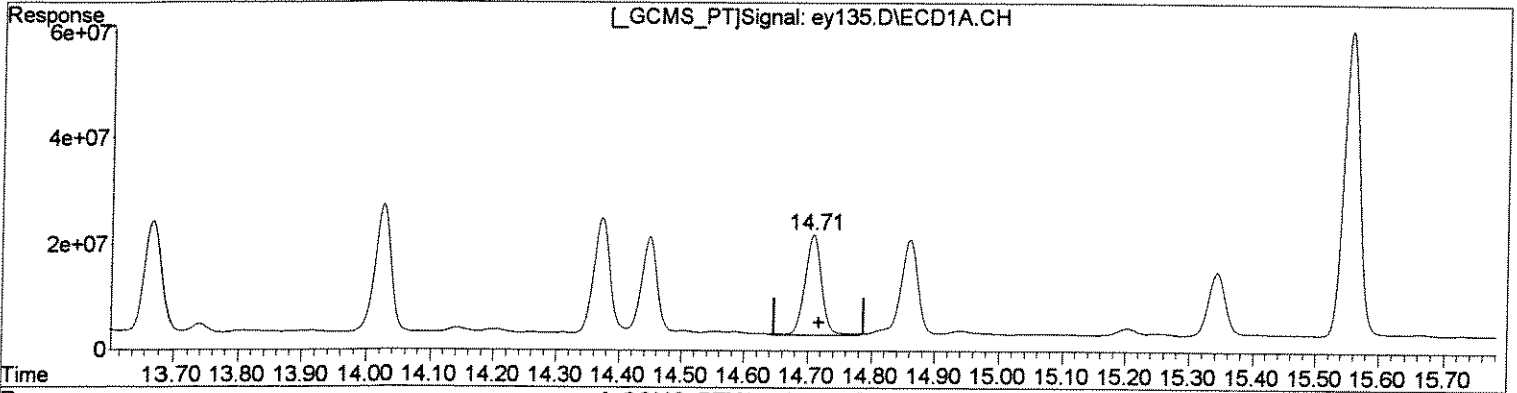
*MW 7/17*  
*MW 7/17*

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
Data File : ey135.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 16 Jul 2008 5:01 pm  
Operator : M.PEDRO  
Sample : 1117895 1.0  
Misc : 07/01/08 200 ensr 8081 lcs  
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 17 06:57:33 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 13:38:39 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



QEdit

(17) beta-Endosul (tc)  
14.71min 18.493ug/l  
response 343770067

(17) beta-Endosul #2 (tc)  
14.65min 22.199ug/l  
response 1425128647

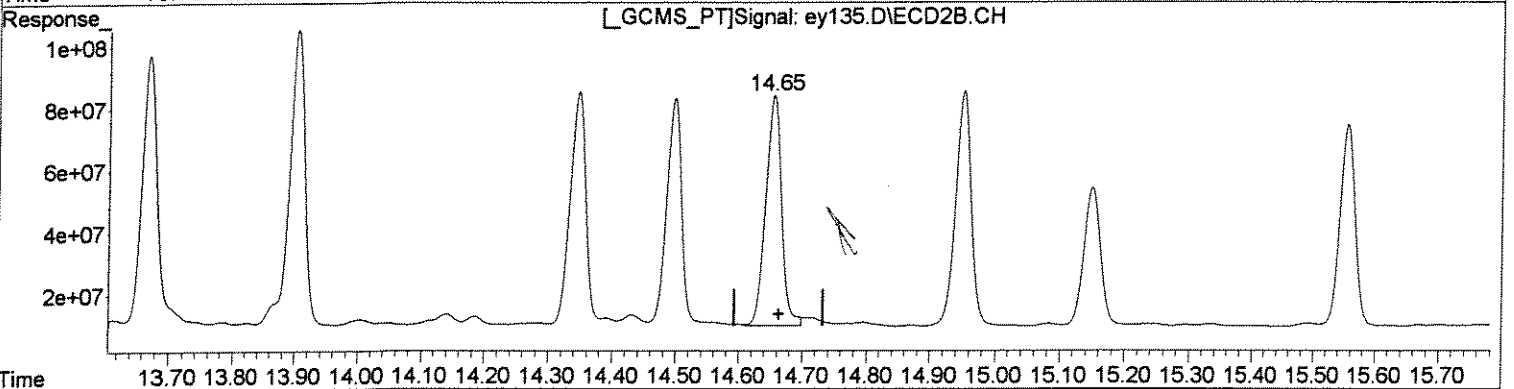
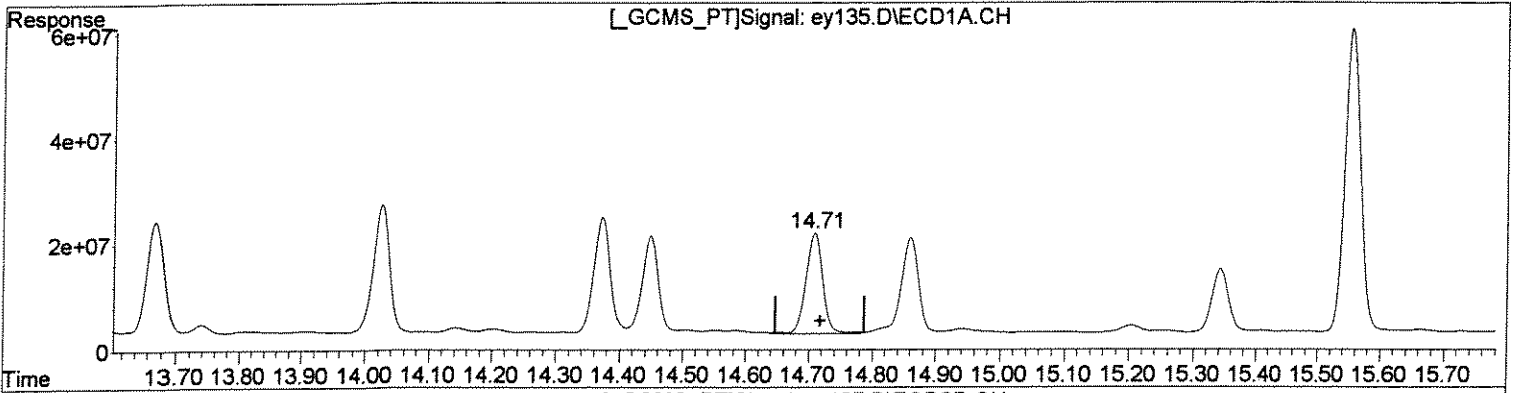
*Handwritten signature*

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
Data File : ey135.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 16 Jul 2008 5:01 pm  
Operator : M.PEDRO  
Sample : 1117895 1.0  
Misc : 07/01/08 200 ensr 8081 lcs  
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 17 06:57:33 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 13:38:39 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



QEdit

(17) beta-Endosul (tc)  
14.71min 18.493ug/l  
response 343770067

(17) beta-Endosul #2 (tc)  
14.65min 19.977ug/l m  
response 1282511518

*Handwritten signature*

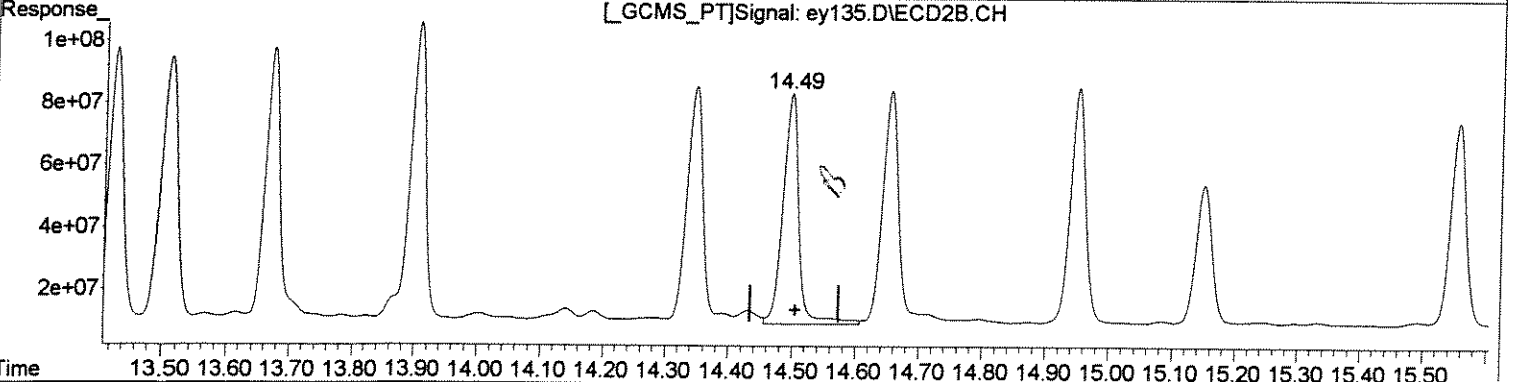
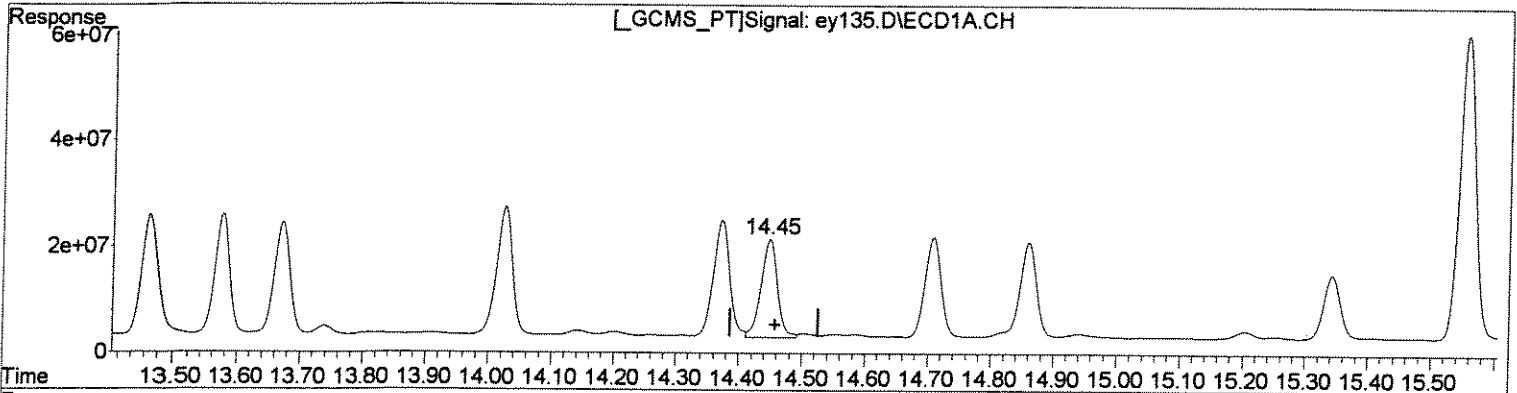
*Handwritten signature*

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
Data File : ey135.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 16 Jul 2008 5:01 pm  
Operator : M.PEDRO  
Sample : 1117895 1.0  
Misc : 07/01/08 200 ensr 8081 lcs  
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 17 06:57:33 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 13:38:39 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



QEdit

(18) 4,4'-DDD (tc)  
14.45min 18.373ug/l  
response 330599434

(18) 4,4'-DDD #2 (tc)  
14.49min 21.080ug/l  
response 1312003773

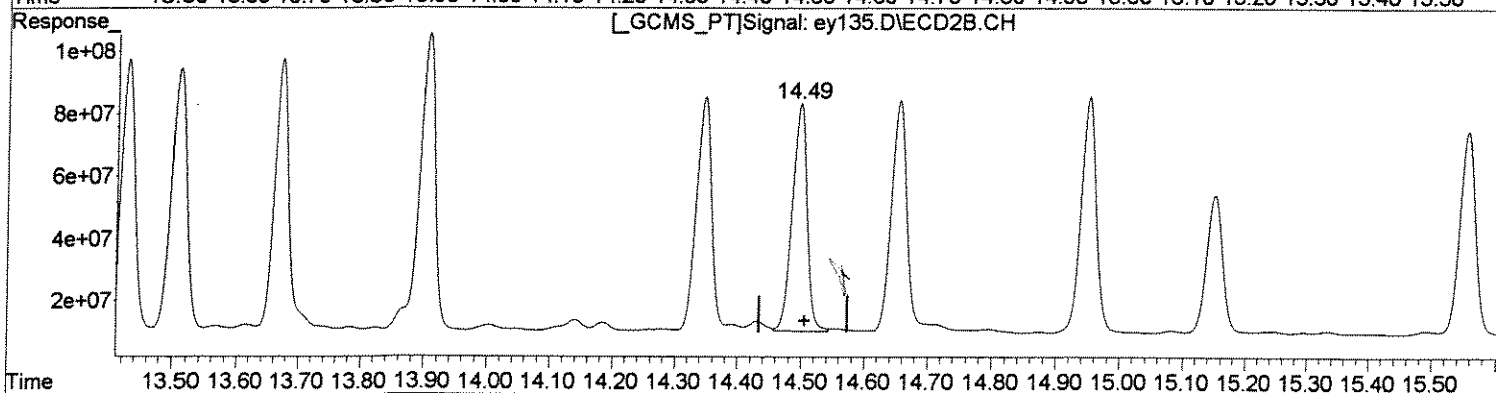
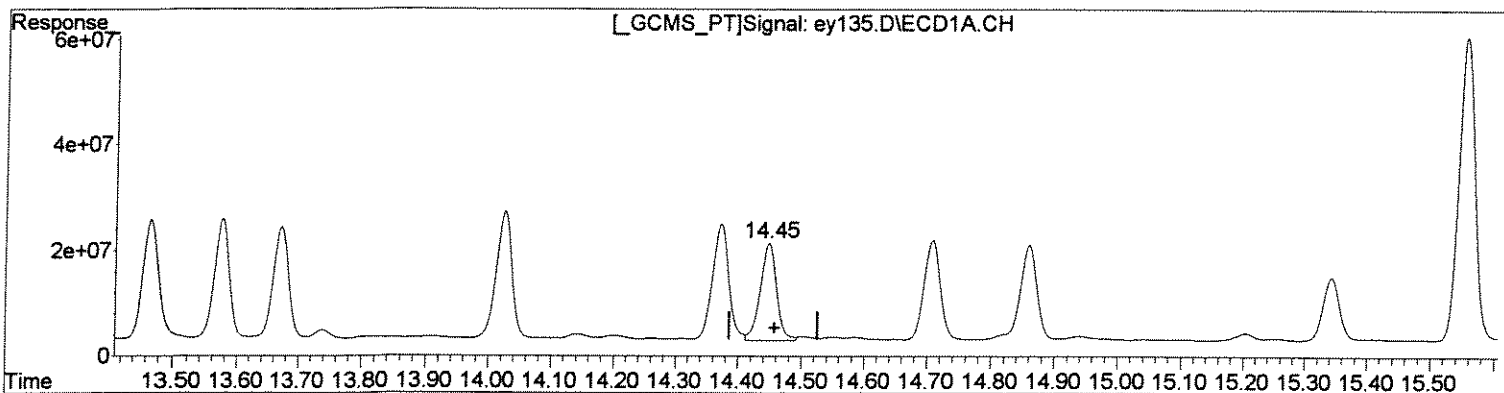
*Handwritten signature*

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
Data File : ey135.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 16 Jul 2008 5:01 pm  
Operator : M.PEDRO  
Sample : 1117895 1.0  
Misc : 07/01/08 200 ensr 8081 lcs  
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 17 06:57:33 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 13:38:39 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



QEdit

(18) 4,4'-DDD (tc)  
14.45min 18.373ug/l  
response 330599434

(18) 4,4'-DDD #2 (tc)  
14.49min 19.095ug/l m  
response 1188490270

*MW 7/17* *MW 7/17*

(+) = Expected Retention Time



Data Path : J:\ACQUDATA\6890D\DATA\071608\  
 Data File : EY135.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 16 Jul 2008 5:01 pm  
 Operator : M.PEDRO  
 Sample : 1117895 1.0  
 Misc : 07/01/08 200 ensr 8081 lcs  
 ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 17 06:57:33 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/1	ug/1
-----						
System Monitoring Compounds						
1) S SURR1,Tetrac	9.43	9.32	1678.2E6	6176.6E6	83.159	76.329
Spiked Amount	100.000	Range 30 - 150	Recovery =		83.16%	76.33%
25) S SURR2,Decachloro	17.61	17.85	1418.6E6	4785.5E6	81.226	86.890
Spiked Amount	100.000	Range 30 - 150	Recovery =		81.23%	86.89%
Target Compounds						
2) TC HEXACHLORO BENZEN	10.13	10.14	1165.7E6	4708.6E6	39.670	38.743
3) tc alpha-BHC	10.43	10.39	598.8E6	2260.5E6	19.370	19.048
4) tcm gamma-BHC (L	10.96	10.97	551.3E6	2401.3E6	19.546	22.853
5) tcm Heptachlor	11.72	11.63	491.2E6	1805.0E6	17.578	17.985
6) tcm Aldrin	12.18	12.11	413.5E6	1490.2E6	16.702	16.358
7) tc beta-BHC	11.12	11.12	310.9E6	1023.8E6	27.074	22.685
8) tc delta-BHC	11.39	11.56	511.7E6	1912.6E6	18.815	18.526
9) tc Heptachlor E	13.09	12.95	436.9E6	1823.1E6	19.193	22.676
10) tc alpha-Endosu	13.67	13.51	392.7E6	1420.7E6	19.196	20.018
11) tc gamma-Chlord	13.27	13.22	426.3E6	1670.8E6	19.446	20.369
12) tc alpha-Chlord	13.47	13.43	420.7E6	1475.0E6	19.668	18.990
13) tc 4,4'-DDE	13.57	13.67	404.8E6	1602.6E6	18.585	20.907
14) tcm Dieldrin	14.02	13.90	445.0E6	1756.2E6	19.479	22.445
15) tcm Endrin	14.37	14.34	399.4E6	1332.4E6	19.277	19.781
16) tc KEPONE	14.45	0.00	330.6E6	0	45.190	N.D. #
17) tc beta-Endosul	14.71	14.65	343.8E6	1425.1E6	18.493	22.199
18) tc 4,4'-DDD	14.45	14.49	330.6E6	1312.0E6	18.373	21.080
19) tcm 4,4'-DDT	14.86	14.95	346.8E6	1309.1E6	18.123	19.985
20) tc Endrin Aldeh	15.34	15.15	222.5E6	822.1E6	15.156	16.760
21) tc Endosulfan S	15.98	15.56	307.9E6	1110.4E6	18.275	19.430
22) tc Methoxychlor	15.56	15.92	1007.2E6	3410.9E6	108.155	117.400
23) tc FAMPHUR	16.26	15.67	3328086	3065000	0.245	0.073 #
24) tc Endrin Keton	16.37	16.31	371.2E6	1258.0E6	19.172	20.053
25) L8C Toxaphene	0.00	14.79	0	52286138	N.D.	27.023 #
26) L8C Toxaphene{2}	0.00	15.08	0	23299383	N.D.	25.826 #
27) L8C Toxaphene{3}	0.00	15.15	0	822.1E6	N.D.	439.749 #

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
 Data File : EY135.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 16 Jul 2008 5:01 pm  
 Operator : M.PEDRO  
 Sample : 1117895 1.0  
 Misc : 07/01/08 200 ensr 8081 lcs  
 ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 17 06:57:33 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

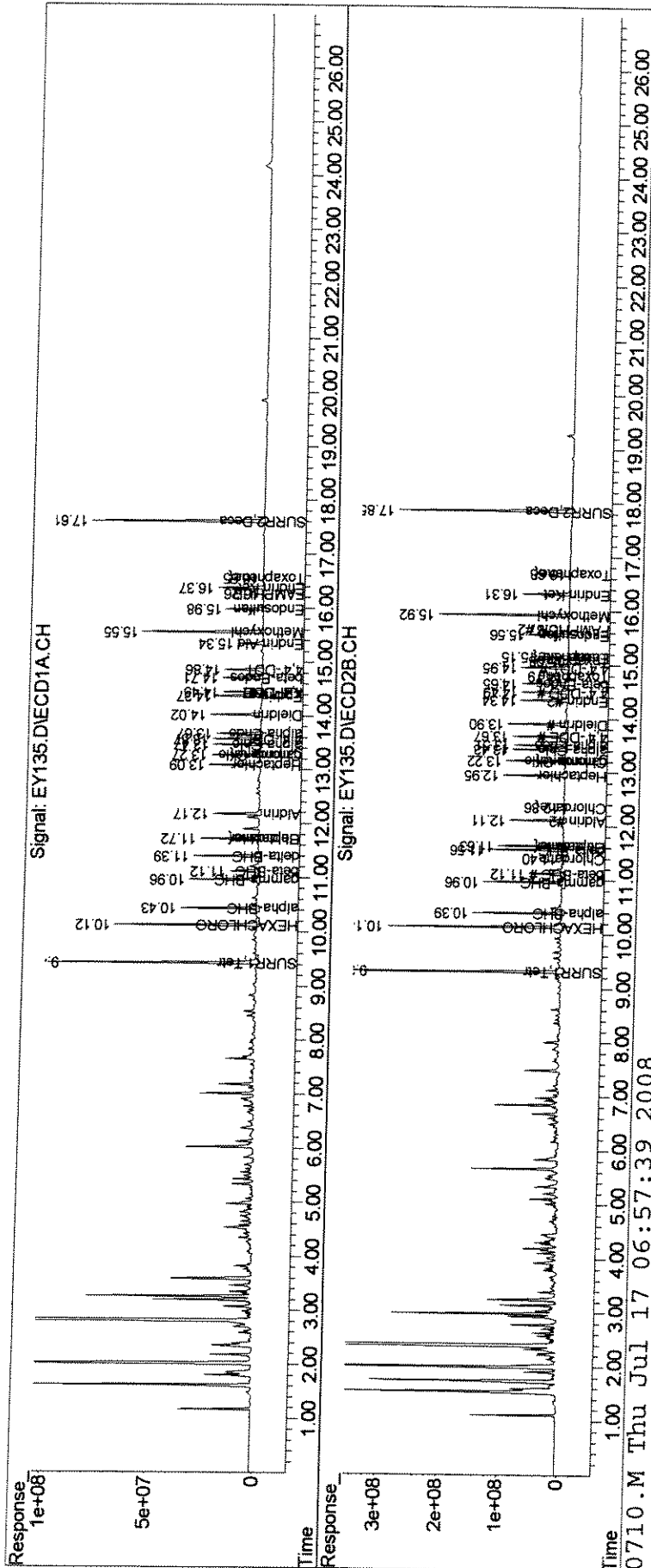
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
30) L8C Toxaphene{5}	16.55	16.68	11368746	25624789	17.080	11.357 #
Sum Toxaphene			11368746	923.3E6	17.080	503.955
Average Toxaphene					17.080	125.989
31) L9C Chlordane	0.00	11.40	0	239.6E6	N.D.	74.089 #
32) L9C Chlordane{2}	11.72	11.63	491.2E6	1805.0E6	436.018	401.160
33) L9C Chlordane{3}	0.00	12.36	0	157.9E6	N.D.	44.115 #
34) L9C Chlordane{4}	13.27	13.22	426.3E6	1670.8E6	154.102	166.727
Sum Chlordane			917.5E6	3873.3E6	590.121	686.091
Average Chlordane					295.060	171.523

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
 Data File : EY135.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 16 Jul 2008 5:01 pm  
 Operator : M.PEDRO  
 Sample : 1117895 1.0  
 Misc : 07/01/08 200 ensr 8081 lcs  
 ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 17 06:57:33 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : STx-CLP  
 Signal #1 Info : 0.32mm 30m  
 Signal #2 Phase : STx-CLPII  
 Signal #2 Info : 0.32mm 30m



00627

COLUMBIA ANALYTICAL SERVICES

EXTRACTABLE ORGANICS  
 METHOD 8081A.NEVA  
 Reported: 09/03/08

Project Reference:  
 Client Sample ID : BLANK SPIKE DUPLICATE

Date Sampled : Order #: 1117896 Sample Matrix: WATER  
 Date Received: Submission #: Analytical Run 164027

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED : 07/01/08			
DATE ANALYZED : 07/16/08			
ANALYTICAL DILUTION: 1.00			
ALDRIN	0.050	0.079	UG/L
ALPHA-BHC	0.050	0.094	UG/L
BETA-BHC	0.050	0.097	UG/L
GAMMA-BHC	0.050	0.088	UG/L
DELTA-BHC	0.050	0.091	UG/L
ALPHA-CHLORDANE	0.050	0.095	UG/L
GAMMA-CHLORDANE	0.050	0.099	UG/L
CHLORDANE	0.25	0.25 U	UG/L
4,4'-DDE	0.050	0.099	UG/L
4,4'-DDT	0.050	0.095	UG/L
DIELDRIN	0.10	0.11	UG/L
ALPHA-ENDOSULFAN	0.050	0.099	UG/L
BETA-ENDOSULFAN	0.10	0.097 J	UG/L
ENDOSULFAN SULFATE	0.10	0.096 J	UG/L
ENDRIN	0.050	0.10	UG/L
ENDRIN ALDEHYDE	0.10	0.079 J	UG/L
ENDRIN KETONE	0.10	0.098 J	UG/L
HEPTACHLOR	0.050	0.081	UG/L
HEPTACHLOR EPOXIDE	0.050	0.098	UG/L
HEXACHLOROBENZENE	0.050	0.19	UG/L
METHOXYCHLOR	0.50	0.58	UG/L
4,4'-TDE (DDD)	0.050	0.10	UG/L
TOXAPHENE	1.0	1.0 U	UG/L

<u>SURROGATE RECOVERIES</u>	<u>QC LIMITS</u>		
DECACHLOROBIPHENYL (DCB)	(40 - 140 %)	83	%
TETRACHLORO-META-XYLENE	(40 - 140 %)	79	%

00628

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
 Data File : ey136.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 16 Jul 2008 5:37 pm  
 Operator : M.PEDRO  
 Sample : 1117896 1.0  
 Misc : 07/01/08 200 ensr 8081 lcsd  
 ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 17 07:44:42 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/1	ug/1
System Monitoring Compounds						
1) S SURR1,Tetrac	9.43	9.32	1591.7E6	5917.1E6	78.873	73.123
Spiked Amount	100.000	Range 30 - 150	Recovery =		78.87%	73.12%
25) S SURR2,Decachloro	17.60	17.85	1381.5E6	4583.9E6	79.101	83.229
Spiked Amount	100.000	Range 30 - 150	Recovery =		79.10%	83.23%

Target Compounds	RT#1	RT#2	Resp#1	Resp#2	ug/1	ug/1
2) TC HEXACHLOROBENZEN	10.13	10.14	1140.5E6	4595.9E6	38.809	37.816
3) tc alpha-BHC	10.43	10.39	580.7E6	2223.9E6	18.783	18.739
4) tcm gamma-BHC (L	10.96	10.96	480.0E6	1847.0E6	17.019m	17.578m
5) tcm Heptachlor	11.72	11.63	428.6E6	1625.6E6	15.338m	16.197m
6) tcm Aldrin	12.18	12.11	390.1E6	1434.3E6	15.757	15.746
7) tc beta-BHC	11.12	11.12	222.9E6	799.3E6	19.412m	17.711m
8) tc delta-BHC	11.39	11.56	494.7E6	1859.3E6	18.187	18.009
9) tc Heptachlor E	13.09	12.95	402.5E6	1568.8E6	17.682m	19.514m
10) tc alpha-Endosu	13.67	13.51	386.2E6	1399.8E6	18.876	19.722
11) tc gamma-Chlord	13.27	13.22	412.9E6	1622.3E6	18.835	19.777
12) tc alpha-Chlord	13.47	13.43	405.8E6	1445.1E6	18.973	18.606
13) tc 4,4'-DDE	13.57	13.67	382.1E6	1515.8E6	17.541	19.775
14) tcm Dieldrin	14.02	13.90	431.9E6	1688.9E6	18.906	21.585
15) tcm Endrin	14.37	14.34	390.1E6	1369.2E6	18.826	20.327
17) tc beta-Endosul	14.71	14.65	341.5E6	1243.2E6	18.374	19.365m
18) tc 4,4'-DDD	14.45	14.49	331.2E6	1248.2E6	18.406	20.055
19) tcm 4,4'-DDT	14.86	14.95	336.4E6	1247.8E6	17.577	19.049
20) tc Endrin Aldeh	15.34	15.15	204.2E6	772.0E6	13.909	15.739
21) tc Endosulfan S	15.98	15.56	307.4E6	1094.8E6	18.250	19.158
22) tc Methoxychlor	15.55	15.92	990.0E6	3344.8E6	106.301	115.128
24) tc Endrin Keton	16.37	16.31	366.6E6	1225.7E6	18.932	19.539
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
 Data File : ey136.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 16 Jul 2008 5:37 pm  
 Operator : M.PEDRO  
 Sample : 1117896 1.0  
 Misc : 07/01/08 200 ensr 8081 lcsd  
 ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 17 07:44:42 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

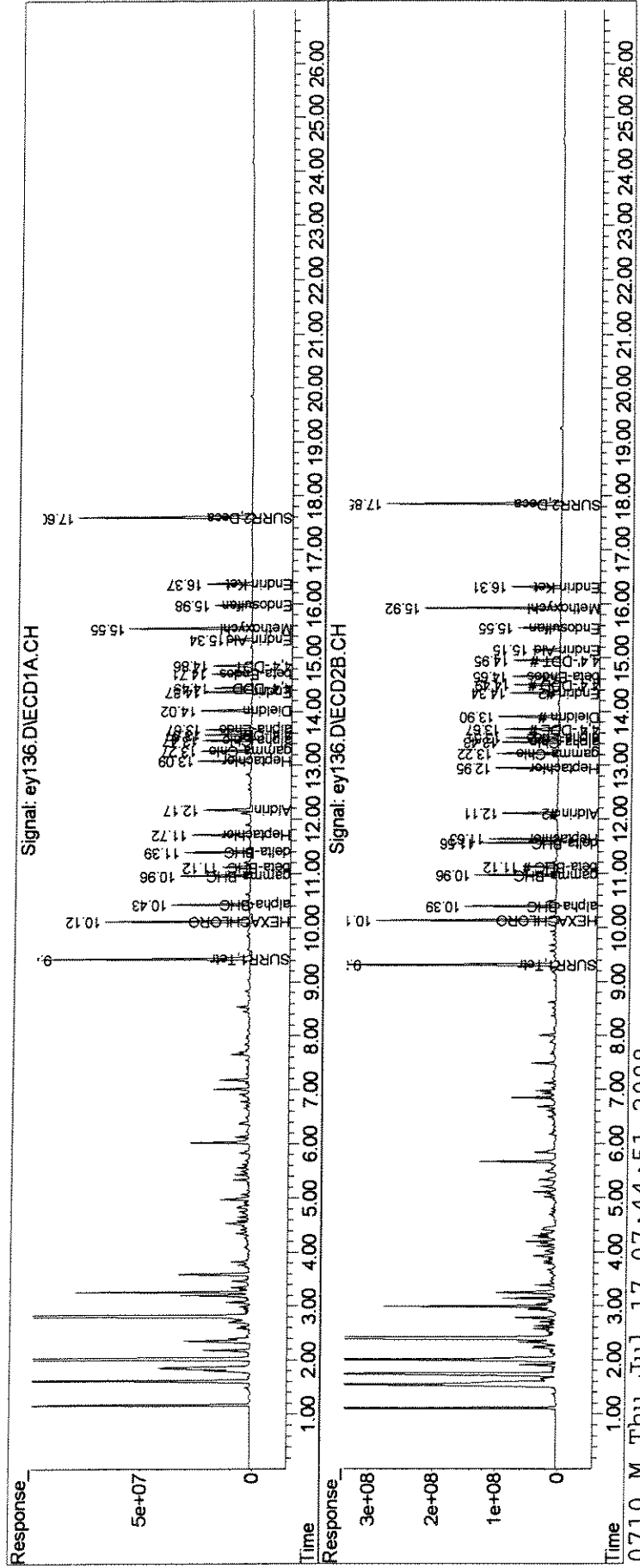
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/1	ug/1
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(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
 Data File : ey136.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 16 Jul 2008 5:37 pm  
 Operator : M.PEDRO  
 Sample : 1117896 1.0  
 Misc : 07/01/08 200 ensr 8081 lcsd  
 ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
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 Quant Time: Jul 17 07:44:42 2008  
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 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP  
 Signal #1 Info : 0.32mm 30m  
 Signal #2 Phase : STx-CLPII  
 Signal #2 Info : 0.32mm 30m



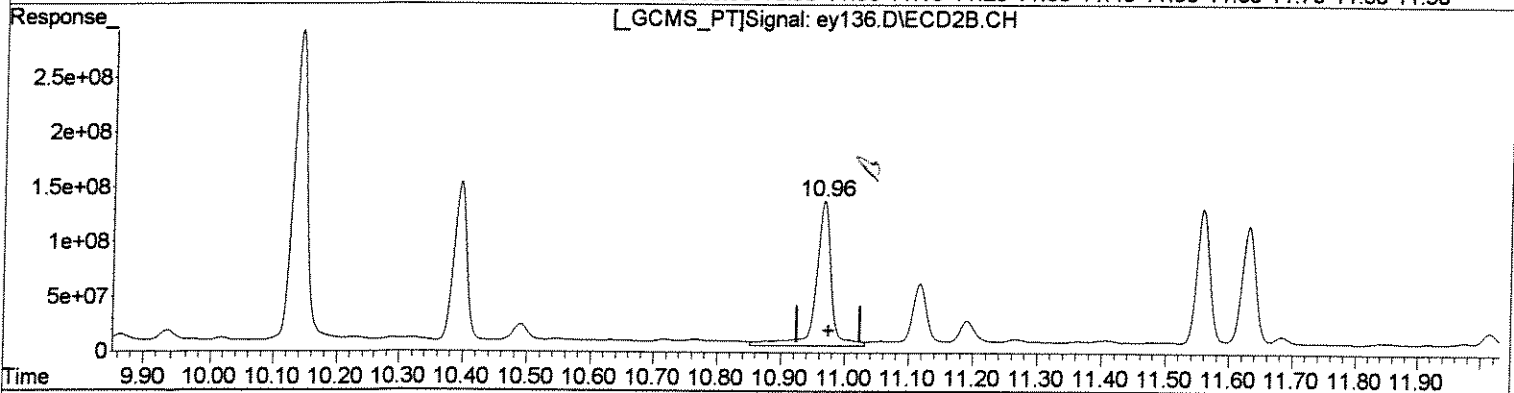
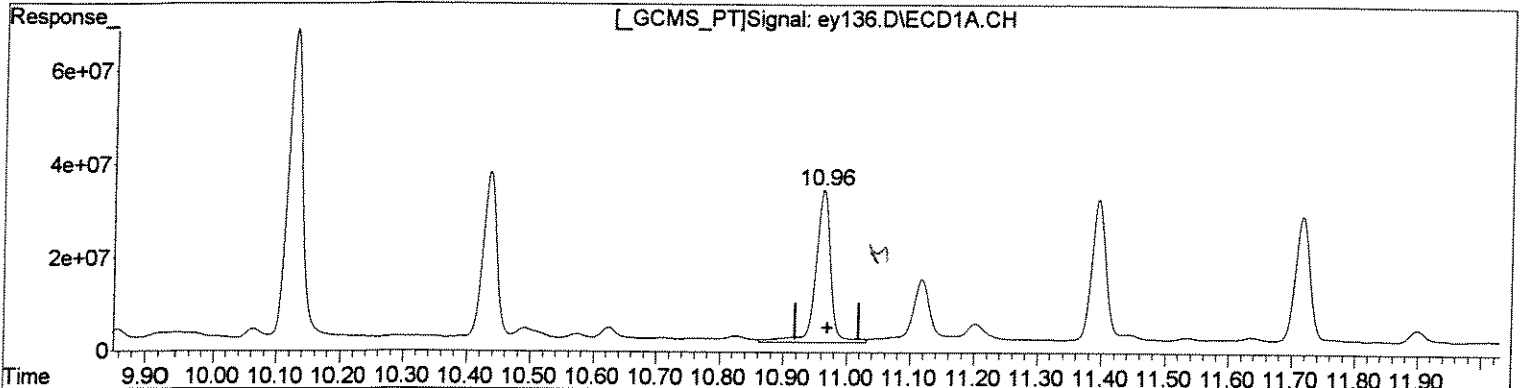
00631

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
Data File : ey136.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 16 Jul 2008 5:37 pm  
Operator : M.PEDRO  
Sample : 1117896 1.0  
Misc : 07/01/08 200 ensr 8081 lcsd  
ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 17 06:57:41 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 13:38:39 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



QEdit

(4) gamma-BHC (L (tcm))  
10.96min 19.382ug/l  
response 546684844

(4) gamma-BHC (L #2 (tcm))  
10.97min 21.788ug/l  
response 2289405398

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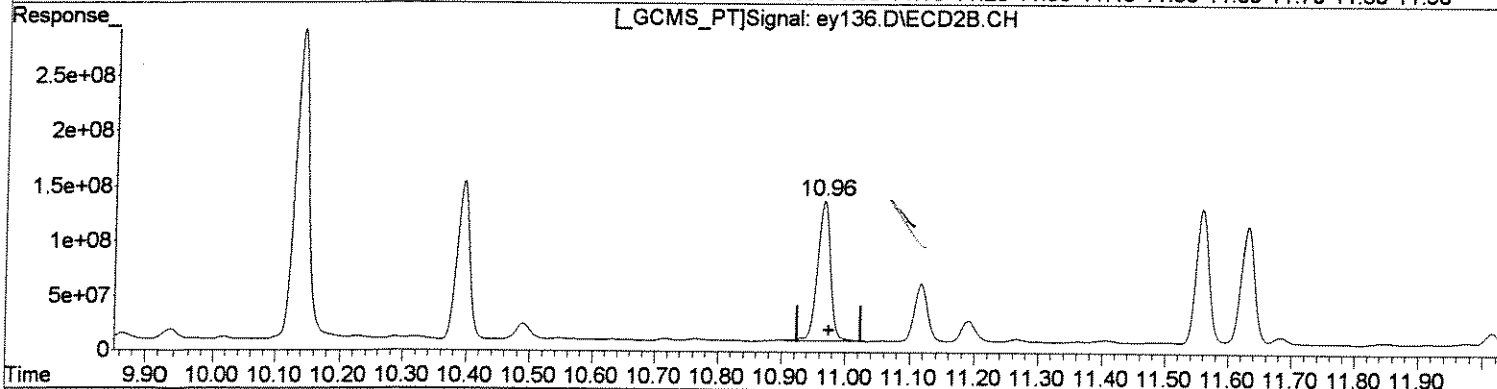
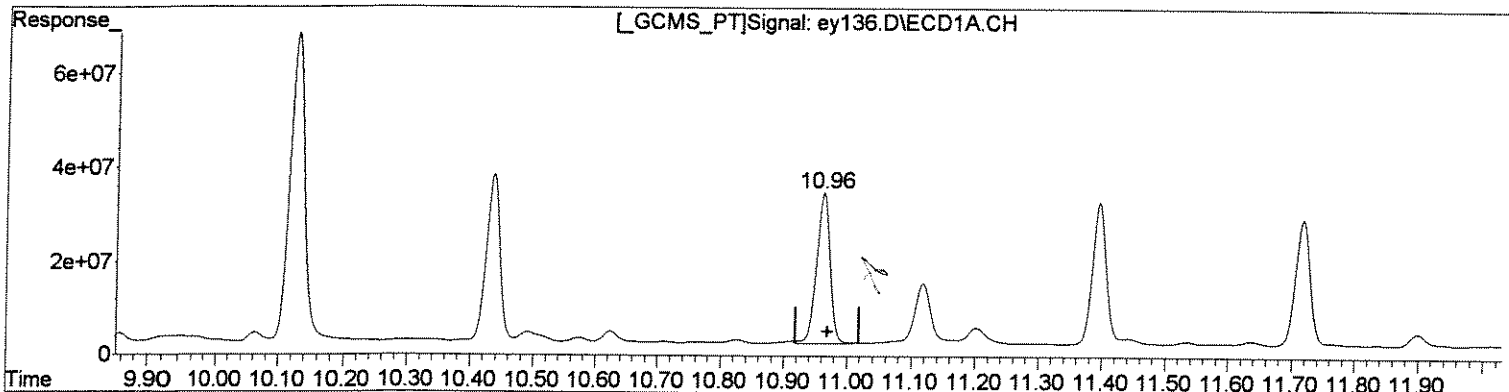


Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
 Data File : ey136.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 16 Jul 2008 5:37 pm  
 Operator : M.PEDRO  
 Sample : 1117896 1.0  
 Misc : 07/01/08 200 ensr 8081 lcsd  
 ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 17 06:57:41 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



QEdit

(4) gamma-BHC (L (tcm)  
 10.96min 17.019ug/l m  
 response 480039787

(4) gamma-BHC (L #2 (tcm)  
 10.96min 17.578ug/l m  
 response 1846973407

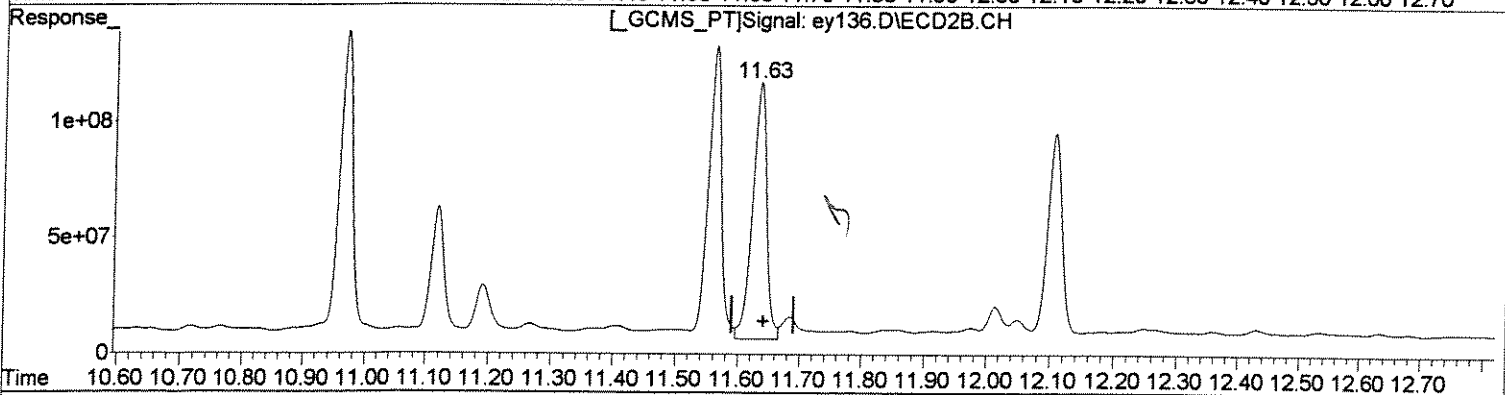
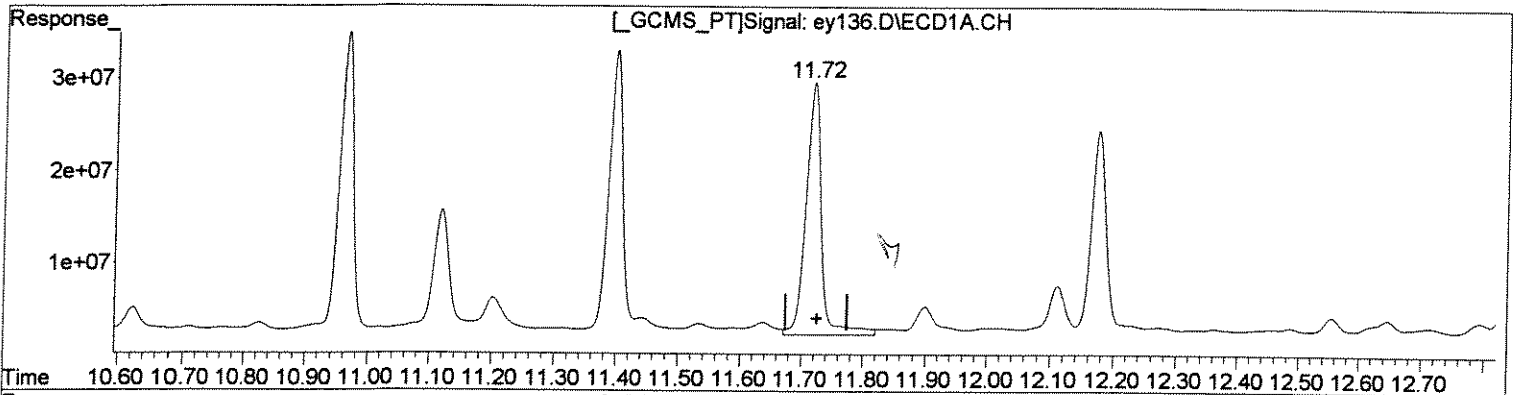
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
Data File : ey136.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 16 Jul 2008 5:37 pm  
Operator : M.PEDRO  
Sample : 1117896 1.0  
Misc : 07/01/08 200 ensr 8081 lcsd  
ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 17 06:57:41 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 13:38:39 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



QEdit

(5) Heptachlor (tcm)  
11.72min 17.488ug/l  
response 488693335

(5) Heptachlor #2 (tcm)  
11.63min 17.481ug/l  
response 1754378442

*Handwritten signature*

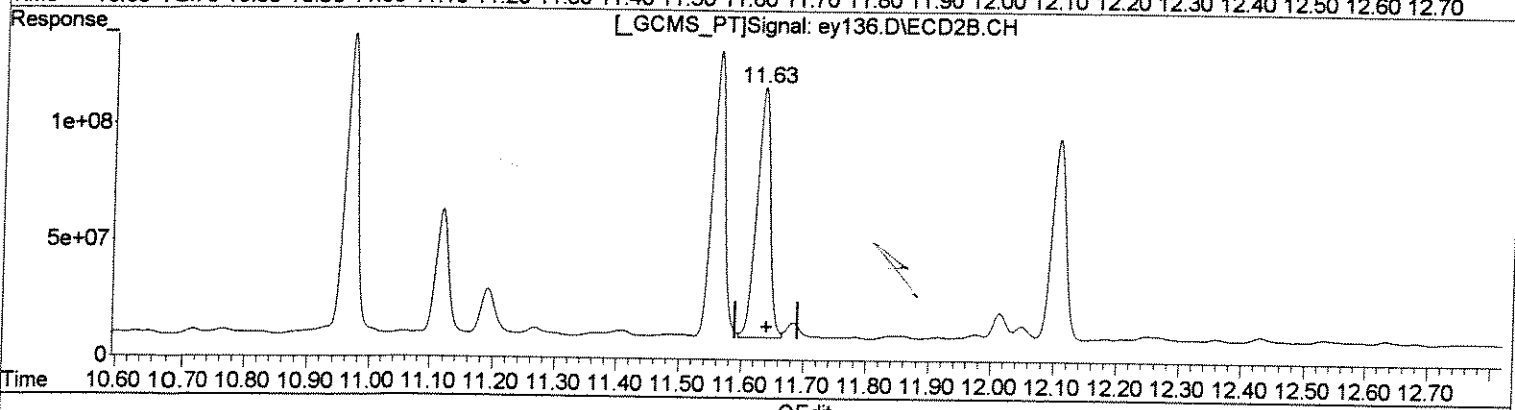
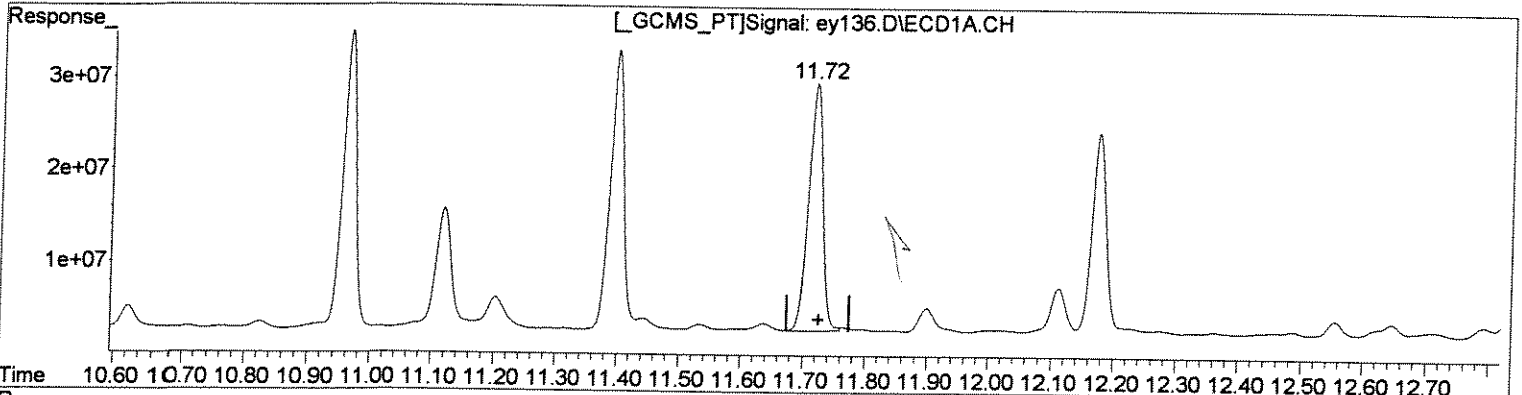
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
Data File : ey136.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
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Operator : M.PEDRO  
Sample : 1117896 1.0  
Misc : 07/01/08 200 ensr 8081 lcsd  
ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 17 06:57:41 2008  
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QLast Update : Fri Jul 11 13:38:39 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



(5) Heptachlor (tcm)  
11.72min 15.338ug/l m  
response 428617131

(5) Heptachlor #2 (tcm)  
11.63min 16.197ug/l m  
response 1625598658

*MW*  
*7/17*

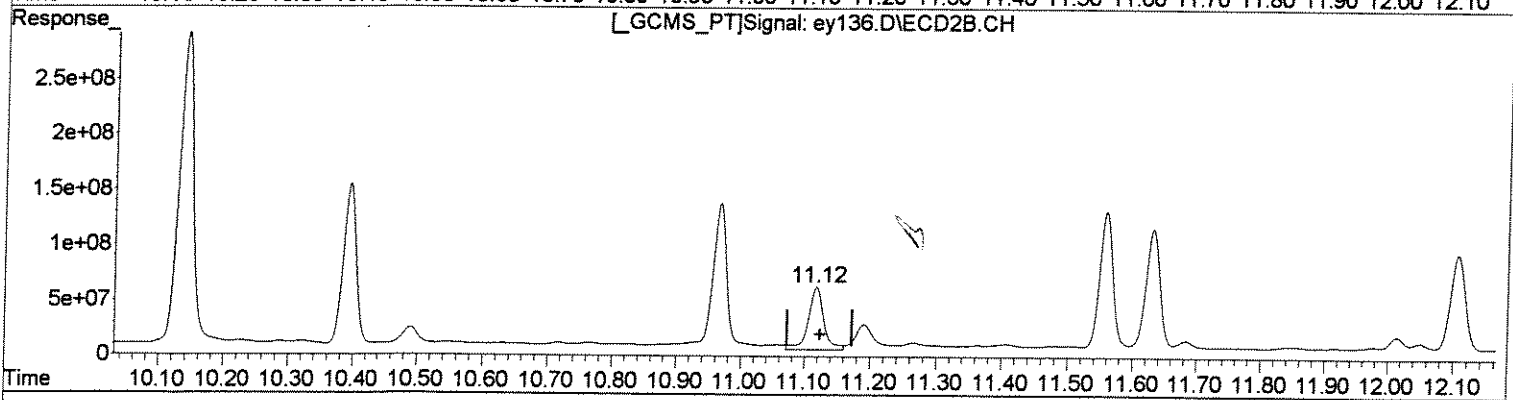
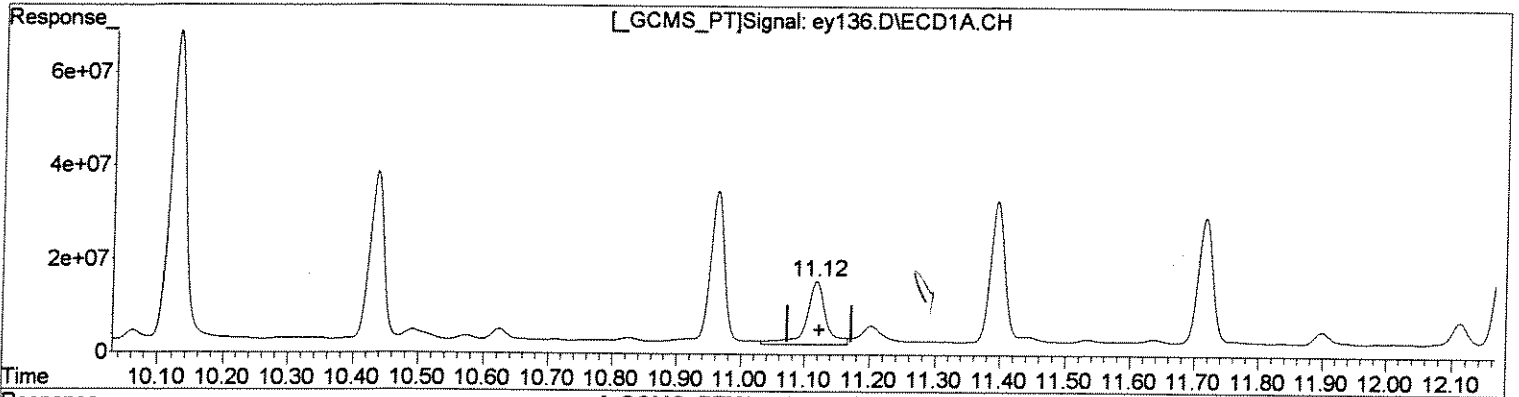
*MW*  
*7/17*

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
Data File : ey136.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 16 Jul 2008 5:37 pm  
Operator : M.PEDRO  
Sample : 1117896 1.0  
Misc : 07/01/08 200 ensr 8081 lcsd  
ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
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Quant Time: Jul 17 06:57:41 2008  
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Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



(7) beta-BHC (tc)  
11.12min 24.883ug/l  
response 285730357

(7) beta-BHC #2 (tc)  
11.12min 21.254ug/l  
response 959199514

*Handwritten signature*

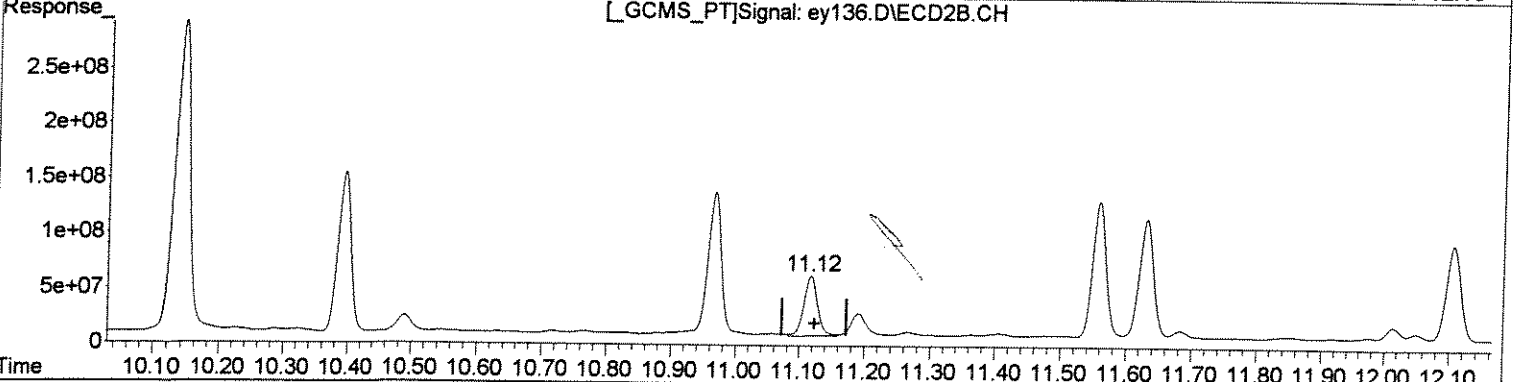
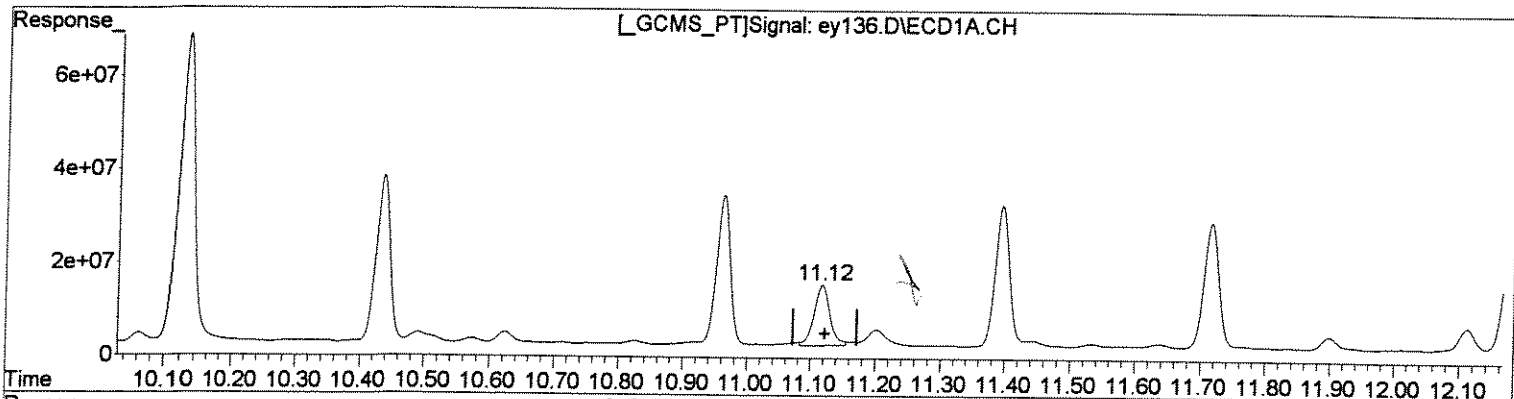
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
Data File : ey136.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 16 Jul 2008 5:37 pm  
Operator : M.PEDRO  
Sample : 1117896 1.0  
Misc : 07/01/08 200 ensr 8081 lcsd  
ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
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Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



QEdit

(7) beta-BHC (tc)  
11.12min 19.412ug/l m  
response 222905592

(7) beta-BHC #2 (tc)  
11.12min 17.711ug/l m  
response 799282071

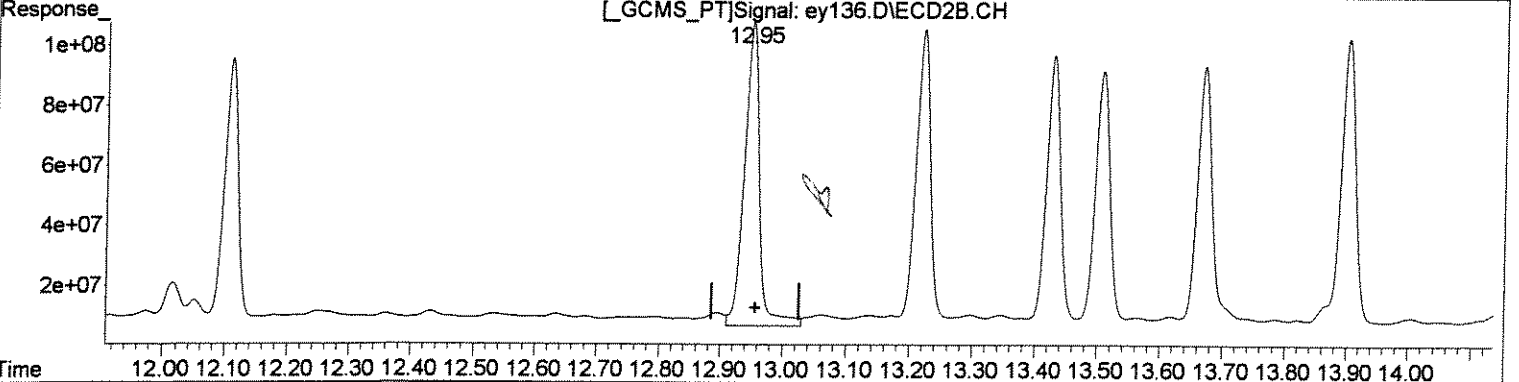
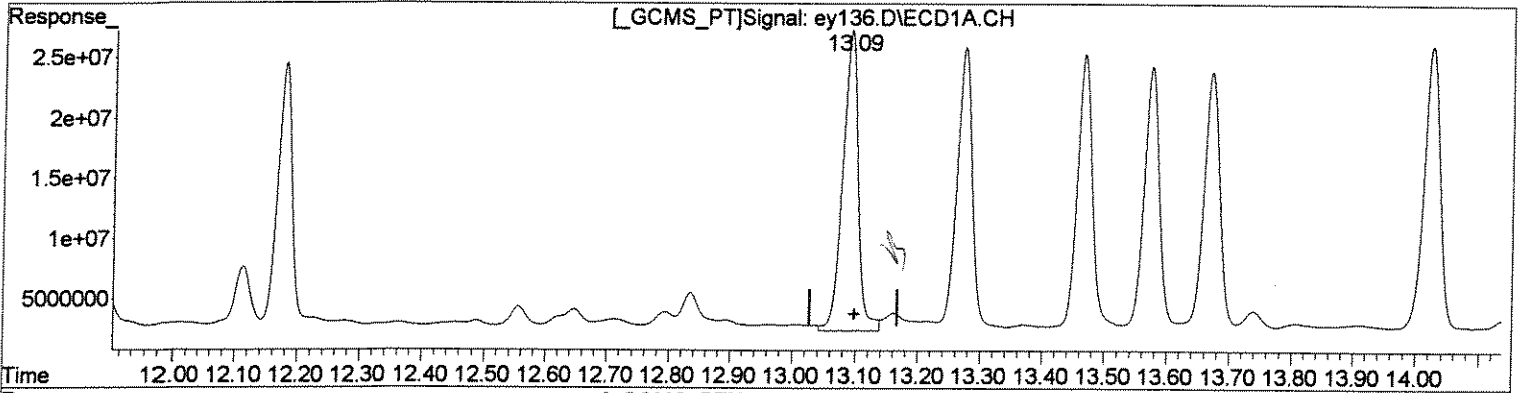
*Handwritten notes:*  
100  
7/17  
#44  
1/17

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
 Data File : ey136.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 16 Jul 2008 5:37 pm  
 Operator : M.PEDRO  
 Sample : 1117896 1.0  
 Misc : 07/01/08 200 ensr 8081 lcsd  
 ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 17 06:57:41 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



QEdit

(9) Heptachlor E (tc)  
 13.09min 18.660ug/l  
 response 424724035

(9) Heptachlor E #2 (tc)  
 12.95min 21.449ug/l  
 response 1724417367

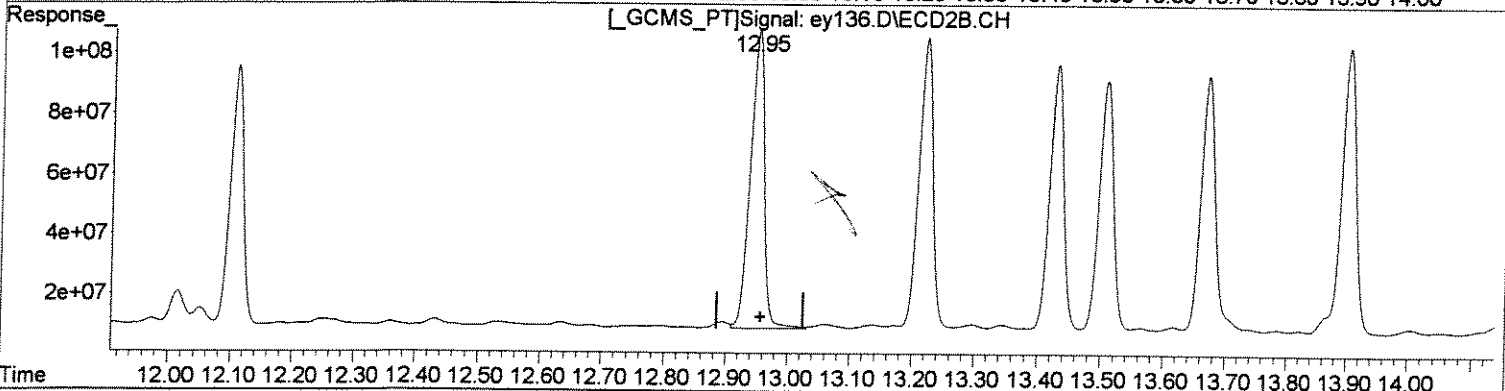
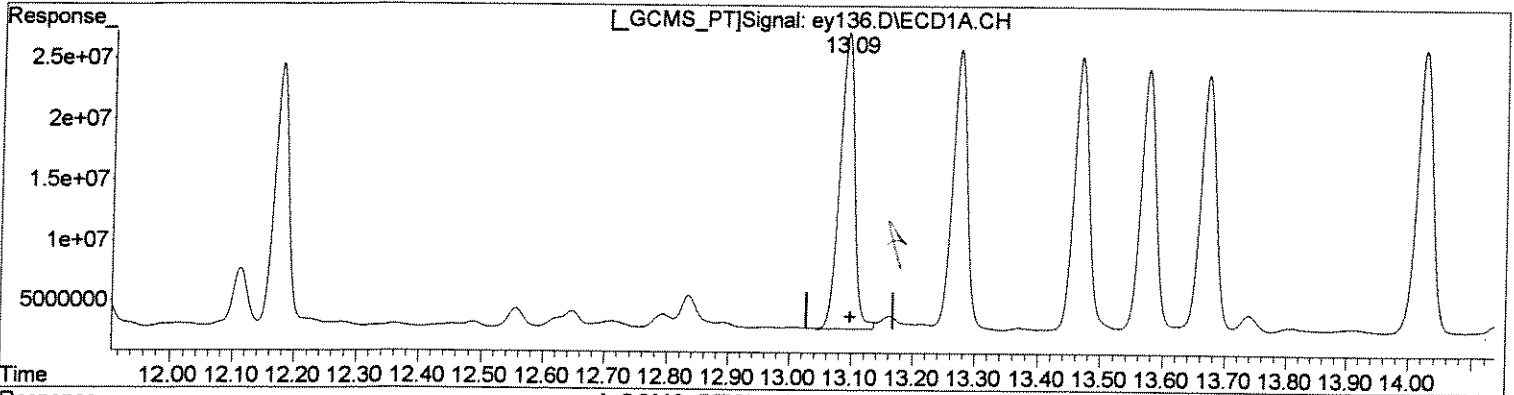
*Handwritten signature*

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
Data File : ey136.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 16 Jul 2008 5:37 pm  
Operator : M.PEDRO  
Sample : 1117896 1.0  
Misc : 07/01/08 200 ensr 8081 lcsd  
ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 17 06:57:41 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 13:38:39 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



QEdit

(9) Heptachlor E (tc)  
13.09min 17.682ug/l m  
response 402479565

(9) Heptachlor E #2 (tc)  
12.95min 19.514ug/l m  
response 1568847043

*M.P.*  
*7/17*

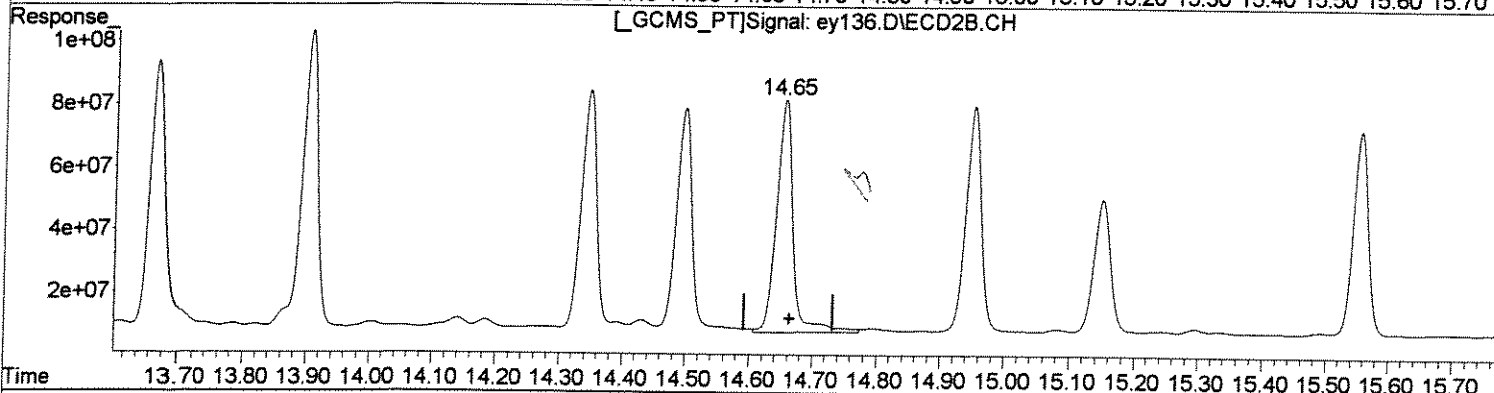
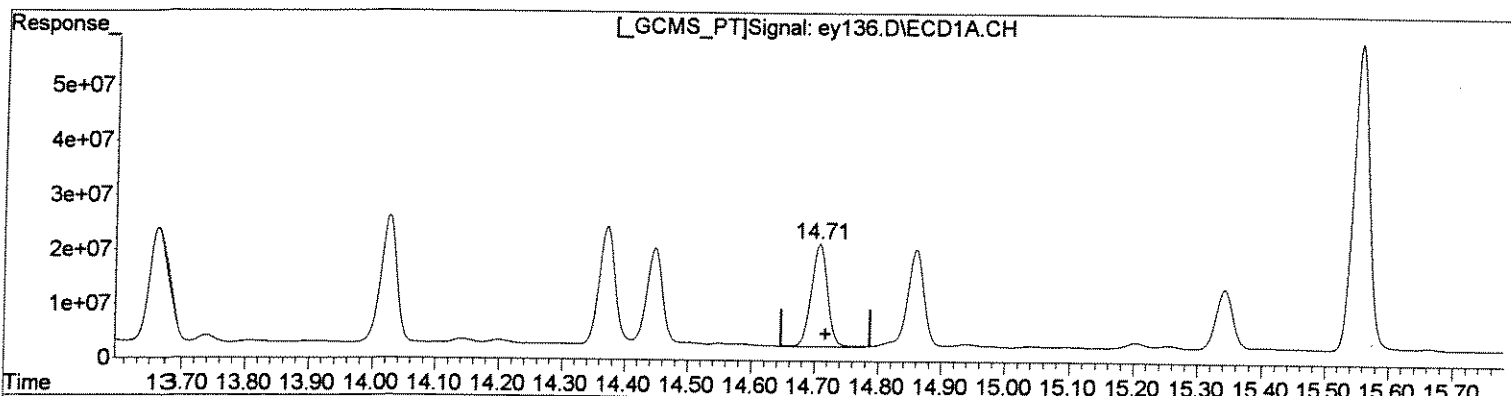
*M.P.*  
*7/17*

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
Data File : ey136.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 16 Jul 2008 5:37 pm  
Operator : M.PEDRO  
Sample : 1117896 1.0  
Misc : 07/01/08 200 ensr 8081 lcsd  
ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 17 06:57:41 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 13:38:39 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



QEdit

(17) beta-Endosul (tc)  
14.71min 18.374ug/l  
response 341543910

(17) beta-Endosul #2 (tc)  
14.65min 21.348ug/l  
response 1370499247

*Handwritten signature*

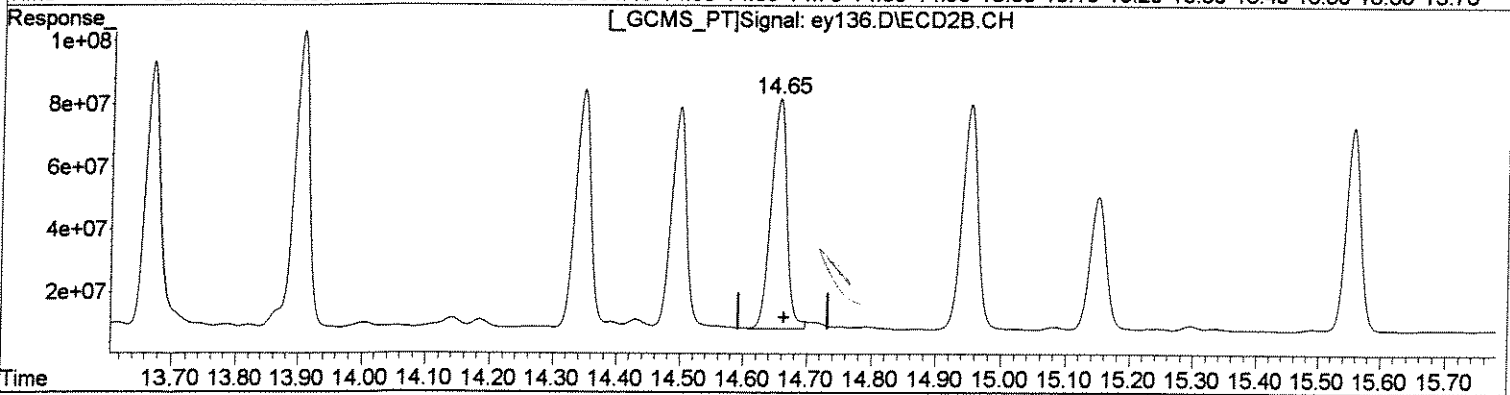
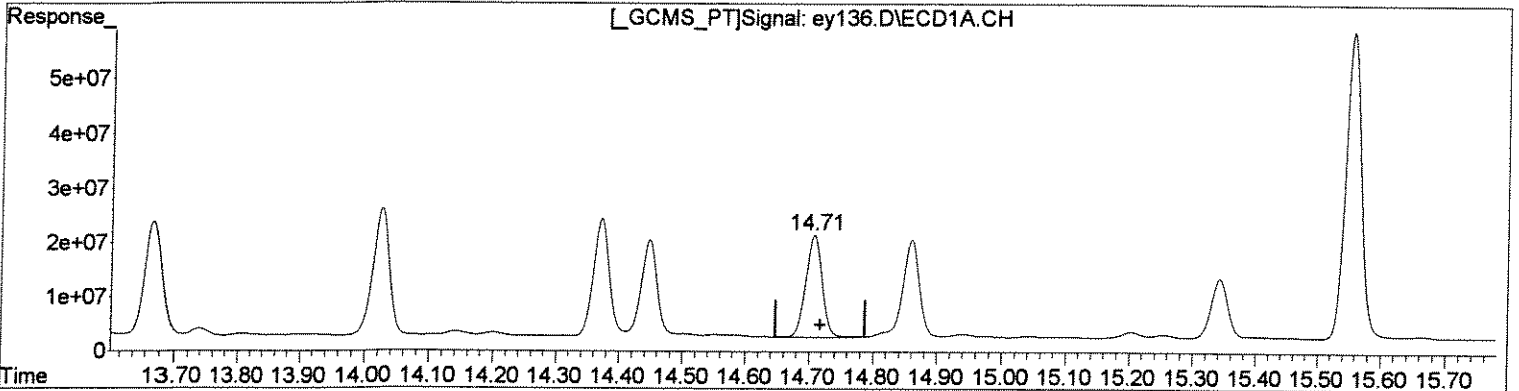


Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
Data File : ey136.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 16 Jul 2008 5:37 pm  
Operator : M.PEDRO  
Sample : 1117896 1.0  
Misc : 07/01/08 200 ensr 8081 lcsd  
ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Jul 17 06:57:41 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 13:38:39 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



QEdit

(17) beta-Endosul (tc)  
14.71min 18.374ug/l  
response 341543910

(17) beta-Endosul #2 (tc)  
14.65min 19.365ug/l m  
response 1243199770

*MW*  
*1/17*  
*MW*  
*1/17*

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
 Data File : EY136.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 16 Jul 2008 5:37 pm  
 Operator : M.PEDRO  
 Sample : 1117896 1.0  
 Misc : 07/01/08 200 ensr 8081 lcsd  
 ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 17 06:57:41 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/1	ug/1
----------	------	------	--------	--------	------	------

System Monitoring Compounds

1) S	SURR1,Tetrac	9.43	9.32	1591.7E6	5917.1E6	78.873	73.123
	Spiked Amount	100.000	Range 30 - 150	Recovery =		78.87%	73.12%
25) S	SURR2,Decachloro	17.60	17.85	1381.5E6	4583.9E6	79.101	83.229
	Spiked Amount	100.000	Range 30 - 150	Recovery =		79.10%	83.23%

Target Compounds

2) TC	HEXACHLOROBENZEN	10.13	10.14	1140.5E6	4595.9E6	38.809	37.816
3) tc	alpha-BHC	10.43	10.39	580.7E6	2223.9E6	18.783	18.739
4) tcm	gamma-BHC (L	10.96	10.97	546.7E6	2289.4E6	19.382	21.788
5) tcm	Heptachlor	11.72	11.63	488.7E6	1754.4E6	17.488	17.481
6) tcm	Aldrin	12.18	12.11	390.1E6	1434.3E6	15.757	15.746
7) tc	beta-BHC	11.12	11.12	285.7E6	959.2E6	24.883	21.254
8) tc	delta-BHC	11.39	11.56	494.7E6	1859.3E6	18.187	18.009
9) tc	Heptachlor E	13.09	12.95	424.7E6	1724.4E6	18.660	21.449
0) tc	alpha-Endosu	13.67	13.51	386.2E6	1399.8E6	18.876	19.722
1) tc	gamma-Chlord	13.27	13.22	412.9E6	1622.3E6	18.835	19.777
2) tc	alpha-Chlord	13.47	13.43	405.8E6	1445.1E6	18.973	18.606
3) tc	4,4'-DDE	13.57	13.67	382.1E6	1515.8E6	17.541	19.775
4) tcm	Dieldrin	14.02	13.90	431.9E6	1688.9E6	18.906	21.585
5) tcm	Endrin	14.37	14.34	390.1E6	1369.2E6	18.826	20.327
6) tc	KEPONE	14.45	0.00	331.2E6	0	45.271	N.D. #
7) tc	beta-Endosul	14.71	14.65	341.5E6	1370.5E6	18.374	21.348
8) tc	4,4'-DDD	14.45	14.49	331.2E6	1248.2E6	18.406	20.055
9) tcm	4,4'-DDT	14.86	14.95	336.4E6	1247.8E6	17.577	19.049
0) tc	Endrin Aldeh	15.34	15.15	204.2E6	772.0E6	13.909	15.739
1) tc	Endosulfan S	15.98	15.56	307.4E6	1094.8E6	18.250	19.158
2) tc	Methoxychlor	15.55	15.92	990.0E6	3344.8E6	106.301	115.128
3) tc	FAMPHUR	0.00	15.67	0	1384144	N.D.	0.033 #
4) tc	Endrin Keton	16.37	16.31	366.6E6	1225.7E6	18.932	19.539
5) L8C	Toxaphene	0.00	14.79	0	39876033	N.D.	20.609 #
7) L8C	Toxaphene{2}	0.00	15.08	0	24792696	N.D.	27.481 #
3) L8C	Toxaphene{3}	0.00	15.15	0	772.0E6	N.D.	412.954 #

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
 Data File : EY136.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 16 Jul 2008 5:37 pm  
 Operator : M.PEDRO  
 Sample : 1117896 1.0  
 Misc : 07/01/08 200 ensr 8081 lcsd  
 ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Jul 17 06:57:41 2008  
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
 Quant Title : 608/8081A PESTICIDES  
 QLast Update : Fri Jul 11 13:38:39 2008  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
 Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
 Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

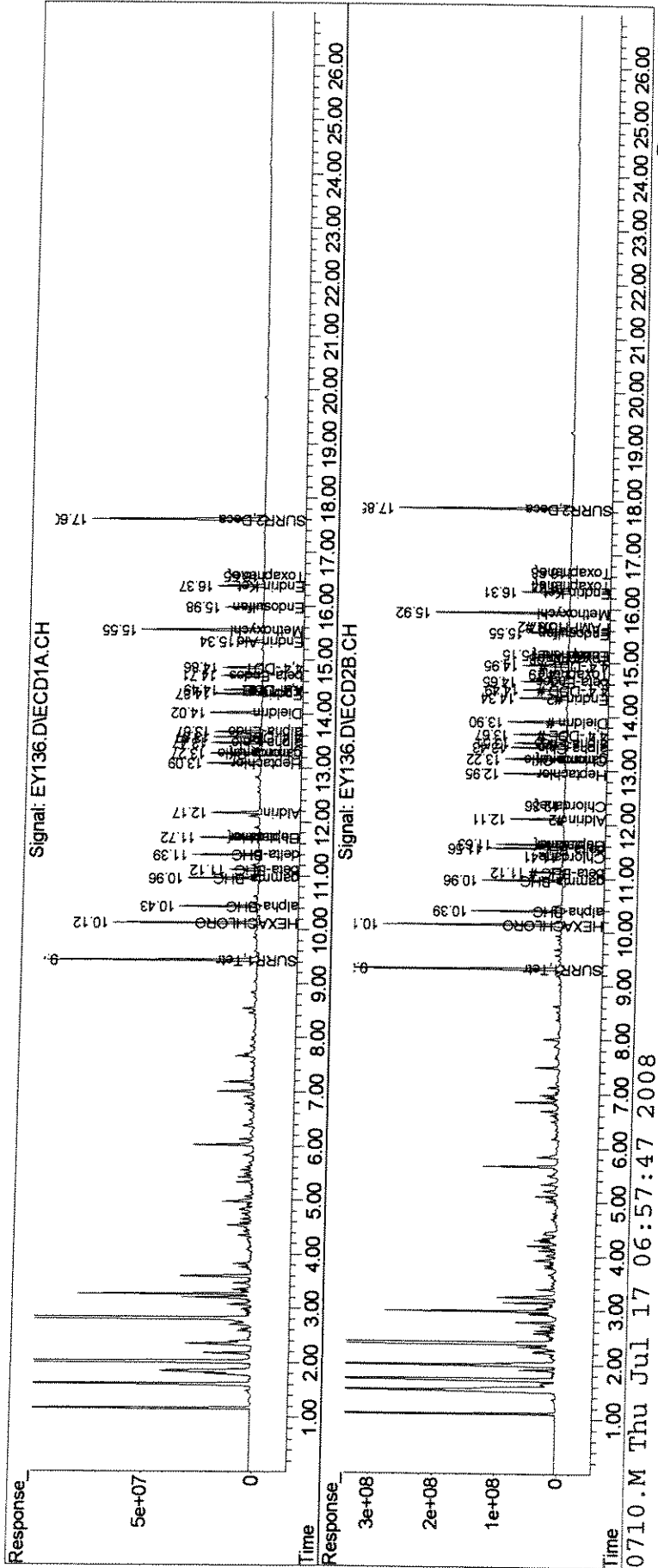
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
29) L8C Toxaphene{4}	0.00	16.44	0	5466523	N.D.	2.838 #
30) L8C Toxaphene{5}	16.55	16.68	11435189	11896877	17.180	5.273 #
Sum Toxaphene			11435189	854.0E6	17.180	469.155
Average Toxaphene					17.180	93.831
31) L9C Chlordane	0.00	11.41	0	197.8E6	N.D.	61.165 #
32) L9C Chlordane{2}	11.72	11.63	488.7E6	1754.4E6	433.799	389.905
33) L9C Chlordane{3}	0.00	12.36	0	112.4E6	N.D.	31.392 #
34) L9C Chlordane{4}	13.27	13.22	412.9E6	1622.3E6	149.259	161.888
Sum Chlordane			901.6E6	3686.8E6	583.058	644.349
Average Chlordane					291.529	161.087

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\071608\  
Data File : EY136.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 16 Jul 2008 5:37 pm  
Operator : M.PEDRO  
Sample : 1117896 1.0  
Misc : 07/01/08 200 ensr 8081 lcsd  
ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
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Quant Time: Jul 17 06:57:41 2008  
Quant Method : J:\ACQUDATA\6890D\METHODS\80810710.M  
Quant Title : 608/8081A PESTICIDES  
QLast Update : Fri Jul 11 13:38:39 2008  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL  
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII  
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



00044

Extraction Date: 7/1/2008  
 Concentration Tech: LED  
 40 Day HT: 8/10/2008

Spiked By: LED  
 Spk Witness: LED

Prep Method:  
 3540C  
 3510C  
 3580A

Color: C = Colorless, Y = Yellow, B = Brown, BL = Black, G = Grey  
 Clarity: CLR = Clear, CDY = Cloudy, OP = Opaque  
 Solis: F = Fine/Sand, M = Medium/Soil, C = Coarse/Rocks

Batch ID: E070108E  
 Prep ID:

Client / Sub. #	Order #	Initial Wt. (g) / Initial Vol. (ml)	Appearance (see key)	Analysis (Test) Requested	pH (Water) rec'd adjusted	Conc. Date	Final Vol (ml)	Date Complete	Comments/ Emulsions
1117894	• BLK	1000	C-c-c	8081A.NEVA	7.2	7/2	5 ml	7/8	12ml surr. spike
1117895	• LCS	1000		8081A.NEVA			5 ml		
1117896	• LCSD	1000		8081A.NEVA			5 ml		
R44660	• 1113426	1030	7-c-c	8081A.NEVA			5 ml		NO Sample AC
	• 1113427	1030		8081A.NEVA			5 ml		
	• 1113428	1030		8081A.NEVA			5 ml		
	• 1113429	1060		8081A.NEVA			5 ml		
	• 1113430	920		8081A.NEVA			5 ml		
R44768	• 1113495	1060	C-c-c						
	• 1113496	1060							
	• 1113497	1060							
	• 1113498	1060							
	• 1113499	1060							

Spikes:	Amt.	Conc.	Lot#
<input checked="" type="checkbox"/> 8081/8082 PCB oil Surrogate	25 ml	1 ppm	8081 Florisil(3620B)
<input type="checkbox"/> 8151 water/soil Surr	ml	ppm	8082 Hg(3660B)
<input type="checkbox"/> 95-3 Surrogate	ml	ppm	8081/8082 Cu/TBA(3660B)
<input type="checkbox"/> PCB Spike	ml	ppm	8082 Ac(3665A)
<input checked="" type="checkbox"/> 608 Spike	25 ml	200 ppm	8081/8082 GPC(3640A)
<input type="checkbox"/> 8081TCLP Spike	ml	ppm	
<input type="checkbox"/> 8151 water/soil Spike	ml	ppm	
<input type="checkbox"/> 95-3 Spike	ml	ppm	
<input type="checkbox"/> Other:	ml	ppm	

(All samples had Surrogate added; LCS/LCSD, MS/MSD had Spike added)

Clean-Ups:  
 8081 Florisil(3620B)  
 8082 Hg(3660B)  
 8081/8082 Cu/TBA(3660B)  
 8082 Ac(3665A)  
 8081/8082 GPC(3640A)

Method Summary:  
 1000 ml sample extracted with 60mls MeCl2 3x at neutral pH for 2 min.

Solvents:  
 50:50 Ace:MeCl2 Lot #  
 MeCl2 Lot #  
 Acetone Lot #

Hexane Lot# 0-344-37-0  
 Ether Lot#  
 Sodium Sulfate Lot# 0-375-86-4  
 Sulfuric Acid  
 Sodium Hydroxide  
 Other:

7/16

6081 3051

68101

Mushka P22

Rem 196F  
 CCV 7a 2096  
 CCV 7b 203C  
 R. 1115732 50.0  
 44649 1117847 BK  
 1117898 LS  
 1117899 LCSD  
 111230 1.0  
 11123249 1.0  
 1117900 BK  
 1117901 LS  
 1117902 LCSD  
 1113245 1.0  
 CCV 8a 0-559-209F  
 CCV 8b 203B

8081 0710.M EY 119 YK  
 120 YK  
 121 YK  
 122 Y  
 123 YMB  
 124 Val unattached  
 125 Y  
 126 Y  
 127 Rpt 120  
 128 YMB  
 129 YB  
 130 YB  
 131 Y  
 132 YK  
 133 YK

PEPA

1117894 BK  
 1117895 LCS  
 1117896 LCSD  
 R-44650 1113426 1.0  
 1113427 1.0  
 1113428 1.0  
 1113429 1.0  
 1113430 1.0  
 R-44765 1113695 1.0  
 1113696 1.0

no 7/16

134  
 135 134 YMB  
 136 135 YB  
 137 136 YB  
 138 137 Y  
 139 138 Y  
 140 139 Y  
 141 140 Y  
 142 141 Y  
 143 142 Y  
 144 143 Rpt 1.0  
 145 144 YCC  
 146 145 YCC  
 147 146 YPE  
 148 147 Y  
 149 148 Y  
 150 149 Y  
 151 150 YK  
 152 151 YK  
 153 152

CCV 9a 0-559-209F  
 CCV 9b 203B  
 Rem 196F  
 R-44768 1113697 1.0  
 1113698 1.0  
 1113699 1.0  
 CCV 10a 0-559-209F  
 CCV 10b 203B

7/17

608/303 68900

Meghan Pea

119 ycc  
 120 ycc  
 121 ycc  
 122 ycc  
 123 ycc  
 124 ycc  
 125 ycc  
 126 ycc  
 127 ycc  
 128 ycc  
 129 ycc  
 130 ycc  
 131 ycc  
 132 ycc  
 133 ycc  
 134 ycc  
 135 ycc  
 136 ycc  
 137 ycc  
 138 ycc  
 139 ycc  
 140 ycc  
 141 ycc  
 142 ycc  
 143 ycc  
 144 ycc  
 145 ycc  
 146 ycc  
 147 ycc  
 148 ycc  
 149 ycc  
 150 ycc  
 151 ycc  
 152 ycc

Pem  
 CCV11a 0-559-796F  
 CCV11b ↓ 204F  
 ↓ 203B  
 R-44660 1117898 LIS  
 1117899 LUSD  
 111324 10.0  
 111369 10.0  
 1118444 BUS  
 1118447 ~~LCS~~ 1118448 LCS  
 1118449 LCS 1118499 LUSD  
 1118499 LUSD 1118447  
 CCV12a 0-559-204F  
 CCV12b ↓ 203B  
 R-44729 1112950  
 ↓ 1112950 XRE  
 R-44805 1114419  
 ↓ 1114420  
 1114421  
 1118500 MS  
 1118501 USD  
 R-44822 1114726  
 R-44803 1114730  
 ↓ 1114758  
 CCV13a 0-559-204F  
 CCV13b ↓ 203B

60610710.00 EY152 yPE  
 End 7156Fc 153 ycc  
 154 ycc  
 155 ycc  
 156 ycc  
 157 ycc  
 158 ycc  
 159 ycc  
 160 ycc  
 161 ycc  
 162 ycc  
 163 ycc  
 164 ycc  
 165 ycc  
 166 ycc  
 167 ycc  
 168 ycc  
 169 ycc  
 170 ycc  
 171 ycc  
 172 ycc  
 173 ycc  
 174 ycc  
 175 ycc  
 176 ycc

# GENERAL CHEMISTRY DATA



**COLUMBIA ANALYTICAL SERVICES**

Reported: 07/30/08

ENSR International

Project Reference: TRONOX PHASE B INVESTIGATION PROJ# 04020-023-4312

Client Sample ID : M-79B

Date Sampled : 06/29/08 14:31

Order #: 1113695

Sample Matrix: WATER

Date Received: 07/01/08

Submission #: R2844768

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
AMMONIA	350.1M	0.0500	2.27	MG/L	07/03/08	09:33	2.0
BICARBONATE ALKALINITY	SM2320B	2.00	128	MG/L	07/07/08	08:25	1.0
BROMIDE	9056	0.100	18.7	MG/L	07/25/08	00:06	10.0
CARBONATE ALKALINITY	SM2320B	2.00	2.00 U	MG/L	07/07/08	08:25	1.0
CHLORIDE	9056	0.200	109	MG/L	07/01/08	15:57	40.0
CONDUCTIVITY	120.1		1.42	umhos/cm	07/24/08	14:20	1.0
HEXAVALENT CHROMIUM	218.6	0.0100	0.100 U	MG/L	07/16/08	16:37	10.0
NITRATE NITROGEN	9056	0.0500	2.94	MG/L	07/01/08	14:18	10.0
NITRITE NITROGEN	9056	0.05	0.500 U	MG/L	07/01/08	14:18	10.0
PH	9040	1.00	7.89	S.U.	07/01/08	11:20	1.0
SULFATE	9056	0.200	377	MG/L	07/01/08	15:57	40.0
SURFACTANTS	SM5540C	0.0200	0.0780	MG/L	07/01/08	08:45	1.0
TOTAL ALKALINITY	SM2320B	2.00	128	MG/L	07/07/08	08:25	1.0
TOTAL CYANIDE	9012.TOT	0.0100	0.0100 U	MG/L	07/03/08	11:16	1.0
TOTAL DISSOLVED SOLIDS	SM2540C	10.0	1010	MG/L	07/03/08	10:30	1.0
TOTAL ORGANIC CARBON	9060	1.00	1.40	MG/L	07/19/08	07:21	1.0
TOTAL ORGANIC CARBON	9060	1.00	1.55	MG/L	07/19/08	07:31	1.0
TOTAL ORGANIC CARBON	9060	1.00	1.59	MG/L	07/19/08	07:40	1.0
TOTAL ORGANIC CARBON	9060	1.00	1.63	MG/L	07/19/08	07:49	1.0
TOTAL ORGANIC CARBON AVG	TOCAVG	1.00	1.54	MG/L	07/19/08	07:21	1.0
TOTAL PHOSPHORUS	365.1	0.0500	0.0500 U	MG/L	07/09/08	08:43	1.0
TOTAL SUSPENDED SOLIDS	SM2540D	1.00	1.00 U	MG/L	07/02/08	13:30	1.0

**COLUMBIA ANALYTICAL SERVICES**

Reported: 07/30/08

ENSR International

Project Reference: TRONOX PHASE B INVESTIGATION PROJ# 04020-023-4312

Client Sample ID : M-126B

Date Sampled : 06/29/08 14:44  
Date Received: 07/01/08

Order #: 1113696  
Submission #: R2844768

Sample Matrix: WATER

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
AMMONIA	350.1M	0.0500	0.0506	MG/L	07/03/08	09:33	1.0
BICARBONATE ALKALINITY	SM2320B	2.00	80.0	MG/L	07/07/08	08:25	1.0
BROMIDE	9056	0.100	1.00 U	MG/L	07/03/08	14:04	10.0
CARBONATE ALKALINITY	SM2320B	2.00	2.00 U	MG/L	07/07/08	08:25	1.0
CHLORIDE	9056	0.200	5930	MG/L	07/23/08	03:45	1000.0
CONDUCTIVITY	120.1		16400	umhos/cm	07/24/08	14:20	1.0
HEXAVALENT CHROMIUM	218.6	0.0100	0.100 U	MG/L	07/16/08	17:18	10.0
NITRATE NITROGEN	9056	0.0500	1.32	MG/L	07/01/08	14:32	10.0
NITRITE NITROGEN	9056	0.05	5.00 U	MG/L	07/01/08	18:18	100.0
PH	9040	1.00	7.25	S.U.	07/01/08	11:20	1.0
SULFATE	9056	0.200	1410	MG/L	07/02/08	19:50	400.0
SURFACTANTS	SM5540C	0.0200	0.714	MG/L	07/01/08	08:45	5.0
TOTAL ALKALINITY	SM2320B	2.00	80.0	MG/L	07/07/08	08:25	1.0
TOTAL CYANIDE	9012.TOT	0.0100	0.0100 U	MG/L	07/03/08	11:16	1.0
TOTAL DISSOLVED SOLIDS	SM2540C	10.0	12100	MG/L	07/03/08	10:30	1.0
TOTAL ORGANIC CARBON	9060	1.00	1.72	MG/L	07/19/08	07:59	1.0
TOTAL ORGANIC CARBON	9060	1.00	2.01	MG/L	07/19/08	08:09	1.0
TOTAL ORGANIC CARBON	9060	1.00	2.05	MG/L	07/19/08	08:18	1.0
TOTAL ORGANIC CARBON	9060	1.00	2.10	MG/L	07/19/08	08:27	1.0
TOTAL ORGANIC CARBON AVG	TOCAVG	1.00	1.97	MG/L	07/19/08	07:59	1.0
TOTAL PHOSPHORUS	365.1	0.0500	0.0500 U	MG/L	07/09/08	08:43	1.0
TOTAL SUSPENDED SOLIDS	SM2540D	1.00	4.00	MG/L	07/02/08	13:30	1.0

**COLUMBIA ANALYTICAL SERVICES**

Reported: 07/30/08

ENSR International  
 Project Reference: TRONOX PHASE B INVESTIGATION PROJ# 04020-023-4312  
 Client Sample ID : M-84B

Date Sampled : 06/29/08 15:00      Order #: 1113697      Sample Matrix: WATER  
 Date Received: 07/01/08      Submission #: R2844768

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
AMMONIA	350.1M	0.0500	0.556	MG/L	07/03/08	09:33	1.0
BICARBONATE ALKALINITY	SM2320B	2.00	120	MG/L	07/07/08	08:25	1.0
BROMIDE	9056	0.100	21.2	MG/L	07/25/08	00:21	10.0
CARBONATE ALKALINITY	SM2320B	2.00	2.00 U	MG/L	07/07/08	08:25	1.0
CHLORIDE	9056	0.200	126	MG/L	07/01/08	16:25	40.0
CONDUCTIVITY	120.1		1740	umhos/cm	07/24/08	14:20	1.0
HEXAVALENT CHROMIUM	218.6	0.0100	0.100 U	MG/L	07/16/08	17:29	10.0
NITRATE NITROGEN	9056	0.0500	3.67	MG/L	07/01/08	14:47	10.0
NITRITE NITROGEN	9056	0.05	0.500 U	MG/L	07/01/08	14:47	10.0
PH	9040	1.00	7.58	S.U.	07/01/08	11:20	1.0
SULFATE	9056	0.200	548	MG/L	07/01/08	18:32	100.0
SURFACTANTS	SM5540C	0.0200	0.163	MG/L	07/01/08	08:45	1.0
TOTAL ALKALINITY	SM2320B	2.00	120	MG/L	07/07/08	08:25	1.0
TOTAL CYANIDE	9012.TOT	0.0100	0.0100 U	MG/L	07/03/08	11:16	1.0
TOTAL DISSOLVED SOLIDS	SM2540C	10.0	1380	MG/L	07/03/08	10:30	1.0
TOTAL ORGANIC CARBON	9060	1.00	1.48	MG/L	07/19/08	08:37	1.0
TOTAL ORGANIC CARBON	9060	1.00	1.66	MG/L	07/19/08	08:46	1.0
TOTAL ORGANIC CARBON	9060	1.00	1.74	MG/L	07/19/08	08:56	1.0
TOTAL ORGANIC CARBON	9060	1.00	1.73	MG/L	07/19/08	09:05	1.0
TOTAL ORGANIC CARBON AVG	TOCAVG	1.00	1.65	MG/L	07/19/08	08:37	1.0
TOTAL PHOSPHORUS	365.1	0.0500	0.0500 U	MG/L	07/09/08	08:43	1.0
TOTAL SUSPENDED SOLIDS	SM2540D	1.00	1.00 U	MG/L	07/02/08	13:30	1.0

**COLUMBIA ANALYTICAL SERVICES**

Reported: 07/30/08

ENSR International

Project Reference: TRONOX PHASE B INVESTIGATION PROJ# 04020-023-4312

Client Sample ID : M-14ADBF

Date Sampled : 06/30/08  
Date Received: 07/01/08

Order #: 1113698  
Submission #: R2844768

Sample Matrix: WATER

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
AMMONIA	350.1M	0.0500	0.0500 U	MG/L	07/03/08	09:33	1.0
BICARBONATE ALKALINITY	SM2320B	2.00	107	MG/L	07/07/08	08:25	1.0
BROMIDE	9056	0.100	1.66	MG/L	07/03/08	14:33	10.0
CARBONATE ALKALINITY	SM2320B	2.00	2.00 U	MG/L	07/07/08	08:25	1.0
CHLORIDE	9056	0.200	661	MG/L	07/01/08	18:46	100.0
CONDUCTIVITY	120.1		3980	umhos/cm	07/24/08	14:20	1.0
HEXAVALENT CHROMIUM	218.6	0.0100	0.100 U	MG/L	07/16/08	17:39	10.0
NITRATE NITROGEN	9056	0.0500	7.88	MG/L	07/01/08	15:01	10.0
NITRITE NITROGEN	9056	0.05	0.500 U	MG/L	07/01/08	15:01	10.0
PH	9040	1.00	7.63	S.U.	07/01/08	11:20	1.0
SULFATE	9056	0.200	1180	MG/L	07/02/08	20:32	400.0
SURFACTANTS	SM5540C	0.0200	0.208	MG/L	07/01/08	08:45	1.0
TOTAL ALKALINITY	SM2320B	2.00	107	MG/L	07/07/08	08:25	1.0
TOTAL CYANIDE	9012.TOT	0.0100	0.0100 U	MG/L	07/03/08	11:16	1.0
TOTAL DISSOLVED SOLIDS	SM2540C	10.0	3210	MG/L	07/03/08	10:30	1.0
TOTAL ORGANIC CARBON	9060	1.00	1.01	MG/L	07/19/08	10:31	1.0
TOTAL ORGANIC CARBON	9060	1.00	1.10	MG/L	07/19/08	10:40	1.0
TOTAL ORGANIC CARBON	9060	1.00	1.19	MG/L	07/19/08	10:49	1.0
TOTAL ORGANIC CARBON	9060	1.00	1.16	MG/L	07/19/08	10:59	1.0
TOTAL ORGANIC CARBON AVG	TOCAVG	1.00	1.12	MG/L	07/19/08	10:31	1.0
TOTAL PHOSPHORUS	365.1	0.0500	0.0500 U	MG/L	07/09/08	08:43	1.0
TOTAL SUSPENDED SOLIDS	SM2540D	1.00	1.00 U	MG/L	07/02/08	13:30	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 07/30/08

ENSR International

Project Reference: TRONOX PHASE B INVESTIGATION PROJ# 04020-023-4312

Client Sample ID : M-14ABF

Date Sampled : 06/30/08 10:38

Order #: 1113699

Sample Matrix: WATER

Date Received: 07/01/08

Submission #: R2844768

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
AMMONIA	350.1M	0.0500	0.0500 U	MG/L	07/03/08	09:33	1.0
BICARBONATE ALKALINITY	SM2320B	2.00	104	MG/L	07/07/08	08:25	1.0
BROMIDE	9056	0.100	1.57	MG/L	07/03/08	14:47	10.0
CARBONATE ALKALINITY	SM2320B	2.00	2.00 U	MG/L	07/07/08	08:25	1.0
CHLORIDE	9056	0.200	652	MG/L	07/01/08	19:00	100.0
CONDUCTIVITY	120.1		3920	umhos/cm	07/24/08	14:20	1.0
HEXAVALENT CHROMIUM	218.6	0.0100	0.100 U	MG/L	07/16/08	17:50	10.0
NITRATE NITROGEN	9056	0.0500	7.72	MG/L	07/01/08	15:15	10.0
NITRITE NITROGEN	9056	0.05	0.500 U	MG/L	07/01/08	15:15	10.0
PH	9040	1.00	7.58	S.U.	07/01/08	11:20	1.0
SULFATE	9056	0.200	1150	MG/L	07/02/08	20:46	400.0
SURFACTANTS	SM5540C	0.0200	0.180	MG/L	07/01/08	08:45	1.0
TOTAL ALKALINITY	SM2320B	2.00	104	MG/L	07/07/08	08:25	1.0
TOTAL CYANIDE	9012.TOT	0.0100	0.0100 U	MG/L	07/03/08	11:16	1.0
TOTAL DISSOLVED SOLIDS	SM2540C	10.0	3110	MG/L	07/03/08	10:30	1.0
TOTAL ORGANIC CARBON	9060	1.00	1.00 U	MG/L	07/19/08	11:09	1.0
TOTAL ORGANIC CARBON	9060	1.00	1.03	MG/L	07/19/08	11:18	1.0
TOTAL ORGANIC CARBON	9060	1.00	1.09	MG/L	07/19/08	11:27	1.0
TOTAL ORGANIC CARBON	9060	1.00	1.08	MG/L	07/19/08	11:37	1.0
TOTAL ORGANIC CARBON AVG	TOCAVG	1.00	1.05	MG/L	07/19/08	11:09	1.0
TOTAL PHOSPHORUS	365.1	0.0500	0.0500 U	MG/L	07/09/08	08:43	1.0
TOTAL SUSPENDED SOLIDS	SM2540D	1.00	1.00 U	MG/L	07/02/08	13:30	1.0

COLUMBIA ANALYTICAL SERVICES

INORGANIC BLANK SPIKE SUMMARY

CAS Submission #: R2844768  
Client: ENSR International  
TRONOX PHASE B INVESTIGATION PROJ# 04020-023-4312

BLANK SPIKES

BLANK	FOUND	ADDED	% REC	LIMITS	RUN	UNITS
SURFACTANTS						
0.0200 U	0.392	0.400	98	58 - 139	163206	MG/L
CHLORIDE						
0.200 U	1.96	2.00	98	90 - 110	163270	MG/L
NITRATE NITROGEN						
0.0500 U	0.961	1.00	96	90 - 110	163272	MG/L
NITRITE NITROGEN						
0.0500 U	1.01	1.00	101	90 - 110	163273	MG/L
TOTAL CYANIDE						
0.0100 U	0.402	0.400	100	85 - 115	163296	MG/L
TOTAL SUSPENDED SOLIDS						
1.00 U	216	212	102	80 - 120	163319	MG/L
SULFATE						
0.200 U	2.02	2.00	101	90 - 110	163358	MG/L
AMMONIA						
0.0500 U	0.476	0.500	95	90 - 110	163366	MG/L
TOTAL DISSOLVED SOLIDS						
10.0 U	909	914	100	80 - 120	163395	MG/L
TOTAL PHOSPHORUS						
0.0500 U	0.782	0.800	98	90 - 110	163406	MG/L

COLUMBIA ANALYTICAL SERVICES

INORGANIC BLANK SPIKE SUMMARY

CAS Submission #: R2844768  
Client: ENSR International  
TRONOX PHASE B INVESTIGATION PROJ# 04020-023-4312

**BLANK SPIKES**

BLANK	FOUND	ADDED	% REC	LIMITS	RUN	UNITS	
BROMIDE	0.100 U	0.985	1.00	99	90 - 110	163413	MG/L
SULFATE	0.200 U	1.94	2.00	97	90 - 110	163426	MG/L
TOTAL ALKALINITY	2.00 U	19.2	20.0	96	93 - 111	163460	MG/L
HEXAVALENT CHROMIUM	0.0100 U	0.203	0.200	102	80 - 120	164109	MG/L
TOTAL ORGANIC CARBON	1.00 U	9.29	10.0	93	85 - 115	164235	MG/L
CHLORIDE	0.200 U	1.81	2.00	91	90 - 110	164404	MG/L
BROMIDE	0.100 U	0.955	1.00	96	90 - 110	164560	MG/L

Run #: 163366

Analyte: NH3 350.1M AMMONIA

Printed: 07/03/08 15:37

TYPE	SUBMISSION	ORDER #	MATRIX	REPORTED	DILUTION	PQL	% RECOVERY	% RSD	DATE	QC	PKG #
				RESULT					ANALYZED		
CHK1		1114922	WATER	1.64	1.0	0.0500	91.4		07/03/2008		
BLK1		1114923	WATER	0.0500	U	1.0	0.0500		07/03/2008		
SPKB		1114924	WATER	0.472		1.0	0.0500	94.4	07/03/2008		
SPKB		1114926	WATER	0.470		1.0	0.0500	94.1	07/03/2008		
ESMP	R2844650	1112065	WATER	0.0500	U	1.0	0.0500		07/03/2008	RUN	ASPB
ESMP	R2844650	1112066	WATER	0.104		1.0	0.0500		07/03/2008	RUN	ASPB
ESMP	R2844650	1112067	WATER	0.0500	U	1.0	0.0500		07/03/2008	RUN	ASPB
ESMP	R2844650	1112809	WATER	0.0500	U	1.0	0.0500		07/03/2008		ASPB
ESMP	R2844650	1112810	WATER	0.0960		1.0	0.0500		07/03/2008		ASPB
ESMP	R2844650	1112811	WATER	0.0500	U	1.0	0.0500		07/03/2008		ASPB
ESMP	R2844650	1112812	WATER	0.0500	U	1.0	0.0500		07/03/2008		ASPB
ESMP	R2844650	1112871	WATER	1.90		1.0	0.0500		07/03/2008		ASPB
ESMP	R2844650	1112872	WATER	0.372		1.0	0.0500		07/03/2008		ASPB
ESMP	R2844727	1112873	WATER	1690		1000.0	0.0500		07/03/2008		1
ESMP	R2844650	1112874	WATER	0.0500	U	1.0	0.0500		07/03/2008	QC	ASPB
LDUP		1114927	WATER	0.0500	U	1.0	0.0500		07/03/2008		
SPK1		1114928	WATER	0.482		1.0	0.0500	96.3	1		
ESMP	R2844734	1113042	WATER	0.0668		1.0	0.0500		07/03/2008		2
ESMP	R2844734	1113043	WATER	0.360		1.0	0.0500		07/03/2008		2
ESMP	R2844734	1113044	WATER	0.0500	U	1.0	0.0500		07/03/2008		2
ESMP	R2844734	1113045	WATER	0.0500	U	1.0	0.0500		07/03/2008		2
SPKB		1114930	WATER	0.473		1.0	0.0500	94.7	07/03/2008		
ESMP	R2844734	1113046	WATER	0.194		1.0	0.0500		07/03/2008	QC	2
LDUP		1114931	WATER	0.188		1.0	0.0500	2.93	07/03/2008		
SPK1		1114932	WATER	0.606		1.0	0.0500	82.3	07/03/2008		
ESMP	R2844734	1113047	WATER	0.0857		1.0	0.0500		07/03/2008		2
ESMP	R2844734	1113048	WATER	0.356		1.0	0.0500		07/03/2008		2
BLK5		1114935	SOIL/SEDIME	5.00	U	1.0	5.00		07/03/2008		
ESMP	R2844666	1113245	SOIL/SEDIME	5.00	U	1.0	5.00		07/03/2008		ASPB
ESMP	R2844666	1113249	SOIL/SEDIME	5.00	U	1.0	5.00		07/03/2008		ASPB
ESMP	R2844666	1113250	SOIL/SEDIME	5.00	U	1.0	5.00		07/03/2008	QC	ASPB
LDUP		1114933	SOIL/SEDIME	5.00	U	1.0	5.00		07/03/2008		
SPK1		1114934	SOIL/SEDIME	49.5 <i>4.95</i>		1.0	5.00	99.0	07/03/2008		
ESMP	R2844666	1113254	SOIL/SEDIME	5.00	U	1.0	5.00		07/03/2008		ASPB
ESMP	R2844666	1113255	SOIL/SEDIME	5.00	U	1.0	5.00		07/03/2008		ASPB
ESMP	R2844666	1113256	SOIL/SEDIME	5.00	U	1.0	5.00		07/03/2008		ASPB
ESMP	R2844666	1113257	SOIL/SEDIME	5.00	U	1.0	5.00		07/03/2008		ASPB
ESMP	R2844666	1113258	SOIL/SEDIME	5.00	U	1.0	5.00		07/03/2008		ASPB
ESMP	R2844666	1113259	SOIL/SEDIME	5.00	U	1.0	5.00		07/03/2008		ASPB
ESMP	R2844666	1113262	SOIL/SEDIME	5.00	U	1.0	5.00		07/03/2008		ASPB
ESMP	R2844650	1113426	WATER	0.0500	U	1.0	0.0500		07/03/2008		ASPB
ESMP	R2844650	1113427	WATER	0.0500	U	1.0	0.0500		07/03/2008		ASPB
ESMP	R2844650	1113428	WATER	2.45		2.0	0.0500		07/03/2008		ASPB
SPKB		1114936	WATER	0.474		1.0	0.0500	94.8	07/03/2008		
ESMP	R2844650	1113429	WATER	0.0500	U	1.0	0.0500		07/03/2008		ASPB
ESMP	R2844650	1113430	WATER	1.24		1.0	0.0500		07/03/2008		ASPB
ESMP	R2843635	1096177	WATER	19.8		10.0	0.0500		07/03/2008		1
ESMP	R2843635	1096178	WATER	0.139		1.0	0.0500		07/03/2008		1
ESMP	R2843635	1096180	WATER	1.37		1.0	0.0500		07/03/2008		1
ESMP	R2843635	1096181	WATER	0.205		1.0	0.0500		07/03/2008		1
ESMP	R2843635	1096182	WATER	0.0500	U	1.0	0.0500		07/03/2008		1

ANALYTE:G:\STARLIMS\ASBAR.RP1





TYPE	SUBMISSION	ORDER #	MATRIX	RESULT		DILUTION	PQL	% RECOVERY	% RSD	ANALYZED	QC	PKG #
ESMP	R2844768	1113695	WATER	2.27		2.0	0.0500			07/03/2008		ASPB
ESMP	R2844768	1113696	WATER	0.0506		1.0	0.0500			07/03/2008		ASPB
ESMP	R2844768	1113697	WATER	0.556		1.0	0.0500			07/03/2008		ASPB
ESMP	R2844768	1113698	WATER	0.0500	U	1.0	0.0500			07/03/2008		ASPB
ESMP	R2844768	1113699	WATER	0.0500	U	1.0	0.0500			07/03/2008		ASPB
ESMP	R2844783	1114080	WATER	3.69		2.0	0.0500			07/03/2008	RUN	2
ESMP	R2844508	1109493	WATER	0.0645		1.0	0.0500			07/03/2008		1
LDUP		1114937	WATER	0.0665		1.0	0.0500		3.05	07/03/2008		
SPK1		1114938	WATER	0.505		1.0	0.0500	88.1		07/03/2008		
ESMP	R2844508	1109495	WATER	0.0782		1.0	0.0500			07/03/2008		1
ESMP	R2844508	1109498	WATER	0.0500	U	1.0	0.0500			07/03/2008		1
SPKB		1114939	WATER	0.475		1.0	0.0500	95.0		07/03/2008		
BLK5		1114940	SOIL/SEDIME	5.00	U	1.0	5.00			07/03/2008		ASPB
ESMP	R2844797	1114366	SOIL/SEDIME	<del>12.7</del> 1.27	U	1.0	5.00			07/03/2008		ASPB
ESMP	R2844797	1114376	SOIL/SEDIME	5.00	U	1.0	5.00			07/03/2008		ASPB
ESMP	R2844797	1114379	SOIL/SEDIME	5.00	U	1.0	5.00			07/03/2008	QC	ASPB
ESMP	R2844797	1114380	SOIL/SEDIME	5.00	U	1.0	5.00			07/03/2008		ASPB
LDUP		1114941	SOIL/SEDIME	5.00	U	1.0	5.00			07/03/2008		
SPK1		1114942	SOIL/SEDIME	<del>50.0</del> 5.00	U	1.0	5.00	99.9		07/03/2008		ASPB
ESMP	R2844797	1114382	SOIL/SEDIME	5.00	U	1.0	5.00			07/03/2008		ASPB
ESMP	R2844803	1114419	WATER	1.88		1.0	0.0500			07/03/2008		ASPB
ESMP	R2844803	1114420	WATER	1.95		2.0	0.0500			07/03/2008		ASPB
ESMP	R2844803	1114421	WATER	8.77		10.0	0.0500			07/03/2008	QC	ASPB
LDUP		1114943	WATER	8.77		10.0	0.0500		0.02	07/03/2008		
SPK1		1114944	WATER	13.4		10.0	0.0500	92.5		07/03/2008		
SPKB		1114946	WATER	0.476		1.0	0.0500	95.2		07/03/2008		

Records printed: 77

**Creator:** NMEAD  
**Creation Date:** Jul 2, 2008 15:56:25  
**Last Modified:** Jul 3, 2008 7:48:02  
**Description:** QC 8000 350.1 Ammonia - RUN LOG - 0807030A

Cup #	Sample ID	Manual Dilution	Sample Type
1	Standard A - 2.000	1.0000	CalStd
2	Standard B - 1.000	1.0000	CalStd
3	Standard C - 0.500	1.0000	CalStd
4	Standard D - 0.200	1.0000	CalStd
5	Standard E - 0.100	1.0000	CalStd
6	Standard F - 0.050	1.0000	CalStd
7	Standard G - 0.020	1.0000	CalStd
8	Standard H - 0.010	1.0000	CalStd
9	Standard I - 0.000	1.0000	CalStd
1	ICV TV = 1.80	1.0000	Unknown
2	ICB	1.0000	Unknown
3	LCS TV = 0.500	1.0000	Unknown
4	CRDL 0.050	1.0000	Unknown
5	CRDL 0.010	1.0000	Unknown
6	CCV	1.0000	Unknown
7	CCB	1.0000	Unknown
8	1111026-44609	1.0000	Unknown
9	1111031	1.0000	Unknown
10	1111034	1.0000	Unknown
11	1111035	1.0000	Unknown
12	1111036	1.0000	Unknown
13	1111037	1.0000	Unknown
14	1111038	1.0000	Unknown
15	1111039	1.0000	Unknown
16	1111040	1.0000	Unknown
17	1111041	1.0000	Unknown
18	CCV	1.0000	Unknown
19	CCB	1.0000	Unknown
20	LCS	1.0000	Unknown
21	1110578-44252	1.0000	Unknown
22	1110579	1.0000	Unknown
23	579 DUP	1.0000	Unknown
24	579 SPK TV = 0.500	1.0000	Unknown
25	1110580	1.0000	Unknown
26	1111043-44609	1.0000	Unknown
27	1111044	1.0000	Unknown
28	1112968-44621	1.0000	Unknown
29	1112969	1.0000	Unknown
30	1112985-44252	1.0000	Unknown
31	CCV	1.0000	Unknown

Cup #	Sample ID	Manual Dilution	Sample Type	
32	CCB	1.0000	Unknown	
33	1113014-44733	1.0000	Unknown	
34	1113015	1.0000	Unknown	
35	1113016	1.0000	Unknown	
36	1113017	1.0000	Unknown	
37	1113018	1.0000	Unknown	
38	018 DUP	1.0000	Unknown	
39	018 SPK TV = 0.500	1.0000	Unknown	
40	1113019	1.0000	Unknown	
41	1113020	1.0000	Unknown	
42	1113021	1.0000	Unknown	
43	CCV	1.0000	Unknown	
44	CCB	1.0000	Unknown	
45	LCS	1.0000	Unknown	
46	1113023	1.0000	Unknown	
47	1113024	1.0000	Unknown	
48	1113025	1.0000	Unknown	
49	1113026	1.0000	Unknown	
50	1113027	1.0000	Unknown	
51	1113136-44746	1.0000	Unknown	
52	136 DUP	1.0000	Unknown	
53	136 SPK TV = 0.500	1.0000	Unknown	} air between peaks not integrated
54	1113137	1.0000	Unknown	
55	1113138	1.0000	Unknown	
56	CCV	1.0000	Unknown	
57	CCB	1.0000	Unknown	
58	1113139	1.0000	Unknown	- air spikes - rpt @ # 14 - tray 2
59	1113142	1.0000	Unknown	
60	1113143	1.0000	Unknown	
61	1113144	1.0000	Unknown	
62	1113145	1.0000	Unknown	
63	1113146	1.0000	Unknown	
64	1113147	1.0000	Unknown	- air spikes - rpt @ # 15 - tray 2
65	147 DUP	1.0000	Unknown	
66	147 SPK TV = 0.500	1.0000	Unknown	
67	1113148	1.0000	Unknown	
68	CCV	1.0000	Unknown	
69	CCB	1.0000	Unknown	
70	LCS	1.0000	Unknown	
71	1113149	1.0000	Unknown	
72	1113150	1.0000	Unknown	- air spike - rpt @ # 16 - tray 2
73	1113151	1.0000	Unknown	
74	1113285	1.0000	Unknown	
75	1113733-44770	1.0000	Unknown	
76	1113734	1.0000	Unknown	

Cup #	Sample ID	Manual Dilution	Sample Type	
77	1113735	1.0000	Unknown	
78	1113736	1.0000	Unknown	- air spike - rpt @ #17 - tray 2
79	736 DUP	1.0000	Unknown	
80	736 SPK TV = 0.500	1.0000	Unknown	
81	CCV	1.0000	Unknown	
82	CCB	1.0000	Unknown	
83	1113756-44771	1.0000	Unknown	
84	1113862-44778	1.0000	Unknown	- air spike not integrated
85	1113863	1.0000	Unknown	
86	1113864	1.0000	Unknown	
87	1113865	1.0000	Unknown	
88	1113866	1.0000	Unknown	
89	1113867	1.0000	Unknown	
90	1113868	1.0000	Unknown	
91	1113869	1.0000	Unknown	
92	1113870	1.0000	Unknown	
93	CCV	1.0000	Unknown	
94	CCB	1.0000	Unknown	
95	LCS	1.0000	Unknown	
96	870 DUP	1.0000	Unknown	
97	870 SPK TV = 0.500	1.0000	Unknown	
98	1113871	1.0000	Unknown	
99	1113872	1.0000	Unknown	
100	1114342-44770	1.0000	Unknown	
101	1114343	1.0000	Unknown	
102	1114344	1.0000	Unknown	
103	1114345	1.0000	Unknown	
104	1114346	1.0000	Unknown	
105	1114347	1.0000	Unknown	
106	CCV	1.0000	Unknown	
107	CCB	1.0000	Unknown	
108	1114348	1.0000	Unknown	
109	1114349	1.0000	Unknown	
110	1114367-44798	1.0000	Unknown	
111	1114368	1.0000	Unknown	
112	368 DUP	1.0000	Unknown	- Bad integration - rpt @ #18 - tr
113	368 SPK TV = 0.500	1.0000	Unknown	
114	1114369	1.0000	Unknown	
115	1114370	1.0000	Unknown	
116	1114371	1.0000	Unknown	
117	1114372	1.0000	Unknown	
118	CCV	1.0000	Unknown	
119	CCB	1.0000	Unknown	
120	LCS	1.0000	Unknown	
121	1114373	1.0000	Unknown	

Cup #	Sample ID	Manual Dilution	Sample Type	
122	373 DUP	1.0000	Unknown	
123	373 SPK TV = 0.500	1.0000	Unknown	
124	1112065-44650	1.0000	Unknown	
125	1112066	1.0000	Unknown	
126	1112067	1.0000	Unknown	
127	1112809	1.0000	Unknown	
128	1112810	1.0000	Unknown	
129	1112811	1.0000	Unknown	
130	1112812	1.0000	Unknown	
131	CCV	1.0000	Unknown	
132	CCB	1.0000	Unknown	
133	1112871	1.0000	Unknown	
134	1112872	1.0000	Unknown	
135	1112873-44727	1,000.0000	Unknown	
136	1112874-44650	1.0000	Unknown	
137	874 DUP	1.0000	Unknown	
138	874 SPK TV = 0.500	1.0000	Unknown	
139	1113042-44734	1.0000	Unknown	
140	1113043	1.0000	Unknown	
141	1113044	1.0000	Unknown	
142	1113045	1.0000	Unknown	
143	CCV	1.0000	Unknown	
144	CCB	1.0000	Unknown	
145	LCS	1.0000	Unknown	
146	1113046	1.0000	Unknown	
147	046 DUP	1.0000	Unknown	
148	046 SPK TV = 0.500	1.0000	Unknown	
149	1113047	1.0000	Unknown	
150	1113048	1.0000	Unknown	
151	1113245-44666	1.0000	Unknown	Soil: 25.0g → 250mL
152	1113249	1.0000	Unknown	↓ ↓ ↓
153	1113250	1.0000	Unknown	- air spike - rpt @ #19 - tray 2
154	250 DUP	1.0000	Unknown	Soil: 25.0g → 250mL
155	250 SPK TV = 50.0	1.0000	Unknown	↓ ↓ ↓
156	CCV	1.0000	Unknown	
157	CCB	1.0000	Unknown	
158	1113254	1.0000	Unknown	Soil: 25.0g → 250mL
159	1113255	1.0000	Unknown	
160	1113256	1.0000	Unknown	↓ ↓ ↓
161	1113257	1.0000	Unknown	
162	1113258	1.0000	Unknown	
163	1113259	1.0000	Unknown	
164	1113262	1.0000	Unknown	↓ ↓ ↓
165	1113426-44650	1.0000	Unknown	
166	1113427	1.0000	Unknown	

Cup #	Sample ID	Manual Dilution	Sample Type	
167	1113428	1.0000	Unknown	- rpt @ # 20 - 1/2 - tray 2
168	CCV	1.0000	Unknown	
169	CCB	1.0000	Unknown	
170	LCS	1.0000	Unknown	
171	1113429	1.0000	Unknown	
172	1113430	1.0000	Unknown	
173	1096177-43635	1.0000	Unknown	- rpt @ # 21 - tray 2 - 1/10
174	1096178	1.0000	Unknown	
175	1096180	1.0000	Unknown	
176	1096181	1.0000	Unknown	
177	1096182	1.0000	Unknown	
178	1113695-44768	1.0000	Unknown	- rpt @ # 22 - tray 2 - 1/2
179	1113696	1.0000	Unknown	
180	1113697	1.0000	Unknown	
181	CCV	1.0000	Unknown	
182	CCB	1.0000	Unknown	
183	1113698	1.0000	Unknown	
184	1113699	1.0000	Unknown	
185	1114080-44783	1.0000	Unknown	- rpt @ # 23 - tray 2 - 1/2
186	1109493-44508	1.0000	Unknown	
187	493 DUP	1.0000	Unknown	
188	493 SPK TV = 0.500	1.0000	Unknown	
189	1109495	1.0000	Unknown	
190	1109498	1.0000	Unknown	
191	1114366-44797	1.0000	Unknown	soil: 25.0g → 250mL
192	1114376	1.0000	Unknown	↓ ↓ ↓
193	CCV	1.0000	Unknown	
194	CCB	1.0000	Unknown	
195	LCS	1.0000	Unknown	
196	1114379	1.0000	Unknown	soil: 25.0g → 250mL
197	1114382	1.0000	Unknown	↓ ↓ ↓
198	1114419-44803	1.0000	Unknown	
199	CCV	1.0000	Unknown	
200	CCB	1.0000	Unknown	

5th. neg peaks. 4PQL

Creator: NMEAD  
 Creation Date: Jul 2, 2008 15:59:23  
 Last Modified: Jul 3, 2008 13:23:08  
 Description: QC 8000 350.1 Ammonia - RUN LOG - 080703A2

Cup #	Sample ID	Manual Dilution	Sample Type	
1	MB-44666	1.0000	Unknown	soil: 25.0g → 250mL
2	MB-44797	1.0000	Unknown	↓ ↓ ↓
3	1114380-44797	1.0000	Unknown	
4	380 DUP	1.0000	Unknown	
5	380 SPK TV = 50.0	1.0000	Unknown	
6	1114420-44803	1.0000	Unknown	
7	1114421	1.0000	Unknown	} rpt @ # 26-1/2
8	421 DUP	1.0000	Unknown	
9	421 SPK TV = 0.500	1.0000	Unknown	} rpt @ # 27 → 30-1/2
10	1113022-44733	1.0000	Unknown	
11	CCV	1.0000	Unknown	
12	CCB	1.0000	Unknown	
13	LCS	1.0000	Unknown	
14	1113139 RPT	1.0000	Unknown	
15	1113147 RPT	1.0000	Unknown	
16	1113150 RPT	1.0000	Unknown	
17	1113736 RPT	1.0000	Unknown	
18	1114368 RPT	1.0000	Unknown	
19	1113250 RPT	1.0000	Unknown	soil: 25.0g → 250mL
20	1113428 RPT 1/2	2.0000	Unknown	
21	1096177 RPT	10.0000	Unknown	
22	1113695 RPT	2.0000	Unknown	
23	1114080 RPT	2.0000	Unknown	
24	CCV	1.0000	Unknown	
25	CCB	1.0000	Unknown	
26	1114420 RPT 1/2	2.0000	Unknown	
27	1111421 RPT 1/10	10.0000	Unknown	
28	421 DUP RPT 1/10	10.0000	Unknown	
29	421 SPK RPT 1/10 TV = 0.5	10.0000	Unknown	
30	CCV	1.0000	Unknown	
31	CCB	1.0000	Unknown	

OPERATOR: NMEAD  
 ACQ. TIME: Jul 3, 2008 9:46:35  
 DATA FILENAME: C:\OMNION\DATA\080703A1.FDT  
 TRAY FILENAME: C:\OMNION\TRAYS\0807030A.TRA

Multi-Channel Table  
 Type: Unknowns  
 Channel Range: 1 to 8 -- Cup Range: 1 to 25

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	QC 8000 350.1 Ammonia (mg/L)	Man Dil Factor	Auto Dil Factor
1	ICV TV= 1.80	03 Jul 2008	09:46:38	1	1.6459	1.0	1.00
2	ICB	03 Jul 2008	09:47:37	1	-0.0036	1.0	1.00
3	LCS TV= 0.500	03 Jul 2008	09:48:35	1	0.4722	1.0	1.00
4	CRDL 0.050	03 Jul 2008	09:49:33	1	0.0453	1.0	1.00
5	CRDL 0.010	03 Jul 2008	09:50:31	1	0.0123	1.0	1.00
6	CCV	03 Jul 2008	09:51:30	1	1.6880	1.0	1.00
7	CCB	03 Jul 2008	09:52:28	1	-0.0052	1.0	1.00
8	1111026-44609	03 Jul 2008	09:53:26	1	0.0583	1.0	1.00
9	1111031	03 Jul 2008	09:54:23	1	0.1214	1.0	1.00
10	1111034	03 Jul 2008	09:55:20	1	0.1035	1.0	1.00
11	1111035	03 Jul 2008	09:56:17	1	0.0634	1.0	1.00
12	1111036	03 Jul 2008	09:57:14	1	0.0640	1.0	1.00
13	1111037	03 Jul 2008	09:58:11	1	0.1000	1.0	1.00
14	1111038	03 Jul 2008	09:59:08	1	0.0152	1.0	1.00
15	1111039	03 Jul 2008	10:00:06	1	0.0201	1.0	1.00
16	1111040	03 Jul 2008	10:01:04	1	0.0178	1.0	1.00
17	1111041	03 Jul 2008	10:02:02	1	0.0180	1.0	1.00
18	CCV	03 Jul 2008	10:03:00	1	1.6978	1.0	1.00
19	CCB	03 Jul 2008	10:03:58	1	-0.0052	1.0	1.00
20	LCS	03 Jul 2008	10:04:56	1	0.4700	1.0	1.00
21	1110578-44252	03 Jul 2008	10:05:54	1	0.0255	1.0	1.00
22	1110579	03 Jul 2008	10:06:53	1	0.0729	1.0	1.00
23	579 DUP	03 Jul 2008	10:07:51	1	0.0684	1.0	1.00
24	579 SPK TV= 0.500	03 Jul 2008	10:08:49	1	0.5277	1.0	1.00
25	1110580	03 Jul 2008	10:09:46	1	0.0497	1.0	1.00



OPERATOR: NMEAD  
 ACQ. TIME: Jul 3, 2008 9:46:35  
 DATA FILENAME: C:\OMNION\DATA\080703A1.FDT  
 TRAY FILENAME: C:\OMNION\TRAYS\0807030A.TRA

Multi-Channel Table  
 Type: Unknowns  
 Channel Range: 1 to 8 -- Cup Range: 26 to 50

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	QC 8000 350.1 Ammonia (mg/L)	Man Dil Factor	Auto Dil Factor
26	1111043-44609	03 Jul 2008	10:10:43	1	0.0100	1.0	1.00
27	1111044	03 Jul 2008	10:11:40	1	-0.0015	1.0	1.00
28	1112968-44621	03 Jul 2008	10:12:37	1	0.0218	1.0	1.00
29	1112969	03 Jul 2008	10:13:35	1	0.0146	1.0	1.00
30	1112985-44252	03 Jul 2008	10:14:32	1	0.2664	1.0	1.00
31	CCV	03 Jul 2008	10:15:31	1	1.6853	1.0	1.00
32	CCB	03 Jul 2008	10:16:30	1	-0.0052	1.0	1.00
33	1113014-44733	03 Jul 2008	10:17:29	1	0.0360	1.0	1.00
34	1113015	03 Jul 2008	10:18:27	1	0.0317	1.0	1.00
35	1113016	03 Jul 2008	10:19:25	1	0.0307	1.0	1.00
36	1113017	03 Jul 2008	10:20:24	1	0.0454	1.0	1.00
37	1113018	03 Jul 2008	10:21:22	1	0.0282	1.0	1.00
38	018 DUP	03 Jul 2008	10:22:20	1	0.0255	1.0	1.00
39	018 SPK TV= 0.500	03 Jul 2008	10:23:18	1	0.4993	1.0	1.00
40	1113019	03 Jul 2008	10:24:15	1	0.0213	1.0	1.00
41	1113020	03 Jul 2008	10:25:12	1	0.0293	1.0	1.00
42	1113021	03 Jul 2008	10:26:10	1	0.0284	1.0	1.00
43	CCV	03 Jul 2008	10:27:07	1	1.6767	1.0	1.00
44	CCB	03 Jul 2008	10:28:04	1	-0.0025	1.0	1.00
45	LCS	03 Jul 2008	10:29:01	1	0.4673	1.0	1.00
46	1113023	03 Jul 2008	10:30:00	1	0.0714	1.0	1.00
47	1113024	03 Jul 2008	10:30:59	1	0.0348	1.0	1.00
48	1113025	03 Jul 2008	10:31:59	1	0.0216	1.0	1.00
49	1113026	03 Jul 2008	10:32:57	1	0.0181	1.0	1.00
50	1113027	03 Jul 2008	10:33:55	1	0.0211	1.0	1.00

OPERATOR: NMEAD  
 ACQ. TIME: Jul 3, 2008 9:46:35  
 DATA FILENAME: C:\OMNION\DATA\080703A1.FDT  
 TRAY FILENAME: C:\OMNION\TRAYS\0807030A.TRA

Multi-Channel Table  
 Type: Unknowns  
 Channel Range: 1 to 8 -- Cup Range: 51 to 75

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	QC 8000 350.1 Ammonia (mg/L)	Man Dil Factor	Auto Dil Factor
51	1113136-44746	03 Jul 2008	10:34:53	1	0.7524	1.0	1.00
52	136 DUP	03 Jul 2008	10:35:51	1	0.7561	1.0	1.00
53	136 SPK TV= 0.500	03 Jul 2008	10:36:50	1	1.1913	1.0	1.00
54	1113137	03 Jul 2008	10:37:48	1	0.0397	1.0	1.00
55	1113138	03 Jul 2008	10:38:46	1	0.0091	1.0	1.00
56	CCV	03 Jul 2008	10:39:44	1	1.6869	1.0	1.00
57	CCB	03 Jul 2008	10:40:41	1	-0.0006	1.0	1.00
58	1113139	03 Jul 2008	10:41:38	1	0.3955	1.0	1.00
59	1113142	03 Jul 2008	10:42:35	1	0.0186	1.0	1.00
60	1113143	03 Jul 2008	10:43:32	1	0.0313	1.0	1.00
61	1113144	03 Jul 2008	10:44:32	1	1.5162	1.0	1.00
62	1113145	03 Jul 2008	10:45:31	1	0.0672	1.0	1.00
63	1113146	03 Jul 2008	10:46:30	1	0.0201	1.0	1.00
64	1113147	03 Jul 2008	10:47:29	1	0.0075	1.0	1.00
65	147 DUP	03 Jul 2008	10:48:28	1	0.0145	1.0	1.00
66	147 SPK TV= 0.500	03 Jul 2008	10:49:27	1	0.4733	1.0	1.00
67	1113148	03 Jul 2008	10:50:25	1	0.1958	1.0	1.00
68	CCV	03 Jul 2008	10:51:23	1	1.6562	1.0	1.00
69	CCB	03 Jul 2008	10:52:21	1	-0.0052	1.0	1.00
70	LCS	03 Jul 2008	10:53:19	1	0.4520	1.0	1.00
71	1113149	03 Jul 2008	10:54:17	1	0.0272	1.0	1.00
72	1113150	03 Jul 2008	10:55:16	1	0.0320	1.0	1.00
73	1113151	03 Jul 2008	10:56:13	1	0.0469	1.0	1.00
74	1113285	03 Jul 2008	10:57:10	1	0.0472	1.0	1.00
75	1113733-44770	03 Jul 2008	10:58:07	1	0.0060	1.0	1.00

} air between peaks not integrated

-air spikes - rpt @ #14 - tray 2

-air spikes - rpt @ #15 - tray 2

-air spike - rpt @ #16 - tray 2

OPERATOR: NMEAD  
 ACQ. TIME: Jul 3, 2008 9:46:35  
 DATA FILENAME: C:\OMNION\DATA\080703A1.FDT  
 TRAY FILENAME: C:\OMNION\TRAYS\0807030A.TRA

Multi-Channel Table  
 Type: Unknowns  
 Channel Range: 1 to 8 -- Cup Range: 76 to 100

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	QC 8000 350.1 Ammonia (mg/L)	Man Dil Factor	Auto Dil Factor
76	1113734	03 Jul 2008	10:59:06	1	0.0030	1.0	1.00
77	1113735	03 Jul 2008	11:00:06	1	0.0070	1.0	1.00
78	1113736	03 Jul 2008	11:01:05	1	0.0249	1.0	1.00
79	736 DUP	03 Jul 2008	11:02:04	1	0.0248	1.0	1.00
80	736 SPK TV= 0.500	03 Jul 2008	11:03:03	1	0.4677	1.0	1.00
81	CCV	03 Jul 2008	11:04:02	1	1.6646	1.0	1.00
82	CCB	03 Jul 2008	11:05:00	1	-0.0040	1.0	1.00
83	1113756-44771	03 Jul 2008	11:05:58	1	0.1639	1.0	1.00
84	1113862-44778	03 Jul 2008	11:06:56	1	0.0171	1.0	1.00
85	1113863	03 Jul 2008	11:07:54	1	0.0244	1.0	1.00
86	1113864	03 Jul 2008	11:08:52	1	0.0148	1.0	1.00
87	1113865	03 Jul 2008	11:09:50	1	0.1044	1.0	1.00
88	1113866	03 Jul 2008	11:10:49	1	0.0282	1.0	1.00
89	1113867	03 Jul 2008	11:11:46	1	0.0168	1.0	1.00
90	1113868	03 Jul 2008	11:12:43	1	0.0084	1.0	1.00
91	1113869	03 Jul 2008	11:13:42	1	0.0020	1.0	1.00
92	1113870	03 Jul 2008	11:14:41	1	0.0010	1.0	1.00
93	CCV	03 Jul 2008	11:15:41	1	1.6710	1.0	1.00
94	CCB	03 Jul 2008	11:16:40	1	-0.0052	1.0	1.00
95	LCS	03 Jul 2008	11:17:39	1	0.4721	1.0	1.00
96	870 DUP	03 Jul 2008	11:18:38	1	-0.0004	1.0	1.00
97	870 SPK TV= 0.500	03 Jul 2008	11:19:37	1	0.4653	1.0	1.00
98	1113871	03 Jul 2008	11:20:37	1	0.0045	1.0	1.00
99	1113872	03 Jul 2008	11:21:35	1	0.0055	1.0	1.00
100	1114342-44770	03 Jul 2008	11:22:33	1	0.0094	1.0	1.00

*air spike - rpt @ #17 - tray 2*

*air spike not integrated*

OPERATOR: NMEAD  
 ACQ. TIME: Jul 3, 2008 9:46:35  
 DATA FILENAME: C:\OMNION\DATA\080703A1.FDT  
 TRAY FILENAME: C:\OMNION\TRAYS\0807030A.TRA

Multi-Channel Table  
 Type: Unknowns  
 Channel Range: 1 to 8 -- Cup Range: 101 to 125

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	QC 8000 350.1 Ammonia (mg/L)	Man Dil Factor	Auto Dil Factor
101	1114343	03 Jul 2008	11:23:31	1	0.0090	1.0	1.00
102	1114344	03 Jul 2008	11:24:29	1	0.0108	1.0	1.00
103	1114345	03 Jul 2008	11:25:27	1	0.0105	1.0	1.00
104	1114346	03 Jul 2008	11:26:25	1	0.0039	1.0	1.00
105	1114347	03 Jul 2008	11:27:24	1	0.0057	1.0	1.00
106	CCV	03 Jul 2008	11:28:24	1	1.7096	1.0	1.00
107	CCB	03 Jul 2008	11:29:23	1	-0.0052	1.0	1.00
108	1114348	03 Jul 2008	11:30:22	1	0.0055	1.0	1.00
109	1114349	03 Jul 2008	11:31:22	1	0.0144	1.0	1.00
110	1114367-44798	03 Jul 2008	11:32:21	1	0.0086	1.0	1.00
111	1114368	03 Jul 2008	11:33:20	1	0.0032	1.0	1.00
112	368 DUP	03 Jul 2008	11:34:19	1	-0.0046	1.0	1.00
113	368 SPK TV= 0.500	03 Jul 2008	11:35:18	1	0.4692	1.0	1.00
114	1114369	03 Jul 2008	11:36:17	1	0.0155	1.0	1.00
115	1114370	03 Jul 2008	11:37:16	1	0.0180	1.0	1.00
116	1114371	03 Jul 2008	11:38:14	1	0.0141	1.0	1.00
117	1114372	03 Jul 2008	11:39:12	1	0.0078	1.0	1.00
118	CCV	03 Jul 2008	11:40:10	1	1.6987	1.0	1.00
119	CCB	03 Jul 2008	11:41:08	1	-0.0052	1.0	1.00
120	LCS	03 Jul 2008	11:42:06	1	0.4703	1.0	1.00
121	1114373	03 Jul 2008	11:43:06	1	0.0246	1.0	1.00
122	373 DUP	03 Jul 2008	11:44:07	1	0.0226	1.0	1.00
123	373 SPK TV= 0.500	03 Jul 2008	11:45:06	1	0.4970	1.0	1.00
124	1112065-44650	03 Jul 2008	11:46:05	1	0.0486	1.0	1.00
125	1112066	03 Jul 2008	11:47:04	1	0.1042	1.0	1.00

*Bad integration - pt @ #18 -  
tray 2*

OPERATOR: NMEAD  
 ACQ. TIME: Jul 3, 2008 9:46:35  
 DATA FILENAME: C:\OMNION\DATA\080703A1.FDT  
 TRAY FILENAME: C:\OMNION\TRAYS\0807030A.TRA

Multi-Channel Table  
 Type: Unknowns  
 Channel Range: 1 to 8 -- Cup Range: 126 to 150

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	QC 8000 350.1 Ammonia (mg/L)	Man Dil Factor	Auto Dil Factor
126	1112067	03 Jul 2008	11:48:03	1	0.0272	1.0	1.00
127	1112809	03 Jul 2008	11:49:03	1	0.0040	1.0	1.00
128	1112810	03 Jul 2008	11:50:02	1	0.0960	1.0	1.00
129	1112811	03 Jul 2008	11:51:01	1	0.0285	1.0	1.00
130	1112812	03 Jul 2008	11:52:00	1	0.0071	1.0	1.00
131	CCV	03 Jul 2008	11:52:58	1	1.7271	1.0	1.00
132	CCB	03 Jul 2008	11:53:56	1	-0.0032	1.0	1.00
133	1112871	03 Jul 2008	11:54:55	1	1.9021	1.0	1.00
134	1112872	03 Jul 2008	11:55:53	1	0.3723	1.0	1.00
135	1112873-44727	03 Jul 2008	11:56:51	1	1692.2659	1000.0	1.00
136	1112874-44650	03 Jul 2008	11:57:51	1	0.0149	1.0	1.00
137	874 DUP	03 Jul 2008	11:58:51	1	0.0131	1.0	1.00
138	874 SPK TV= 0.500	03 Jul 2008	11:59:52	1	0.4816	1.0	1.00
139	1113042-44734	03 Jul 2008	12:00:51	1	0.0668	1.0	1.00
140	1113043	03 Jul 2008	12:01:50	1	0.3603	1.0	1.00
141	1113044	03 Jul 2008	12:02:49	1	-0.0052	1.0	1.00
142	1113045	03 Jul 2008	12:03:48	1	0.0348	1.0	1.00
143	CCV	03 Jul 2008	12:04:47	1	1.7225	1.0	1.00
144	CCB	03 Jul 2008	12:05:46	1	-0.0029	1.0	1.00
145	LCS	03 Jul 2008	12:06:46	1	0.4733	1.0	1.00
146	1113046	03 Jul 2008	12:07:45	1	0.1945	1.0	1.00
147	046 DUP	03 Jul 2008	12:08:43	1	0.1884	1.0	1.00
148	046 SPK TV= 0.500	03 Jul 2008	12:09:41	1	0.6056	1.0	1.00
149	1113047	03 Jul 2008	12:10:39	1	0.0857	1.0	1.00
150	1113048	03 Jul 2008	12:11:37	1	0.3556	1.0	1.00

OPERATOR:  
ACQ. TIME:  
DATA FILENAME:  
TRAY FILENAME:

NMEAD  
Jul 3, 2008 9:46:35  
C:\OMNION\DATA\080703A1.FDT  
C:\OMNION\TRAYS\0807030A.TRA

Multi-Channel Table  
Type: Unknowns  
Channel Range: 1 to 8 -- Cup Range: 151 to 175

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	QC 8000 350.1 Ammonia (mg/L)	Man Dil Factor	Auto Dil Factor	
151	1113245-44666	03 Jul 2008	12:12:38	1	0.0444	1.0	1.00	<i>nm 7/3/08</i> <i>4.44</i> < 5.00
152	1113249	03 Jul 2008	12:13:38	1	0.0346	1.0	1.00	= < 5.00
153	1113250	03 Jul 2008	12:14:38	1	0.0305	1.0	1.00	- air spike - rpt @ # 19 - tray 2
154	250 DUP	03 Jul 2008	12:15:38	1	0.0459	1.0	1.00	= < 5.00
155	250 SPK TV=50.0	03 Jul 2008	12:16:38	1	0.4952	1.0	1.00	= 49.52 4.952 <i>OK 7/8/08</i>
156	CCV	03 Jul 2008	12:17:37	1	1.7151	1.0	1.00	
157	CCB	03 Jul 2008	12:18:36	1	-0.0052	1.0	1.00	
158	1113254	03 Jul 2008	12:19:35	1	0.0043	1.0	1.00	= < 5.00
159	1113255	03 Jul 2008	12:20:34	1	-0.0035	1.0	1.00	= < 5.00
160	1113256	03 Jul 2008	12:21:34	1	0.0123	1.0	1.00	= < 5.00
161	1113257	03 Jul 2008	12:22:33	1	0.0336	1.0	1.00	= < 5.00
162	1113258	03 Jul 2008	12:23:32	1	-0.0021	1.0	1.00	= < 5.00
163	1113259	03 Jul 2008	12:24:30	1	0.0425	1.0	1.00	= < 5.00
164	1113262	03 Jul 2008	12:25:28	1	0.0272	1.0	1.00	= < 5.00
165	1113426-44650	03 Jul 2008	12:26:27	1	0.0274	1.0	1.00	
166	1113427	03 Jul 2008	12:27:27	1	0.0112	1.0	1.00	
167	1113428	03 Jul 2008	12:28:27	1	2.4140	1.0	1.00	- rpt @ # 20 - tray 2 - 1/2
168	CCV	03 Jul 2008	12:29:28	1	1.7314	1.0	1.00	
169	CCB	03 Jul 2008	12:30:28	1	-0.0038	1.0	1.00	
170	LCS	03 Jul 2008	12:31:28	1	0.4741	1.0	1.00	
171	1113429	03 Jul 2008	12:32:28	1	0.0475	1.0	1.00	
172	1113430	03 Jul 2008	12:33:27	1	1.2456	1.0	1.00	
173	1096177-43635	03 Jul 2008	12:34:27	1	13.4950	1.0	1.00	- rpt @ # 21 - tray 2 - 1/10
174	1096178	03 Jul 2008	12:35:26	1	0.1388	1.0	1.00	
175	1096180	03 Jul 2008	12:36:25	1	1.3713	1.0	1.00	

OPERATOR:  
ACQ. TIME:  
DATA FILENAME:  
TRAY FILENAME:

NMEAD  
Jul 3, 2008 9:46:35  
C:\OMNION\DATA\080703A1.FDT  
C:\OMNION\TRAYS\0807030A.TRA

Multi-Channel Table  
Type: Unknowns  
Channel Range: 1 to 8 -- Cup Range: 176 to 200

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	QC 8000 350.1 Ammonia (mg/L)	Man Dil Factor	Auto Dil Factor
176	1096181	03 Jul 2008	12:37:24	1	0.2053	1.0	1.00
177	1096182	03 Jul 2008	12:38:23	1	0.0189	1.0	1.00
178	1113695-44768	03 Jul 2008	12:39:22	1	2.1797	1.0	1.00 - rpt @ # 22 - tray 2 - 1/2
179	1113696	03 Jul 2008	12:40:21	1	0.0506	1.0	1.00
180	1113697	03 Jul 2008	12:41:19	1	0.5559	1.0	1.00
181	CCV	03 Jul 2008	12:42:19	1	1.7279	1.0	1.00
182	CCB	03 Jul 2008	12:43:19	1	-0.0052	1.0	1.00
183	1113698	03 Jul 2008	12:44:20	1	0.0219	1.0	1.00
184	1113699	03 Jul 2008	12:45:20	1	0.0268	1.0	1.00 - rpt @ # 23 - tray 2 - 1/2
185	1114080-44783	03 Jul 2008	12:46:20	1	2.9123	1.0	1.00
186	1109493-44508	03 Jul 2008	12:47:20	1	0.0645	1.0	1.00
187	493 DUP	03 Jul 2008	12:48:20	1	0.0665	1.0	1.00
188	493 SPK TV= 0.500	03 Jul 2008	12:49:20	1	0.5048	1.0	1.00
189	1109495	03 Jul 2008	12:50:19	1	0.0782	1.0	1.00
190	1109498	03 Jul 2008	12:51:18	1	0.0243	1.0	1.00
191	1114366-44797	03 Jul 2008	12:52:18	1	0.1271	1.0	1.00 = 12.71 1.271
192	1114376	03 Jul 2008	12:53:17	1	0.0422	1.0	1.00 = 45.00
193	CCV	03 Jul 2008	12:54:16	1	1.6883	1.0	1.00
194	CCB	03 Jul 2008	12:55:15	1	-0.0052	1.0	1.00
195	LCS	03 Jul 2008	12:56:13	1	0.4750	1.0	1.00
196	1114379	03 Jul 2008	12:57:14	1	-0.0052	1.0	1.00 = 45.00 } sm. neg. peaks -
197	1114382	03 Jul 2008	12:58:14	1	-0.0004	1.0	1.00 = 45.00 } < PQL
198	1114419-44803	03 Jul 2008	12:59:14	1	1.8791	1.0	1.00
199	CCV	03 Jul 2008	13:00:14	1	1.6855	1.0	1.00
200	CCB	03 Jul 2008	13:01:15	1	-0.0052	1.0	1.00

OPERATOR: NMEAD  
 ACQ. TIME: Jul 3, 2008 13:03:25  
 DATA FILENAME: C:\OMNION\DATA\080703A2.FDT  
 TRAY FILENAME: C:\OMNION\TRAYS\080703A2.TRA

Multi-Channel Table  
 Type: Unknowns  
 Channel Range: 1 to 8 -- Cup Range: 1 to 25

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	QC 8000 350.1 Ammonia (mg/L)	Man Dil Factor	Auto Dil Factor
1	MB-44666	03 Jul 2008	13:03:28	1	0.0195	1.0	1.00 = <5.00
2	MB-44797	03 Jul 2008	13:04:27	1	0.0142	1.0	1.00 = <5.00
3	1114380-44797	03 Jul 2008	13:05:25	1	0.0117	1.0	1.00 = <5.00
4	380 DUP	03 Jul 2008	13:06:23	1	0.0127	1.0	1.00 = <5.00
5	380 SPK TV= 50.0	03 Jul 2008	13:07:21	1	0.4997	1.0	1.00 = 49.97 4.997 C# 27/8/08
6	1114420-44803	03 Jul 2008	13:08:19	1	2.0370	1.0	1.00 - rpt @ # 26-1/2
7	1114421	03 Jul 2008	13:09:18	1	7.9779	1.0	1.00
8	421 DUP	03 Jul 2008	13:10:16	1	7.9875	1.0	1.00 } rpt @ # 27-30 - 1/10
9	421 SPK TV= 0.500	03 Jul 2008	13:11:13	1	8.3207	1.0	1.00
10	1113022-44733	03 Jul 2008	13:12:10	1	0.0497	1.0	1.00
11	CCV	03 Jul 2008	13:13:07	1	1.6956	1.0	1.00
12	CCB	03 Jul 2008	13:14:04	1	-0.0016	1.0	1.00
13	LCS	03 Jul 2008	13:15:01	1	0.4761	1.0	1.00
14	1113139 RPT	03 Jul 2008	13:15:58	1	0.3796	1.0	1.00
15	1113147 RPT	03 Jul 2008	13:16:56	1	0.0217	1.0	1.00
16	1113150 RPT	03 Jul 2008	13:17:54	1	0.0317	1.0	1.00
17	1113736 RPT	03 Jul 2008	13:18:53	1	0.0320	1.0	1.00
18	1114368 RPT dup	03 Jul 2008	13:19:51	1	0.0005	1.0	1.00
19	1113250 RPT	03 Jul 2008	13:20:49	1	0.0332	1.0	1.00 = <5.00
20	1113428 RPT 1/2	03 Jul 2008	13:21:48	1	2.4465	2.0	1.00
21	1096177 RPT	03 Jul 2008	13:22:46	1	19.7944	10.0	1.00
22	1113695 RPT	03 Jul 2008	13:23:44	1	2.2676	2.0	1.00
23	1114080 RPT	03 Jul 2008	13:24:42	1	3.6937	2.0	1.00
24	CCV	03 Jul 2008	13:25:40	1	1.7017	1.0	1.00
25	CCB	03 Jul 2008	13:26:38	1	0.0004	1.0	1.00



OPERATOR: NMEAD  
 ACQ. TIME: Jul 3, 2008 13:03:25  
 DATA FILENAME: C:\OMNION\DATA\080703A2.FDT  
 TRAY FILENAME: C:\OMNION\TRAYS\080703A2.TRA

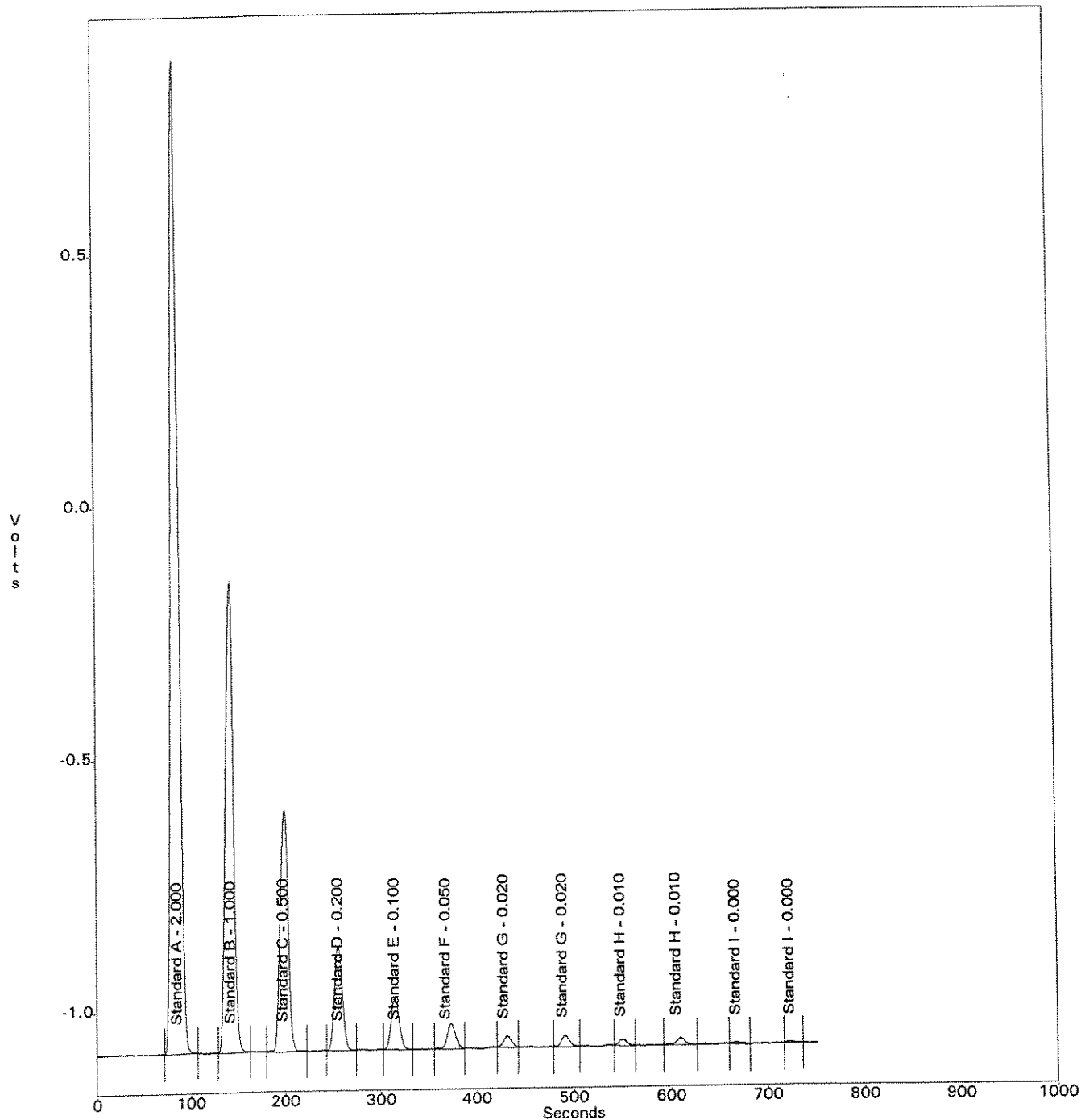
Multi-Channel Table  
 Type: Unknowns  
 Channel Range: 1 to 8 -- Cup Range: 26 to 50

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	QC 8000 350.1 Ammonia (mg/L)	Man Dil Factor	Auto Dil Factor
26	1114420 RPT 1/2	03 Jul 2008	13:27:35	1	1.9527	2.0	1.00
27	1111421 RPT 1/10	03 Jul 2008	13:28:32	1	8.7744	10.0	1.00
28	421 DUP RPT 1/10	03 Jul 2008	13:29:29	1	8.7686	10.0	1.00
29	421 SPK RPT 1/10 TV=0.5	03 Jul 2008	13:30:26	1	13.3925	10.0	1.00
30	CCV	03 Jul 2008	13:31:23	1	1.6872	1.0	1.00
31	CCB	03 Jul 2008	13:32:22	1	-0.0052	1.0	1.00

OPERATOR:  
ACQ. TIME:  
DATA FILENAME:  
TRAY FILENAME:

NMEAD  
Jul 3, 2008 9:33:00  
C:\OMNION\DATA\0807030A.FDT  
C:\OMNION\TRAYS\0807030A.TRA

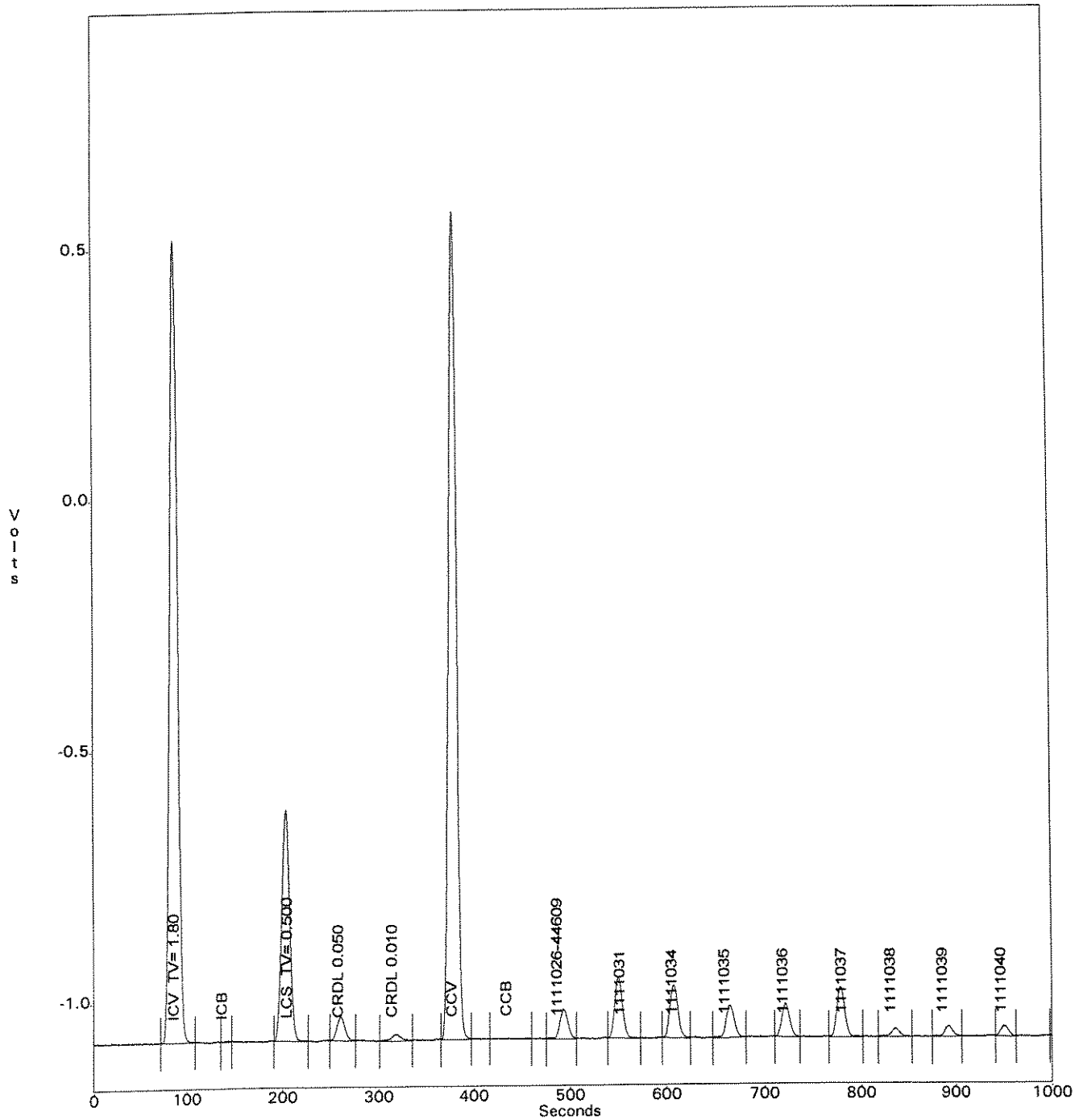
Channel 1 - QC 8000 350.1 Ammonia



OPERATOR:  
ACQ. TIME:  
DATA FILENAME:  
TRAY FILENAME:

NMEAD  
Jul 3, 2008 9:46:35  
C:\OMNION\DATA\080703A1.FDT  
C:\OMNION\TRAYS\0807030A.TRA

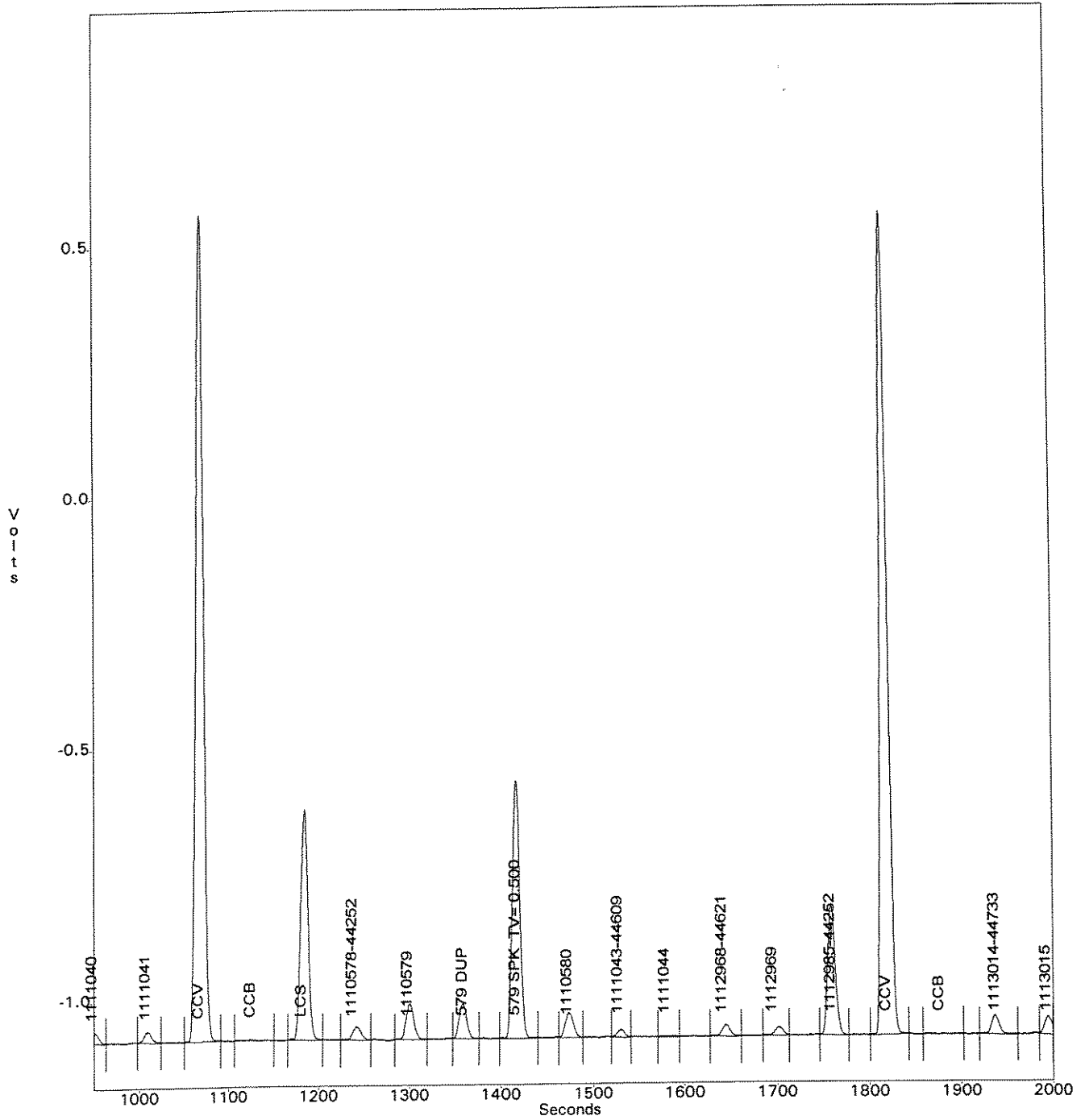
Channel 1 - QC 8000 350.1 Ammonia



OPERATOR:  
ACQ. TIME:  
DATA FILENAME:  
TRAY FILENAME:

NMEAD  
Jul 3, 2008 9:46:35  
C:\OMNION\DATA\080703A1.FDT  
C:\OMNION\TRAYS\0807030A.TRA

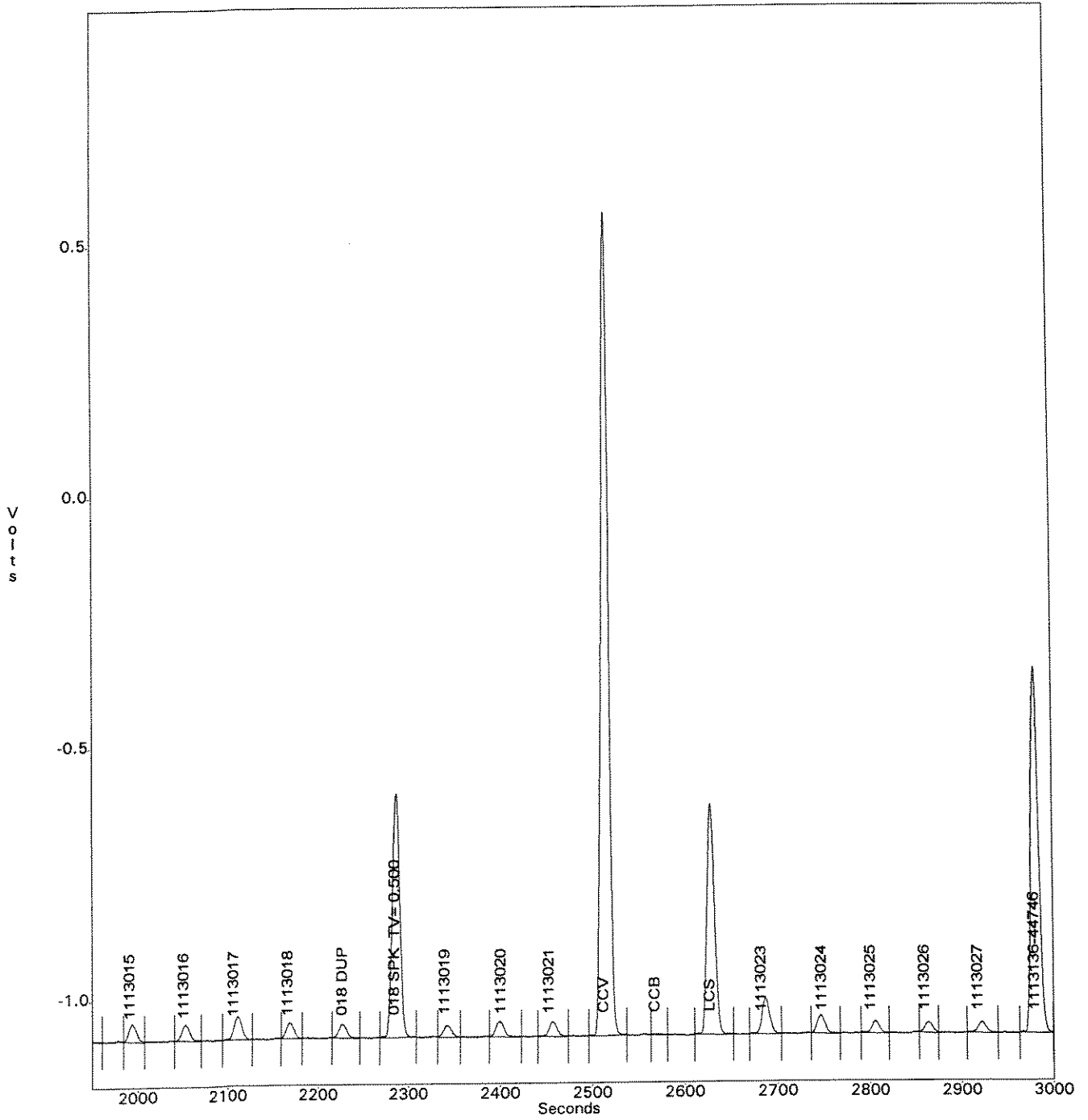
Channel 1 - QC 8000 350.1 Ammonia



OPERATOR:  
ACQ. TIME:  
DATA FILENAME:  
TRAY FILENAME:

NMEAD  
Jul 3, 2008 9:46:35  
C:\OMNION\DATA\080703A1.FDT  
C:\OMNION\TRAYS\0807030A.TRA

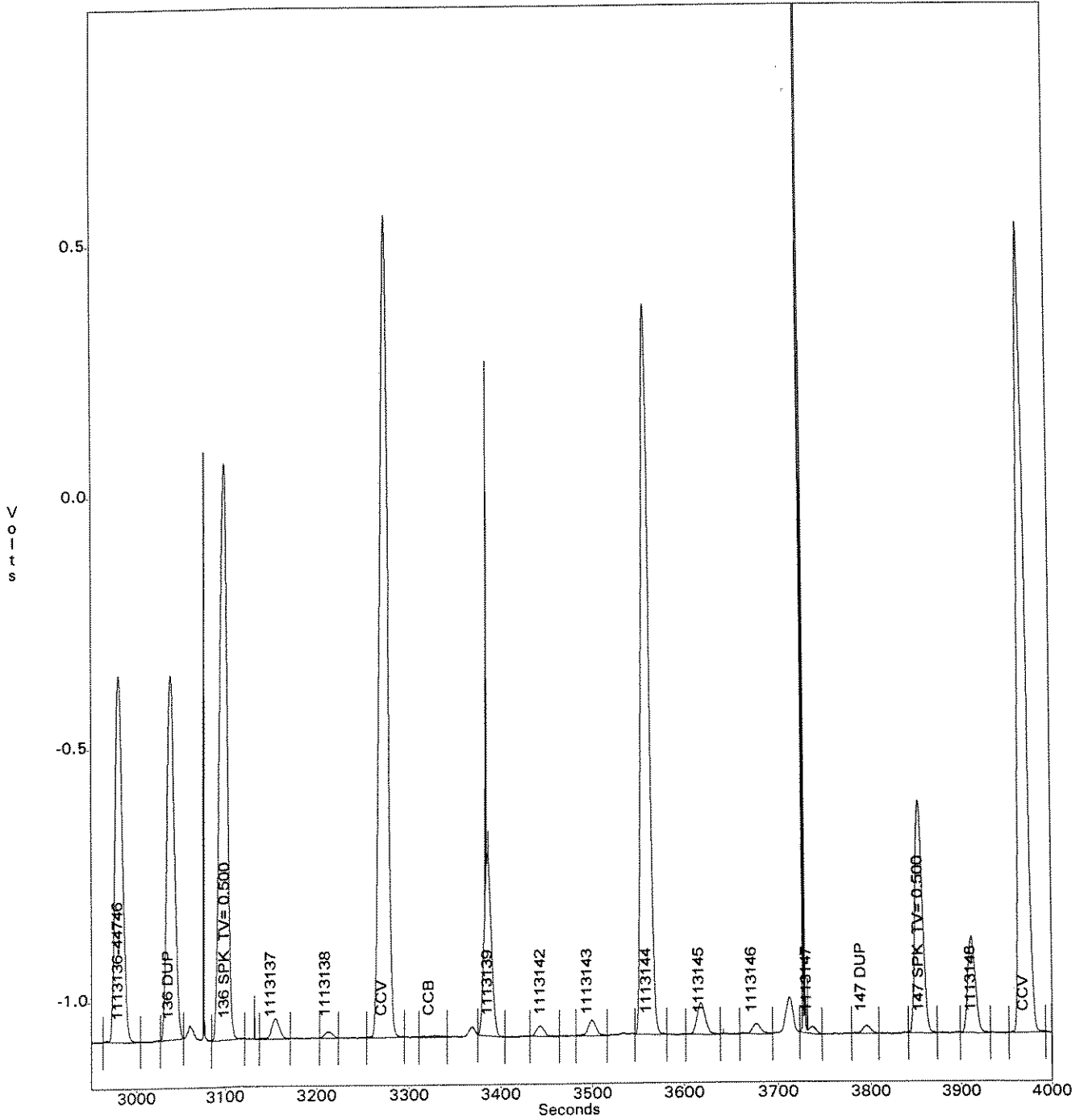
Channel 1 - QC 8000 350.1 Ammonia



OPERATOR:  
ACQ. TIME:  
DATA FILENAME:  
TRAY FILENAME:

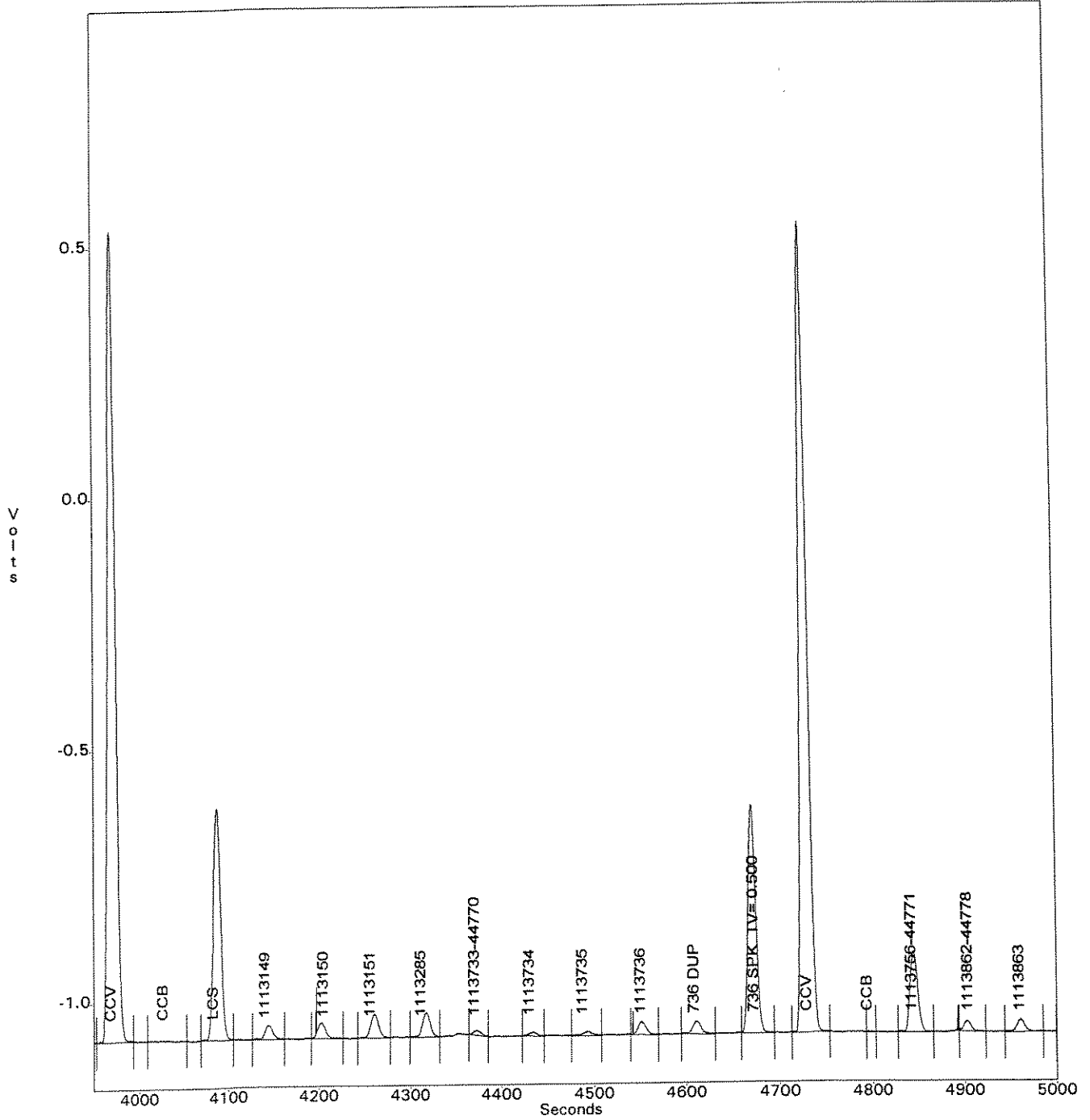
NMEAD  
Jul 3, 2008 9:46:35  
C:\OMNION\DATA\080703A1.FDT  
C:\OMNION\TRAYS\0807030A.TRA

Channel 1 - QC 8000 350.1 Ammonia



OPERATOR: NMEAD  
ACQ. TIME: Jul 3, 2008 9:46:35  
DATA FILENAME: C:\OMNION\DATA\080703A1.FDT  
TRAY FILENAME: C:\OMNION\TRAYS\0807030A.TRA

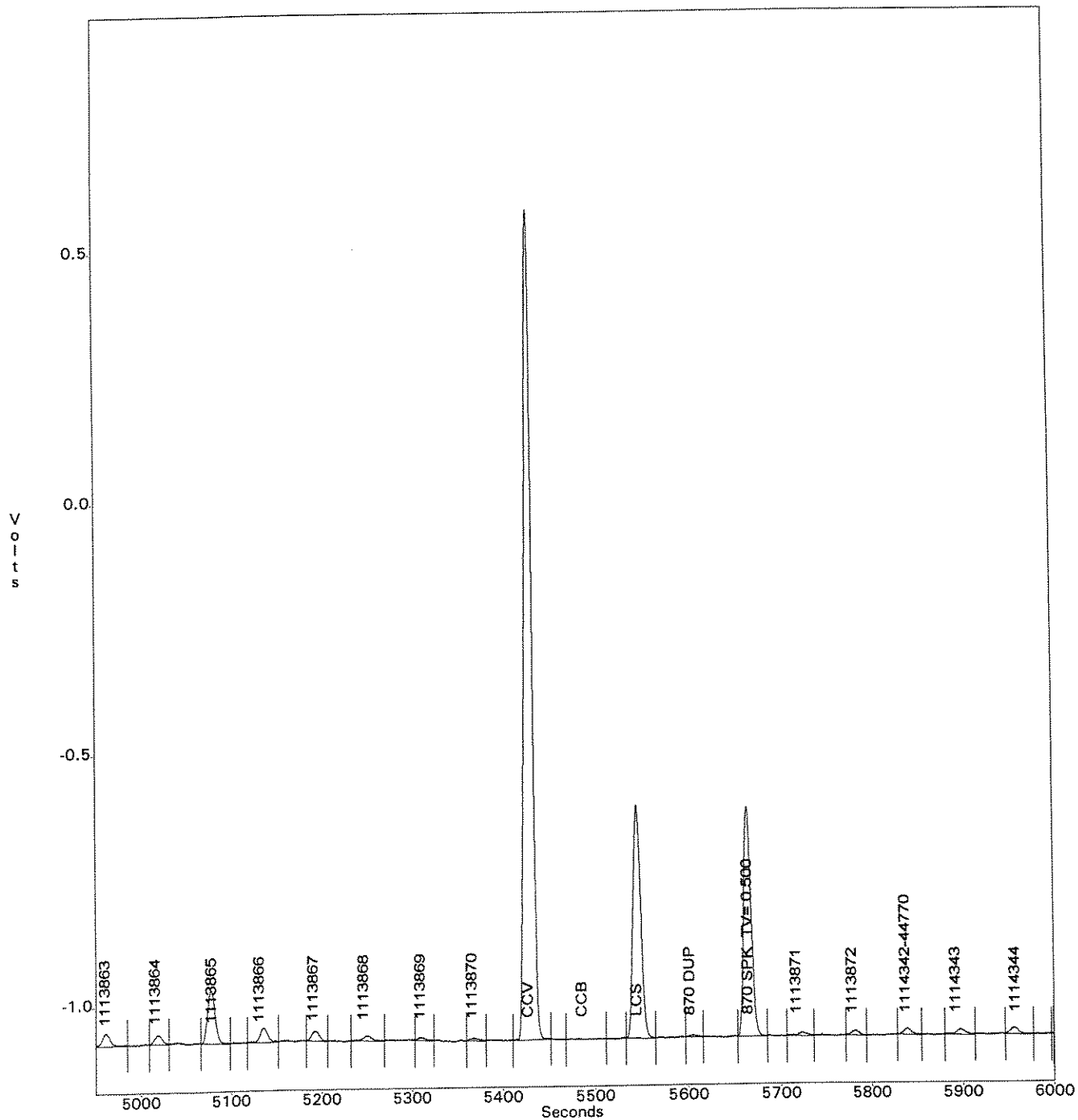
Channel 1 - QC 8000 350.1 Ammonia



OPERATOR:  
ACQ. TIME:  
DATA FILENAME:  
TRAY FILENAME:

NMEAD  
Jul 3, 2008 9:46:35  
C:\OMNION\DATA\080703A1.FDT  
C:\OMNION\TRAYS\0807030A.TRA

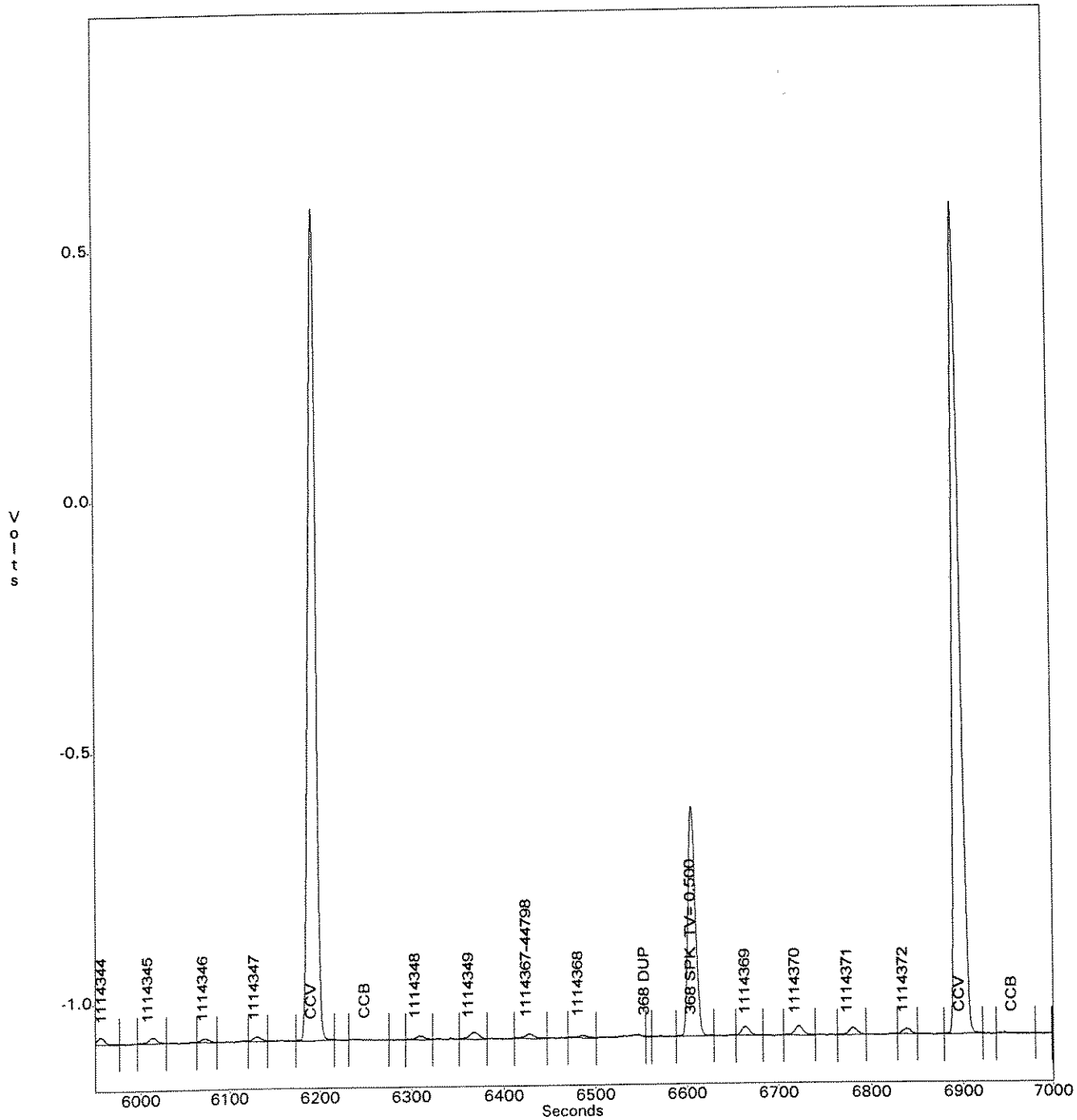
Channel 1 - QC 8000 350.1 Ammonia





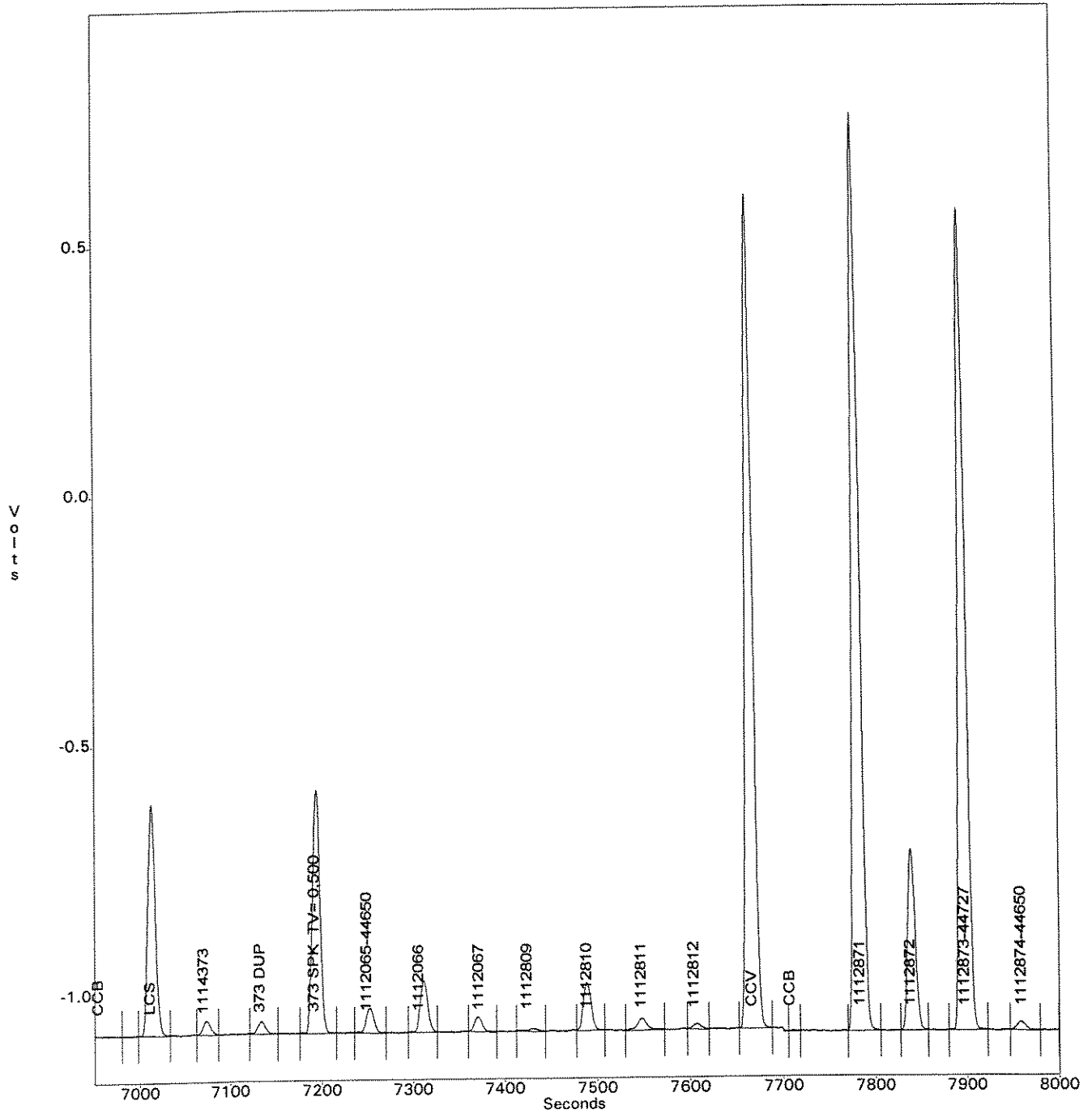
OPERATOR: NMEAD  
ACQ. TIME: Jul 3, 2008 9:46:35  
DATA FILENAME: C:\OMNION\DATA\080703A1.FDT  
TRAY FILENAME: C:\OMNION\TRAYS\0807030A.TRA

Channel 1 - QC 8000 350.1 Ammonia



OPERATOR: NMEAD  
ACQ. TIME: Jul 3, 2008 9:46:35  
DATA FILENAME: C:\OMNION\DATA\080703A1.FDT  
TRAY FILENAME: C:\OMNION\TRAYS\0807030A.TRA

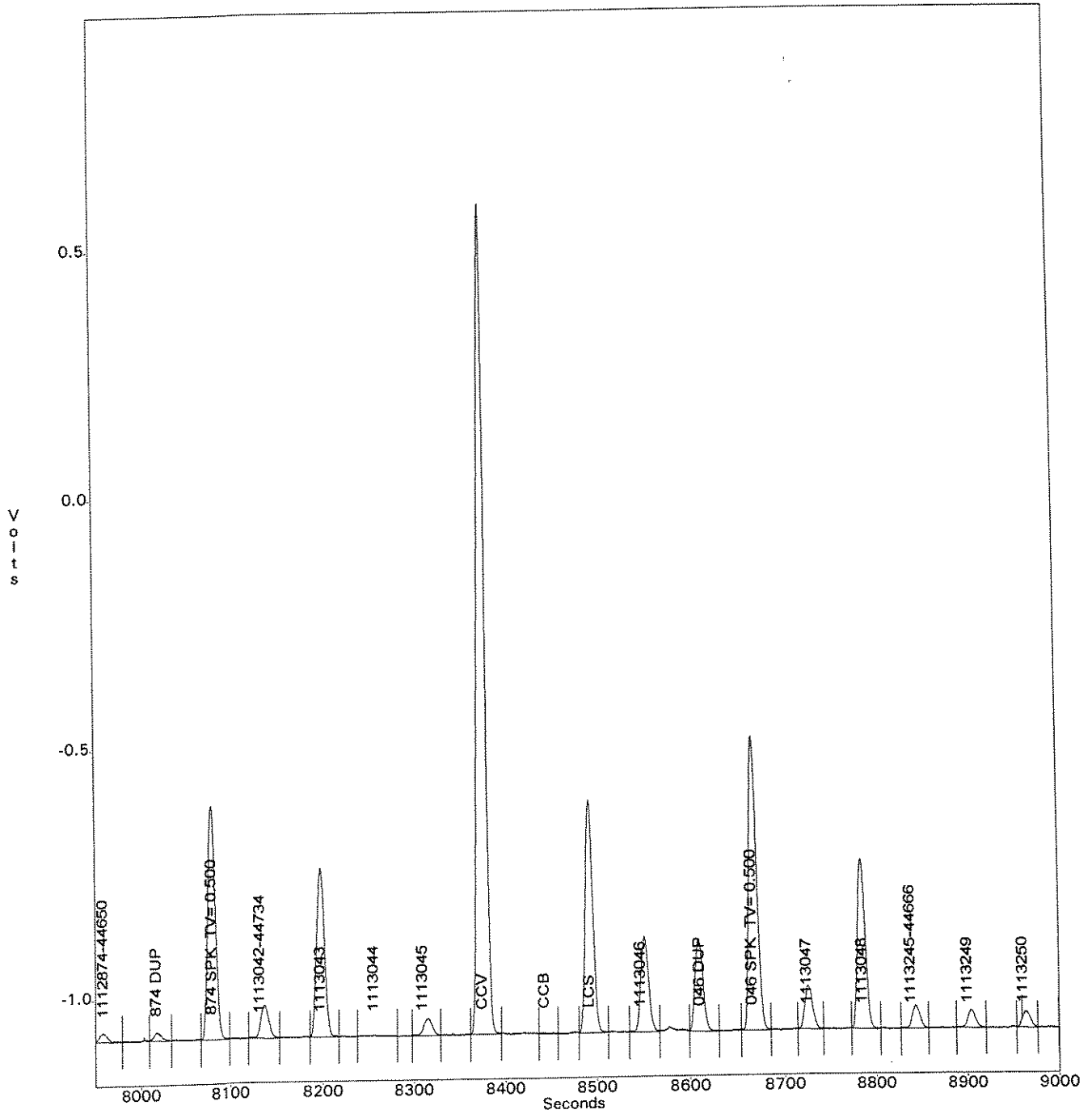
Channel 1 - QC 8000 350.1 Ammonia



OPERATOR:  
ACQ. TIME:  
DATA FILENAME:  
TRAY FILENAME:

NMEAD  
Jul 3, 2008 9:46:35  
C:\OMNION\DATA\080703A1.FDT  
C:\OMNION\TRAYS\0807030A.TRA

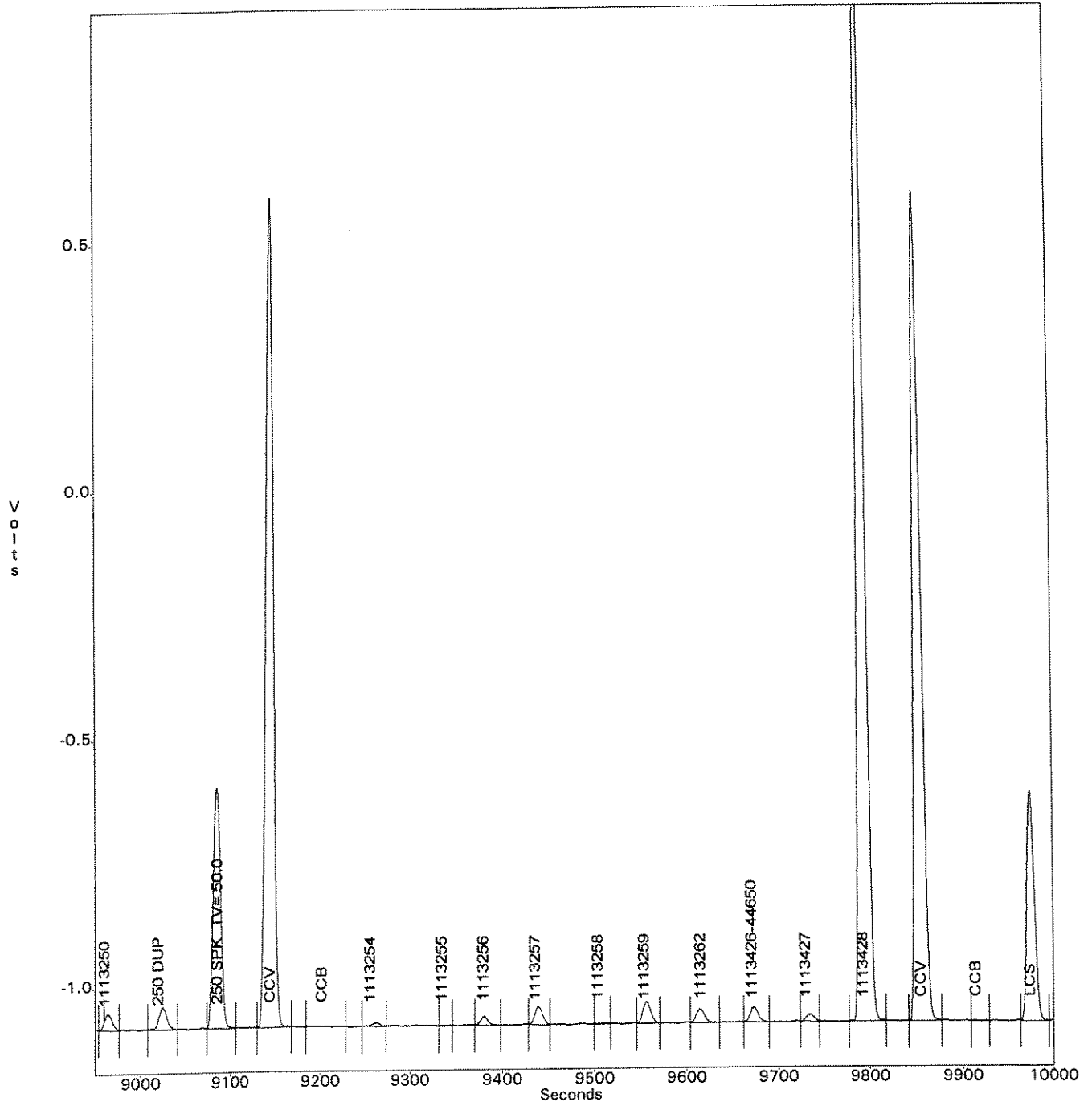
Channel 1 - QC 8000 350.1 Ammonia



OPERATOR:  
ACQ. TIME:  
DATA FILENAME:  
TRAY FILENAME:

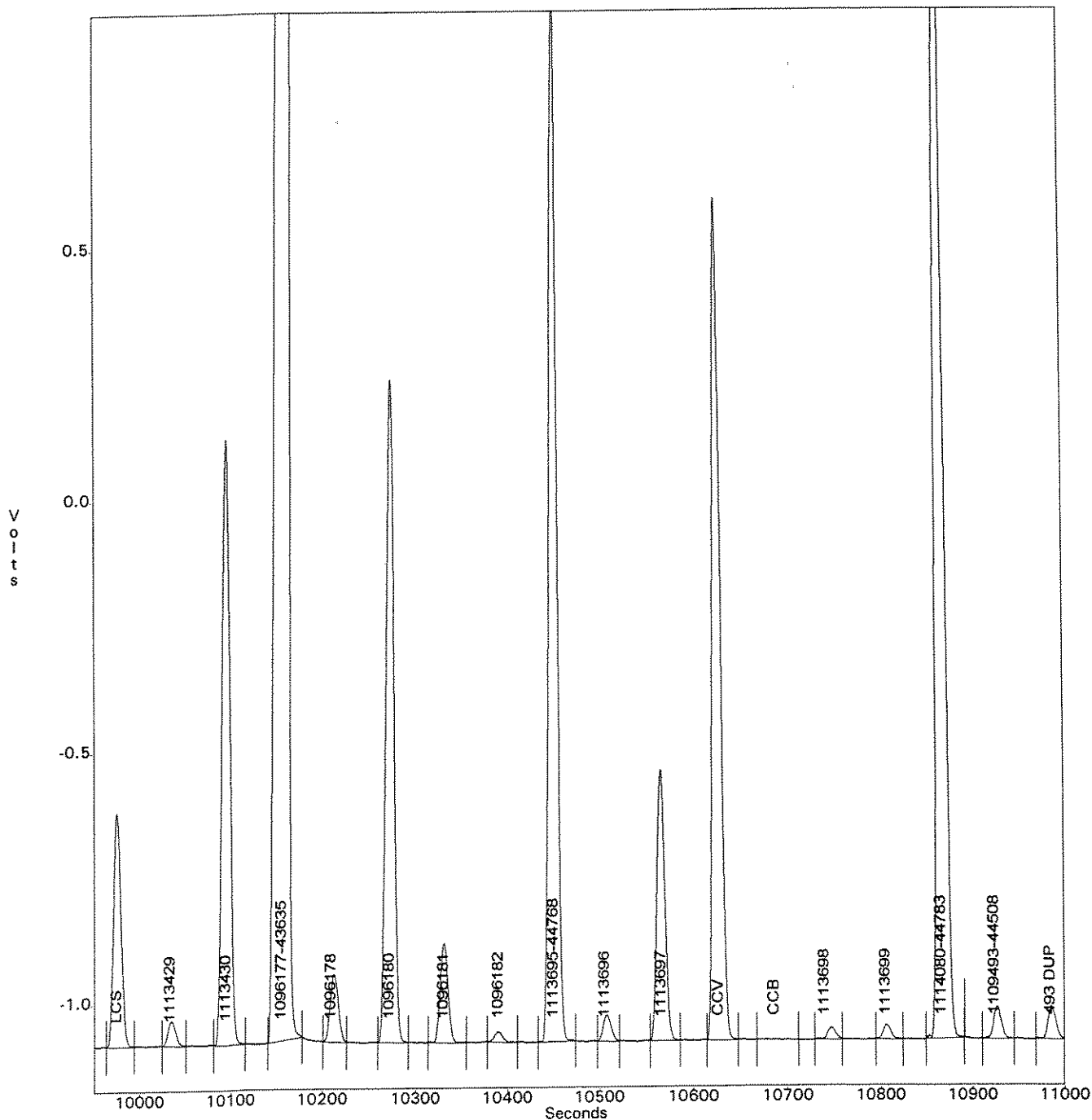
NMEAD  
Jul 3, 2008 9:46:35  
C:\OMNION\DATA\080703A1.FDT  
C:\OMNION\TRAYS\0807030A.TRA

Channel 1 - QC 8000 350.1 Ammonia



OPERATOR: NMEAD  
ACQ. TIME: Jul 3, 2008 9:46:35  
DATA FILENAME: C:\OMNION\DATA\080703A1.FDT  
TRAY FILENAME: C:\OMNION\TRAYS\0807030A.TRA

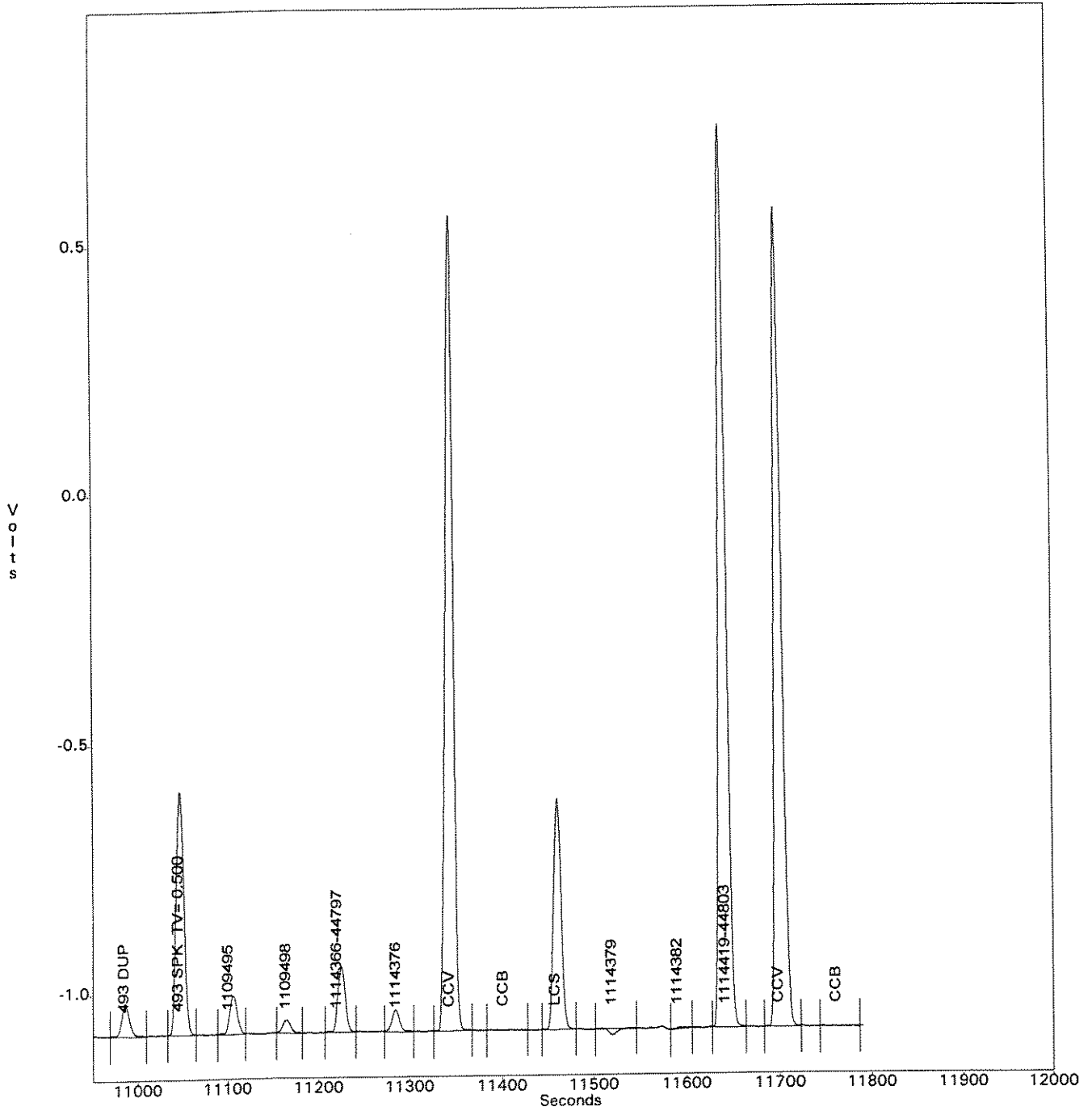
Channel 1 - QC 8000 350.1 Ammonia



OPERATOR:  
ACQ. TIME:  
DATA FILENAME:  
TRAY FILENAME:

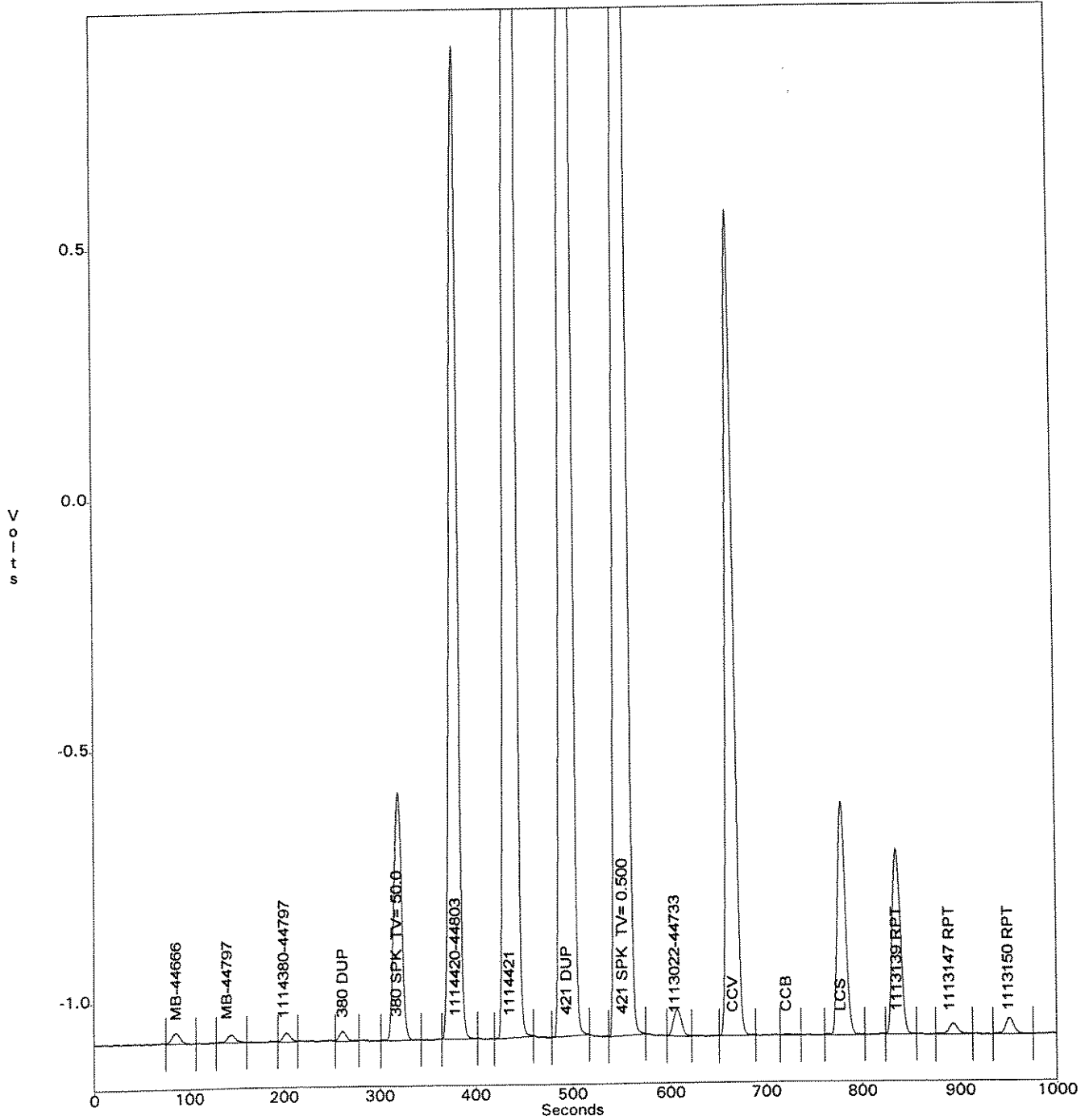
NMEAD  
Jul 3, 2008 9:46:35  
C:\OMNION\DATA\080703A1.FDT  
C:\OMNION\TRAYS\0807030A.TRA

Channel 1 - QC 8000 350.1 Ammonia



OPERATOR: NMEAD  
ACQ. TIME: Jul 3, 2008 13:03:25  
DATA FILENAME: C:\OMNION\DATA\080703A2.FDT  
TRAY FILENAME: C:\OMNION\TRAYS\080703A2.TRA

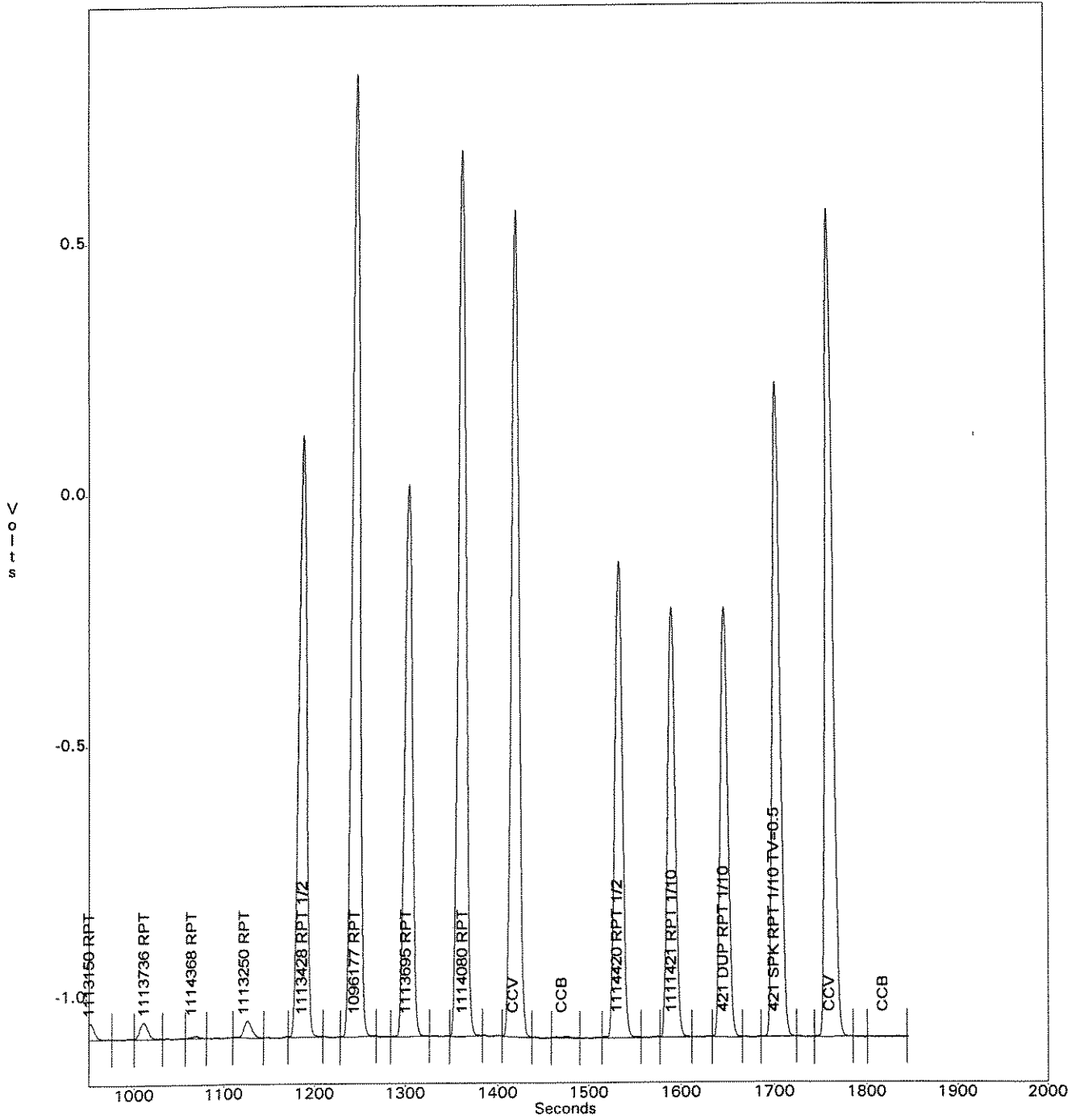
Channel 1 - QC 8000 350.1 Ammonia



OPERATOR:  
ACQ. TIME:  
DATA FILENAME:  
TRAY FILENAME:

NMEAD  
Jul 3, 2008 13:03:25  
C:\OMNION\DATA\080703A2.FDT  
C:\OMNION\TRAYS\080703A2.TRA

Channel 1 - QC 8000 350.1 Ammonia





OPERATOR: NMEAD  
ACQ. TIME: Jul 3, 2008 9:33:00  
DATA FILENAME: C:\OMNION\DATA\0807030A.FDT  
METHOD FILENAME:  
TRAY FILENAME: C:\OMNION\TRAYS\0807030A.TRA

TRAY DESCRIPTION:  
Created: Jul 2, 2008 15:56:25  
Modified: Jul 3, 2008 7:48:02  
QC 8000 350.1 Ammonia - RUN LOG - 0807030A  
DATA DESCRIPTION:  
Created: Jul 3, 2008 9:33:00  
Modified: Jul 3, 2008 9:33:00

Method - Ch. 1 (QC 8000 350.1 Ammonia)

METHOD DESCRIPTION:  
Created: Jun 8, 2007 13:44:01  
Modified: Jun 27, 2008 15:00:11  
Ammonia

ANALYTE DATA:  
Analyte Name: QC 8000 350.1 Ammonia  
Concentration Units: mg/L  
Chemistry: Direct  
Inject to Peak Start (s): 28.5  
Peak Base Width (s): 22.000  
% Width Tolerance: 50.000  
Threshold: 2877.000  
Autodilution Trigger: Off  
QuikChem Method:

CALIBRATION DATA:

Levels:  
1 : 2.000    2 : 1.000    3 : 0.500    4 : 0.200  
5 : 0.100    6 : 0.050    7 : 0.020    8 : 0.010  
9 : 0.000

Calibration Rep Handling: Average  
Calibration Fit Type: 1st Order Poly  
Force Though Zero: No  
Weighting Method: 1/X  
Concentration Scaling: None

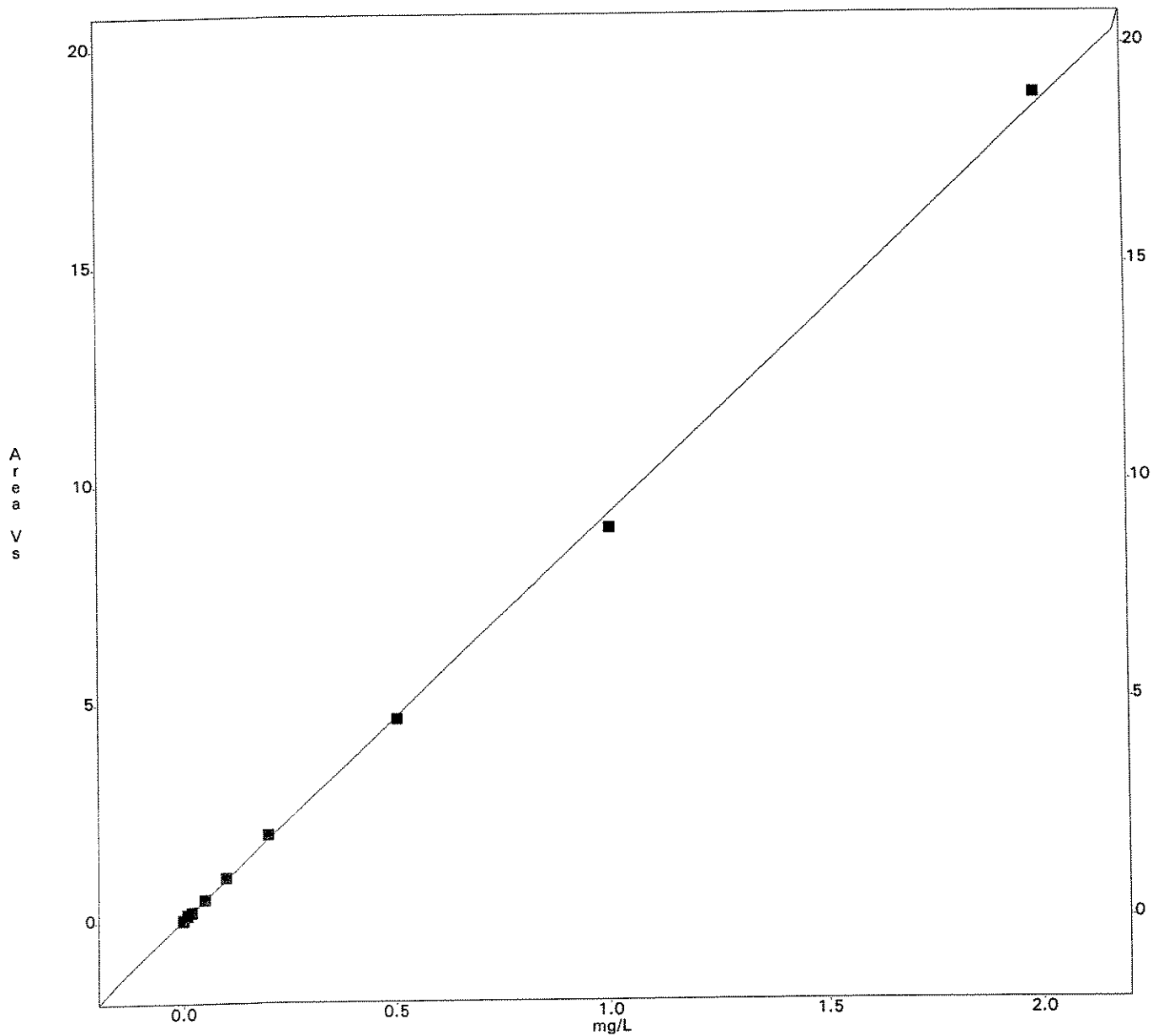
QC 8000 350.1 Ammonia

Lvl	Area	mg/L	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Replic STD	Replic % RSD	Residual 1st Poly
1	18881478	2.00	18881478					0.0	0.0	-1.6
2	8959946	1.00	8959946					0.0	0.0	3.8
3	4608416	0.50	4608416					0.0	0.0	1.6
4	1989770	0.20	1989770					0.0	0.0	-4.7
5	1011990	0.10	1011990					0.0	0.0	-4.0
6	516656	0.05	516656					0.0	0.0	-1.0
7	224143	0.02	230323	217963				8739.8	3.9	5.2
8	155319	0.01	172864	137773				24813.1	16.0	-15.3
9	44167	0.00	36259	52074				11182.9	25.3	

1st Order Poly  
 Conc = 1.079e-007 Area - 5.233e-003  
 r = 0.9996

*pipette IDIS: E-1  
 ALI*

Scaling: None - Weighting: 1/X



Printed: Thursday, July 03, 2008 - 09:45 AM



4/7/03  
DMGAmmonia ( $\text{NH}_3$ ) [LaChat: pp1 = 0.050 Rej Level, 0.010 - Low Level]

## A) STANDARDS

STD.	CONC (mg/L)	mls 100ppm (W665166C)	mls Carrier-Diluent (W665165F)
A	2.000	2.00	8.00
B	1.000	1.00	9.00
C	0.500	0.50	9.50
D	0.200	0.20	9.80
E	0.100	$\frac{1}{10}$ Dil'n of STD B.)	1.000
F	0.050	$\frac{1}{10}$ Dil'n of STD C.)	0.500
G	0.020	$\frac{1}{10}$ Dil'n of STD D.)	0.200
H	0.010	$\frac{1}{10}$ Dil'n of STD E.)	0.100
I	0.000	10 mls of Carrier-Diluent	

B)  $\text{TeV/CCV}$ : (TV = 1.80 mg/L)

Do two (2)  $\frac{1}{10}$  serial dilutions of the 180 ppm Reference Stock (W665166B). Prepare using Carrier-Diluent (W665165F)

## C) 10.0 ppm Working Stock

Do two (2)  $\frac{1}{10}$  serial dilutions of the 1000 ppm Standard Stock (W665166A). Prepare using Carrier-Diluent (W665165F)

## D) LES/Matrix Spike: (TV = 0.500 mg/L)

Add 0.050 mls 100 ppm working Stock (W665166C, 1<sup>st</sup>  $\frac{1}{10}$  serial dilution) to 10 mls Carrier-Diluent (W665165F) or sample.

1/23/08  
Nm

① NH<sub>3</sub>/TKN 1000 ppm Standard Stock

3.819 granular NH<sub>4</sub>Cl (WC85085F), previously dried for 2 hrs. @ 104°C; dissolve in ~ 800 mL DI in a 1-L volumetric flask. Bring to volume w/ DI. Store @ 4°C. in amber glass. Expires 1/23/09.

② NH<sub>3</sub> 180 ppm Reference Stock

0.687g granular NH<sub>4</sub>Cl (WC85085G), previously dried for 2 hrs. @ 104°C; dissolve in ~ 800 mL DI in a 1-L volumetric flask. Bring to volume with DI. Store @ 4°C in amber glass. Expires 1/23/09.

③ TKN 400 ppm Reference Stock

1.5276g granular NH<sub>4</sub>Cl (WC85085G), previously dried for 2 hrs. @ 104°C; dissolve in ~ 800 mL DI in a 1-L volumetric flask. Bring to volume with DI. Store @ 4°C. in amber glass. Expires 1/23/09.

Limits for DI Water if pH < 5.5, or > 7.5 Notify QA!  
 Limits for Spec. Cond. >= 1 - Notify QA! (Limit is 2 umhos/cm)  
 Conductivity holding time is 48 hrs from sample date  
 pH holding time is 15 minutes from collection

Date: 7/1/08 ✓

Sub. #	Order #	pH 150.1/4500H*B 9040B	Corrsivity 9045C	CONDUCTIVITY 120.1			TEMP °C	Analyst	Time	HT** (y/n)	Meter* J/VWR
				raw data	units	mhos/cm					
DI H <sub>2</sub> O	MB	7.377						KMC	1120		J
44768	1113695	7.893								Y	
	95	7.788								Y	
	97	7.579								Y	
	96	7.248								Y	
	98	7.634									
	99	7.584									
44771	1113756	7.618									
44770	1113736	8.179		0.534	ms	534					
	36	8.188		0.542	ms	542					
	734	8.190		0.561	ms	561					
	1113733	7.904		0.303	ms	303					
	35	8.038		0.267	ms	267					
CCB				0.341	ms	341					
CCV	7.0/2767	7.049		2.62	ms	2620		KMC	1530		J
CCV	40	3.995									
44779	1114064	7.289								Y	
	64	7.322								Y	
44323	1105600	8.211								Y	
CCV	10.0	10.021									J

\*Meters used will be designated by "J" for Jenway or "VWR" for the VWR meter, \*\*HT = holding time

**pH Meter Calibration**

STANDARDS 4.00 ✓ 10.00 ✓ ICV check 7.006, 982 TEMP. 18°C

LOT #: BDB2674H BDB2680F BDB2680E

**Conductivity Meter Calibration** (calibrate to 1412 and test 2767 & 146.9 standard)

N KCL: 1412 Calibrated (Yes / NO) LOT #: BDB2684F

Cell Constant: 1.112

N KCL: 2767 LOT #: BDB2684D Reading 2580  
 10% Limits: 2490.3 to 3043.7

N KCL: 146.9 LOT #: BDB2684E Reading 144.9  
 10% Limits: 132.2 TO 161.6

uS = 1 umhos/cm mS = 1,000 umhos/cm S = 1,000,000 umhos/cm

Analyst: KMC DATE: 7/1/08 TIME: 1100

Limits for DI Water if pH < 5.5, or > 7.5 Notify QA!  
 Limits for Spec. Cond. >= 1 - Notify QA! (Limit is 2 umhos/cm)

Date: 7/24/08 ✓

Conductivity holding time is 48 hrs from sample date  
 pH holding time is 15 minutes from collection

Sub. #	Order #	pH 150.1/4500H <sup>+</sup> B 9040B	Corrsivity 9045C	CONDUCTIVITY 120			TEMP °C	Analyst	Time	HT** (y/n)	Meter J/VWR
				raw data	units	mhos/cm					
CCB		6.912		0.415	uS	0.415		KMC	1420		J
44650	1113426			8.14	mS	8140				w	
	26			8.21	mS	8210					
	27			9.65	mS	9650					
	28			7.58	mS	7580					
	29			4.13	mS	4130					
	30			6.51	mS	6510					
44768	1113695			1.415	uS	1415					
	96			16.45	mS	16450					
	97			1.743	mS	1743					
	98			3.98	mS	3980					
	99			3.92	mS	3920					
44803	1114419			10.74	mS	10740					
	420			10.34	mS	10340					
	421			11.34	mS	11340					
	421			11.46	mS	11460					
	756			5.82	mS	5820					
	758			3.20	uS	3200					
CCV 2767				2.74	mS	2740					Y
44771	1120412	7.399									Y
		7.422									
	1120441	7.440									
CCV	4.0	4.048									Y

\*Meters used will be designated by "J" for Jenway or "VWR" for the VWR meter, \*\*HT = holding time

**pH Meter Calibration**

STANDARDS 4.00 ✓ 10.00 ✓ ICV check 7.00 <sup>6.984</sup> TEMP. 18°C

LOT #: BDB2674H BDB2680F BDB2680E

**Conductivity Meter Calibration**

(calibrate to 1412 and test 2767 & 146.9 standard)

N KCL: 1412 Calibrated (Yes / NO) LOT #: BDB2684F

Cell Constant: 1.103

N KCL: 2767 LOT #: BDB2656A Reading 2630  
 10% Limits: 2490.3 to 3043.7

N KCL: 146.9 LOT #: BDB2684E Reading 143.3  
 10% Limits: 132.2 TO 161.6

uS = 1 umhos/cm mS = 1,000 umhos/cm S = 1,000,000 umhos/cm

Analyst: KMC DATE: 7/24/08 TIME: 1415

Limits for DI Water if pH < 5.5, or > 7.5 Notify QA!  
 Limits for Spec. Cond. >= 1 - Notify QA! (Limit is 2 umhos/cm)  
 Conductivity holding time is 48 hrs from sample date  
 pH holding time is 15 minutes from collection

Date: 7/24/08 Page 2 ✓

Sub. #	Order #	pH 150.1/4500H*B 9040B	Corrsivity 9045C	CONDUCTIVITY			TEMP °C	Analyst	Time	HT** (y/n)	Meter J/VWR
				raw data	units	umhos/cm					
44866	1115782			8.19	ms	8190		KMC	1420	N	J
	83			0.968	ms	968					
	84			5.73	ms	5730					
	85			6.13	ms	6130					
	1116367			7.19	ms	7190					
	67			7.23	ms	7230					
	70			3.87	ms	3870					
	73			1.440	ms	1440					
	921			16.79	ms	16790					
	922			7.81	ms	7810					
	1117196			3.14	ms	3140					
	97			16.91	ms	16910					
CCV	146.9us			146.6	us	146.6					
CCV	7.0	6.998						KMC	1600		
45038	1120552	<del>7.846</del>								Y	Y
		7.846								Y	Y
CCV		4.048									

\*Meters used will be designated by "J" for Jenway or "VWR" for the VWR meter, \*\*HT = holding time

**pH Meter Calibration**

STANDARDS 4.00 \_\_\_\_\_ 10.00 \_\_\_\_\_ ICV check 7.00 \_\_\_\_\_ TEMP. \_\_\_\_\_

LOT #: \_\_\_\_\_

**Conductivity Meter Calibration** (calibrate to 1412 and test 2767 & 146.9 standard)

N KCL: 1412 Calibrated ( Yes / NO ) LOT #: \_\_\_\_\_

Cell Constant: \_\_\_\_\_

N KCL: 2767 LOT #: \_\_\_\_\_ Reading \_\_\_\_\_

10% Limits: 2490.3 to 3043.7

N KCL: 146.9 LOT #: \_\_\_\_\_ Reading \_\_\_\_\_

10% Limits: 132.2 TO 161.6

uS = 1 umhos/cm      mS = 1,000 umhos/cm      S = 1,000,000 umhos/cm

Analyst: \_\_\_\_\_ DATE: \_\_\_\_\_ TIME: \_\_\_\_\_



Run #: 164109

Analyte: CR+6 218.6 CR+6 HEX-CHROM BY IC

Printed: 08/08/08 09:29

TYPE	SUBMISSION	ORDER #	MATRIX	REPORTED	DILUTION	PQL	% RECOVERY	% RSD	DATE	QC	PKG #
				RESULT					ANALYZED		
CHK1		1118366	WATER	0.503	1.0	0.0100	100.5		07/16/08		
BLK1		1118367	WATER	0.0100	U	1.0	0.0100		07/16/08		
SPKE		1118368	WATER	0.198		1.0	0.0100	99.2	07/16/08		
SPKE		1118369	WATER	0.203		1.0	0.0100	101.6	07/16/08		
ESMP	R2844650	1112065	WATER	0.809		20.0	0.0100		07/16/08	RUN	ASPB
LDUP		1118370	WATER	0.802		20.0	0.0100	0.84	07/16/08		
SPK1		1118371	WATER	4.91		20.0	0.0100	102.6	07/16/08		
ESMP	R2844650	1112066	WATER	0.100	U	10.0	0.0100		07/16/08	RUN	ASPB
ESMP	R2844650	1112067	WATER	0.100	U	10.0	0.0100		07/16/08	RUN	ASPB
ESMP	R2844650	1112486	WATER	0.100	U	10.0	0.0100		07/16/08	RUN	ASPB
ESMP	R2844650	1112487	WATER	0.100	U	10.0	0.0100		07/16/08	RUN	ASPB
ESMP	R2844650	1112488	WATER	0.713		10.0	0.0100		07/16/08	RUN	ASPB
ESMP	R2844650	1112489	WATER	0.100	U	10.0	0.0100		07/16/08	RUN	ASPB
ESMP	R2844650	1112809	WATER	0.100	U	10.0	0.0100		07/16/08		ASPB
ESMP	R2844650	1112810	WATER	0.100	U	10.0	0.0100		07/16/08		ASPB
ESMP	R2844650	1112811	WATER	0.100	U	10.0	0.0100		07/16/08		ASPB
LDUP		1118372	WATER	0.100	U	10.0	0.0100		07/16/08		
SPK1		1118373	WATER	1.88		10.0	0.0100	93.8	07/16/08		
ESMP	R2844650	1112812	WATER	0.100	U	10.0	0.0100		07/16/08		ASPB
ESMP	R2844650	1112871	WATER	1.31		10.0	0.0100		07/16/08		ASPB
ESMP	R2844650	1112872	WATER	0.882		10.0	0.0100		07/16/08		ASPB
ESMP	R2844650	1112874	WATER	0.100	U	10.0	0.0100		07/16/08	QC	ASPB
LDUP		1118374	WATER	0.100	U	10.0	0.0100		07/16/08		
SPK1		1118375	WATER	1.98		10.0	0.0100	99.0	07/16/08		
ESMP	R2844650	1113426	WATER	6.34		10.0	0.0100		07/16/08		ASPB
ESMP	R2844650	1113427	WATER	0.100	U	10.0	0.0100		07/16/08		ASPB
ESMP	R2844650	1113428	WATER	1.23		10.0	0.0100		07/16/08		ASPB
ESMP	R2844650	1113429	WATER	0.0655		10.0	0.0100		07/16/08		ASPB
ESMP	R2844650	1113430	WATER	0.898		10.0	0.0100		07/16/08		ASPB
ESMP	R2844768	1113695	WATER	0.0680		10.0	0.0100		07/16/08		ASPB
ESMP	R2844768	1113696	WATER	0.100	U	10.0	0.0100		07/16/08		ASPB
ESMP	R2844768	1113697	WATER	0.0793		10.0	0.0100		07/16/08		ASPB
ESMP	R2844768	1113698	WATER	0.0361		10.0	0.0100		07/16/08		ASPB
ESMP	R2844768	1113699	WATER	0.0401		10.0	0.0100		07/16/08		ASPB
ESMP	R2844803	1114758	WATER	0.100	U	10.0	0.0100		07/16/08		ASPB
ESMP	R2844866	1115782	WATER	4.98		10.0	0.0100		07/16/08		ASPB
ESMP	R2844866	1115783	WATER	0.100	U	10.0	0.0100		07/16/08		ASPB
ESMP	R2844866	1115784	WATER	0.0907		10.0	0.0100		07/16/08		ASPB
ESMP	R2844866	1115785	WATER	0.324		10.0	0.0100		07/16/08		ASPB
ESMP	R2844866	1116367	WATER	1.12		10.0	0.0100		07/16/08	QC	ASPB
LDUP		1118376	WATER	1.12		10.0	0.0100	0.44	07/16/08		
SPK1		1118377	WATER	3.00		10.0	0.0100	93.8	07/16/08		
ESMP	R2844866	1116370	WATER	1.48		10.0	0.0100		07/16/08		ASPB
ESMP	R2844866	1116373	WATER	0.0144		10.0	0.0100		07/16/08		ASPB
ESMP	R2844866	1116921	WATER	0.333		10.0	0.0100		07/16/08		ASPB
ESMP	R2844866	1116922	WATER	0.510		10.0	0.0100		07/16/08		ASPB
ESMP	R2844866	1117196	WATER	0.0589		10.0	0.0100		07/16/08		ASPB
ESMP	R2844866	1117197	WATER	0.100	U	10.0	0.0100		07/16/08		ASPB

Records printed: 48

ANALYTE:G:\STARLIMS\ASBAR.RP1

Page 1

00697

07-16-08

Data Manually Entered

Line	Sample	Sample Type	Level	Method	Data File	Dilution	Comment
1	STANDARD 1	Calibration St	1	cr6-716.met	716_001.dxd	1	
2	STANDARD 2	Calibration St	2	cr6-716.met	716_002.dxd	1	
3	STANDARD 3	Calibration St	3	cr6-716.met	716_003.dxd	1	
4	STANDARD 4	Calibration St	4	cr6-716.met	716_004.dxd	1	
5	STANDARD 5	Calibration St	5	cr6-716.met	716_005.dxd	1	
6	STANDARD 6	Calibration St	6	cr6-716.met	716_006.dxd	1	
7	ICV	Sample		cr6-716.met	716_007.dxd	1	
8	ICB	Sample		cr6-716.met	716_008.dxd	1	
9	LCS	Sample		cr6-716.met	716_009.dxd	1	
10	1112065	Sample		cr6-716.met	716_010.dxd	10	
11	1112066	Sample		cr6-716.met	716_011.dxd	10	
12	1112067	Sample		cr6-716.met	716_012.dxd	10	
13	1112486	Sample		cr6-716.met	716_013.dxd	10	
14	1112487	Sample		cr6-716.met	716_014.dxd	10	
15	1112488	Sample		cr6-716.met	716_015.dxd	10	
16	1112489	Sample		cr6-716.met	716_016.dxd	10	
17	1112809	Sample		cr6-716.met	716_017.dxd	10	
18	1112810	Sample		cr6-716.met	716_018.dxd	10	
19	1112811	Sample		cr6-716.met	716_019.dxd	10	
20	1112811 DUP	Sample		cr6-716.met	716_020.dxd	10	
21	1112811 SPK	Sample		cr6-716.met	716_021.dxd	10	
22	CCV	Sample		cr6-716.met	716_022.dxd	1	
23	CCB	Sample		cr6-716.met	716_023.dxd	1	
24	1112812	Sample		cr6-716.met	716_024.dxd	10	
25	1112871	Sample		cr6-716.met	716_025.dxd	10	
26	1112872	Sample		cr6-716.met	716_026.dxd	10	
27	1112874	Sample		cr6-716.met	716_027.dxd	10	
28	1112874 DUP	Sample		cr6-716.met	716_028.dxd	10	
29	1112874 SPK	Sample		cr6-716.met	716_029.dxd	10	
30	1113426	Sample		cr6-716.met	716_030.dxd	10	
31	1113427	Sample		cr6-716.met	716_031.dxd	10	
32	1113428	Sample		cr6-716.met	716_032.dxd	10	
33	1113429	Sample		cr6-716.met	716_033.dxd	10	
34	1113430	Sample		cr6-716.met	716_034.dxd	10	
35	1113695	Sample		cr6-716.met	716_035.dxd	10	
36	CCV	Sample		cr6-716.met	716_036.dxd	1	
37	CCB	Sample		cr6-716.met	716_037.dxd	1	
38	LCS	Sample		cr6-716.met	716_038.dxd	1	
39	1113696	Sample		cr6-716.met	716_039.dxd	10	
40	1113697	Sample		cr6-716.met	716_040.dxd	10	
41	1113698	Sample		cr6-716.met	716_041.dxd	10	
42	1113699	Sample		cr6-716.met	716_042.dxd	10	
43	1114419	Sample		cr6-716.met	716_043.dxd	10	
44	1114420	Sample		cr6-716.met	716_044.dxd	10	
45	1114421	Sample		cr6-716.met	716_045.dxd	10	

Analyst: C Woods

Pipets: Mine  
Lucy

Harry

Herpin 44650  
44768  
44803  
44866

Reviewed & Approved

By: B. B. B. B.  
Date: 7/23/08, 8/8/08

Line	Sample	Sample Type	Level	Method	Data File	Dilution	Comment
46	1114421	DUP		cr6-716.met	716_046.dxd	10	
47	1114421	SPK		cr6-716.met	716_047.dxd	10	
48	1114756			cr6-716.met	716_048.dxd	10	
49	1114758			cr6-716.met	716_049.dxd	10	
50	1115782			cr6-716.met	716_050.dxd	10	
51	CCV			cr6-716.met	716_051.dxd	1	
52	CCB			cr6-716.met	716_052.dxd	1	
53	1115783			cr6-716.met	716_053.dxd	10	
54	1115784			cr6-716.met	716_054.dxd	10	
55	1115785			cr6-716.met	716_055.dxd	10	
56	1116367			cr6-716.met	716_056.dxd	10	
57	1116367	DUP		cr6-716.met	716_057.dxd	10	
58	1116367	SPK		cr6-716.met	716_058.dxd	10	
59	1116370			cr6-716.met	716_059.dxd	10	
60	1116373			cr6-716.met	716_060.dxd	10	
61	1116921			cr6-716.met	716_061.dxd	10	
62	1116922			cr6-716.met	716_062.dxd	10	
63	1117196			cr6-716.met	716_063.dxd	10	
64	1117197			cr6-716.met	716_064.dxd	10	
65	CCV			cr6-716.met	716_065.dxd	1	
66	CCB			cr6-716.met	716_066.dxd	1	
67	1112065			cr6-716.met	716_067.dxd	20	
68	1112065	DUP		cr6-716.met	716_068.dxd	20	
69	1112065	SPK		cr6-716.met	716_069.dxd	20	
70	CCV			cr6-716.met	716_070.dxd	1	
71	CCB			cr6-716.met	716_071.dxd	1	

Default Method Path: J:\ACQU\DATA\IC\METHOD.AC\IC#1\CR6

Default Data Path: J:\ACQU\DATA\IC\DATA\IC#1\CR6\071608

Comment:



Columbia Analytical Services  
1 Mustard St., Suite 250  
Rochester, NY 14609-0859

Analyst: C. Woods  
Date: 7-16-08

Hexavalent Chromium: Method 7199

Method 218.6

Submission Number	Sample ID	Sample pH	Analysis Date
R-44650	1112065	9.41	7/16/08
	1112066	9.36	7/16/08
	1112067	9.38	7/16/08
	1112486	9.68	7/16/08
	1112487	9.62	7/16/08
	1112488	9.54	7/16/08
	1112489	9.50	7/16/08
	1112809	9.58	7/16/08
	1112810	9.32	7/16/08
	1112811	9.37	7/16/08
	1112812	9.54	7/16/08
	1112871	9.61	7/16/08
	1112872	9.69	7/16/08
	1112874	9.66	7/16/08
	1113426	9.31	7/16/08
	1113427	9.36	7/16/08
	1113428	9.42	7/16/08
	1113429	9.39	7/16/08
	1113430	9.34	7/16/08
R-44769	1113695	9.68	7/16/08

\*Note: Sample pH must be between 9.3 and 9.7 for analysis. pH is taken just prior to analysis.



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : ICV  
Data File Name : ...\\716\_007.DXD  
Method File Name : ...\\Cr6-716.met  
Date Time Collected : 7/16/08 11:45:56

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/16/08 50uL Loop

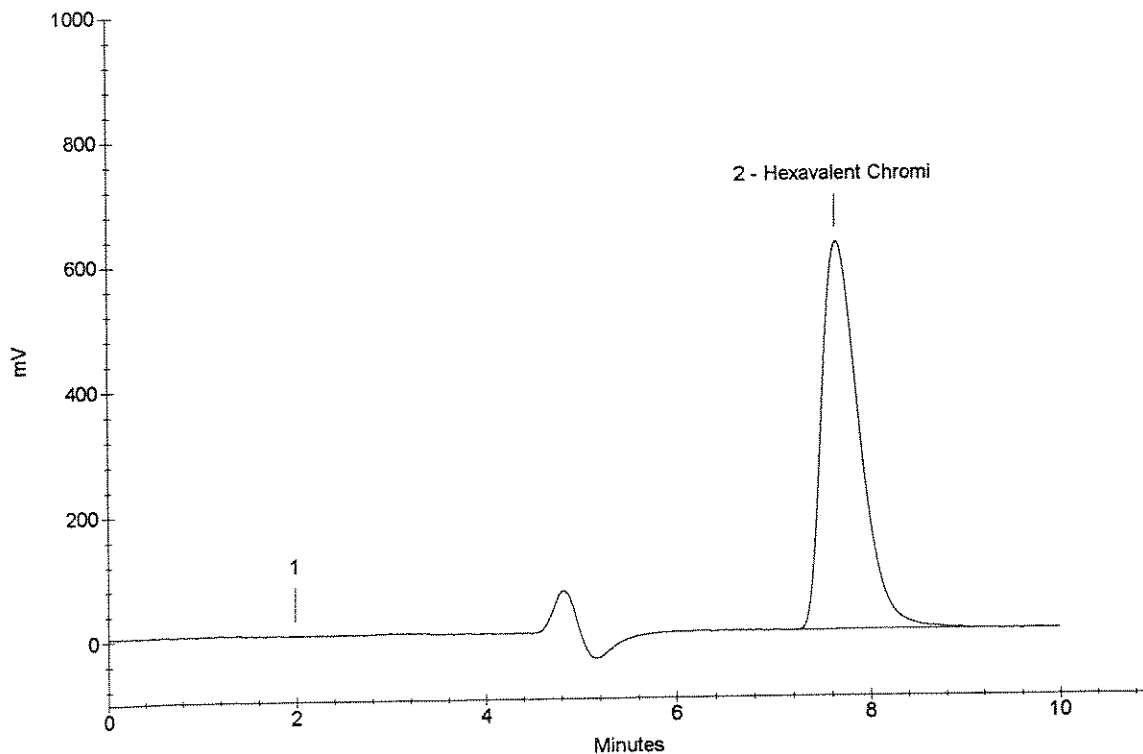
Dilution Factor : 1.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
2	7.68	Hexavalent Chromi <i>OK</i>	0.5027	16708230

*ICV 8/18/08*



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : ICB  
Data File Name : ...\\716\_008.DXD  
Method File Name : ...\\Cr6-716.met  
Date Time Collected : 7/16/08 11:56:21

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/16/08 50uL Loop

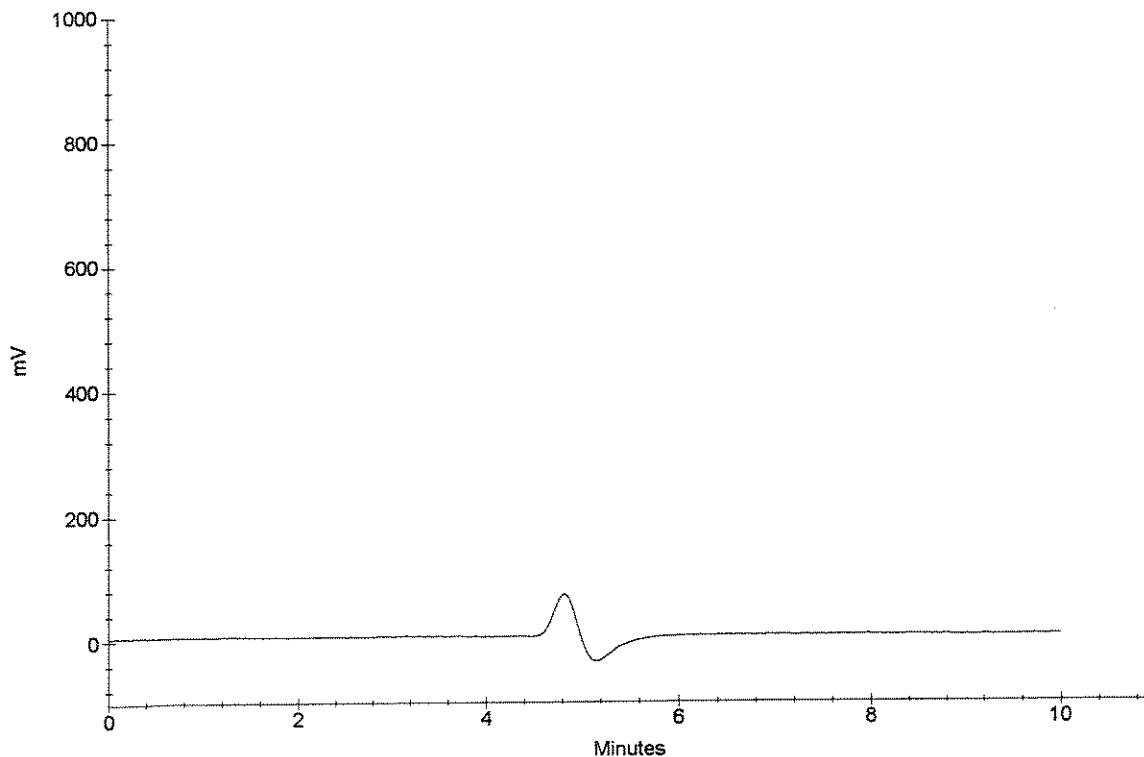
Dilution Factor : 1.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
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*OK*  
*ICB 8/8/08*



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : LCS  
Data File Name : ...\\716\_009.DXD  
Method File Name : ...\\Cr6-716.met  
Date Time Collected : 7/16/08 12:06:45

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/16/08 50uL Loop

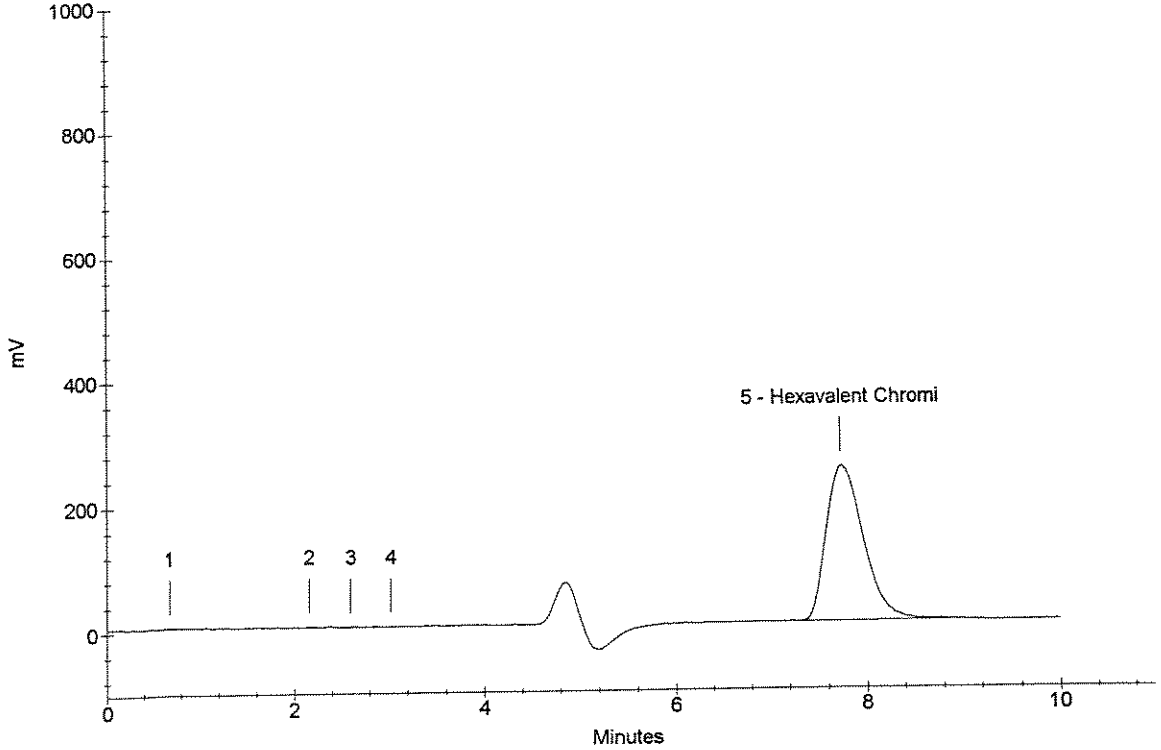
Dilution Factor : 1.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
5	7.74	Hexavalent Chromi	0.1984	6599758

*OK*  
*8/16/08*  
LCS





Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1112065  
Data File Name : ...716\_010.DXD  
Method File Name : ...Cr6-716.met  
Date Time Collected : 7/16/08 12:17:09

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

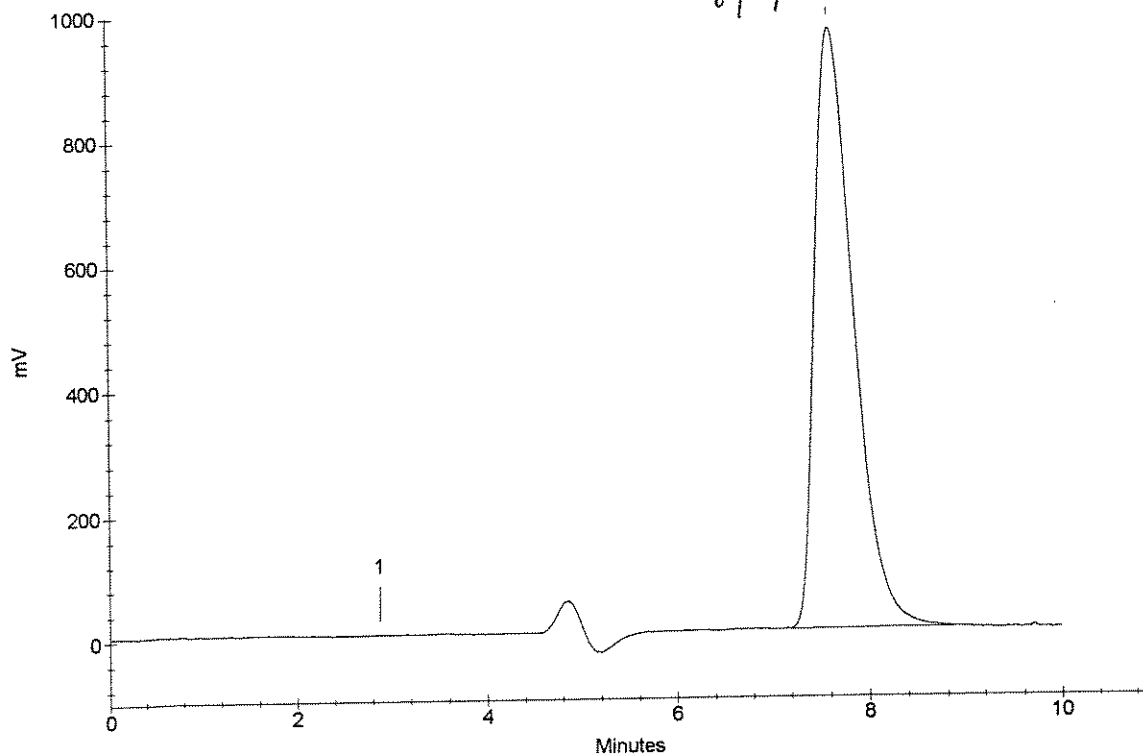
Dilution Factor : 10.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
2	7.64	Hexavalent Chromi	8.0180	26645916

*Handwritten notes:*  
OK  
Rpt @ 1/20  
1112065  
8/8/08



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1112066  
Data File Name : ...716\_011.DXD  
Method File Name : ...Cr6-716.met  
Date Time Collected : 7/16/08 12:27:34

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

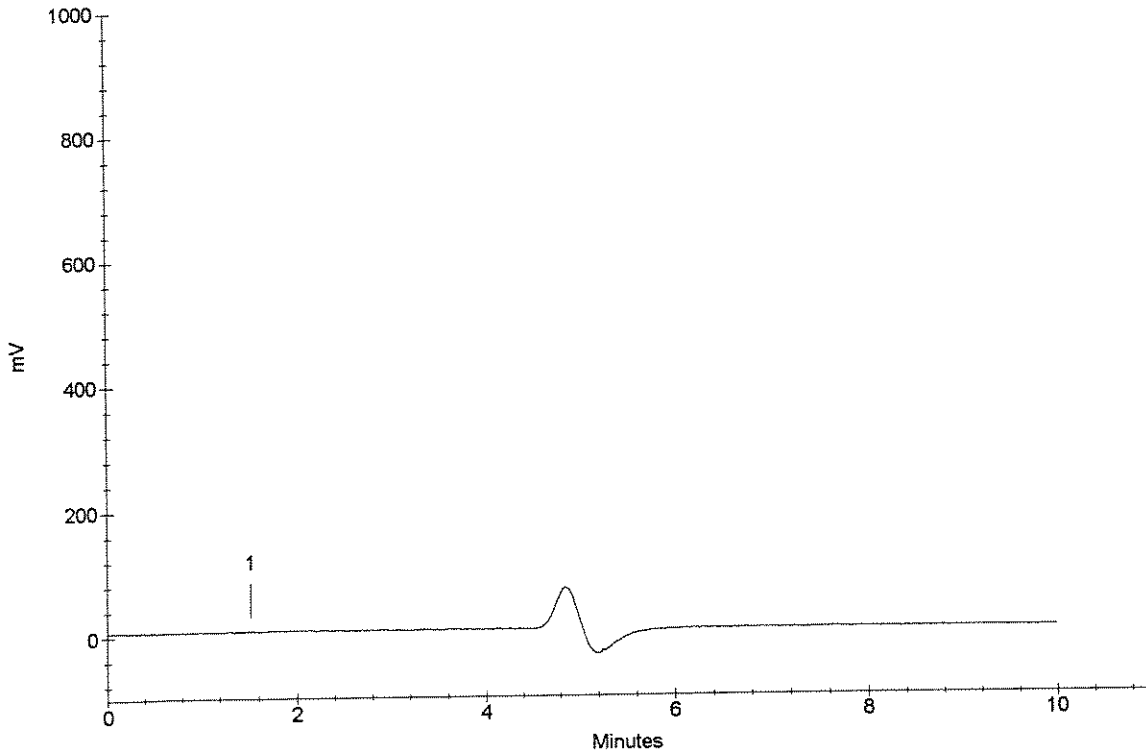
Dilution Factor : 10.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
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*OK*  
*8/8/08*  
1112066



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1112067  
Data File Name : ...\\716\_012.DXD  
Method File Name : ...\\Cr6-716.met  
Date Time Collected : 7/16/08 12:37:58

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

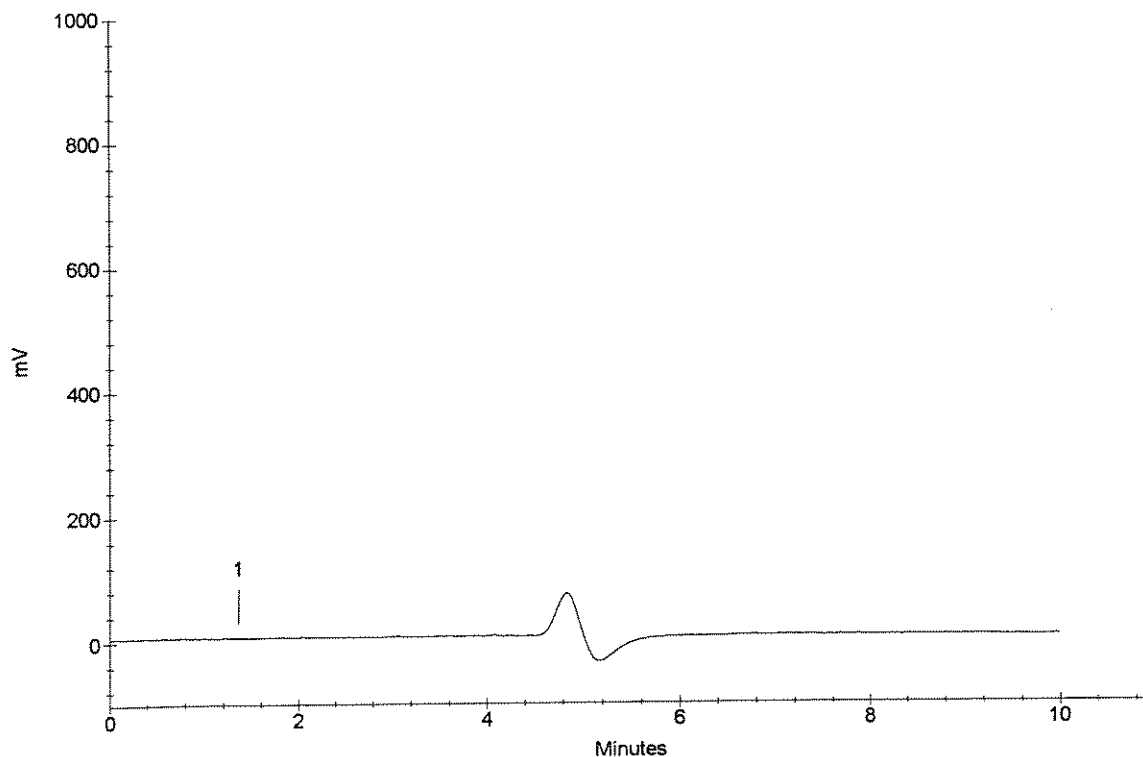
Dilution Factor : 10.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
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*OK*  
*[Signature]*  
1112067 8/8/08



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1112486  
Data File Name : ...\\716\_013.DXD  
Method File Name : ...\\Cr6-716.met  
Date Time Collected : 7/16/08 12:48:22

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

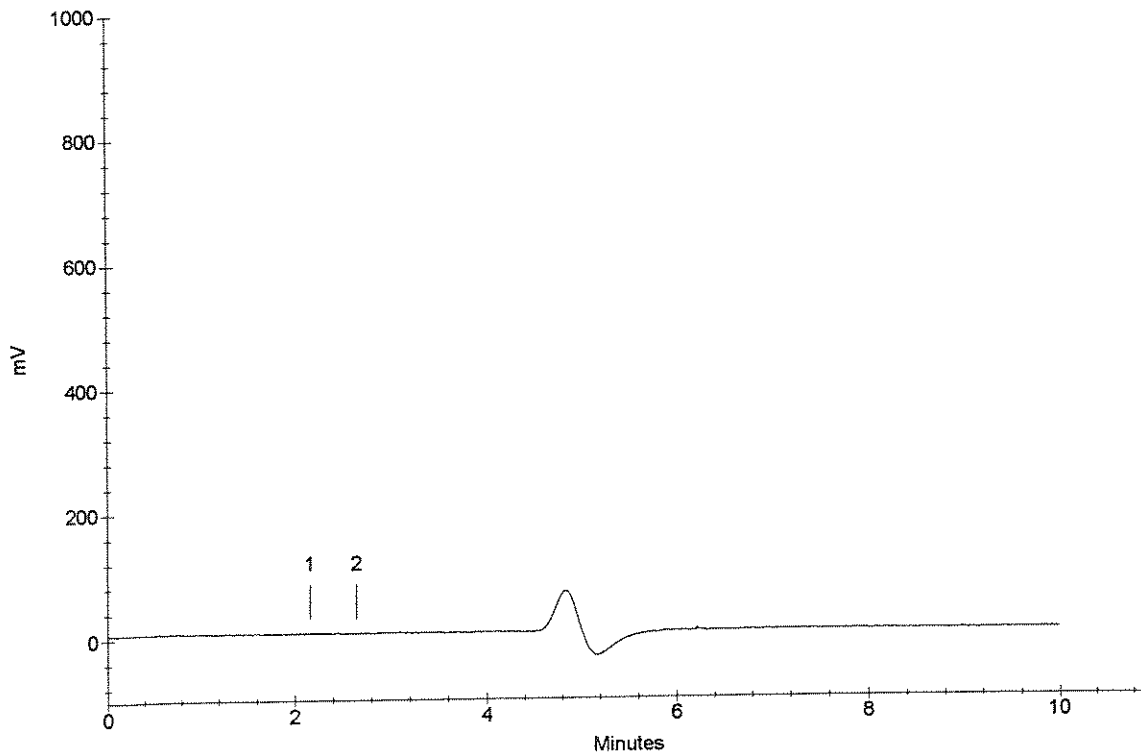
Dilution Factor : 10.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
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OK  
8/8/08  
1112486



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1112487  
Data File Name : ...716\_014.DXD  
Method File Name : ...Cr6-716.met  
Date Time Collected : 7/16/08 12:58:47

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

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

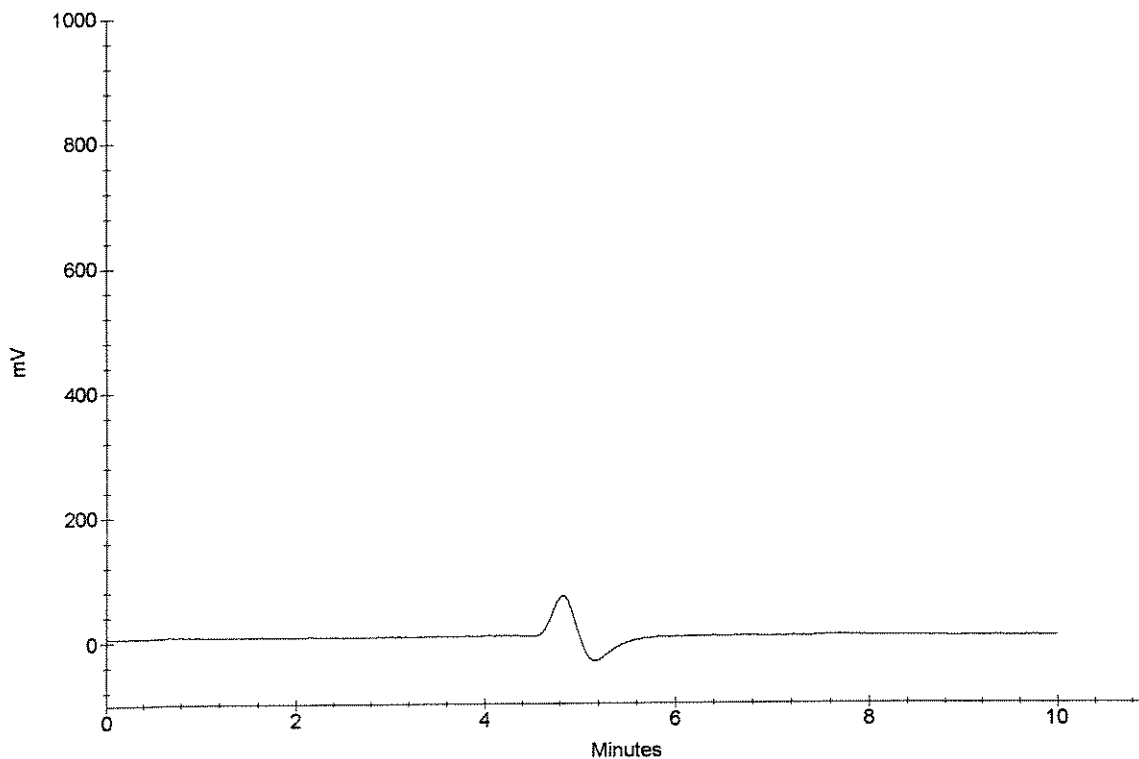
Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
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*OK*  
*8/8/08*

1112487



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1112488  
Data File Name : ...716\_015.DXD  
Method File Name : ...Cr6-716.met  
Date Time Collected : 7/16/08 13:09:10

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

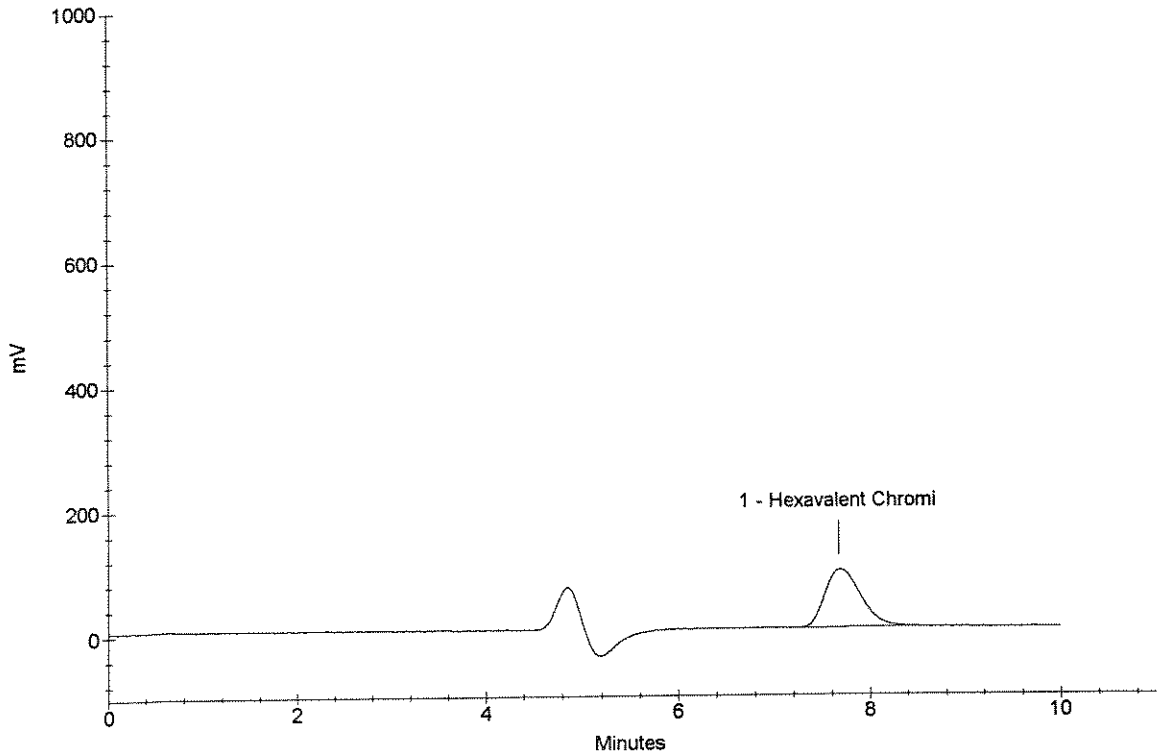
Dilution Factor : 10.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	7.68	Hexavalent Chromi	0.7127	2375457

*OK*  
*CM*  
*8/8/08*  
1112488



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1112489  
Data File Name : ...\\716\_016.DXD  
Method File Name : ...\\Cr6-716.met  
Date Time Collected : 7/16/08 13:19:35

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

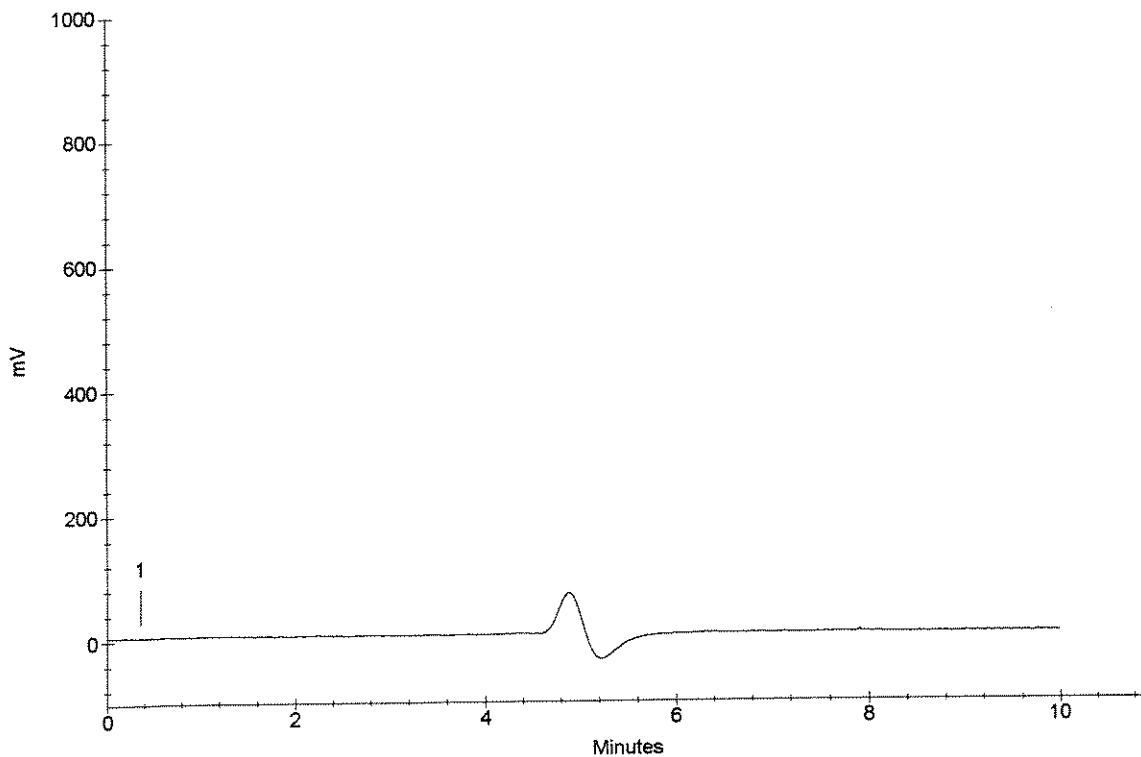
Dilution Factor : 10.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
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OK  
7/16/08  
1112489



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1112809  
Data File Name : ...\\716\_017.DXD  
Method File Name : ...\\Cr6-716.met  
Date Time Collected : 7/16/08 13:29:59

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

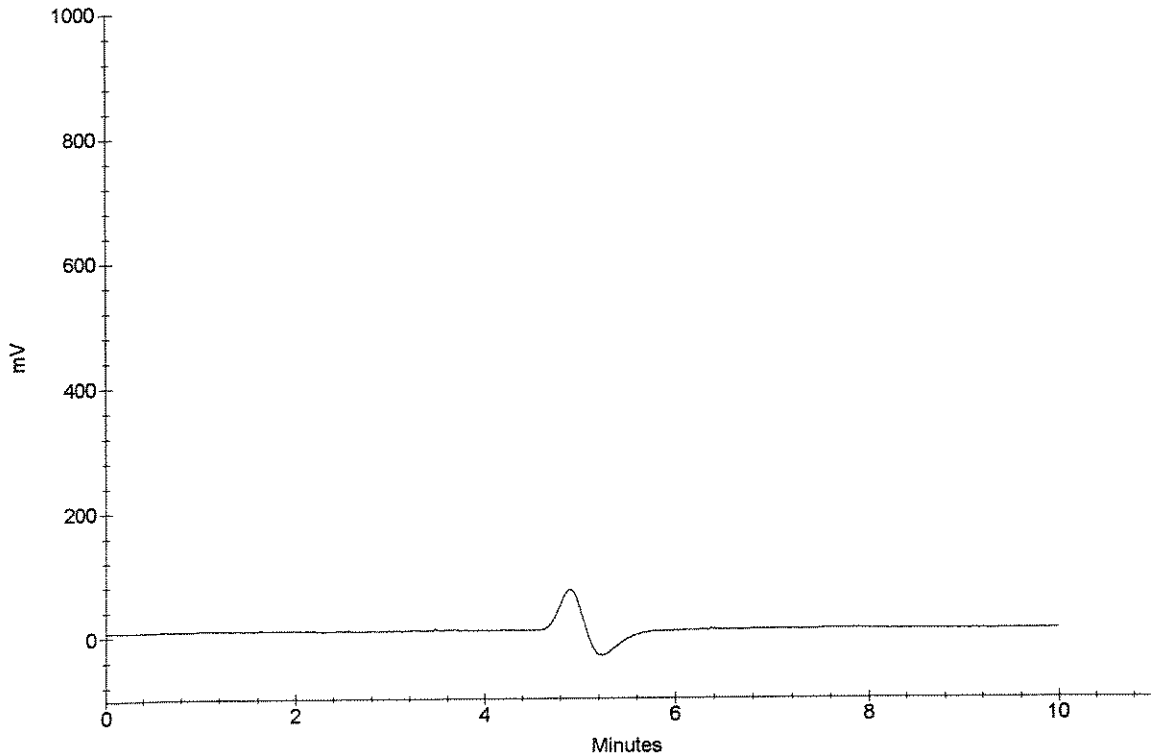
Dilution Factor : 10.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
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*OK*  
*C/S/B*  
1112809





Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1112810  
Data File Name : ...\\716\_018.DXD  
Method File Name : ...\\Cr6-716.met  
Date Time Collected : 7/16/08 13:40:22

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

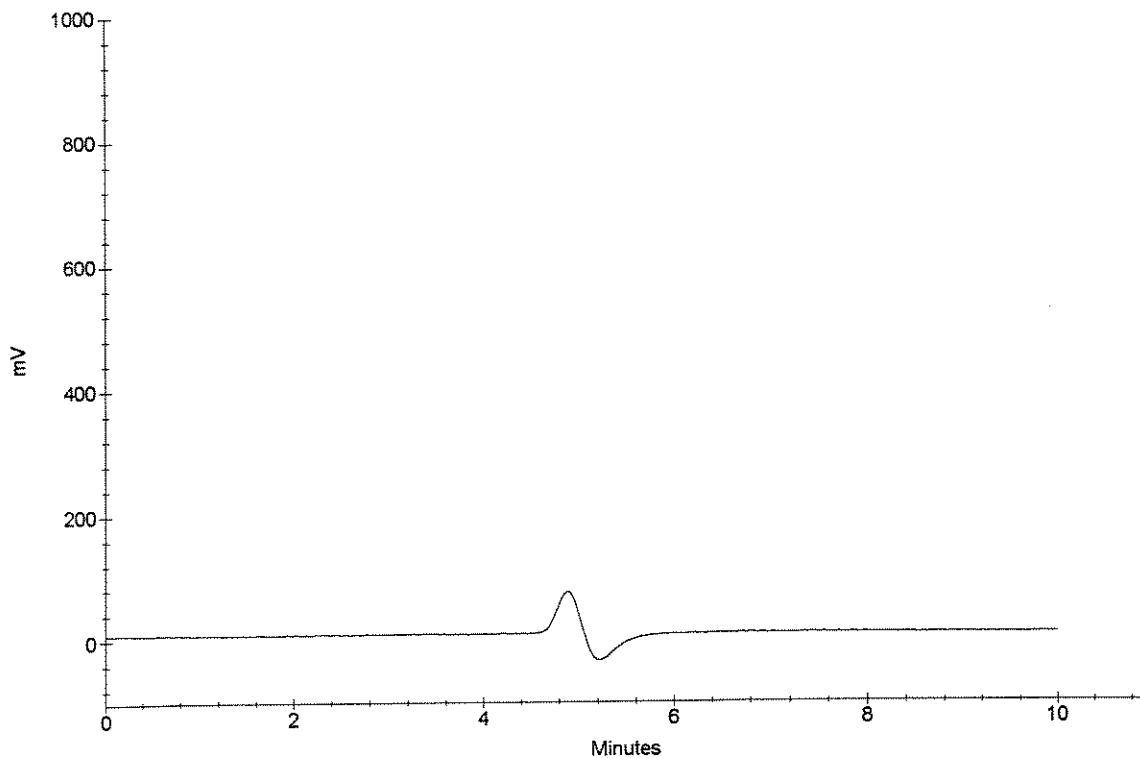
Dilution Factor : 10.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
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*OK*  
*7/16/08*  
1112810



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1112811  
Data File Name : ...716\_019.DXD  
Method File Name : ...Cr6-716.met  
Date Time Collected : 7/16/08 13:50:46

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

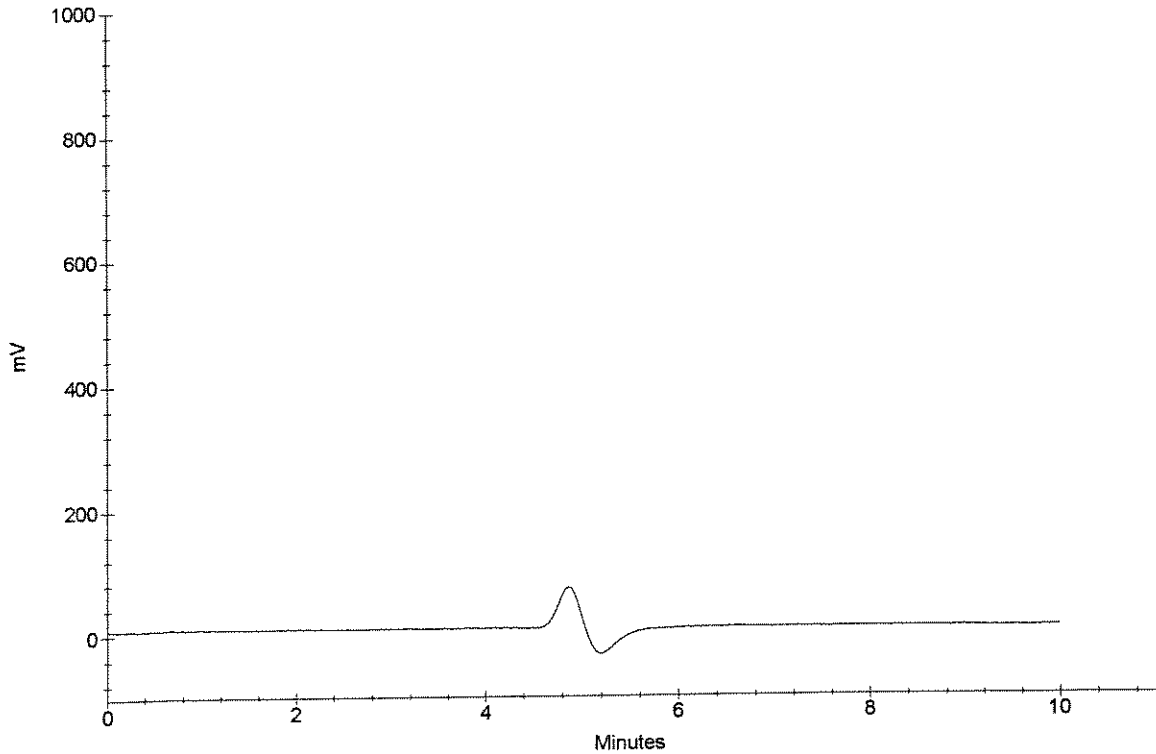
Dilution Factor : 10.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
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*OK*  
*5/8/08*  
1112811



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1112811 DUP  
Data File Name : ...\\716\_020.DXD  
Method File Name : ...\\Cr6-716.met  
Date Time Collected : 7/16/08 14:01:10

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

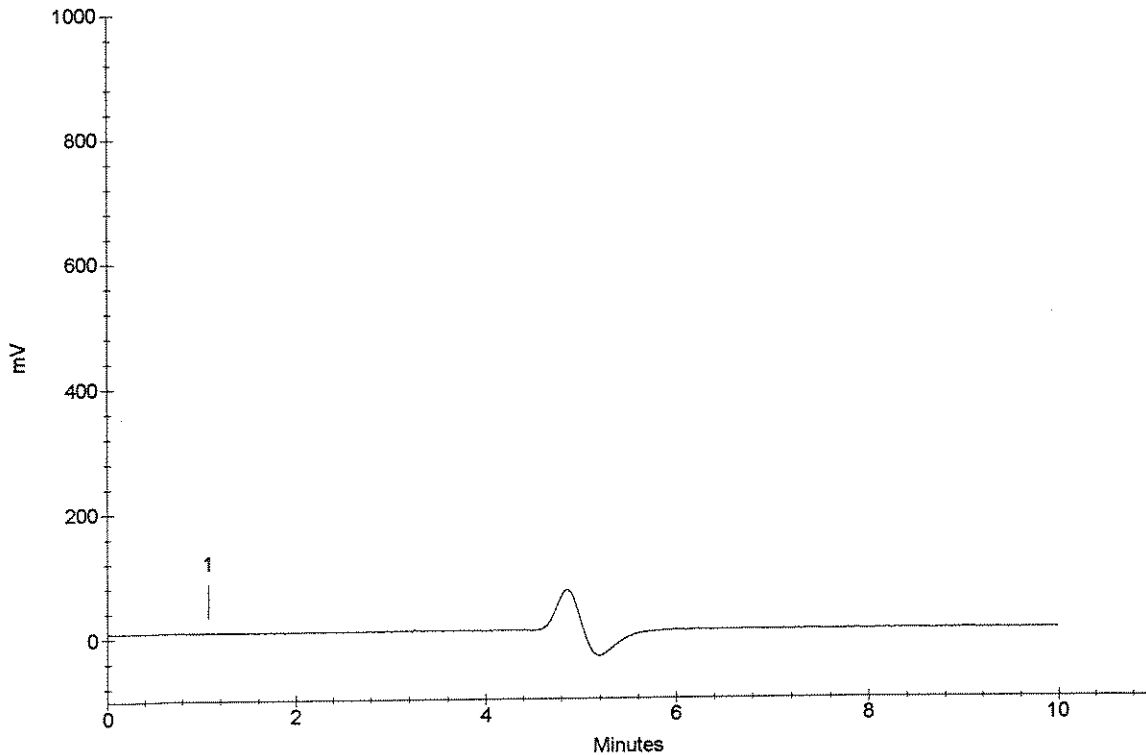
Dilution Factor : 10.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
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*OK*  
*W/S*  
*8/8/08*  
1112811 DUP



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1112811 SPK  
Data File Name : ...\\716\_021.DXD  
Method File Name : ...\\Cr6-716.met  
Date Time Collected : 7/16/08 14:11:34

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

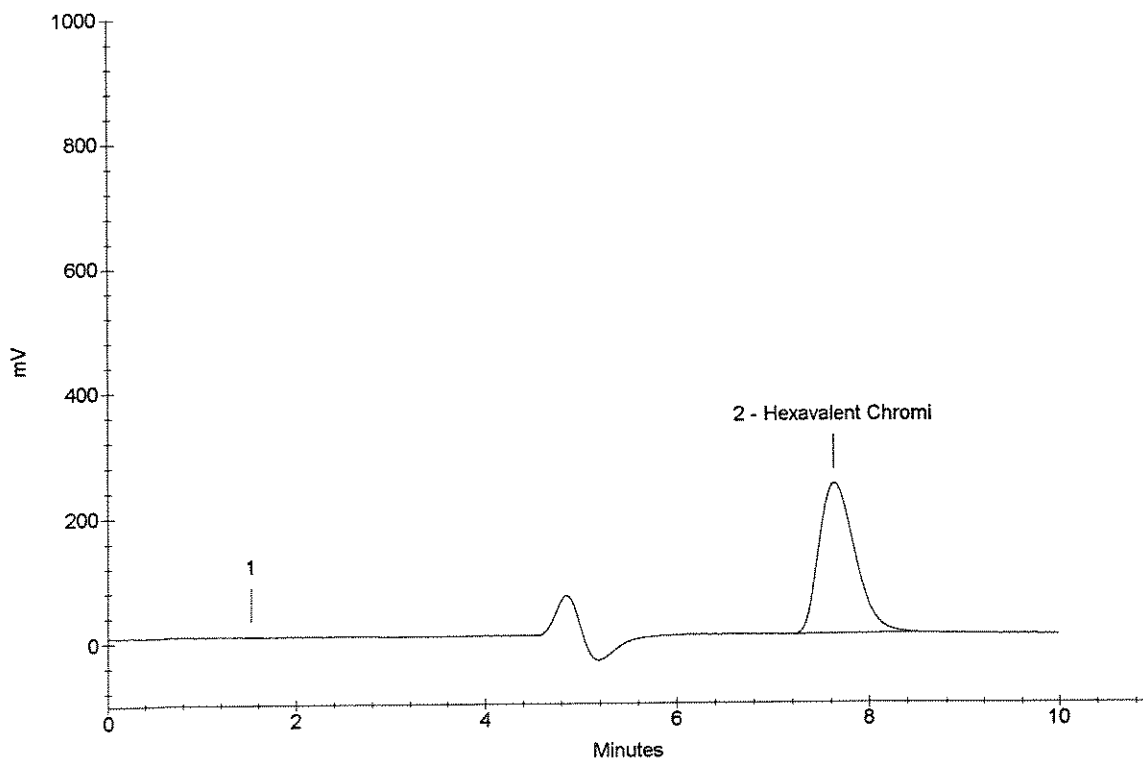
Dilution Factor : 10.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
2	7.64	Hexavalent Chromi <i>OK</i>	1.8760	6240092

*[Signature]*  
8/8/08  
1112811 SPK



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : CCV  
Data File Name : ...716\_022.DXD  
Method File Name : ...Cr6-716.met  
Date Time Collected : 7/16/08 14:21:59

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

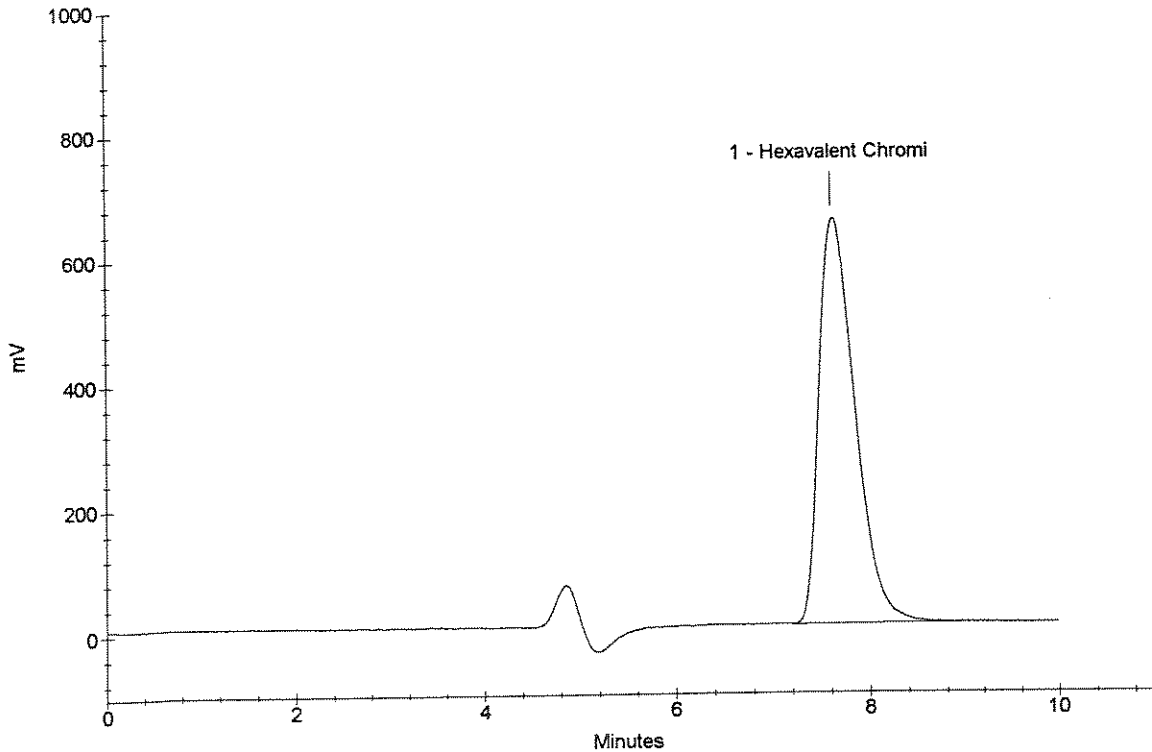
Dilution Factor : 1.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	7.64	Hexavalent Chromi <i>OK</i>	0.5047	16774376

*CCV*  
9/8/08



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : CCB  
Data File Name : ...716\_023.DXD  
Method File Name : ...Cr6-716.met  
Date Time Collected : 7/16/08 14:32:23

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

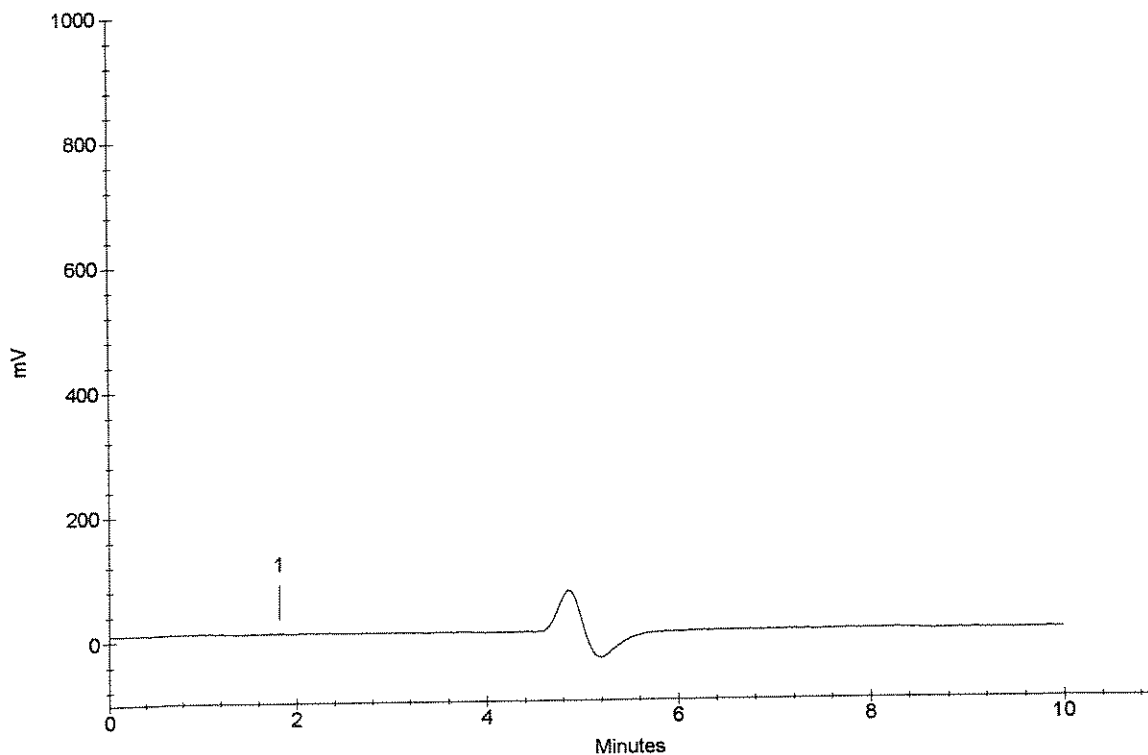
Dilution Factor : 1.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
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*OK*  
*7/16/08*  
CCB



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1112812  
Data File Name : ...716\_024.DXD  
Method File Name : ...Cr6-716.met  
Date Time Collected : 7/16/08 14:42:48

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

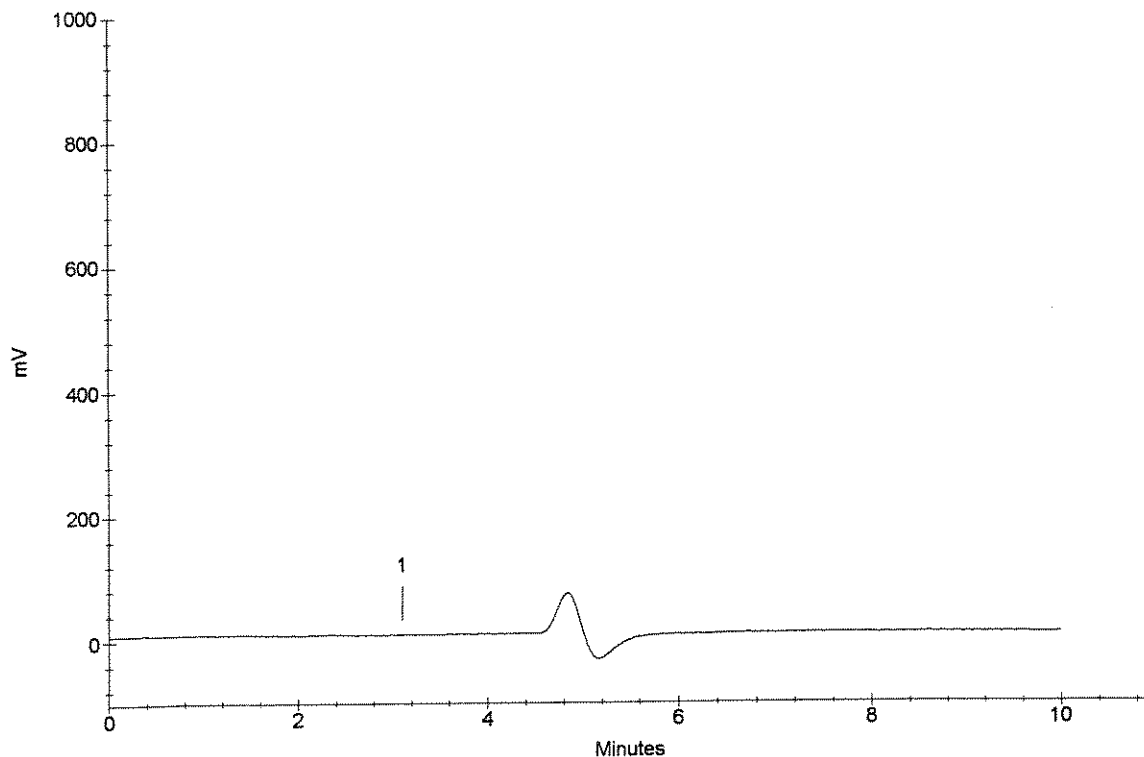
Dilution Factor : 10.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
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*OK*  
*7/18/08*  
1112812



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1112871  
Data File Name : ...716\_025.DXD  
Method File Name : ...Cr6-716.met  
Date Time Collected : 7/16/08 14:53:13

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

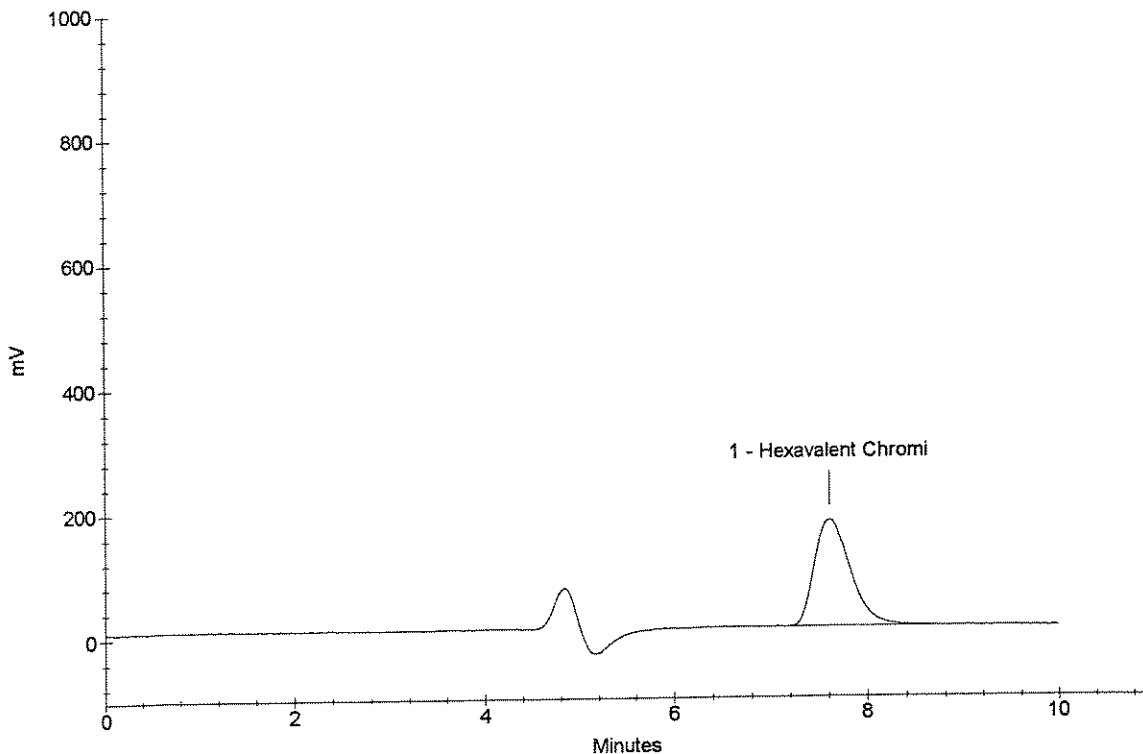
Dilution Factor : 10.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	7.62	Hexavalent Chromi	1.3126	4368281

*OK*  
*8/8/08*  
1112871





Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1112872  
Data File Name : ...\\716\_026.DXD  
Method File Name : ...\\Cr6-716.met  
Date Time Collected : 7/16/08 15:03:36

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

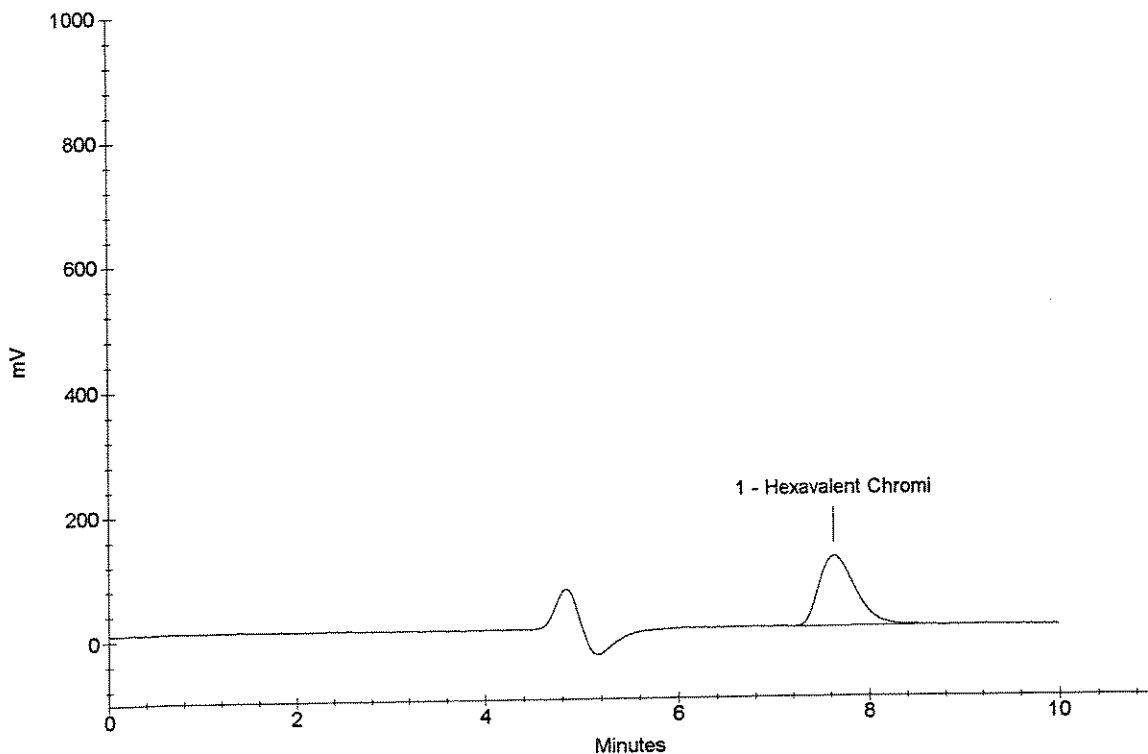
Dilution Factor : 10.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	7.64	Hexavalent Chromi	0.8815	2936015

*[Handwritten Signature]*  
1112872



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1112874  
Data File Name : ...\\716\_027.DXD  
Method File Name : ...\\Cr6-716.met  
Date Time Collected : 7/16/08 15:14:01

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

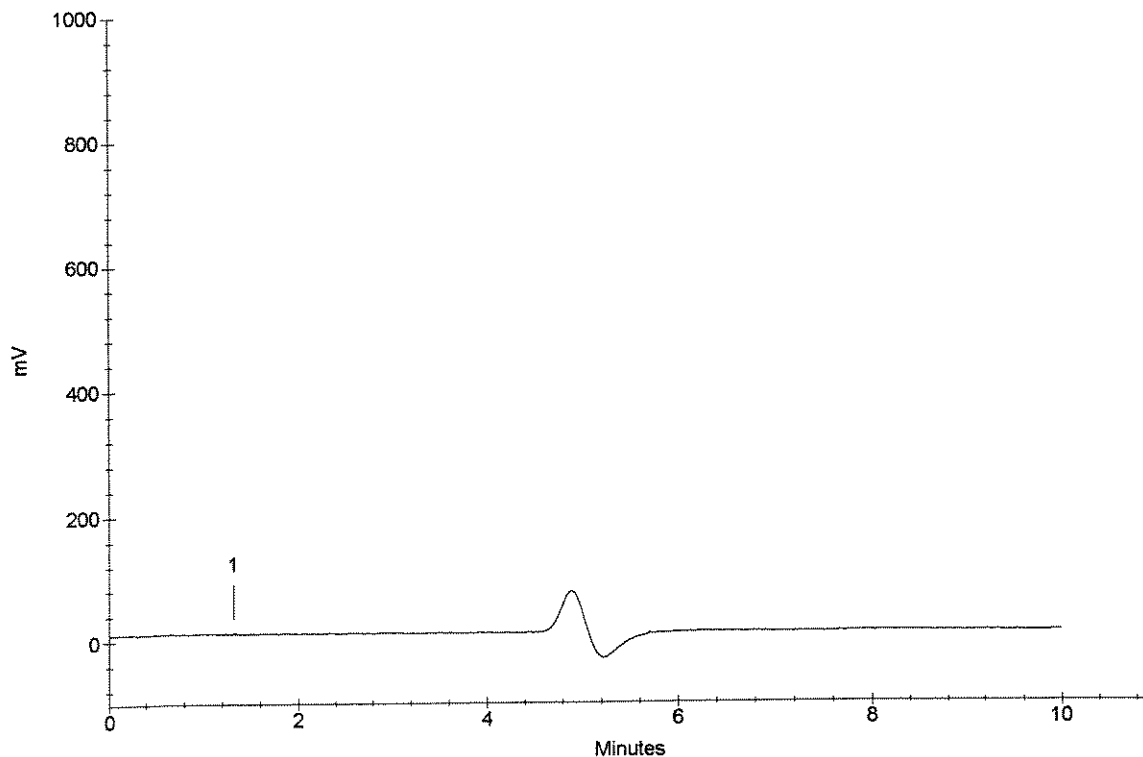
Dilution Factor : 10.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
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*OK*  
*8/8/08*  
1112874



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1112874 DUP  
Data File Name : ...716\_028.DXD  
Method File Name : ...Cr6-716.met  
Date Time Collected : 7/16/08 15:24:26

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

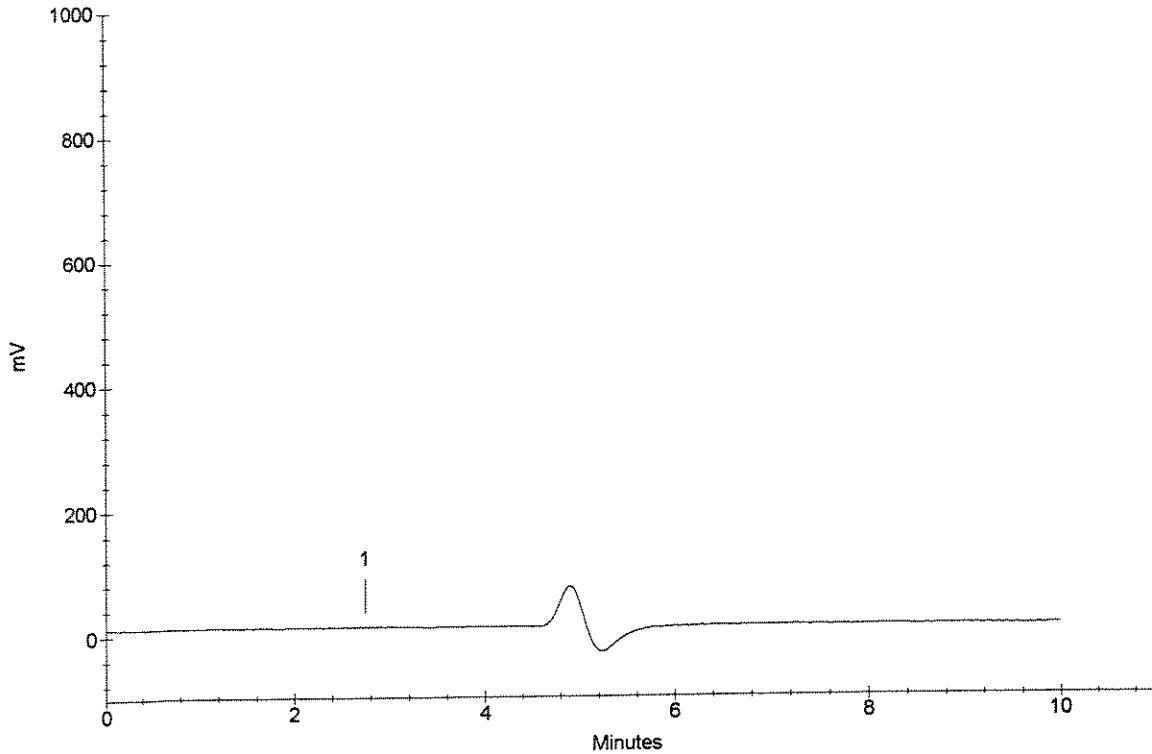
Dilution Factor : 10.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
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*OK*  
*7/16/08*  
1112874 DUP



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1112874 SPK  
Data File Name : ...716\_029.DXD  
Method File Name : ...Cr6-716.met  
Date Time Collected : 7/16/08 15:34:49

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

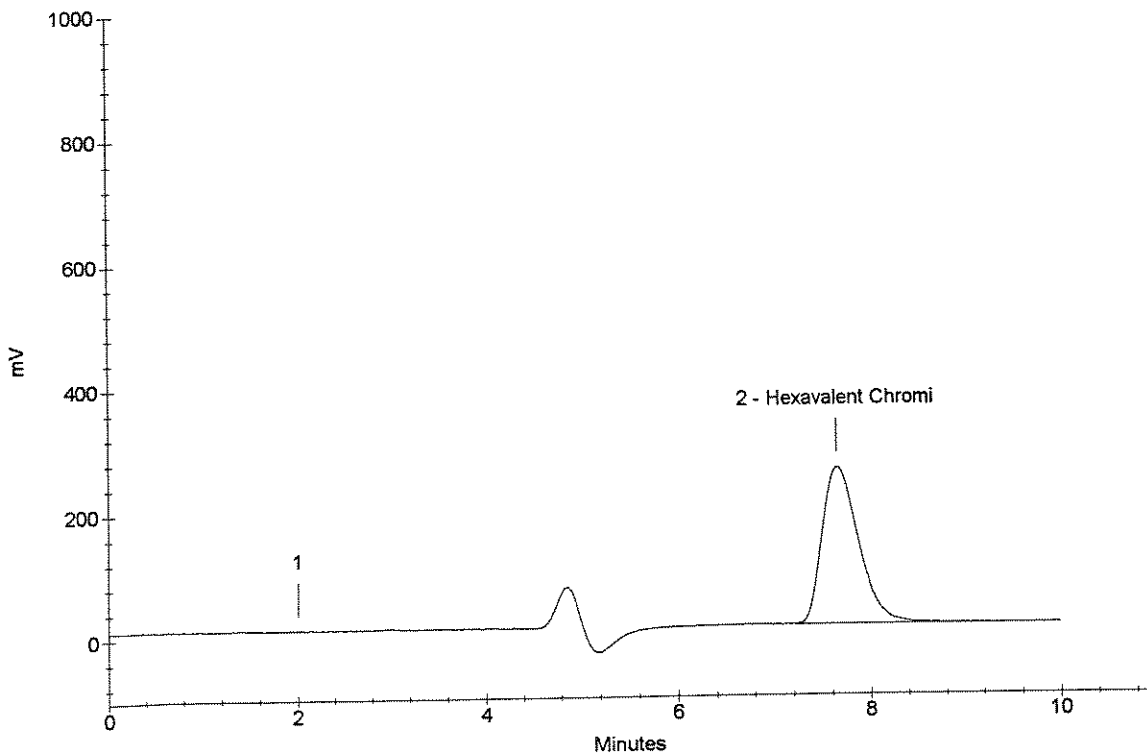
Dilution Factor : 10.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
2	7.66	Hexavalent Chromi	1.9800	6585760

*OK*  
*[Signature]*  
1112874 SPK



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1113426  
Data File Name : ...\\716\_030.DXD  
Method File Name : ...\\Cr6-716.met  
Date Time Collected : 7/16/08 15:45:13

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

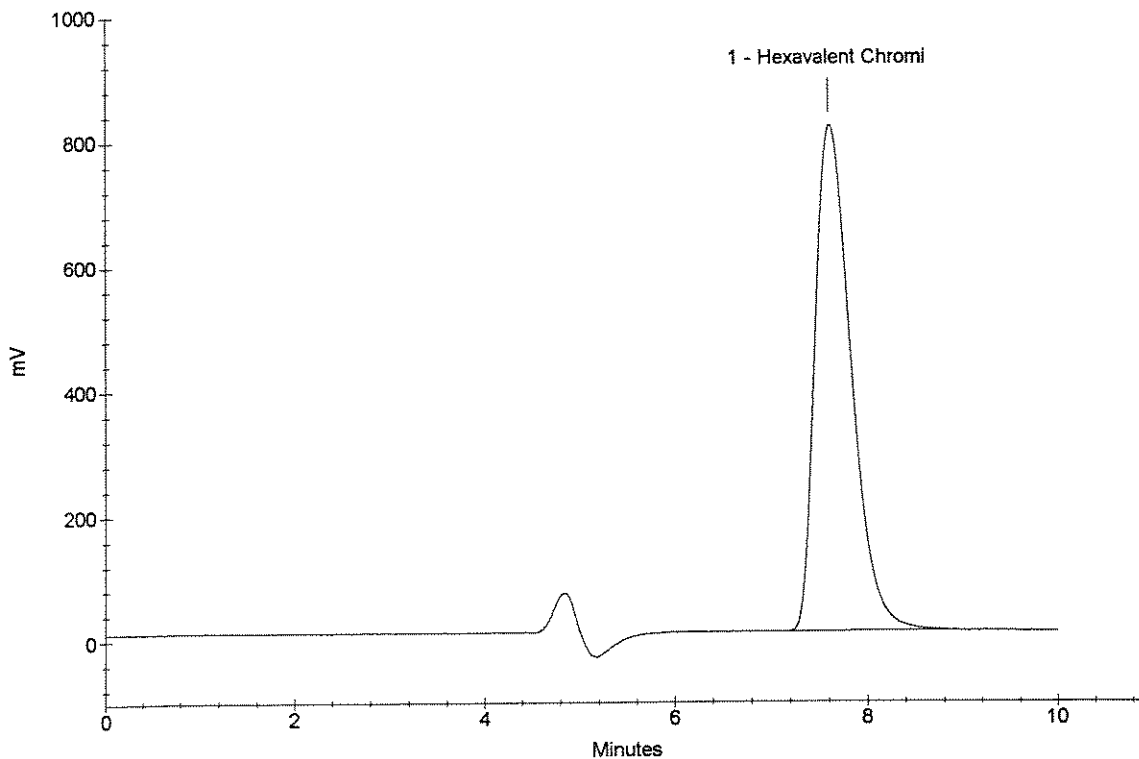
Dilution Factor : 10.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	7.62	Hexavalent Chromi <i>OK</i>	6.3353	21055408

*Handwritten signature*  
1113426



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1113427  
Data File Name : ...716\_031.DXD  
Method File Name : ...Cr6-716.met  
Date Time Collected : 7/16/08 15:55:38

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

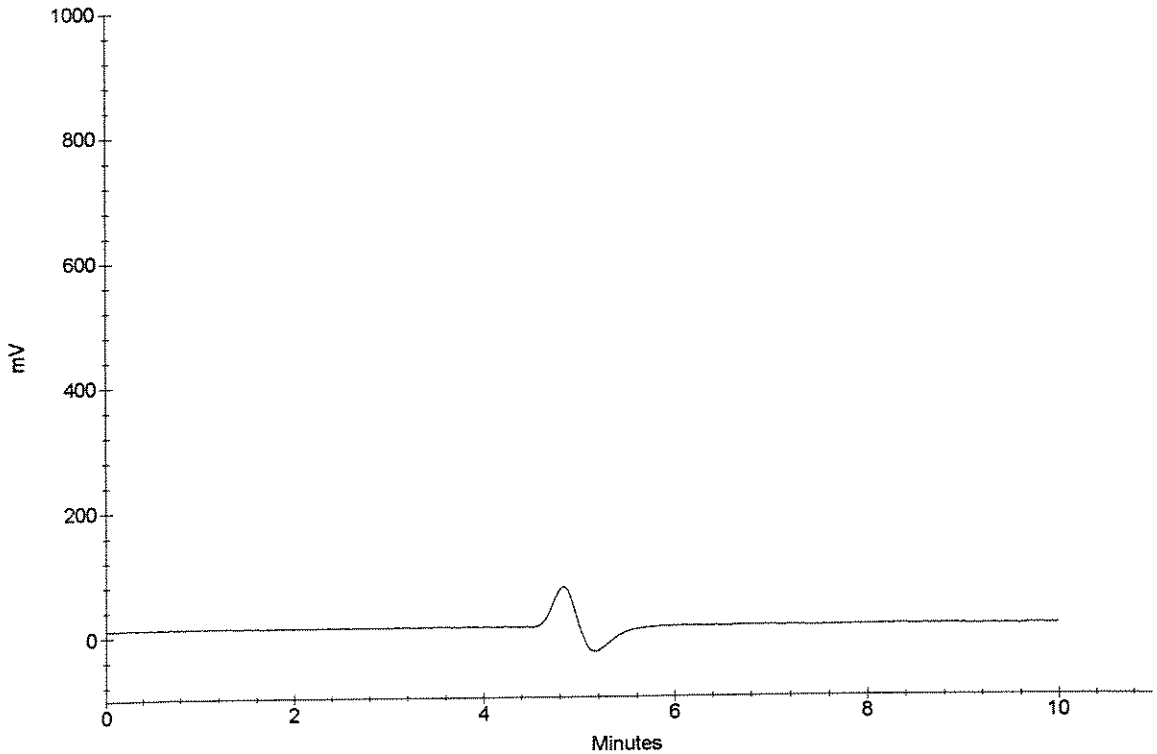
Dilution Factor : 10.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
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*AK*  
*7/16/08*  
1113427



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1113428  
Data File Name : ...\\716\_032.DXD  
Method File Name : ...\\Cr6-716.met  
Date Time Collected : 7/16/08 16:06:02

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

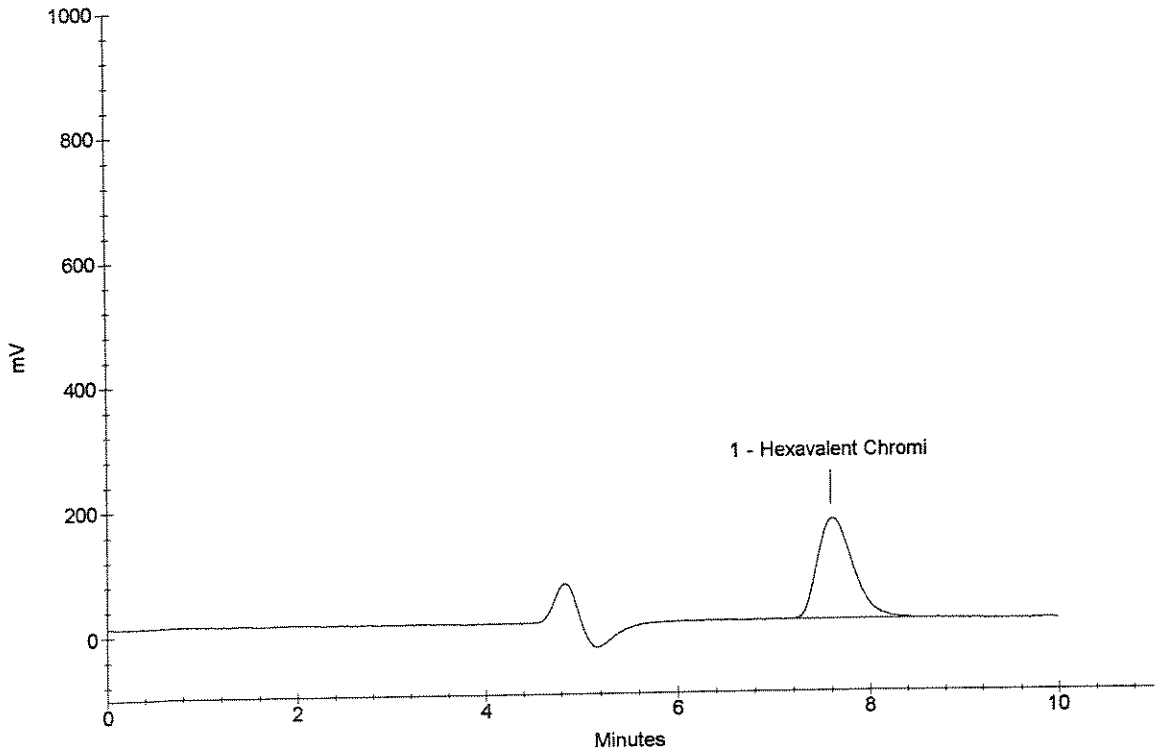
Dilution Factor : 10.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	7.60	Hexavalent Chromi	1.2333	4104868

*OK*  
*8/8/08*  
1113428



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1113429  
Data File Name : ...\\716\_033.DXD  
Method File Name : ...\\Cr6-716.met  
Date Time Collected : 7/16/08 16:16:26

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

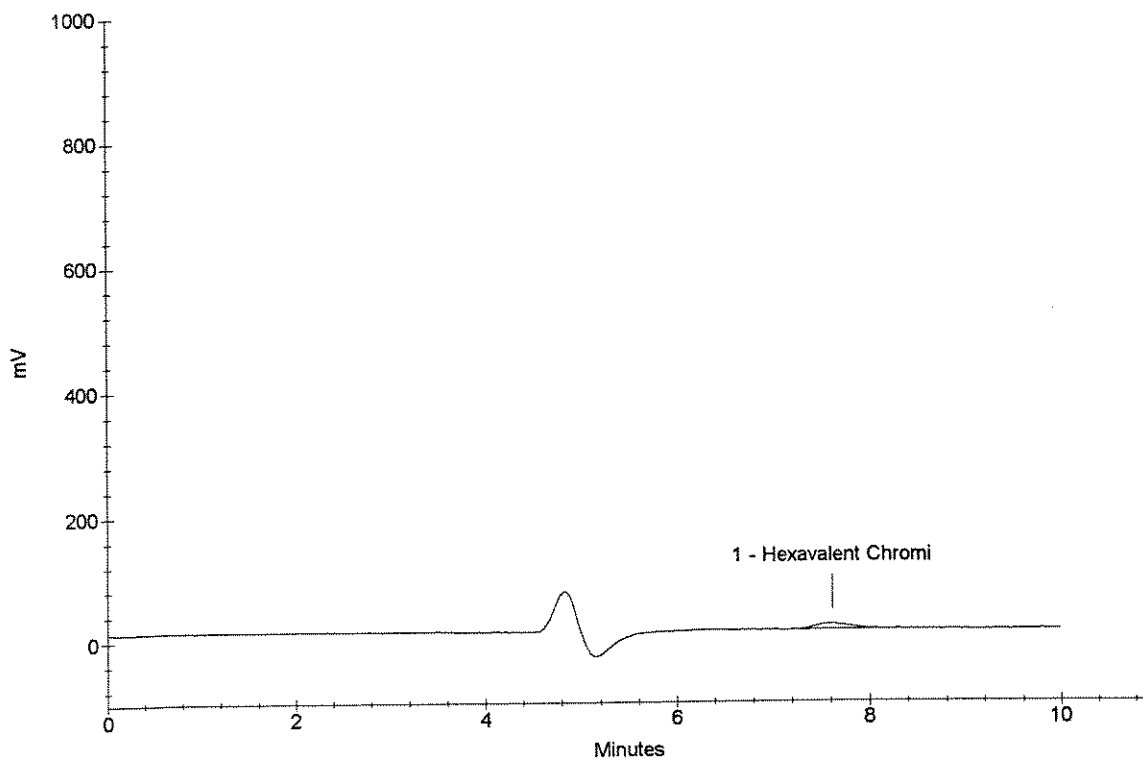
Dilution Factor : 10.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	7.62	Hexavalent Chromi	0.0655	225107

*OK*  
*CM*  
*8/18/08*  
1113429





Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1113430  
Data File Name : ...\\716\_034.DXD  
Method File Name : ...\\Cr6-716.met  
Date Time Collected : 7/16/08 16:26:49

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

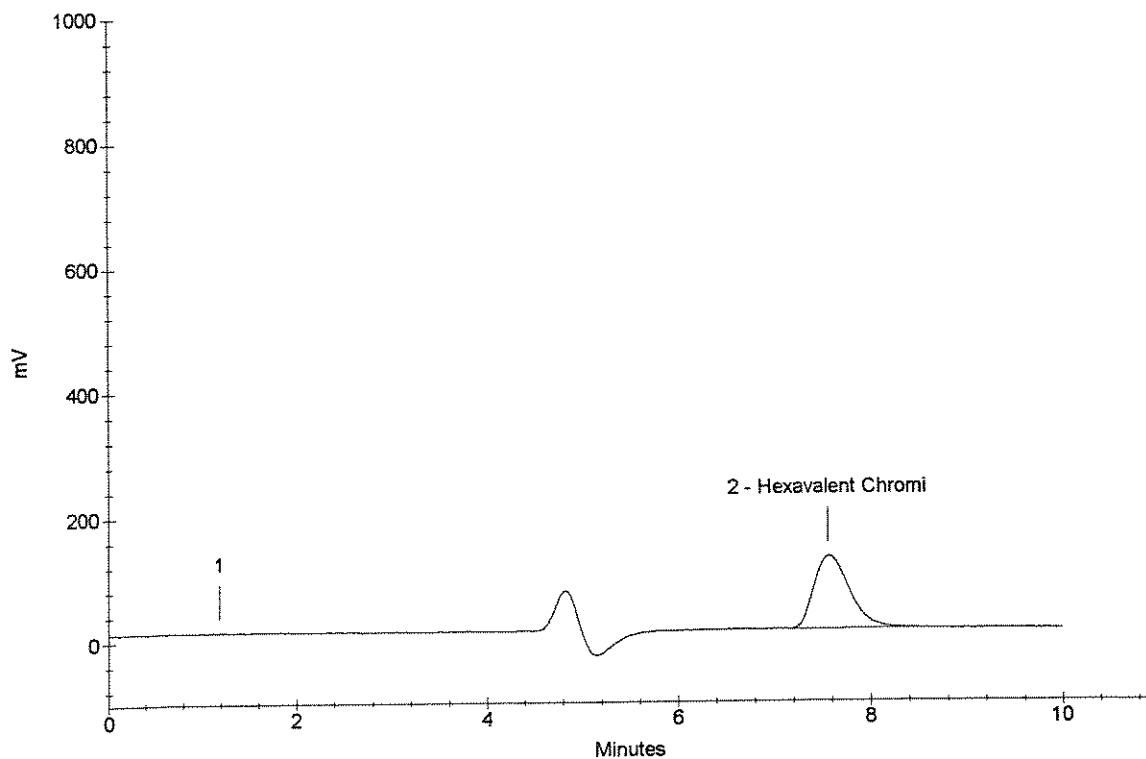
Dilution Factor : 10.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
2	7.56	Hexavalent Chromi	0.8979	2990639

*OK*  
*[Signature]*  
1113430



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1113695  
Data File Name : ...716\_035.DXD  
Method File Name : ...Cr6-716.met  
Date Time Collected : 7/16/08 16:37:14

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

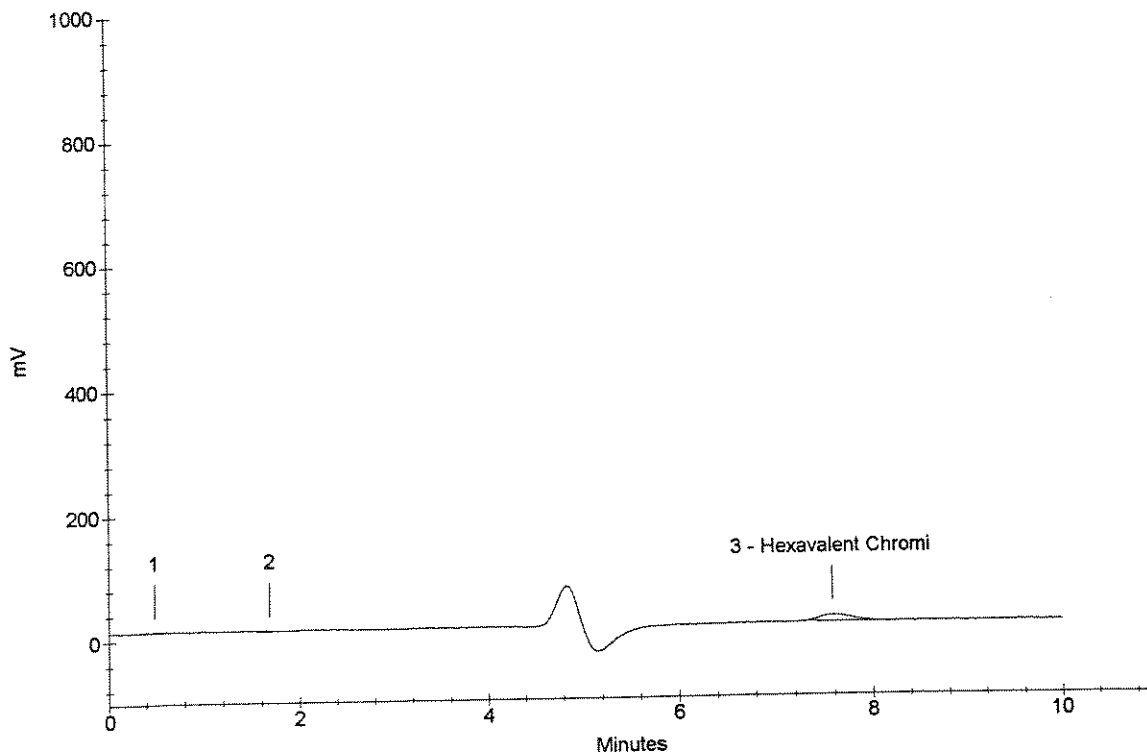
Dilution Factor : 10.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
3	7.58	Hexavalent Chromi	0.0680	233482

*OK*  
*07/18/08*  
1113695



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : CCV  
Data File Name : ...716\_036.DXD  
Method File Name : ...Cr6-716.met  
Date Time Collected : 7/16/08 16:47:38

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

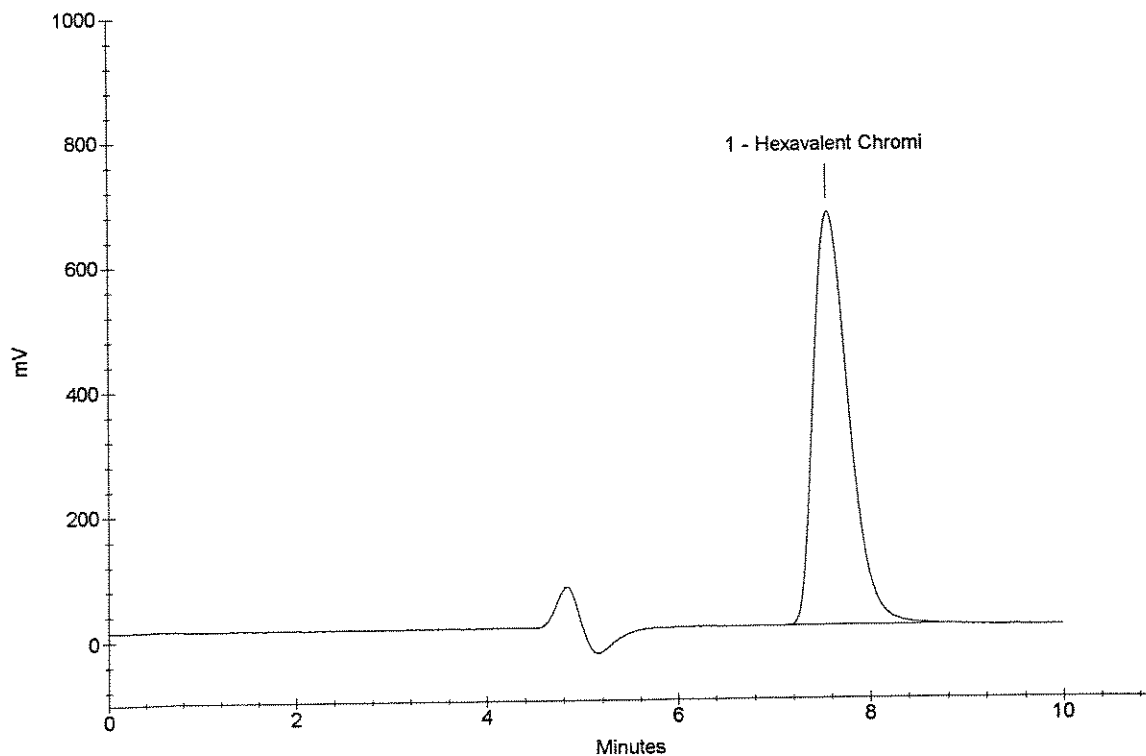
Dilution Factor : 1.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	7.58	Hexavalent Chromi	0.5040	16750995

*OK*  
*CCV*  
*8/16/08*  
ccv



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : CCB  
Data File Name : ...716\_037.DXD  
Method File Name : ...Cr6-716.met  
Date Time Collected : 7/16/08 16:58:03

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

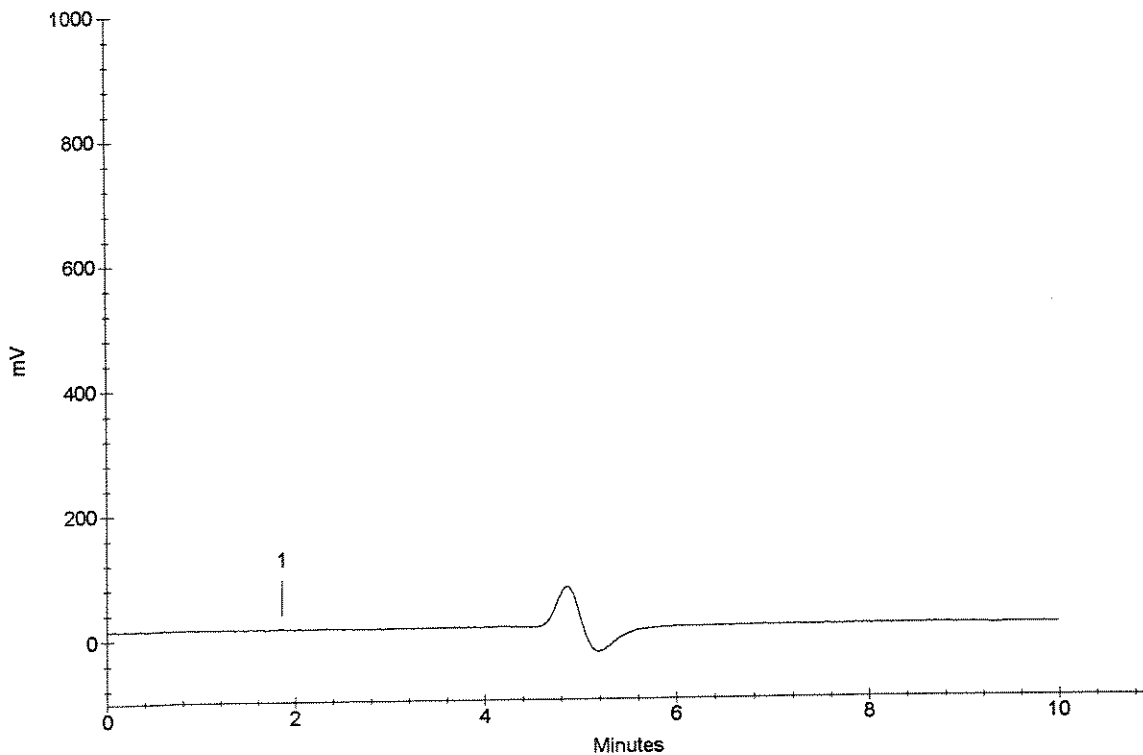
Dilution Factor : 1.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
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*OK*  
*7/17/08*  
*CCB*



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : LCS  
Data File Name : ...\\716\_038.DXD  
Method File Name : ...\\Cr6-716.met  
Date Time Collected : 7/16/08 17:08:27

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

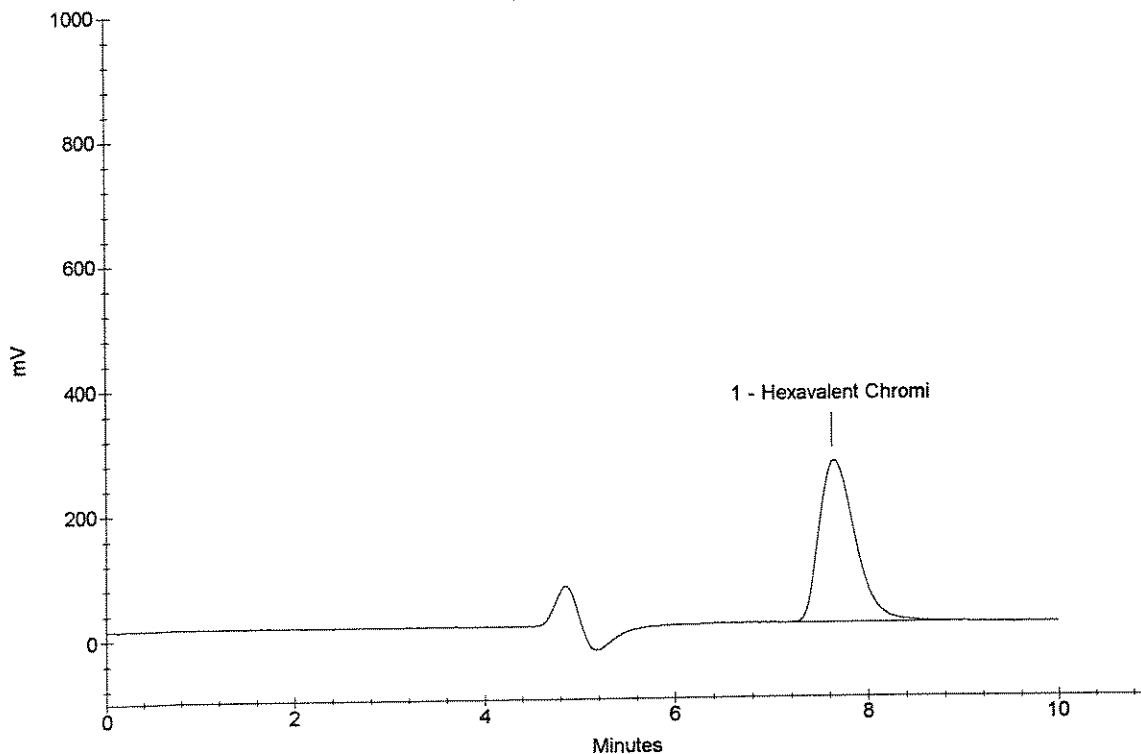
Dilution Factor : 1.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	7.64	Hexavalent Chromi	0.2004	6665277

*OK*  
*WTP*  
*8/4/08*  
*LCS*



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1113696  
Data File Name : ...\\716\_039.DXD  
Method File Name : ...\\Cr6-716.met  
Date Time Collected : 7/16/08 17:18:52

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

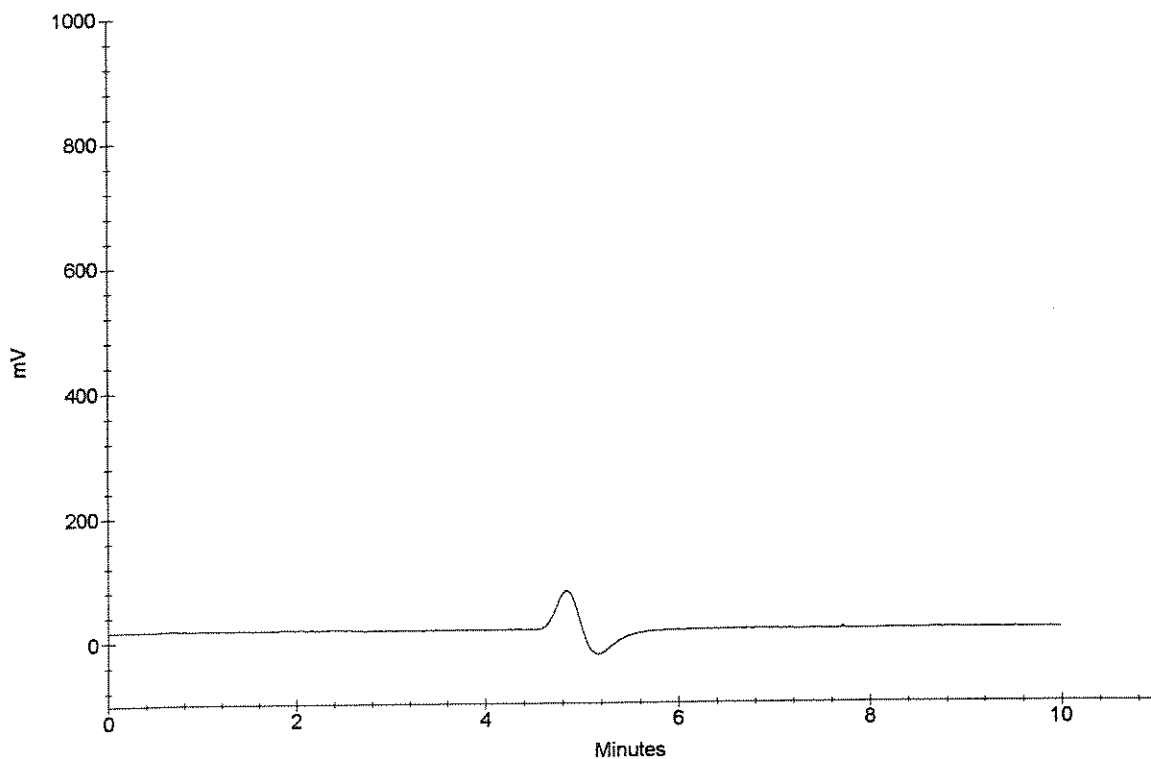
Dilution Factor : 10.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
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*OK*  
*7/18/08*  
1113696



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1113697  
Data File Name : ...716\_040.DXD  
Method File Name : ...Cr6-716.met  
Date Time Collected : 7/16/08 17:29:17

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

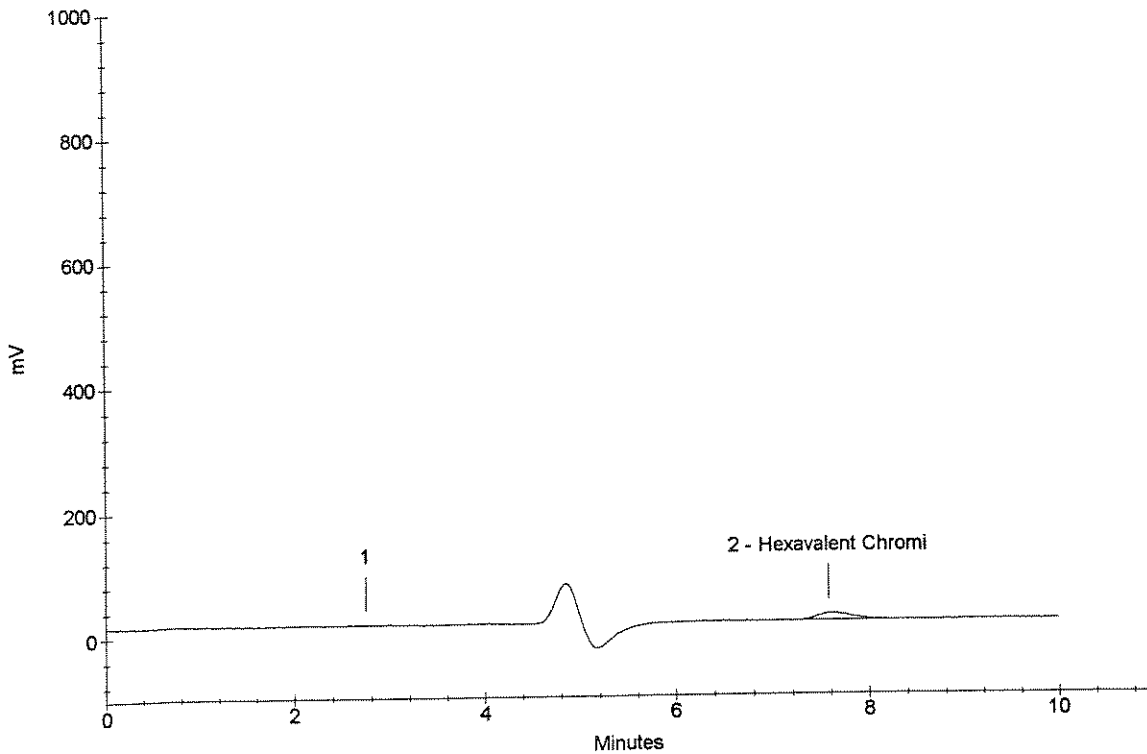
Dilution Factor : 10.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
2	7.58	Hexavalent Chromi	0.0793	271029

*OK*  
*4/1/08*  
1113697



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1113698  
Data File Name : ...716\_041.DXD  
Method File Name : ...Cr6-716.met  
Date Time Collected : 7/16/08 17:39:42

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

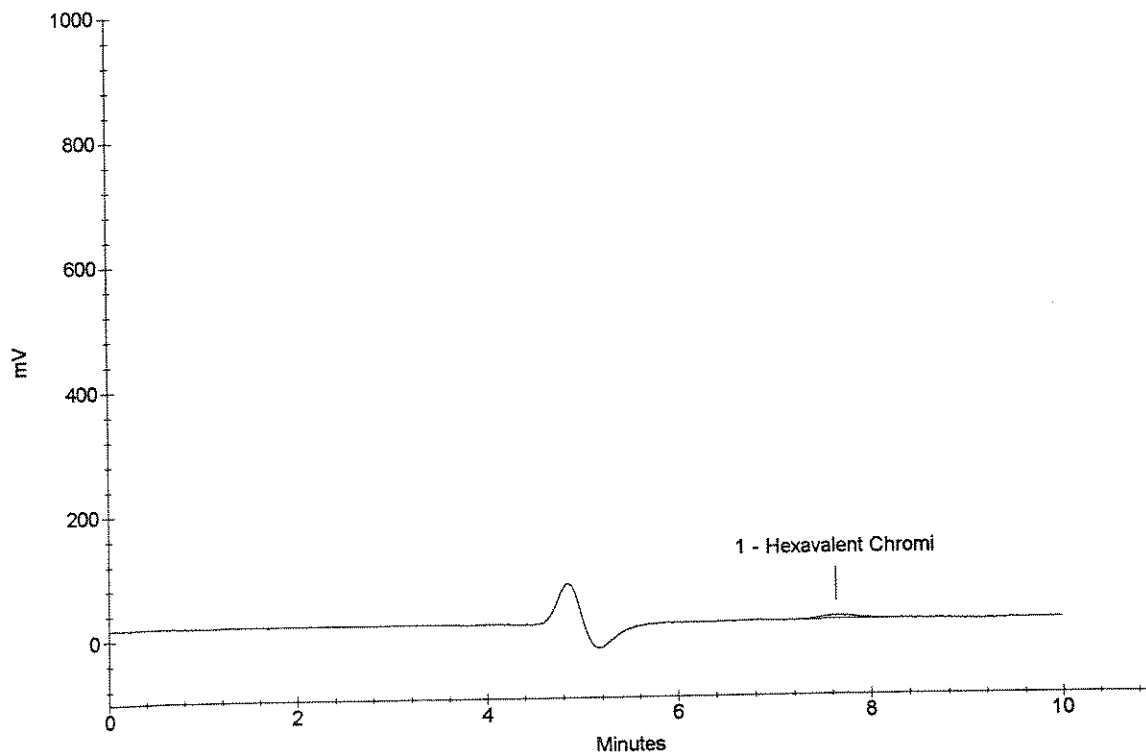
Dilution Factor : 10.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	7.64	Hexavalent Chromi	0.0361	127326

*OK*  
*[Signature]*  
7/17/08  
1113698





Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1113699  
Data File Name : ...\\716\_042.DXD  
Method File Name : ...\\Cr6-716.met  
Date Time Collected : 7/16/08 17:50:06

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

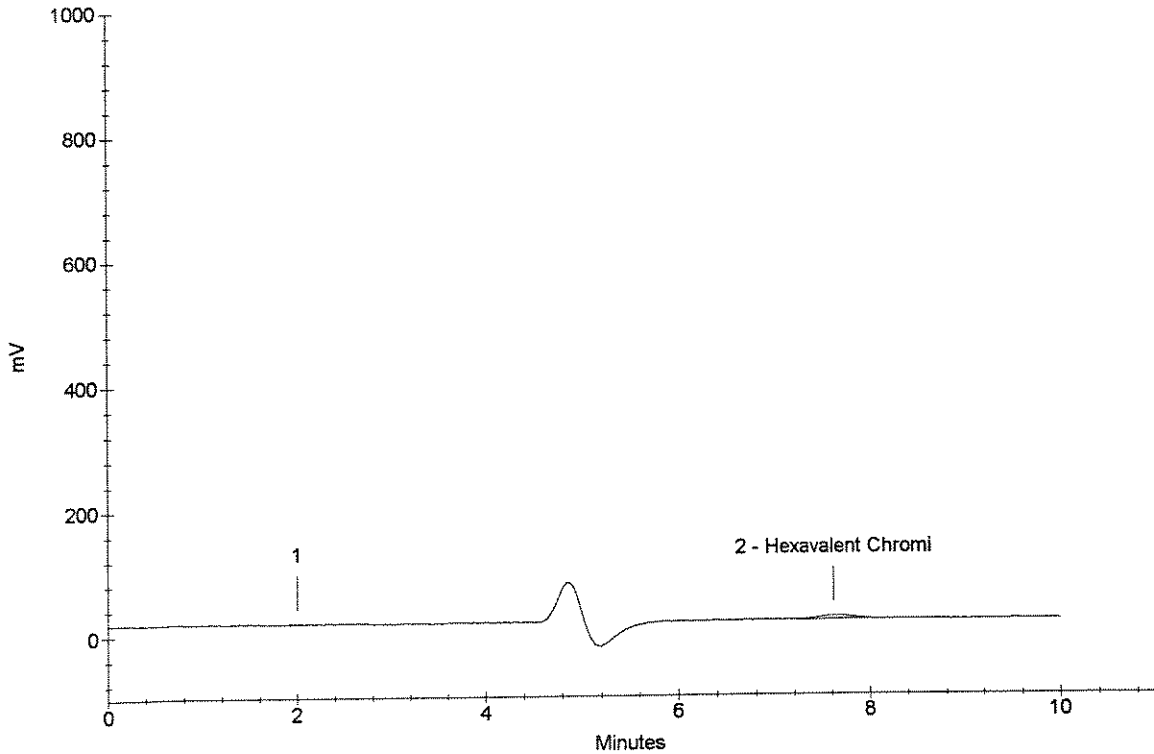
Dilution Factor : 10.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
2	7.62	Hexavalent Chromi	0.0401	140874

*OK*  
*6/17/08*  
1113699



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1114419  
Data File Name : ...\\716\_043.DXD  
Method File Name : ...\\Cr6-716.met  
Date Time Collected : 7/16/08 18:00:31

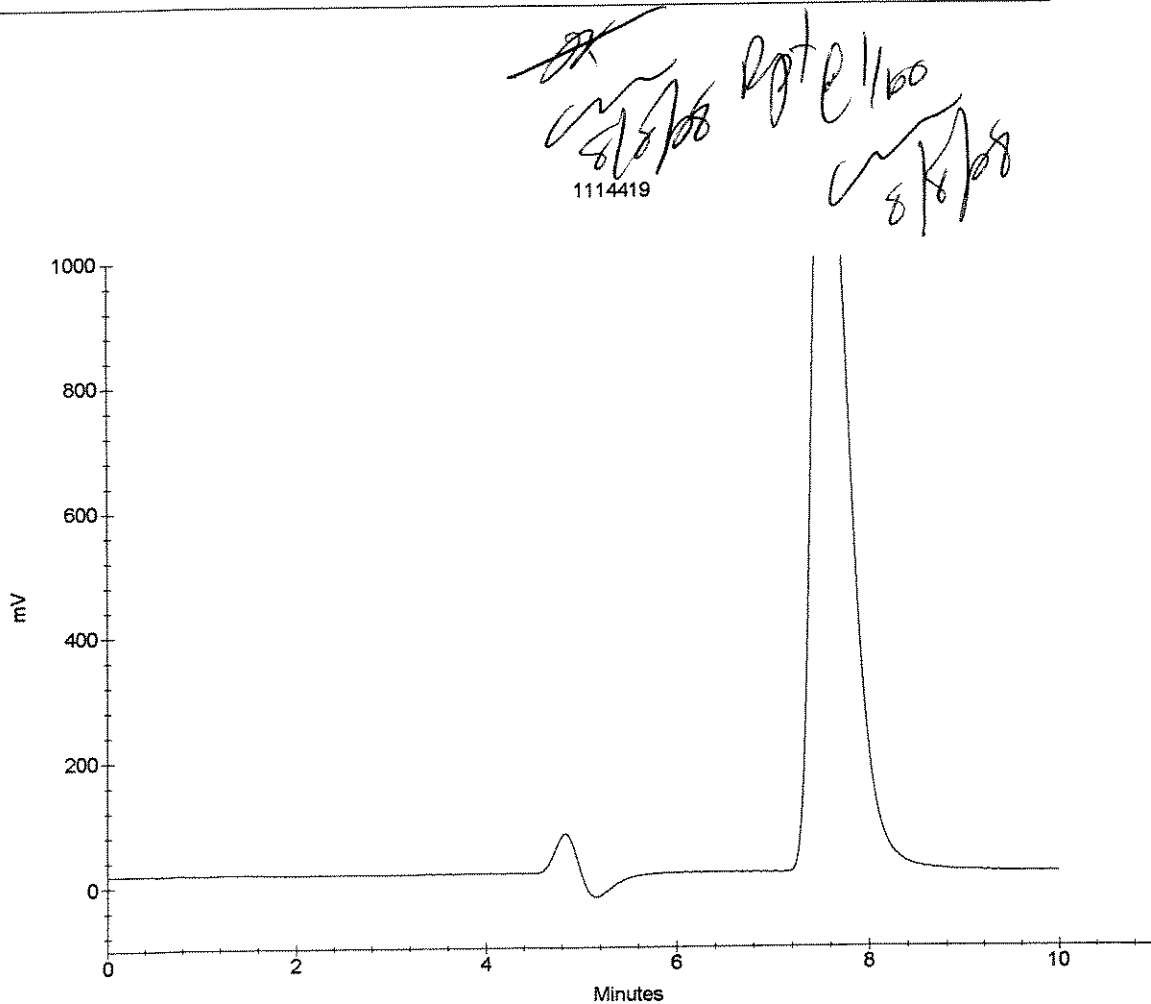
Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

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

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
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Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1114420  
Data File Name : ...716\_044.DXD  
Method File Name : ...Cr6-716.met  
Date Time Collected : 7/16/08 18:10:52

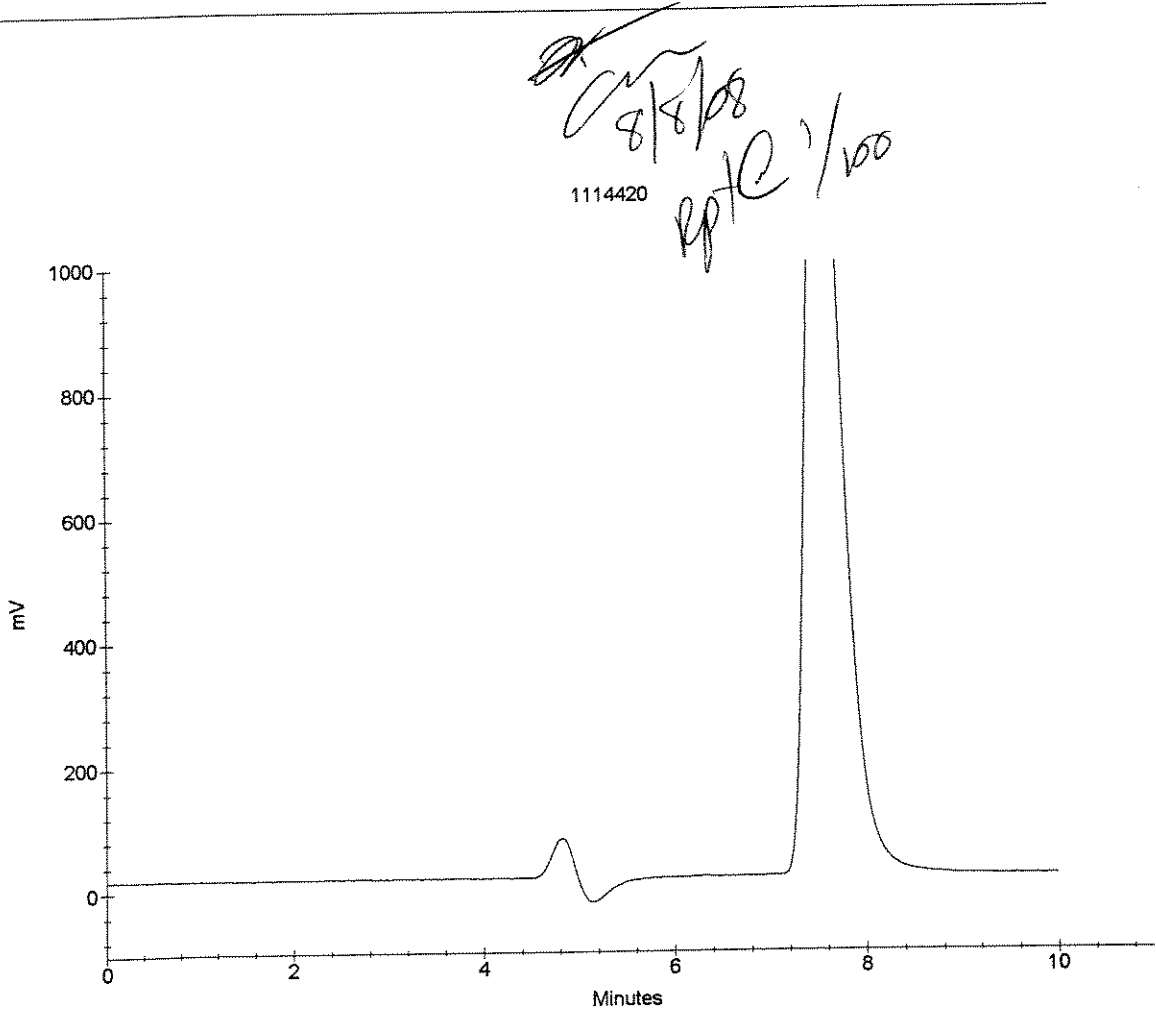
Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

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

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
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Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1114421  
Data File Name : ...716\_045.DXD  
Method File Name : ...Cr6-716.met  
Date Time Collected : 7/16/08 18:21:11

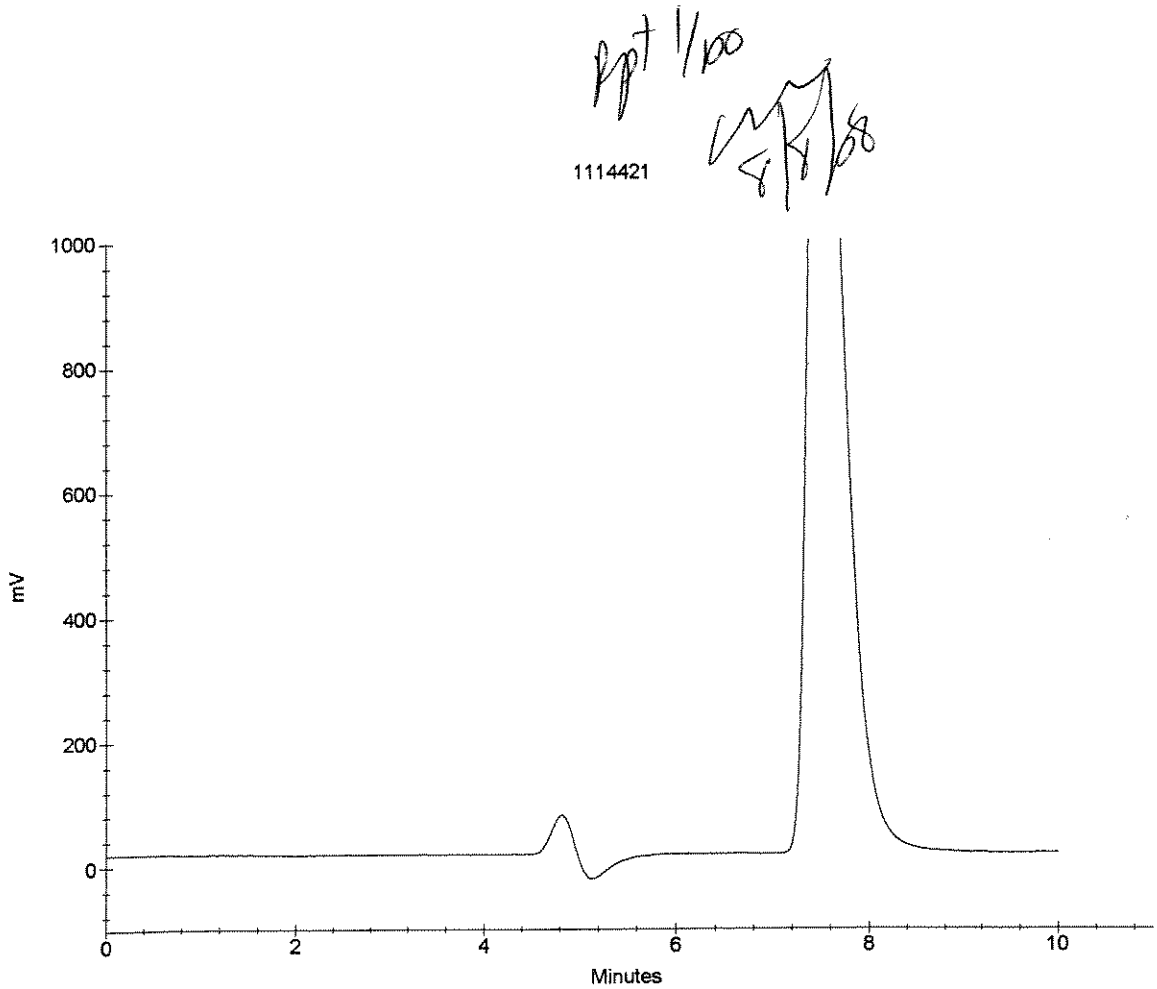
Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

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

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
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Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1114421 DUP  
Data File Name : ...716\_046.DXD  
Method File Name : ...Cr6-716.met  
Date Time Collected : 7/16/08 18:31:36

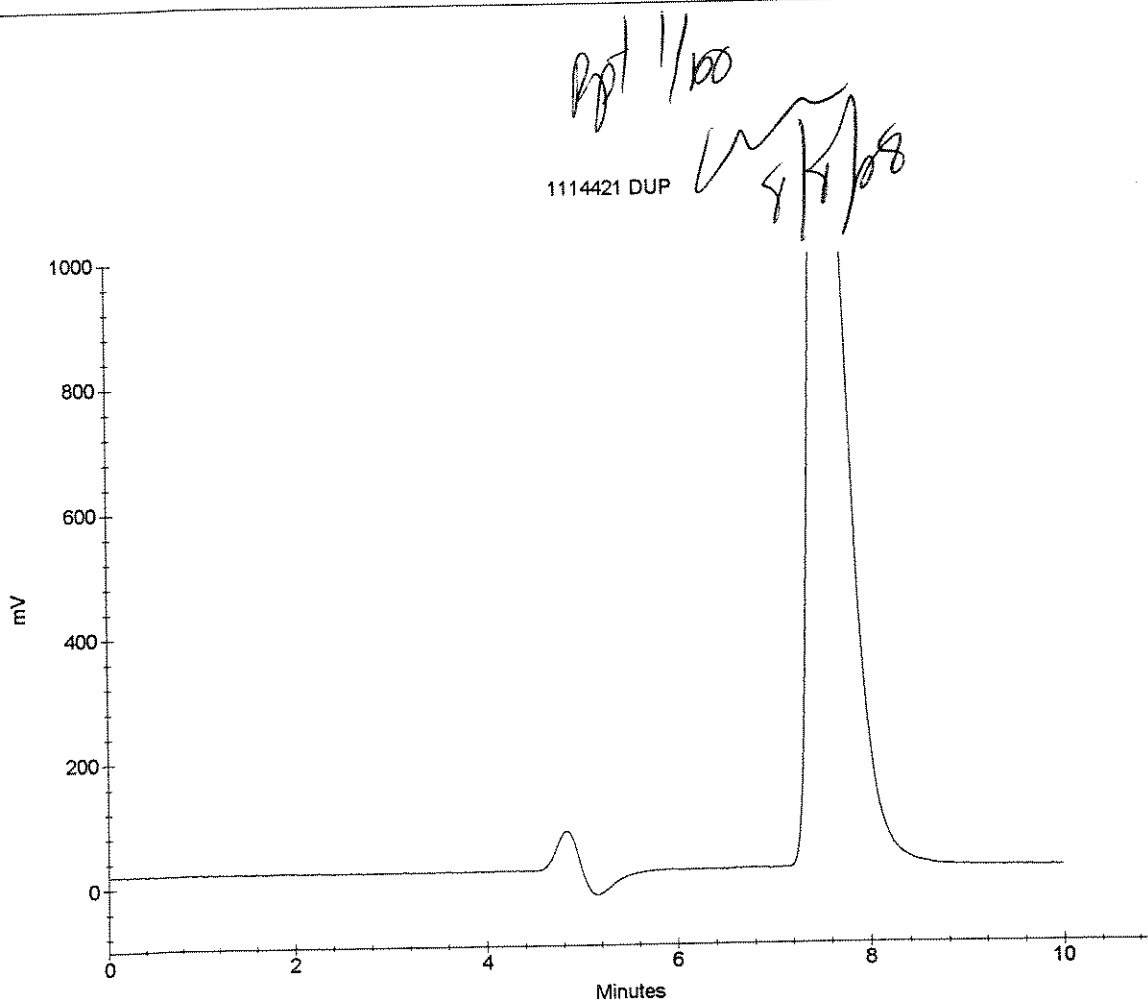
Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

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

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
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Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1114421 SPK  
Data File Name : ...716\_047.DXD  
Method File Name : ...Cr6-716.met  
Date Time Collected : 7/16/08 18:42:00

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

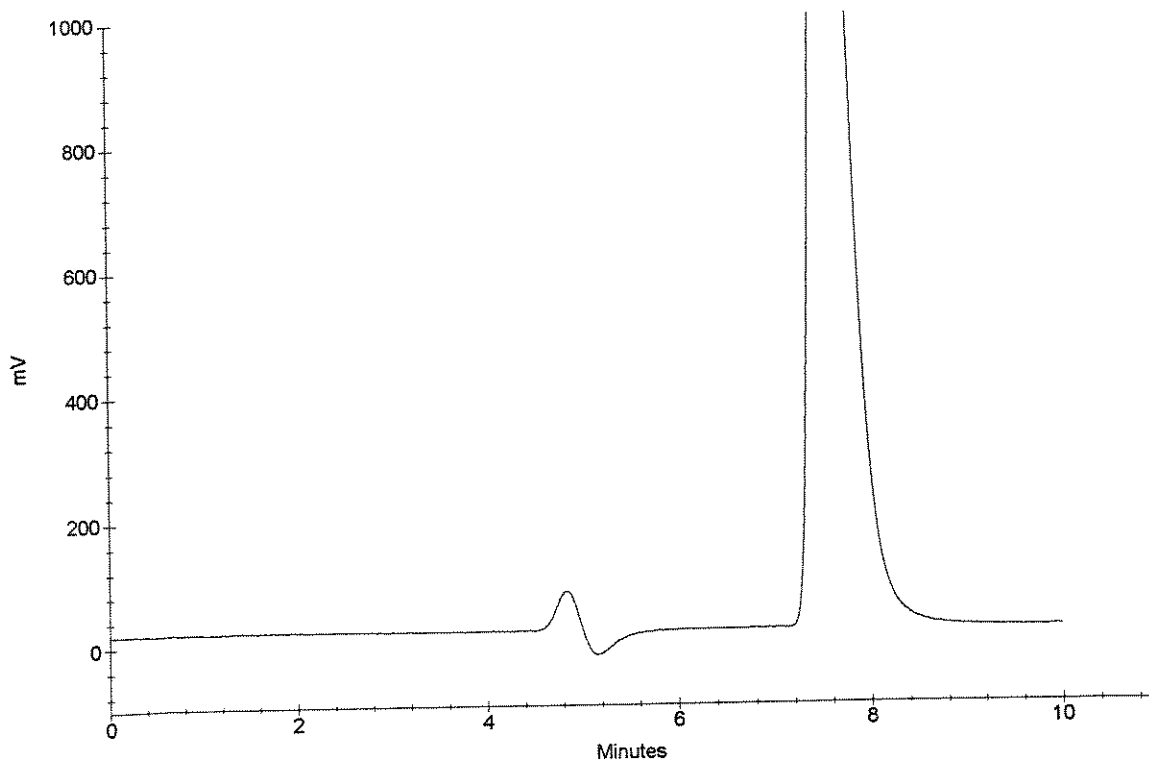
Dilution Factor : 10.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
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*1/100*  
*8/18/08*  
1114421 SPK



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1114756  
Data File Name : ...716\_048.DXD  
Method File Name : ...Cr6-716.met  
Date Time Collected : 7/16/08 18:52:25

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

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

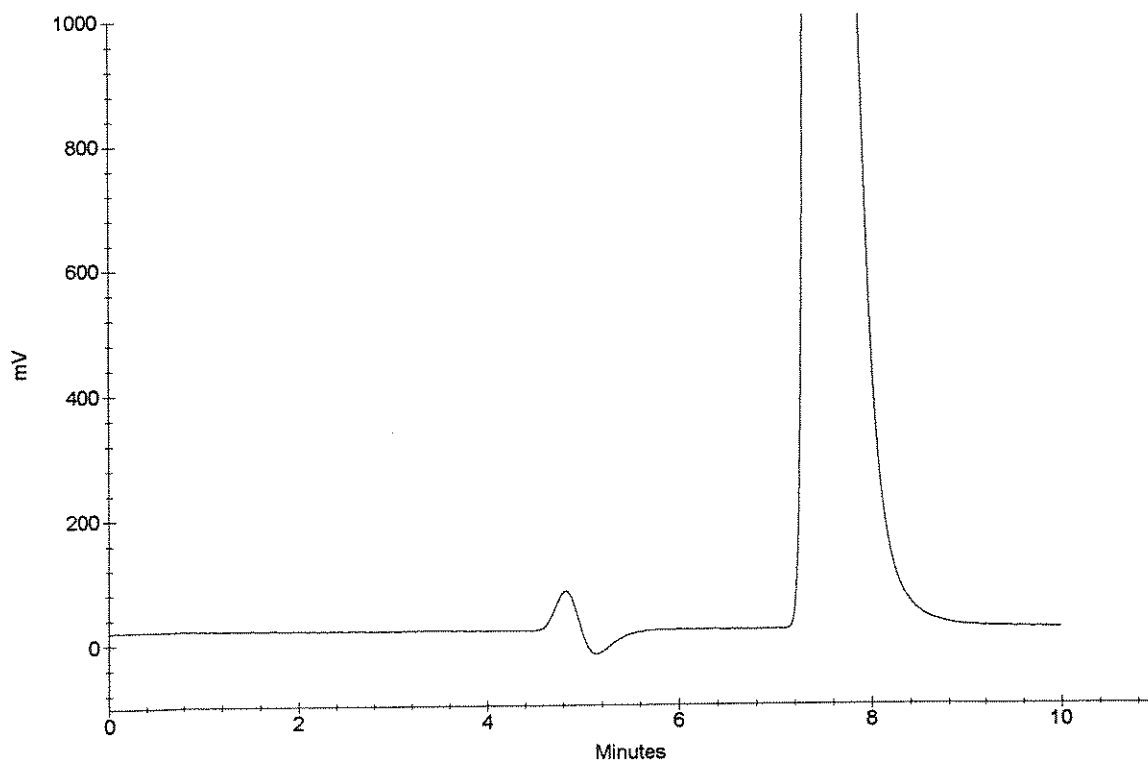
Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
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*1/100*  
*any*  
*7/18/08*

1114756



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1114758  
Data File Name : ...716\_049.DXD  
Method File Name : ...Cr6-716.met  
Date Time Collected : 7/16/08 19:02:49

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

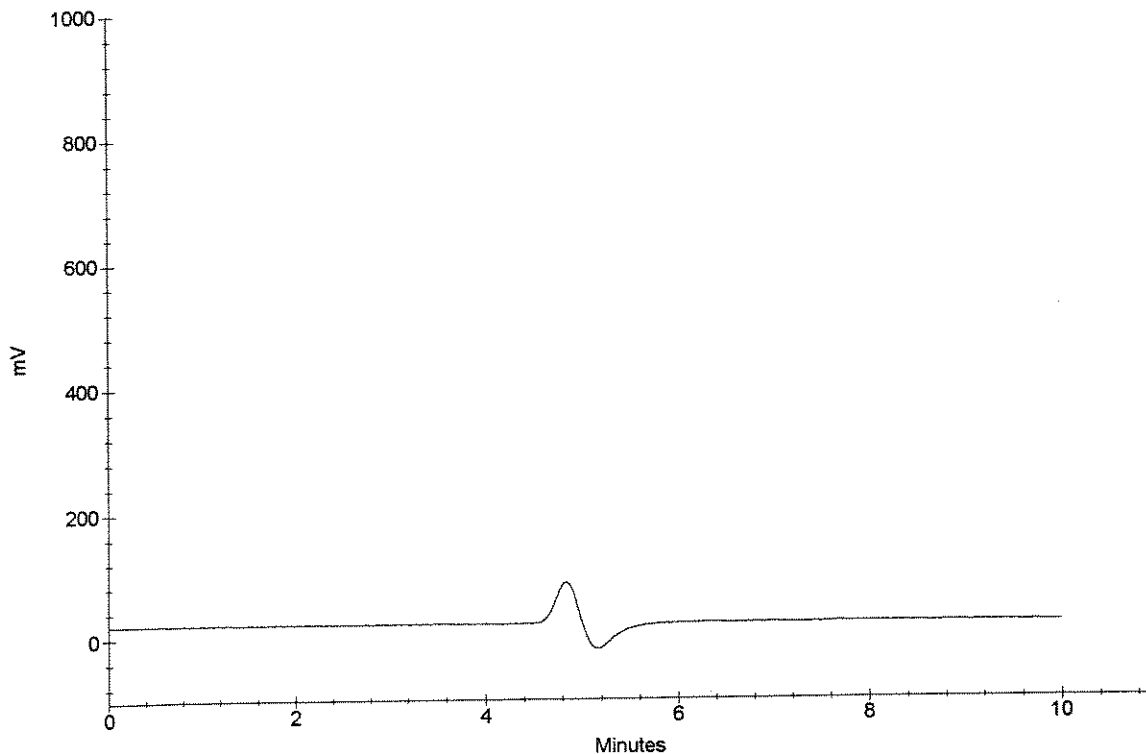
Dilution Factor : 10.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
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*OK*  
*7/16/08*  
1114758





Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1115782  
Data File Name : ...716\_050.DXD  
Method File Name : ...Cr6-716.met  
Date Time Collected : 7/16/08 19:13:13

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

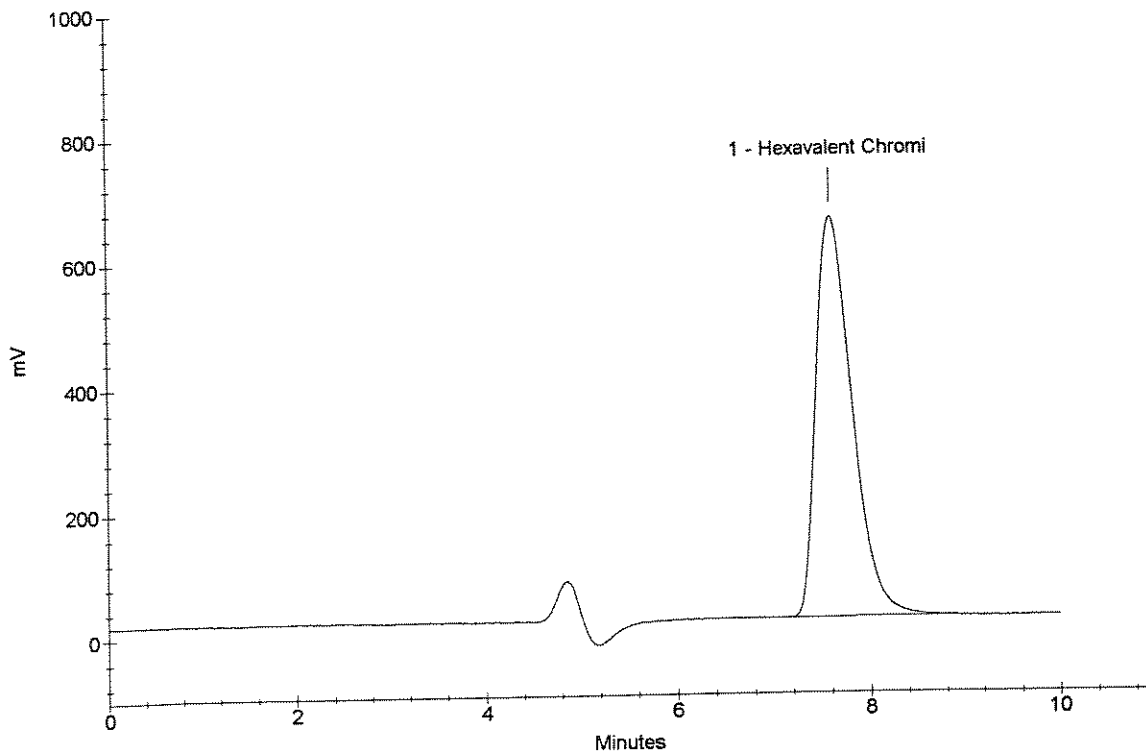
Dilution Factor : 10.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	7.62	Hexavalent Chromi <i>OK</i>	4.9825	16561118

*CM*  
*9/10/08*  
1115782



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : CCV  
Data File Name : ...716\_051.DXD  
Method File Name : ...Cr6-716.met  
Date Time Collected : 7/16/08 19:23:37

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

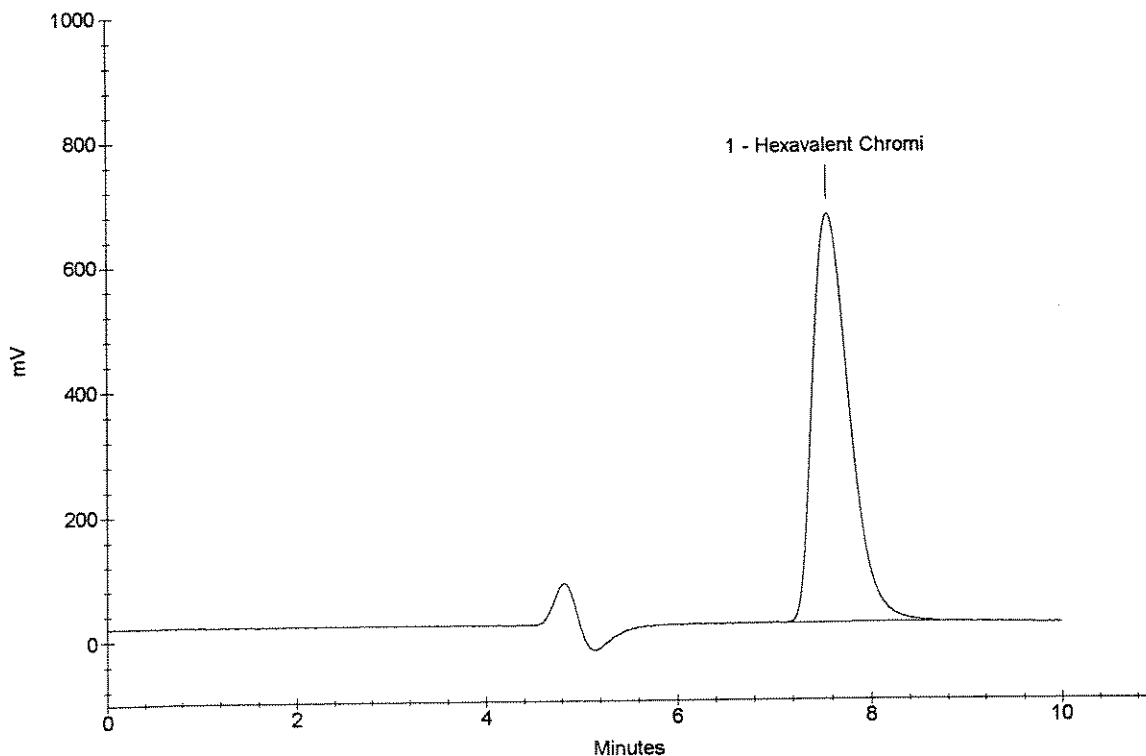
Dilution Factor : 1.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	7.58	Hexavalent Chromi	0.5068	16844779

*Handwritten signature*  
7/16/08  
CCV



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : CCB  
Data File Name : ...\\716\_052.DXD  
Method File Name : ...\\Cr6-716.met  
Date Time Collected : 7/16/08 19:34:02

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

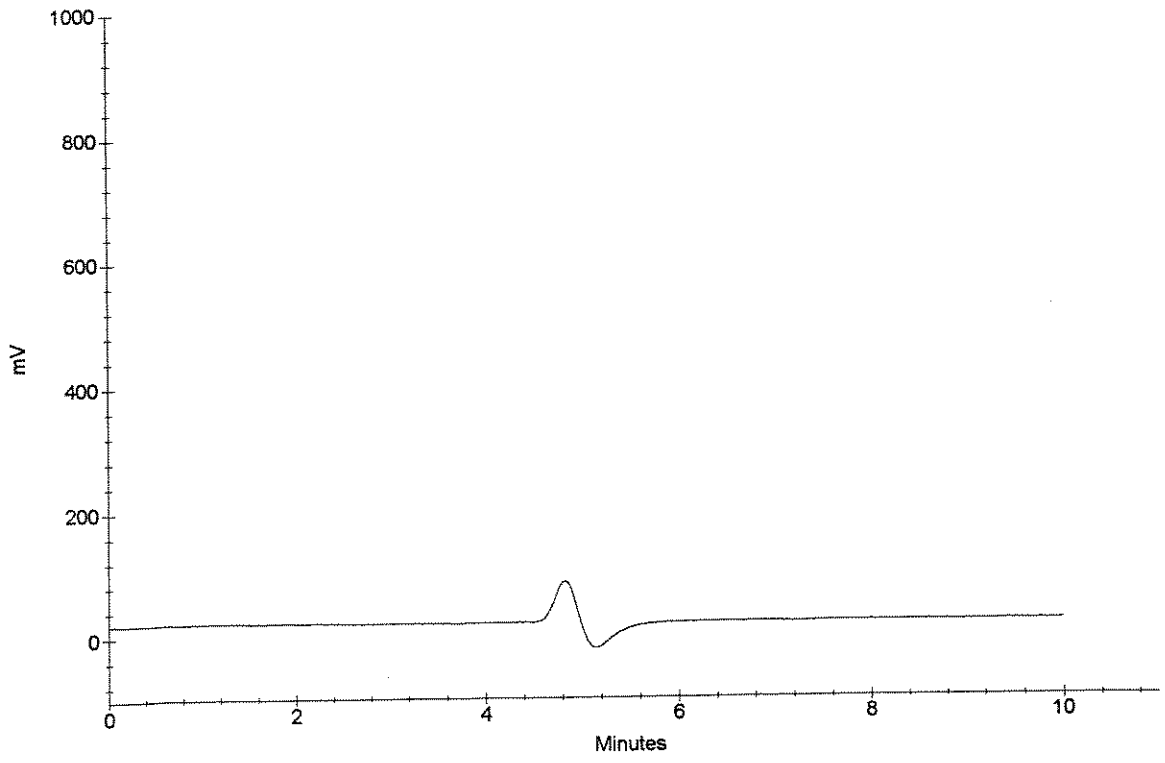
Dilution Factor : 1.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
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*OK*  
*8/8/08*  
CCB



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1115783  
Data File Name : ...716\_053.DXD  
Method File Name : ...Cr6-716.met  
Date Time Collected : 7/16/08 19:44:27

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

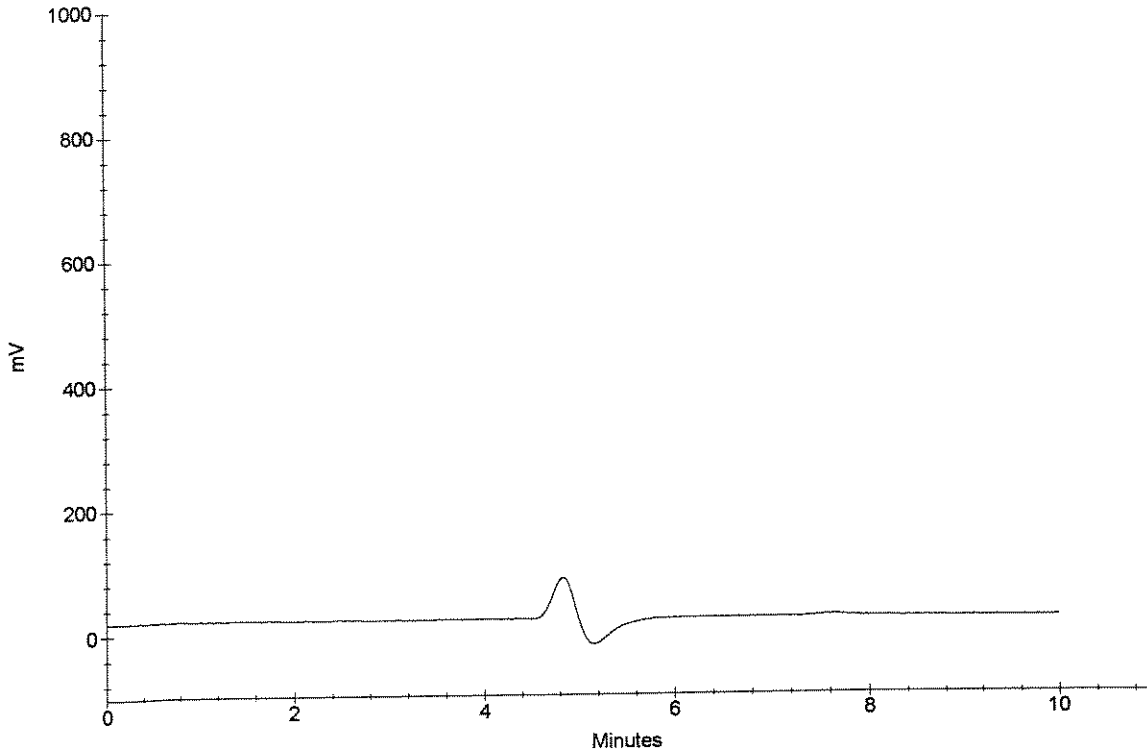
Dilution Factor : 10.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
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*OK*  
*7/16/08*  
1115783



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1115784  
Data File Name : ...\\716\_054.DXD  
Method File Name : ...\\Cr6-716.met  
Date Time Collected : 7/16/08 19:54:50

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

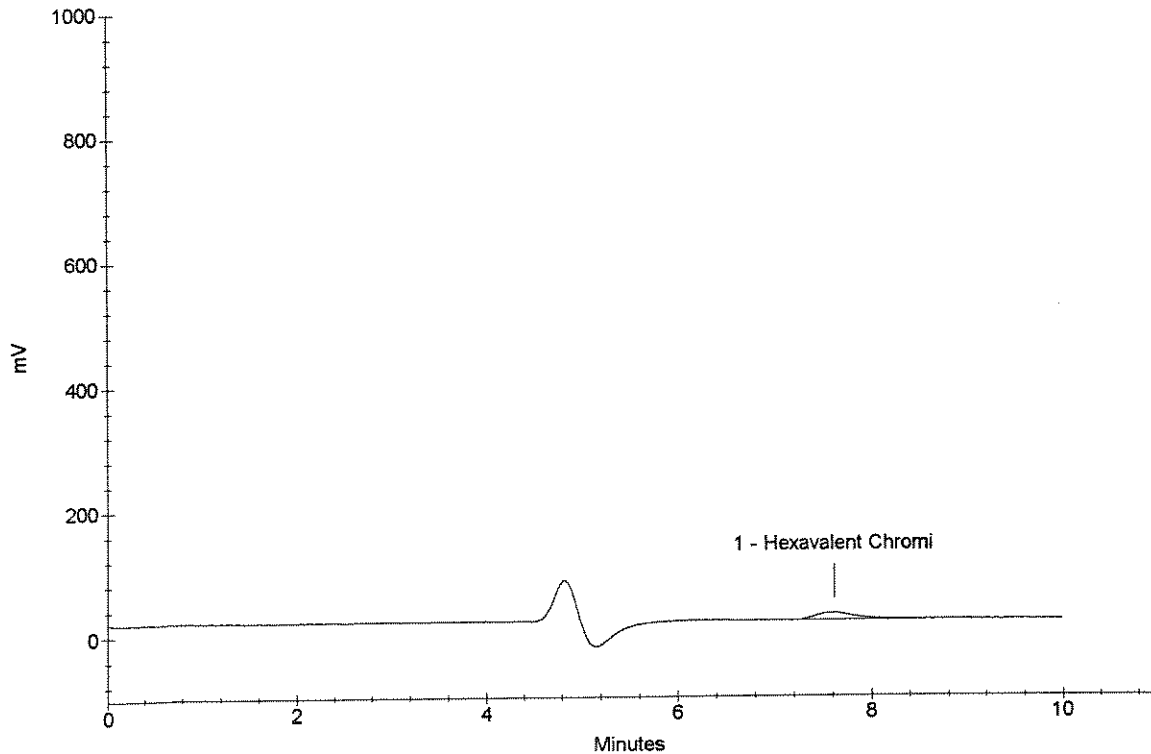
Dilution Factor : 10.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	7.62	Hexavalent Chromi	0.0907	308959

*OK*  
*8/8/08*  
1115784



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1115785  
Data File Name : ...716\_055.DXD  
Method File Name : ...Cr6-716.met  
Date Time Collected : 7/16/08 20:05:15

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

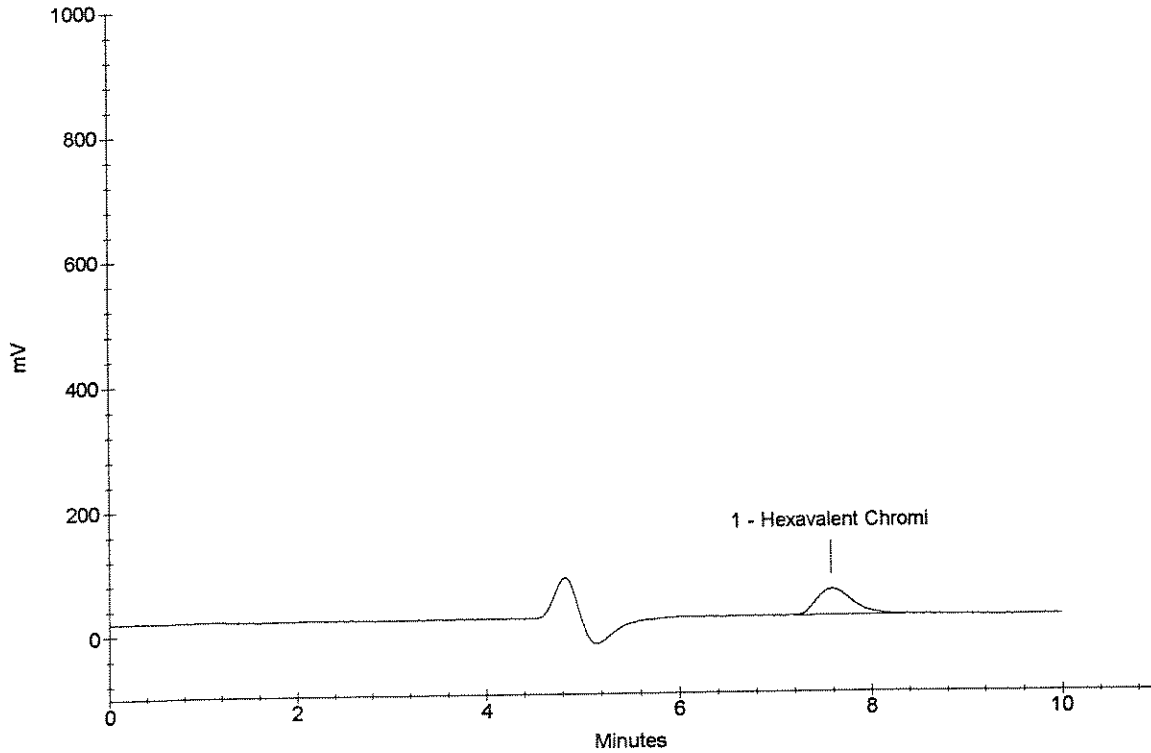
Dilution Factor : 10.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	7.58	Hexavalent Chromi	0.3245	1085749

*[Handwritten Signature]*  
1115785



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1116367  
Data File Name : ...\\716\_056.DXD  
Method File Name : ...\\Cr6-716.met  
Date Time Collected : 7/16/08 20:15:40

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

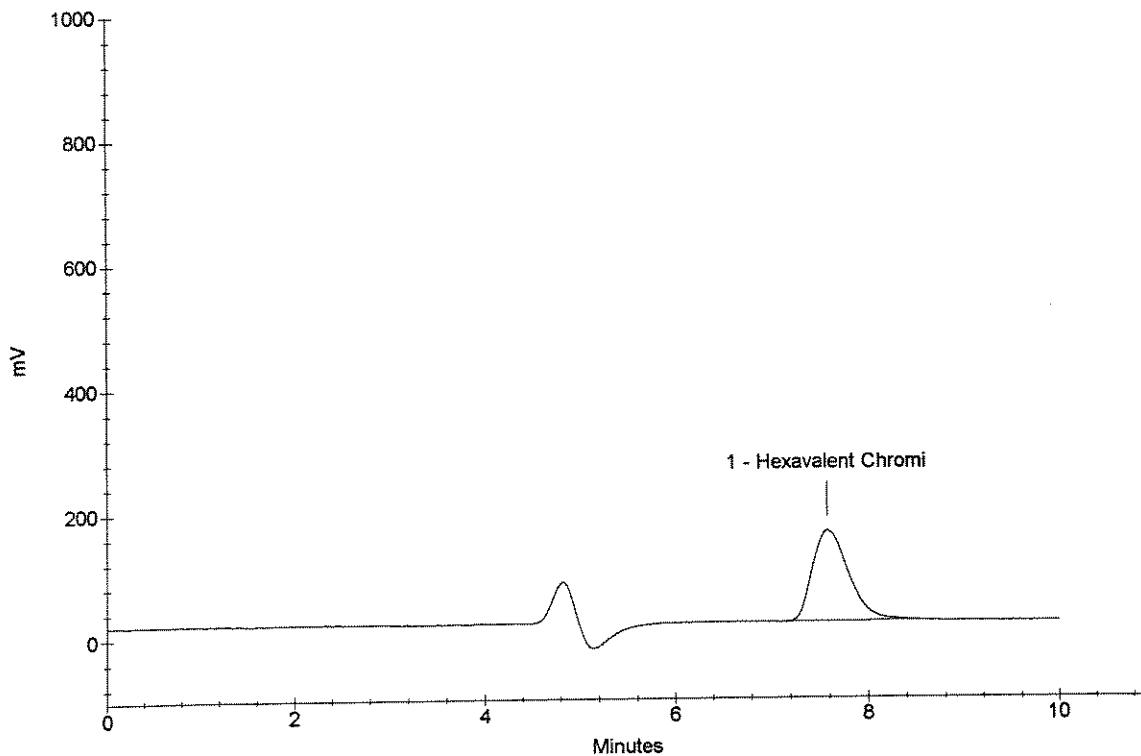
Dilution Factor : 10.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	7.58	Hexavalent Chromi	1.1165	3716897

*OK*  
*6/18/08*  
1116367



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1116367 DUP  
Data File Name : ...\\716\_057.DXD  
Method File Name : ...\\Cr6-716.met  
Date Time Collected : 7/16/08 20:26:04

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

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

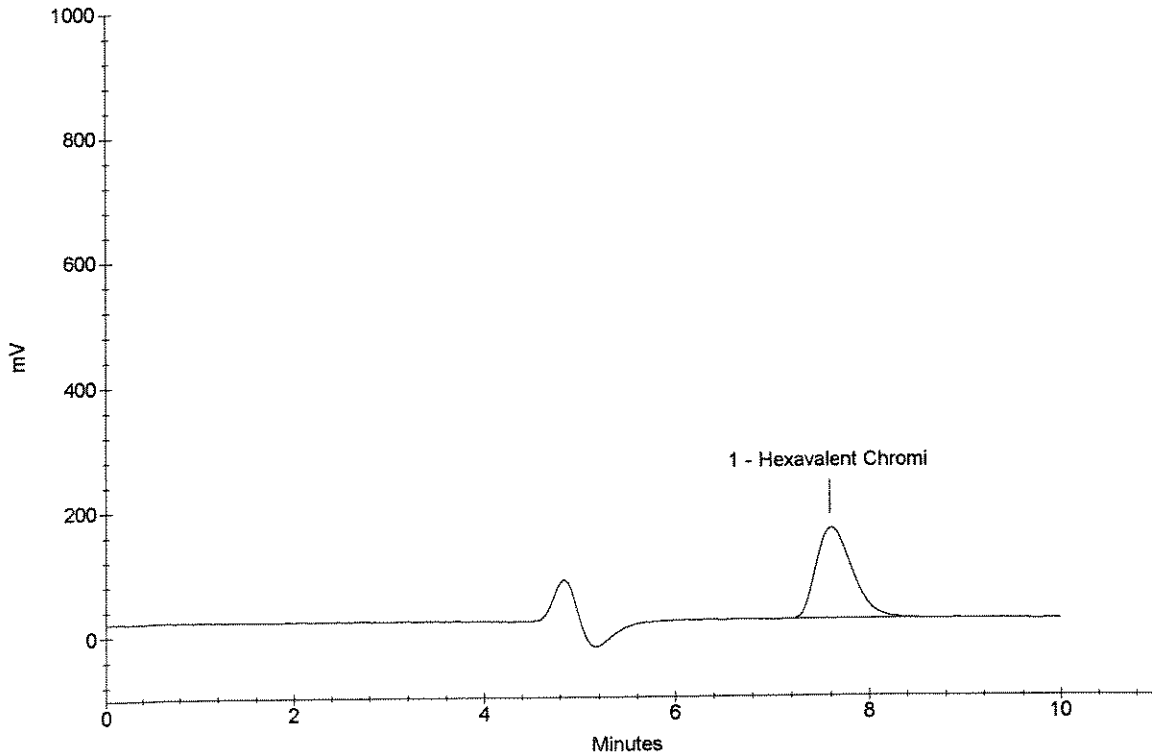
Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	7.60	Hexavalent Chromi	1.1249	3744772

*[Handwritten signature]*

1116367 DUP





Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1116367 SPK  
Data File Name : ...\\716\_058.DXD  
Method File Name : ...\\Cr6-716.met  
Date Time Collected : 7/16/08 20:36:29

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

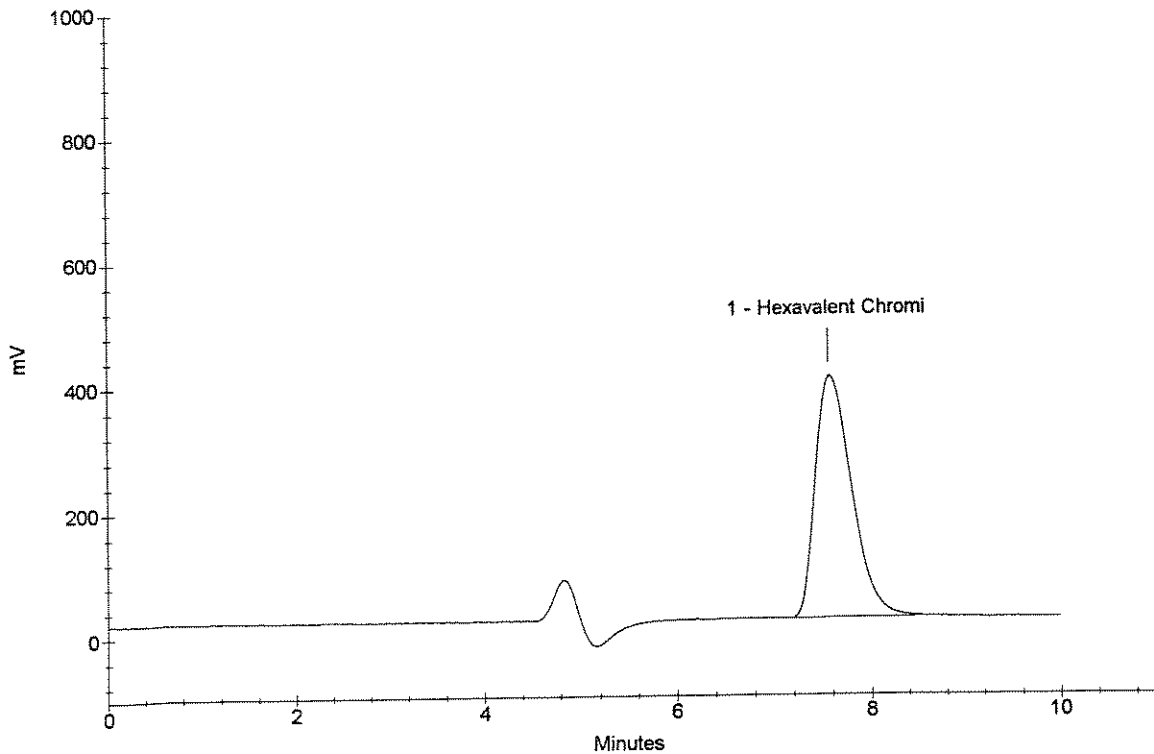
Dilution Factor : 10.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	7.58	Hexavalent Chromi <i>OK</i>	2.9953	9958916

*[Handwritten Signature]*  
1116367 SPK



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1116370  
Data File Name : ...716\_059.DXD  
Method File Name : ...Cr6-716.met  
Date Time Collected : 7/16/08 20:46:54

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

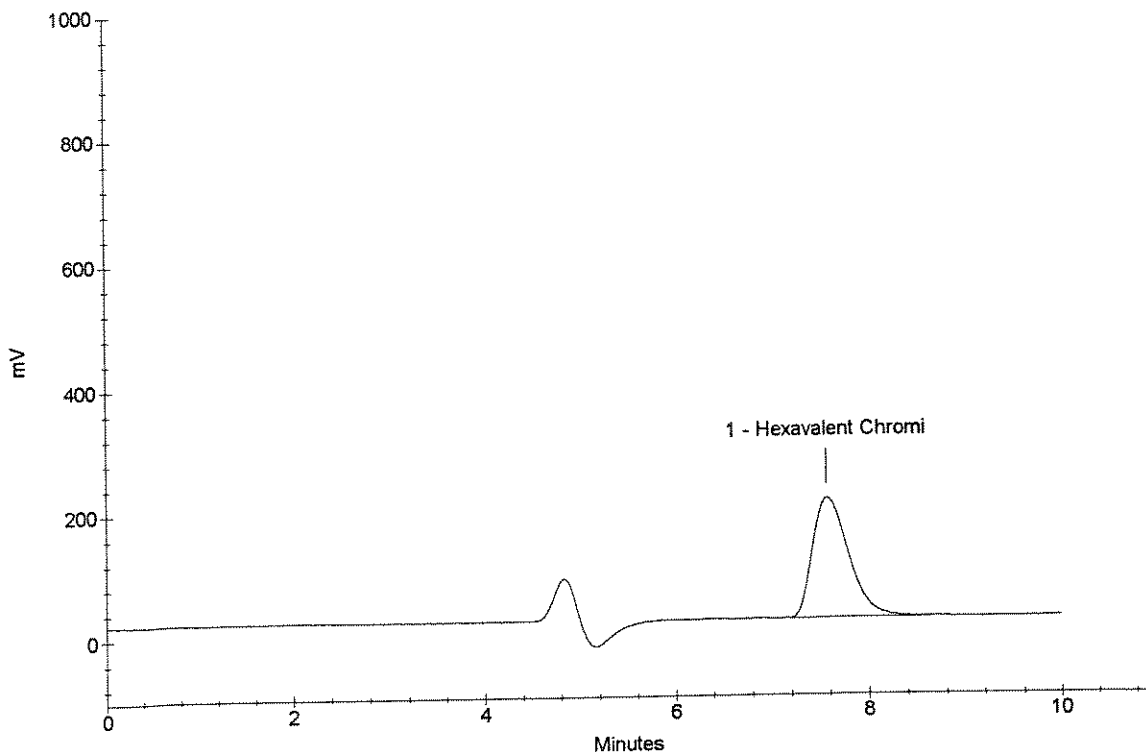
Dilution Factor : 10.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	7.58	Hexavalent Chromi <i>OK</i>	1.4818	4930651

*[Handwritten Signature]*  
1116370



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1116373  
Data File Name : ...\\716\_060.DXD  
Method File Name : ...\\Cr6-716.met  
Date Time Collected : 7/16/08 20:57:18

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

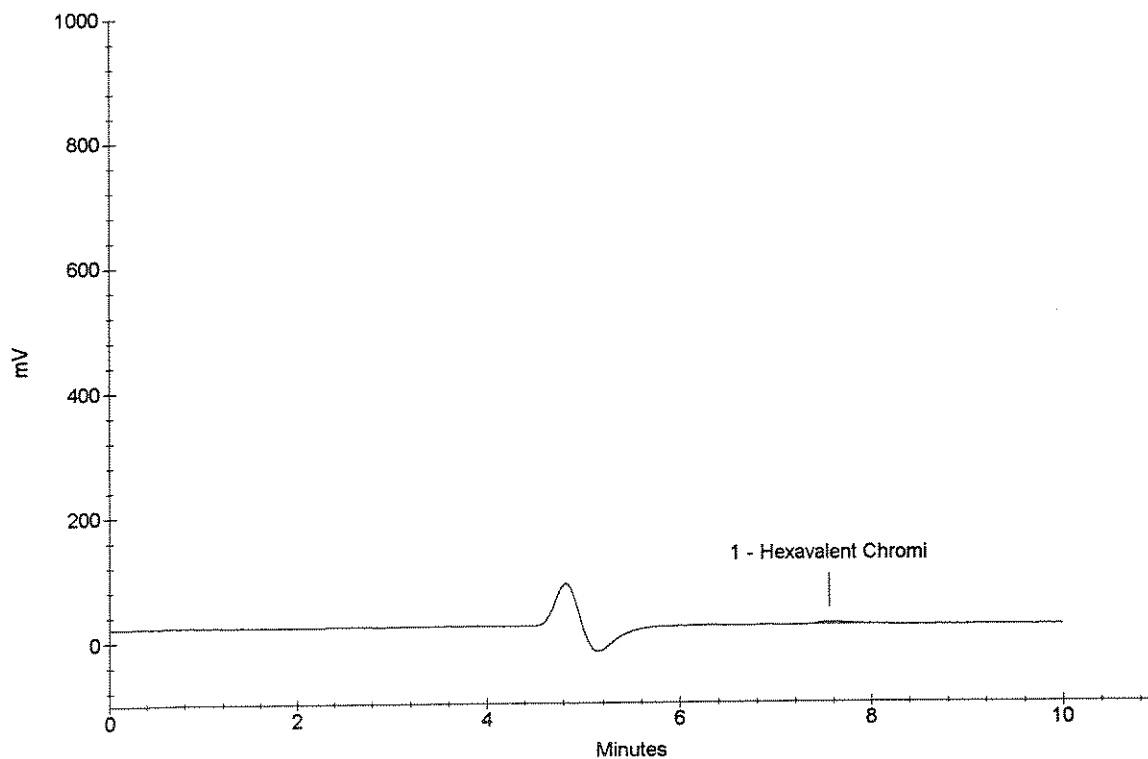
Dilution Factor : 10.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	7.56	Hexavalent Chromi	0.0144	55340

*OK*  
*7/16/08*  
1116373



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1116921  
Data File Name : ...\\716\_061.DXD  
Method File Name : ...\\Cr6-716.met  
Date Time Collected : 7/16/08 21:07:43

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

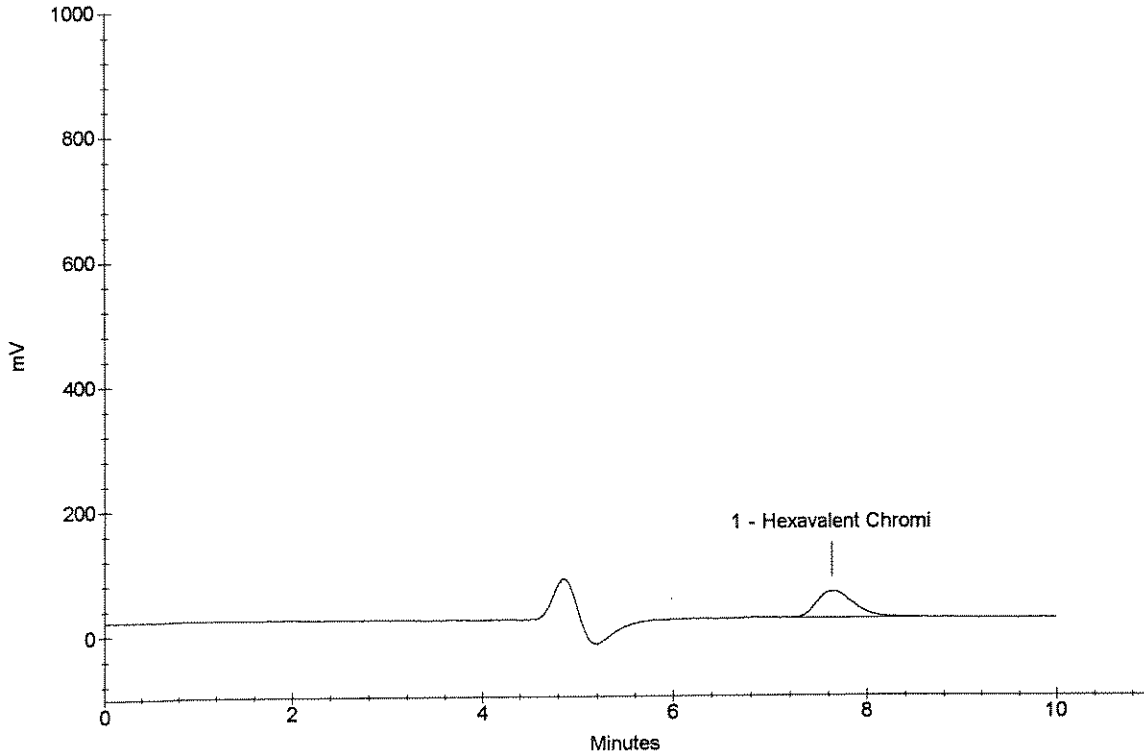
Dilution Factor : 10.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	7.64	Hexavalent Chromi	0.3333	1114963

*[Handwritten signature]*  
1116921



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1116922  
Data File Name : ...\\716\_062.DXD  
Method File Name : ...\\Cr6-716.met  
Date Time Collected : 7/16/08 21:18:08

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

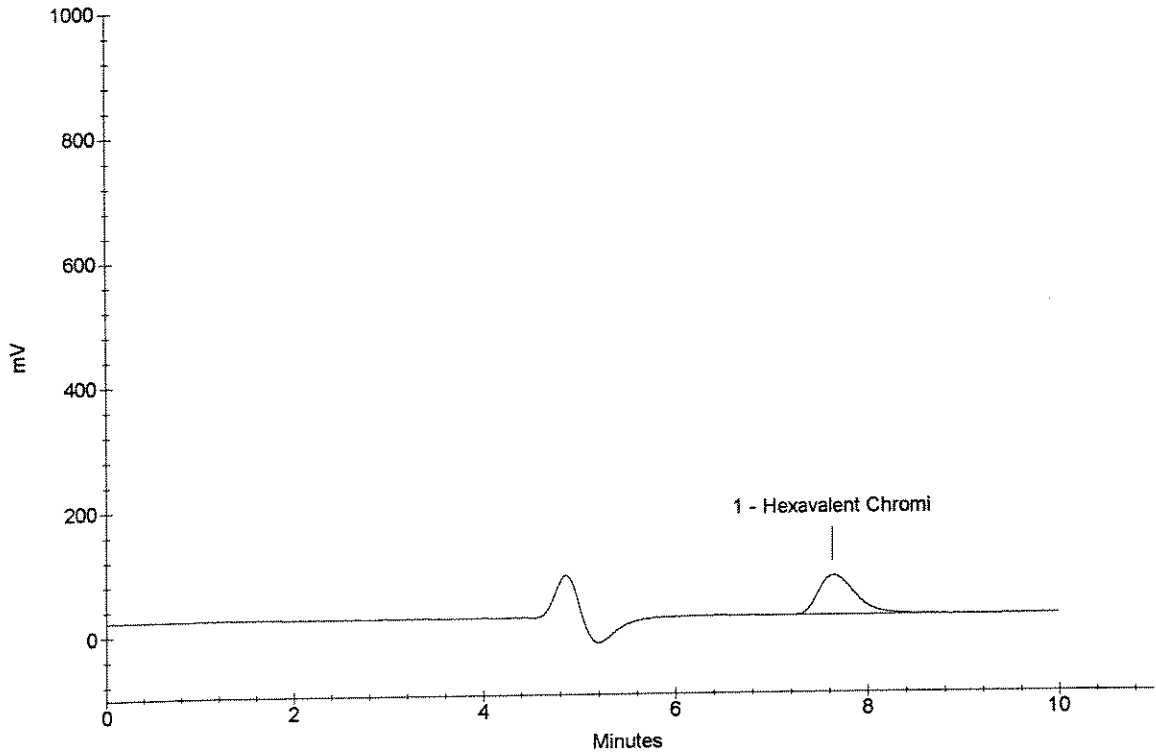
Dilution Factor : 10.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	7.64	Hexavalent Chromi	0.5101	1702084

*[Handwritten Signature]*  
1116922



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1117196  
Data File Name : ...\\716\_063.DXD  
Method File Name : ...\\Cr6-716.met  
Date Time Collected : 7/16/08 21:28:32

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

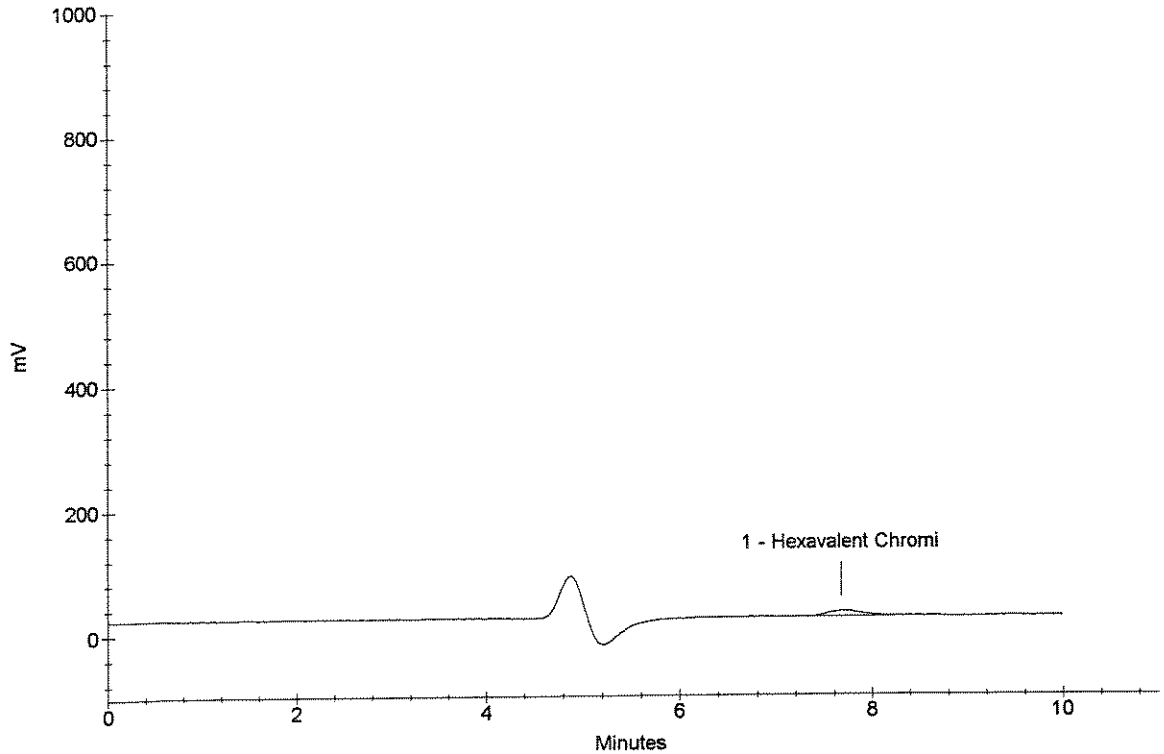
Dilution Factor : 10.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	7.68	Hexavalent Chromi	0.0589	203217

*OK*  
*WJ*  
*8/18/08*  
1117196



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1117197  
Data File Name : ...\\716\_064.DXD  
Method File Name : ...\\Cr6-716.met  
Date Time Collected : 7/16/08 21:38:57

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

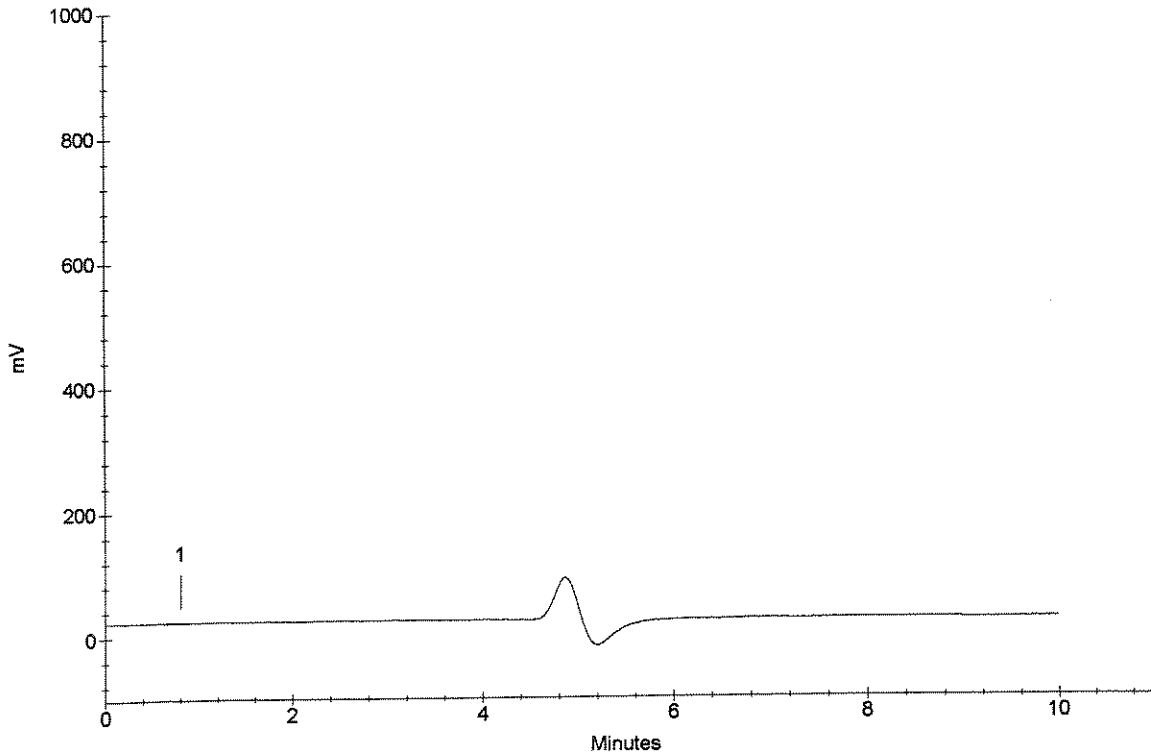
Dilution Factor : 10.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
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*OK*  
*8/18/08*  
1117197



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : CCV  
Data File Name : ...\\716\_065.DXD  
Method File Name : ...\\Cr6-716.met  
Date Time Collected : 7/16/08 21:49:21

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

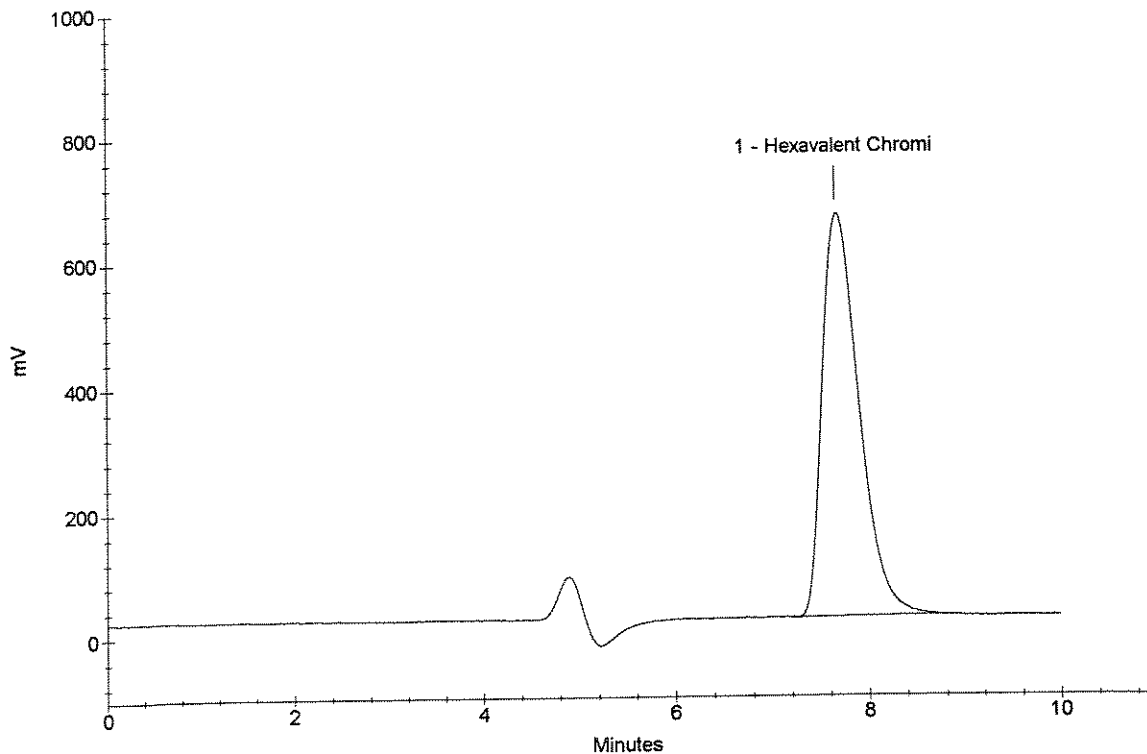
Dilution Factor : 1.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	7.68	Hexavalent Chromi	0.5127	17041351

*Handwritten signature and date:*  
7/16/08  
CCV





Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : CCB  
Data File Name : ...\\716\_066.DXD  
Method File Name : ...\\Cr6-716.met  
Date Time Collected : 7/16/08 21:59:46

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

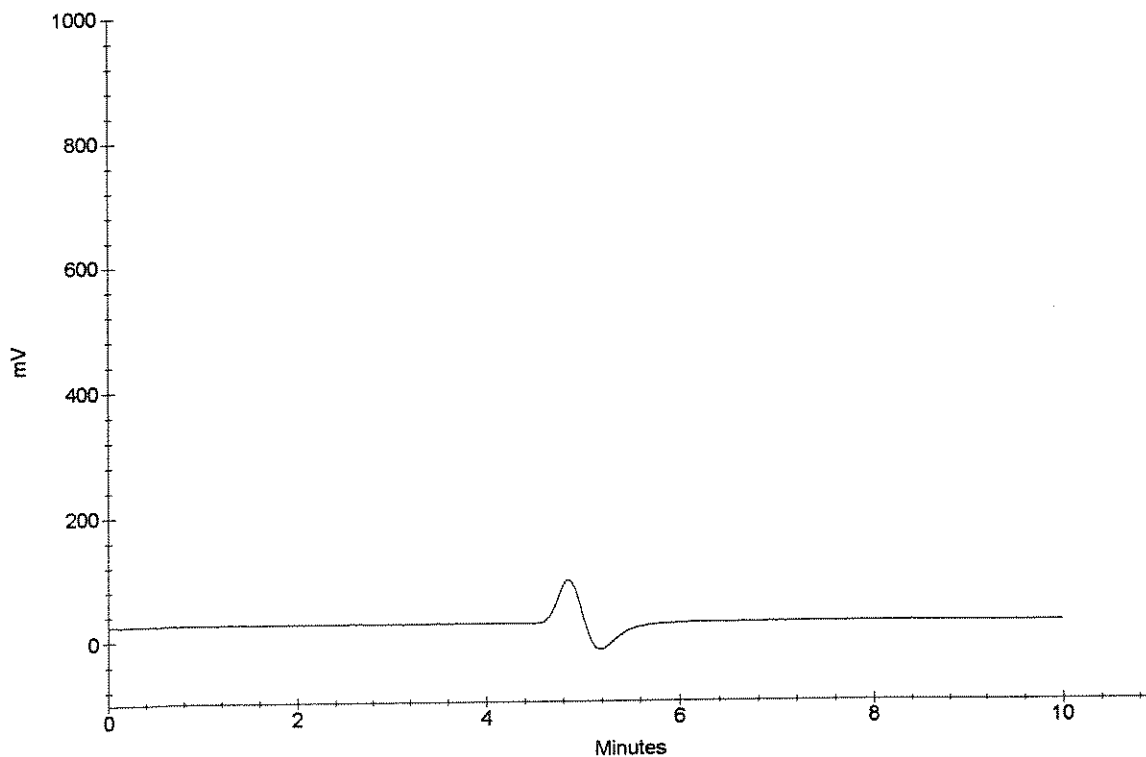
Dilution Factor : 1.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
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*OK*  
*CM*  
*8/18/08*  
CCB



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1112065  
Data File Name : ...\\716\_067.DXD  
Method File Name : ...\\Cr6-716.met  
Date Time Collected : 7/16/08 22:10:10

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

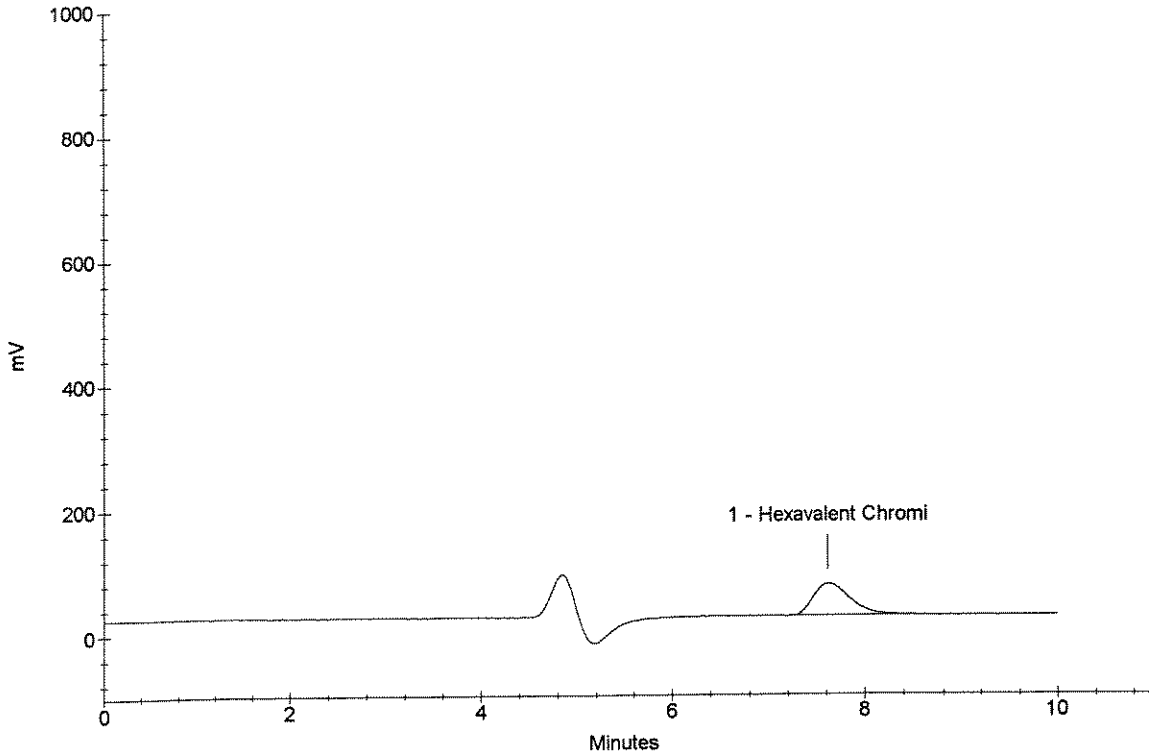
Dilution Factor : 20.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	7.62	Hexavalent Chromi	0.8090	1351316

*[Handwritten signature]*  
1112065



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1112065 DUP  
Data File Name : ...\\716\_068.DXD  
Method File Name : ...\\Cr6-716.met  
Date Time Collected : 7/16/08 22:20:34

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

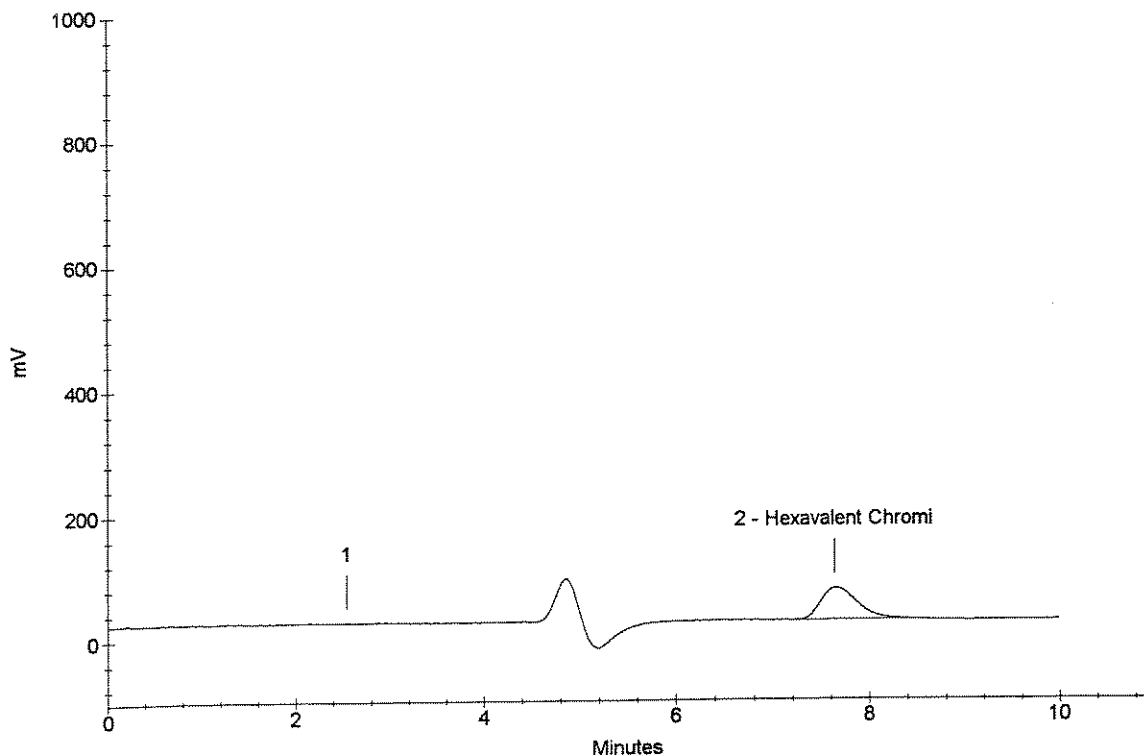
Dilution Factor : 20.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
2	7.64	Hexavalent Chromi	0.8022	1340119

*[Handwritten signature]*  
1112065 DUP



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1112065 SPK  
Data File Name : ...\\716\_069.DXD  
Method File Name : ...\\Cr6-716.met  
Date Time Collected : 7/16/08 22:30:59

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

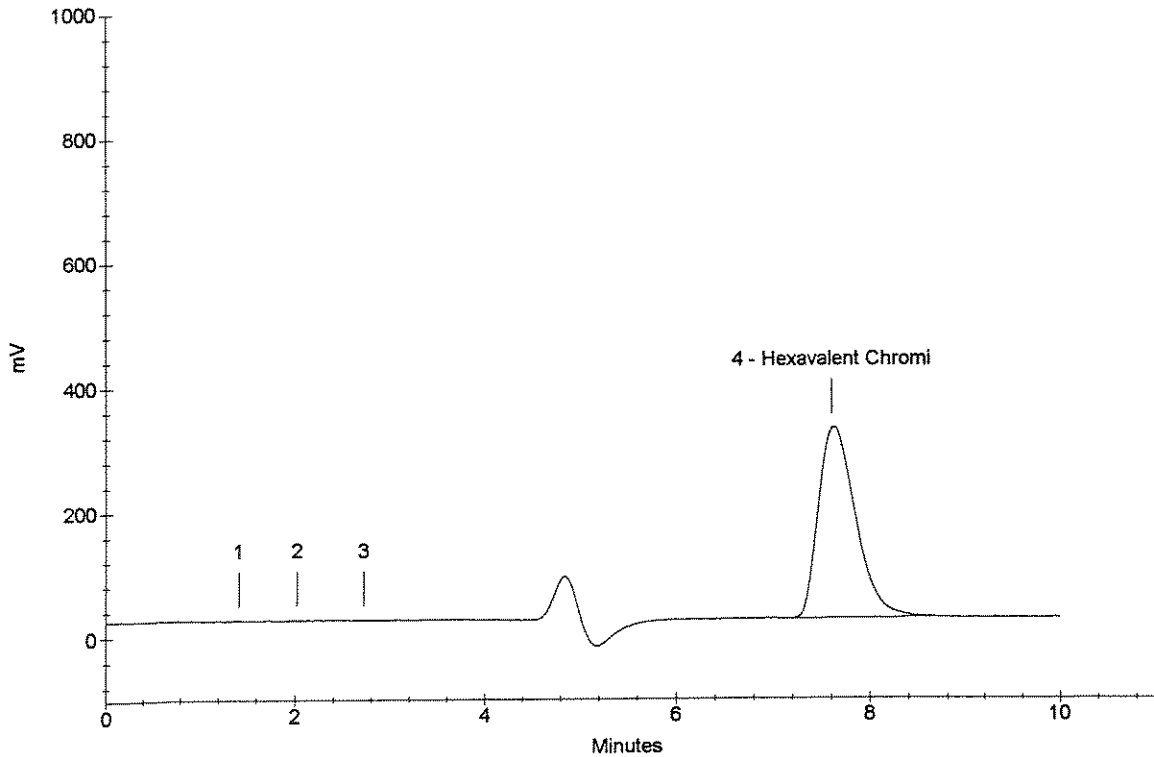
Dilution Factor : 20.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
4	7.62	Hexavalent Chromi	4.9122	8167520

*[Handwritten Signature]*  
1112065 SPK



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : CCV  
Data File Name : ...\\716\_070.DXD  
Method File Name : ...\\Cr6-716.met  
Date Time Collected : 7/17/08 09:14:40

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

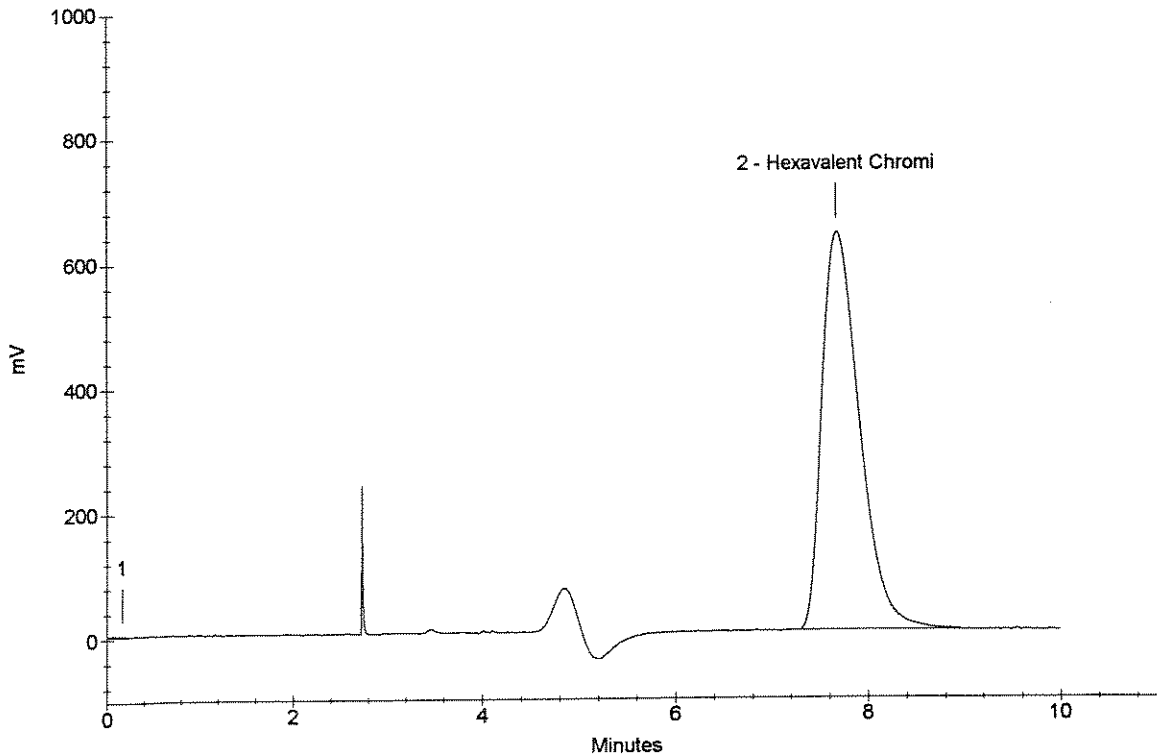
Dilution Factor : 1.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
2	7.70	Hexavalent Chromi	0.5152	17124147

*OK*  
*CCV*



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : CCB  
Data File Name : ...\\716\_071.DXD  
Method File Name : ...\\Cr6-716.met  
Date Time Collected : 7/17/08 09:25:04

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/15/08 50uL Loop

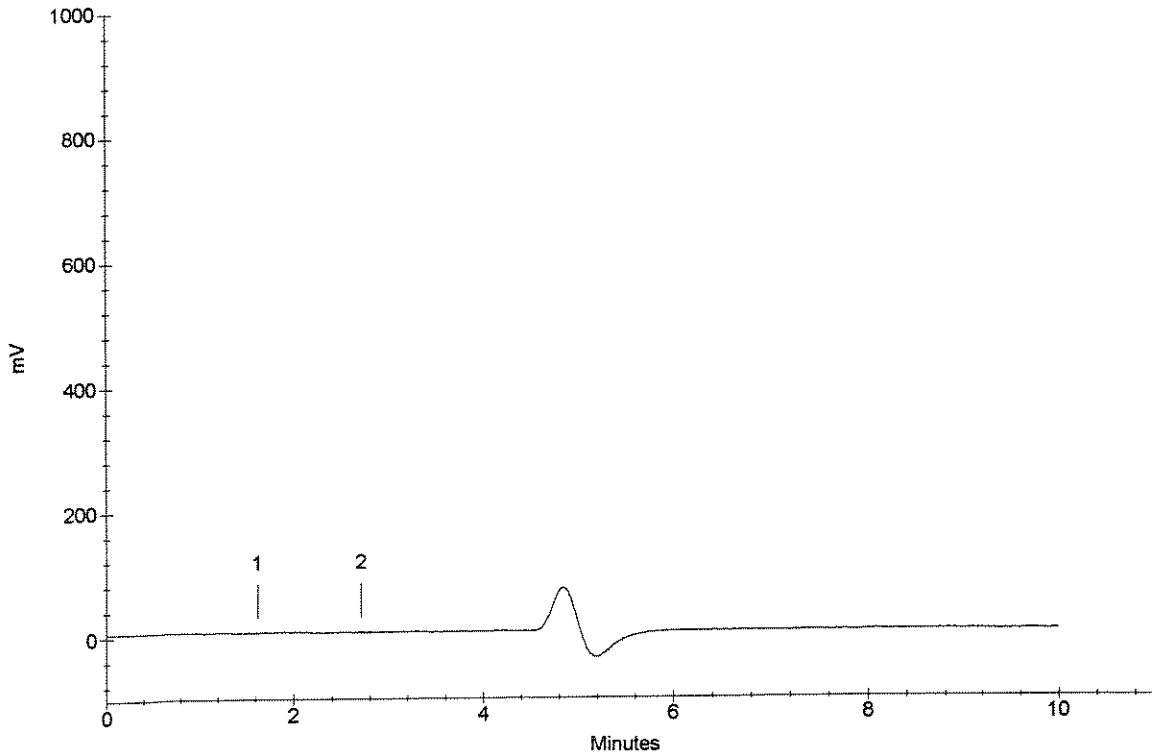
Dilution Factor : 1.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
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OK  
CCB  
8/18/08



Ion Chromatography Cover Sheet

Instrument: Dionex 4000 Series, IC #1

Column: AS7 Analytical Column, NG-1 Guard Column, 4mm, 07/07/08

Curve Date: 07/16/08Loop size: 100 uL LoopAnalyst: C. WoodsAnalysis Date: 7-16-08Standards Prep Dates & Log ID's:

<i>Std Type</i>	<i>Date Rec'd</i>	<i>Log ID</i>	<i>Std Type</i>	<i>Prep Date</i>	<i>Log ID</i>
Calibration Standard Stock	03/14/07 19	WC76254G	Calibration Stds	Daily	SAME AS WC85001A
LCS/MS Soluble Stock	03/14/07 19	WC76254G	Soluble MS	Daily	SAME AS WC85001B
I/CCV Standard Stock	<del>11/28/05</del> 12/13/07	WC85083G	I/CCV	Daily	SAME AS WC85001D
LCS/MS Insoluble Stock	01/11/08	WC85095H Soils Only	Insoluble LCS/MS	Daily	SAME AS WC85001C
			Soluble LCS	Daily	SAME AS WC85001E

Comments:

Instrument software prevents analytes with no peak area from being used in the curve calculation. The method requires the use of a zero point, so to ensure the use of our zero, the quantitation file will include a (0,0) point in the calibration curve when no area has been assigned to the zero standard.

Ion Chromatography Calibration Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : STANDARD 1  
Sample Type : Calibration Update  
Data File Name : ...\\716\_001.DXD  
Method File Name : ...\\Cr6-716.met

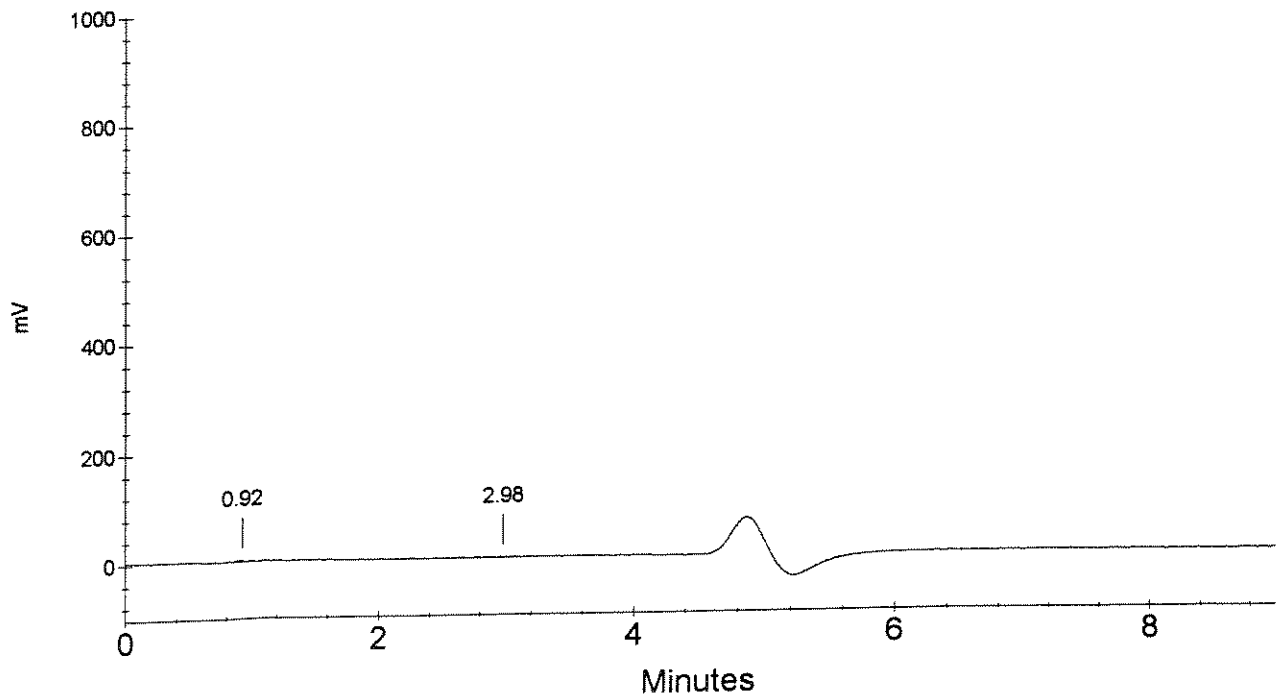
Date Time Collected : 7/16/08 10:43:27  
Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Analyst : CMW

Dilution Factor : 1.00  
Sample Comment :  
Data Collection Rate : 20.00 Hz

Calibration Type : EXTERNAL  
Calibration Level : 1

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	0.92	<i>AK</i> <i>CMW</i> <i>7/17/08</i> STANDARD 1	0.000	8870





Ion Chromatography Calibration Report  
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Rochester, NY 14607

Sample Name : STANDARD 2  
Sample Type : Calibration Update  
Data File Name : ...\\716\_002.DXD  
Method File Name : ...\\Cr6-716.met

Date Time Collected : 7/16/08 10:53:52  
Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Analyst : CMW

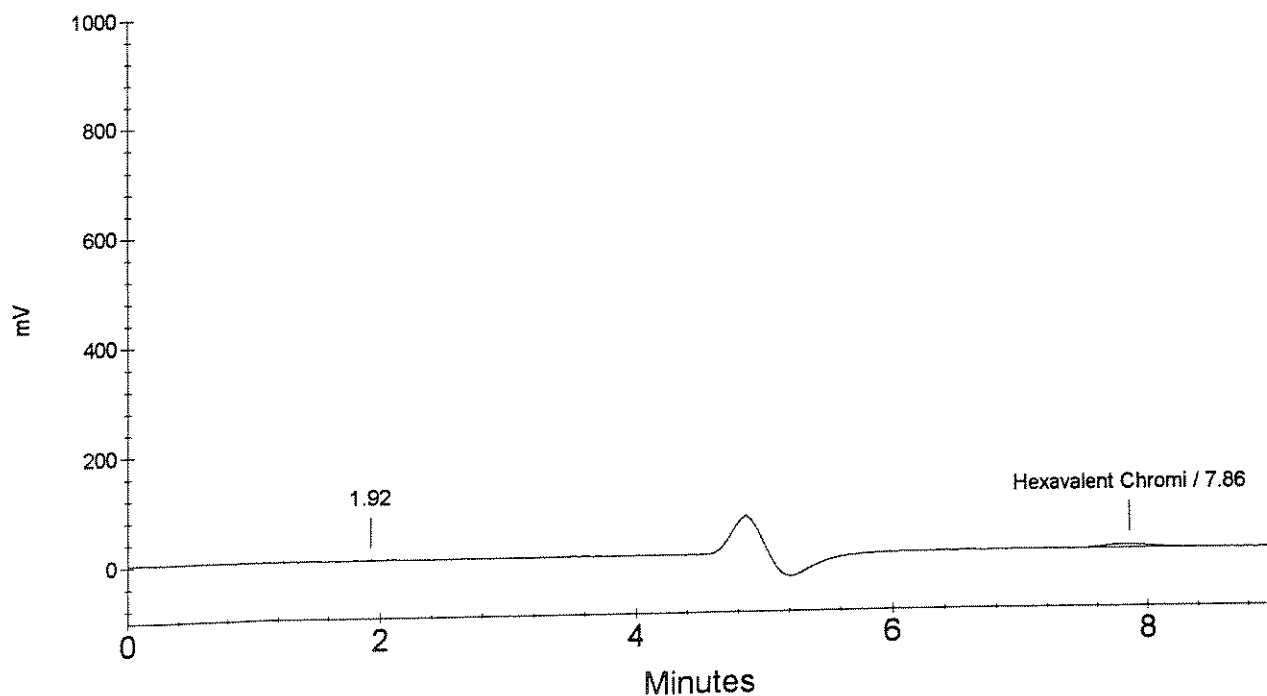
Dilution Factor : 1.00  
Sample Comment :  
Data Collection Rate : 20.00 Hz

Calibration Type : EXTERNAL  
Calibration Level : 2

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
2	7.86	Hexavalent Chromi <i>OK</i>	0.005	156910

*CMW*  
*7/17/08*  
STANDARD 2



Ion Chromatography Calibration Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : STANDARD 3  
Sample Type : Calibration Update  
Data File Name : ...\\716\_003.DXD  
Method File Name : ...\\Cr6-716.met

Date Time Collected : 7/16/08 11:04:17  
Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Analyst : CMW

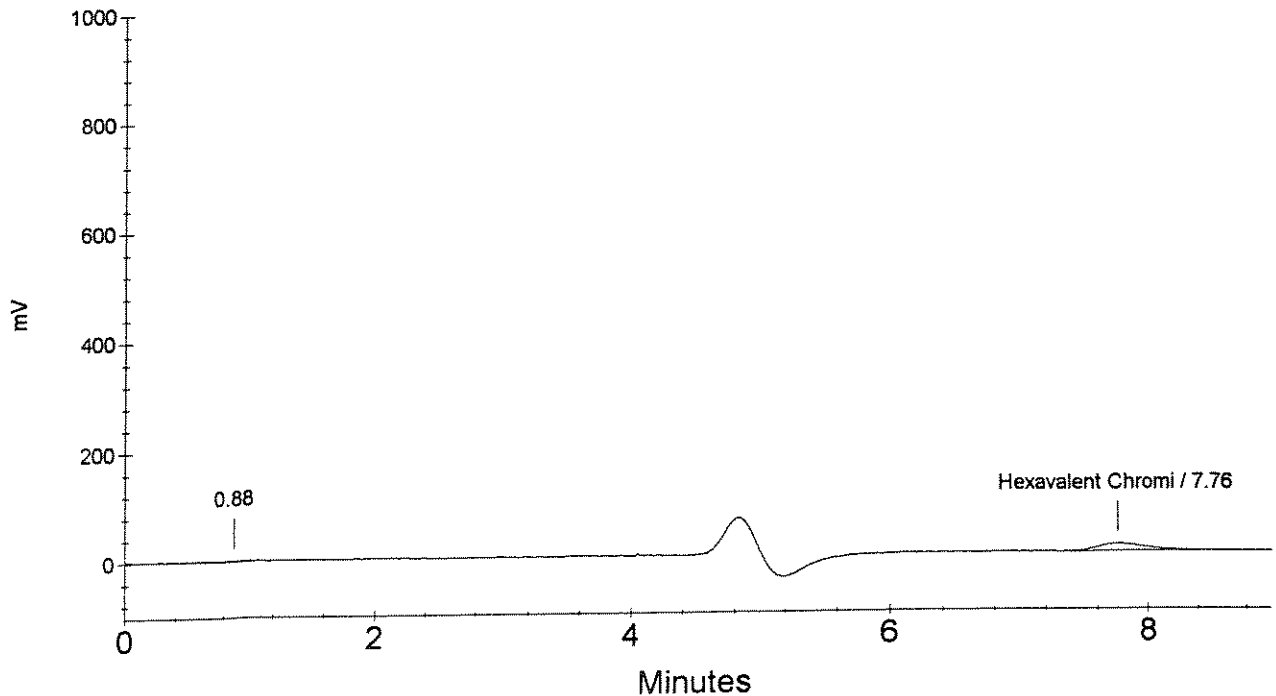
Dilution Factor : 1.00  
Sample Comment :  
Data Collection Rate : 20.00 Hz

Calibration Type : EXTERNAL  
Calibration Level : 3

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
2	7.76	Hexavalent Chromi	0.010	347287

*AK*  
*CMW*  
*7/16/08*  
STANDARD 3



Ion Chromatography Calibration Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : STANDARD 4  
Sample Type : Calibration Update  
Data File Name : ...\\716\_004.DXD  
Method File Name : ...\\Cr6-716.met

Date Time Collected : 7/16/08 11:14:41  
Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Analyst : CMW

Dilution Factor : 1.00  
Sample Comment :  
Data Collection Rate : 20.00 Hz

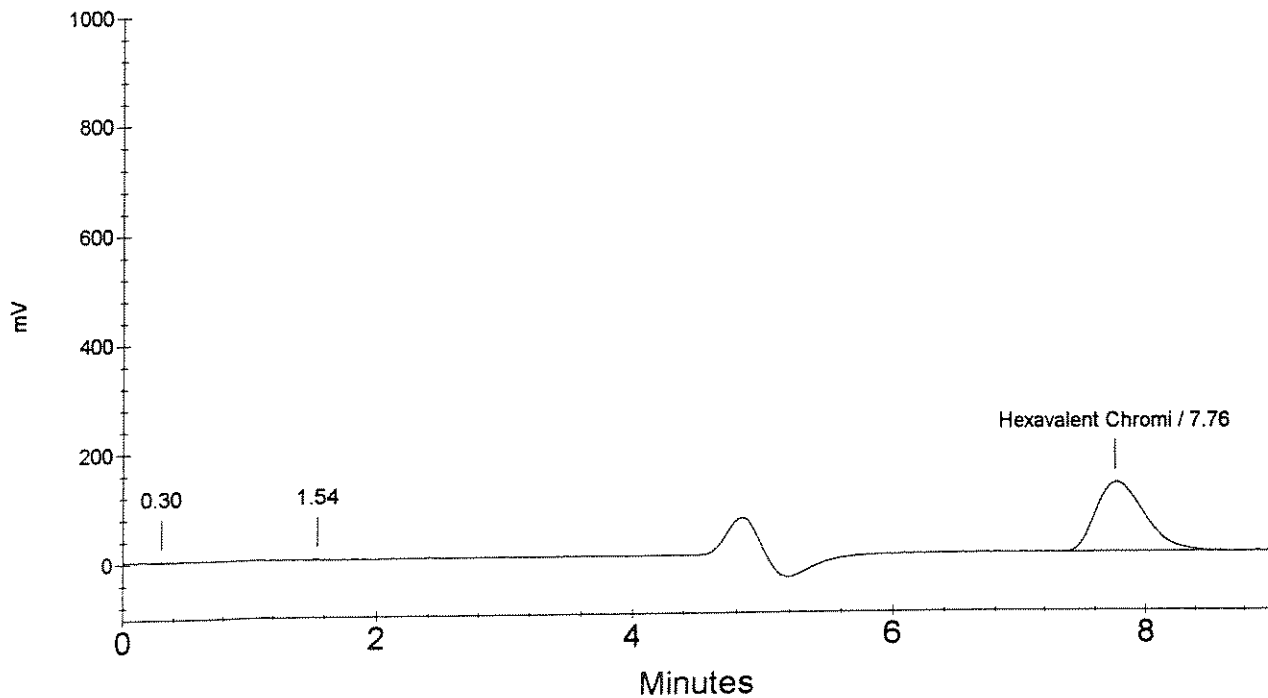
Calibration Type : EXTERNAL  
Calibration Level : 4

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
3	7.76	Hexavalent Chromi	0.100	3343001

*OK*  
*CMW*  
*7/17/08*

STANDARD 4



Ion Chromatography Calibration Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : STANDARD 5  
Sample Type : Calibration Update  
Data File Name : ...\\716\_005.DXD  
Method File Name : ...\\Cr6-716.met

Date Time Collected : 7/16/08 11:25:06  
Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Analyst : CMW

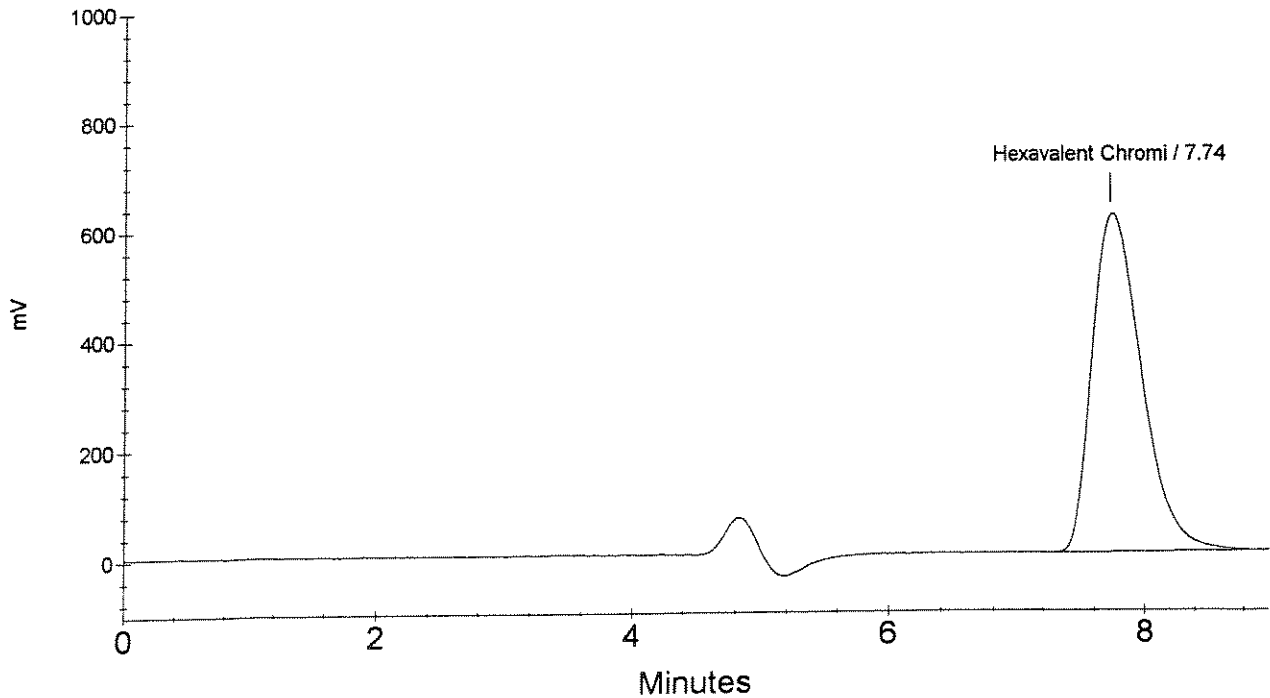
Dilution Factor : 1.00  
Sample Comment :  
Data Collection Rate : 20.00 Hz

Calibration Type : EXTERNAL  
Calibration Level : 5

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	7.74	Hexavalent Chromi <i>OK</i>	0.500	16638083

*cmw*  
*7/17/08*  
STANDARD 5



Ion Chromatography Calibration Report  
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Rochester, NY 14607

Sample Name : STANDARD 6  
Sample Type : Calibration Update  
Data File Name : ...716\_006.DXD  
Method File Name : ...Cr6-716.met

Date Time Collected : 7/16/08 11:35:31  
Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Analyst : CMW

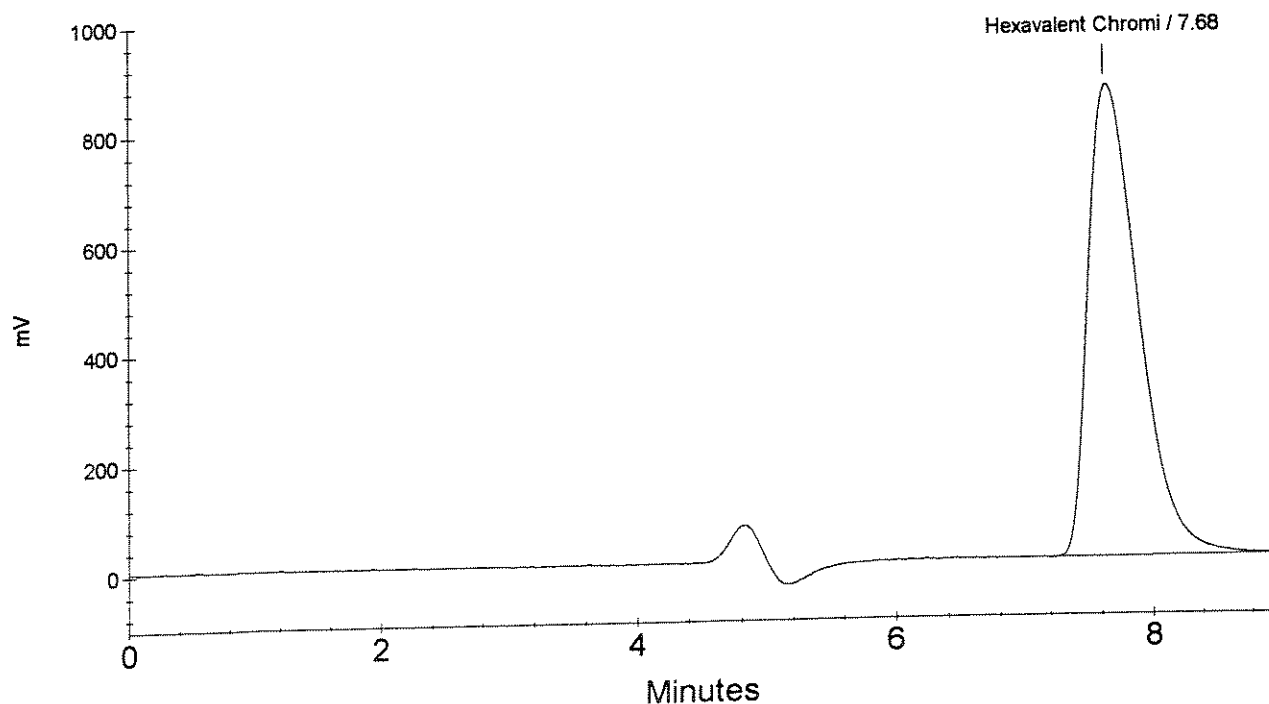
Dilution Factor : 1.00  
Sample Comment :  
Data Collection Rate : 20.00 Hz

Calibration Type : EXTERNAL  
Calibration Level : 6

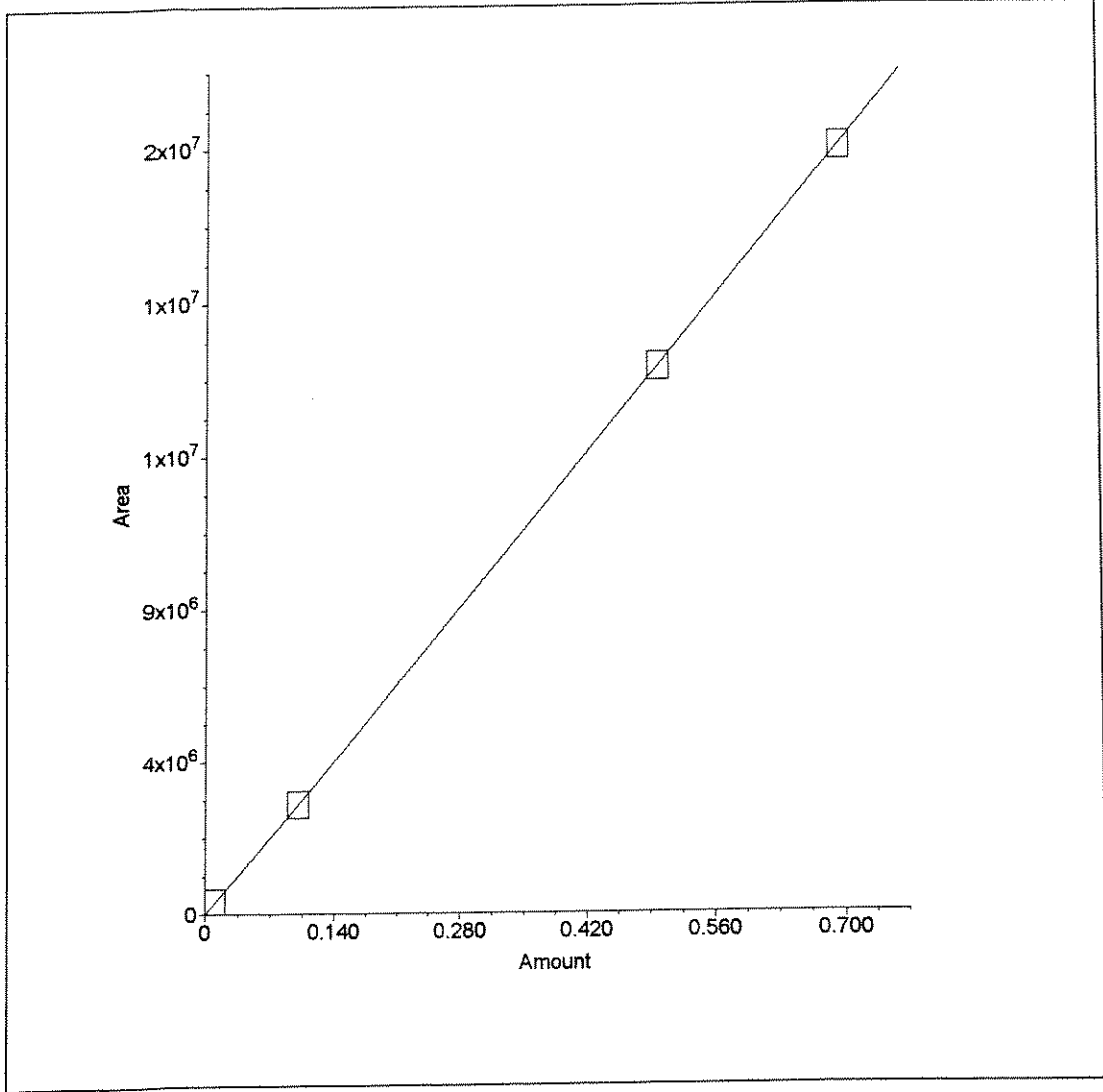
Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	7.68	Hexavalent Chromi <i>Ch</i>	0.700	23248396

*CMW*  
*7/17/08*  
STANDARD 6



1. Component:Hexavalent Chromi  
Standard:External Fit Type:Linear  
Origin:Include Calibration:Area  
 $r^2=0.999998$   
Amt= $3.01e-008 * Resp + -0.0002258$



DIONEX ACI METHOD PARAMETERS - Cr6-716.met

---

Method Information : All Modules

System Name : Dionex 4000i  
System Number : 101  
Method Type : Ion Chromatography  
Column : AS7 (012190) NG-1 (020261)  
Analyst : CMW  
Comment : Cal.: IC#1, 07/16/08 50uL Loop

---

AI450 Detector Parameters

Detector Type : UV/Vis  
Data collection time (minutes) : 10.00  
Data Collection Rate : 20.00  
Real time plot scale maximum (mV) : 1500.000  
Real time plot scale minimum (mV) : -100.000

---

AI450 Integration Parameters

Peak detection algorithm : Standard  
Starting peak width (seconds) : 12.00  
Peak threshold : 2.00  
Peak area reject (area counts) : 1000.00  
Reference peak area reject (area counts) : 1000.00

---

AI450 Smoothing Parameters

Filter Type : No filter

---

AI450 Report Data

Report Format File : J:\ACQUDATA\IC\METHOD.ACI\IC#2\As7-cr6.rpt  
Print Sample Analysis : Yes  
Print Calibration Update : Yes  
Print Check Standard : No  
System Suitability Tests :  
No system suitability tests selected.

---

AI450 Integration Data Events

Time	Description
3.20	Stop peak detection
4.40	Force baseline at start of all peaks
5.00	Double peak threshold
6.00	Start peak detection

---

---

AI450 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 : PPM  
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

---

AI450 Component Identification Table

Component	Retention	Tolerance	Reference
Hexavalent Chromi	7.68 min	10.00 %	

---

AI450 Component Quantitation Table

Component	Retention	Low Limit	High Limit
Hexavalent Chromi	7.68 min	0	0

---

AI450 Component Calibration Table

Component	Retention Time	Curve Fit	Origin	Cal. by	Response Component	Relative Factor
Hexavalent Chromi	7.68 min	Linear	Include	Area		0.00

---



---

AI450 Component = Hexavalent Chromi Levels Table

Retention Time : 7.68 min  
Amount units : PPM  
Replicate unit type : Area  
Number of levels : 6  
Number of replicates : 1

Level	Amount	Replicate 1	
1	0.00	<del>2.27454e+007</del>	NO PEAK DETECTED on 7/16/08
2	0.01	156910	
3	0.01	347287	
4	0.10	3.343e+006	
5	0.50	1.66381e+007	
6	0.70	2.32484e+007	

---

AI450 XY Data Parameters

---

Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : ICV  
Data File Name : ...\\716\_007.DXD  
Method File Name : ...\\Cr6-716.met  
Date Time Collected : 7/16/08 11:45:56

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/16/08 50uL Loop

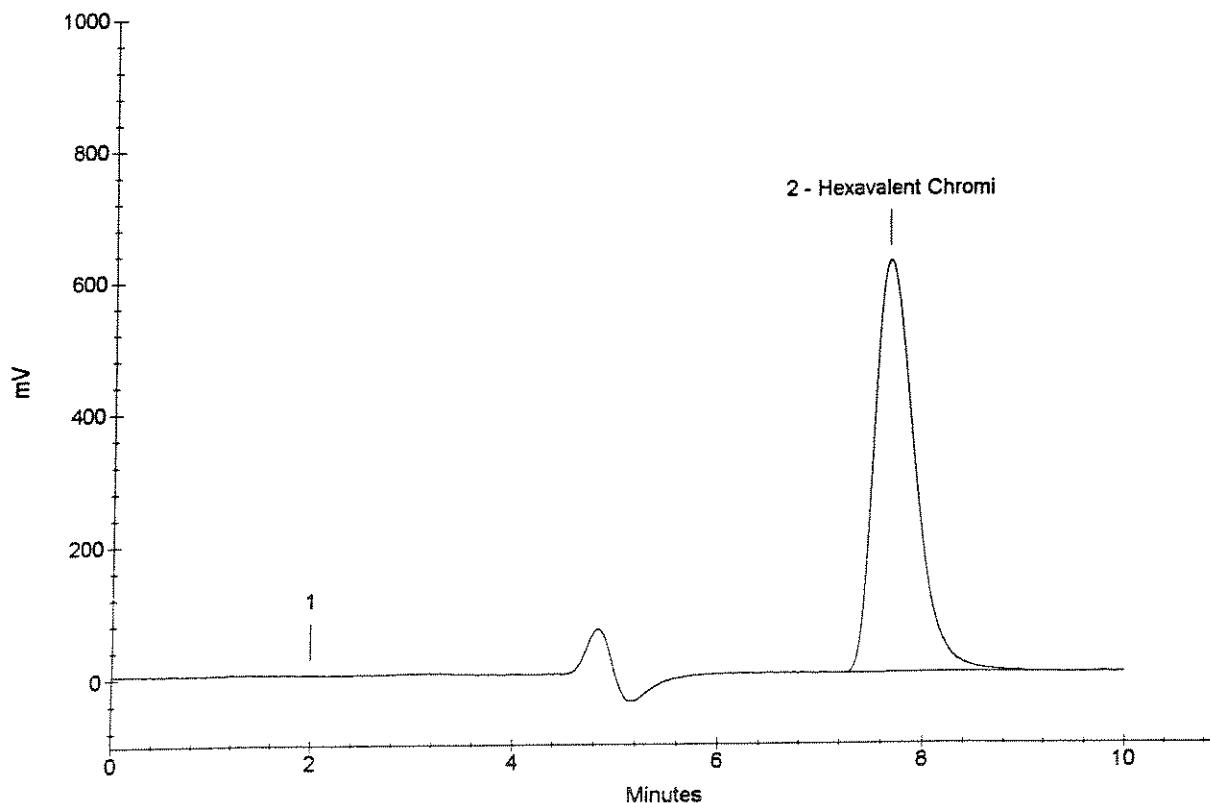
Dilution Factor : 1.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
2	7.68	Hexavalent Chromi <i>OK</i>	0.5027	16708230

*ICV*  
*7/17/08*



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : ICB  
Data File Name : ...\\716\_008.DXD  
Method File Name : ...\\Cr6-716.met  
Date Time Collected : 7/16/08 11:56:21

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/16/08 50uL Loop

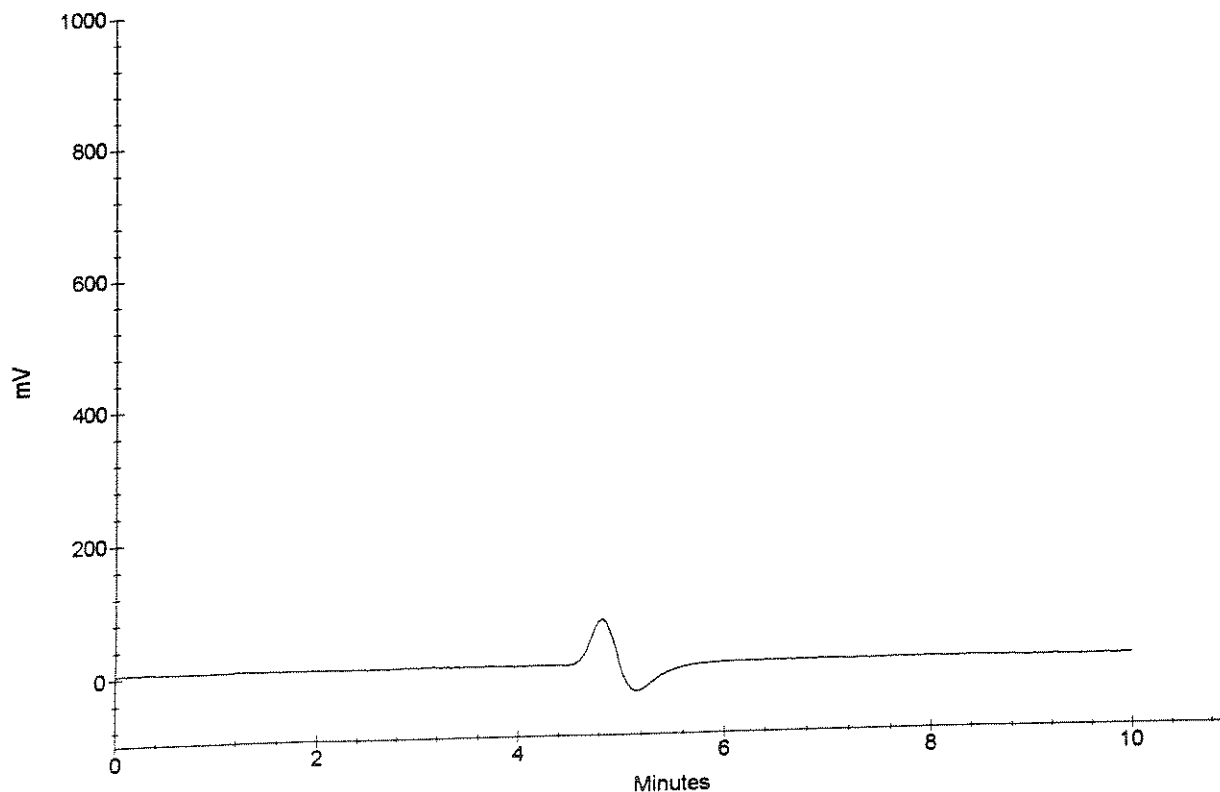
Dilution Factor : 1.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
-------------	---------------------	----------------	------------------------	-----------

*OK*  
*cut*  
*7/17/08*  
ICB



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : LCS  
Data File Name : ...\\716\_009.DXD  
Method File Name : ...\\Cr6-716.met  
Date Time Collected : 7/16/08 12:06:45

Detector Name : UV/Vis  
Column ID : AS7 (012190) NG-1 (020261)  
Method Comment : Cal.: IC#1, 07/16/08 50uL Loop

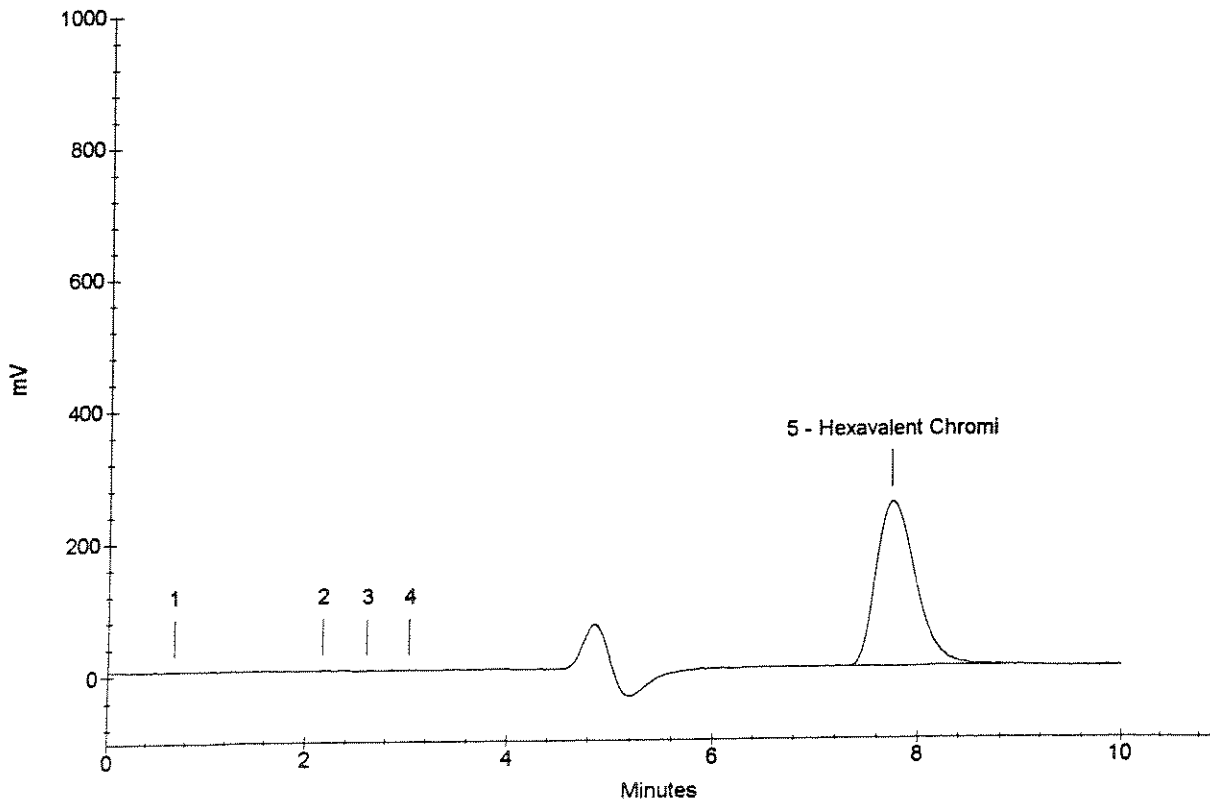
Dilution Factor : 1.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 20.00 Hz  
Data Collection Period : 600.00 seconds  
Component Amount Units : PPM

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
5	7.74	Hexavalent Chromi	0.1984	6599758

*OK*  
*cm*  
*7/17/08*  
LCS



**Ion Chromatography Cover Sheet**

Instrument: Dionex 4000 Series, IC #1  
 Column: AS7 Analytical Column, NG-1 Guard Column, 4mm, 07/07/08  
 Curve Date: 07/16/08 Loop size: 100 uL Loop  
 Analyst: C. Woods Analysis Date: 7-16-08

**Standards Prep Dates & Log ID's:**

<i>Std Type</i>	<i>Date Rec'd</i>	<i>Log ID</i>	<i>Std Type</i>	<i>Prep Date</i>	<i>Log ID</i>
Calibration Standard Stock	03/14/07 19	WC76254G	Calibration Stds	Daily	SAME AS WC85001A
LCS / MS Soluble Stock	03/14/07 19	WC76254G	Soluble MS	Daily	SAME AS WC85001B
I/CCV Standard Stock	<del>11/28/05</del> 12/13/07	WC85083G	I/CCV	Daily	SAME AS WC85001D
LCS / MS Insoluble Stock	01/11/08 Soils Only	WC85095H Soils Only	Insoluble LCS/MS	Daily	SAME AS WC85001C
			Soluble LCS	Daily	SAME AS WC85001E

**Comments:**

Instrument software prevents analytes with no peak area from being used in the curve calculation. The method requires the use of a zero point, so to ensure the use of our zero, the quantitation file will include a (0,0) point in the calibration curve when no area has been assigned to the zero standard.

CMMW  
7/16/07(A) Cr<sup>6+</sup> 7199 Calibration Standards

10ppm Cr<sup>6+</sup> working stock: Do two (2) 1:10 serial dilutions of 1000ppm standard stock (WC 76243G) using buffered DI.

Std	Conc	mls Buffered DI	mls 10ppm Working Stock
6	0.70	9.3	0.70
5	0.50	9.5	0.50
4	0.10	9.9	0.10
3	0.010	9.0	1/10 dilution of #4
2	0.005	9.0	1/10 dilution of #5
1	0.0	10.0	-

(B) Cr<sup>6+</sup> 7199 Soils Soluble Matrix Spike

Add 1ml of 100ppm working standard stock (1/10 dilution of 1000ppm standard (WC 76243G) to sample during digestion. TV = 100/sample mass(g).

(C) Cr<sup>6+</sup> 7199 Soils Insoluble Matrix Spike

Add approximately 10mg of Lead Chromate (WC 69237E) to sample or digest reagent during digestion.

$$TV = \frac{\text{mg PbCrO}_4}{\text{sample mass (kg)}} \times 0.161 =$$

(D) Cr<sup>6+</sup> 7199 ICV/CCV

Add 0.5mls of 100ppm working reference stock (do two (2) 1:10 serial dilutions of 1000ppm reference stock (WC 76060B) to 9.5mls of buffered DI. TV = 0.50

(E) Cr<sup>6+</sup> 7199 Waters LCS

Add 0.2mls of 10ppm working standard stock to 10mls of buffered DI. TV = 0.20.

TC

7/16/07

(F) TON + NO<sub>2</sub> Buffer

To a tared 1-liter amber glass jar add:

- 178.5g DI
- 113.4g HCl (WC 762810 F)
- 76.5g NH<sub>4</sub>OH (WC 76259 F)
- 0.90g EDTA (WC 76279 H)

Stir until dissolved + cool. Adjust pH to 8.5 w/ conc. HCl or NaOH. Exp 1 yr, 7/16/08.

Reviewed &amp; Approved

By: CKDate: 9/16/07

1/16/07 **(A) Ascorbic Acid - OPOy Konelab**  
 UB In a 100 mL vol flask add ~80 ml DI.  
 Dissolve 6.0g Ascorbic Acid (WC76189D).  
 Add 0.2 ml Acetone (WC76060F). Bring  
 to volume with DI. Expires 2 weeks, 3/30/07

3/19/07 **(B) 0.02500 N Iodine - sulfides**  
 GN In a 1 liter ml. flask add 20.65g KI (WC76230C) to  
 ~500 ml DI. Dissolve, then add 3.2g Iodine (WC69254S)  
 Bring to volume w/DI. Stir until dissolved. Store in  
 amber glass at 4°C. Standardize w/ each use.  
 Exp 1 year, 3/19/08.

3/19/07 **(C) 0.02500 N  $N_2S_2O_8$  - sulfides**  
 GN 50.0 ml  $N_2S_2O_8$  (WC76237G) → 200 ml volumetrically  
 w/DI. Store at 4°C. Exp: 2 weeks 04/02/07.

1/19/07 **Received from VWR**  
 AB **(D)** (1) x 4L Water Hardness Titrant, 1ml = 1mg  $CaCO_3$ .  
 Cat # VW3511-4, VWR Lot # 6331, CAS # 6381-92-6.  
 Store @ R.T. Expires 5/31/08  
**(E)** (1) x 500g Ferrus Ammonium Sulfate · 6H<sub>2</sub>O,  
 Cat # FX0245-1, EMD Lot # 45164625,  
 CAS # 7783-85-9. Store @ R.T. Expires 3/19/10

**Received from Fisher**  
**(F)** (1) x 100 mL Chromium Reference Std Soln, 1000ppm.  
 Cat # SC192-100, Fisher Lot # 067819, CAS # 7732-18-5,  
 7778-50-9. Store @ R.T. Expires 1/2009  
**(G)** (1) x 500 mL Chromium Reference Std Soln, 1000ppm.  
 Cat # SC192-500, Fisher Lot # 067819, CAS # 7732-18-5,  
 7778-50-9. Store @ R.T. Expires 1/2009

3/20/07 **(H) Color Reagent - TKN**  
 TC - Same as WC76251B. exp. 1 month, 4/20/06.

**(I) Buffer - TKN**  
 - Same as WC76251C. exp. 1 month, 4/20/06.

3/30/07 **(A) Post**  
 NM - same

**(B) Hypoc**  
 - same

3/20/07 **(C) TSS**  
 DF 0.2  
 w/DI.

3/21/07 **(D) 10% I**  
 NB same.

3/22/07 **(E)  $NH_3$  - B**  
 TC To a To a  
 - 50.0g  
 - 9.0g  
 - 965g  
 Stir until

**(F)  $NH_3$  C**  
 To a jar  
 - 3.50g Soc  
 - 1000g UPD.  
 Stir until

**(G) Sodium**  
 To a tar  
 - 988g U  
 - 94.2g L  
 - 32.0g S  
 Stir until  
 Store @ R

**(H) Color Reag**  
 To a jar  
 75.0g Sodium  
 0.50g Sodium  
 450g

12/12/07 (A) TP04 Color Reagent

TR To a dated 500 mL plastic bottle add:

- 347.0g UPDI
- 19.2g conc. instrumentalyzed  $H_2SO_4$
- 36.0g Stock APT
- 106.5g  $NH_3$  Molybdate Solution

Mix well. Degas prior to use. Store @  $4^\circ C$ .  
Exp. 1 yr., 12/12/08, or when discolored.

(B) Ascorbic Acid

To a dated 500 mL plastic bottle add:

- 30.0g Ascorbic Acid
- 487.5g UPDI

Degas w/ Helium for 5 minutes then add,

- 0.50g Dose of Sodium Sulfate

Store @  $4^\circ C$ . Exp 1 wk. 12/19/07.

12/12/07 (C)  $KIO_3$  Titrant - Chlorine Demand

NM

- same as WC85006D. Prepare fresh each run.

(D) Stock Chlorine Solution - Chlorine Demand

- same as WC85021B. Prepare fresh each run and standardize with use.

12/13/07 (E)  $NH_3$  Carrier/Diluent

NM

- same as WC85073F. Prepared solution X3.

(F) Hypochlorite -  $NH_3$

- same as WC85051B. Prepare fresh each run.

~~Received~~  
Received from Environmental Express

- (G) (1) x 250 mL 1000 ppm Hexavalent Chromium,  
CAT. NO. HP100012-7, EE lot # 0718018,  
CAS #'s 7778-50-9 / 231-906-6, 7732-18-5,  
store @ RT, Expires 6/12/2009.



TC 11/10/08  
1/10/08 ~~A~~ DPD Indicator

TC in a 500 ml vol flask, dissolve 0.50g DPD (WC16015F) and 0.100g EDTAC and 4ml 1 + 3 H<sub>2</sub>SO<sub>4</sub> (WC85027B) in w/DI, Bring to vol. Store @ RT in amber glass Exp 1 yr. or when discolored, 1/10/08

1/10/08 B Sodium Phenolate-NH<sub>3</sub>  
NM - same as WC85088F. Exp. 1 year, 1/10/09.

1/11/08 C Erochrome Black-T Indicator (Hardness)  
NM - same as WC85075H. Exp. 5/31/08.

1/11/08 D TSS Reference  
KP 0.2152g Kadin (WC69285G) brought to 1000g w/DI. Store at 4°C in a plastic bottle.  
TV=215mg/L exp: 01/11/09

1/11/08 E Citra Soils Buffer  
In a 500 ml vol. flask dissolve  
- 43.545g K<sub>2</sub>HPO<sub>4</sub> (WC76227G)  
- 34.02g KH<sub>2</sub>PO<sub>4</sub> (WC85054G)  
in ~400 ml DI. Bring to vol. w/ DI. Store @ 4°C. Exp. 1 yr. 1/11/09.

F Citra Soils Digest Solution  
20.0g NaOH pellets (WC85072G) and 30.0g Na<sub>2</sub>CO<sub>3</sub> (WC76232D) dissolved in DI. Bring to 1 liter volumetrically w/ DI. Exp. 1 month, 2/11/08.

1/11/08 G 0.0250 Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> - sulfides  
TC Dilute 50 mls 1.0N Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> (WC85067D) → 200 mls volumetrically w/ DI. Store for 2 weeks @ 4°C. Exp. 1/25/08.

1/11/08 H Received from Alfa Aesar  
AB (H) (1) x 100g Yerd I Chromate, Cat # 14125, 42 Lot# J03Q003, CAS# 7758-97-6. Store @ R.T. Expires 1/1/11

Run #: 163426

Analyte: SULFATE 9056

SULFATE BY ION CHROMATOGRAPHY

Printed: 07/08/08 16:25

44666  
44768

TYPE	SUBMISSION	ORDER #	MATRIX	REPORTED		DILUTION	PQL	% RECOVERY	% RSD	DATE	QC	PKG #
				RESULT						ANALYZED		
BLK5		1115486	SOIL/SEDIME	20.0	U	1.0	20.0			07/01/2008		
ESMP	R2844666	1113245	SOIL/SEDIME	64.5		1.0	20.0			07/01/2008		ASPB
ESMP	R2844666	1113249	SOIL/SEDIME	78.5		1.0	20.0			07/01/2008		ASPB
ESMP	R2844666	1113256	SOIL/SEDIME	99.5		1.0	20.0			07/01/2008		ASPB
ESMP	R2844768	1113695	WATER	377		40.0	0.200			07/01/2008		ASPB
ESMP	R2844768	1113697	WATER	548		100.0	0.200			07/01/2008		ASPB
CHK5		1115487	WATER	6.52		1.0	0.200	101.9		07/01/2008		
BLK4		1115488	WATER	0.200	U	1.0	0.200			007/01/2008		
SPKB		1115489	WATER	1.94		1.0	0.200	97.0		07/01/2008		

Records printed: 9

Reviewed & Approved

By: S/1/10

Date: 7/10/08

Run #: 163272

Analyte: NITRATE 9056

NITRATE NITROGEN (NO3) AS N BY ION CHROM

Printed: 07/08/08 16:13

TYPE	SUBMISSION	ORDER #	MATRIX	REPORTED	DILUTION	PQL	% RECOVERY	% RSD	DATE	QC	PKG #
				RESULT					ANALYZED		
BLK5		~ 1115498	SOIL/SEDIME	0.180	1.0	5.00			07/01/2008		
ESMP	R2844666	- 1113245	SOIL/SEDIME	2.13	1.0	5.00			07/01/2008		ASPB
ESMP	R2844666	- 1113249	SOIL/SEDIME	2.27	1.0	5.00			07/01/2008		ASPB
ESMP	R2844666	~ 1113250	SOIL/SEDIME	0.290	1.0	5.00			07/01/2008	QC	ASPB
LDUP		~ 1115499	SOIL/SEDIME	0.290	1.0	5.00			07/01/2008		
SPK1		✓ 1115500	SOIL/SEDIME	9.78	1.0	5.00			07/01/2008		
ESMP	R2844666	- 1113254	SOIL/SEDIME	0.450	1.0	5.00			07/01/2008		ASPB
ESMP	R2844666	- 1113255	SOIL/SEDIME	10.1	1.0	5.00			07/01/2008		ASPB
ESMP	R2844666	- 1113256	SOIL/SEDIME	2.34	1.0	5.00			07/01/2008		ASPB
ESMP	R2844666	- 1113257	SOIL/SEDIME	2.47	1.0	5.00			07/01/2008		ASPB
ESMP	R2844666	~ 1113258	SOIL/SEDIME	0.630	1.0	5.00			07/01/2008		ASPB
ESMP	R2844666	- 1113259	SOIL/SEDIME	1.28	1.0	5.00			07/01/2008		ASPB
ESMP	R2844666	- 1113262	SOIL/SEDIME	2.54	1.0	5.00			07/02/2008		ASPB
ESMP	R2844768	- 1113695	WATER	2.94	10.0	0.0500			07/01/2008		ASPB
ESMP	R2844768	- 1113696	WATER	1.32	10.0	0.0500			07/01/2008		ASPB
ESMP	R2844768	- 1113697	WATER	3.67	10.0	0.0500			07/01/2008		ASPB
ESMP	R2844768	- 1113698	WATER	7.88	10.0	0.0500			07/01/2008		ASPB
ESMP	R2844768	~ 1113699	WATER	7.72	10.0	0.0500			07/01/2008		ASPB
LDUP		- 1115501	WATER	7.56	10.0	0.0500		2.11	07/01/2008		
SPK1		- 1115502	WATER	17.1	10.0	0.0500	94.0		07/01/2008		
CHK5		- 1115503	WATER	3.63	1.0	0.0500	100.8		07/01/2008		
BLK4		~ 1115504	WATER	0.0500	1.0	0.0500			07/01/2008		
SPKB		- 1115505	WATER	0.961	1.0	0.0500	96.1		07/01/2008		

97.8  
7/8/08

Records printed: 23

Run #: 163273

Analyte: NITRITE 9056

NITRITE NITROGEN (NO2) AS N BY ION CHROM

Printed: 07/08/08 16:22

TYPE	SUBMISSION	ORDER #	MATRIX	REPORTED		DILUTION	PQL	% RECOVERY	% RSD	DATE	QC	PKG #
				RESULT						ANALYZED		
BLK5		- 1115490	SOIL/SEDIME	5.00	U	1.0	5.0			07/01/2008		
ESMP	R2844666	- 1113245	SOIL/SEDIME	5.00	U	1.0	5.0			07/01/2008		ASPB
ESMP	R2844666	- 1113249	SOIL/SEDIME	5.00	U	1.0	5.0			07/01/2008		ASPB
ESMP	R2844666	- 1113250	SOIL/SEDIME	5.00	U	1.0	5.0			07/01/2008	QC	ASPB
LDUP		- 1115494	SOIL/SEDIME	5.00	U	1.0	5.0			07/01/2008		
SPK1		- 1115495	SOIL/SEDIME	9.97		1.0	5.0			07/01/2008		
ESMP	R2844666	- 1113254	SOIL/SEDIME	5.00	U	1.0	5.0			07/01/2008		ASPB
ESMP	R2844666	- 1113255	SOIL/SEDIME	5.00	U	1.0	5.0			07/01/2008		ASPB
ESMP	R2844666	- 1113256	SOIL/SEDIME	5.00	U	1.0	5.0			07/01/2008		ASPB
ESMP	R2844666	- 1113257	SOIL/SEDIME	5.00	U	1.0	5.0			07/01/2008		ASPB
ESMP	R2844666	- 1113258	SOIL/SEDIME	5.00	U	1.0	5.0			07/01/2008		ASPB
ESMP	R2844666	- 1113259	SOIL/SEDIME	5.00	U	1.0	5.0			07/01/2008		ASPB
ESMP	R2844666	- 1113262	SOIL/SEDIME	5.00	U	1.0	5.0			07/02/2008		ASPB
ESMP	R2844768	- 1113695	WATER	0.500	U	10.0	0.05			07/01/2008		ASPB
ESMP	R2844768	- 1113696	WATER	5.00	U	100.0	0.05			07/01/2008		ASPB
ESMP	R2844768	- 1113697	WATER	0.500	U	10.0	0.05			07/01/2008		ASPB
ESMP	R2844768	- 1113698	WATER	0.500	U	10.0	0.05			07/01/2008		ASPB
ESMP	R2844768	- 1113699	WATER	0.500	U	10.0	0.05			07/01/2008		ASPB
LDUP		- 1115496	WATER	0.500	U	10.0	0.05			07/01/2008		
SPK1		- 1115497	WATER	7.82		10.0	0.05	78.2		07/01/2008		
CHK5		- 1115491	WATER	3.51		1.0	0.05	97.6		07/01/2008		
BLK4		- 1115492	WATER	0.0500	U	1.0	0.05			07/01/2008		
SPKB		- 1115493	WATER	1.01		1.0	0.05	100.8		07/01/2008		

99.7 SD  
~~99.7~~ 7/8/08

Records printed: 23

ANALYTE:G:\STARLIMS\ASBAR.RP1

Page 1

00700

Run #: 163270

Analyte: CHLORIDE 9056

CHLORIDE BY ION CHROMATOGRAPHY

Printed: 07/08/08 16:35

TYPE	SUBMISSION	ORDER #	MATRIX	REPORTED	DILUTION	PQL	% RECOVERY	% RSD	DATE	QC	PKG #
				RESULT					ANALYZED		
BLK5		- 1115506	SOIL/SEDIME	0.250	1.0	20.0			07/01/2008		
ESMP	R2844666	- 1113245	SOIL/SEDIME	8.35	1.0	20.0			07/01/2008		ASPB
ESMP	R2844666	- 1113249	SOIL/SEDIME	9.29	1.0	20.0			07/01/2008		ASPB
ESMP	R2844666	- 1113250	SOIL/SEDIME	4.90	1.0	20.0			07/01/2008	QC	ASPB
LDUP		- 1115507	SOIL/SEDIME	4.86	1.0	20.0			07/01/2008		
SPK1		- 1115508	SOIL/SEDIME	24.2	1.0	20.0			07/01/2008		
ESMP	R2844666	- 1113254	SOIL/SEDIME	14.9	1.0	20.0			07/01/2008		ASPB
ESMP	R2844666	- 1113257	SOIL/SEDIME	19.9	1.0	20.0			07/01/2008		ASPB
ESMP	R2844666	- 1113258	SOIL/SEDIME	30.3	1.0	20.0			07/01/2008		ASPB
ESMP	R2844666	- 1113262	SOIL/SEDIME	20.4	1.0	20.0			07/02/2008		ASPB
ESMP	R2844768	- 1113695	WATER	109	40.0	0.200			07/01/2008		ASPB
ESMP	R2844768	- 1113697	WATER	126	40.0	0.200			07/01/2008		ASPB
ESMP	R2844768	- 1113698	WATER	661	100.0	0.200			07/01/2008		ASPB
ESMP	R2844768	- 1113699	WATER	652	100.0	0.200			07/01/2008		ASPB
LDUP		- 1115509	WATER	663	100.0	0.200		1.72	07/01/2008		
CHK5		- 1115511	WATER	6.50	1.0	0.200	100.0		07/01/2008		
BLK4		- 1115512	WATER	0.200	1.0	0.200			07/01/2008		
SPKB		- 1115513	WATER	1.96	1.0	0.200	97.8		07/01/2008		

96.5  
~~100.0~~  
 87/819

Records printed: 18

07-01-08

Data Manually Entered

System	Ident	Vial	Volume	Dilution	Amount	Internal Standard Amount	Level	Injections	Done	Sample Info 1	Sample Info 2
Columbia-no dilution	CCV	1	1.0	1.0	1.0	100.0	0	1	1		
Columbia-no dilution	CCB	2	1.0	1.0	1.0	100.0	0	1	1		
Columbia-no dilution	LCS	3	1.0	1.0	1.0	100.0	0	1	1		
Columbia-no dilution	1113695	4	1.0	10.0	1.0	100.0	0	1	1	1	1
Columbia-no dilution	1113696	5	1.0	10.0	1.0	100.0	0	1	1	1	1
Columbia-no dilution	1113697	6	1.0	10.0	1.0	100.0	0	1	1	1	1
Columbia-no dilution	1113698	7	1.0	10.0	1.0	100.0	0	1	1	1	1
Columbia-no dilution	1113699	8	1.0	10.0	1.0	100.0	0	1	1	1	1
Columbia-no dilution	1113699 DUP	9	1.0	10.0	1.0	100.0	0	1	1	1	1
Columbia-no dilution	1113699 SPK	10	1.0	10.0	1.0	100.0	0	1	1	1	1
Columbia-no dilution	1113695	11	1.0	40.0	1.0	100.0	0	1	1	1	1
Columbia-no dilution	1113696	12	1.0	40.0	1.0	100.0	0	1	1	1	1
Columbia-no dilution	1113697	13	1.0	40.0	1.0	100.0	0	1	1	1	1
Columbia-no dilution	1113698	14	1.0	40.0	1.0	100.0	0	1	1	1	1
Columbia-no dilution	1113699	15	1.0	40.0	1.0	100.0	0	1	1	1	1
Columbia-no dilution	1113699 DUP	16	1.0	40.0	1.0	100.0	0	1	1	1	1
Columbia-no dilution	1113699 SPK	17	1.0	40.0	1.0	100.0	0	1	1	1	1
Columbia-no dilution	CCV	18	1.0	1.0	1.0	100.0	0	1	1	1	1
Columbia-no dilution	CCB	19	1.0	1.0	1.0	100.0	0	1	1	1	1
Columbia-no dilution	1113695	20	1.0	100.0	1.0	100.0	0	1	1	1	1
Columbia-no dilution	1113696	21	1.0	100.0	1.0	100.0	0	1	1	1	1
Columbia-no dilution	1113697	22	1.0	100.0	1.0	100.0	0	1	1	1	1
Columbia-no dilution	1113698	23	1.0	100.0	1.0	100.0	0	1	1	1	1
Columbia-no dilution	1113699	24	1.0	100.0	1.0	100.0	0	1	1	1	1
Columbia-no dilution	1113699 DUP	25	1.0	100.0	1.0	100.0	0	1	1	1	1
Columbia-no dilution	1113699 SPK	26	1.0	100.0	1.0	100.0	0	1	1	1	1
Columbia-no dilution	CCV	27	1.0	1.0	1.0	100.0	0	1	1	1	1
Columbia-no dilution	CCB	28	1.0	1.0	1.0	100.0	0	1	1	1	1
Columbia-no dilution	LCS	29	1.0	1.0	1.0	100.0	0	1	1	1	1
Columbia-no dilution	METHOD BLANK	30	1.0	1.0	1.0	100.0	0	1	1	1	1
Columbia-no dilution	1113245	31	1.0	1.0	1.0	100.0	0	1	1	1	1
Columbia-no dilution	1113249	32	1.0	1.0	1.0	100.0	0	1	1	1	1
Columbia-no dilution	1113250	33	1.0	1.0	1.0	100.0	0	1	1	1	1
Columbia-no dilution	1113250 DUP	34	1.0	1.0	1.0	100.0	0	1	1	1	1
Columbia-no dilution	1113250 SPK	35	1.0	1.0	1.0	100.0	0	1	1	1	1
Columbia-no dilution	1113254	36	1.0	1.0	1.0	100.0	0	1	1	1	1
Columbia-no dilution	1113255	37	1.0	1.0	1.0	100.0	0	1	1	1	1
Columbia-no dilution	1113256	38	1.0	1.0	1.0	100.0	0	1	1	1	1
Columbia-no dilution	1113257	39	1.0	1.0	1.0	100.0	0	1	1	1	1
Columbia-no dilution	1113258	40	1.0	1.0	1.0	100.0	0	1	1	1	1
Columbia-no dilution	1113259	41	1.0	1.0	1.0	100.0	0	1	1	1	1
Columbia-no dilution	1113262	42	1.0	1.0	1.0	100.0	0	1	1	1	1
Columbia-no dilution	CCV	43	1.0	1.0	1.0	100.0	0	1	1	1	1
Columbia-no dilution	CCB	44	1.0	1.0	1.0	100.0	0	1	1	1	1

Analyst: *Carbass*

Pipets *Prime*

Way *Way*

WORKLISTS  
UPDATED

R-44666 6/30/08  
EXTRACTION: CBNS  
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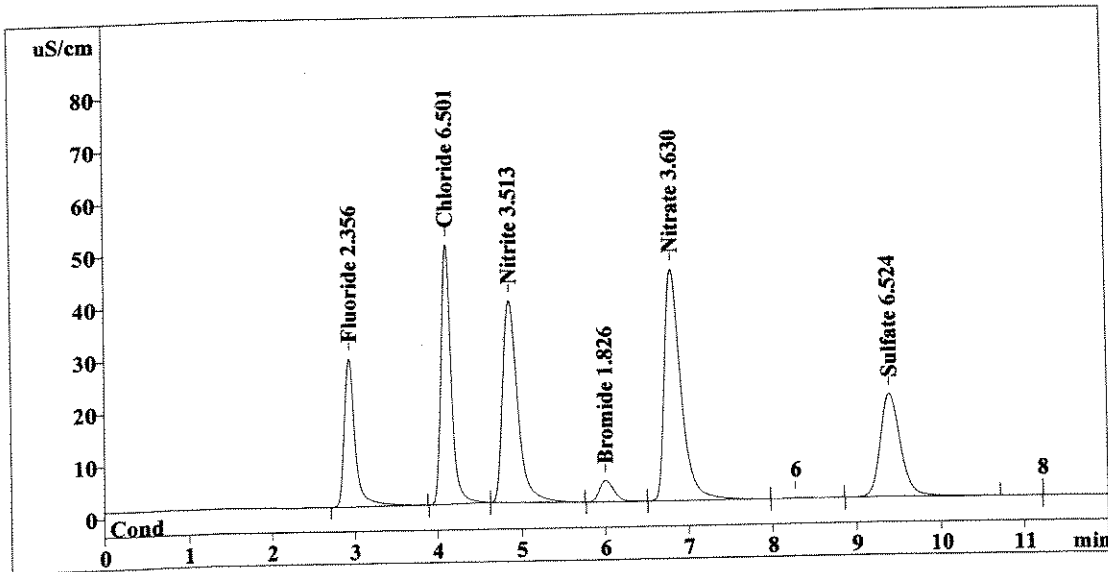
Method 300.0/9056

Report date: 7/1/2008 12:54:45  
 Printed by: User  
 Ident: CCV  
 Analysis from: 7/1/2008 12:42:46  
 File: S7011242.CHW

Last save: 7/1/2008 12:54:42

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37714  
 SAMPLE:  
 Vial number: 1  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/1/2008 10:29:20



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.92	261.999	2.356	Fluoride
2	4.10	423.705	6.501	Chloride
3	4.86	478.095	3.513	Nitrite
4	6.01	50.940	1.826	Bromide
5	6.80	601.024	3.630	Nitrate
6	9.40	324.654	6.524	Sulfate
<hr/>				
6	12.00	2140.415	24.350	

*out high OK* (handwritten note with arrow pointing to the 6.501 and 6.524 rows)

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*TC 7/2/08* (handwritten signature)

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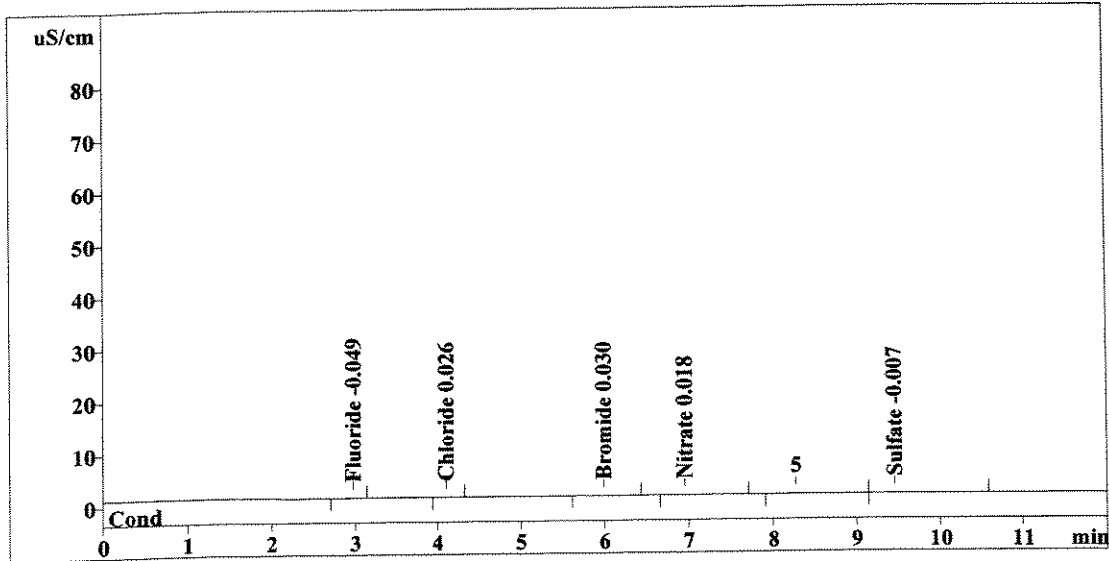
Method 300.0/9056

Report date: 7/1/2008 13:08:50  
 Printed by: User  
 Ident: CCB  
 Analysis from: 7/1/2008 12:56:52  
 File: S7011256.CHW

Last save: 7/1/2008 13:08:48

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37715  
 SAMPLE:  
 Vial number: 2  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/1/2008 10:29:20



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.97	0.117	-0.049	Fluoride
2	4.10	0.166	0.026	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.99	0.165	0.030	Bromide
5	6.96	0.291	0.018	Nitrate
6	9.45	0.740	-0.007	Sulfate
<hr/>				
6	12.00	1.479	0.130	

OK  
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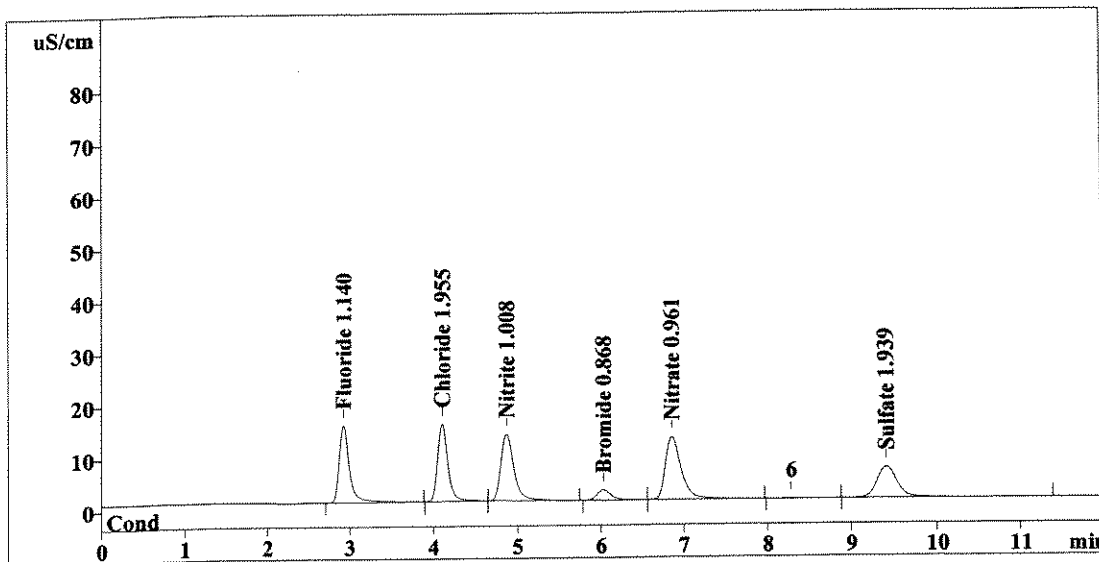
Method 300.0/9056

Report date: 7/1/2008 13:42:13  
 Printed by: User  
 Ident: LCS  
 Analysis from: 7/1/2008 13:30:15  
 File: S7011330.CHW

Last save: 7/1/2008 13:42:11

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37716  
 SAMPLE:  
 Vial number: 3  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/1/2008 10:29:20



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.92	129.633	1.140	Fluoride
2	4.10	126.368	1.955	Chloride
3	4.86	137.660	1.008	Nitrite
4	6.03	23.863	0.868	Bromide
5	6.86	157.150	0.961	Nitrate
6	9.41	97.240	1.939	Sulfate
6	12.00	671.915	7.872	

*Handwritten notes:*  
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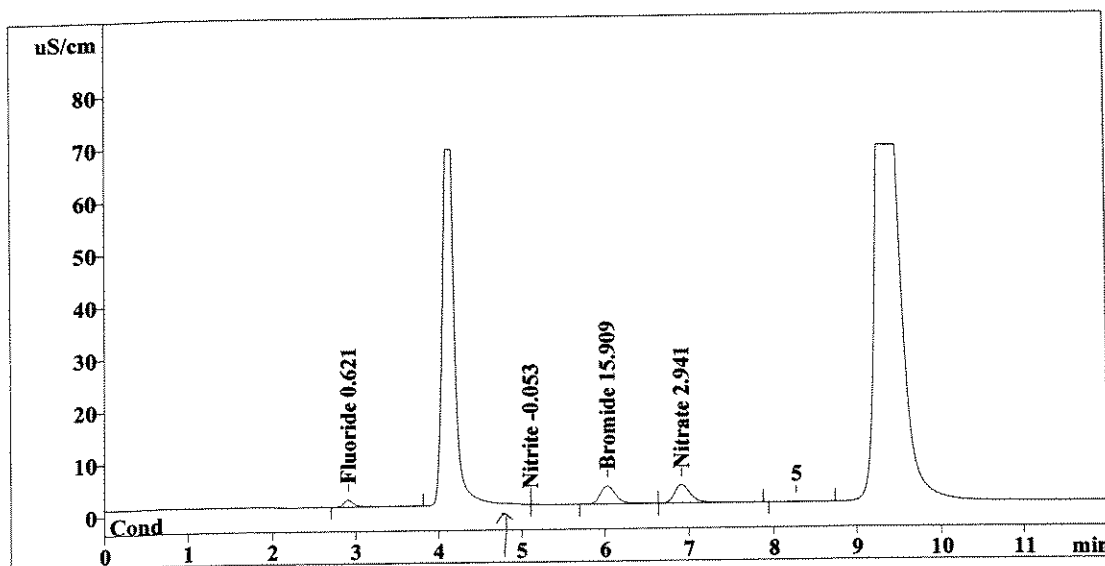
Method 300.0/9056

Report date: 7/1/2008 14:30:22  
 Printed by: User  
 Ident: 1113695  
 Analysis from: 7/1/2008 14:18:24  
 File: S7011418.CHW

Last save: 7/1/2008 14:30:19

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37717  
 SAMPLE: CNNS  
 Vial number: 4  
 Volume: 1.0 µL  
 Dilution: 10.00  
 Amount: 1.0000

Last save: 7/1/2008 10:29:20



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.90	12.231	0.621	Fluoride
2	0.00	0.000	0.000	Chloride
3	5.10	-0.000	-0.053	Nitrite
4	6.03	44.298	15.909	Bromide
5	6.91	46.186	2.941	Nitrate
6	0.00	0.000	0.000	Sulfate
<hr/>				
6	12.00	102.715	19.524	

*Reprocess plateau as NO<sub>2</sub>*

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TE 7/2/08

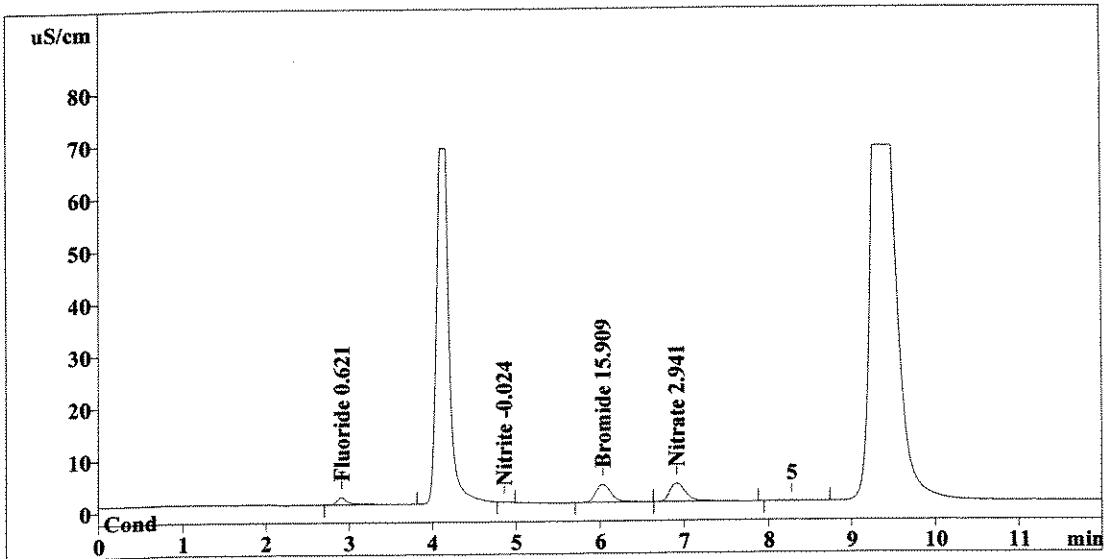
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Method 300.0/9056

Report date: 7/2/2008 10:54:34  
 Printed by: User  
 Ident: 1113695  
 Analysis from: 7/1/2008 14:18:24  
 File: s7011418.chw  
 Modified! Manual peaks!  
 Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37717  
 SAMPLE: CNNS  
 Vial number: 4  
 Volume: 1.0 µL  
 Dilution: 10.00  
 Amount: 1.0000

Last save: 7/1/2008 14:30:19

Last save: 7/1/2008 10:29:20



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.90	12.231	0.621	Fluoride
2	0.00	0.000	0.000	Chloride
3	4.86	0.400	-0.024	Nitrite
4	6.03	44.298	15.909	Bromide
5	6.91	46.186	2.941	Nitrate
6	0.00	0.000	0.000	Sulfate
<hr/>		12.00	103.116	19.496

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*reprocessed*  
 TC 7/2/08  
 SD 7/8/08

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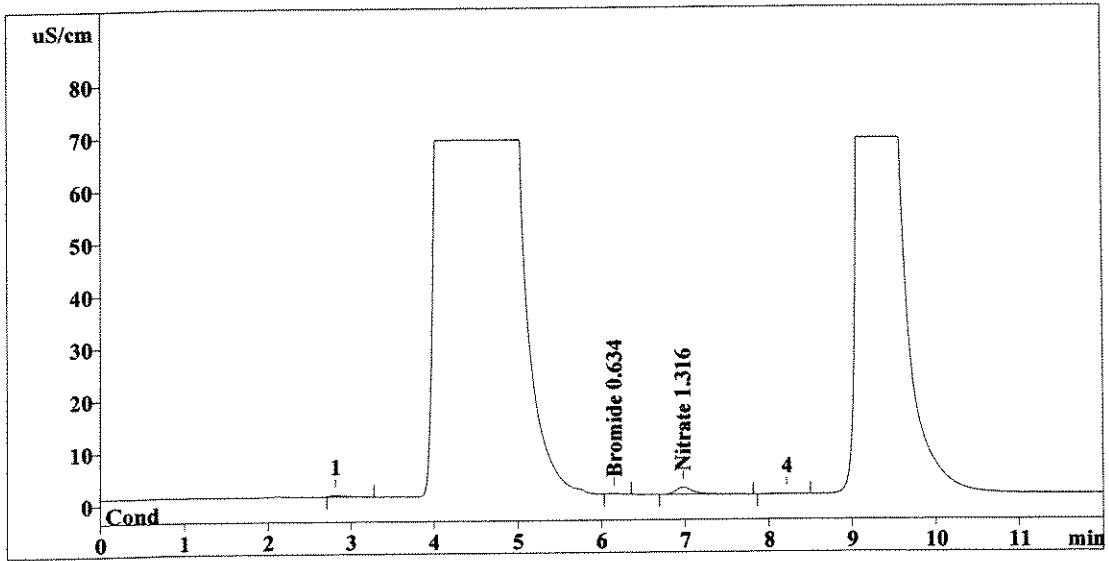
Method 300.0/9056

Report date: 7/1/2008 14:44:28  
 Printed by: User  
 Ident: 1113696  
 Analysis from: 7/1/2008 14:32:30  
 File: S7011432.CHW

Last save: 7/1/2008 14:44:26

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37718  
 SAMPLE: CNNS  
 Vial number: 5  
 Volume: 1.0 µL  
 Dilution: 10.00  
 Amount: 1.0000

Last save: 7/1/2008 10:29:20



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	0.00	0.000	0.000	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.16	1.115	0.634	Bromide
5	6.97	19.166	1.316	Nitrate
6	0.00	0.000	0.000	Sulfate
<hr/>				
6	12.00	20.281	1.951	

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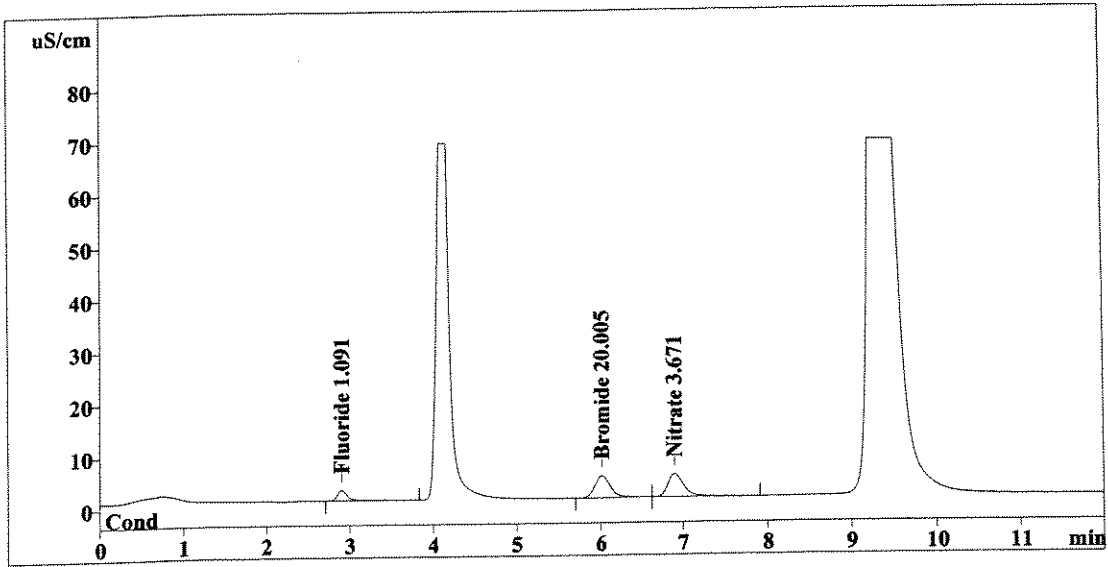
Method 300.0/9056

Report date: 7/1/2008 14:58:34  
 Printed by: User  
 Ident: 1113697  
 Analysis from: 7/1/2008 14:46:36  
 File: S7011446.CHW

Last save: 7/1/2008 14:58:31

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37719  
 SAMPLE: CNNS  
 Vial number: 6  
 Volume: 1.0 µL  
 Dilution: 10.00  
 Amount: 1.0000

Last save: 7/1/2008 10:29:20



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.90	17.348	1.091	Fluoride
2	0.00	0.000	<sup>1/40</sup> 0.000	Chloride
3	0.00	0.000	OK 0.000	Nitrite
4	6.01	55.879	— 20.005	Bromide
5	6.90	58.334	OK 3.671	Nitrate
6	0.00	0.000	<sup>1/100</sup> 0.000	Sulfate
<hr/>				
6	12.00	131.562	24.767	

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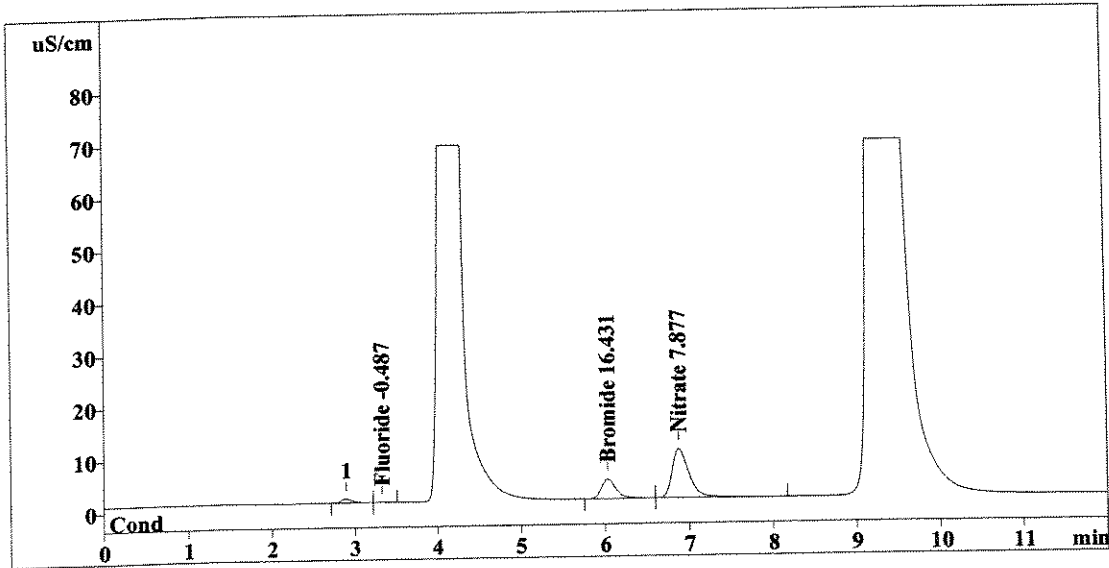
Method 300.0/9056

Report date: 7/1/2008 15:12:40  
 Printed by: User  
 Ident: 1113698  
 Analysis from: 7/1/2008 15:00:42  
 File: S7011500.CHW

Last save: 7/1/2008 15:12:37

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37720  
 SAMPLE: CNNS  
 Vial number: 7  
 Volume: 1.0 µL  
 Dilution: 10.00  
 Amount: 1.0000

Last save: 7/1/2008 10:29:20



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.33	0.165	-0.487	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.03	45.777	16.431	Bromide
5	6.88	128.277	7.877	Nitrate
6	0.00	0.000	0.000	Sulfate
<hr/>		174.219	24.795	

*Handwritten notes:* 1/100 OK, 1/400 OK

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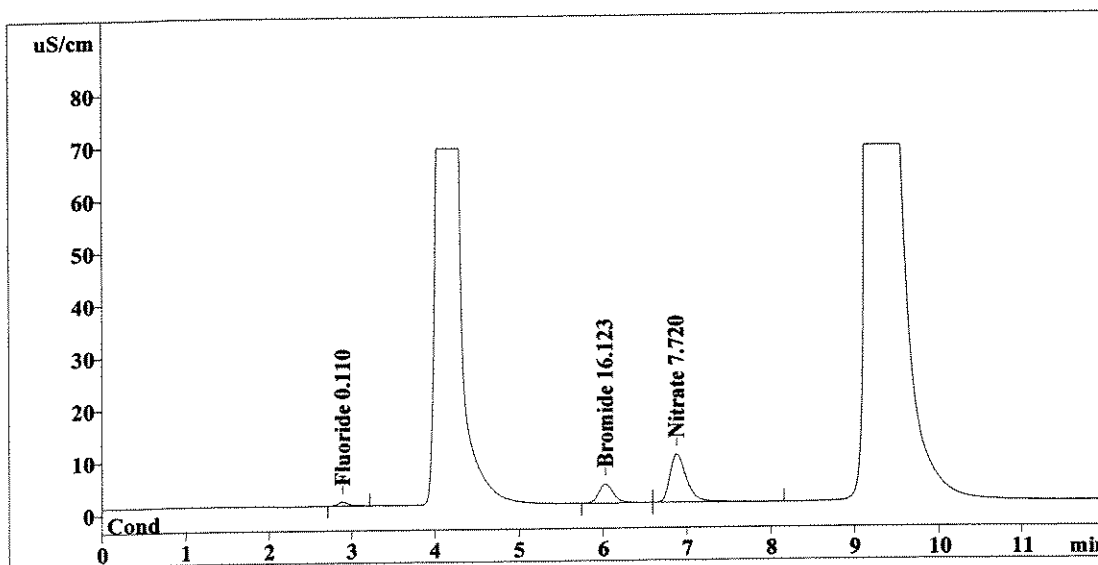
Method 300.0/9056

Report date: 7/1/2008 15:26:46  
 Printed by: User  
 Ident: 1113699  
 Analysis from: 7/1/2008 15:14:48  
 File: S7011514.CHW

Last save: 7/1/2008 15:26:44

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37721  
 SAMPLE: CNNS  
 Vial number: 8  
 Volume: 1.0 µL  
 Dilution: 10.00  
 Amount: 1.0000

Last save: 7/1/2008 10:29:20



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.89	6.667	0.110	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.03	44.904	16.123	Bromide
5	6.88	125.674	7.720	Nitrate
6	0.00	0.000	0.000	Sulfate
<hr/>				
6	12.00	177.246	23.953	

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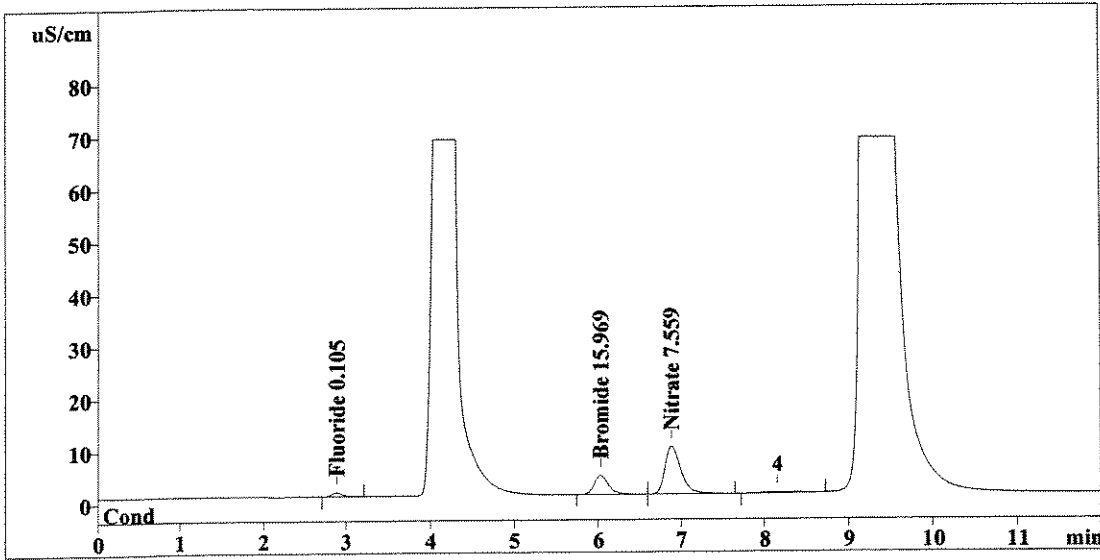
TC 7/2/08

Report date: 7/1/2008 15:40:52  
 Printed by: User  
 Ident: 1113699 DUP  
 Analysis from: 7/1/2008 15:28:54  
 File: S7011528.CHW

Last save: 7/1/2008 15:40:49

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37722  
 SAMPLE: CNNS  
 Vial number: 9  
 Volume: 1.0 µL  
 Dilution: 10.00  
 Amount: 1.0000

Last save: 7/1/2008 10:29:20



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.88	6.609	0.105	Fluoride
2	0.00	0.000	$\frac{1}{100}$ 0.000	Chloride
3	0.00	0.000	OK 0.000	Nitrite
4	6.03	44.468	15.969	Bromide
5	6.88	122.989	OK 7.559	Nitrate
6	0.00	0.000	$\frac{1}{100}$ 0.000	Sulfate
<hr/>				
6	12.00	174.066	23.632	

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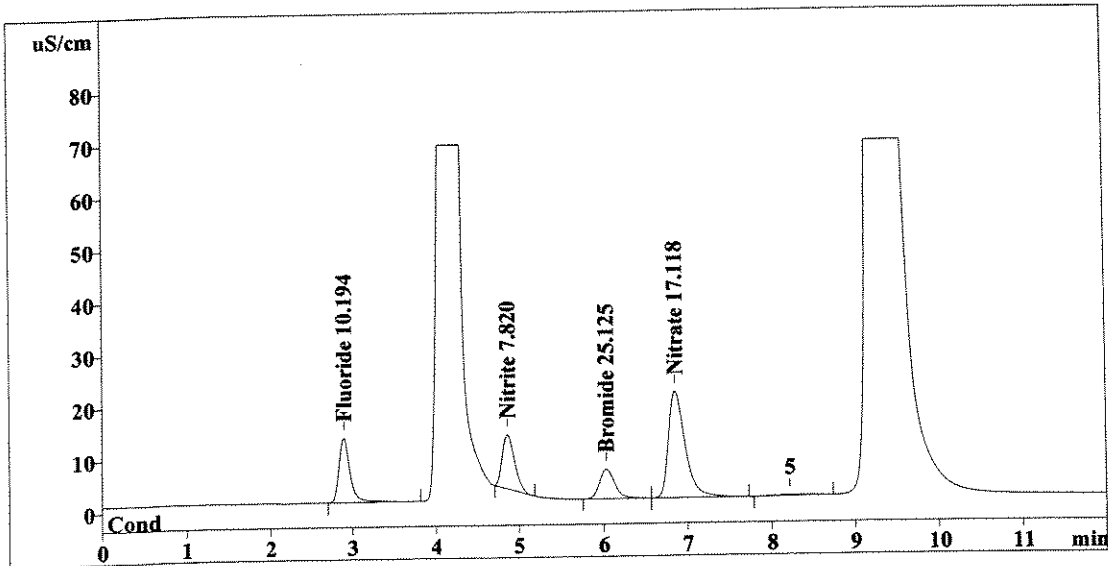
Method 300.0/9056

Report date: 7/1/2008 15:54:58  
 Printed by: User  
 Ident: 1113699 SPK  
 Analysis from: 7/1/2008 15:42:59  
 File: S7011542.CHW

Last save: 7/1/2008 15:54:55

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37723  
 SAMPLE: CNNS  
 Vial number: 10  
 Volume: 1.0 µL  
 Dilution: 10.00  
 Amount: 1.0000

Last save: 7/1/2008 10:29:20



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.89	116.463	10.194	Fluoride
2	0.00	0.000	0.000	Chloride
3	4.86	106.978	OK 7.820	Nitrite $-\frac{0.00}{10} \times 100 = 78.2\%$
4	6.03	70.354	25.125	Bromide
5	6.85	281.981	OK 17.118	Nitrate $-\frac{7.72}{10} \times 100 = 94.0\%$
6	0.00	0.000	0.000	Sulfate
<hr/>				
6	12.00	575.775	60.257	

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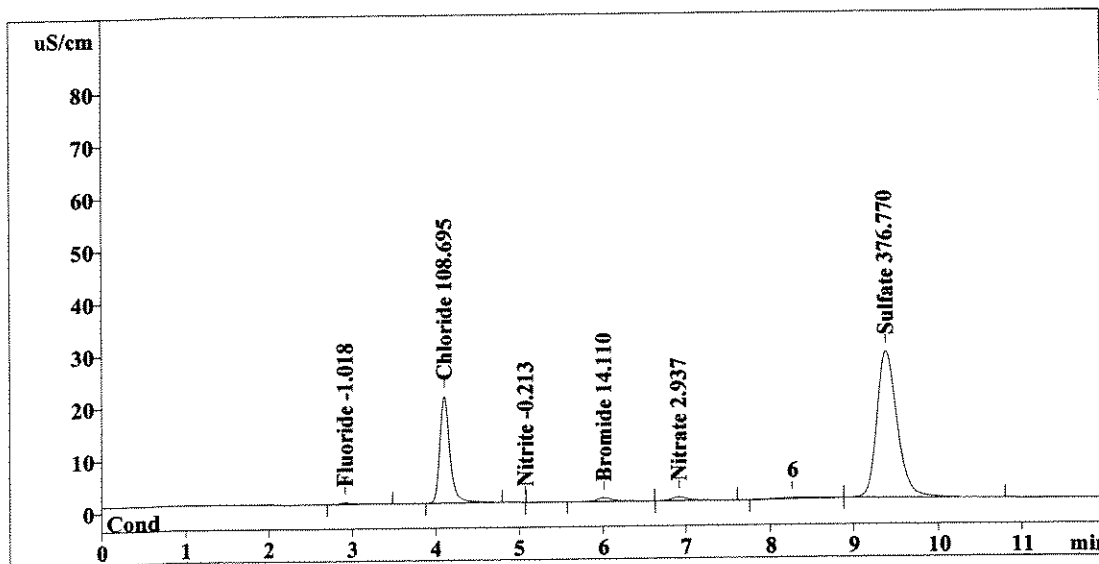
Method 300.0/9056

Report date: 7/1/2008 16:09:03  
 Printed by: User  
 Ident: 1113695  
 Analysis from: 7/1/2008 15:57:05  
 File: S7011557.CHW

Last save: 7/1/2008 16:09:01

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37724  
 SAMPLE: CNNS  
 Vial number: 11  
 Volume: 1.0 µL  
 Dilution: 40.00  
 Amount: 1.0000

Last save: 7/1/2008 10:29:20



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.91	2.695	-1.018	Fluoride
2	4.10	176.221	108.695	Chloride
3	5.07	-0.000	-0.213	Nitrite
4	6.01	9.295	14.110	Bromide
5	6.92	9.481	2.937	Nitrate
6	9.40	468.258	376.770	Sulfate
<hr/>				
6	12.00	665.950	503.743	

OK  
 use 1/10  
 use 1/10  
 OK

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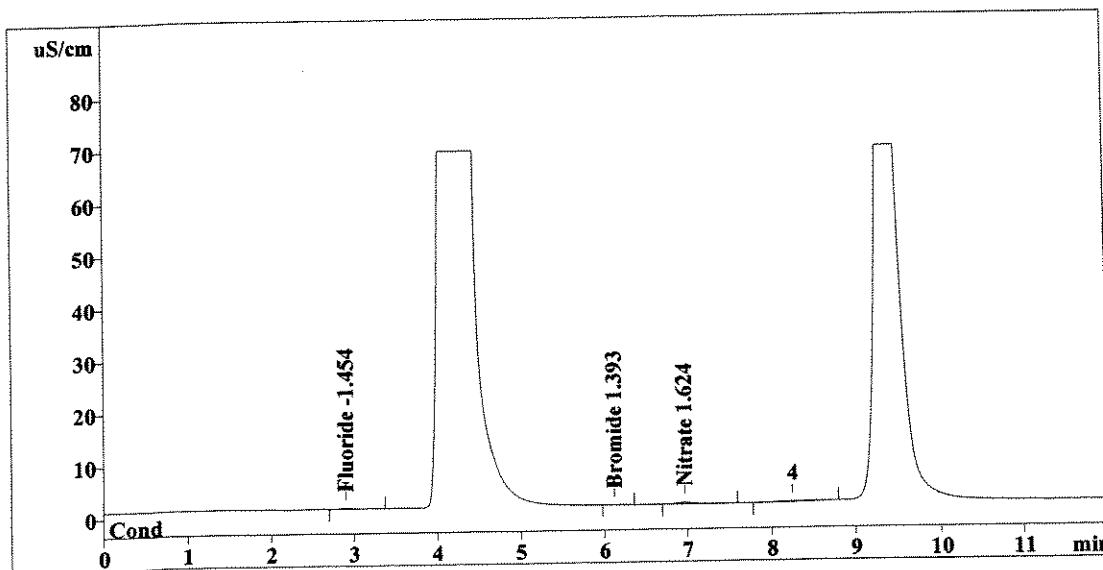
Method 300.0/9056

Report date: 7/1/2008 16:23:09  
 Printed by: User  
 Ident: 1113696  
 Analysis from: 7/1/2008 16:11:11  
 File: S7011611.CHW

Last save: 7/1/2008 16:23:07

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37725  
 SAMPLE: CNNS  
 Vial number: 12  
 Volume: 1.0 µL  
 Dilution: 40.00  
 Amount: 1.0000

Last save: 7/1/2008 10:29:20



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.89	1.507	11400 -1.454	Fluoride
2	0.00	0.000	11100 0.000	Chloride
3	0.00	0.000	11100 0.000	Nitrite
4	6.12	0.306	1.393	Bromide
5	6.96	4.024	use 1/0 1.624	Nitrate
6	0.00	0.000	11400 0.000	Sulfate
<hr/>			4.471	
6	12.00	5.837		

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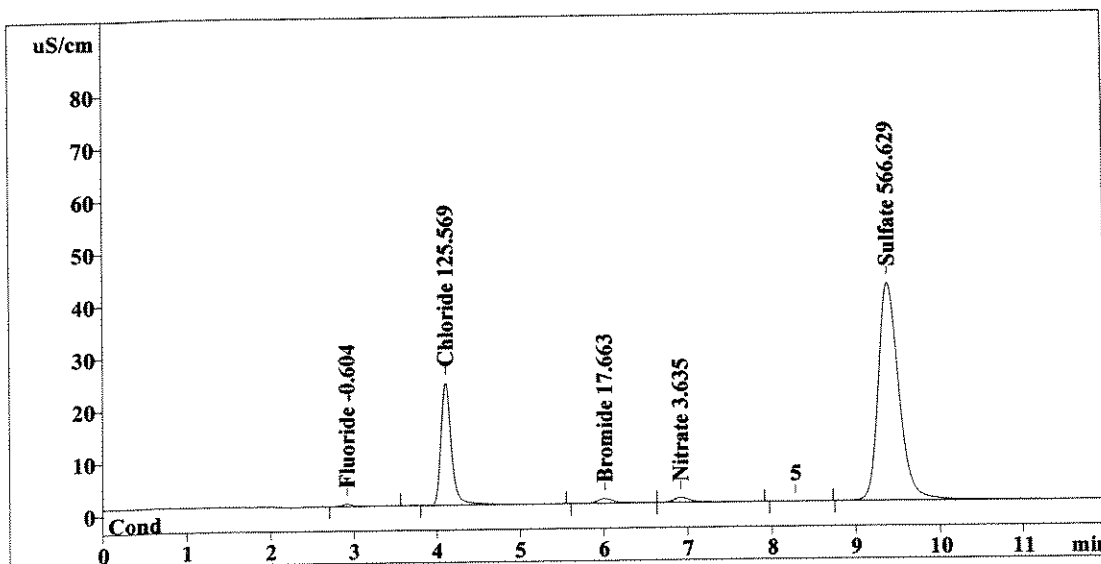
TC 7/2/08

Report date: 7/1/2008 16:37:15  
 Printed by: User  
 Ident: 1113697  
 Analysis from: 7/1/2008 16:25:17  
 File: S7011625.CHW

Last save: 7/1/2008 16:37:13

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37726  
 SAMPLE: CNNS  
 Vial number: 13  
 Volume: 1.0 µL  
 Dilution: 40.00  
 Amount: 1.0000

Last save: 7/1/2008 10:29:20



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.91	3.822	-0.604	Fluoride
2	4.10	203.815	125.569	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.01	11.806	17.663	Bromide
5	6.92	12.387	3.635	Nitrate
6	9.39	703.680	566.629	Sulfate
<hr/>				
6	12.00	935.509	714.100	

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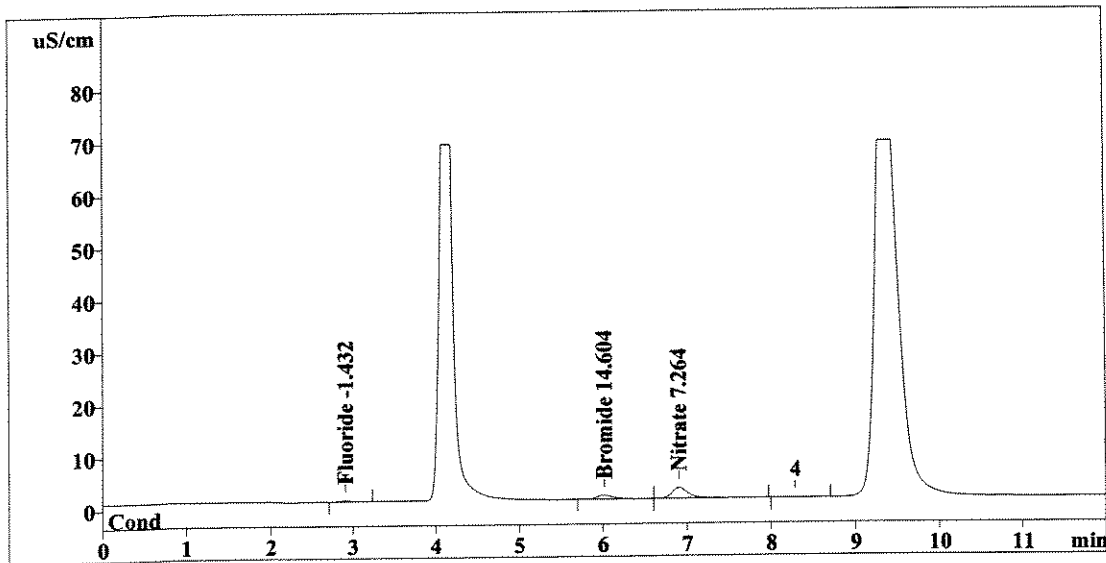
Method 300.0/9056

Report date: 7/1/2008 16:51:21  
 Printed by: User  
 Ident: 1113698  
 Analysis from: 7/1/2008 16:39:23  
 File: S7011639.CHW

Last save: 7/1/2008 16:51:19

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37727  
 SAMPLE: CNNS  
 Vial number: 14  
 Volume: 1.0 µL  
 Dilution: 40.00  
 Amount: 1.0000

Last save: 7/1/2008 10:29:20



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.90	1.569	-1.432	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.02	9.644	14.604	Bromide
5	6.90	27.474	7.264	Nitrate
6	0.00	0.000	0.000	Sulfate
<hr/>			23.299	
6	12.00	38.686		

*1/100*  
*use 1/10*  


---

*use 1/10*  
*1/100*

*TC 7/2/08*

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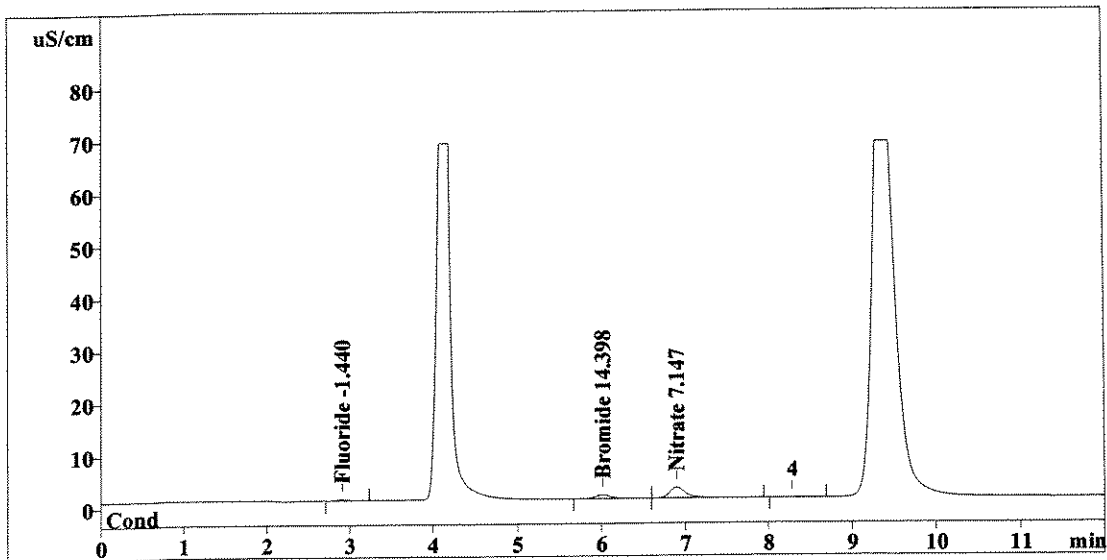
Method 300.0/9056

Report date: 7/1/2008 17:05:27  
 Printed by: User  
 Ident: 1113699  
 Analysis from: 7/1/2008 16:53:29  
 File: S7011653.CHW

Last save: 7/1/2008 17:05:25

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37728  
 SAMPLE: CNNS  
 Vial number: 15  
 Volume: 1.0 µL  
 Dilution: 40.00  
 Amount: 1.0000

Last save: 7/1/2008 10:29:20



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.90	1.546	-1.440	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.01	9.498	14.398	Bromide
5	6.90	26.987	7.147	Nitrate
6	0.00	0.000	0.000	Sulfate
<hr/>				
6	12.00	38.031	22.984	

*Handwritten notes in the table:*  
 - Next to 1.546: 1/100  
 - Next to 0.000 (row 3): use 1/10  
 - Next to 9.498: use 1/10  
 - Next to 26.987: use 1/10  
 - Next to 0.000 (row 6): use 1/100  
 - Next to 38.031: TC 7/2/08

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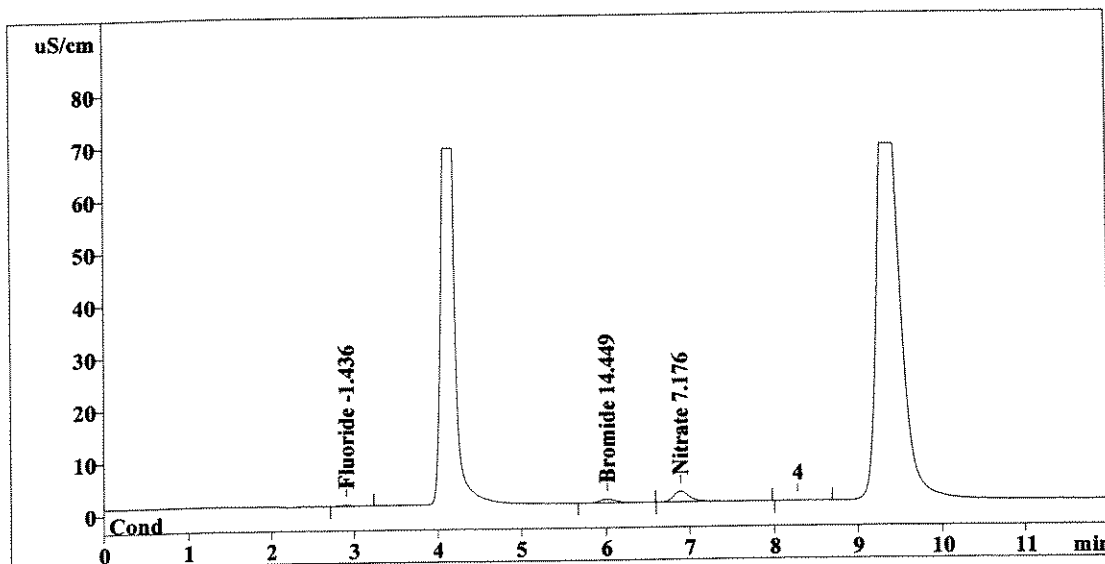
Method 300.0/9056

Report date: 7/1/2008 17:19:33  
 Printed by: User  
 Ident: 1113699 DUP  
 Analysis from: 7/1/2008 17:07:35  
 File: S7011707.CHW

Last save: 7/1/2008 17:19:31

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37729  
 SAMPLE: CNNS  
 Vial number: 16  
 Volume: 1.0 µL  
 Dilution: 40.00  
 Amount: 1.0000

Last save: 7/1/2008 10:29:20



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.90	1.558	-1.436	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.01	9.534	14.449	Bromide
5	6.89	27.111	7.176	Nitrate
6	0.00	0.000	0.000	Sulfate
<hr/>				
6	12.00	38.203	23.061	

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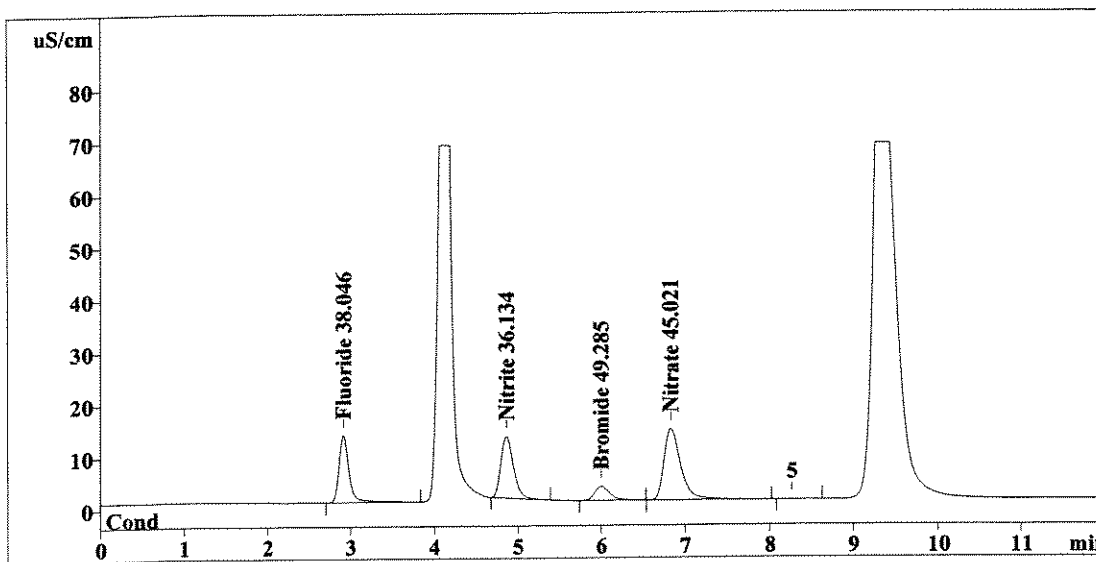
TC 7/2/08

Report date: 7/1/2008 17:33:39  
 Printed by: User  
 Ident: 1113699 SPK  
 Analysis from: 7/1/2008 17:21:41  
 File: S7011721.CHW

Last save: 7/1/2008 17:33:37

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37730  
 SAMPLE: CNNS  
 Vial number: 17  
 Volume: 1.0 µL  
 Dilution: 40.00  
 Amount: 1.0000

Last save: 7/1/2008 10:29:20



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.91	109.031	38.046	Fluoride
2	0.00	0.000	0.000	Chloride
3	4.86	123.464	36.134	Nitrite
4	6.00	34.156	49.285	Bromide
5	6.83	184.472	45.021	Nitrate
6	0.00	0.000	0.000	Sulfate
<hr/>				
6	12.00	451.124	168.486	

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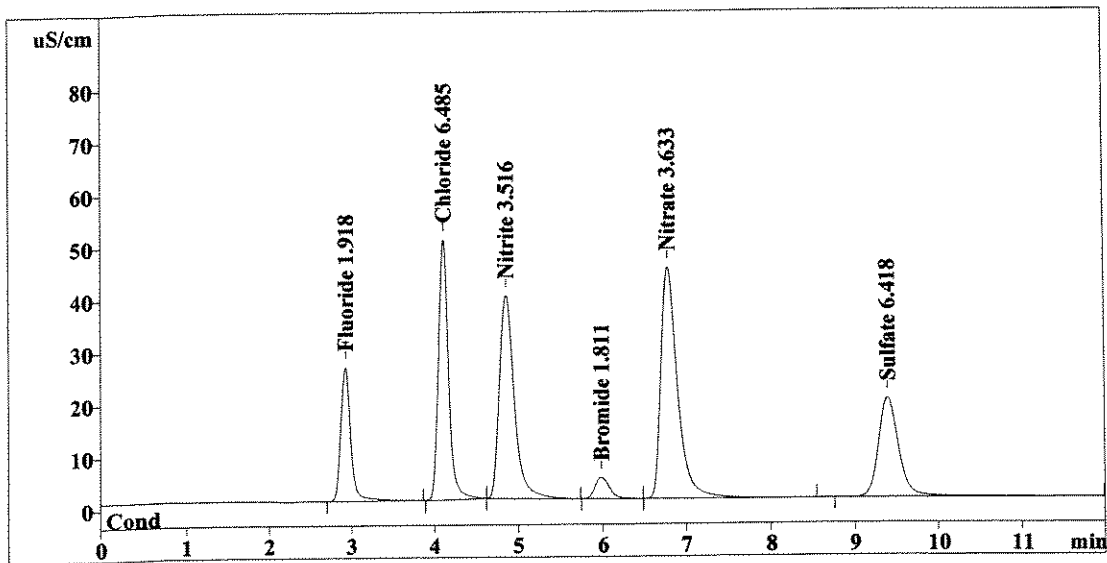
Method 300.0/9056

Report date: 7/1/2008 17:47:45  
 Printed by: User  
 Ident: CCV  
 Analysis from: 7/1/2008 17:35:47  
 File: S7011735.CHW

Last save: 7/1/2008 17:47:43

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37731  
 SAMPLE:  
 Vial number: 18  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/1/2008 10:29:20



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.92	214.279	1.918	Fluoride
2	4.10	422.671	6.485	Chloride
3	4.85	478.484	3.516	Nitrite
4	5.98	50.510	1.811	Bromide
5	6.78	601.583	3.633	Nitrate
6	9.40	319.394	6.418	Sulfate
<hr/>			23.781	
6	12.00	2086.921		

OK  
↓

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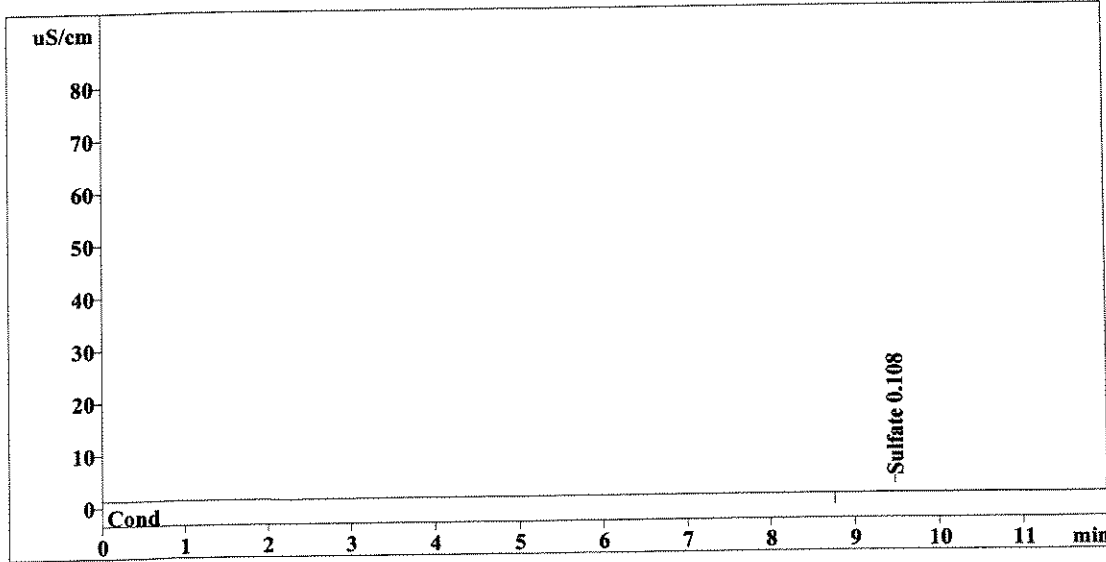
Method 300.0/9056

Report date: 7/1/2008 18:01:51  
 Printed by: User  
 Ident: CCB  
 Analysis from: 7/1/2008 17:49:53  
 File: S7011749.CHW

Last save: 7/1/2008 18:01:49

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37732  
 SAMPLE:  
 Vial number: 19  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/1/2008 10:29:20



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	0.00	0.000	0.000	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	0.00	0.000	0.000	Nitrate
6	9.48	6.442	0.108	Sulfate
<hr/>				
6	12.00	6.442	0.108	

OK  
↓

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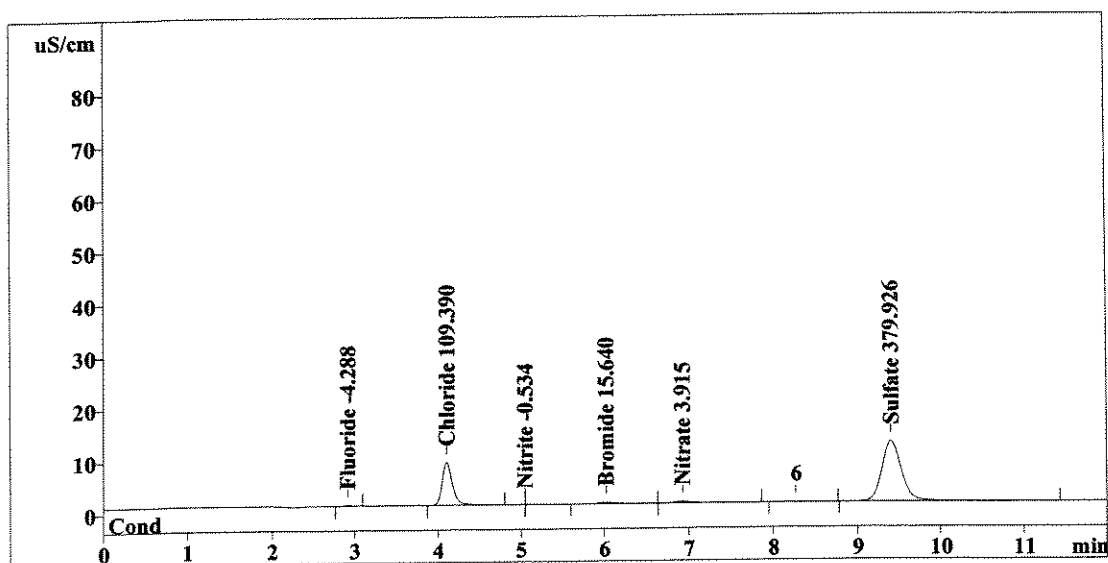
Method 300.0/9056

Report date: 7/1/2008 18:15:57  
 Printed by: User  
 Ident: 1113695  
 Analysis from: 7/1/2008 18:03:58  
 File: S7011803.CHW

Last save: 7/1/2008 18:15:55

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37733  
 SAMPLE: CNNS  
 Vial number: 20  
 Volume: 1.0 µL  
 Dilution: 100.00  
 Amount: 1.0000

Last save: 7/1/2008 10:29:20



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.91	0.797	-4.288	Fluoride
2	4.10	70.030	109.390	Chloride
3	5.04	-0.000	-0.534	Nitrite
4	6.02	3.743	15.640	Bromide
5	6.92	3.783	3.915	Nitrate
6	9.41	189.510	379.926	Sulfate
<hr/>				
6	12.00	267.864	513.693	

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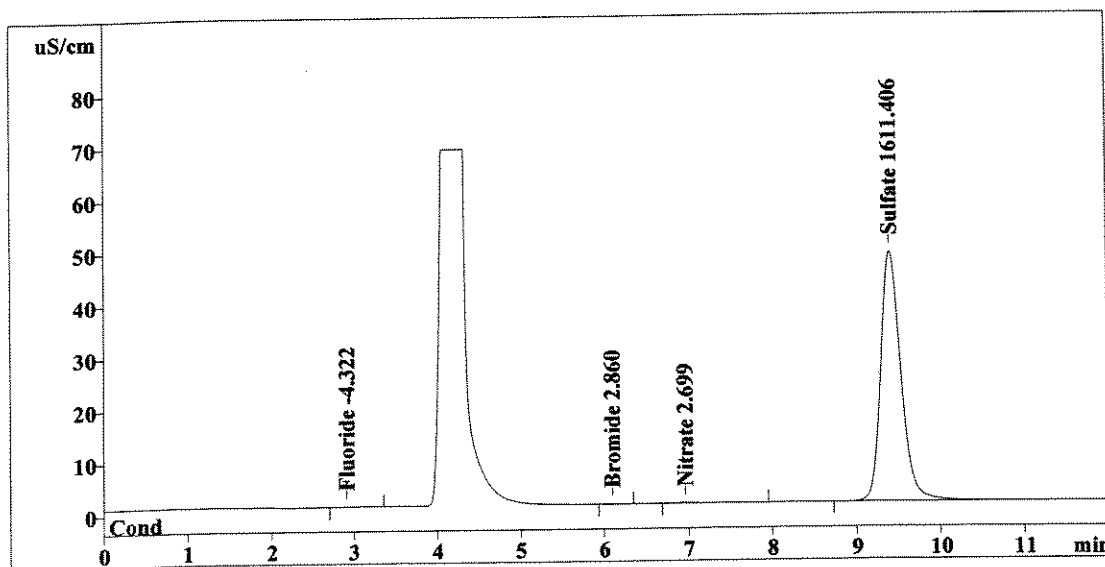
Method 300.0/9056

Report date: 7/1/2008 18:30:03  
 Printed by: User  
 Ident: 1113696  
 Analysis from: 7/1/2008 18:18:04  
 File: S7011818.CHW

Last save: 7/1/2008 18:30:01

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37734  
 SAMPLE: CNNS  
 Vial number: 21  
 Volume: 1.0 µL  
 Dilution: 100.00  
 Amount: 1.0000

Last save: 7/1/2008 10:29:20



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.91	0.760	-4.322	Fluoride
2	0.00	0.000	<sup>1/100</sup> 0.000	Chloride
3	0.00	0.000	<sup>OK</sup> 0.000	Nitrite
4	6.09	0.130	2.860	Bromide
5	6.96	1.760	<sup>use 1/10</sup> 2.699	Nitrate
6	9.40	800.316	<sup>1/400</sup> 1611.406	Sulfate
6	12.00	802.967	1621.287	

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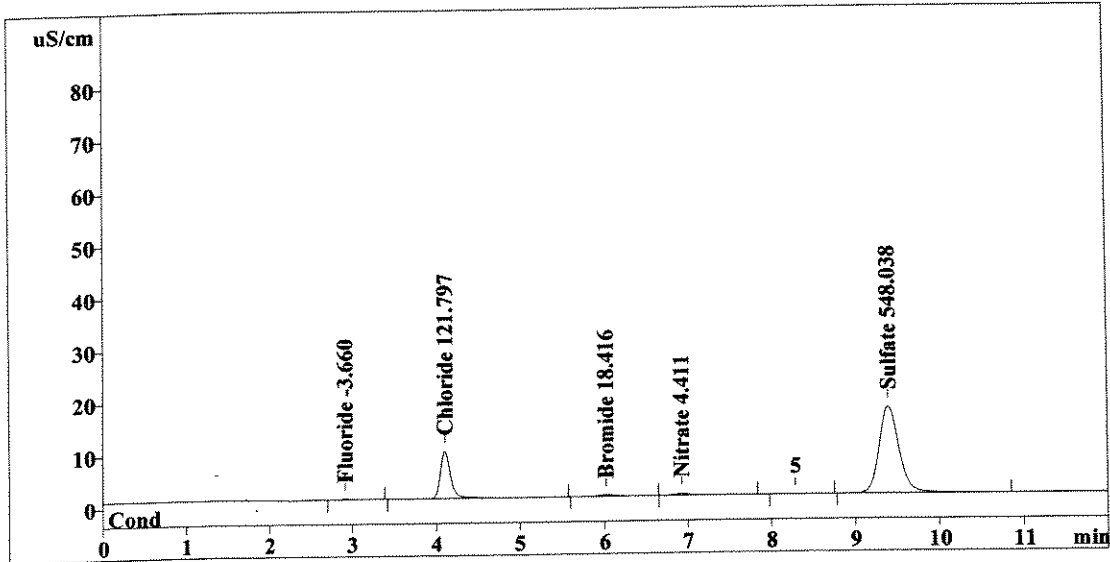
Method 300.0/9056

Report date: 7/1/2008 18:44:09  
 Printed by: User  
 Ident: 1113697  
 Analysis from: 7/1/2008 18:32:10  
 File: S7011832.CHW

Last save: 7/1/2008 18:44:07

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37735  
 SAMPLE: CNNS  
 Vial number: 22  
 Volume: 1.0 µL  
 Dilution: 100.00  
 Amount: 1.0000

Last save: 7/1/2008 10:29:20



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.91	1.480	-3.660	Fluoride
2	4.10	78.145	121.797	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.02	4.528	18.416	Bromide
5	6.92	4.607	4.411	Nitrate
6	9.40	272.893	548.038	Sulfate
<hr/>				
6	12.00	361.653	696.321	

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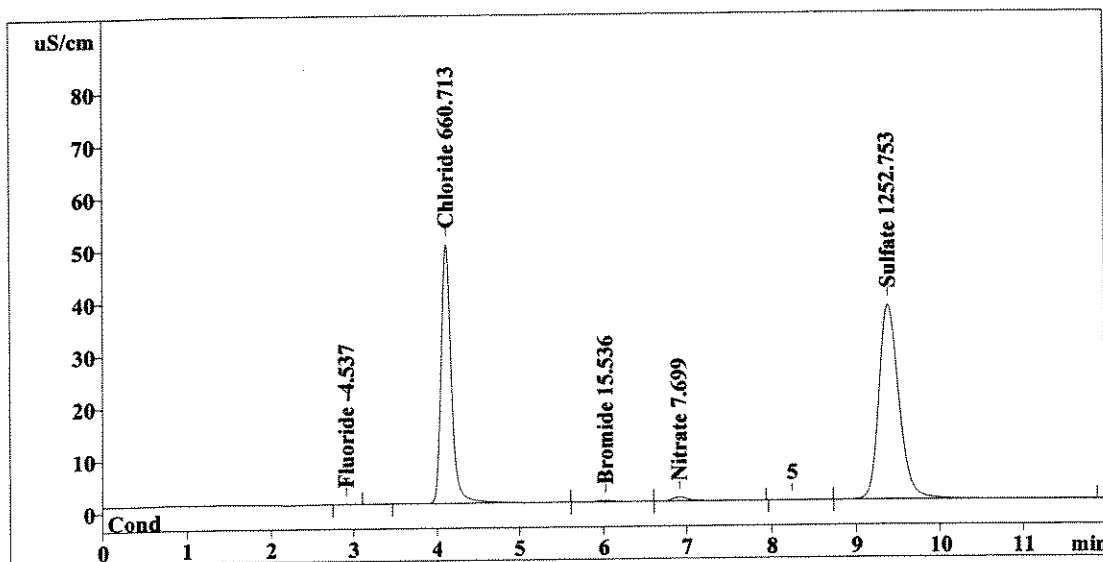
Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14609  
 Report date: 7/1/2008 18:58:14  
 Printed by: User  
 Ident: 1113698  
 Analysis from: 7/1/2008 18:46:16  
 File: S7011846.CHW

Method 300.0/9056

Last save: 7/1/2008 18:58:13

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37736  
 SAMPLE: CNNS  
 Vial number: 23  
 Volume: 1.0 µL  
 Dilution: 100.00  
 Amount: 1.0000

Last save: 7/1/2008 10:29:20



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.91	0.525	-4.537	Fluoride
2	4.11	430.648	OK 660.713	Chloride
3	0.00	0.000	use 1/10 0.000	Nitrite
4	6.02	3.714	15.536	Bromide
5	6.91	10.076	use 1/10 7.699	Nitrate
6	9.39	622.427	if 1/10 1252.753	Sulfate
<hr/>				
6	12.00	1067.391	1941.239	

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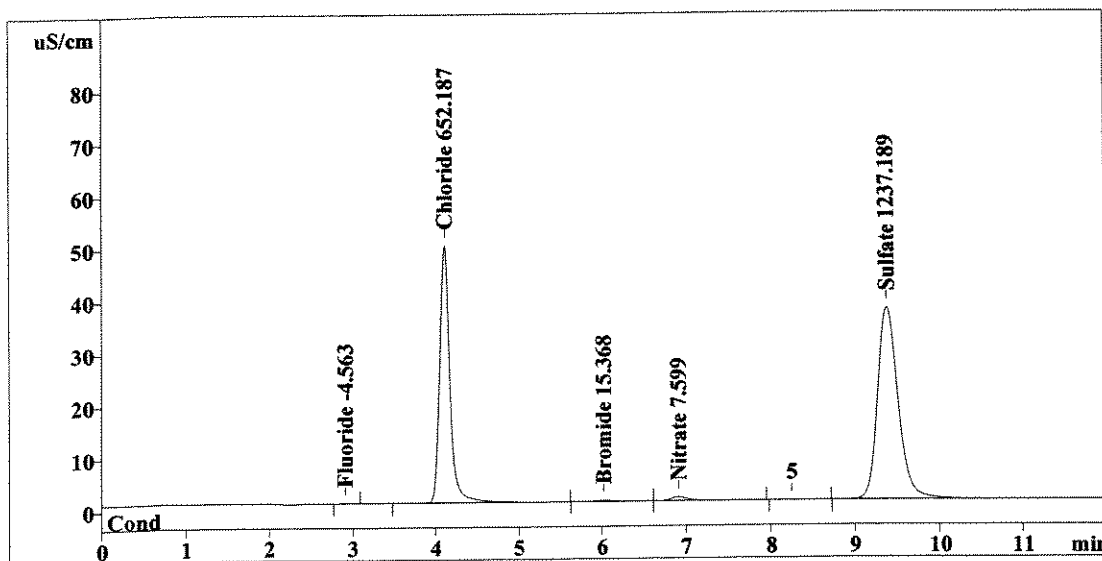
Method 300.0/9056

Report date: 7/1/2008 19:12:20  
 Printed by: User  
 Ident: 1113699  
 Analysis from: 7/1/2008 19:00:22  
 File: S7011900.CHW

Last save: 7/1/2008 19:12:19

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37737  
 SAMPLE: CNNS  
 Vial number: 24  
 Volume: 1.0 µL  
 Dilution: 100.00  
 Amount: 1.0000

Last save: 7/1/2008 10:29:20



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name		
1	2.90	0.497	-4.563	Fluoride		
2	4.10	425.071	OK 652.187	Chloride		
3	0.00	0.000	use 1/10 0.000	Nitrite		
4	6.02	3.667	15.368	Bromide		
5	6.91	9.911 use 1/10	OK 7.599 TC 7/21/08	Nitrate		
6	9.39	614.707	1/100 1237.189	Sulfate		
6			12.00	1053.852	1916.906	

TC 7/21/08

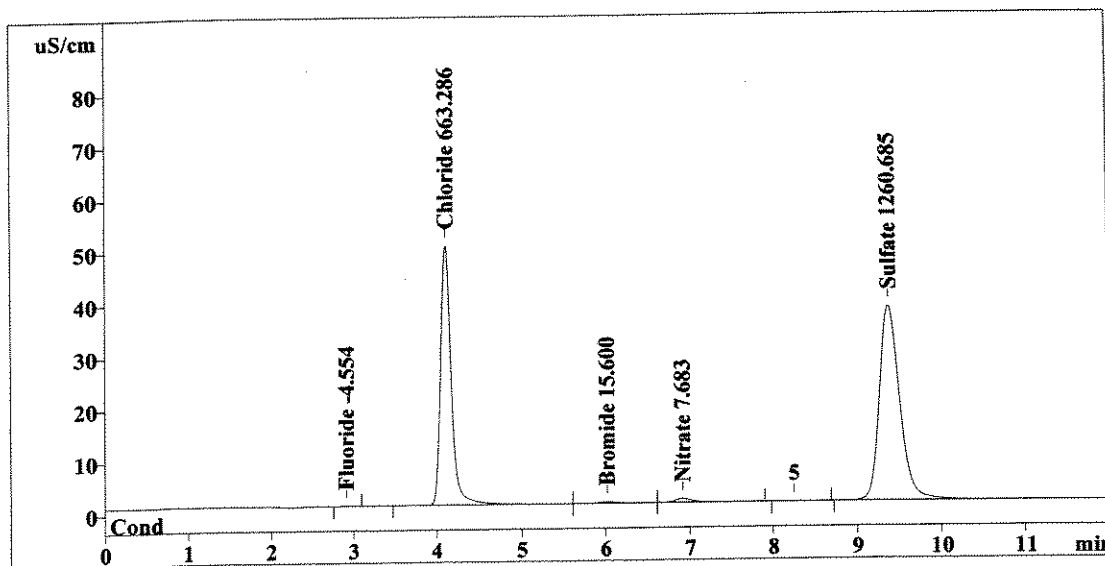
This report has been created by IC Net  
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Report date: 7/1/2008 19:26:26  
 Printed by: User  
 Ident: 1113699 DUP  
 Analysis from: 7/1/2008 19:14:28  
 File: S7011914.CHW

Last save: 7/1/2008 19:26:25

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37738  
 SAMPLE: CNNS  
 Vial number: 25  
 Volume: 1.0 µL  
 Dilution: 100.00  
 Amount: 1.0000

Last save: 7/1/2008 10:29:20



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.91	0.507	-4.554	Fluoride
2	4.10	432.331	OK 663.286	Chloride
3	0.00	0.000	use 1/10 0.000	Nitrite
4	6.02	3.732	15.600	Bromide
5	6.91	10.049	use 1/10 7.683	Nitrate
6	9.39	626.361	1/400 1260.685	Sulfate
<hr/>				
6	12.00	1072.980	1951.807	

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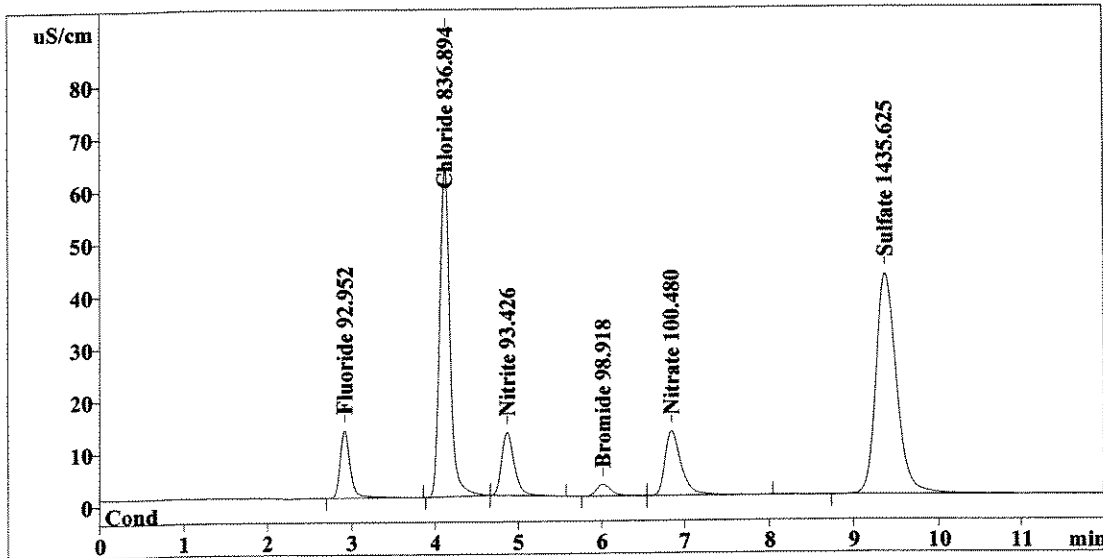
Method 300.0/9056

Report date: 7/1/2008 19:40:32  
 Printed by: User  
 Ident: 1113699 SPK  
 Analysis from: 7/1/2008 19:28:34  
 File: S7011928.CHW

Last save: 7/1/2008 19:40:30

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37739  
 SAMPLE: CNNS  
 Vial number: 26  
 Volume: 1.0 µL  
 Dilution: 100.00  
 Amount: 1.0000

Last save: 7/1/2008 10:29:20



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.91	106.675	92.952	Fluoride
2	4.11	545.887	836.894	Chloride
3	4.86	127.663	93.426	Nitrite
4	6.02	27.288	98.918	Bromide
5	6.85	164.394	100.480	Nitrate
6	9.38	713.130	1435.625	Sulfate
<hr/>				
6	12.00	1685.037	2658.295	

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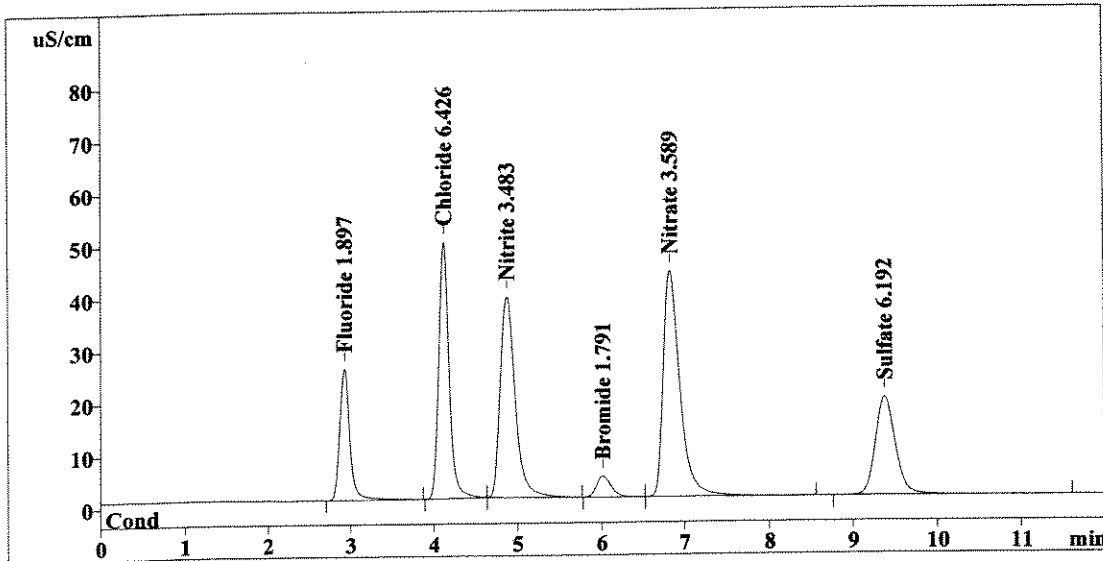
Method 300.0/9056

Report date: 7/1/2008 20:41:39  
 Printed by: User  
 Ident: CCV  
 Analysis from: 7/1/2008 20:29:41  
 File: S7012029.CHW

Last save: 7/1/2008 20:41:38

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37740  
 SAMPLE:  
 Vial number: 27  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/1/2008 10:29:20



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.92	212.046	1.897	Fluoride
2	4.11	418.831	6.426	Chloride
3	4.87	473.925	3.483	Nitrite
4	6.02	49.955	1.791	Bromide
5	6.83	594.175	3.589	Nitrate
6	9.38	308.191	6.192	Sulfate
<hr/>			23.378	
6	12.00	2057.123		

OK  
↓

*Handwritten:* JL to R-7/2/08  
R 7/2/08

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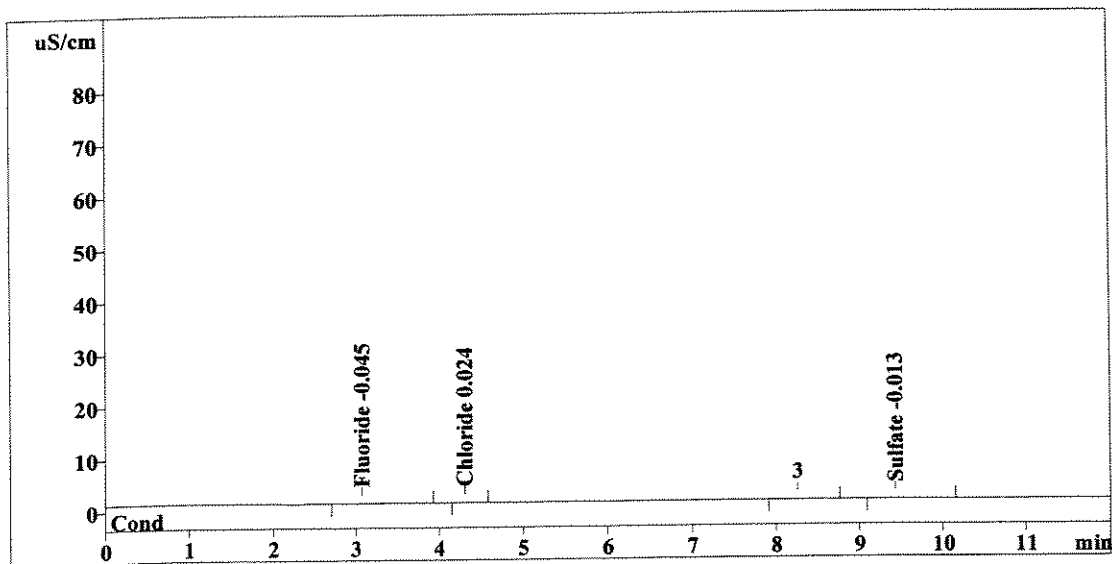
Method 300.0/9056

Report date: 7/1/2008 20:55:45  
 Printed by: User  
 Ident: CCB  
 Analysis from: 7/1/2008 20:43:47  
 File: S7012043.CHW

Last save: 7/1/2008 20:55:44

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37741  
 SAMPLE:  
 Vial number: 28  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/1/2008 10:29:20



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.09	0.543	-0.045	Fluoride
2	4.30	0.062	0.024	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	0.00	0.000	0.000	Nitrate
6	9.43	0.438	-0.013	Sulfate
<hr/>				
6	12.00	1.044	0.082	

OK  
↓

TC 7/2/08

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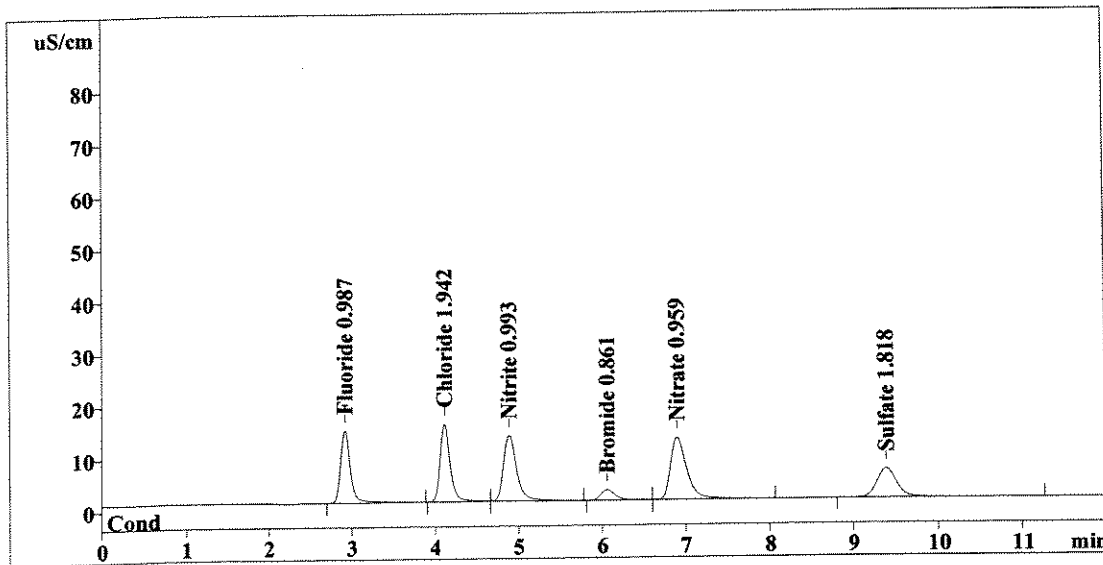
Method 300.0/9056

Report date: 7/1/2008 21:09:51  
 Printed by: User  
 Ident: LCS  
 Analysis from: 7/1/2008 20:57:53  
 File: S7012057.CHW

Last save: 7/1/2008 21:09:50

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37742  
 SAMPLE:  
 Vial number: 29  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/1/2008 10:29:20



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.91	112.935	0.987	Fluoride
2	4.11	125.516	1.942	Chloride
3	4.88	135.708	0.993	Nitrite
4	6.06	23.664	0.861	Bromide
5	6.90	156.743	0.959	Nitrate
6	9.39	91.231	1.818	Sulfate
<hr/>				
6	12.00	645.796	7.560	

OK  
 ↓  
 Low  
 OK  
 ↓

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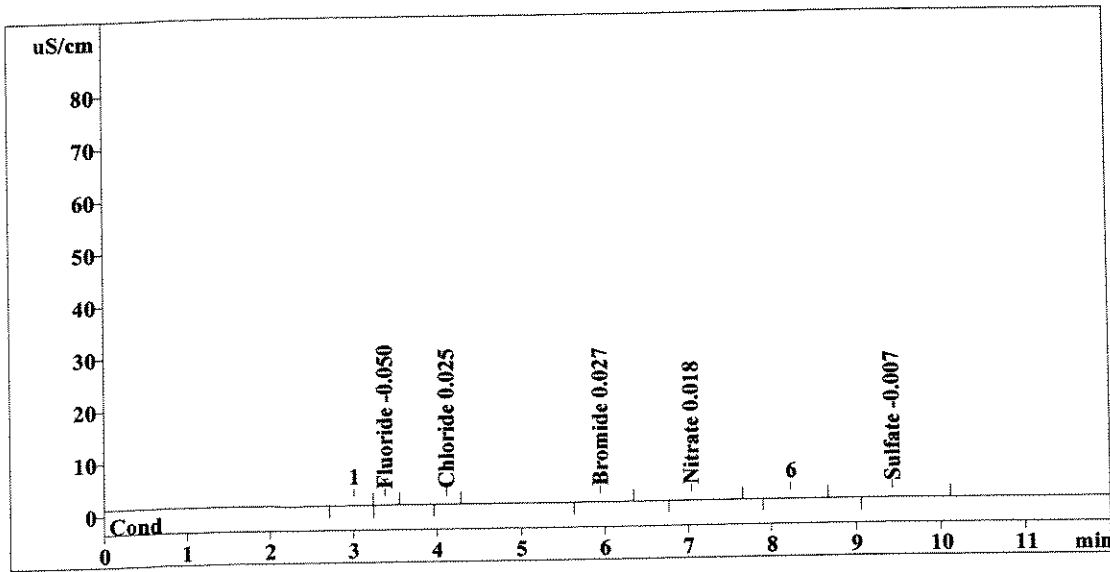
Method 300.0/9056

Report date: 7/1/2008 21:23:57  
 Printed by: User  
 Ident: METHOD BLANK  
 Analysis from: 7/1/2008 21:11:59  
 File: S7012111.CHW

Last save: 7/1/2008 21:23:56

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37743  
 SAMPLE: R-44666 6/30/08  
 Vial number: 30  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/1/2008 10:29:20



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.37	0.075	-0.050	Fluoride
2	4.11	0.107	0.025	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.94	0.097	0.027	Bromide
5	7.03	0.209	0.018	Nitrate
6	9.43	0.741	-0.007	Sulfate
6	12.00	1.229	0.126	

*Handwritten notes:* "OK" with a downward arrow pointing to the 6th row of the table. "25g → 250ml" written diagonally on the right side.

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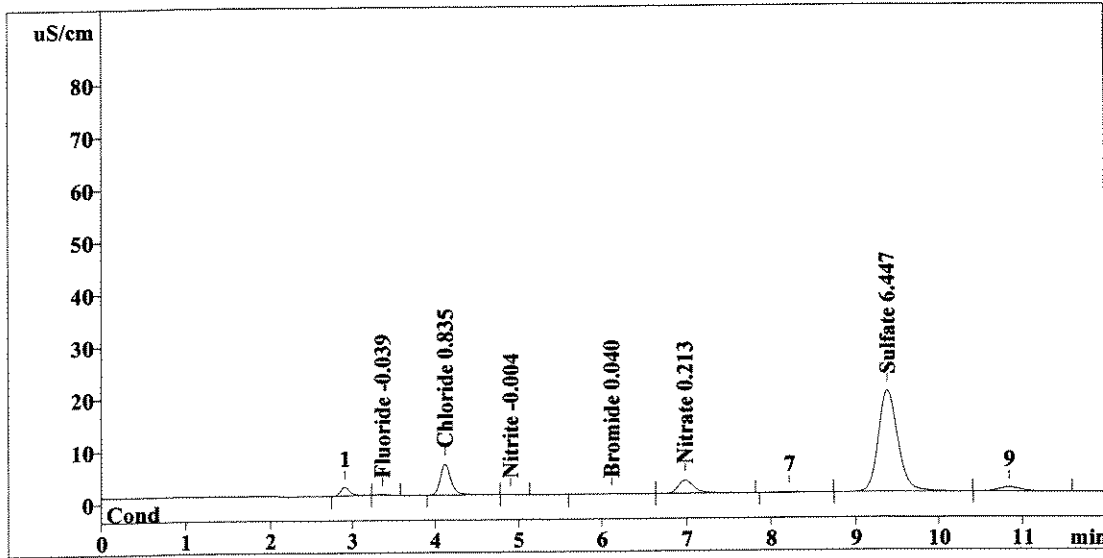
*Handwritten:* TC 7/2/08

Report date: 7/1/2008 21:38:03  
 Printed by: User  
 Ident: 1113245  
 Analysis from: 7/1/2008 21:26:05  
 File: S7012126.CHW

Last save: 7/1/2008 21:38:02

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37744  
 SAMPLE: EXTRACTION: CBNNS  
 Vial number: 31  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/1/2008 10:29:20



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.36	1.270	-0.039	Fluoride
2	4.11	53.071	0.835	Chloride
3	4.90	0.236	-0.004	Nitrite
4	6.13	0.466	0.040	Bromide
5	6.98	32.780	0.213	Nitrate
6	9.39	320.840	6.447	Sulfate
6	12.00	408.663	7.578	

*25g → 250ml*

*OK*  
*OK*  
*OK*  
*OK*

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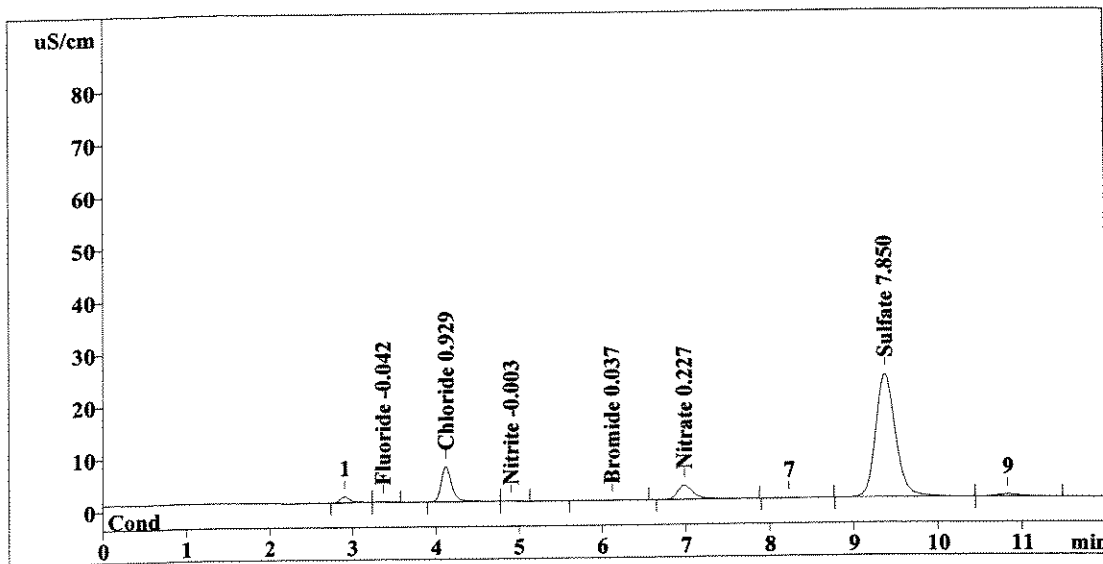
*TC 7/2/08*

Report date: 7/1/2008 21:52:09  
 Printed by: User  
 Ident: 1113249  
 Analysis from: 7/1/2008 21:40:11  
 File: S7012140.CHW

Last save: 7/1/2008 21:52:08

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37745  
 SAMPLE: EXTRACTION: CBNS  
 Vial number: 32  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/1/2008 10:29:20



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.36	0.926	-0.042	Fluoride
2	4.11	59.257	OK 0.929	Chloride
3	4.90	0.281	OK -0.003	Nitrite
4	6.12	0.373	0.037	Bromide
5	6.98	35.092	OK 0.227	Nitrate
6	9.37	390.420	OK 7.850	Sulfate
6	12.00	486.350	9.089	

*25g → 250ml*

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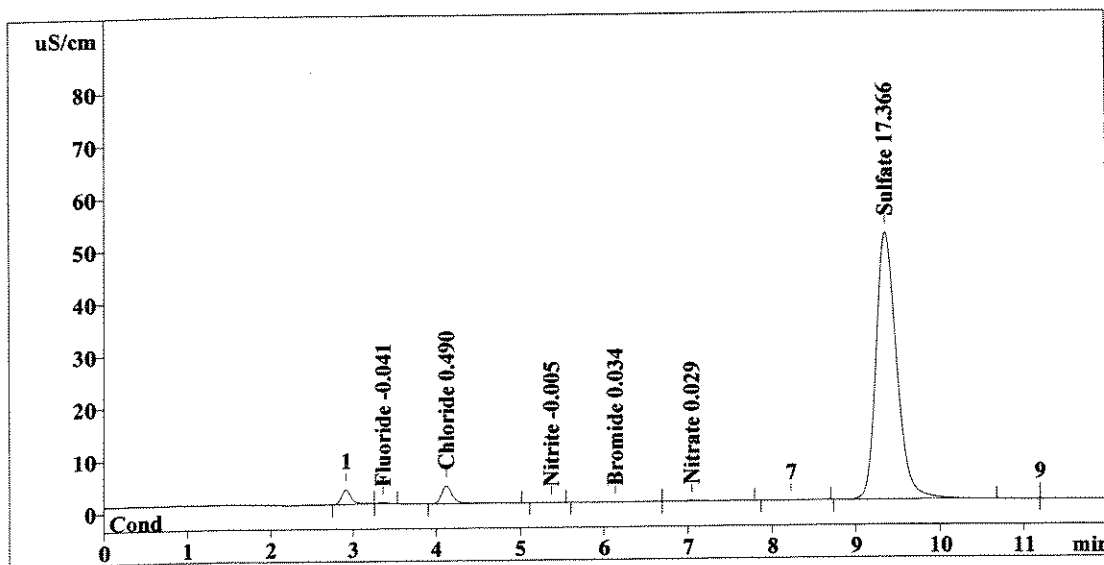
Method 300.0/9056

Report date: 7/1/2008 22:06:15  
 Printed by: User  
 Ident: 1113250  
 Analysis from: 7/1/2008 21:54:17  
 File: S7012154.CHW

Last save: 7/1/2008 22:06:14

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37746  
 SAMPLE: EXTRACTION: CBNNS  
 Vial number: 33  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/1/2008 10:29:20



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.37	1.043	-0.041	Fluoride
2	4.12	30.544	OK 0.490	Chloride
3	5.37	0.075	OK -0.005	Nitrite
4	6.12	0.289	0.034	Bromide
5	7.04	2.129	OK 0.029	Nitrate
6	9.37	862.404	1/2 17.366	Sulfate
6	12.00	896.484	17.965	

*25g → 250µL*

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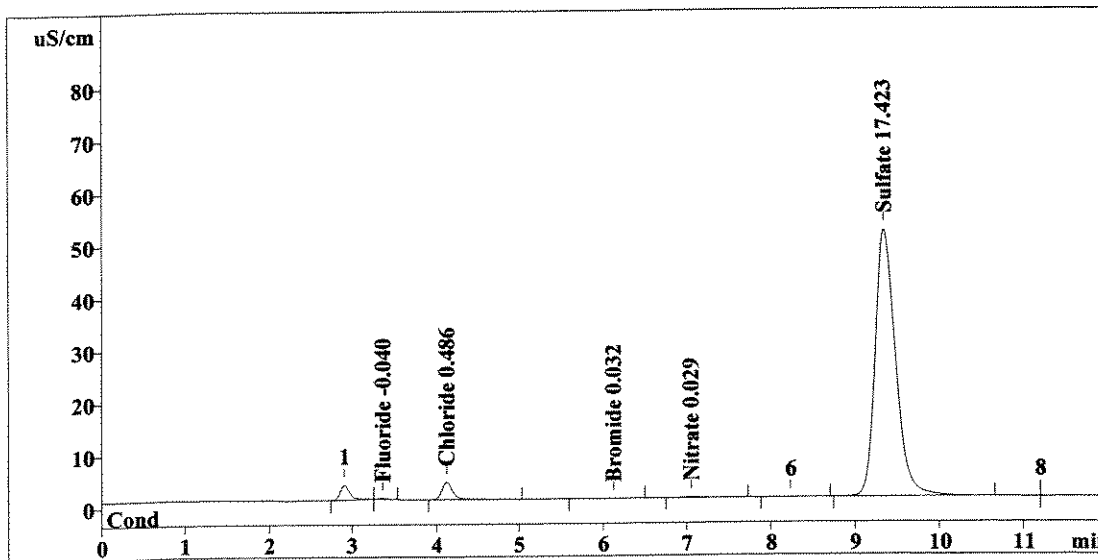
Method 300.0/9056

Report date: 7/1/2008 22:20:21  
 Printed by: User  
 Ident: 1113250 DUP  
 Analysis from: 7/1/2008 22:08:23  
 File: S7012208.CHW

Last save: 7/1/2008 22:20:20

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37747  
 SAMPLE: EXTRACTION: CBNNS  
 Vial number: 34  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/1/2008 10:29:20



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.36	1.119	-0.040	Fluoride
2	4.12	30.279	OK 0.486	Chloride
3	0.00	0.000	OK 0.000	Nitrite
4	6.12	0.230	— 0.032	Bromide
5	7.05	2.095	OK 0.029	Nitrate
6	9.36	865.225	1/2 17.423	Sulfate
6	12.00	898.948	18.010	

*25g 7/25/08*

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*TC 7/2/08*

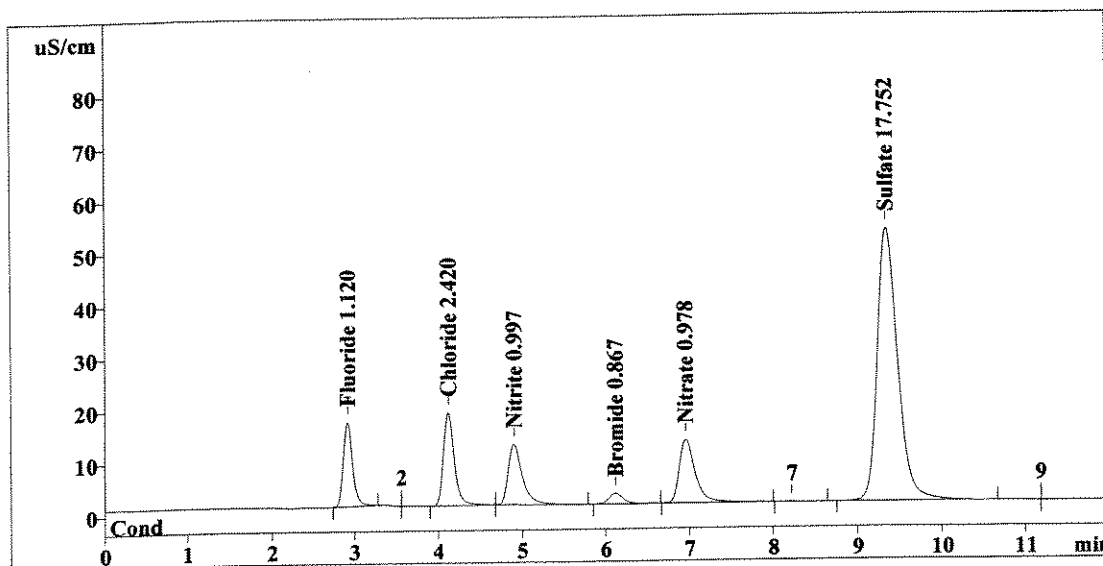
Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14609  
 Report date: 7/1/2008 22:34:27  
 Printed by: User  
 Ident: 1113250 SPK  
 Analysis from: 7/1/2008 22:22:29  
 File: S7012222.CHW

Method 300.0/9056

Last save: 7/1/2008 22:34:26

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37748  
 SAMPLE: EXTRACTION: CBNNS  
 Vial number: 35  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/1/2008 10:29:20



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.91	127.449	1.120	Fluoride
2	4.12	156.769	2.420	Chloride
3	4.90	136.152	0.997	Nitrite
4	6.12	23.840	0.867	Bromide
5	6.95	159.946	0.978	Nitrate
6	9.36	881.547	17.752	Sulfate
<hr/>				
6	12.00	1485.702	24.134	

*Handwritten calculations:*  
 Fluoride  $\frac{0.496}{2.0} \times 100 = 96.5\%$   
 Chloride  $\frac{0.99}{1.0} \times 100 = 99.7\%$   
 Bromide  $\frac{0.029}{1} \times 100 = 94.9\%$

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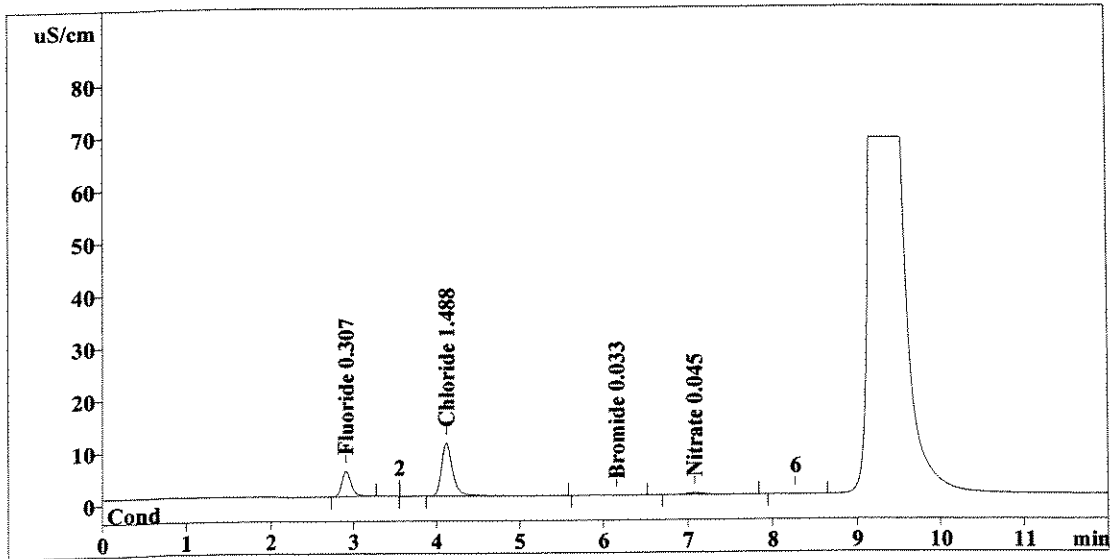
Method 300.0/9056

Report date: 7/1/2008 22:48:33  
 Printed by: User  
 Ident: 1113254  
 Analysis from: 7/1/2008 22:36:35  
 File: S7012236.CHW

Last save: 7/1/2008 22:48:32

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37749  
 SAMPLE: EXTRACTION: CBNS  
 Vial number: 36  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/1/2008 10:29:20



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.90	38.903	0.307	Fluoride
2	4.11	95.786	1.488	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.16	0.248	0.033	Bromide
5	7.08	4.813	0.045	Nitrate
6	0.00	0.000	0.000	Sulfate
<hr/>				
6	12.00	139.750	1.873	

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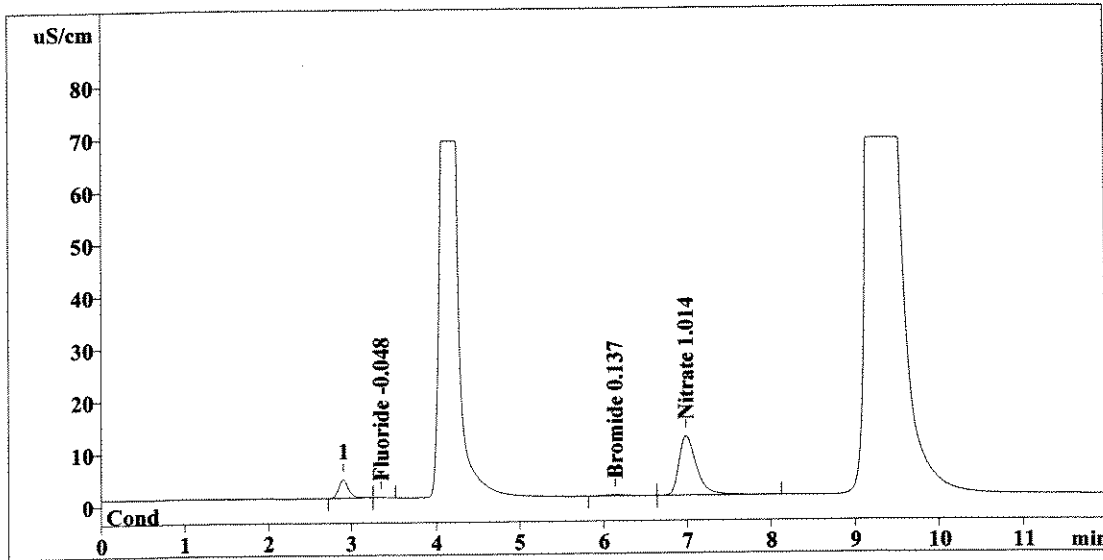
TC 7/2/08

Report date: 7/1/2008 23:02:39  
 Printed by: User  
 Ident: 1113255  
 Analysis from: 7/1/2008 22:50:40  
 File: S7012250.CHW

Last save: 7/1/2008 23:02:37

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37750  
 SAMPLE: EXTRACTION: CBNNS  
 Vial number: 37  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/1/2008 10:29:20



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.35	0.258	-0.048	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.14	3.205	0.137	Bromide
5	6.99	165.860	1.014	Nitrate
6	0.00	0.000	0.000	Sulfate
6	12.00	169.323	1.199	

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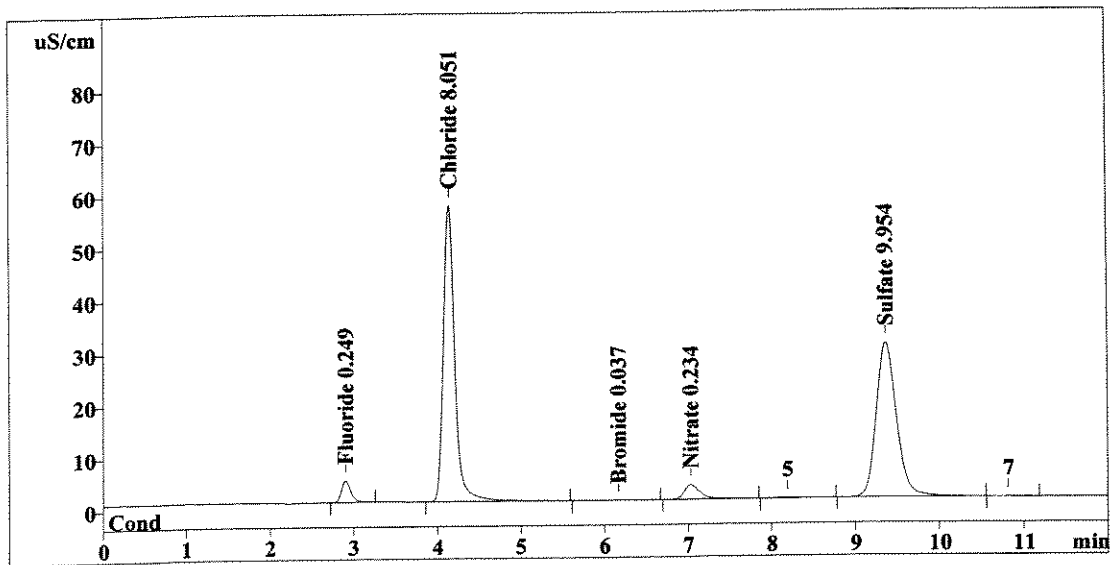
Method 300.0/9056

Report date: 7/1/2008 23:16:44  
 Printed by: User  
 Ident: 1113256  
 Analysis from: 7/1/2008 23:04:46  
 File: S7012304.CHW

Last save: 7/1/2008 23:16:43

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37751  
 SAMPLE: EXTRACTION: CBNNS  
 Vial number: 38  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/1/2008 10:29:20



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.90	32.570	0.249	Fluoride
2	4.13	525.063	8.051	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.17	0.357	0.037	Bromide
5	7.03	36.265	0.234	Nitrate
6	9.36	494.770	9.954	Sulfate
<hr/>				
6	12.00	1089.025	18.524	

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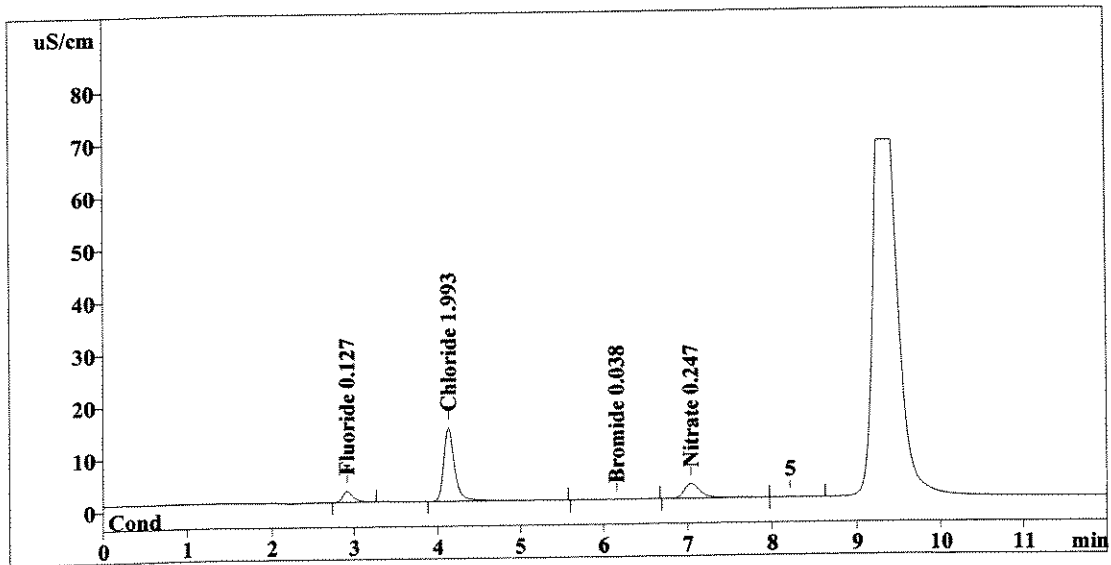
Method 300.0/9056

Report date: 7/1/2008 23:30:50  
 Printed by: User  
 Ident: 1113257  
 Analysis from: 7/1/2008 23:18:52  
 File: S7012318.CHW

Last save: 7/1/2008 23:30:49

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37752  
 SAMPLE: EXTRACTION: CBNNS  
 Vial number: 39  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/1/2008 10:29:20



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.91	19.314	0.127	Fluoride
2	4.13	128.839	OK 1.993	Chloride
3	0.00	0.000	OK 0.000	Nitrite
4	6.17	0.390	0.038	Bromide
5	7.04	38.427	OK 0.247	Nitrate
6	0.00	0.000	1/10 0.000	Sulfate
<hr/>				
6	12.00	186.971	2.405	

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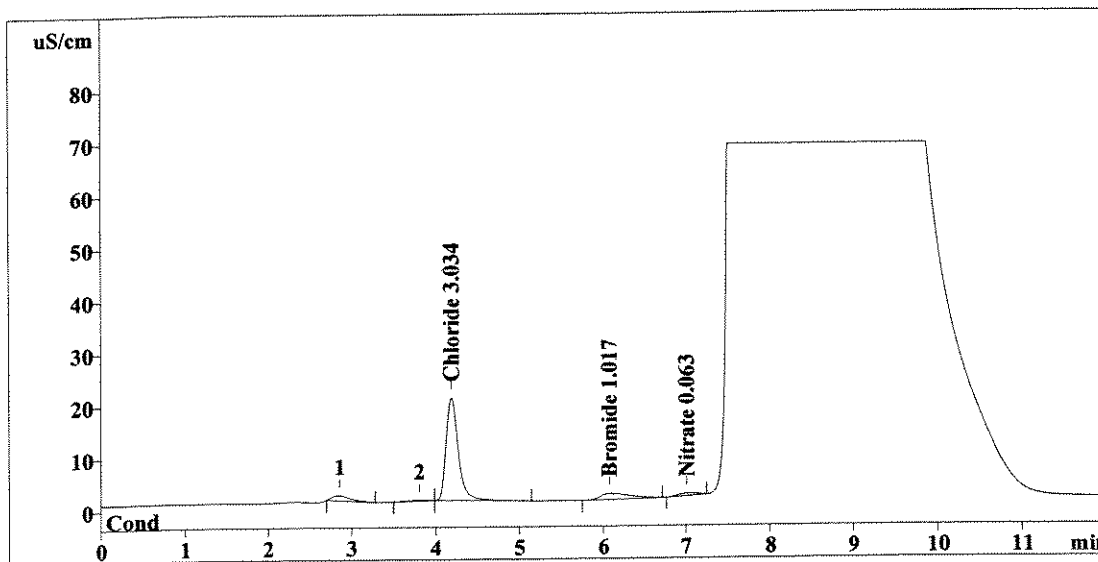
Method 300.0/9056

Report date: 7/1/2008 23:44:56  
 Printed by: User  
 Ident: 1113258  
 Analysis from: 7/1/2008 23:32:58  
 File: S7012332.CHW

Last save: 7/1/2008 23:44:55

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37753  
 SAMPLE: EXTRACTION: CBNNS  
 Vial number: 40  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/1/2008 10:29:20



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	0.00	0.000	0.000	Fluoride
2	4.19	196.941	3.034	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.08	28.072	1.017	Bromide
5	7.01	7.747	0.063	Nitrate
6	0.00	0.000	0.000	Sulfate
<hr/>				
6	12.00	232.759	4.114	

*Handwritten notes:* "OK" next to Chloride, Bromide, and Nitrate; "OK 1/4000" next to Sulfate; "RPT 1/4 to confirm" next to Nitrate.

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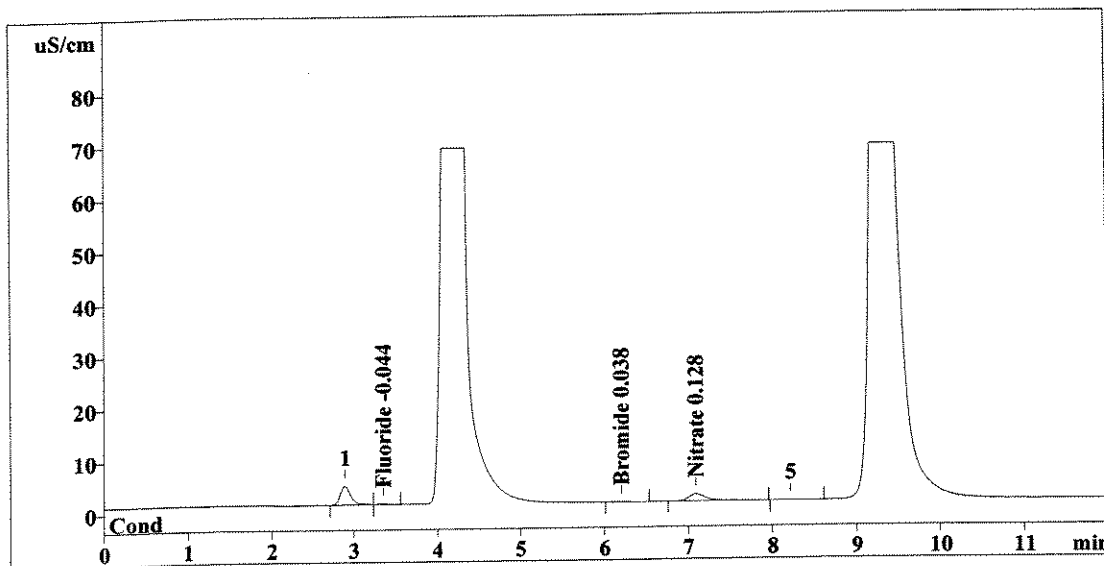
Method 300.0/9056

Report date: 7/1/2008 23:59:02  
 Printed by: User  
 Ident: 1113259  
 Analysis from: 7/1/2008 23:47:04  
 File: S7012347.CHW

Last save: 7/1/2008 23:59:01

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37754  
 SAMPLE: EXTRACTION: CBNNS  
 Vial number: 41  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/1/2008 10:29:20



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.36	0.669	-0.044	Fluoride
2	0.00	0.000	1/10 0.000	Chloride
3	0.00	0.000	OK 0.000	Nitrite
4	6.20	0.388	— 0.038	Bromide
5	7.09	18.620	OK 0.128	Nitrate
6	0.00	0.000	1/10 0.000	Sulfate
<hr/>				
6	12.00	19.677	0.210	

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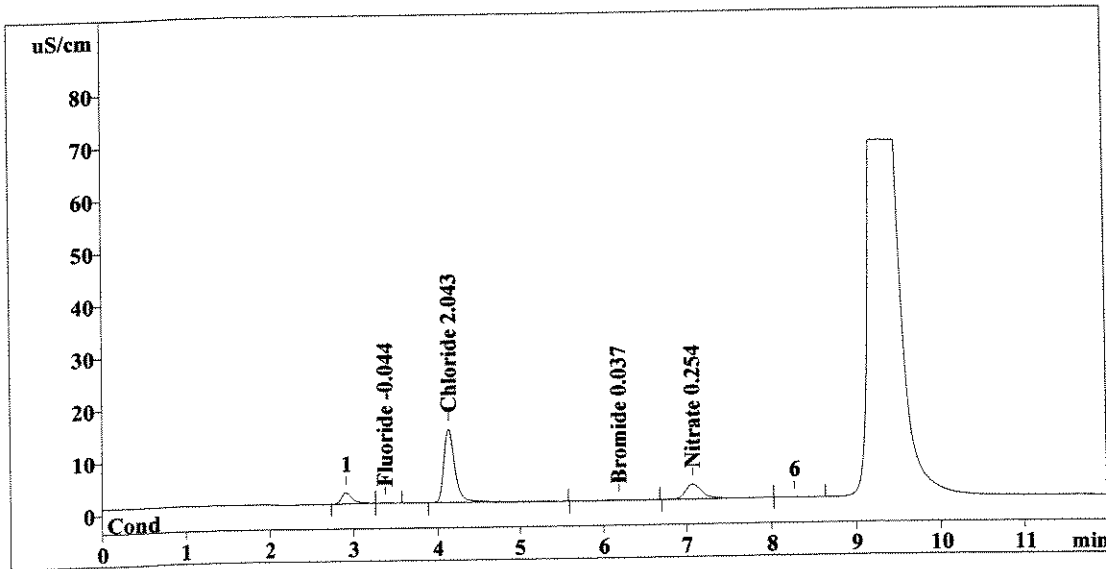
Method 300.0/9056

Report date: 7/2/2008 00:13:08  
 Printed by: User  
 Ident: 1113262  
 Analysis from: 7/2/2008 00:01:10  
 File: S7020001.CHW

Last save: 7/2/2008 00:13:07

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37755  
 SAMPLE: EXTRACTION: CBNNS  
 Vial number: 42  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/1/2008 10:29:20



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.37	0.657	-0.044	Fluoride
2	4.13	132.082	OK 2.043	Chloride
3	0.00	0.000	OK 0.000	Nitrite
4	6.19	0.356	— 0.037	Bromide
5	7.07	39.449	OK 0.254	Nitrate
6	0.00	0.000	1/10 0.000	Sulfate
<hr/>				
6	12.00	172.545	2.377	

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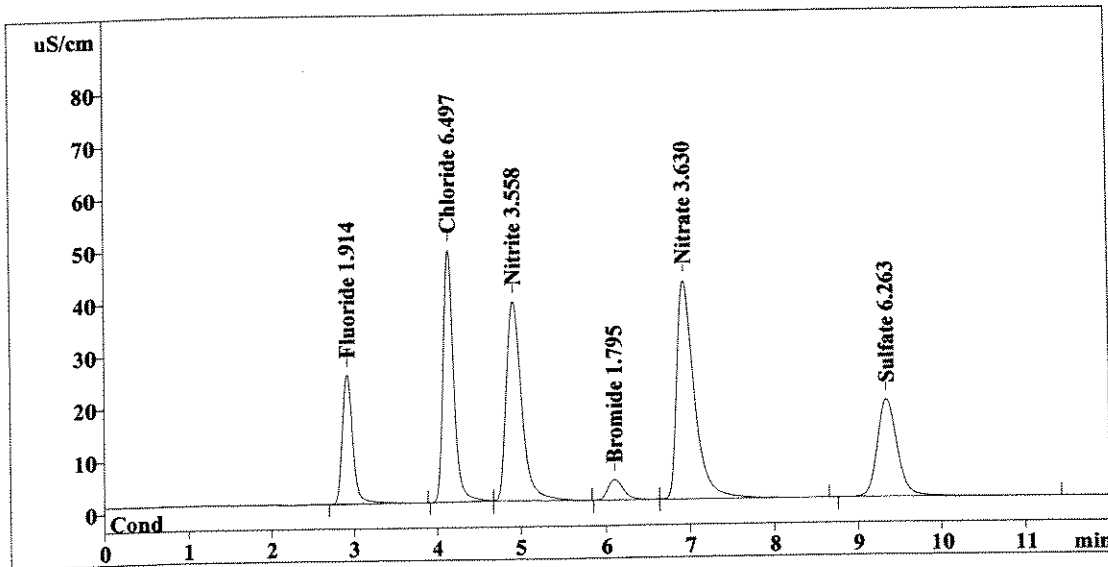
Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14609  
 Report date: 7/2/2008 00:27:14  
 Printed by: User  
 Ident: CCV  
 Analysis from: 7/2/2008 00:15:16  
 File: S7020015.CHW

Method 300.0/9056

Last save: 7/2/2008 00:27:13

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37756  
 SAMPLE:  
 Vial number: 43  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/1/2008 10:29:20



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.92	213.861	1.914	Fluoride
2	4.13	423.446	6.497	Chloride
3	4.91	484.185	3.558	Nitrite
4	6.10	50.077	1.795	Bromide
5	6.93	601.053	3.630	Nitrate
6	9.35	311.690	6.263	Sulfate
<hr/>			23.657	
6	12.00	2084.312		

OK  
↓

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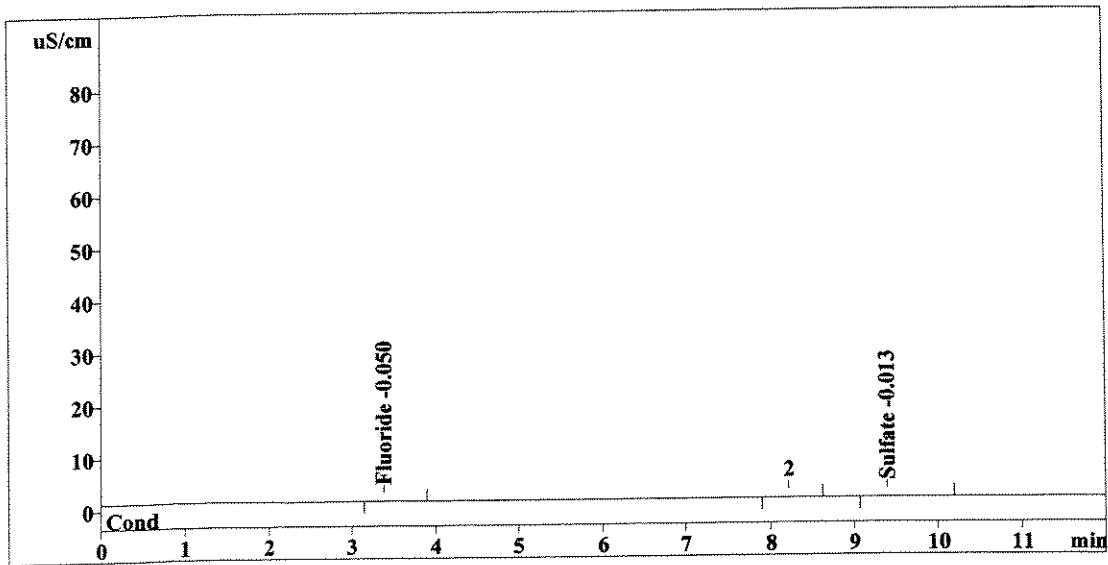
Method 300.0/9056

Report date: 7/2/2008 00:41:20  
 Printed by: User  
 Ident: CCB  
 Analysis from: 7/2/2008 00:29:22  
 File: S7020029.CHW

Last save: 7/2/2008 00:41:19

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37757  
 SAMPLE:  
 Vial number: 44  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/1/2008 10:29:20



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.38	0.063	-0.050	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	0.00	0.000	0.000	Nitrate
6	9.40	0.423	-0.013	Sulfate
<hr/>				
6	12.00	0.486	0.063	

OK  
↓

TC 7/2/08

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**Ion Chromatography Cover Sheet**

Instrument: Metrohm IC 861  
 Column: Metrosep A Supp 5, 4mm, 12/31/2007

Curve Date: 06/10/2008 Loop size: 50 uL Loop

Analyst: C. Woods Analysis Date: 7-1-08

Is copy of LCS attached to run?  YES / NO

**Standards Prep Dates & Log ID's:**

<i>Std Type</i>	<i>Prep Date</i>	<i>Log ID</i>	<i>Std Type</i>	<i>Prep Date</i>	<i>Log ID</i>
Calibration Intermediate	06/10/08	WC72050A	Working Calibration Stds	06/10/08	WC72050H
LCS / MS Intermediate	06/10/08	WC72050A	Working LCS/MS Standard	06/26/08	WC72093D
ICV Intermediate	05/05/08	WC72134B	Working ICV Standard	DAILY	WC72134H
CCV Intermediate	05/05/08	WC72134B	Working CCV Standard	DAILY	WC72134H

**Comments:**

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**CALIBRATION EXPIRES ON 12/10/2008**

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**CHORIDE LINEAR RANGE ONLY GOES UP TO 8.0 PPM**

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**WORKING LCS PREP**

(Stocks delivered using Volumetric glassware and brought to volume with DI. LCS expires after 7 days.)

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

Analyte	Calibration Intermediate Stock ID	Intermediate Stock Conc (mg/L)	mLs Intermediate Stock	Final Vol. mLs	Final Conc. (mg/L)	Analyst	Date Prepped	Lot ID	Exp. Date	Final Log ID
F	WC720050A	50	2.0	100	1.0	TC	6/10/08	A	6/17/08	WC720093A
Cl		100			2.0	TC	6/16/08	B	6/23/08	WC720093B
NO2		50			1.0	TC	6/23/08	C	6/30/08	WC720093C
Br		50			1.0	TC	6/26/08	D	7/3/08	WC720093D
NO3		50			1.0	CMW	7/3/08	E	7/16/08	WC720093E
OPO4		50			1.0			F		
SO4		100			2.0			G		
								H		
								I		
								J		
								K		
								L		
								M		
								N		
								O		
								P		
								Q		
								R		

Run #: 163358

Analyte: SULFATE 9056 SULFATE BY ION CHROMATOGRAPHY

Printed: 07/09/08 12:01

TYPE	SUBMISSION	ORDER #	MATRIX	REPORTED		DILUTION	PQL	% RECOVERY	% RSD	DATE ANALYZED	QC	PKG #
				RESULT								
BLK5		1115681	SOIL/SEDIME	20.0	U	1.0	20.0			07/02/2008		
CHK5		1115682	SOIL/SEDIME	6.68		1.0	20.0	104.4		07/02/2008		
BLK4		1115683	SOIL/SEDIME	20.0	U	1.0	20.0			07/02/2008		
SPKB		1115684	SOIL/SEDIME	2.02		1.0	20.0	100.9		07/02/2008		
ESMP	R2844666	1113250	SOIL/SEDIME	168		2.0	20.0			07/02/2008	QC	ASPB
LDUP		1115728	SOIL/SEDIME	153		2.0	20.0	55.2%	9.31	07/02/2008		
SPK1		1115729	SOIL/SEDIME	190		2.0	20.0	<del>55.2%</del>		07/02/2008		
ESMP	R2844666	1113254	SOIL/SEDIME	867		10.0	20.0	7/10/08		07/02/2008		ASPB
ESMP	R2844666	1113255	SOIL/SEDIME	864		110.0	20.0			07/02/2008		ASPB
ESMP	R2844666	1113257	SOIL/SEDIME	297		10.0	20.0			07/02/2008		ASPB
ESMP	R2844666	1113259	SOIL/SEDIME	625		10.0	20.0			07/02/2008		ASPB
ESMP	R2844768	1113696	WATER	1410		400.0	0.200			07/02/2008		ASPB
ESMP	R2844768	1113698	WATER	1180		400.0	0.200			07/02/2008		ASPB
ESMP	R2844768	1113699	WATER	1150		400.0	0.200			07/02/2008		ASPB

Records printed: 14

07-02-08

Data Manually Entered

System	Ident	Vial	Volume	Dilution	Amount	Internal Standard Amount	Level	Injections	Done	Sample Info 1	Sample Info 2
Columbia-no dilution	CCV	1	1.0	1.0	1.0	100.0	0	1	1		
Columbia-no dilution	CCB	2	1.0	1.0	1.0	100.0	0	1	1		
Columbia-no dilution	LCS	3	1.0	1.0	1.0	100.0	0	1	1		
Columbia-no dilution	1114419	4	1.0	10.0	1.0	100.0	0	1	1	CBNMS	Analyst: C Woods
Columbia-no dilution	1114420	5	1.0	10.0	1.0	100.0	0	1	1	CBNMS	
Columbia-no dilution	1114421	6	1.0	10.0	1.0	100.0	0	1	1	CBNMS	
Columbia-no dilution	1114421 DUP	7	1.0	10.0	1.0	100.0	0	1	1	CBNMS	
Columbia-no dilution	1114421 SPK	8	1.0	10.0	1.0	100.0	0	1	1	CBNMS	
Columbia-no dilution	1114419	9	1.0	40.0	1.0	100.0	0	1	1	CBNMS	Pipets: Pine
Columbia-no dilution	1114420	10	1.0	40.0	1.0	100.0	0	1	1	CBNMS	
Columbia-no dilution	1114421	11	1.0	40.0	1.0	100.0	0	1	1	CBNMS	
Columbia-no dilution	1114421 DUP	12	1.0	40.0	1.0	100.0	0	1	1	CBNMS	
Columbia-no dilution	1114421 SPK	13	1.0	40.0	1.0	100.0	0	1	1	CBNMS	
Columbia-no dilution	1114419	14	1.0	100.0	1.0	100.0	0	1	1	CBNMS	
Columbia-no dilution	1114420	15	1.0	100.0	1.0	100.0	0	1	1	CBNMS	
Columbia-no dilution	1114421	16	1.0	100.0	1.0	100.0	0	1	1	CBNMS	
Columbia-no dilution	1114421 DUP	17	1.0	100.0	1.0	100.0	0	1	1	CBNMS	
Columbia-no dilution	1114421 SPK	18	1.0	100.0	1.0	100.0	0	1	1	CBNMS	
Columbia-no dilution	1113696	19	1.0	400.0	1.0	100.0	0	1	1	CS	Lucy
Columbia-no dilution	CCV	20	1.0	1.0	1.0	100.0	0	1	1		
Columbia-no dilution	CCB	21	1.0	1.0	1.0	100.0	0	1	1		
Columbia-no dilution	1113698	22	1.0	400.0	1.0	100.0	0	1	1	S	
Columbia-no dilution	1113699	23	1.0	400.0	1.0	100.0	0	1	1	S	
Columbia-no dilution	METHOD BLANK	24	1.0	1.0	1.0	100.0	0	1	1	EXTRACTED - CBNMS	
Columbia-no dilution	1113250	25	1.0	2.0	1.0	100.0	0	1	1	EXTRACTED - S	
Columbia-no dilution	1113250 DUP	26	1.0	2.0	1.0	100.0	0	1	1	EXTRACTED - S	
Columbia-no dilution	1113254	27	1.0	10.0	1.0	100.0	0	1	1	EXTRACTED - S	
Columbia-no dilution	1113255	28	1.0	10.0	1.0	100.0	0	1	1	EXTRACTED - S	
Columbia-no dilution	1113256	29	1.0	10.0	1.0	100.0	0	1	1	EXTRACTED - CS	
Columbia-no dilution	1113257	30	1.0	2.0	1.0	100.0	0	1	1	EXTRACTED - C	
Columbia-no dilution	1113258	31	1.0	10.0	1.0	100.0	0	1	1	EXTRACTED - S	
Columbia-no dilution	1113258	32	1.0	4.0	1.0	100.0	0	1	1	EXTRACTED - S	
Columbia-no dilution	1113259	33	1.0	4000.0	1.0	100.0	0	1	1	EXTRACTED - NO3 TO CONFIRM PREVIOUS	
Columbia-no dilution	1113259	34	1.0	10.0	1.0	100.0	0	1	1	EXTRACTED - S	
Columbia-no dilution	CCV	35	1.0	1.0	1.0	100.0	0	1	1	EXTRACTED - CS	
Columbia-no dilution	CCB	36	1.0	1.0	1.0	100.0	0	1	1		
Columbia-no dilution	LCS	37	1.0	1.0	1.0	100.0	0	1	1		
Columbia-no dilution	1113262	38	1.0	10.0	1.0	100.0	0	1	1	EXTRACTED - S	
Columbia-no dilution	METHOD BLANK	39	1.0	1.0	1.0	100.0	0	1	1	EXTRACTED - S	
Columbia-no dilution	1113263	40	1.0	100.0	1.0	100.0	0	1	1	EXTRACTED - S	
Columbia-no dilution	1113265	41	1.0	40.0	1.0	100.0	0	1	1	F	
Columbia-no dilution	1111897	42	1.0	1.0	1.0	100.0	0	1	1	CS	
Columbia-no dilution	1111897	43	1.0	20.0	1.0	100.0	0	1	1	CS	
Columbia-no dilution	1111898	44	1.0	20.0	1.0	100.0	0	1	1	CS	
Columbia-no dilution	1111899	45	1.0	20.0	1.0	100.0	0	1	1	CS	
Columbia-no dilution	1111983	46	1.0	10.0	1.0	100.0	0	1	1	CS	
Columbia-no dilution	1111983 DUP	47	1.0	10.0	1.0	100.0	0	1	1	CS	
Columbia-no dilution	1111983 SPK	48	1.0	10.0	1.0	100.0	0	1	1	CS	
Columbia-no dilution	1111984	49	1.0	10.0	1.0	100.0	0	1	1	CS	
Columbia-no dilution	1111985	50	1.0	10.0	1.0	100.0	0	1	1	CS	
Columbia-no dilution	CCV	51	1.0	1.0	1.0	100.0	0	1	1		
Columbia-no dilution	CCB	52	1.0	1.0	1.0	100.0	0	1	1		
Columbia-no dilution	1112871	53	1.0	100.0	1.0	100.0	0	1	1	CS	
Columbia-no dilution	1112872	54	1.0	100.0	1.0	100.0	0	1	1	CS	

System	Ident	Vial	Volume	Dilution	Amount	Internal Standard Amount	Level	Injections	Done	Sample Info 1	Sample Info 2
Columbia-no dilution	1112874	55	1.0	100.0	1.0	100.0	0	1	1	CS	
Columbia-no dilution	1112874 DUP	56	1.0	100.0	1.0	100.0	0	1	1	CS	
Columbia-no dilution	1112874 SPK	57	1.0	100.0	1.0	100.0	0	1	1	CS	
Columbia-no dilution	CCY	58	1.0	1.0	1.0	100.0	0	1	1		
Columbia-no dilution	CCB	59	1.0	1.0	1.0	100.0	0	1	1		



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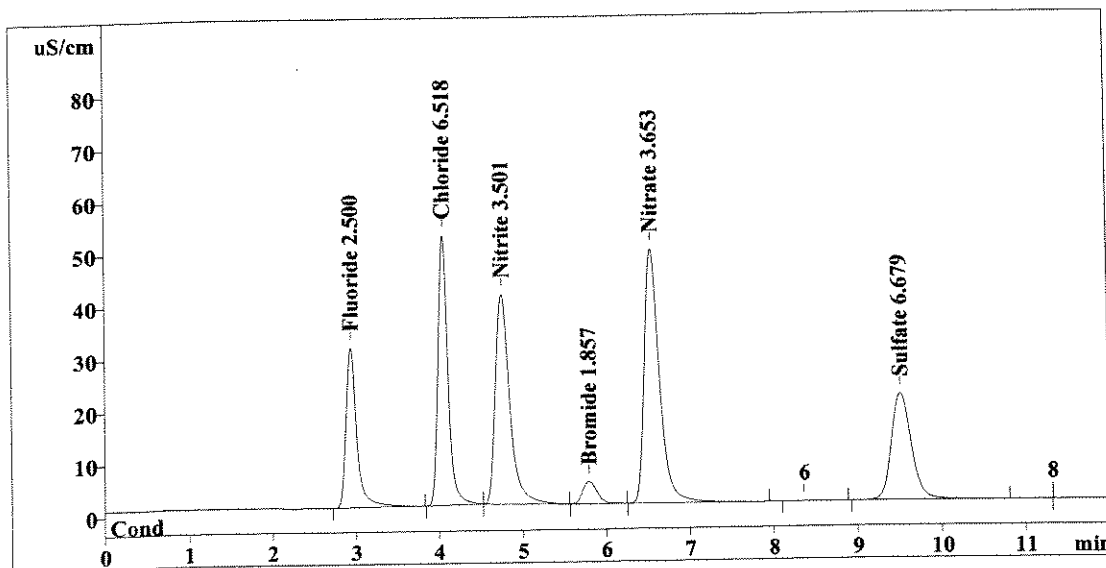
Method 300.0/9056

Report date: 7/2/2008 15:47:53  
 Printed by: User  
 Ident: CCV  
 Analysis from: 7/2/2008 15:35:55  
 File: S7021535.CHW

Last save: 7/2/2008 15:47:53

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37760  
 SAMPLE:  
 Vial number: 1  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/2/2008 11:30:57



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.93	277.728	2.500	Fluoride
2	4.05	424.802	6.518	Chloride
3	4.75	476.387	3.501	Nitrite
4	5.79	51.831	1.857	Bromide
5	6.55	604.861	3.653	Nitrate
6	9.52	332.320	6.679	Sulfate
6	12.00	2167.928	24.708	

*NOT HIGH*  
*OK*  
*↓*

*7/3/08*

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*USE NO F.*  
*7/3/08*

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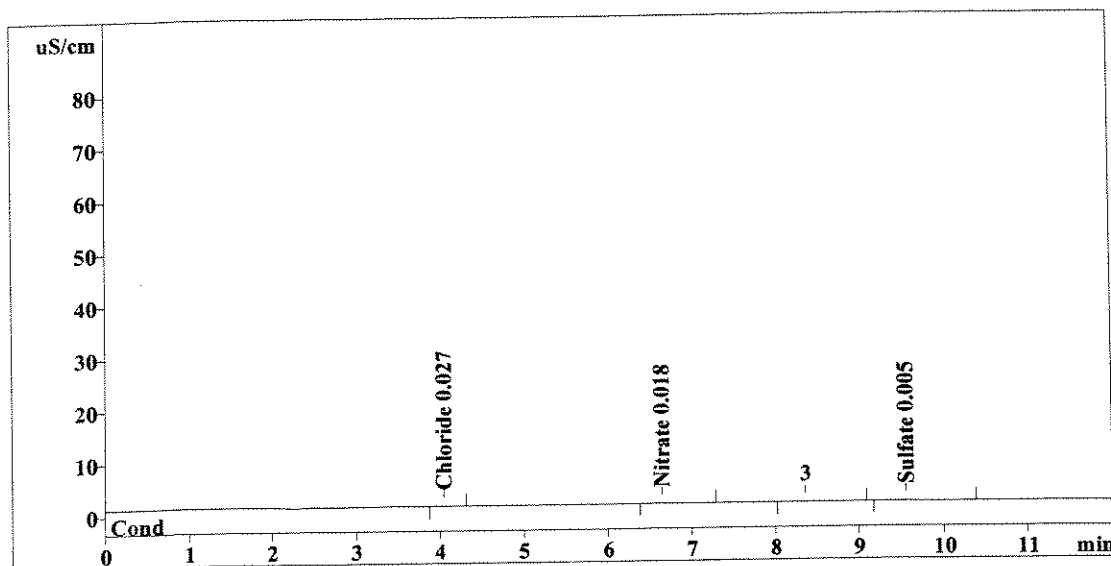
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Report date: 7/2/2008 16:01:59  
 Printed by: User  
 Ident: CCB  
 Analysis from: 7/2/2008 15:50:01  
 File: S7021550.CHW

Last save: 7/2/2008 16:01:59

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37761  
 SAMPLE:  
 Vial number: 2  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/2/2008 11:30:57



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	0.00	0.000	0.000	Fluoride
2	4.05	0.268	0.027	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.65	0.216	0.018	Nitrate
6	9.55	1.321	0.005	Sulfate
6	12.00	1.804	0.050	

OK  
 ↓  
 7/3/08

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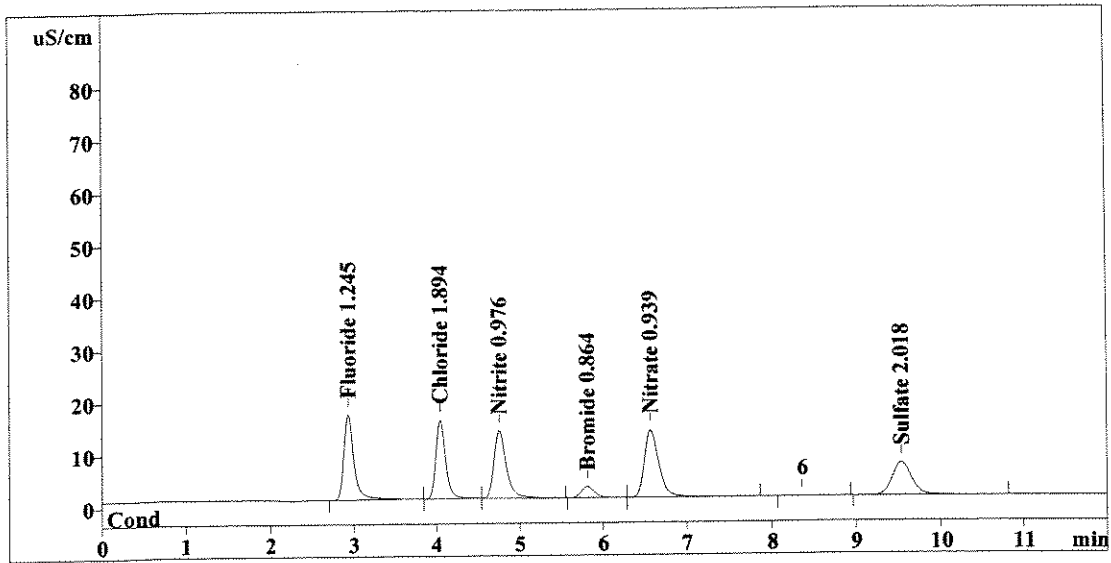
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Report date: 7/2/2008 16:16:26  
 Printed by: User  
 Ident: LCS  
 Analysis from: 7/2/2008 16:04:28  
 File: S7021604.CHW

Last save: 7/2/2008 16:16:26

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37762  
 SAMPLE:  
 Vial number: 3  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/2/2008 11:30:57



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.93	141.031	1.245	Fluoride
2	4.05	122.381	1.894	Chloride
3	4.75	133.392	0.976	Nitrite
4	5.81	23.749	0.864	Bromide
5	6.57	153.525	0.939	Nitrate
6	9.53	101.168	2.018	Sulfate
6	12.00	675.247	7.937	

*Handwritten notes:*  
 OUTHIGH  
 OK  
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 OUT LOW  
 OK  
 ↓  
 7/3/08

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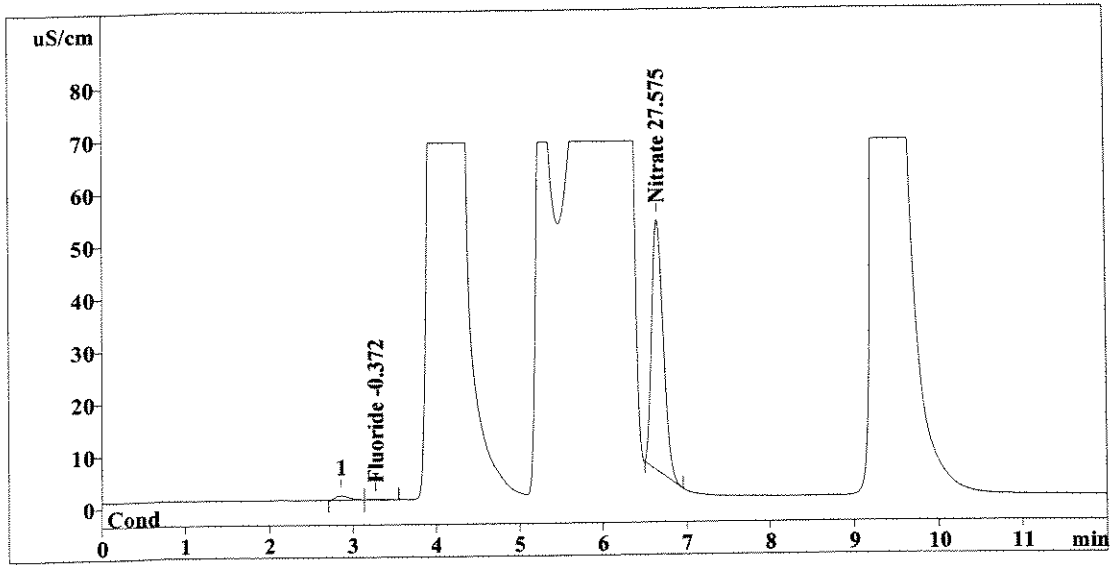
Method 300.0/9056

Report date: 7/2/2008 16:30:32  
 Printed by: User  
 Ident: 1114419  
 Analysis from: 7/2/2008 16:18:34  
 File: S7021618.CHW

Last save: 7/2/2008 16:30:32

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37763  
 SAMPLE: CBNNS  
 Vial number: 4  
 Volume: 1.0 µL  
 Dilution: 10.00  
 Amount: 1.0000

Last save: 7/2/2008 11:30:57



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.28	1.411	-0.372	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.65	455.914	27.575	Nitrate
6	0.00	0.000	0.000	Sulfate
6	12.00	457.325	27.948	

*MTE 1/40*  
*7/3/08*

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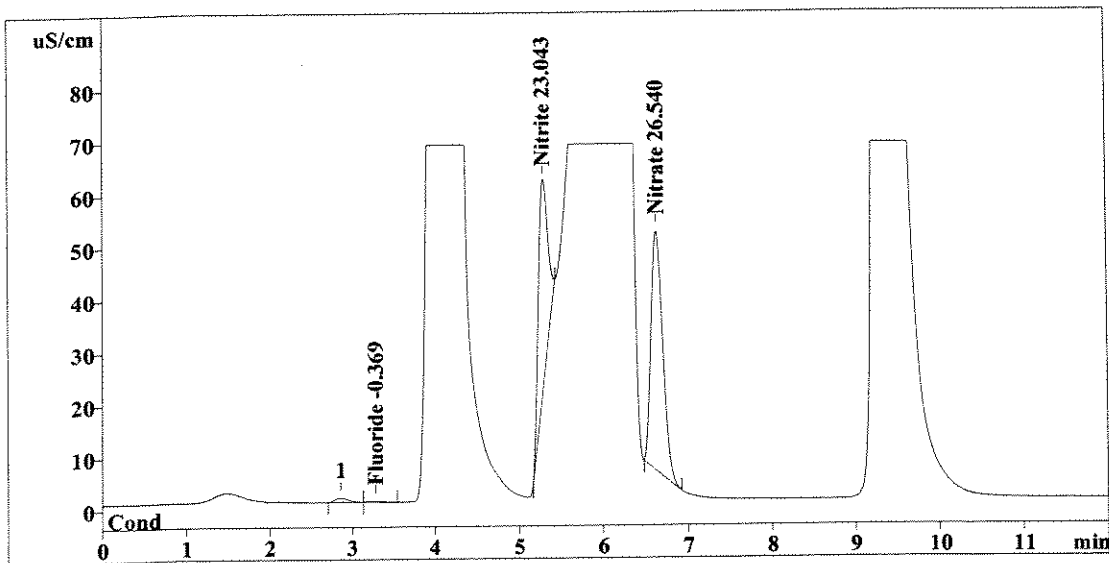
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Report date: 7/2/2008 16:44:38  
 Printed by: User  
 Ident: 1114420  
 Analysis from: 7/2/2008 16:32:40  
 File: S7021632.CHW

Last save: 7/2/2008 16:44:38

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37764  
 SAMPLE: CBNNS  
 Vial number: 5  
 Volume: 1.0 µL  
 Dilution: 10.00  
 Amount: 1.0000

Last save: 7/2/2008 11:30:57



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.28	1.448	-0.369	Fluoride
2	0.00	0.000	0.000	Chloride
3	5.27	313.814	23.043	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.63	438.693	26.540	Nitrate
6	0.00	0.000	0.000	Sulfate
<hr/>				
6	12.00	753.955	49.952	

*Handwritten notes:* "pp + @ 1/40" and "7/3/08" are present near the table.

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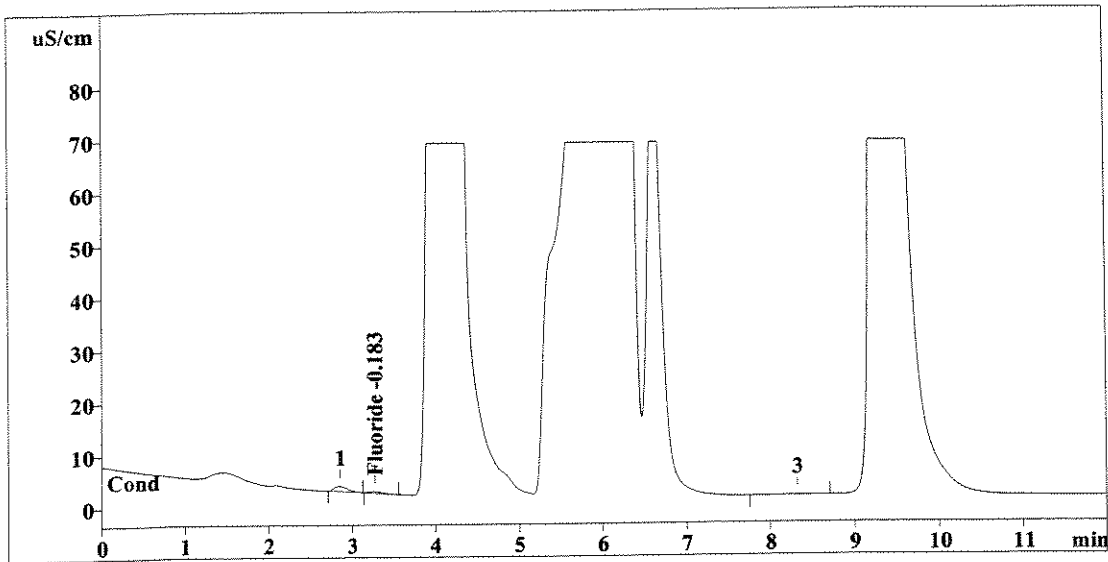
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 Printed by: User  
 Ident: 1114421  
 Analysis from: 7/2/2008 16:46:46  
 File: S7021646.CHW

Last save: 7/2/2008 16:58:44

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37765  
 SAMPLE: CBNNS  
 Vial number: 6  
 Volume: 1.0 µL  
 Dilution: 10.00  
 Amount: 1.0000

Last save: 7/2/2008 11:30:57



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.27	3.474	-0.183	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	0.00	0.000	0.000	Nitrate
6	0.00	0.000	0.000	Sulfate
<hr/>				
6	12.00	3.474	0.183	

*pp + 1/40*  
*7/3/08*

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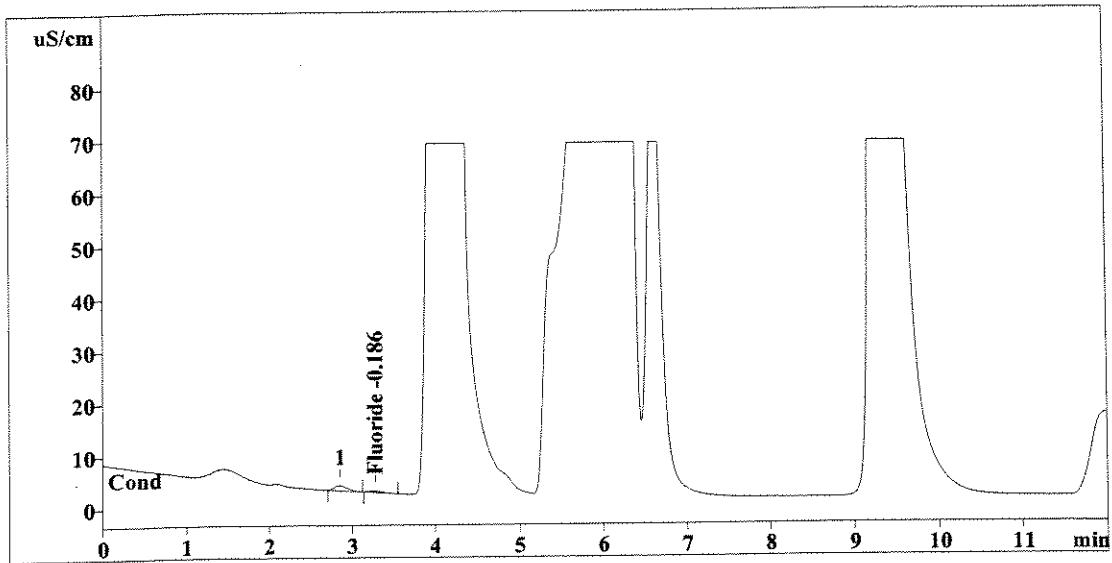
Method 300.0/9056

Report date: 7/2/2008 17:12:50  
 Printed by: User  
 Ident: 1114421 DUP  
 Analysis from: 7/2/2008 17:00:52  
 File: S7021700.CHW

Last save: 7/2/2008 17:12:50

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37766  
 SAMPLE: CBNNS  
 Vial number: 7  
 Volume: 1.0 µL  
 Dilution: 10.00  
 Amount: 1.0000

Last save: 7/2/2008 11:30:57



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.27	3.444	-0.186	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	0.00	0.000	0.000	Nitrate
6	0.00	0.000	0.000	Sulfate
<hr/>				
6	12.00	3.444	0.186	

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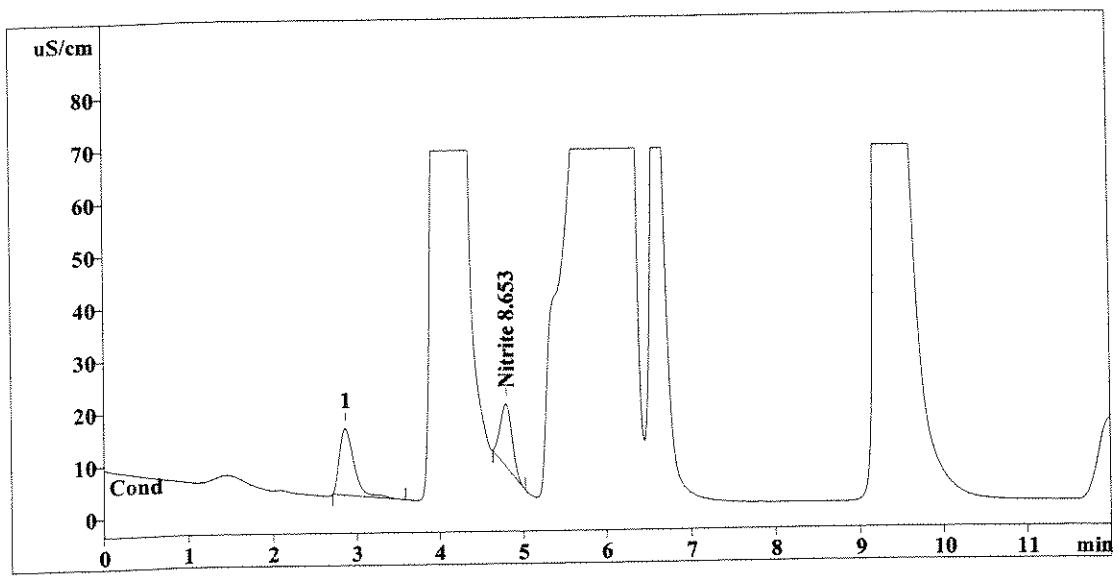
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Report date: 7/2/2008 17:26:55  
 Printed by: User  
 Ident: 1114421 SPK  
 Analysis from: 7/2/2008 17:14:58  
 File: S7021714.CHW

Last save: 7/2/2008 17:26:56

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37767  
 SAMPLE: CBNNS  
 Vial number: 8  
 Volume: 1.0 µL  
 Dilution: 10.00  
 Amount: 1.0000

Last save: 7/2/2008 11:30:57



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	0.00	0.000	0.000	Fluoride
2	0.00	0.000	0.000	Chloride
3	4.79	118.299	8.653	Nitrite
4	0.00	0.000	0.000	Bromide
5	0.00	0.000	0.000	Nitrate
6	0.00	0.000	0.000	Sulfate
<hr/>				
6	12.00	118.299	8.653	

*11/40*  
*7/3/08*

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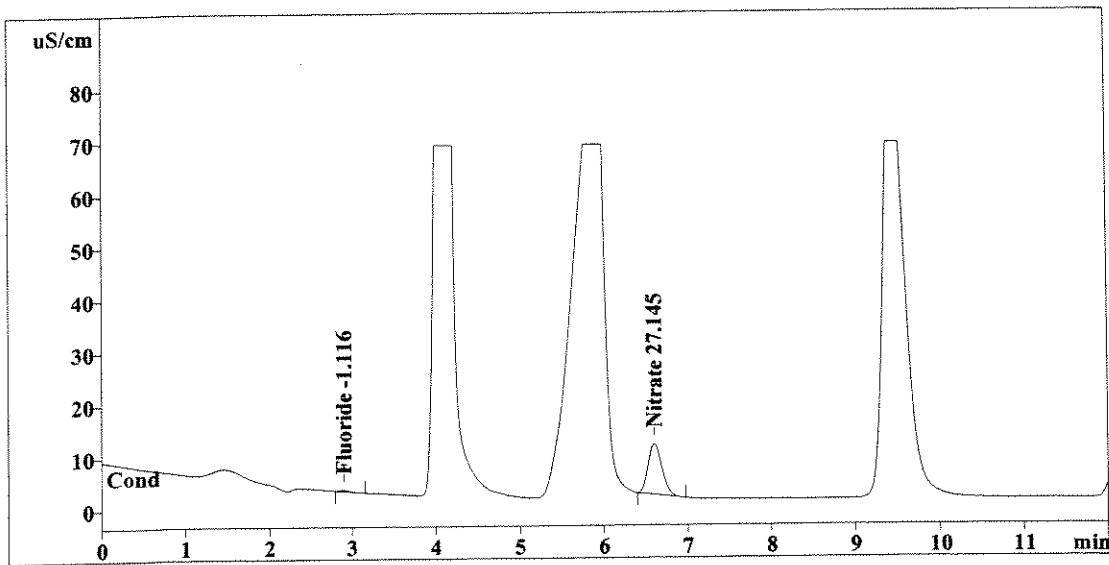
Method 300.0/9056

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 Printed by: User  
 Ident: 1114419  
 Analysis from: 7/2/2008 17:29:04  
 File: S7021729.CHW

Last save: 7/2/2008 17:41:02

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37768  
 SAMPLE: CBNNS  
 Vial number: 9  
 Volume: 1.0 µL  
 Dilution: 40.00  
 Amount: 1.0000

Last save: 7/2/2008 11:30:57



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.90	2.429	-1.116	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.60	110.143	27.145	Nitrate
6	0.00	0.000	0.000	Sulfate
<hr/>				
6	12.00	112.571	28.261	

*OK*  
*7/3/08*

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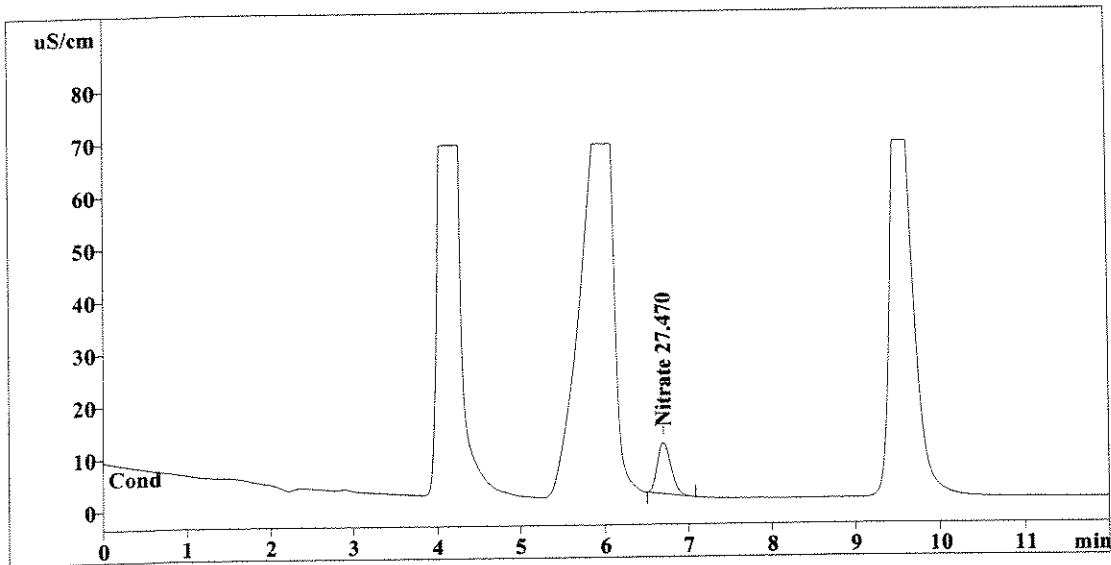
Method 300.0/9056

Report date: 7/2/2008 17:55:07  
 Printed by: User  
 Ident: 1114420  
 Analysis from: 7/2/2008 17:43:09  
 File: S7021743.CHW

Last save: 7/2/2008 17:55:07

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37769  
 SAMPLE: CBNNS  
 Vial number: 10  
 Volume: 1.0 µL  
 Dilution: 40.00  
 Amount: 1.0000

Last save: 7/2/2008 11:30:57



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	0.00	0.000	0.000	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.70	111.492	27.470	Nitrate
6	0.00	0.000	0.000	Sulfate
<hr/>				
6	12.00	111.492	27.470	

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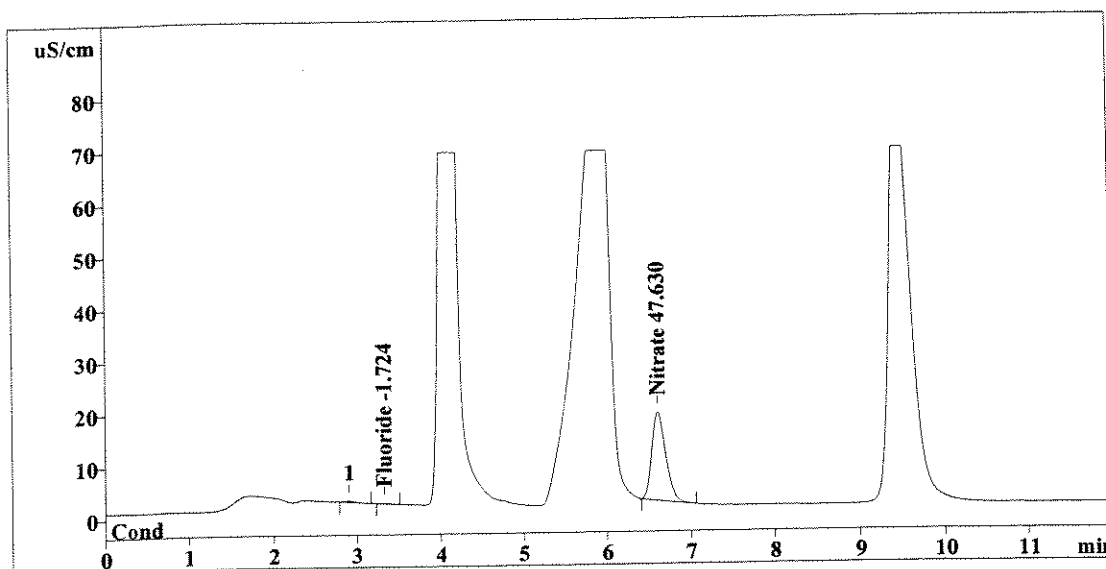
Method 300.0/9056

Report date: 7/2/2008 18:09:14  
 Printed by: User  
 Ident: 1114421  
 Analysis from: 7/2/2008 17:57:16  
 File: S7021757.CHW

Last save: 7/2/2008 18:09:14

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37770  
 SAMPLE: CBNNS  
 Vial number: 11  
 Volume: 1.0 µL  
 Dilution: 40.00  
 Amount: 1.0000

Last save: 7/2/2008 11:30:57



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.32	0.774	-1.724	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.61	195.322	47.630	Nitrate
6	0.00	0.000	0.000	Sulfate
6	12.00	196.096	49.354	

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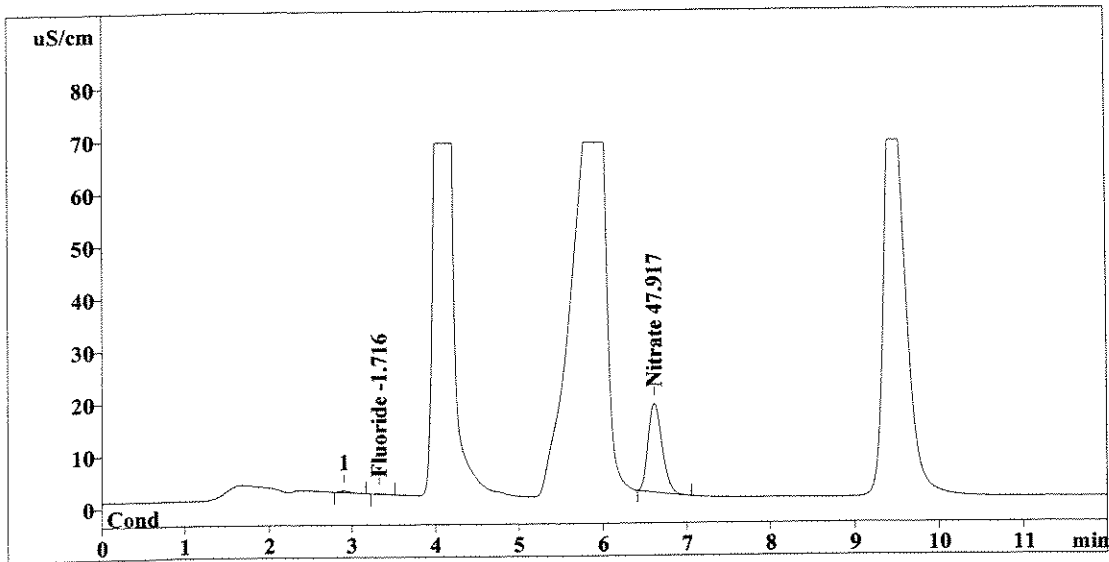
Method 300.0/9056

Report date: 7/2/2008 18:23:20  
 Printed by: User  
 Ident: 1114421 DUP  
 Analysis from: 7/2/2008 18:11:22  
 File: S7021811.CHW

Last save: 7/2/2008 18:23:20

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37771  
 SAMPLE: CBNNS  
 Vial number: 12  
 Volume: 1.0 µL  
 Dilution: 40.00  
 Amount: 1.0000

Last save: 7/2/2008 11:30:57



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.32	0.794	-1.716	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.61	196.514	47.917	Nitrate
6	0.00	0.000	0.000	Sulfate
6	12.00	197.308	49.633	

*OK*  
*SY 7/2/08*

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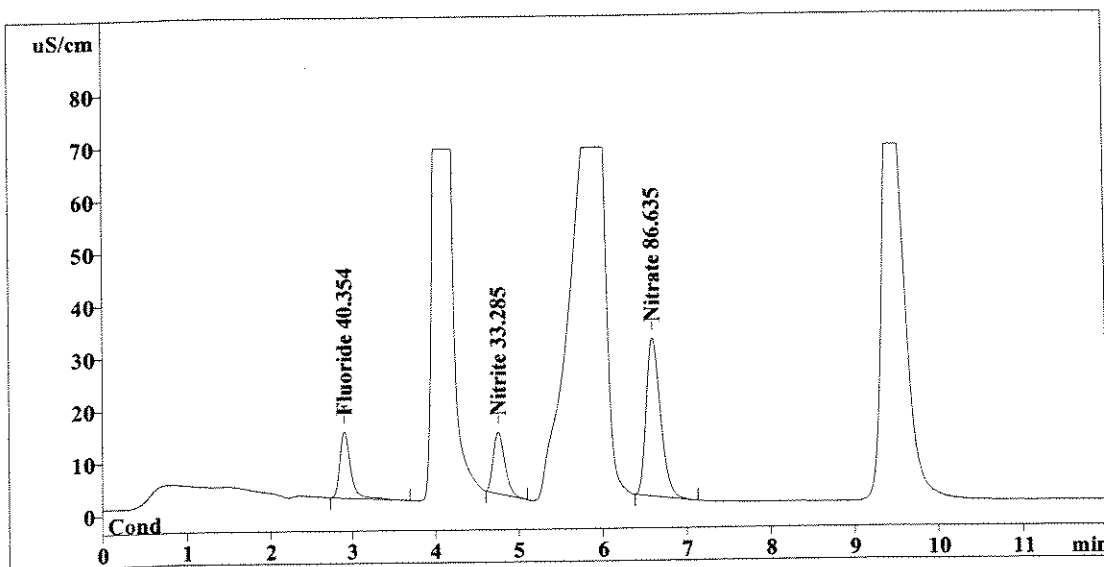
Method 300.0/9056

Report date: 7/2/2008 18:37:26  
 Printed by: User  
 Ident: 1114421 SPK  
 Analysis from: 7/2/2008 18:25:28  
 File: S7021825.CHW

Last save: 7/2/2008 18:37:26

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37772  
 SAMPLE: CBNNS  
 Vial number: 13  
 Volume: 1.0 µL  
 Dilution: 40.00  
 Amount: 1.0000

Last save: 7/2/2008 11:30:57



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.90	115.314	40.354	Fluoride
2	0.00	0.000	0.000	Chloride
3	4.75	113.787	33.285	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.59	357.508	86.635	Nitrate
6	0.00	0.000	0.000	Sulfate
<hr/>				
6	12.00	586.608	160.274	

*Handwritten signature and date: 7/3/08*

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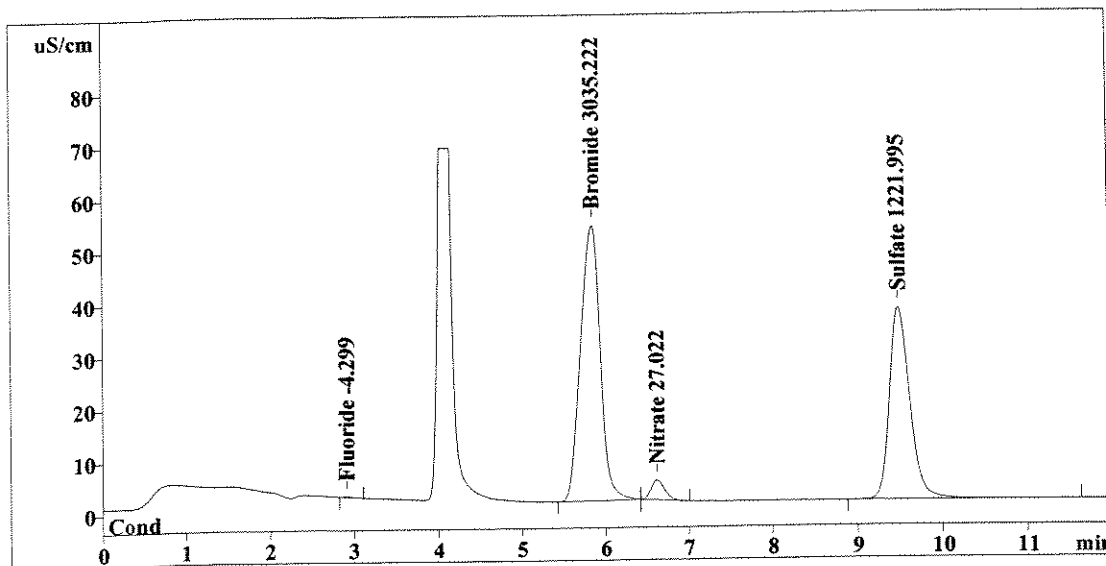
Method 300.0/9056

Report date: 7/2/2008 18:51:32  
 Printed by: User  
 Ident: 1114419  
 Analysis from: 7/2/2008 18:39:34  
 File: S7021839.CHW

Last save: 7/2/2008 18:51:32

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37773  
 SAMPLE: CBNNS  
 Vial number: 14  
 Volume: 1.0 µL  
 Dilution: 100.00  
 Amount: 1.0000

Last save: 7/2/2008 11:30:57



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.91	0.784	-4.299	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.85	857.439	3035.222	Bromide
5	6.62	42.215	27.022	Nitrate
6	9.50	607.171	1221.995	Sulfate
<hr/>				
6	12.00	1507.609	4288.538	

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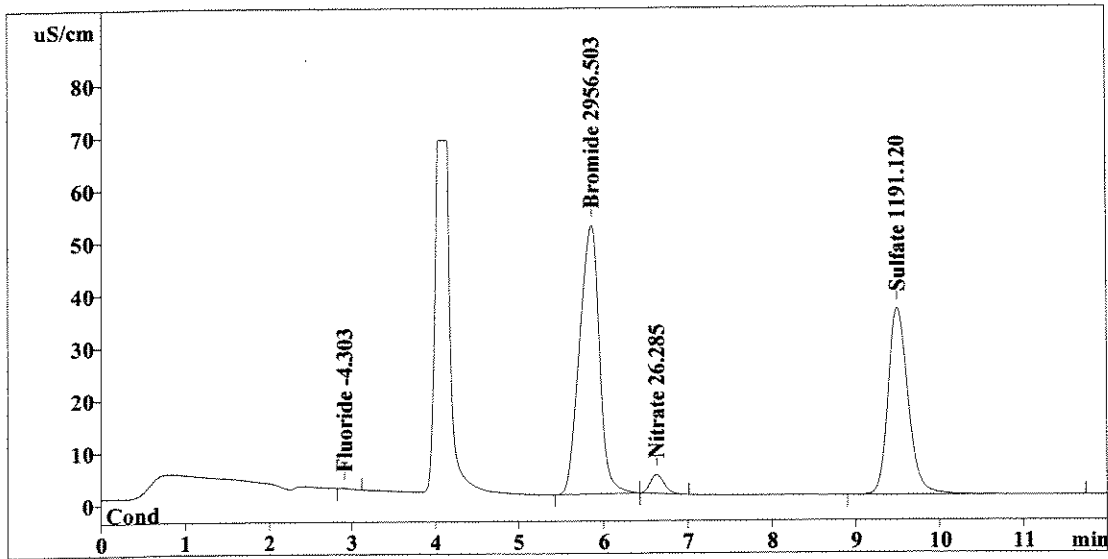
Method 300.0/9056

Report date: 7/2/2008 19:05:38  
 Printed by: User  
 Ident: 1114420  
 Analysis from: 7/2/2008 18:53:40  
 File: S7021853.CHW

Last save: 7/2/2008 19:05:38

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37774  
 SAMPLE: CBNNS  
 Vial number: 15  
 Volume: 1.0 µL  
 Dilution: 100.00  
 Amount: 1.0000

Last save: 7/2/2008 11:30:57



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.91	0.781	-4.303	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.85	835.183	2956.503	Bromide
5	6.62	40.989	26.285	Nitrate
6	9.50	591.857	1191.120	Sulfate
<hr/>				
6	12.00	1468.810	4178.210	

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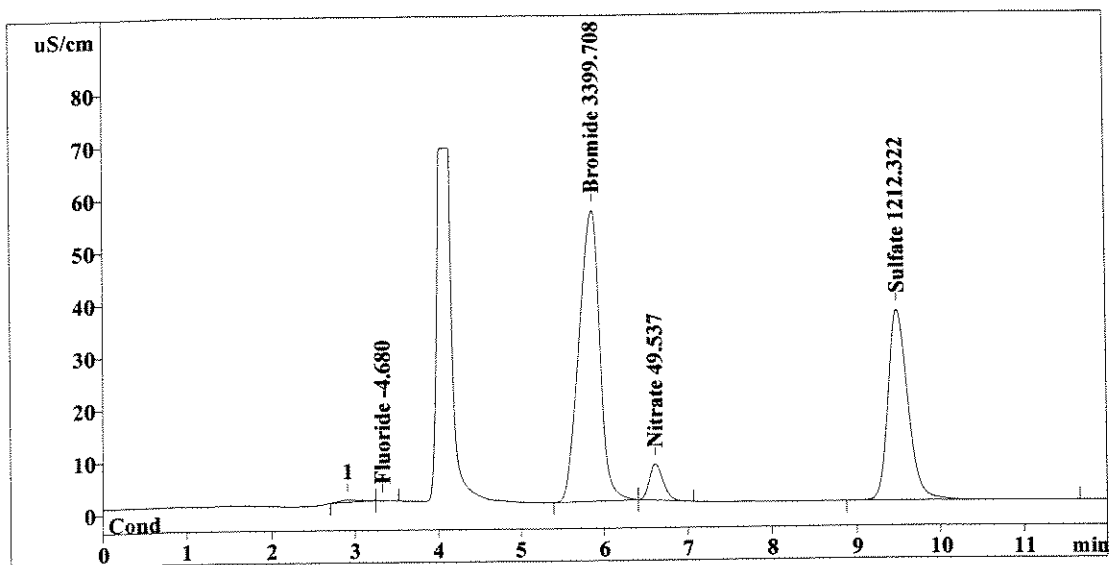
Method 300.0/9056

Report date: 7/2/2008 19:19:43  
 Printed by: User  
 Ident: 1114421  
 Analysis from: 7/2/2008 19:07:45  
 File: S7021907.CHW

Last save: 7/2/2008 19:19:43

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37775  
 SAMPLE: CBNNS  
 Vial number: 16  
 Volume: 1.0 µL  
 Dilution: 100.00  
 Amount: 1.0000

Last save: 7/2/2008 11:30:57



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.33	0.370	-4.680	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.86	960.486	3399.708	Bromide
5	6.61	79.663	49.537	Nitrate
6	9.49	602.373	1212.322	Sulfate
6	12.00	1642.892	4666.246	

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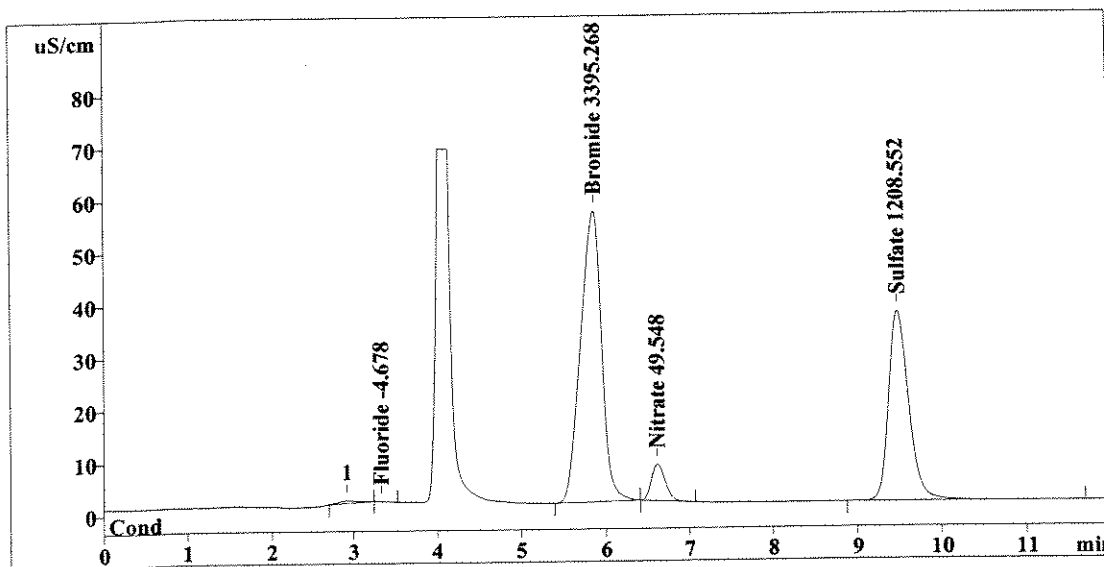
Method 300.0/9056

Report date: 7/2/2008 19:33:49  
 Printed by: User  
 Ident: 1114421 DUP  
 Analysis from: 7/2/2008 19:21:52  
 File: S7021921.CHW

Last save: 7/2/2008 19:33:50

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37776  
 SAMPLE: CBNNS  
 Vial number: 17  
 Volume: 1.0 µL  
 Dilution: 100.00  
 Amount: 1.0000

Last save: 7/2/2008 11:30:57



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.33	0.372	-4.678	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.86	959.231	3395.268	Bromide
5	6.61	79.681	49.548	Nitrate
6	9.49	600.503	1208.552	Sulfate
<hr/>				
6	12.00	1639.787	4658.046	

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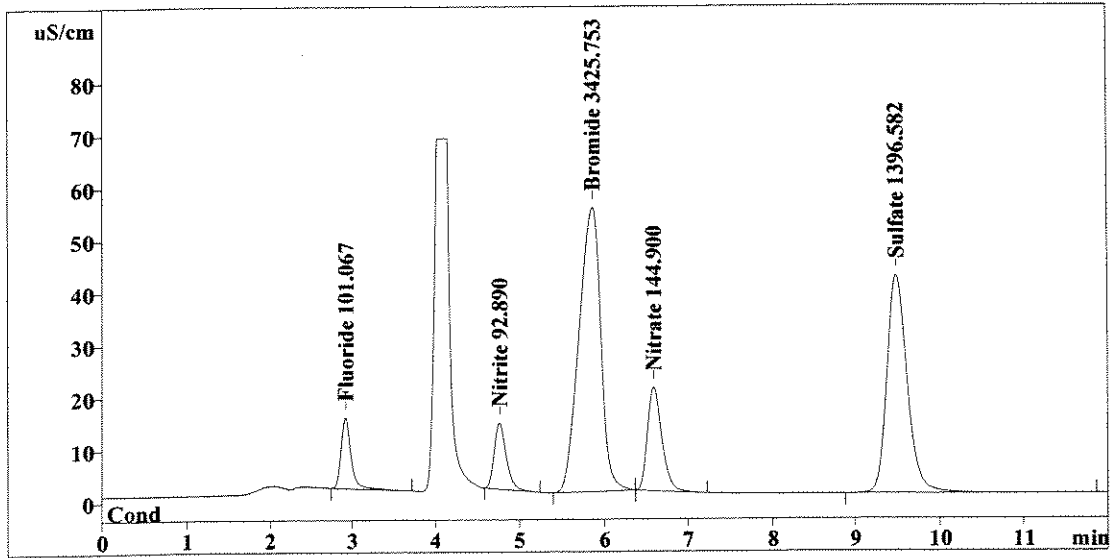
Method 300.0/9056

Report date: 7/2/2008 19:47:56  
 Printed by: User  
 Ident: 1114421 SPK  
 Analysis from: 7/2/2008 19:35:58  
 File: S7021935.CHW

Last save: 7/2/2008 19:47:56

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37777  
 SAMPLE: CBNNS  
 Vial number: 18  
 Volume: 1.0 µL  
 Dilution: 100.00  
 Amount: 1.0000

Last save: 7/2/2008 11:30:57



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.91	115.512	101.067	Fluoride
2	0.00	0.000	0.000	Chloride
3	4.76	126.935	92.890	Nitrite
4	5.86	967.849	3425.753	Bromide
5	6.59	238.274	144.900	Nitrate
6	9.49	693.765	1396.582	Sulfate
<hr/>				
6	12.00	2142.336	5161.192	

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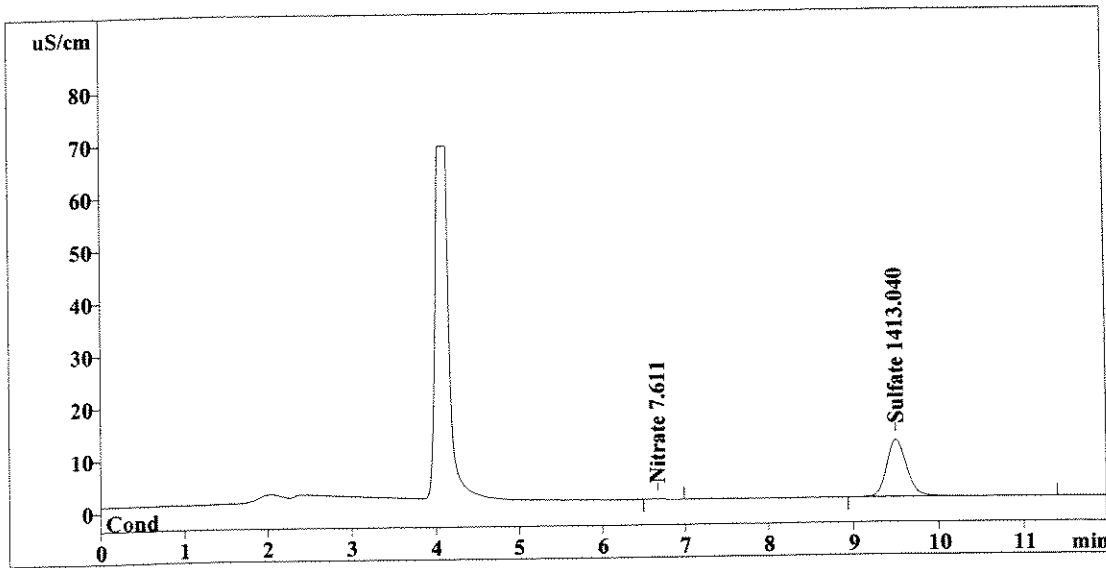
Method 300.0/9056

Report date: 7/2/2008 20:02:01  
 Printed by: User  
 Ident: 1113696  
 Analysis from: 7/2/2008 19:50:03  
 File: S7021950.CHW

Last save: 7/2/2008 20:02:01

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37778  
 SAMPLE: CS  
 Vial number: 19  
 Volume: 1.0 µL  
 Dilution: 400.00  
 Amount: 1.0000

Last save: 7/2/2008 11:30:57



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	0.00	0.000	0.000	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.67	0.435	7.611	Nitrate
6	9.50	176.284	1413.040	Sulfate
<hr/>				
6	12.00	176.720	1420.651	

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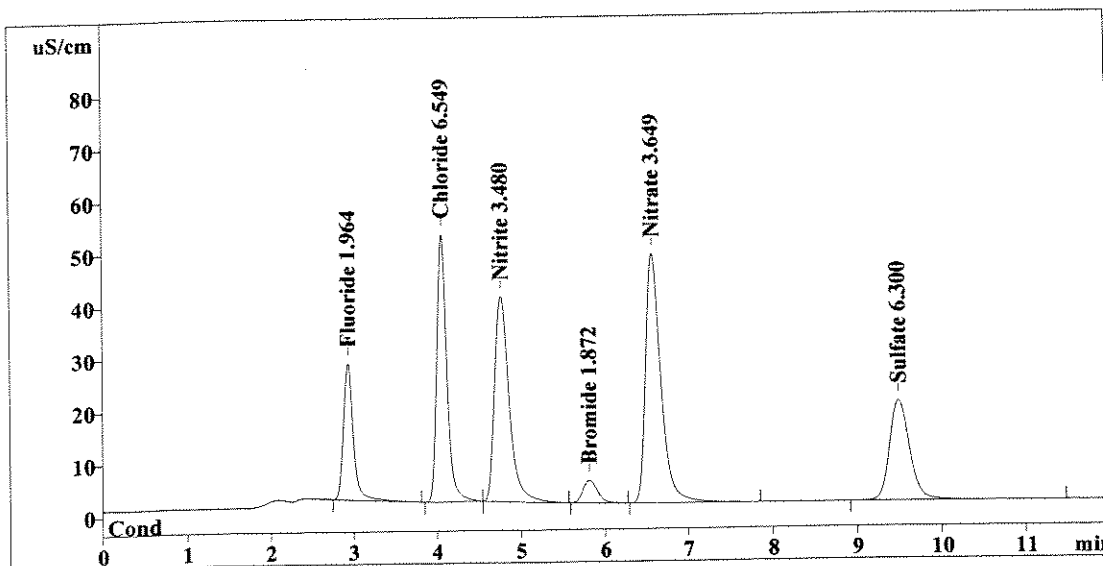
Method 300.0/9056

Report date: 7/2/2008 20:16:08  
 Printed by: User  
 Ident: CCV  
 Analysis from: 7/2/2008 20:04:09  
 File: S7022004.CHW

Last save: 7/2/2008 20:16:08

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37779  
 SAMPLE:  
 Vial number: 20  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/2/2008 11:30:57



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.93	219.326	1.964	Fluoride
2	4.06	426.847	6.549	Chloride
3	4.76	473.498	3.480	Nitrite
4	5.81	52.238	1.872	Bromide
5	6.57	604.134	3.649	Nitrate
6	9.50	313.547	6.300	Sulfate
<hr/>				
6	12.00	2089.590	23.813	

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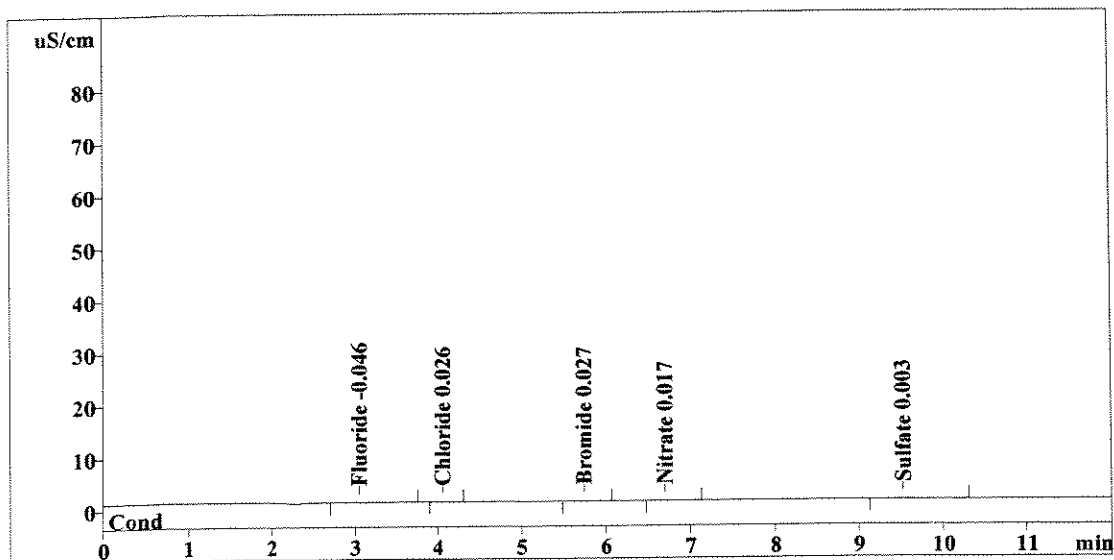
Method 300.0/9056

Report date: 7/2/2008 20:30:13  
 Printed by: User  
 Ident: CCB  
 Analysis from: 7/2/2008 20:18:15  
 File: S7022018.CHW

Last save: 7/2/2008 20:30:13

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37780  
 SAMPLE:  
 Vial number: 21  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/2/2008 11:30:57



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.04	0.444	-0.046	Fluoride
2	4.05	0.194	0.026	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.72	0.083	0.027	Bromide
5	6.70	0.098	0.017	Nitrate
6	9.53	1.201	0.003	Sulfate
<hr/>				
6	12.00	2.019	0.119	

*Handwritten notes:* A checkmark is next to the first row. A vertical arrow points from the first row down to the last row. The date '7/3/08' is written at the bottom right of the table.

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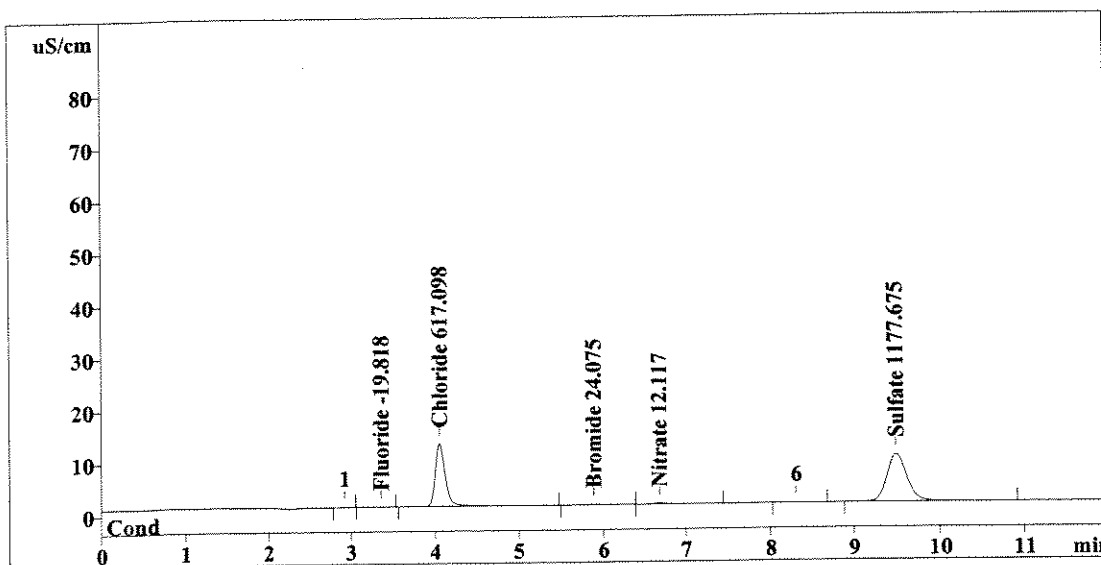
Method 300.0/9056

Report date: 7/2/2008 20:44:19  
 Printed by: User  
 Ident: 1113698  
 Analysis from: 7/2/2008 20:32:21  
 File: S7022032.CHW

Last save: 7/2/2008 20:44:19

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37781  
 SAMPLE: S  
 Vial number: 22  
 Volume: 1.0 µL  
 Dilution: 400.00  
 Amount: 1.0000

Last save: 7/2/2008 11:30:57



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.35	0.071	-19.818	Fluoride
2	4.05	99.389	617.098	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.89	1.023	24.075	Bromide
5	6.68	2.309	12.117	Nitrate
6	9.50	147.099	1177.675	Sulfate
6	12.00	249.892	1850.783	

*Handwritten signature and date: 7/3/08*

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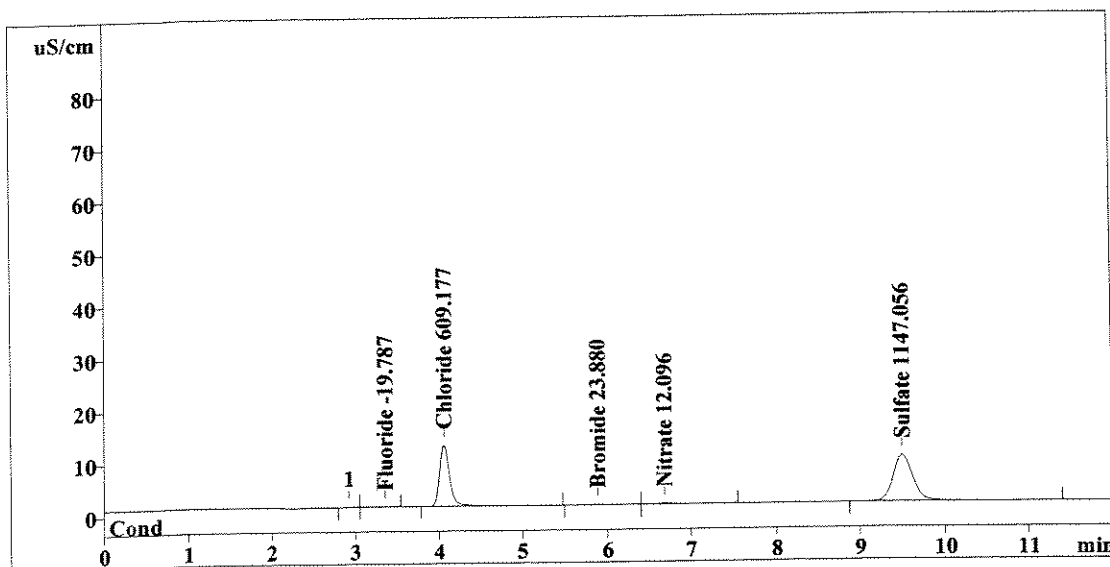
Method 300.0/9056

Report date: 7/2/2008 20:58:25  
 Printed by: User  
 Ident: 1113699  
 Analysis from: 7/2/2008 20:46:27  
 File: S7022046.CHW

Last save: 7/2/2008 20:58:25

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37782  
 SAMPLE: S  
 Vial number: 23  
 Volume: 1.0 µL  
 Dilution: 400.00  
 Amount: 1.0000

Last save: 7/2/2008 11:30:57



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.35	0.079	-19.787	Fluoride
2	4.06	98.094	609.177	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.89	1.010	23.880	Bromide
5	6.69	2.301	12.096	Nitrate
6	9.50	143.303	1147.056	Sulfate
6	12.00	244.786	1811.997	

OK  
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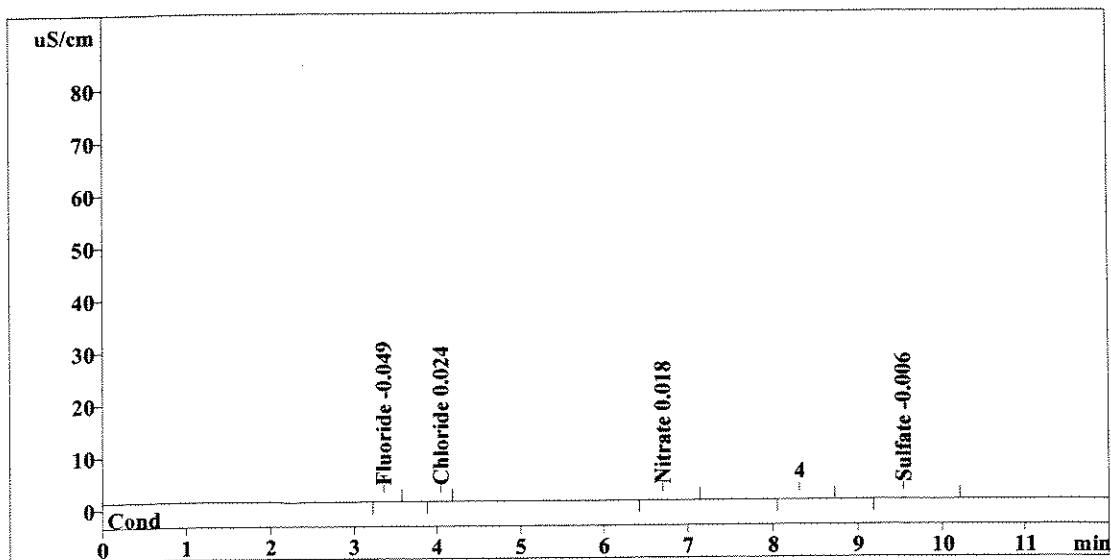
Method 300.0/9056

Report date: 7/2/2008 21:12:31  
 Printed by: User  
 Ident: METHOD BLANK  
 Analysis from: 7/2/2008 21:00:33  
 File: S7022100.CHW

Last save: 7/2/2008 21:12:31

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37783  
 SAMPLE: EXTRACTED - CBNNS  
 Vial number: 24  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/2/2008 11:30:57



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.36	0.115	-0.049	Fluoride
2	4.05	0.059	0.024	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.70	0.300	0.018	Nitrate
6	9.54	0.764	-0.006	Sulfate
<hr/>				
6	12.00	1.238	0.098	

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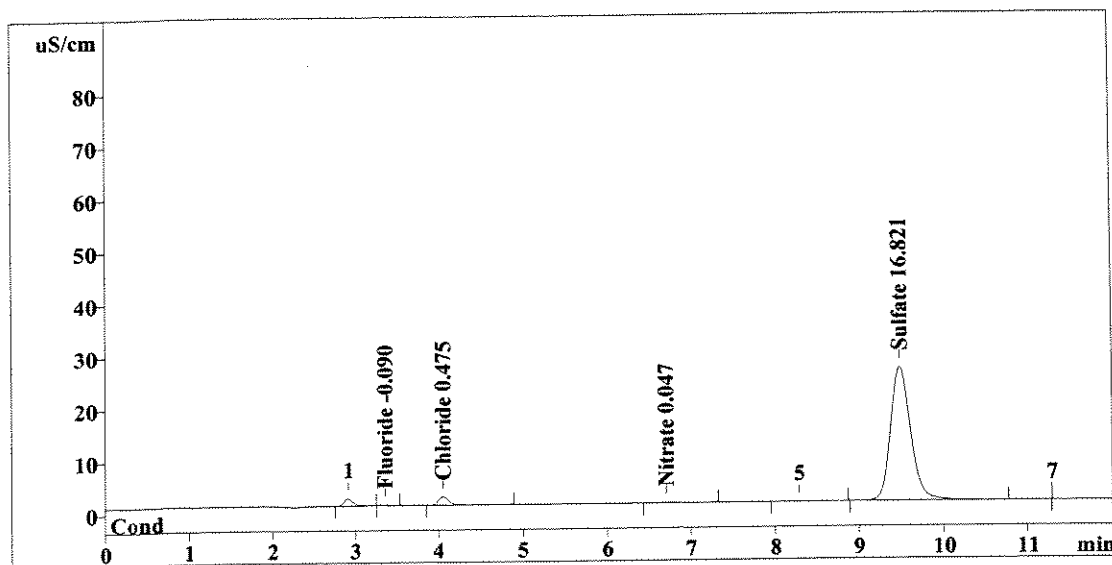
Method 300.0/9056

Report date: 7/2/2008 21:26:37  
 Printed by: User  
 Ident: 1113250  
 Analysis from: 7/2/2008 21:14:39  
 File: S7022114.CHW

Last save: 7/2/2008 21:26:37

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37784  
 SAMPLE: EXTRACTED - S  
 Vial number: 25  
 Volume: 1.0 µL  
 Dilution: 2.00  
 Amount: 1.0000

Last save: 7/2/2008 11:30:57



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.36	0.577	-0.090	Fluoride
2	4.05	14.008	0.475	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.71	1.179	0.047	Nitrate
6	9.49	418.224	16.821	Sulfate
6	12.00	433.988	17.433	

*OK*  
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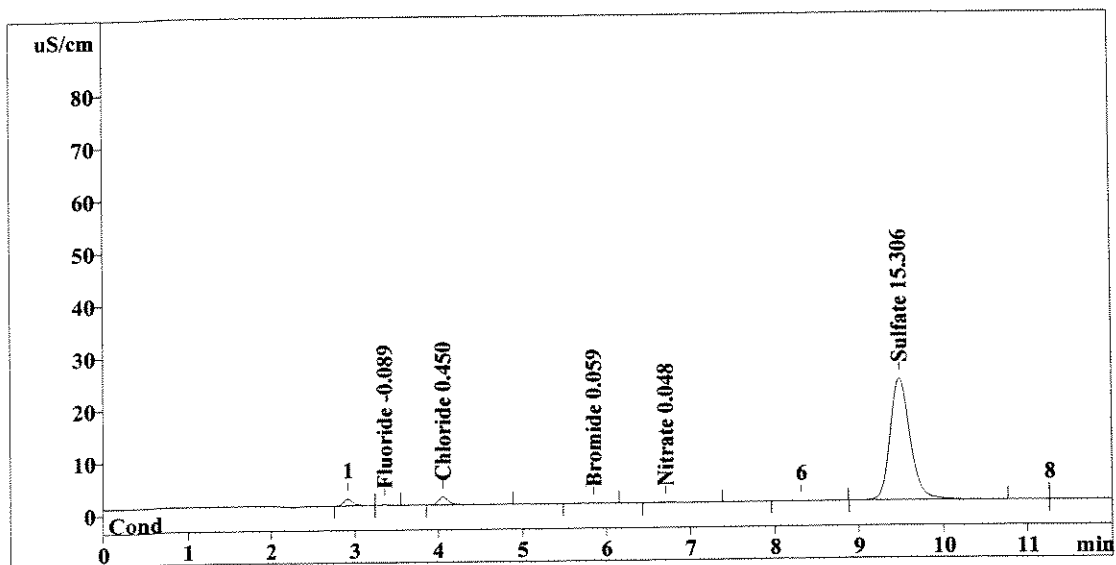
Method 300.0/9056

Report date: 7/2/2008 21:40:43  
 Printed by: User  
 Ident: 1113250 DUP  
 Analysis from: 7/2/2008 21:28:45  
 File: S7022128.CHW

Last save: 7/2/2008 21:40:43

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37785  
 SAMPLE: EXTRACTED - S  
 Vial number: 26  
 Volume: 1.0 µL  
 Dilution: 2.00  
 Amount: 1.0000

Last save: 7/2/2008 11:30:57



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.36	0.614	-0.089	Fluoride
2	4.06	13.199	0.450	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.86	0.149	0.059	Bromide
5	6.71	1.289	0.048	Nitrate
6	9.49	380.660	15.306	Sulfate
6	12.00	395.911	15.952	

*OK*  
*7/3/08*

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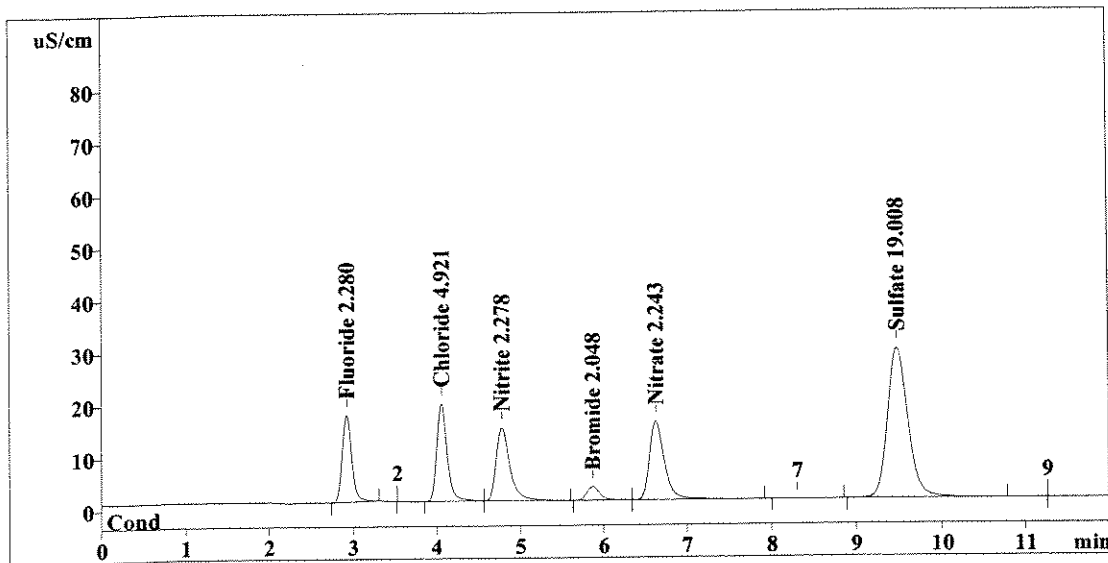
Method 300.0/9056

Report date: 7/2/2008 21:54:49  
 Printed by: User  
 Ident: 1113250 SPK  
 Analysis from: 7/2/2008 21:42:51  
 File: S7022142.CHW

Last save: 7/2/2008 21:54:49

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37786  
 SAMPLE: EXTRACTED - S  
 Vial number: 27  
 Volume: 1.0 µL  
 Dilution: 2.00  
 Amount: 1.0000

Last save: 7/2/2008 11:30:57



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.92	129.577	2.280	Fluoride
2	4.05	159.424	4.921	Chloride
3	4.77	155.506	2.278	Nitrite
4	5.87	28.277	2.048	Bromide
5	6.63	183.825	2.243	Nitrate
6	9.48	472.451	19.008	Sulfate
<hr/>				
6	12.00	1129.059	32.778	

*OK*  
*7/3/08*

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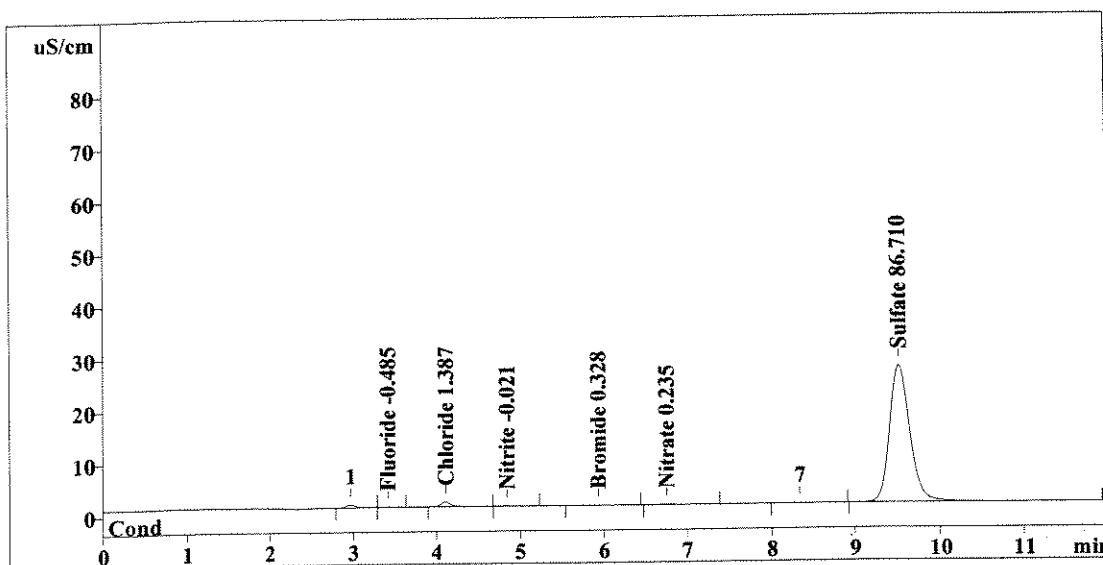
Method 300.0/9056

Report date: 7/2/2008 22:08:55  
 Printed by: User  
 Ident: 1113254  
 Analysis from: 7/2/2008 21:56:57  
 File: S7022156.CHW

Last save: 7/2/2008 22:08:55

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37787  
 SAMPLE: EXTRACTED - S  
 Vial number: 28  
 Volume: 1.0 µL  
 Dilution: 10.00  
 Amount: 1.0000

Last save: 7/2/2008 11:30:57



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.41	0.181	-0.485	Fluoride
2	4.11	7.554	1.387	Chloride
3	4.84	0.436	-0.021	Nitrite
4	5.93	0.249	0.328	Bromide
5	6.76	1.176	0.235	Nitrate
6	9.52	431.148	86.710	Sulfate
6	12.00	440.743	89.167	

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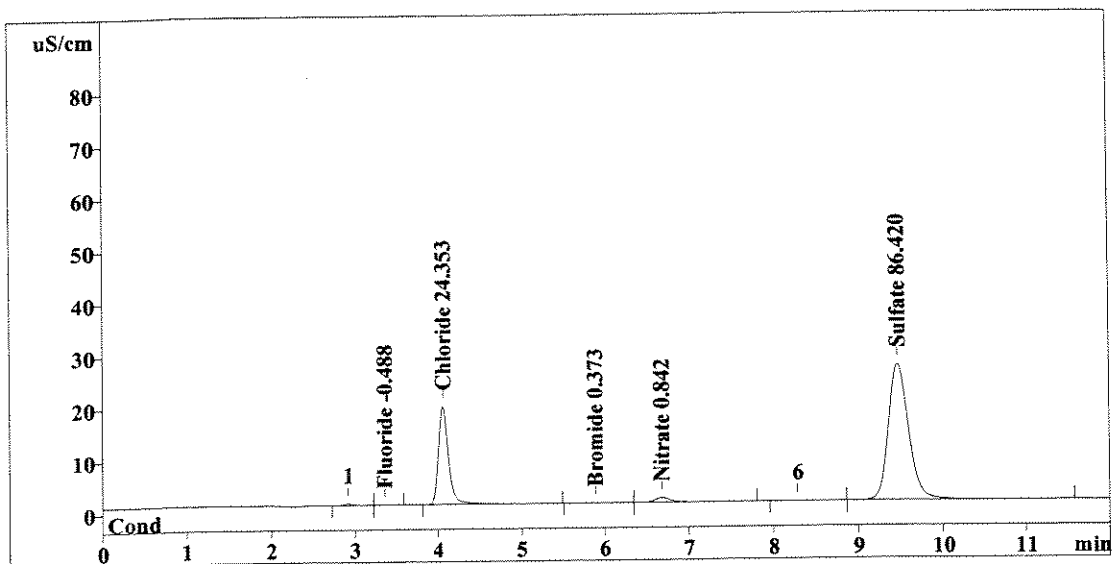
Method 300.0/9056

Report date: 7/2/2008 22:23:01  
 Printed by: User  
 Ident: 1113255  
 Analysis from: 7/2/2008 22:11:02  
 File: S7022211.CHW

Last save: 7/2/2008 22:23:01

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37788  
 SAMPLE: EXTRACTED - CS  
 Vial number: 29  
 Volume: 1.0 µL  
 Dilution: 10.00  
 Amount: 1.0000

Last save: 7/2/2008 11:30:57



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.36	0.152	-0.488	Fluoride
2	4.06	157.768	24.353	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.89	0.375	0.373	Bromide
5	6.68	11.276	0.842	Nitrate
6	9.47	429.708	86.420	Sulfate
6	12.00	599.280	112.476	

*Handwritten notes: 'OK' next to Chloride and Sulfate rows, and a signature 'CJ 7/2/08' next to the final row.*

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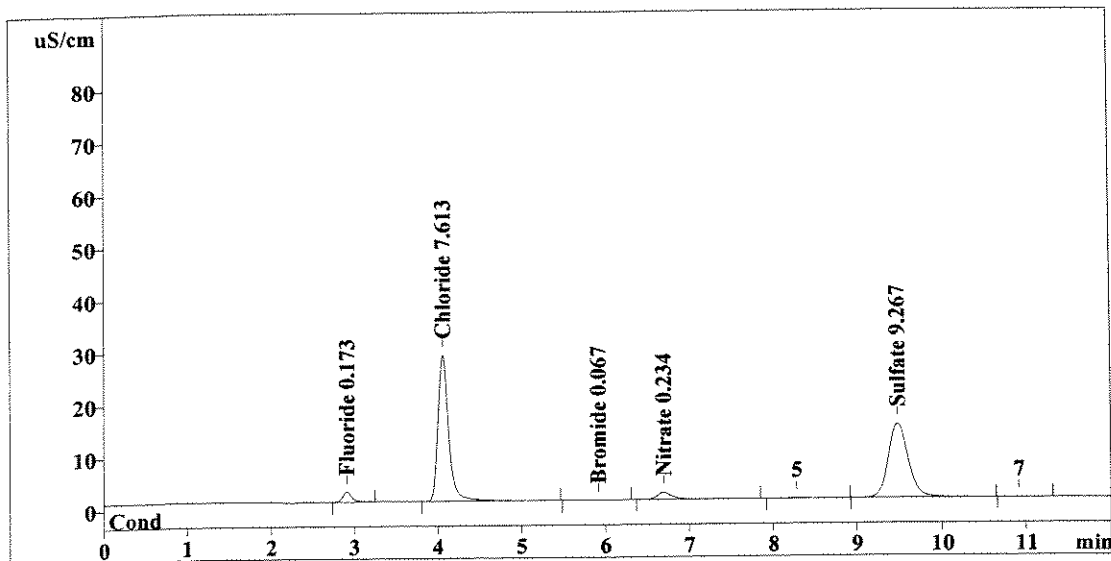
Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14609  
 Report date: 7/2/2008 22:37:16  
 Printed by: User  
 Ident: 1113256  
 Analysis from: 7/2/2008 22:25:08  
 File: S7022225.CHW

Method 300.0/9056

Last save: 7/2/2008 22:37:16

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37789  
 SAMPLE: EXTRACTED - C  
 Vial number: 30  
 Volume: 1.0 µL  
 Dilution: 2.00  
 Amount: 1.0000

Last save: 7/2/2008 11:30:57



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.90	14.900	0.173	Fluoride
2	4.06	247.465	7.613	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.91	0.271	0.067	Bromide
5	6.70	16.728	0.234	Nitrate
6	9.48	230.884	9.267	Sulfate
6	12.00	510.248	17.354	

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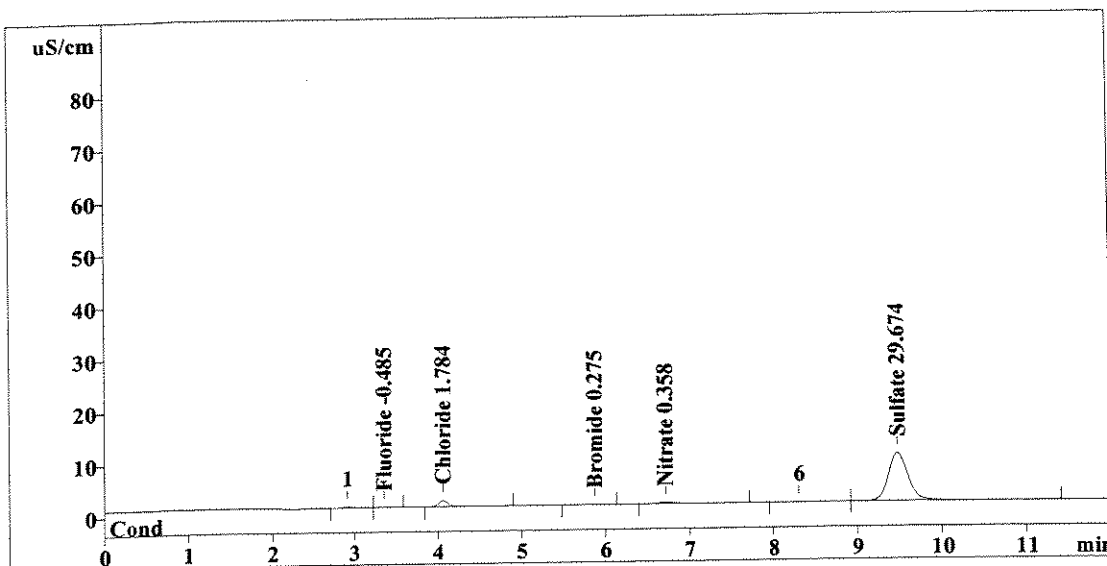
Method 300.0/9056

Report date: 7/2/2008 22:51:52  
 Printed by: User  
 Ident: 1113257  
 Analysis from: 7/2/2008 22:39:54  
 File: S7022239.CHW

Last save: 7/2/2008 22:51:52

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37790  
 SAMPLE: EXTRACTED - S  
 Vial number: 31  
 Volume: 1.0 µL  
 Dilution: 10.00  
 Amount: 1.0000

Last save: 7/2/2008 11:30:57



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.36	0.180	-0.485	Fluoride
2	4.06	10.148	1.784	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.87	0.100	0.275	Bromide
5	6.71	3.225	0.358	Nitrate
6	9.48	148.249	29.674	Sulfate
<hr/>				
6	12.00	161.902	32.576	

*Handwritten signature and date: M/T 7/3/08*

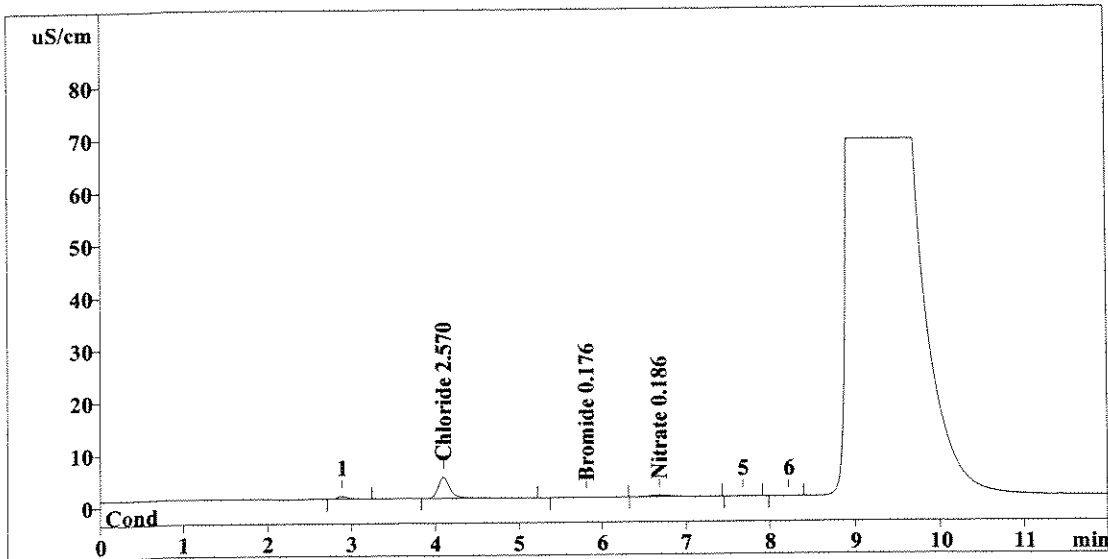
This report has been created by IC Net  
 METROHM LTD

Report date: 7/2/2008 23:05:58  
 Printed by: User  
 Ident: 1113258  
 Analysis from: 7/2/2008 22:54:00  
 File: S7022254.CHW

Last save: 7/2/2008 23:05:58

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37791  
 SAMPLE: EXTRACTED - NO3 TO CONFIRM PREVIOUS  
 Vial number: 32  
 Volume: 1.0 µL  
 Dilution: 4.00  
 Amount: 1.0000

Last save: 7/2/2008 11:30:57



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	0.00	0.000	0.000	Fluoride
2	4.09	40.496	2.570	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.81	0.566	0.176	Bromide
5	6.68	5.009	0.186	Nitrate
6	0.00	0.000	0.000	Sulfate
<hr/>				
6	12.00	46.071	2.932	

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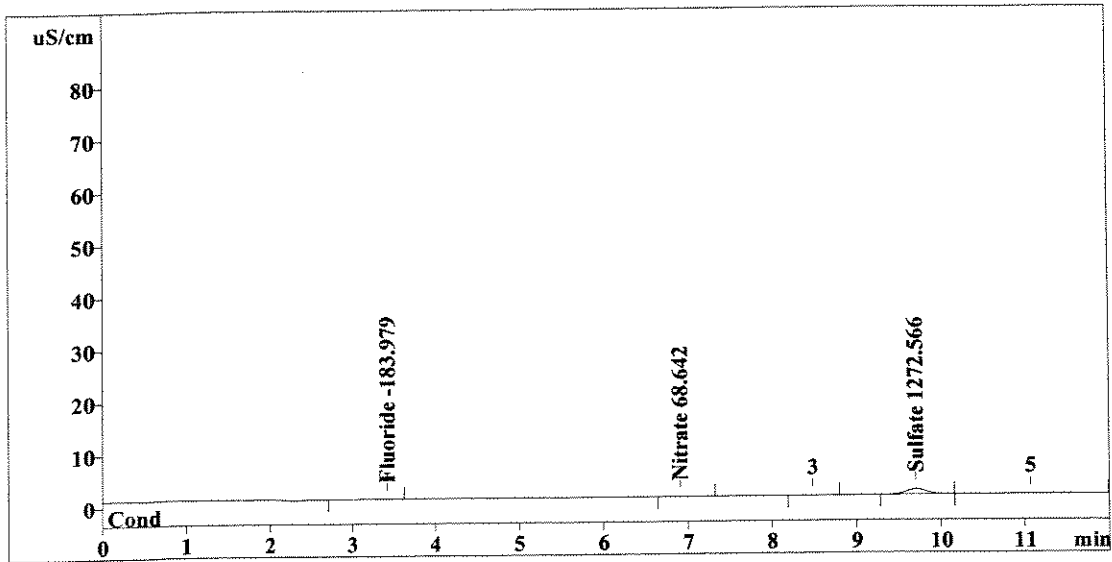
Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14609  
 Report date: 7/2/2008 23:20:04  
 Printed by: User  
 Ident: 1113258  
 Analysis from: 7/2/2008 23:08:06  
 File: S7022308.CHW

Method 300.0/9056

Last save: 7/2/2008 23:20:04

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37792  
 SAMPLE: EXTRACTED - S  
 Vial number: 33  
 Volume: 1.0 µL  
 Dilution: 4000.00  
 Amount: 1.0000

Last save: 7/2/2008 11:30:57



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.42	0.458	-183.979	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.90	0.125	68.642	Nitrate
6	9.70	16.849 <i>mg / 1000</i>	1272.566	Sulfate
6	12.00	17.432	1525.187	

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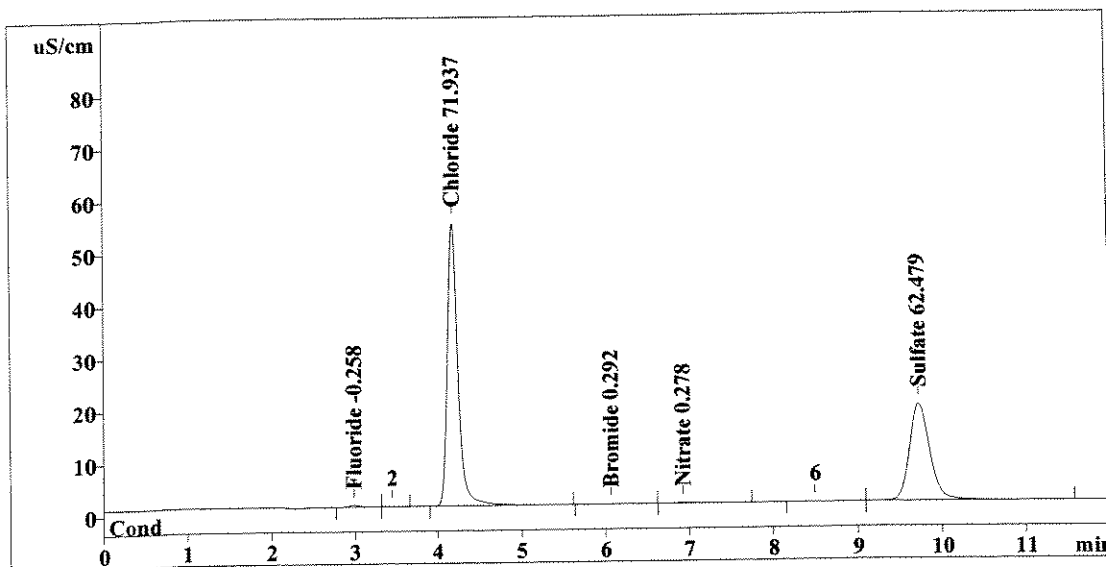
Method 300.0/9056

Report date: 7/2/2008 23:34:10  
 Printed by: User  
 Ident: 1113259  
 Analysis from: 7/2/2008 23:22:11  
 File: S7022322.CHW

Last save: 7/2/2008 23:34:10

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37793  
 SAMPLE: EXTRACTED - CS  
 Vial number: 34  
 Volume: 1.0 µL  
 Dilution: 10.00  
 Amount: 1.0000

Last save: 7/2/2008 11:30:57



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.98	2.657	-0.258	Fluoride
2	4.18	469.017	71.937	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.07	0.147	0.292	Bromide
5	6.92	1.892	0.278	Nitrate
6	9.73	310.962	62.479	Sulfate
6	12.00	784.675	135.244	

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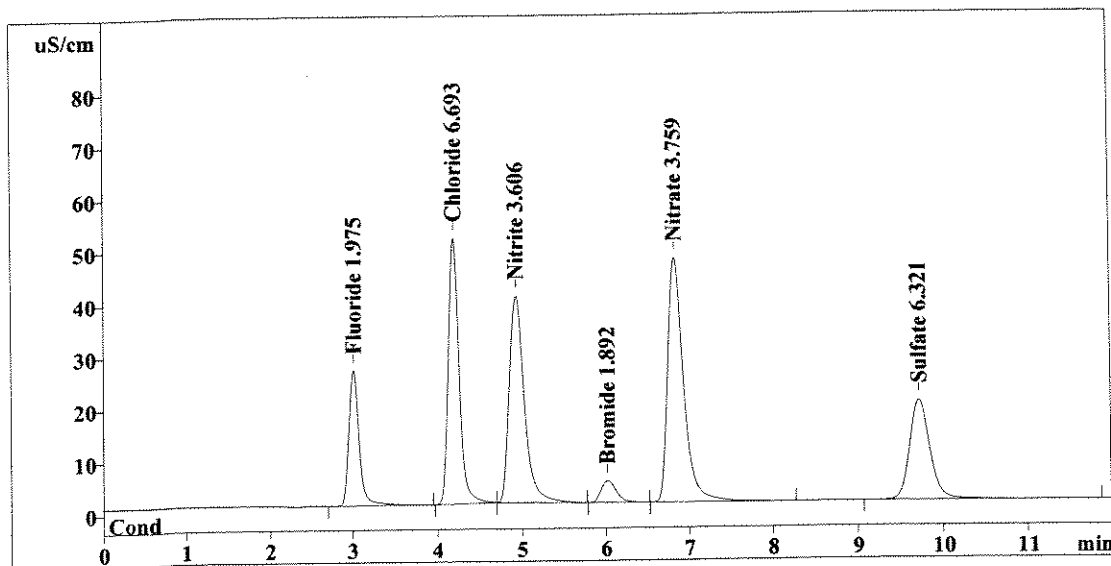
Method 300.0/9056

Report date: 7/2/2008 23:48:15  
 Printed by: User  
 Ident: CCV  
 Analysis from: 7/2/2008 23:36:17  
 File: S7022336.CHW

Last save: 7/2/2008 23:48:16

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37794  
 SAMPLE:  
 Vial number: 35  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/2/2008 11:30:57



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.01	220.488	1.975	Fluoride
2	4.19	436.255	6.693	Chloride
3	4.92	490.697	3.606	Nitrite
4	6.02	52.799	1.892	Bromide
5	6.82	622.490	3.759	Nitrate
6	9.72	314.608	6.321	Sulfate
<hr/>				
6	12.00	2137.337	24.246	

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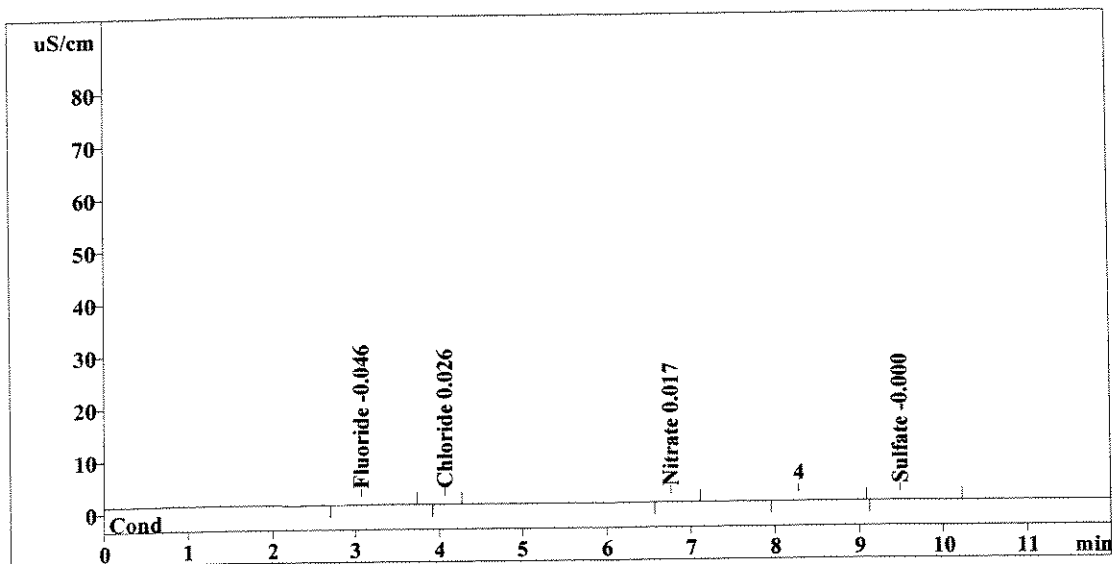
Method 300.0/9056

Report date: 7/3/2008 00:02:21  
 Printed by: User  
 Ident: CCB  
 Analysis from: 7/2/2008 23:50:23  
 File: S7022350.CHW

Last save: 7/3/2008 00:02:21

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37795  
 SAMPLE:  
 Vial number: 36  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/2/2008 11:30:57



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.05	0.432	-0.046	Fluoride
2	4.07	0.168	0.026	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.76	0.055	0.017	Nitrate
6	9.49	1.068	-0.000	Sulfate
6	12.00	1.724	0.089	

*Handwritten notes: A checkmark is next to the first row. A vertical arrow points from the checkmark down to the 6th row. A signature and date '7/3/08' are written below the 6th row.*

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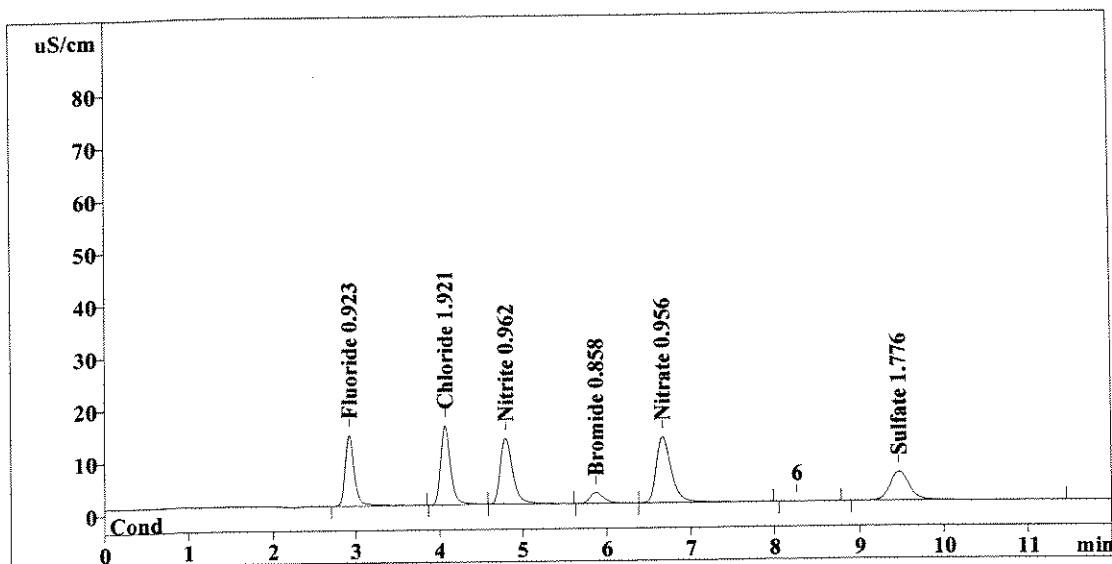
Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14609  
 Report date: 7/3/2008 00:16:27  
 Printed by: User  
 Ident: LCS  
 Analysis from: 7/3/2008 00:04:29  
 File: S7030004.CHW

Method 300.0/9056

Last save: 7/3/2008 00:16:27

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37796  
 SAMPLE:  
 Vial number: 37  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/2/2008 11:30:57



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.92	105.982	0.923	Fluoride
2	4.06	124.127	1.921	Chloride
3	4.79	131.388	0.962	Nitrite
4	5.87	23.586	0.858	Bromide
5	6.67	156.297	0.956	Nitrate
6	9.47	89.144	1.776	Sulfate
<hr/>				
6	12.00	630.525	7.396	

*Handwritten notes:* 'OK' with a downward arrow next to peak 4; 'OUT LOW' next to peak 4; 'OK' next to peak 5; 'OUT LOW' next to peak 6. A signature and date '7/3/08' are written below the table.

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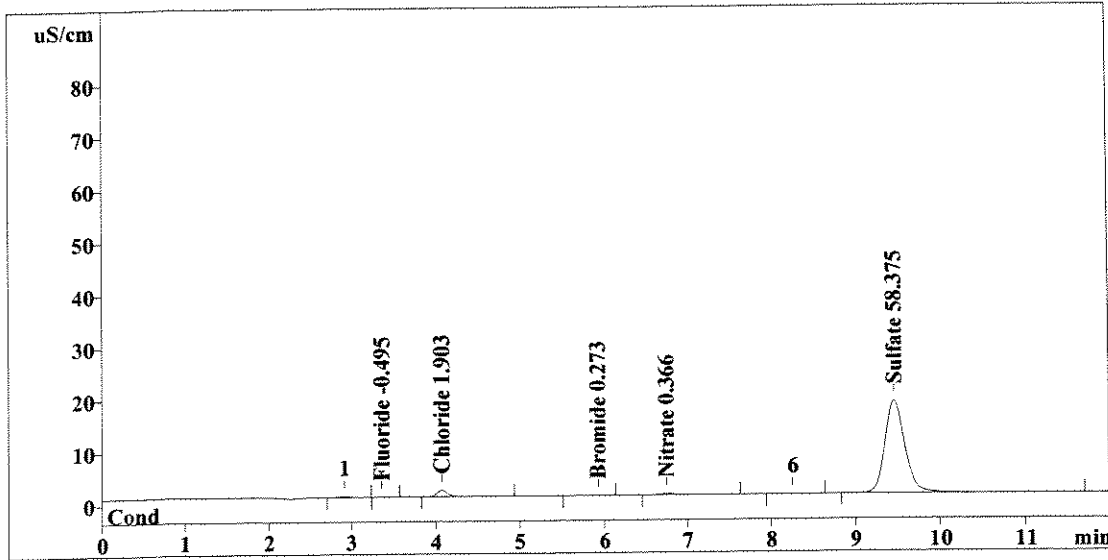
Method 300.0/9056

Report date: 7/3/2008 00:30:33  
 Printed by: User  
 Ident: 1113262  
 Analysis from: 7/3/2008 00:18:35  
 File: S7030018.CHW

Last save: 7/3/2008 00:30:33

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37797  
 SAMPLE: EXTRACTED - S  
 Vial number: 38  
 Volume: 1.0 µL  
 Dilution: 10.00  
 Amount: 1.0000

Last save: 7/2/2008 11:30:57



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.36	0.073	-0.495	Fluoride
2	4.07	10.926	1.903	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.91	0.095	0.273	Bromide
5	6.74	3.361	0.366	Nitrate
6	9.47	290.607	58.375	Sulfate
6	12.00	305.063	61.413	

*M*  
7/3/08

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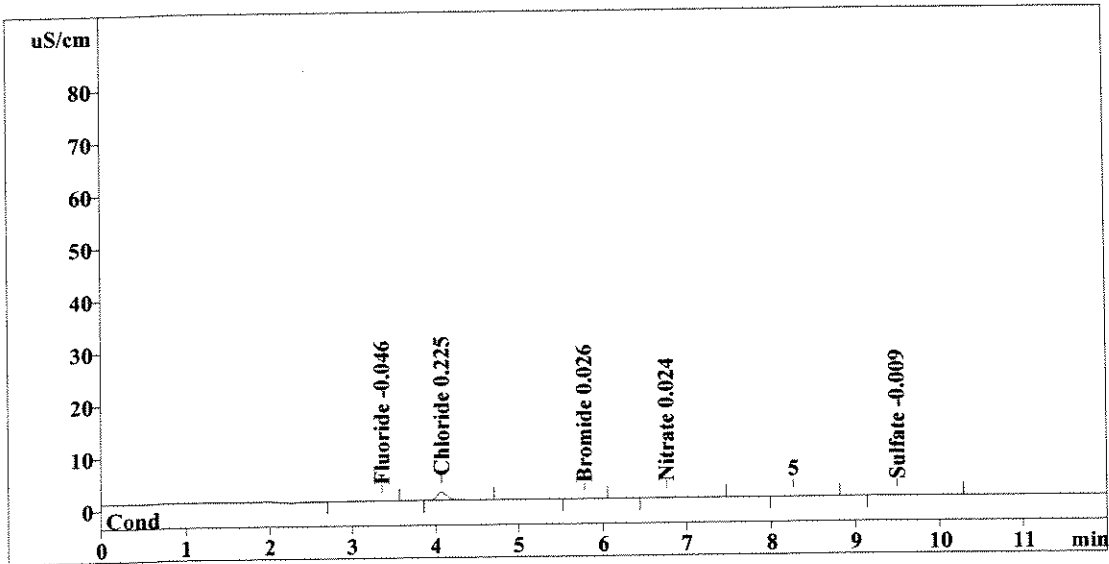
Method 300.0/9056

Report date: 7/3/2008 00:44:39  
 Printed by: User  
 Ident: METHOD BLANK 6/26  
 Analysis from: 7/3/2008 00:32:41  
 File: S7030032.CHW

Last save: 7/3/2008 00:44:39

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37798  
 SAMPLE: EXTRACTED - S  
 Vial number: 39  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/2/2008 11:30:57



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.35	0.417	-0.046	Fluoride
2	4.07	13.197	0.225	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.78	0.060	0.026	Bromide
5	6.76	1.339	0.024	Nitrate
6	9.50	0.634	-0.009	Sulfate
<hr/>				
6	12.00	15.647	0.331	

*Handwritten signature and date: 7/3/08*

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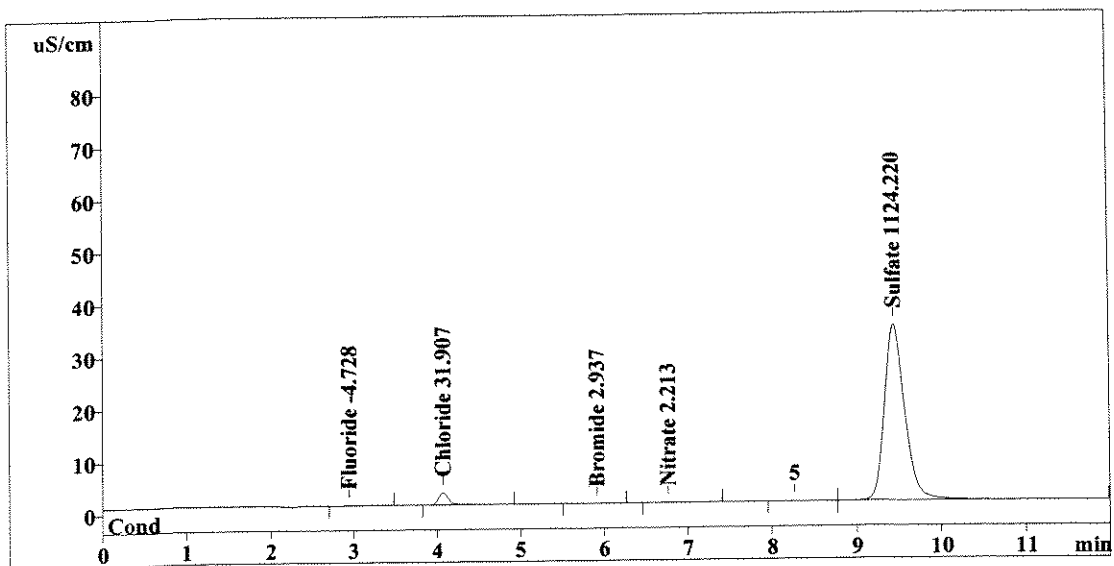
Method 300.0/9056

Report date: 7/3/2008 00:58:45  
 Printed by: User  
 Ident: 1112363  
 Analysis from: 7/3/2008 00:46:46  
 File: S7030046.CHW

Last save: 7/3/2008 00:58:45

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37799  
 SAMPLE: EXTRACTED - S  
 Vial number: 40  
 Volume: 1.0 µL  
 Dilution: 100.00  
 Amount: 1.0000

Last save: 7/2/2008 11:30:57



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.95	0.317	-4.728	Fluoride
2	4.07	19.349	31.907	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.91	0.152	2.937	Bromide
5	6.76	0.951	2.213	Nitrate
6	9.45	558.676	1124.220	Sulfate
<hr/>				
6	12.00	579.445	1166.005	

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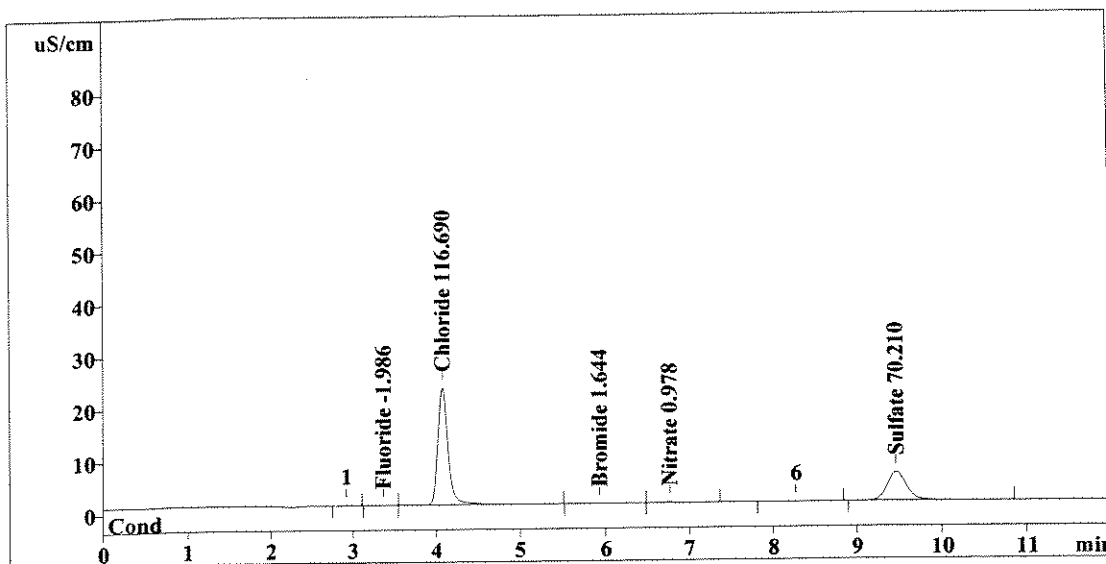
Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14609  
 Report date: 7/3/2008 01:12:50  
 Printed by: User  
 Ident: 1112365  
 Analysis from: 7/3/2008 01:00:52  
 File: S7030100.CHW

Method 300.0/9056

Last save: 7/3/2008 01:12:50

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37800  
 SAMPLE: EXTRACTED - CS  
 Vial number: 41  
 Volume: 1.0 µL  
 Dilution: 40.00  
 Amount: 1.0000

Last save: 7/2/2008 11:30:57



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.36	0.061	-1.986	Fluoride
2	4.07	189.295	116.690	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.93	0.484	1.644	Bromide
5	6.77	1.339	0.978	Nitrate
6	9.47	88.128	70.210	Sulfate
6	12.00	279.307	191.508	

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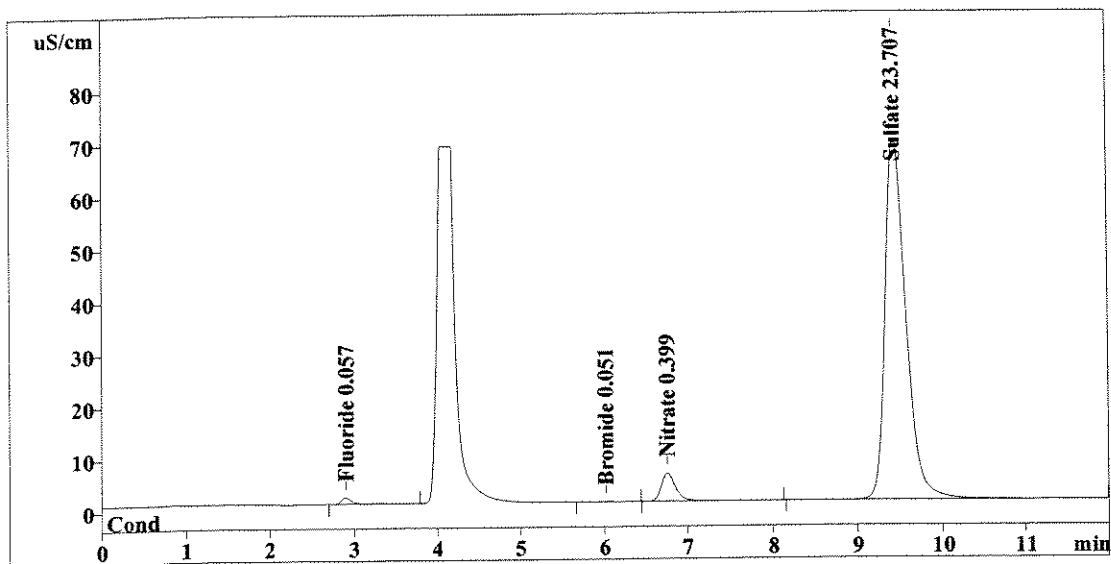
Method 300.0/9056

Report date: 7/3/2008 01:26:56  
 Printed by: User  
 Ident: 1111897  
 Analysis from: 7/3/2008 01:14:58  
 File: S7030114.CHW

Last save: 7/3/2008 01:26:56

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37801  
 SAMPLE: F  
 Vial number: 42  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/2/2008 11:30:57



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.90	11.716	0.057	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.01	0.774	0.051	Bromide
5	6.76	63.604	0.399	Nitrate
6	9.45	1176.936	23.707	Sulfate
6	12.00	1253.030	24.215	

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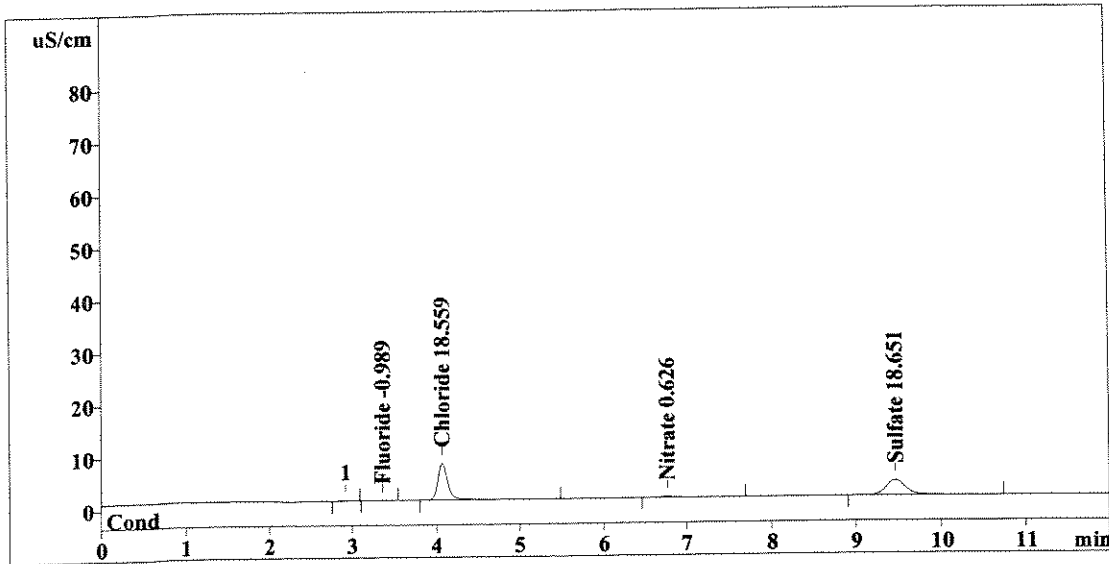
Method 300.0/9056

Report date: 7/3/2008 01:41:02  
 Printed by: User  
 Ident: 1111897  
 Analysis from: 7/3/2008 01:29:03  
 File: S7030129.CHW

Last save: 7/3/2008 01:41:02

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37802  
 SAMPLE: CS  
 Vial number: 43  
 Volume: 1.0 µL  
 Dilution: 20.00  
 Amount: 1.0000

Last save: 7/2/2008 11:30:57



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.36	0.079	-0.989	Fluoride
2	4.07	59.176	18.559	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.77	2.474	0.626	Nitrate
6	9.47	47.323	18.651	Sulfate
<hr/>				
6	12.00	109.052	38.825	

*Handwritten signature and date: 7/3/08*

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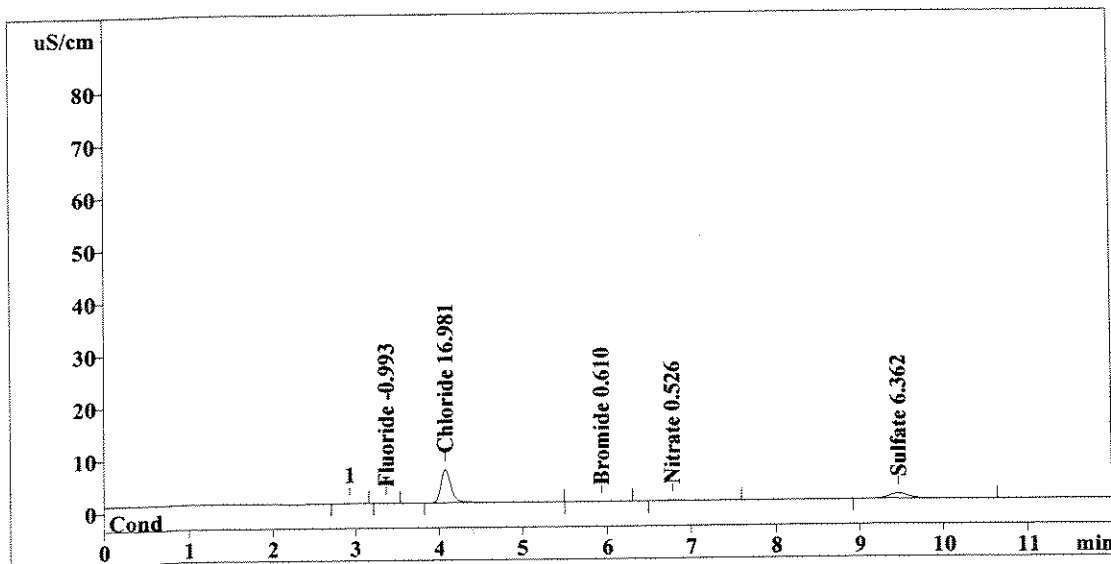
Method 300.0/9056

Report date: 7/3/2008 01:55:07  
 Printed by: User  
 Ident: 1111898  
 Analysis from: 7/3/2008 01:43:09  
 File: S7030143.CHW

Last save: 7/3/2008 01:55:08

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37803  
 SAMPLE: CS  
 Vial number: 44  
 Volume: 1.0 µL  
 Dilution: 20.00  
 Amount: 1.0000

Last save: 7/2/2008 11:30:57



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.36	0.057	-0.993	Fluoride
2	4.07	54.015	16.981	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.93	0.185	0.610	Bromide
5	6.78	1.647	0.526	Nitrate
6	9.47	16.847	6.362	Sulfate
6	12.00	72.751	25.473	

*Handwritten signature and date: 7/3/08*

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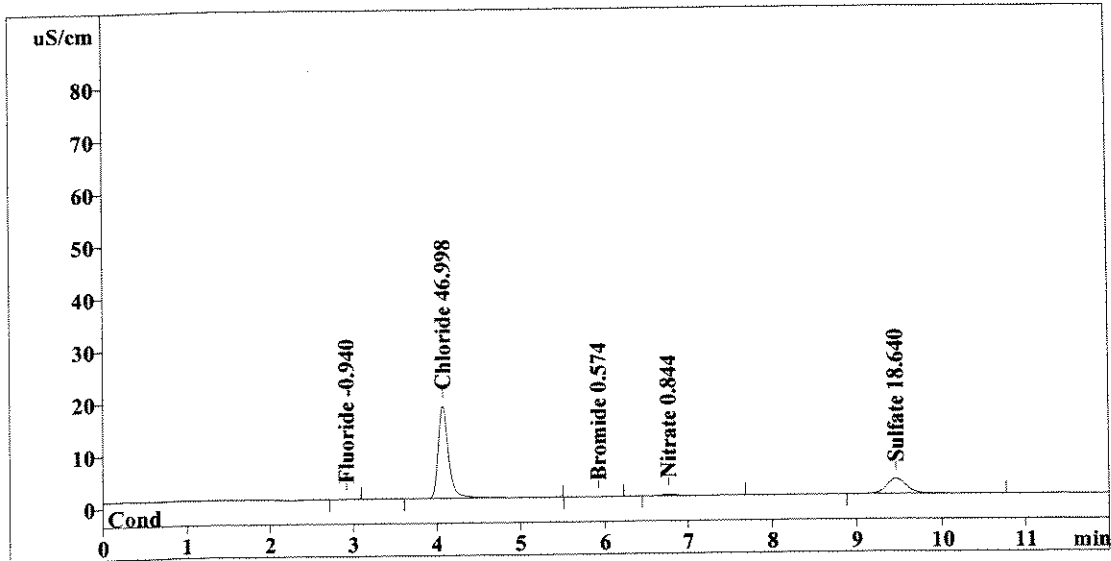
Method 300.0/9056

Report date: 7/3/2008 02:09:13  
 Printed by: User  
 Ident: 1111899  
 Analysis from: 7/3/2008 01:57:15  
 File: S7030157.CHW

Last save: 7/3/2008 02:09:14

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37804  
 SAMPLE: CS  
 Vial number: 45  
 Volume: 1.0 µL  
 Dilution: 20.00  
 Amount: 1.0000

Last save: 7/2/2008 11:30:57



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.91	0.350	-0.940	Fluoride
2	4.07	152.183	46.998	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.93	0.134	0.574	Bromide
5	6.77	4.288	0.844	Nitrate
6	9.47	47.297	18.640	Sulfate
6	12.00	204.251	67.996	

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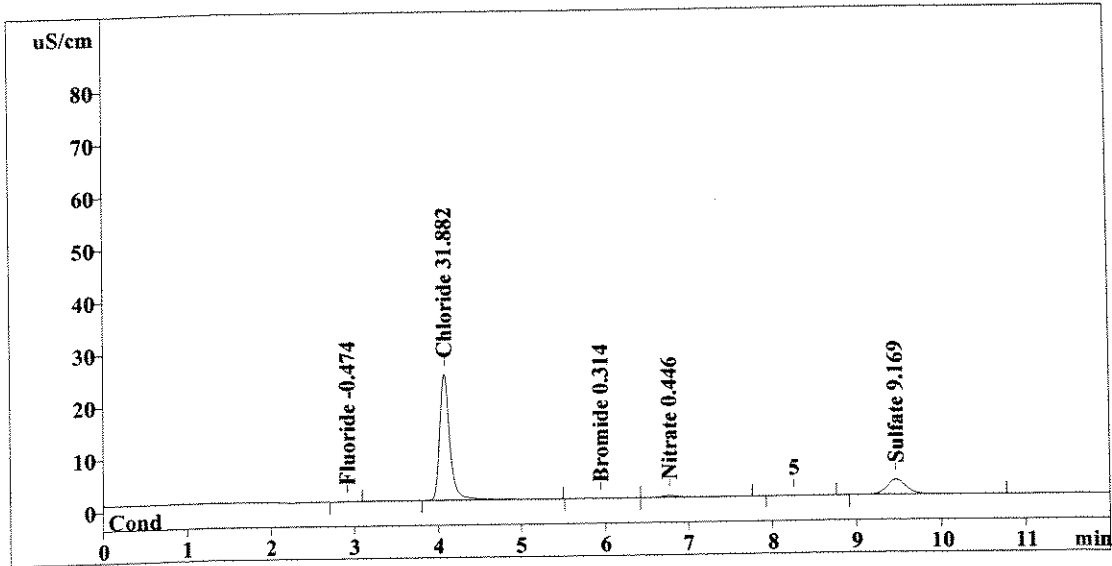
Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14609  
 Report date: 7/3/2008 02:23:19  
 Printed by: User  
 Ident: 1111983  
 Analysis from: 7/3/2008 02:11:21  
 File: S7030211.CHW

Method 300.0/9056

Last save: 7/3/2008 02:23:19

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37805  
 SAMPLE: CS  
 Vial number: 46  
 Volume: 1.0 µL  
 Dilution: 10.00  
 Amount: 1.0000

Last save: 7/2/2008 11:30:57



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.91	0.310	-0.474	Fluoride
2	4.07	207.015	31.882	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.94	0.211	0.314	Bromide
5	6.77	4.683	0.446	Nitrate
6	9.47	46.548	9.169	Sulfate
<hr/>				
6	12.00	258.767	42.284	

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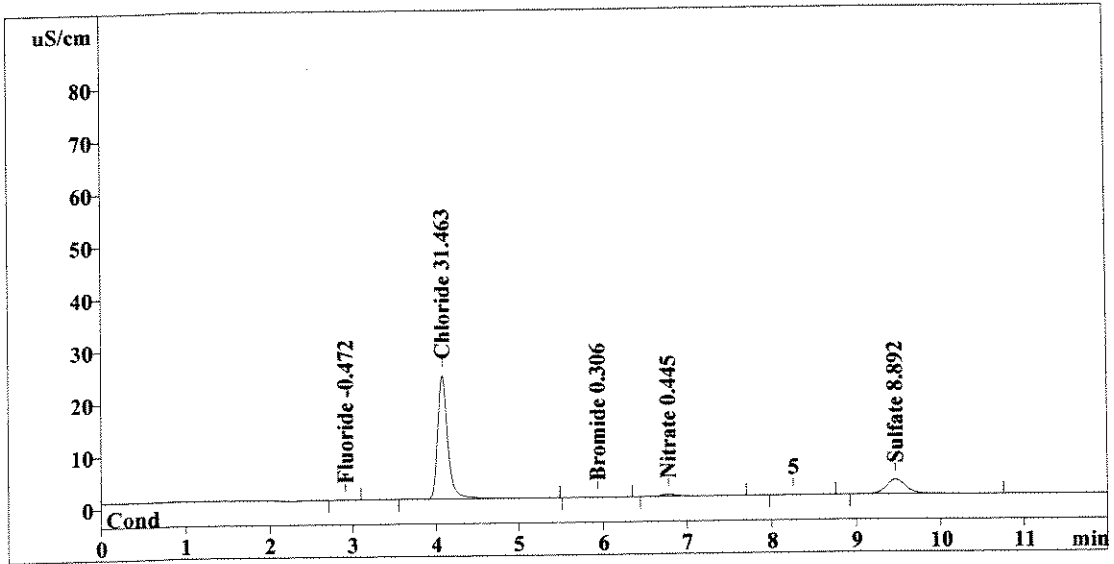
Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14609  
 Report date: 7/3/2008 02:37:25  
 Printed by: User  
 Ident: 1111983 DUP  
 Analysis from: 7/3/2008 02:25:27  
 File: S7030225.CHW

Method 300.0/9056

Last save: 7/3/2008 02:37:25

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37806  
 SAMPLE: CS  
 Vial number: 47  
 Volume: 1.0 µL  
 Dilution: 10.00  
 Amount: 1.0000

Last save: 7/2/2008 11:30:57



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.91	0.324	-0.472	Fluoride
2	4.07	204.277	31.463	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.94	0.187	0.306	Bromide
5	6.77	4.671	0.445	Nitrate
6	9.47	45.175	8.892	Sulfate
6	12.00	254.636	41.579	

*Handwritten notes: 'OK' next to Chloride, and a signature 'W 7/3/07' next to the final row.*

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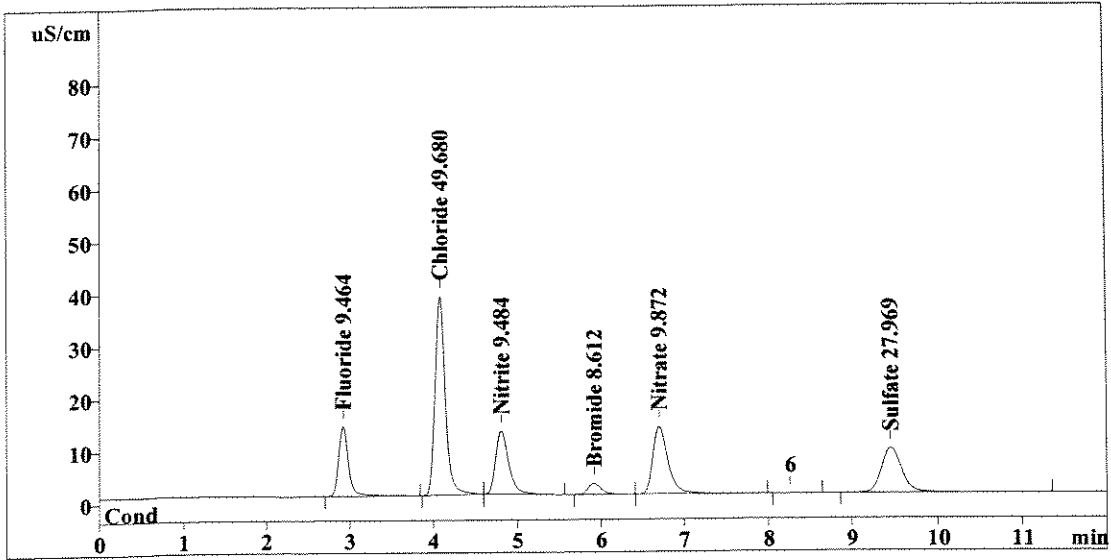
Method 300.0/9056

Report date: 7/3/2008 02:51:31  
 Printed by: User  
 Ident: 1111983 SPK  
 Analysis from: 7/3/2008 02:39:32  
 File: S7030239.CHW

Last save: 7/3/2008 02:51:31

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37807  
 SAMPLE: CS  
 Vial number: 48  
 Volume: 1.0 µL  
 Dilution: 10.00  
 Amount: 1.0000

Last save: 7/2/2008 11:30:57



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.91	108.510	9.464	Fluoride
2	4.07	323.436	49.680	Chloride
3	4.80	129.586	9.484	Nitrite
4	5.91	23.670	8.612	Bromide
5	6.70	161.463	9.872	Nitrate
6	9.46	139.797	27.969	Sulfate
6	12.00	886.461	115.082	

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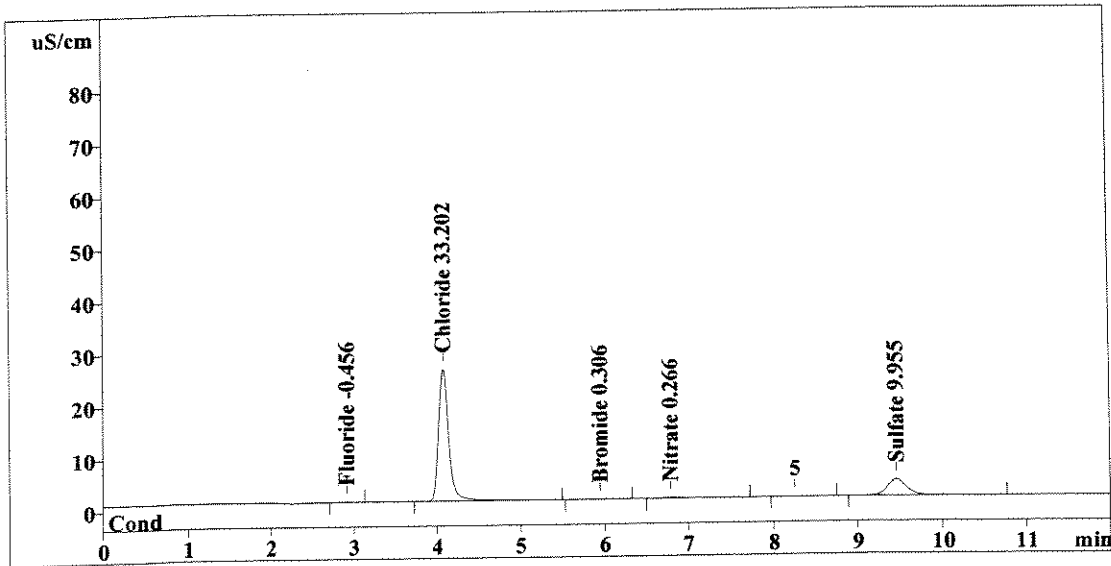
Method 300.0/9056

Report date: 7/3/2008 03:05:36  
 Printed by: User  
 Ident: 1111984  
 Analysis from: 7/3/2008 02:53:38  
 File: S7030253.CHW

Last save: 7/3/2008 03:05:37

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37808  
 SAMPLE: CS  
 Vial number: 49  
 Volume: 1.0 µL  
 Dilution: 10.00  
 Amount: 1.0000

Last save: 7/2/2008 11:30:57



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.91	0.499	-0.456	Fluoride
2	4.07	215.651	33.202	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.95	0.186	0.306	Bromide
5	6.79	1.691	0.266	Nitrate
6	9.46	50.445	9.955	Sulfate
<hr/>				
6	12.00	268.473	44.185	

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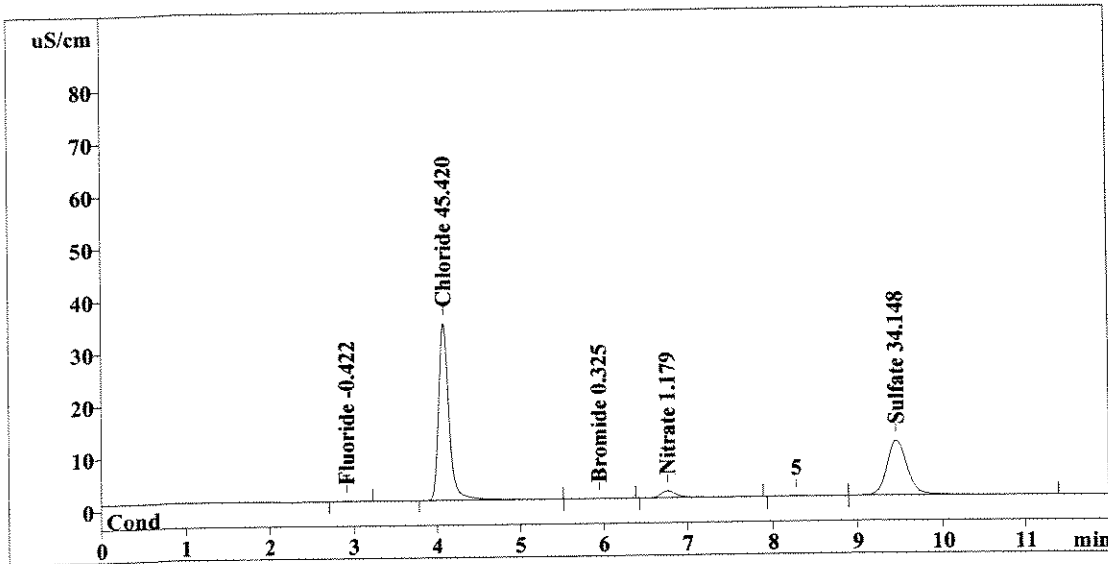
Method 300.0/9056

Report date: 7/3/2008 03:19:42  
 Printed by: User  
 Ident: 1111985  
 Analysis from: 7/3/2008 03:07:44  
 File: S7030307.CHW

Last save: 7/3/2008 03:19:43

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37809  
 SAMPLE: CS  
 Vial number: 50  
 Volume: 1.0 µL  
 Dilution: 10.00  
 Amount: 1.0000

Last save: 7/2/2008 11:30:57



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.91	0.870	-0.422	Fluoride
2	4.07	295.571	45.420	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.95	0.239	0.325	Bromide
5	6.77	16.877	1.179	Nitrate
6	9.46	170.443	34.148	Sulfate
<hr/>				
6	12.00	484.000	81.494	

*Handwritten notes: 'OK' next to Chloride, 'OK' next to Sulfate, and a signature '7/3/08' below the table.*

This report has been created by IC Net  
 METROHM LTD

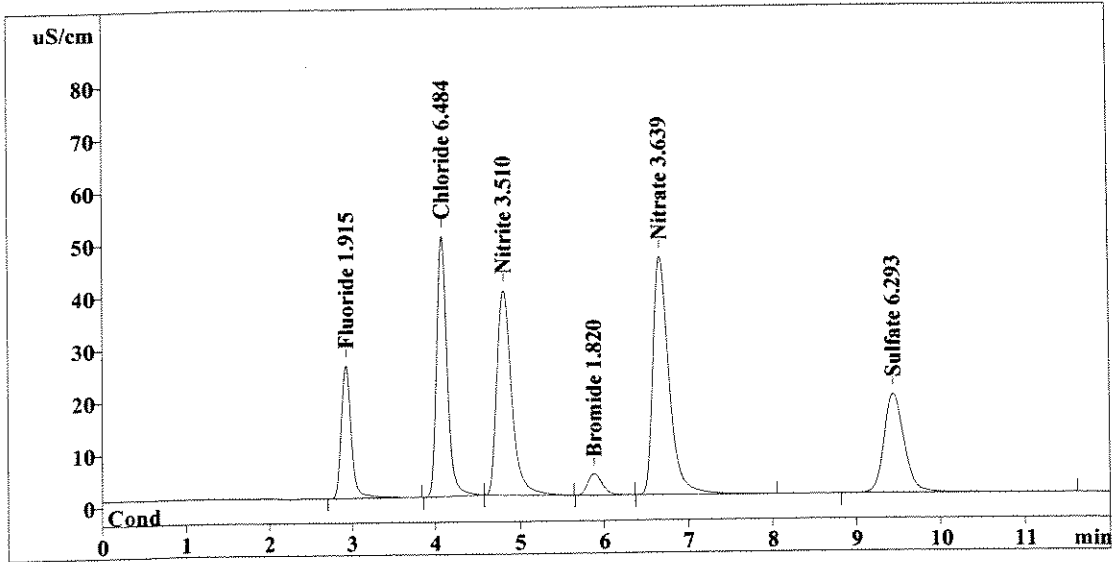
Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14609  
 Report date: 7/3/2008 03:33:48  
 Printed by: User  
 Ident: CCV  
 Analysis from: 7/3/2008 03:21:50  
 File: S7030321.CHW

Method 300.0/9056

Last save: 7/3/2008 03:33:49

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37810  
 SAMPLE:  
 Vial number: 51  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/2/2008 11:30:57



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.92	213.959	1.915	Fluoride
2	4.07	422.561	6.484	Chloride
3	4.80	477.644	3.510	Nitrite
4	5.88	50.788	1.820	Bromide
5	6.66	602.572	3.639	Nitrate
6	9.44	313.184	6.293	Sulfate
<hr/>				
6	12.00	2080.709	23.661	

*Handwritten notes: 'OK' with an arrow pointing to the area column, and '7/3/08' with a signature.*

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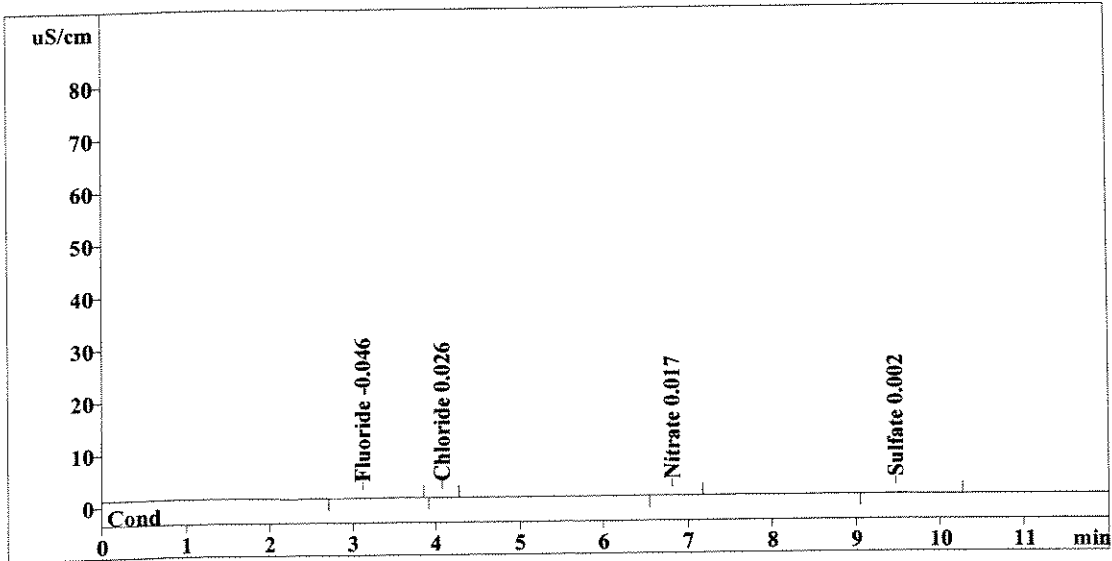
Method 300.0/9056

Report date: 7/3/2008 03:47:54  
 Printed by: User  
 Ident: CCB  
 Analysis from: 7/3/2008 03:35:56  
 File: S7030335.CHW

Last save: 7/3/2008 03:47:54

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37811  
 SAMPLE:  
 Vial number: 52  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/2/2008 11:30:57



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.12	0.494	-0.046	Fluoride
2	4.07	0.181	0.026	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.81	0.106	0.017	Nitrate
6	9.47	1.160	0.002	Sulfate
<hr/>				
6	12.00	1.941	0.091	

*Handwritten notes:* An arrow points from the 'Area' column to the 'Conc.' column. A signature and date '7/3/08' are written below the final row.

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 Columbia Analytical Services  
 Rochester, NY 14609

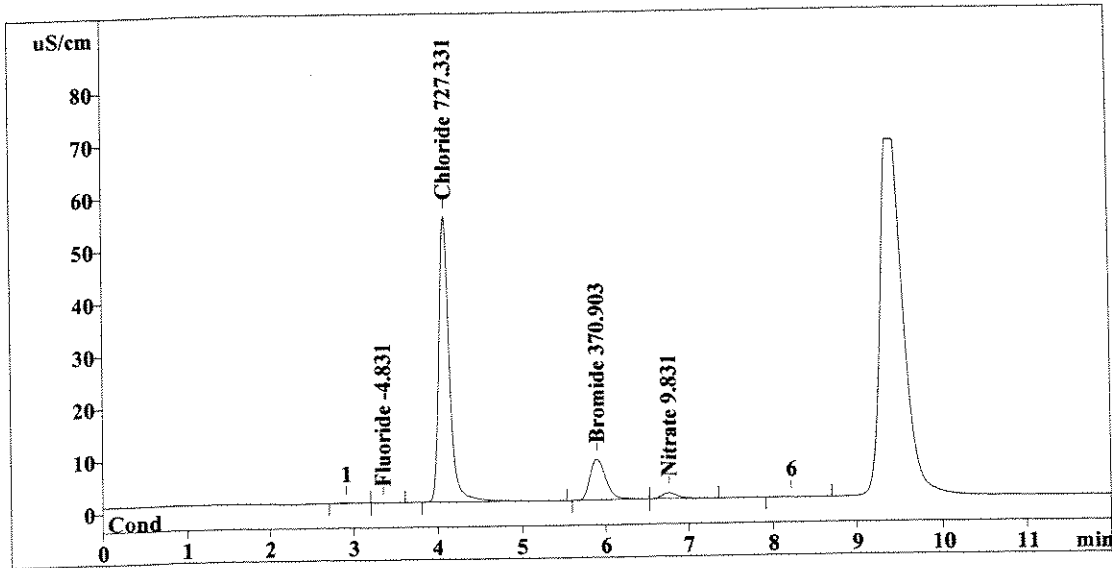
Method 300.0/9056

Report date: 7/3/2008 04:02:00  
 Printed by: User  
 Ident: 1112871  
 Analysis from: 7/3/2008 03:50:02  
 File: S7030350.CHW

Last save: 7/3/2008 04:02:00

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37812  
 SAMPLE: CS  
 Vial number: 53  
 Volume: 1.0 µL  
 Dilution: 100.00  
 Amount: 1.0000

Last save: 7/2/2008 11:30:57



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.34	0.205	-4.831	Fluoride
2	4.08	474.223	727.331	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.89	104.183	370.903	Bromide
5	6.77	13.622	9.831	Nitrate
6	0.00	0.000	0.000	Sulfate
6	12.00	592.233	1112.897	

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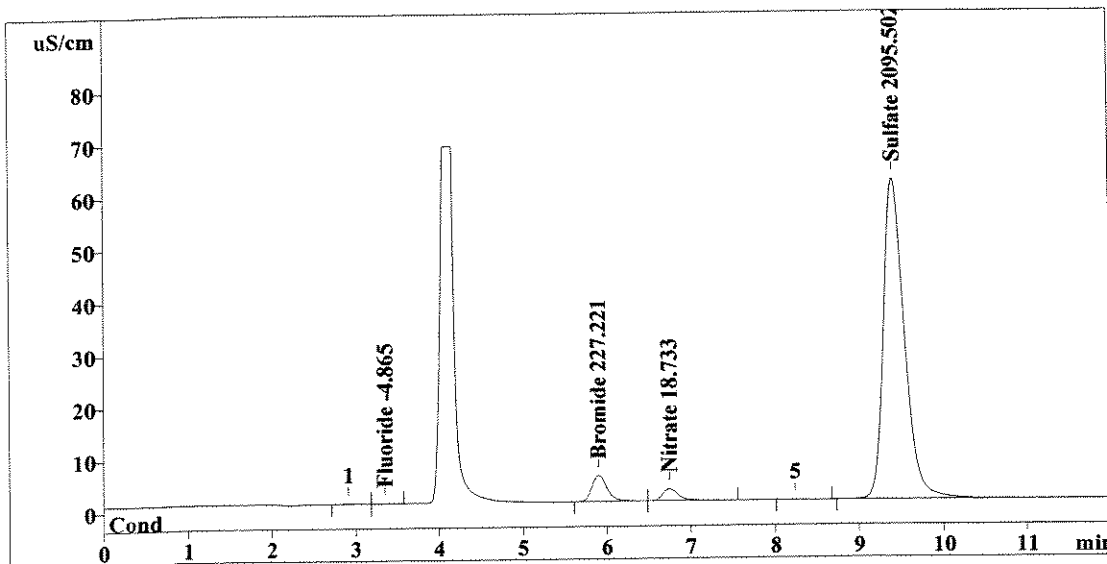
Method 300.0/9056

Report date: 7/3/2008 04:16:06  
 Printed by: User  
 Ident: 1112872  
 Analysis from: 7/3/2008 04:04:08  
 File: S7030404.CHW

Last save: 7/3/2008 04:16:06

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37813  
 SAMPLE: CS  
 Vial number: 54  
 Volume: 1.0 µL  
 Dilution: 100.00  
 Amount: 1.0000

Last save: 7/2/2008 11:30:57



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.34	0.169	-4.865	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.90	63.561	227.221	Bromide
5	6.75	28.429	18.733	Nitrate
6	9.42	1040.425	2095.502	Sulfate
<hr/>				
6	12.00	1132.584	2346.321	

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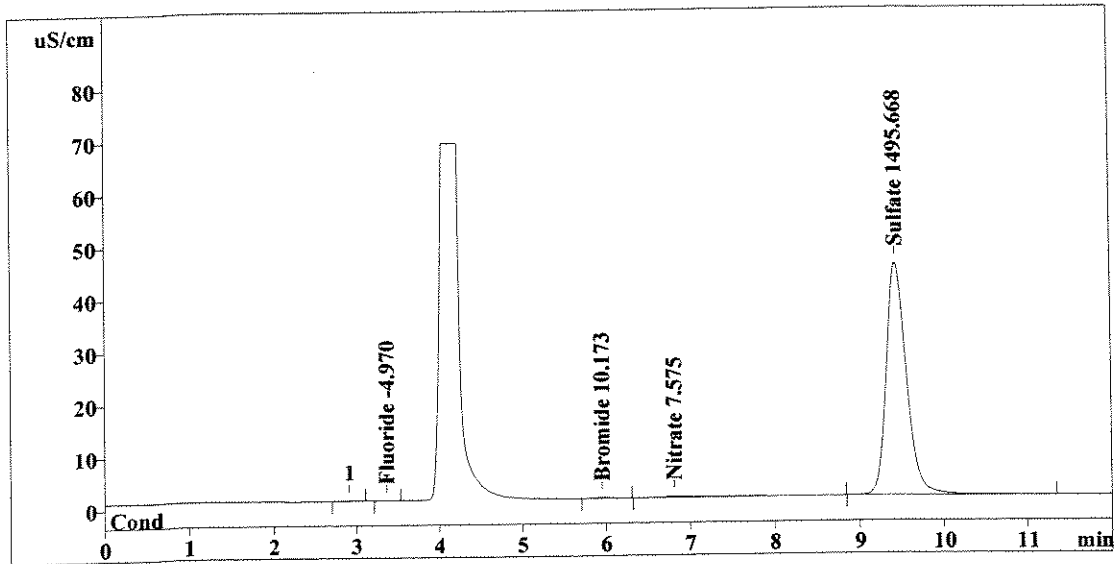
Method 300.0/9056

Report date: 7/3/2008 04:30:11  
 Printed by: User  
 Ident: 1112874  
 Analysis from: 7/3/2008 04:18:13  
 File: S7030418.CHW

Last save: 7/3/2008 04:30:12

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37814  
 SAMPLE: CS  
 Vial number: 55  
 Volume: 1.0 µL  
 Dilution: 100.00  
 Amount: 1.0000

Last save: 7/2/2008 11:30:57



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.36	0.054	-4.970	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.95	2.198	10.173	Bromide
5	6.81	9.870	7.575	Nitrate
6	9.43	742.911	1495.668	Sulfate
<hr/>				
6	12.00	755.034	1518.386	

*Handwritten notes: 1/1000 next to row 2; 1000 next to row 4; 1000 next to row 5; 7/2/08 next to row 6.*

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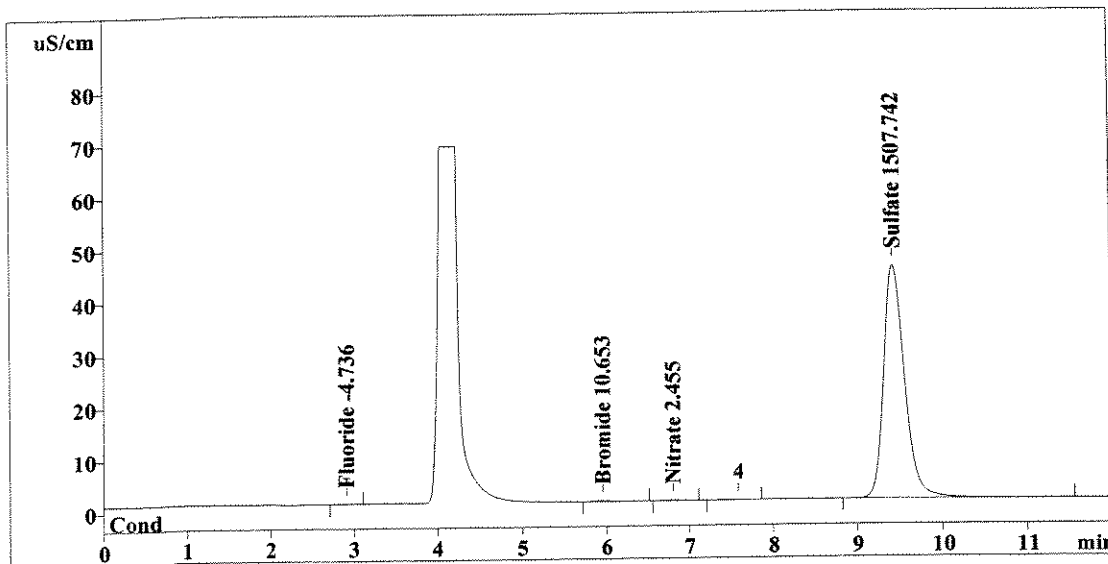
Method 300.0/9056

Report date: 7/3/2008 04:44:17  
 Printed by: User  
 Ident: 1112874 DUP  
 Analysis from: 7/3/2008 04:32:19  
 File: S7030432.CHW

Last save: 7/3/2008 04:44:18

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37815  
 SAMPLE: CS  
 Vial number: 56  
 Volume: 1.0 µL  
 Dilution: 100.00  
 Amount: 1.0000

Last save: 7/2/2008 11:30:57



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.91	0.309	-4.736	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.96	2.334	10.653	Bromide
5	6.80	1.354	2.455	Nitrate
6	9.44	748.900	1507.742	Sulfate
6	12.00	752.896	1525.586	

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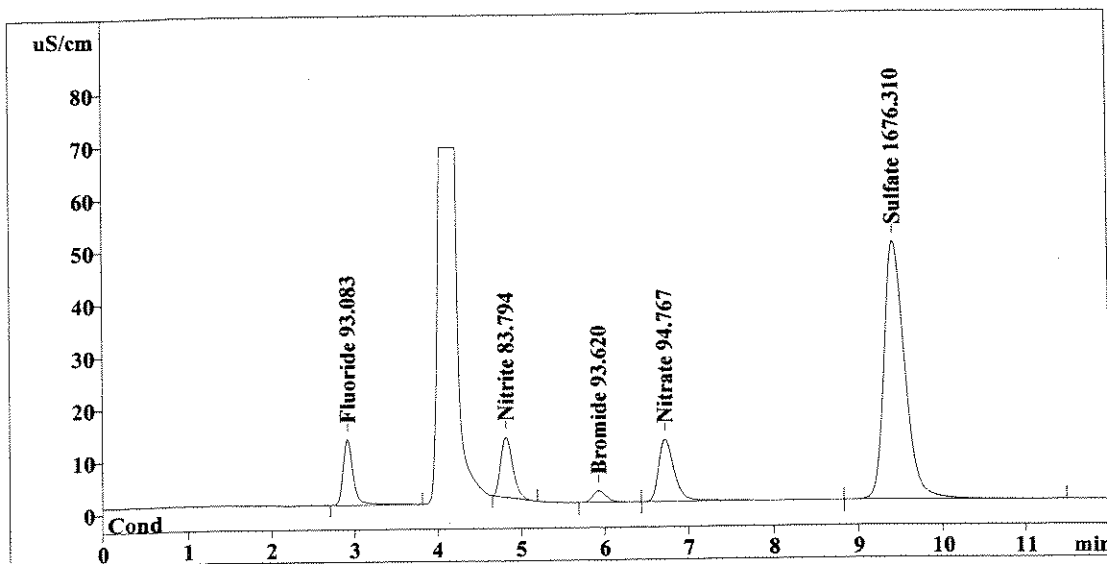
Method 300.0/9056

Report date: 7/3/2008 04:58:23  
 Printed by: User  
 Ident: 1112874 SPK  
 Analysis from: 7/3/2008 04:46:25  
 File: S7030446.CHW

Last save: 7/3/2008 04:58:24

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37816  
 SAMPLE: CS  
 Vial number: 57  
 Volume: 1.0 µL  
 Dilution: 100.00  
 Amount: 1.0000

Last save: 7/2/2008 11:30:57



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.91	106.818	93.083	Fluoride
2	0.00	0.000	0.000	Chloride
3	4.82	114.576	83.794	Nitrite
4	5.93	25.790	93.620	Bromide
5	6.73	154.890	94.767	Nitrate
6	9.43	832.509	1676.310	Sulfate
6	12.00	1234.583	2041.574	

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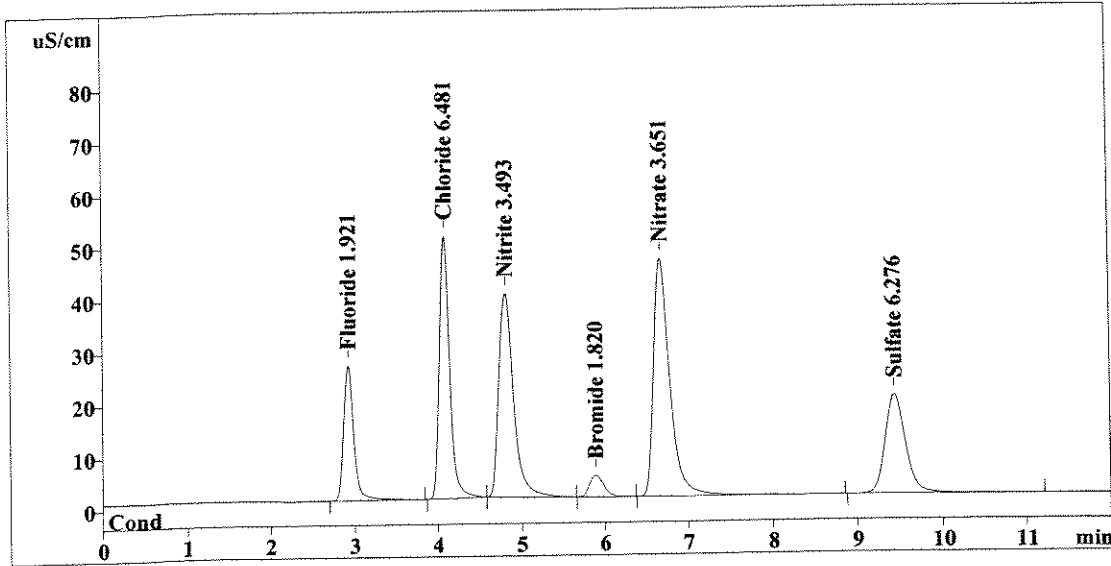
Method 300.0/9056

Report date: 7/3/2008 05:12:29  
 Printed by: User  
 Ident: CCV  
 Analysis from: 7/3/2008 05:00:31  
 File: S7030500.CHW

Last save: 7/3/2008 05:12:30

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37817  
 SAMPLE:  
 Vial number: 58  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/2/2008 11:30:57



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.92	214.630	1.921	Fluoride
2	4.07	422.425	6.481	Chloride
3	4.80	475.386	3.493	Nitrite
4	5.89	50.773	1.820	Bromide
5	6.68	604.465	3.651	Nitrate
6	9.44	312.346	6.276	Sulfate
<hr/>				
6	12.00	2080.024	23.642	

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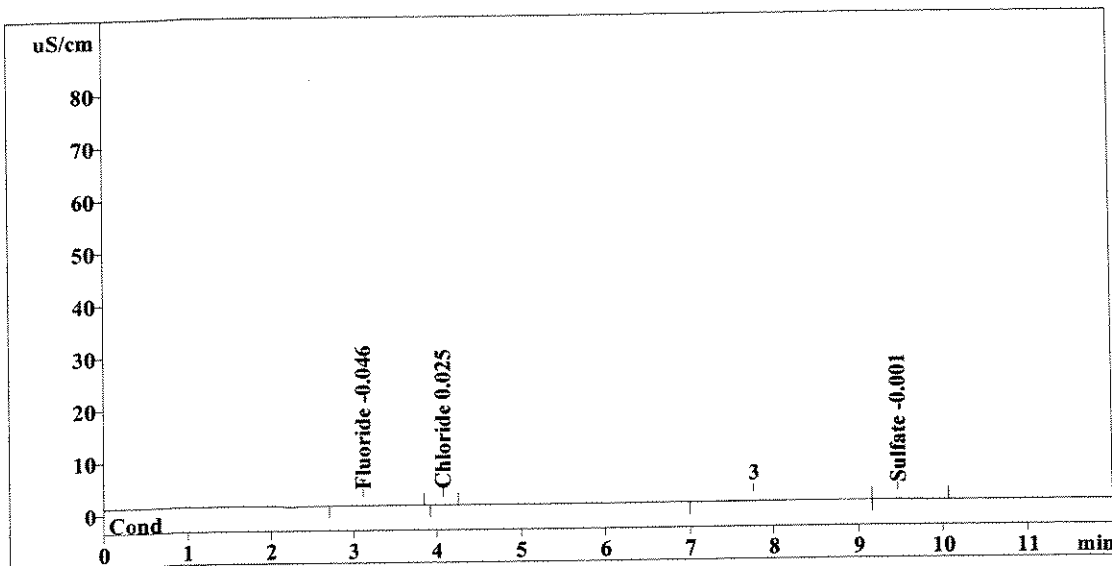
Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14609  
 Report date: 7/3/2008 05:26:35  
 Printed by: User  
 Ident: CCB  
 Analysis from: 7/3/2008 05:14:37  
 File: S7030514.CHW

Method 300.0/9056

Last save: 7/3/2008 05:26:35

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 37818  
 SAMPLE:  
 Vial number: 59  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/2/2008 11:30:57



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.13	0.475	-0.046	Fluoride
2	4.07	0.113	0.025	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	0.00	0.000	0.000	Nitrate
6	9.47	1.043	-0.001	Sulfate
6	12.00	1.631	0.071	

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**Ion Chromatography Cover Sheet**

Instrument: Metrohm IC 861  
 Column: Metrosep A Supp 5, 4mm, 12/31/2007

Curve Date: 06/10/2008 Loop size: 50 uL Loop

Analyst: 77 C. Woods Analysis Date: 7-2-08

Is copy of LCS attached to run? 7/10/08 YES / NO

**Standards Prep Dates & Log ID's:**

<i>Std Type</i>	<i>Prep Date</i>	<i>Log ID</i>		<i>Std Type</i>	<i>Prep Date</i>	<i>Log ID</i>
Calibration Intermediate	06/10/08	WC72050A		Working Calibration Stds	06/10/08	WC72050H
LCS / MS Intermediate	06/10/08	WC72050A		Working LCS/MS Standard	06/26/08	WC72093D
ICV Intermediate	05/05/08	WC72134B		Working ICV Standard	DAILY	WC72134H
CCV Intermediate	05/05/08	WC72134B		Working CCV Standard	DAILY	WC72134H

**Comments:**

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**CALIBRATION EXPIRES ON 12/10/2008**

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**CHORIDE LINEAR RANGE ONLY GOES UP TO 8.0 PPM**

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**WORKING LCS PREP**

(Stocks delivered using Volumetric glassware and brought to volume with DI. LCS expires after 7 days.)

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

Analyte	Calibration Intermediate Stock ID	Intermediate Stock Conc (mg/L)	mLs Intermediate Stock	Final Vol. mLs	Final Conc. (mg/L)	Analyst	Date Prepped	Lot ID	Exp. Date	Final Log ID
F	WC720030A	50	2.0	100	1.0	TC	6/10/08	A	6/17/08	WC720093A
Cl		100			2.0	TC	6/16/08	B	6/23/08	WC720093B
NO2		50			1.0	TC	6/23/08	C	6/30/08	WC720093C
Br		50			1.0	TC	6/26/08	D	7/3/08	WC720093D
NO3		50			1.0	CMW	7/3/08	E	7/6/08	WC720093E
OPO4		50			1.0			F		
SO4		100			2.0			G		
								H		
								I		
								J		
								K		
								L		
								M		
								N		
								O		
								P		
								Q		
								R		

Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14609

Method 300.0/9056

Report date: 6/10/2008 15:04:34  
Printed by: User  
Ident: LCS  
Analysis from: 6/10/2008 14:20:35  
File: s6101420.chw  
Modified!  
Method: 06-10-08CAL.mtw  
Run operator: User  
Analysis number: 36794  
SAMPLE:  
Vial number: 12  
Volume: 1.0 µL  
Dilution: 1.00  
Amount: 1.0000

Last save: 6/10/2008 14:32:48

Last save: 6/10/2008 13:48:56

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
Size: 4.0 x 100 mm  
Number: 7503293  
Part.size: 5.0 µm

ELUENT: 3.2 mM Na<sub>2</sub>CO<sub>3</sub> / 1.0 mM NaHCO<sub>3</sub>

Flow: 0.70 mL/min  
Temperature: 20.0°C  
Pressure: 5.0 MPa

ACQUISITION PARAMETERS

Channels: 1  
Method duration: 12.00min  
Run duration: 12.00min  
Measurements (method): 7200  
Measurements (run): 7200  
Freq.divisor: 1  
Sampling: 10.00 pts/sec  
Start delay: sec  
Device: 732 IC Detector

Program before:  
Program after:  
Spikes filter: No  
Median filter: No  
slit: 0  
Gauss filter: No  
slit: 0

INTEGRATION DEFAULTS

Channel: Cond  
Delay: 2.70 min  
Width: 2.00 sec  
Broadening: 2.00  
Slope: 1.00  
Asymmetry: 1.00  
MinArea: 0.05  
MinHeight: 0.00  
Rider ratio: 0.00  
No. min  
1 0.00 Enable valley-to-valley

This report has been created by IC Net  
METROHM LTD

ACQUISITION PARAMETERS

Channels: 1  
Method duration: 12.00min  
Run duration: 12.00min  
Measurements (method): 7200  
Measurements (run): 7200  
Freq.divisor: 1  
Sampling: 10.00 pts/sec  
Start delay: sec  
Device: 732 IC Detector  
Program before:  
Program after:  
Spikes filter: No  
Median filter: No  
slit: 0  
Gauss filter: No  
slit: 0

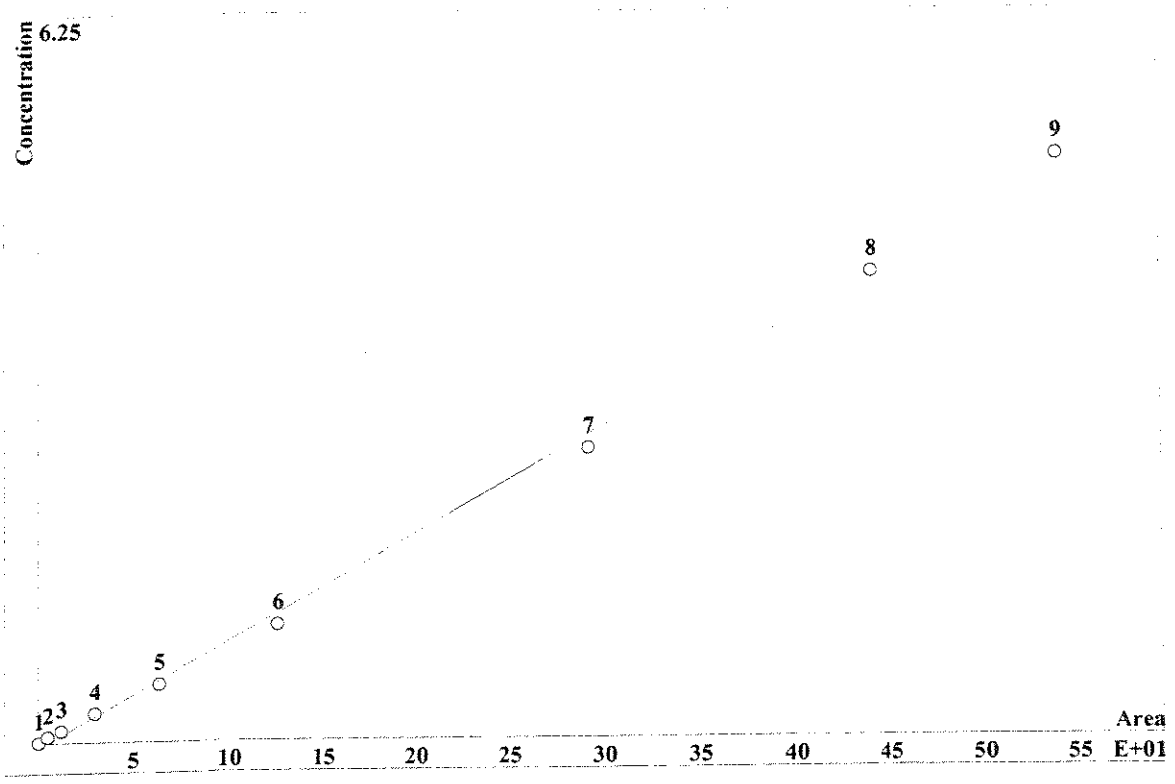
INTEGRATION DEFAULTS

Channel: Cond  
Delay: 2.70 min  
Width: 2.00 sec  
Broadening: 2.00  
Slope: 1.00  
Asymmetry: 1.00  
MinArea: 0.05  
MinHeight: 0.00  
Rider ratio: 0.00  
No. min  
1 0.00 Enable valley-to-valley

This report has been created by IC Net  
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CALIBRATION OF COMPONENT Fluoride

Method: 06-10-08CAL.mtw  
 Equation:  $Q = 0.00918405 \cdot A - 0.0501966$   
 RSD: 5.110 %  
 Correlation coefficient: 0.999292



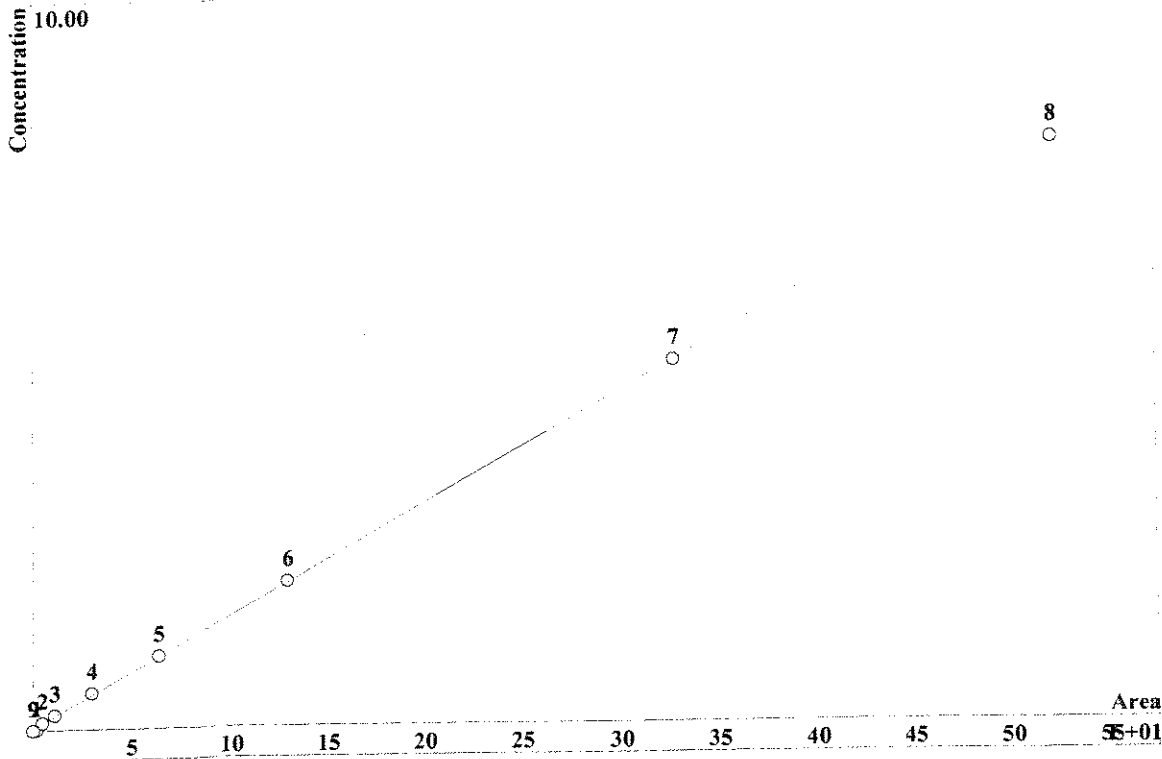
K3 = 0      K2 = 0      K1 = 0.00918405      K0 = -0.0501966  
 Base: Area  
 Ref.channel: Cond  
 ISTD:  
 Formula: Linear  
 Weight: 1

Level	Height	Area	Conc.	Vol/Dil	Retention	Used	File
1	0.01064	0.174	1e-05	1	3.202	Yes	s6101036.chw
2	0.6064	5.055	0.05	1	3.202	Yes	s6101050.chw
3	1.325	12.3	0.1	1	3.202	Yes	s6101104.chw
4	3.552	30.14	0.25	1	3.202	Yes	s6101118.chw
5	7.406	63.57	0.5	1	3.202	Yes	s6101132.chw
6	14.68	124.9	1	1	3.202	Yes	s6101146.chw
7	33.36	291.1	2.5	1	3.202	Yes	s6101201.chw
8	47.69	440.7	4	1	3.202	Yes	s6101215.chw
9	56.19	540.3	5	1	3.202	Yes	s6101229.chw



CALIBRATION OF COMPONENT Chloride

Method: 06-10-08CAL.mtw  
 Equation:  $Q = 0.0152883 \cdot A + 0.0232615$   
 RSD: 1.182 %  
 Correlation coefficient: 0.999969

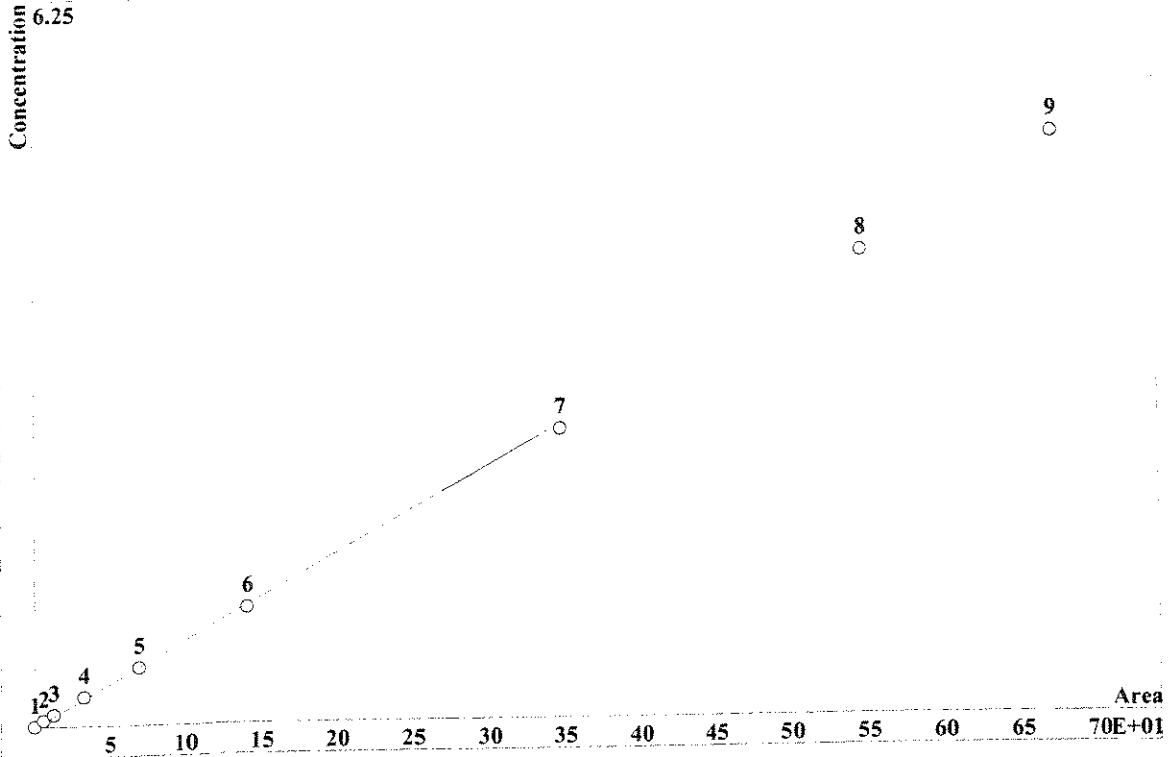


K3 = 0      K2 = 0      K1 = 0.0152883      K0 = 0.0232615  
 Base: Area  
 Ref.channel: Cond  
 ISTD:  
 Formula: Linear  
 Weight: 1

Level	Height	Area	Conc.	Vol/Dil	Retention	Used	File
1	0.06833	1.807	1e-05	1	4.04	Yes	s6101036.chw
2	0.562	4.825	0.1	1	4.04	Yes	s6101050.chw
3	1.283	10.98	0.2	1	4.04	Yes	s6101104.chw
4	3.542	29.63	0.5	1	4.04	Yes	s6101118.chw
5	7.545	63.41	1	1	4.04	Yes	s6101132.chw
6	15.19	128.1	2	1	4.04	Yes	s6101146.chw
7	38.71	326.1	5	1	4.04	Yes	s6101201.chw
8	61.12	521.8	8	1	4.04	Yes	s6101215.chw
9	0	0	10	0	0	No	s6101229.chw

CALIBRATION OF COMPONENT Nitrite

Method: 06-10-08CAL.mtw  
 Equation:  $Q = 0.00735996 \cdot A - 0.00533613$   
 RSD: 1.988 %  
 Correlation coefficient: 0.999893

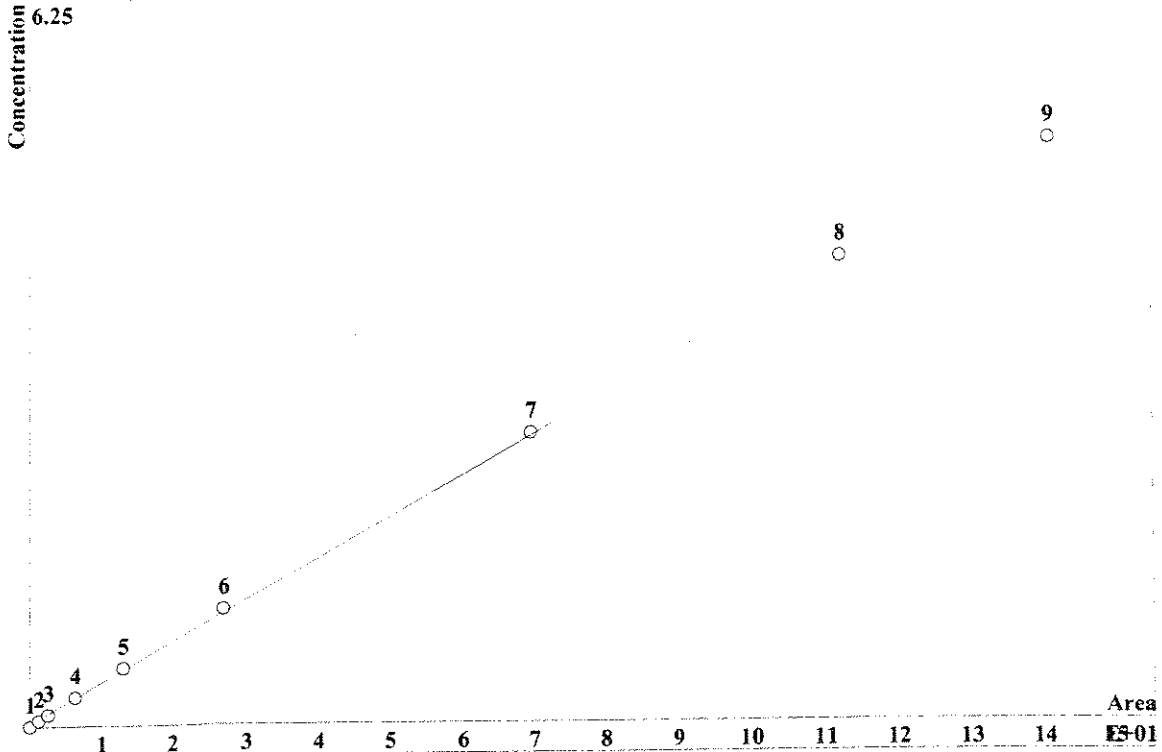


K3 = 0      K2 = 0      K1 = 0.00735996      K0 = -0.00533613  
 Base: Area  
 Ref.channel: Cond  
 ISTD:  
 Formula: Linear  
 Weight: 1

Level	Height	Area	Conc.	Vol/Dil	Retention	Used	File
1	-3.034e-05	-0.000164	1e-05	1	4.572	Yes	s6101036.chw
2	0.5537	5.677	0.05	1	4.572	Yes	s6101050.chw
3	1.153	12.43	0.1	1	4.572	Yes	s6101104.chw
4	3.042	32.38	0.25	1	4.572	Yes	s6101118.chw
5	6.338	69.12	0.5	1	4.572	Yes	s6101132.chw
6	12.32	139.8	1	1	4.572	Yes	s6101146.chw
7	28.05	346.7	2.5	1	4.572	Yes	s6101201.chw
8	41.9	547.4	4	1	4.572	Yes	s6101215.chw
9	50	673.7	5	1	4.572	Yes	s6101229.chw

CALIBRATION OF COMPONENT Bromide

Method: 06-10-08CAL.mtw  
 Equation:  $Q = 0.0353707 \cdot A + 0.0239902$   
 RSD: 1.470 %  
 Correlation coefficient: 0.999941

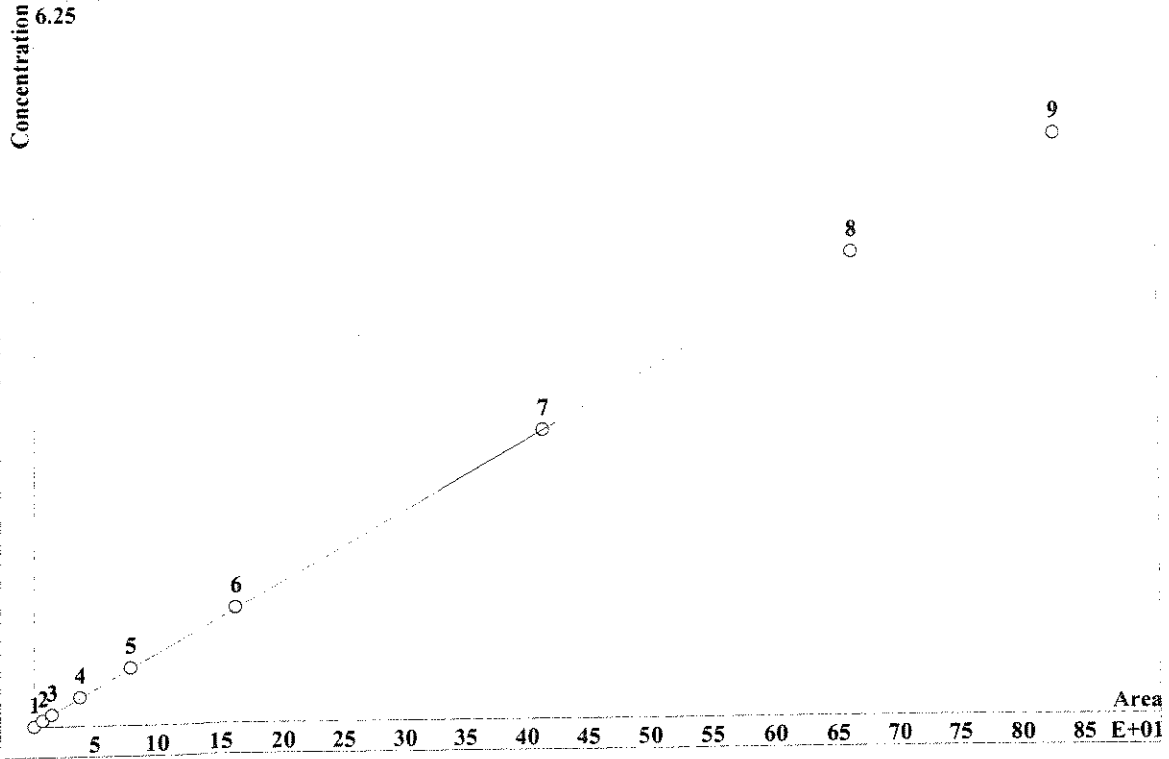


K3 = 0      K2 = 0      K1 = 0.0353707      K0 = 0.0239902  
 Base: Area  
 Ref.channel: Cond  
 ISTD:  
 Formula: Linear  
 Weight: 1

Level	Height	Area	Conc.	Vol/Dil	Retention	Used	File
1	0.0001788	0.000207	1e-05	1	6.08	Yes	s6101036.chw
2	0.109	1.243	0.05	1	6.08	Yes	s6101050.chw
3	0.2246	2.531	0.1	1	6.08	Yes	s6101104.chw
4	0.5797	6.312	0.25	1	6.08	Yes	s6101118.chw
5	1.218	13.03	0.5	1	6.08	Yes	s6101132.chw
6	2.543	26.68	1	1	6.08	Yes	s6101146.chw
7	6.724	69.34	2.5	1	6.08	Yes	s6101201.chw
8	10.77	112.3	4	1	6.08	Yes	s6101215.chw
9	13.38	141.3	5	1	6.08	Yes	s6101229.chw

CALIBRATION OF COMPONENT Nitrate

Method: 06-10-08CAL.mtw  
 Equation:  $Q = 0.00601237 \cdot A + 0.0164087$   
 RSD: 0.705 %  
 Correlation coefficient: 0.999987

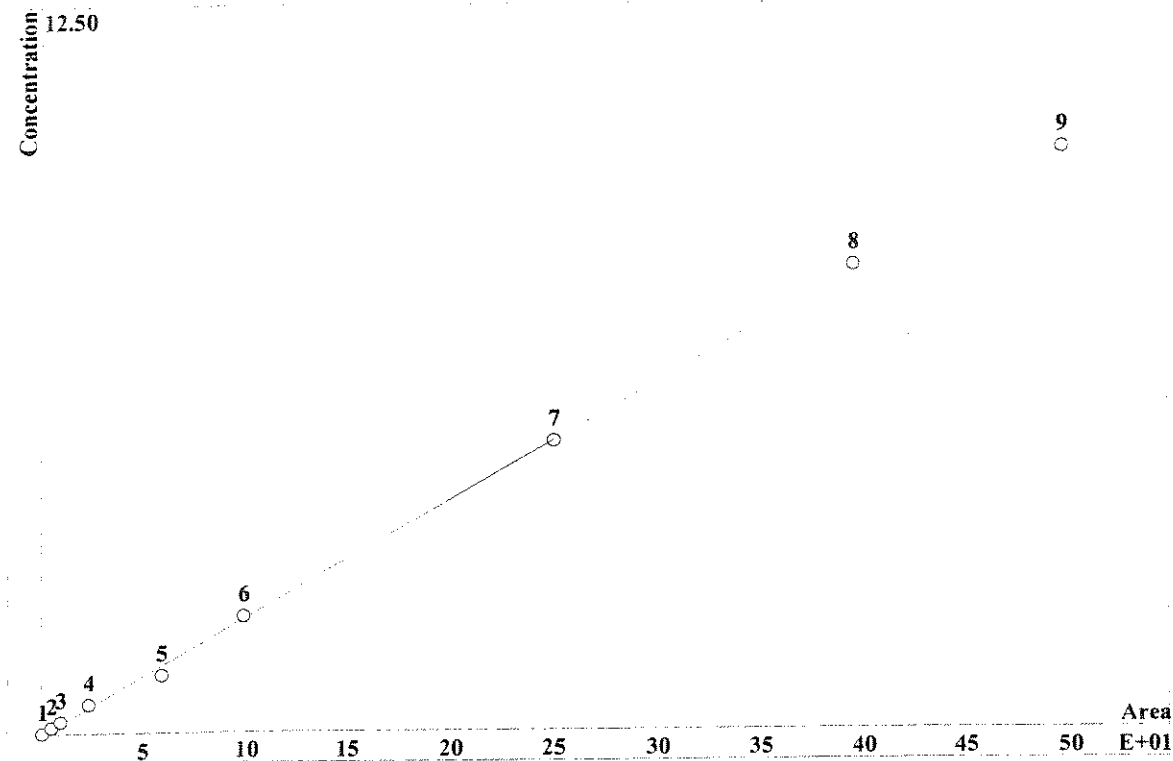


K3 = 0      K2 = 0      K1 = 0.00601237      K0 = 0.0164087  
 Base: Area  
 Ref.channel: Cond  
 ISTD:  
 Formula: Linear  
 Weight: 1

Level	Height	Area	Conc.	Vol/Dil	Retention	Used	File
1	0.006157	0.07577	1e-05	1	6.975	Yes	s6101036.chw
2	0.5468	7.06	0.05	1	6.975	Yes	s6101050.chw
3	1.144	14.47	0.1	1	6.975	Yes	s6101104.chw
4	3.046	37.67	0.25	1	6.975	Yes	s6101118.chw
5	6.383	78.82	0.5	1	6.975	Yes	s6101132.chw
6	12.98	161.2	1	1	6.975	Yes	s6101146.chw
7	33.03	412.5	2.5	1	6.975	Yes	s6101201.chw
8	52.77	662.7	4	1	6.975	Yes	s6101215.chw
9	65.92	829.7	5	1	6.975	Yes	s6101229.chw

CALIBRATION OF COMPONENT Sulfate

Method: 06-10-08CAL.mtw  
 Equation:  $Q = 0.0201616 \cdot A - 0.0215664$   
 RSD: 2.403 %  
 Correlation coefficient: 0.999843



K3 = 0      K2 = 0      K1 = 0.0201616      K0 = -0.0215664  
 Base: Area  
 Ref.channel: Cond  
 ISTD:  
 Formula: Linear  
 Weight: 1

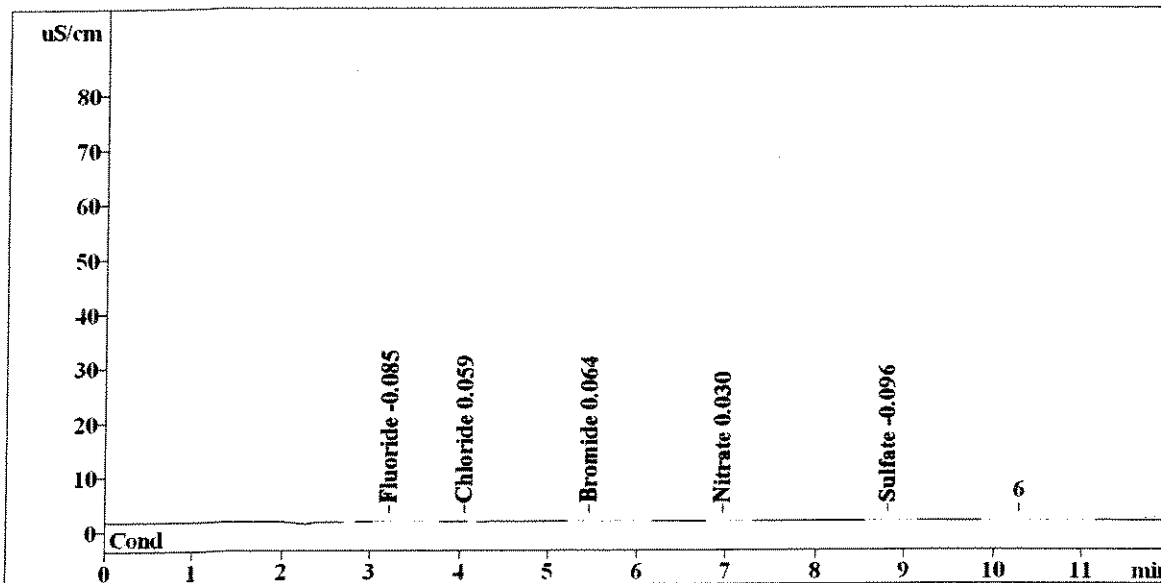
Level	Height	Area	Conc.	Vol/Dil	Retention	Used	File
1	0.03549	0.6807	1e-05	1	10.29	Yes	s6101036.chw
2	0.2733	4.966	0.1	1	10.29	Yes	s6101050.chw
3	0.5256	9.443	0.2	1	10.29	Yes	s6101104.chw
4	1.314	23.23	0.5	1	10.29	Yes	s6101118.chw
5	3.37	58.92	1	1	10.29	Yes	s6101132.chw
6	5.622	98.22	2	1	10.29	Yes	s6101146.chw
7	14.22	249.6	5	1	10.29	Yes	s6101201.chw
8	22.35	395.8	8	1	10.29	Yes	s6101215.chw
9	27.98	498	10	1	10.29	Yes	s6101229.chw

Report date: 6/10/2008 10:48:12  
 Printed by: User  
 Ident: STANDARD 1  
 Analysis from: 6/10/2008 10:36:15  
 File: S6101036.CHW

Last save: 6/10/2008 10:48:17

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 36783  
 SAMPLE: ANALYST: TC  
 Vial number: 1  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 6/10/2008 10:14:45



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.20	0.174	-0.085	Fluoride
2	4.04	1.807	0.059	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.45	0.168	0.064	Bromide
5	6.98	0.076	0.030	Nitrate
6	8.82	0.059	-0.096	Sulfate
6	12.00	2.284	0.334	

*Needs reprocess*  
*NO NO2 peak detected*

This report has been created by IC Net  
 METROHM LTD

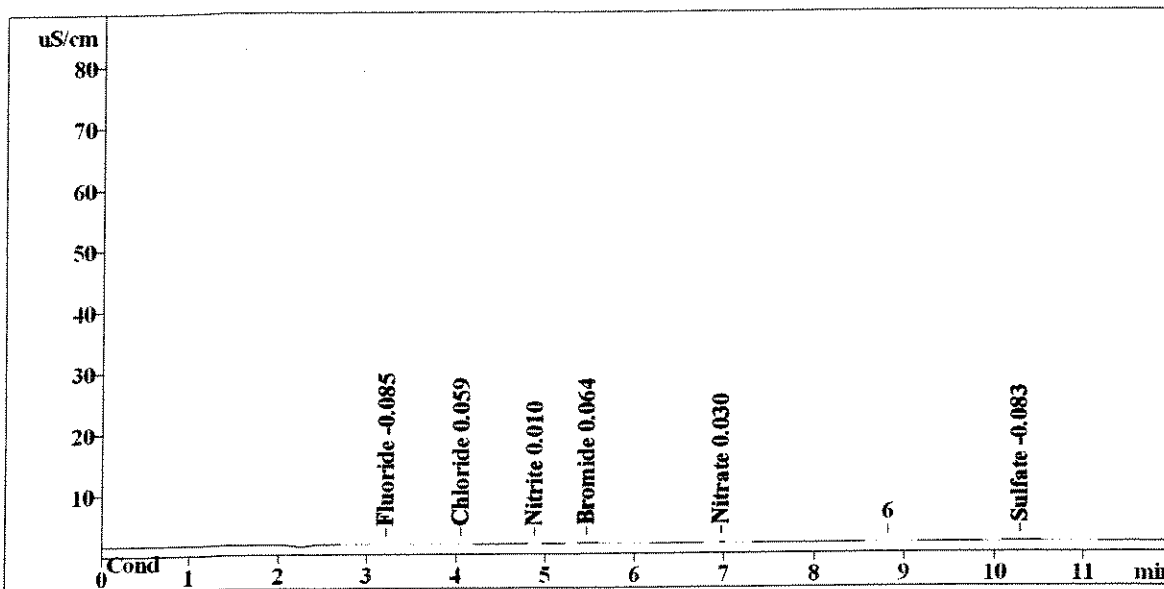
*Metrohm software needs us to manually assign a peak area in order for it to be used in curve*

*TC 6/10/08*  
*SD 6/10/08*

Report date: 6/10/2008 13:16:22  
 Printed by: User  
 Ident: STANDARD 1  
 Analysis from: 6/10/2008 10:36:15  
 File: s6101036.chw  
 Modified! Manual peaks!  
 Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 36783  
 SAMPLE: ANALYST: TC  
 Vial number: 1  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 6/10/2008 10:48:17

Last save: 6/10/2008 10:14:45



Quantitation method: Custom

*Reprocessed*

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.20	0.174	-0.085	Fluoride
2	4.04	1.807	0.059	Chloride
3	4.88	-0.000	0.010	Nitrite
4	5.45	0.168	0.064	Bromide
5	6.98	0.076	0.030	Nitrate
6	10.29	0.681	-0.083	Sulfate
<hr/>				
6	12.00	2.905	0.332	

*OK*

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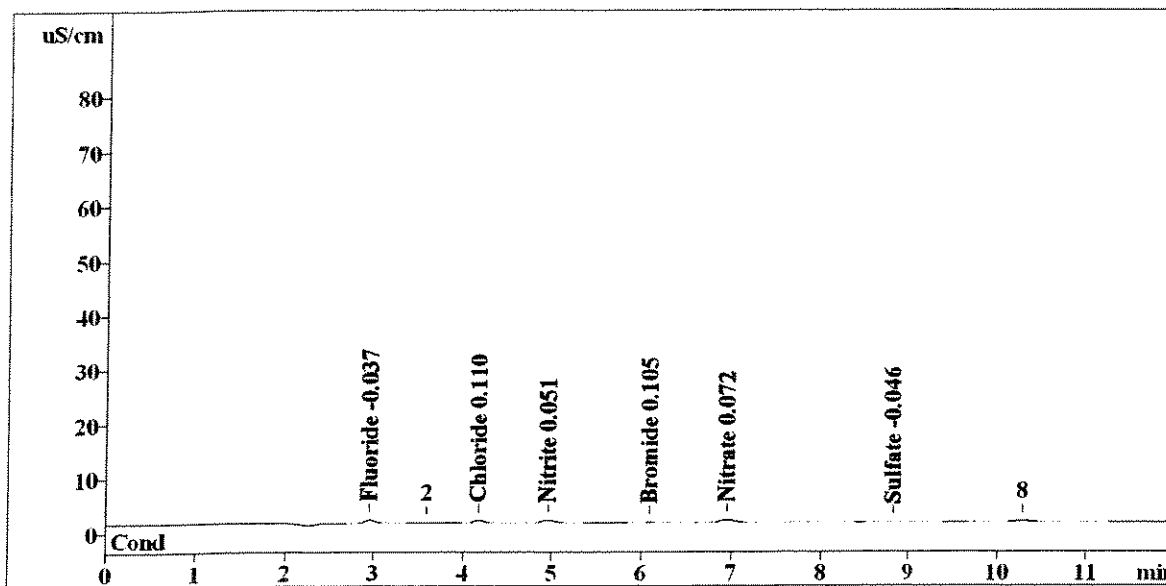
*TC 6/10/08*  
*SD 6/12/08*

Report date: 6/10/2008 11:02:22  
 Printed by: User  
 Ident: STANDARD 2  
 Analysis from: 6/10/2008 10:50:20  
 File: S6101050.CHW

Last save: 6/10/2008 11:02:28

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 36784  
 SAMPLE: PIPETTES: LUCY, MINE  
 Vial number: 2  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 6/10/2008 10:48:17



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.95	5.055	-0.037	Fluoride
2	4.17	4.825	0.110	Chloride
3	4.95	5.677	0.051	Nitrite
4	6.08	1.243	0.105	Bromide
5	6.95	7.060	0.072	Nitrate
6	8.83	0.074	-0.046	Sulfate
6	12.00	23.935	0.421	

*Reprocess  
 for  
 R.T.*

This report has been created by IC Net  
 METROHM LTD

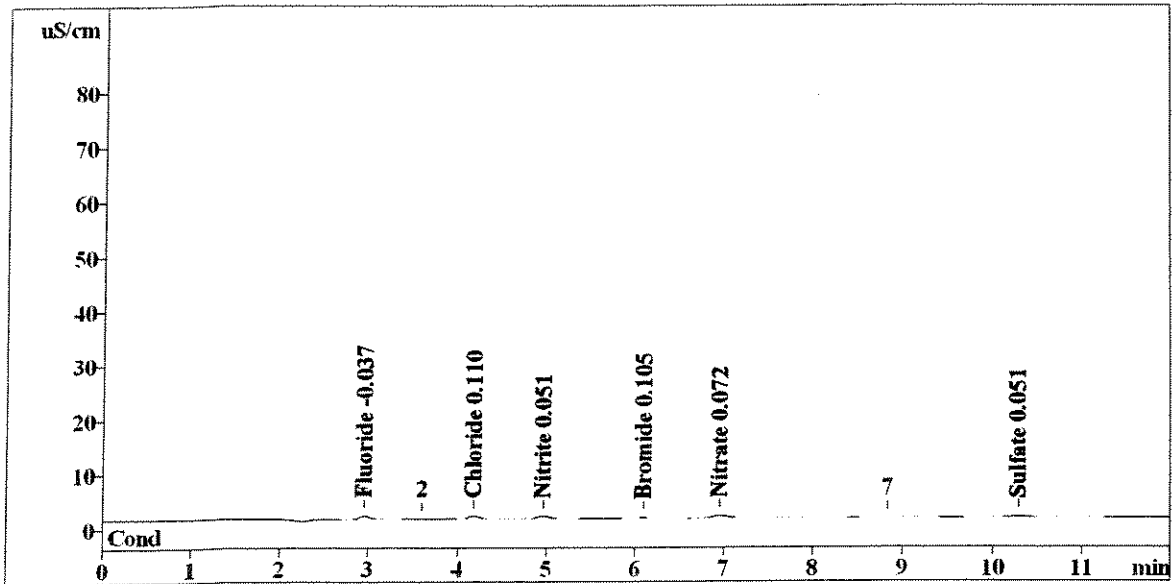
*TC 6/10/08*



Report date: 6/10/2008 13:17:08  
 Printed by: User  
 Ident: STANDARD 2  
 Analysis from: 6/10/2008 10:50:20  
 File: s6101050.chw  
 Modified!  
 Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 36784  
 SAMPLE: PIPETTES: LUCY, MINE  
 Vial number: 2  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 6/10/2008 11:02:28

Last save: 6/10/2008 10:48:17



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.95	5.055	-0.037	Fluoride
2	4.17	4.825	0.110	Chloride
3	4.95	5.677	0.051	Nitrite
4	6.08	1.243	0.105	Bromide
5	6.95	7.060	0.072	Nitrate
6	10.28	4.966	0.051	Sulfate
6	12.00	28.826	0.425	

*Reprocessed*

*OK*

This report has been created by IC Net  
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*TC 6/10/08*

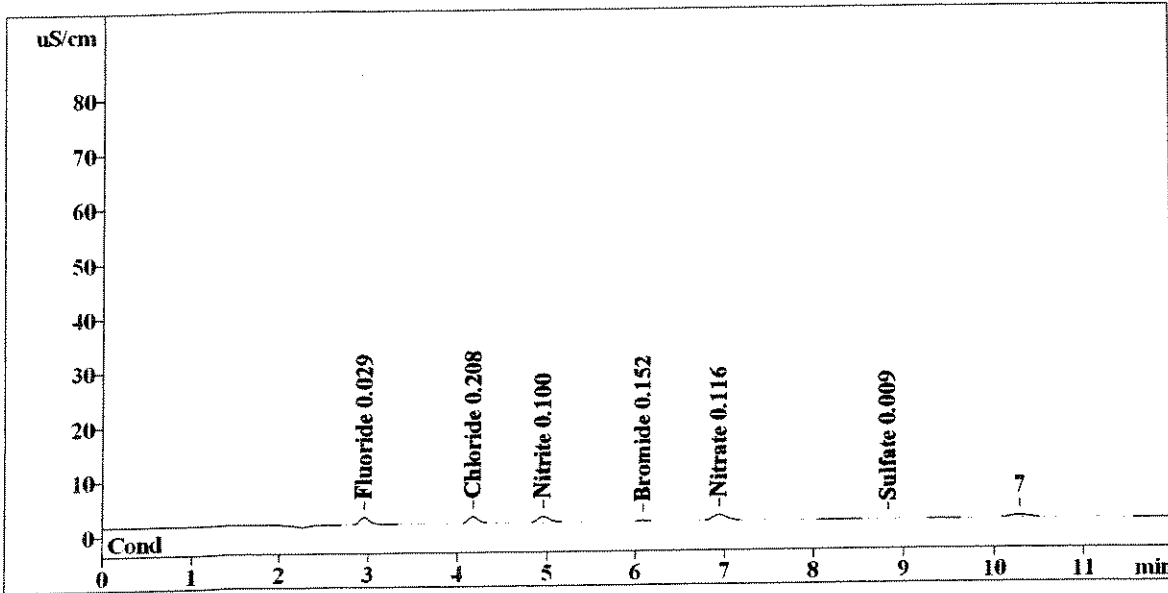
*SD 6/10/08*

Report date: 6/10/2008 11:16:37  
 Printed by: User  
 Ident: STANDARD 3  
 Analysis from: 6/10/2008 11:04:40  
 File: S6101104.CHW

Last save: 6/10/2008 11:16:44

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 36785  
 SAMPLE:  
 Vial number: 3  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 6/10/2008 11:02:28



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.95	12.295	0.029	Fluoride
2	4.17	10.975	0.208	Chloride
3	4.95	12.432	0.100	Nitrite
4	6.08	2.531	0.152	Bromide
5	6.94	14.472	0.116	Nitrate
6	8.84	0.073	0.009	Sulfate
6	12.00	52.779	0.613	

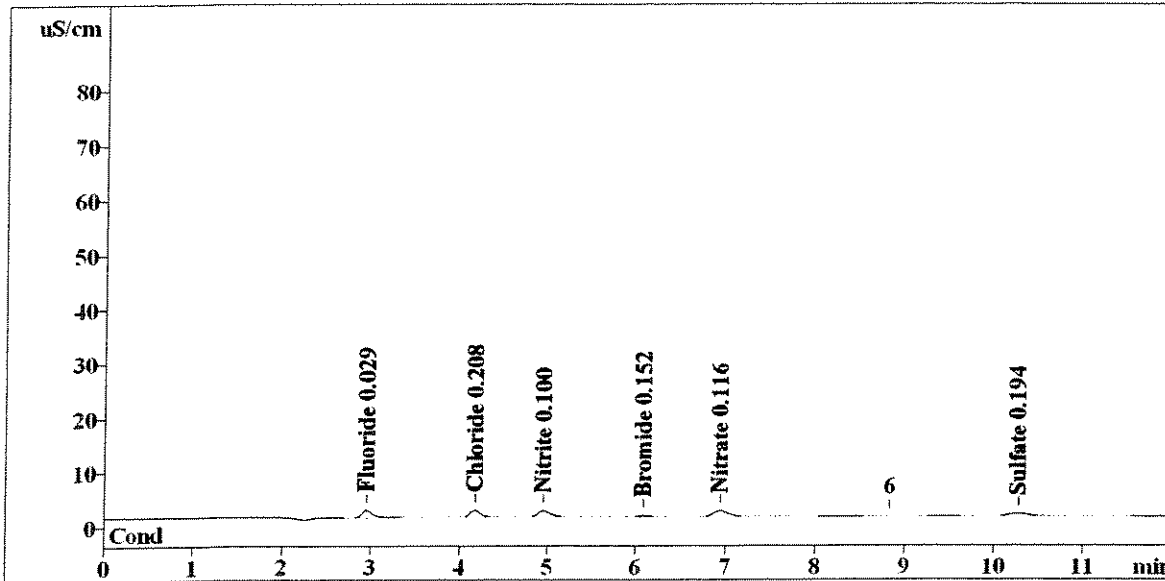
*Reprocess for SO4 R.T.*

This report has been created by IC Net  
 METROHM LTD

*TC 6/10/08*

Report date: 6/10/2008 13:17:32  
 Printed by: User  
 Ident: STANDARD 3  
 Analysis from: 6/10/2008 11:04:40  
 File: s6101104.chw  
 Modified!  
 Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 36785  
 SAMPLE:  
 Vial number: 3  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 6/10/2008 11:16:44  
 Last save: 6/10/2008 11:02:28



Quantitation method: Custom

*Reprocessed*

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.95	12.295	0.029	Fluoride
2	4.17	10.975	0.208	Chloride
3	4.95	12.432	0.100	Nitrite
4	6.08	2.531	0.152	Bromide
5	6.94	14.472	0.116	Nitrate
6	10.28	9.443	0.194	Sulfate
6	12.00	62.148	0.797	

*OK*

This report has been created by IC Net  
 METROHM LTD

*TC 6/10/08*

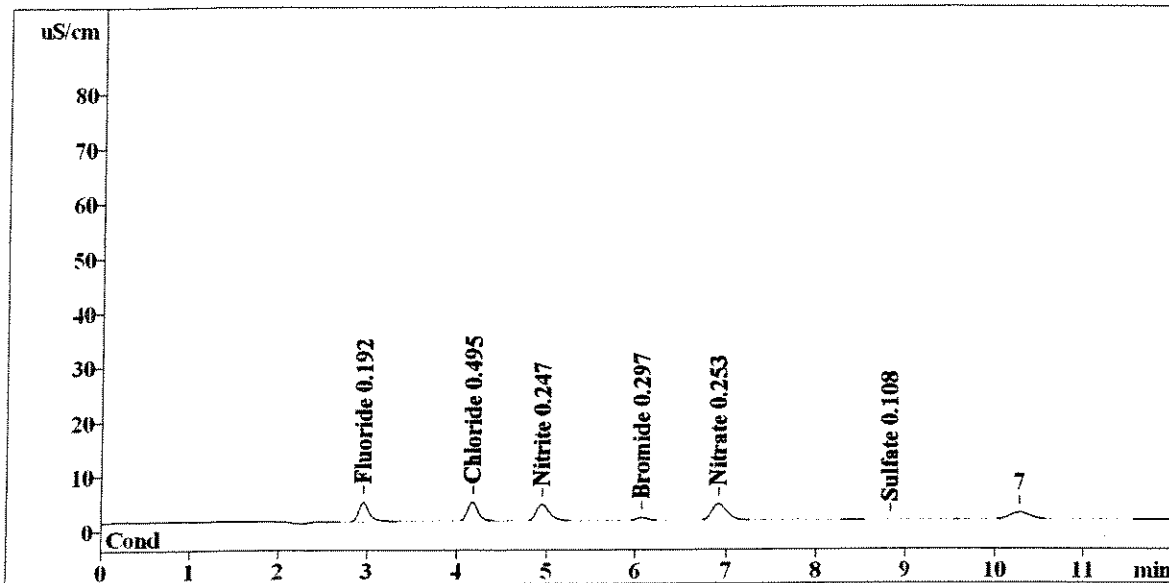
*SD 6/12/08*

Report date: 6/10/2008 11:30:43  
 Printed by: User  
 Ident: STANDARD 4  
 Analysis from: 6/10/2008 11:18:45  
 File: S6101118.CHW

Last save: 6/10/2008 11:30:49

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 36786  
 SAMPLE:  
 Vial number: 4  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 6/10/2008 11:16:44



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.95	30.141	0.192	Fluoride
2	4.17	29.633	0.495	Chloride
3	4.95	32.381	0.247	Nitrite
4	6.07	6.312	0.297	Bromide
5	6.92	37.672	0.253	Nitrate
6	8.83	0.083	0.108	Sulfate
6	12.00	136.221	1.593	

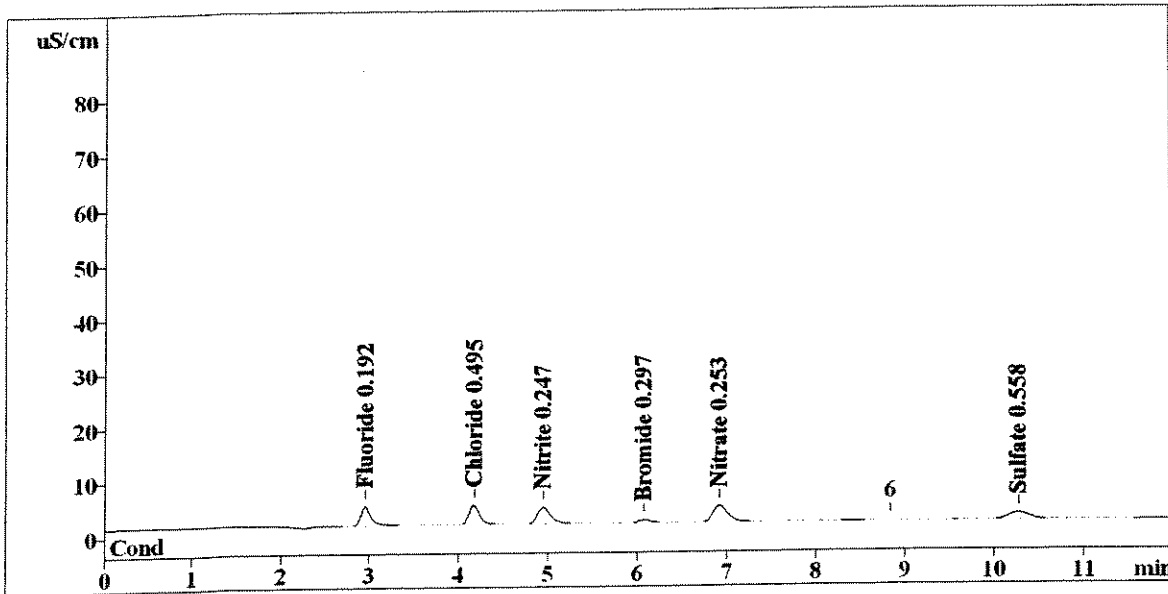
*Reprocess Sp4 for R.T.*

This report has been created by IC Net  
 METROHM LTD

*TC 6/10/08*

Report date: 6/10/2008 13:17:52  
 Printed by: User  
 Ident: STANDARD 4  
 Analysis from: 6/10/2008 11:18:45  
 File: s6101118.chw  
 Modified!  
 Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 36786  
 SAMPLE:  
 Vial number: 4  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 6/10/2008 11:30:49  
 Last save: 6/10/2008 11:16:44



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.95	30.141	0.192	Fluoride
2	4.17	29.633	0.495	Chloride
3	4.95	32.381	0.247	Nitrite
4	6.07	6.312	0.297	Bromide
5	6.92	37.672	0.253	Nitrate
6	10.28	23.227	0.558	Sulfate
6	12.00	159.366	2.043	

*Reprocessed*

*OK*

This report has been created by IC Net  
 METROHM LTD

*TC 6/10/08*

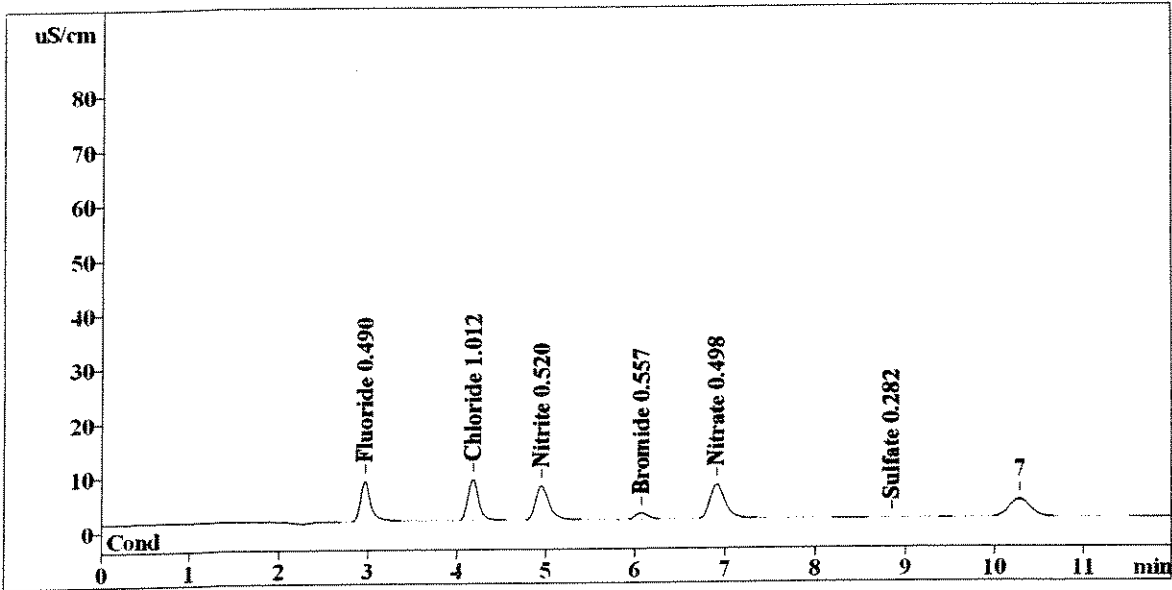
*SD 6/10/08*

Report date: 6/10/2008 11:44:48  
 Printed by: User  
 Ident: STANDARD 5  
 Analysis from: 6/10/2008 11:32:50  
 File: S6101132.CHW

Last save: 6/10/2008 11:44:55

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 36787  
 SAMPLE:  
 Vial number: 5  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 6/10/2008 11:30:49



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.96	63.574	0.490	Fluoride
2	4.17	63.407	1.012	Chloride
3	4.94	69.123	0.520	Nitrite
4	6.07	13.029	0.557	Bromide
5	6.90	78.819	0.498	Nitrate
6	8.84	0.090	0.282	Sulfate
6	12.00	288.041	3.360	

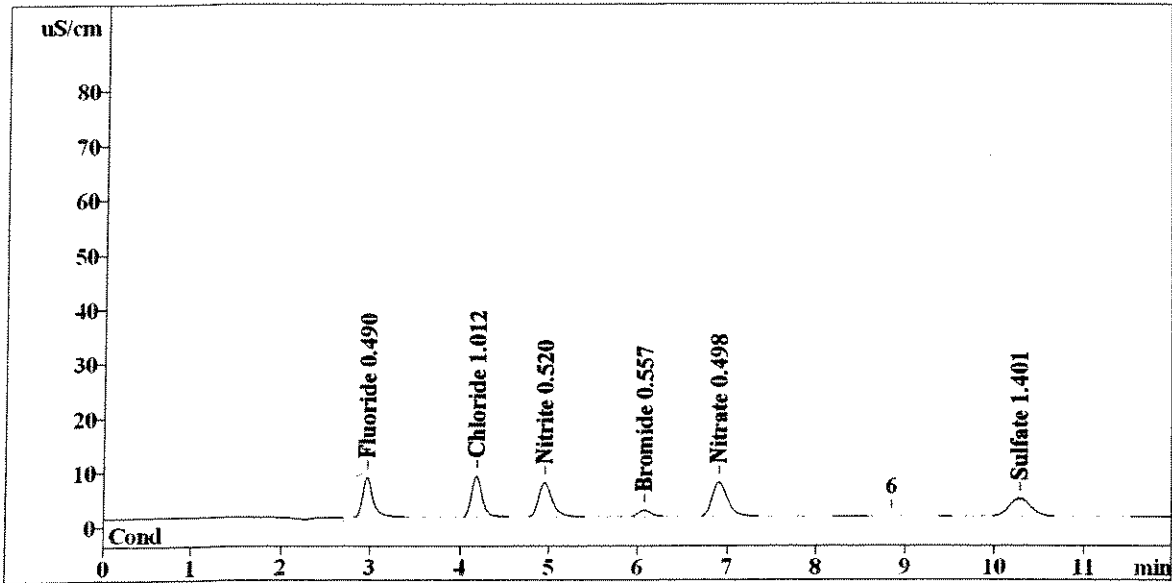
*Reprocess SO4 for R.T.*

This report has been created by IC Net  
 METROHM LTD

*TC 6/10/08*

Report date: 6/10/2008 13:18:08  
 Printed by: User  
 Ident: STANDARD 5  
 Analysis from: 6/10/2008 11:32:50  
 File: s6101132.chw  
 Modified!  
 Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 36787  
 SAMPLE:  
 Vial number: 5  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 6/10/2008 11:44:55  
 Last save: 6/10/2008 11:30:49



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.96	63.574	0.490	Fluoride
2	4.17	63.407	1.012	Chloride
3	4.94	69.123	0.520	Nitrite
4	6.07	13.029	0.557	Bromide
5	6.90	78.819	0.498	Nitrate
6	10.28	58.915	1.401	Sulfate
6	12.00	346.866	4.479	

*Reprocessed*

*OK*

This report has been created by IC Net  
 METROHM LTD

*TE 6/10/08*

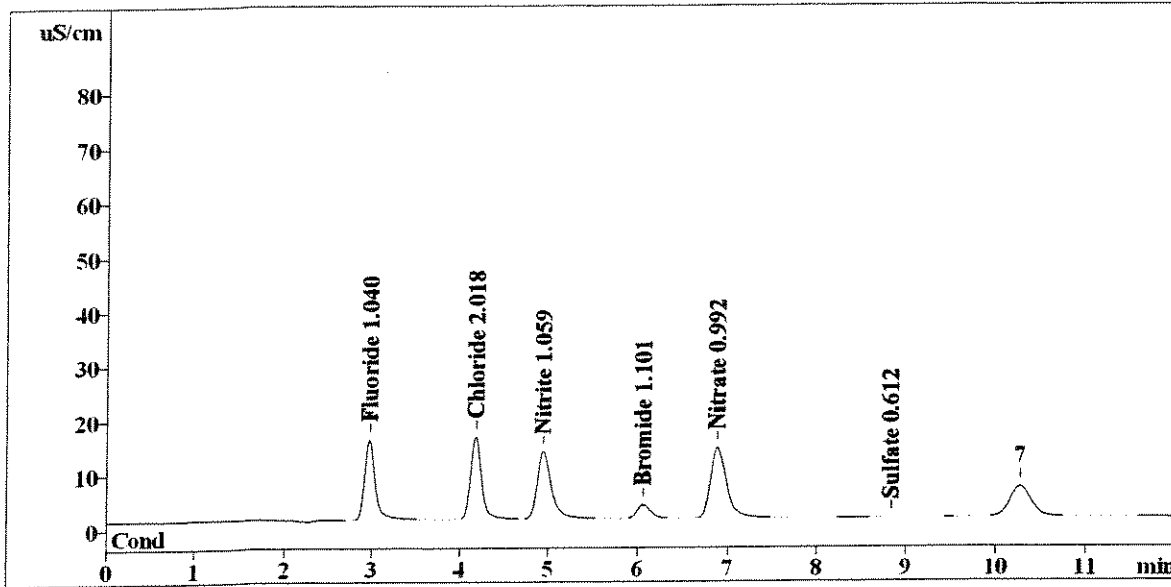
*SD 6/10/08*

Report date: 6/10/2008 11:58:53  
 Printed by: User  
 Ident: STANDARD 6  
 Analysis from: 6/10/2008 11:46:56  
 File: S6101146.CHW

Last save: 6/10/2008 11:59:01

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 36788  
 SAMPLE:  
 Vial number: 6  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 6/10/2008 11:44:55



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.96	124.889	1.040	Fluoride
2	4.17	128.121	2.018	Chloride
3	4.94	139.796	1.059	Nitrite
4	6.06	26.684	1.101	Bromide
5	6.88	161.167	0.992	Nitrate
6	8.85	0.092	0.612	Sulfate
6	12.00	580.751	6.821	

*Reprocess for SDU R.T.*

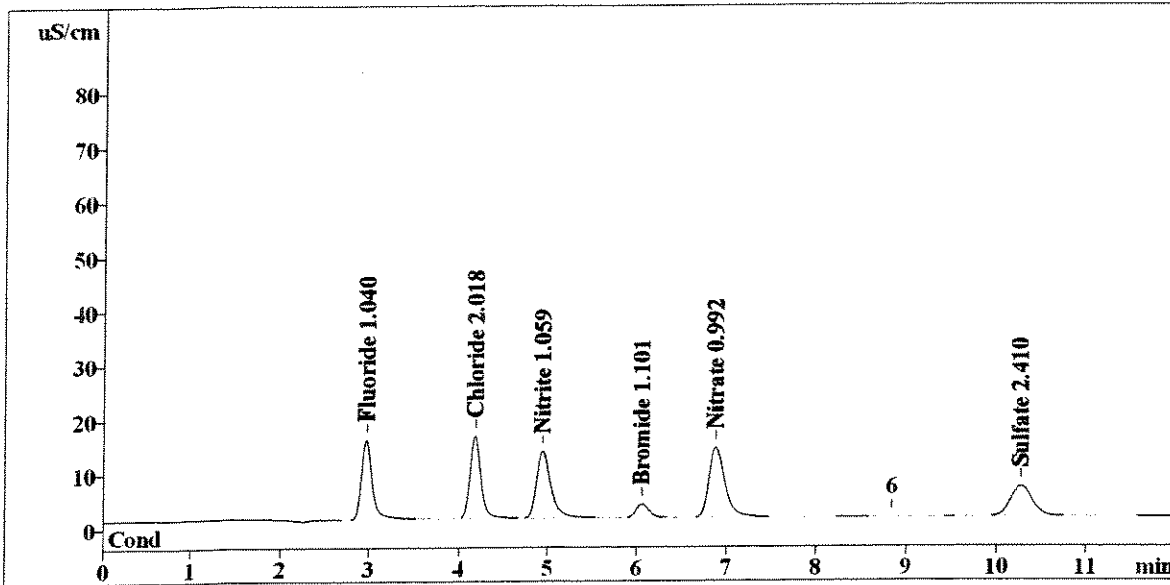
This report has been created by IC Net  
 METROHM LTD

*TC 6/10/08*



Report date: 6/10/2008 13:18:24  
 Printed by: User  
 Ident: STANDARD 6  
 Analysis from: 6/10/2008 11:46:56  
 File: s6101146.chw  
 Modified!  
 Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 36788  
 SAMPLE:  
 Vial number: 6  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 6/10/2008 11:59:01  
 Last save: 6/10/2008 11:44:55



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.96	124.889	1.040	Fluoride
2	4.17	128.121	2.018	Chloride
3	4.94	139.796	1.059	Nitrite
4	6.06	26.684	1.101	Bromide
5	6.88	161.167	0.992	Nitrate
6	10.28	98.215	2.410	Sulfate
6	12.00	678.874	8.619	

*Reprocessed*  
*OK*

This report has been created by IC Net  
 METROHM LTD

*TC 6/10/08*

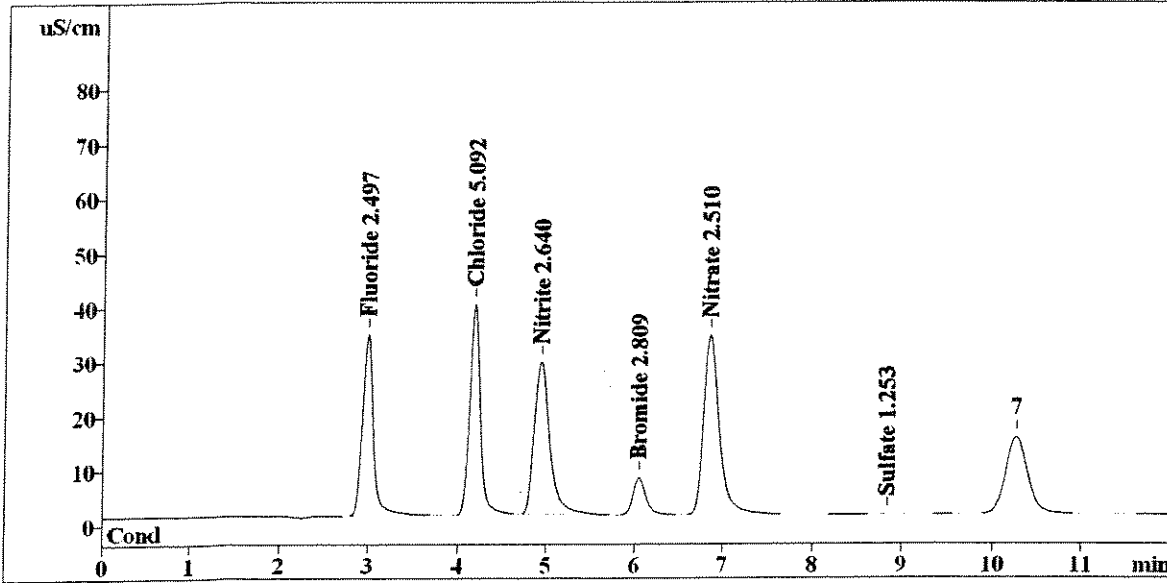
*SD 6/12/07*

Report date: 6/10/2008 12:12:58  
 Printed by: User  
 Ident: STANDARD 7  
 Analysis from: 6/10/2008 12:01:01  
 File: S6101201.CHW

Last save: 6/10/2008 12:13:07

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 36789  
 SAMPLE:  
 Vial number: 7  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 6/10/2008 11:59:01



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.97	291.066	2.497	Fluoride
2	4.17	326.118	5.092	Chloride
3	4.93	346.689	2.640	Nitrite
4	6.04	69.338	2.809	Bromide
5	6.85	412.452	2.510	Nitrate
6	8.84	0.091	1.253	Sulfate
6	12.00	1445.754	16.800	

*Reprocess for SO4 RT.*

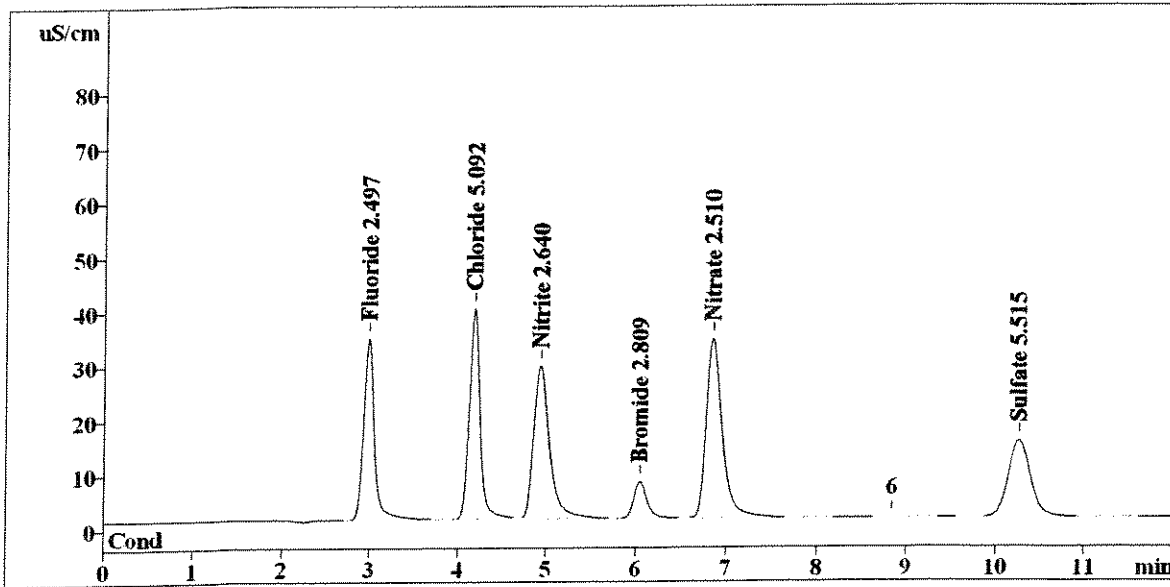
This report has been created by IC Net  
 METROHM LTD

TC 6/10/08

Report date: 6/10/2008 13:18:39  
 Printed by: User  
 Ident: STANDARD 7  
 Analysis from: 6/10/2008 12:01:01  
 File: s6101201.chw  
 Modified!  
 Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 36789  
 SAMPLE:  
 Vial number: 7  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 6/10/2008 12:13:07

Last save: 6/10/2008 11:59:01



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.97	291.066	2.497	Fluoride
2	4.17	326.118	5.092	Chloride
3	4.93	346.689	2.640	Nitrite
4	6.04	69.338	2.809	Bromide
5	6.85	412.452	2.510	Nitrate
6	10.27	249.613	5.515	Sulfate
6	12.00	1695.277	21.062	

*Reprocessed*

*OK*

This report has been created by IC Net  
 METROHM LTD

*TC 6/10/08*

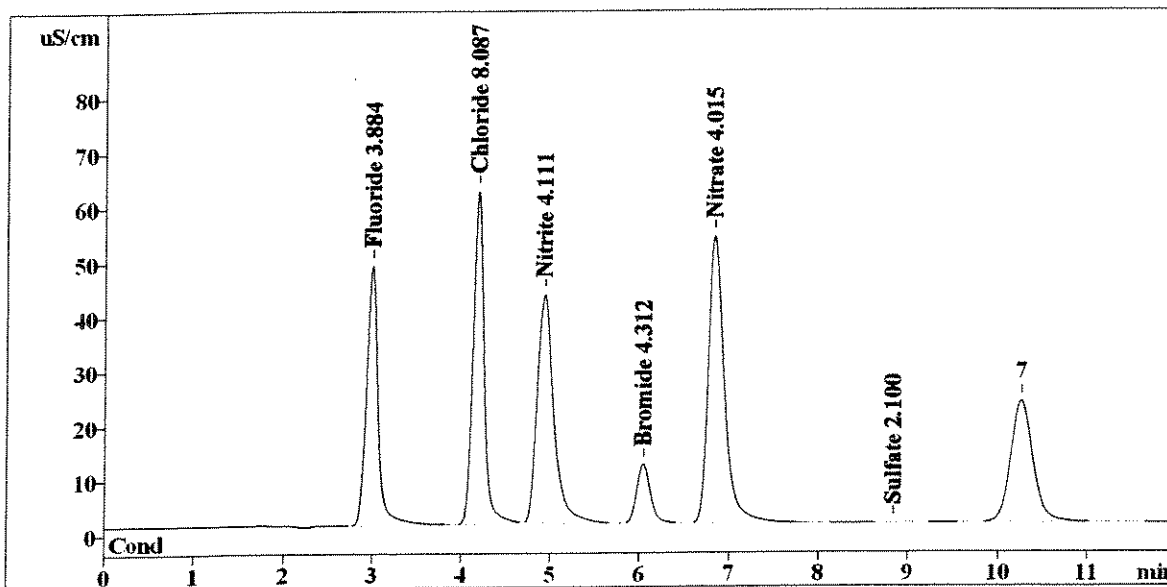
*SP 6/10/08*

Report date: 6/10/2008 12:27:03  
 Printed by: User  
 Ident: STANDARD 8  
 Analysis from: 6/10/2008 12:15:06  
 File: S6101215.CHW

Last save: 6/10/2008 12:27:13

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 36790  
 SAMPLE:  
 Vial number: 8  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 6/10/2008 12:13:07



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.98	440.713	3.884	Fluoride
2	4.17	521.823	8.087	Chloride
3	4.92	547.369	4.111	Nitrite
4	6.04	112.329	4.312	Bromide
5	6.84	662.748	4.015	Nitrate
6	8.84	0.077	2.100	Sulfate
6			2285.058	26.509

*Reprocess for SO4 R.T.*

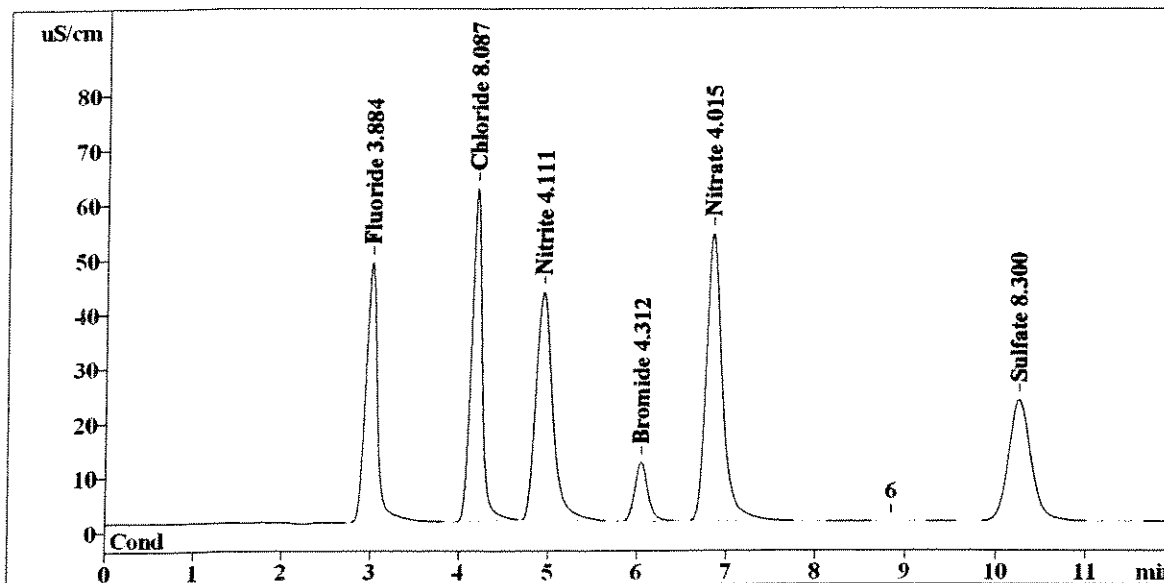
This report has been created by IC Net  
 METROHM LTD

*TC 6/10/08*

Report date: 6/10/2008 13:18:53  
 Printed by: User  
 Ident: STANDARD 8  
 Analysis from: 6/10/2008 12:15:06  
 File: s6101215.chw  
 Modified!  
 Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 36790  
 SAMPLE:  
 Vial number: 8  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 6/10/2008 12:27:13

Last save: 6/10/2008 12:13:07



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.98	440.713	3.884	Fluoride
2	4.17	521.823	8.087	Chloride
3	4.92	547.369	4.111	Nitrite
4	6.04	112.329	4.312	Bromide
5	6.84	662.748	4.015	Nitrate
6	10.26	395.831	8.300	Sulfate
<hr/>				
6	12.00	2680.813	32.708	

*Reprocessed*

*OK*

This report has been created by IC Net  
 METROHM LTD

*TC 6/10/08*

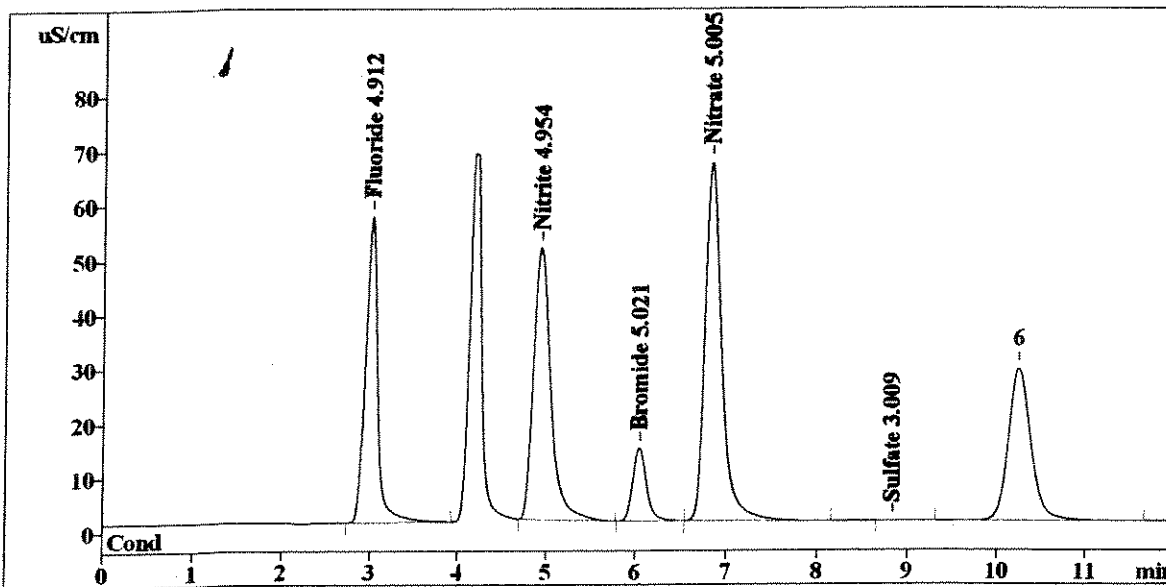
*SD 6/10/08*

Report date: 6/10/2008 12:41:09  
 Printed by: User  
 Ident: STANDARD 9  
 Analysis from: 6/10/2008 12:29:12  
 File: S6101229.CHW

Last save: 6/10/2008 12:41:19

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 36791  
 SAMPLE:  
 Vial number: 9  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 6/10/2008 12:27:13



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.99	540.335	4.912	Fluoride
2	0.00	0.000	0.000	Chloride
3	4.92	673.722	4.954	Nitrite
4	6.04	141.275	5.021	Bromide
5	6.83	829.713	5.005	Nitrate
6	8.84	0.080	3.009	Sulfate
6	12.00	2185.125	22.901	

*Needs  
Reprocess  
for  
SD4  
RT*

This report has been created by IC Net  
 METROHM LTD

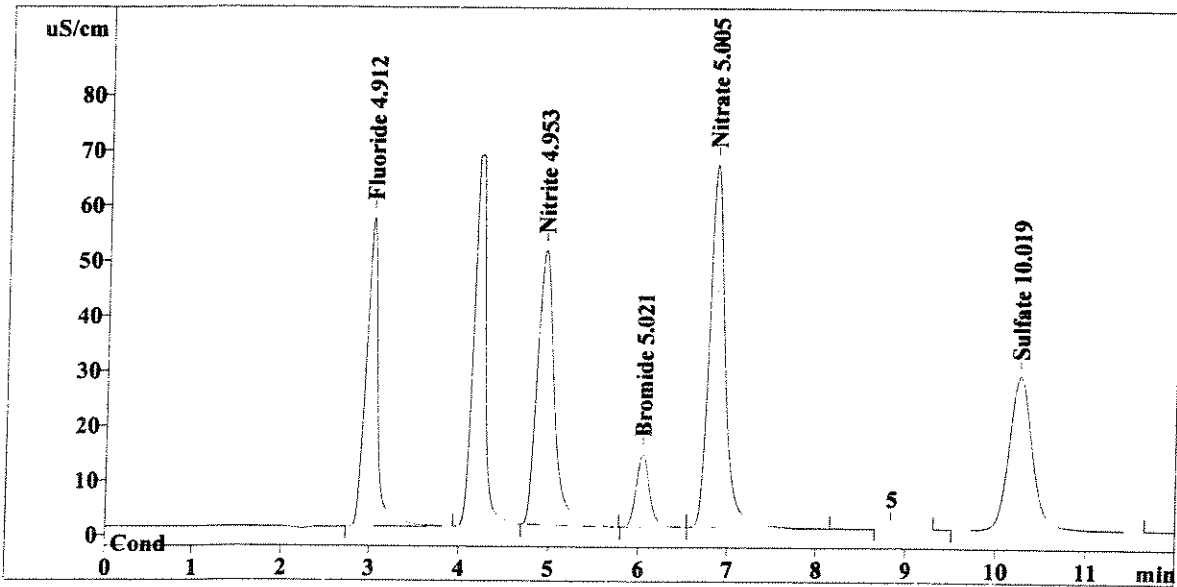
*Needs  
reprocess for  
SD4  
to retention  
time*

Report date: 6/10/2008 15:26:11  
 Printed by: User  
 Ident: STANDARD 9  
 Analysis from: 6/10/2008 12:29:12  
 File: s6101229.chw

Last save: 6/10/2008 13:47:36

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 36791  
 SAMPLE:  
 Vial number: 9  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 6/10/2008 10:14:45



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.99	540.335	4.912	Fluoride
2	0.00	0.000	0.000	Chloride
3	4.92	673.722	4.953	Nitrite
4	6.04	141.275	5.021	Bromide
5	6.83	829.713	5.005	Nitrate
6	10.26	497.998	10.019	Sulfate
6	12.00	2683.043	29.910	

*Reprocessed*

*OK*  
*OK*  
 ↓

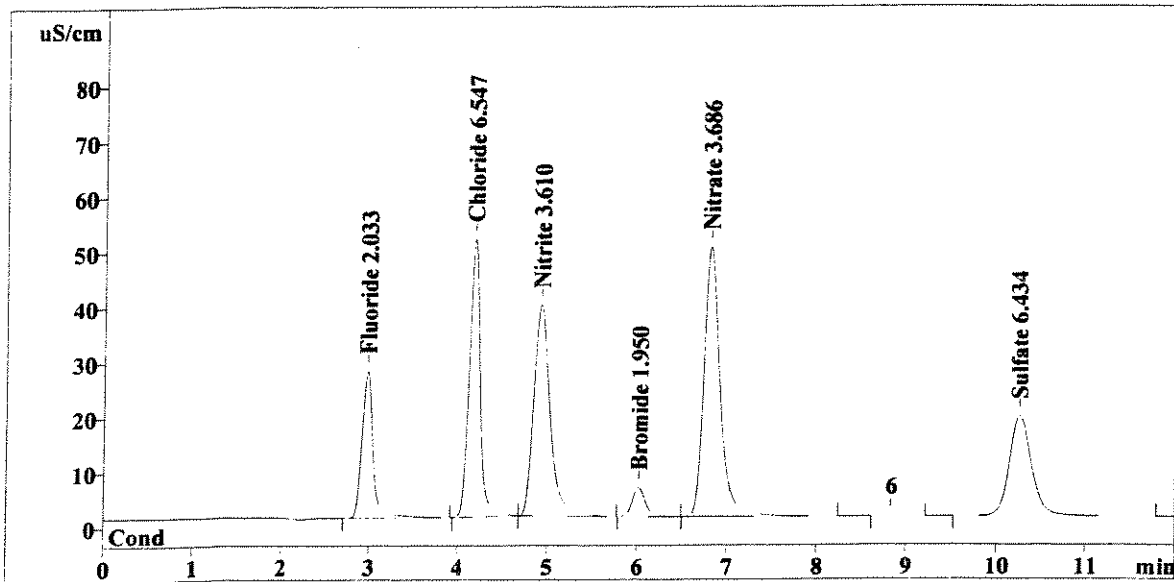
*Do Not Report above 8.0 ppm*

*SD 6/10/08*

Report date: 6/10/2008 15:06:55  
 Printed by: User  
 Ident: ICV  
 Analysis from: 6/10/2008 13:52:24  
 File: s6101352.chw  
 Modified!  
 Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 36792  
 SAMPLE:  
 Vial number: 10  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 6/10/2008 14:04:36

Last save: 6/10/2008 13:48:56



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.96	226.786	2.033	Fluoride
2	4.16	426.728	6.547	Chloride
3	4.91	491.171	3.610	Nitrite
4	6.02	54.440	1.950	Bromide
5	6.81	610.275	3.686	Nitrate
6	10.27	320.183	6.434	Sulfate
6	12.00	2129.582	24.258	

This report has been created by IC Net  
 METROHM LTD

*OK S/D 6/12/08*

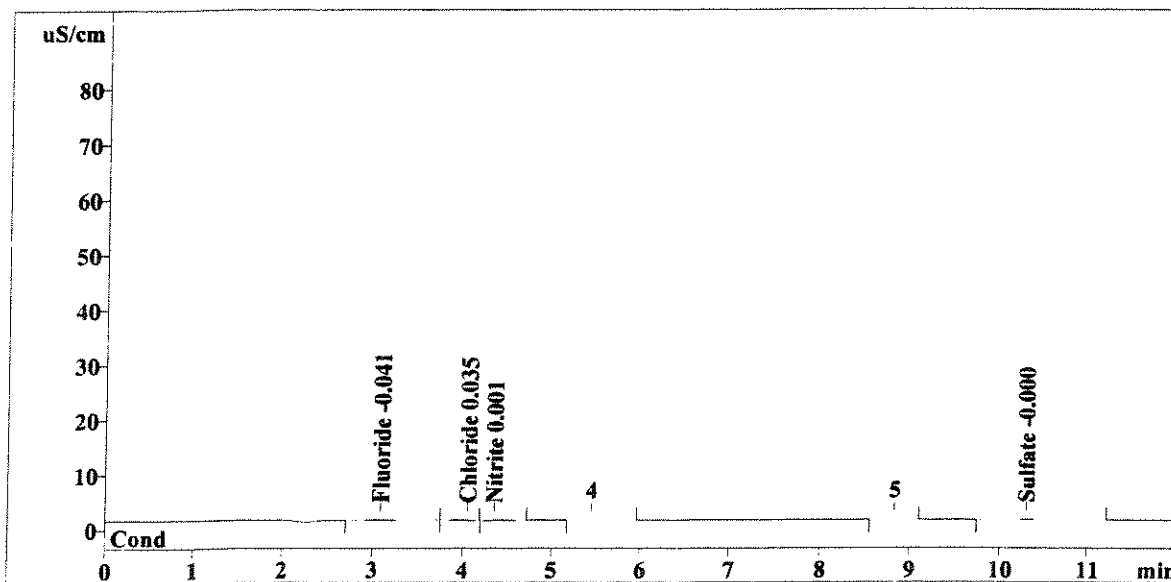


Report date: 6/10/2008 15:03:41  
 Printed by: User  
 Ident: ICB  
 Analysis from: 6/10/2008 14:06:30  
 File: s6101406.chw

Last save: 6/10/2008 14:18:42

Method: 06-10-08CAL.mtw  
 Run operator: User  
 Analysis number: 36793  
 SAMPLE:  
 Vial number: 11  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 6/10/2008 13:48:56



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.09	1.031	-0.041	Fluoride
2	4.05	0.750	0.035	Chloride
3	4.35	0.917	0.001	Nitrite
4	0.00	0.000	0.000	Bromide
5	0.00	0.000	0.000	Nitrate
6	10.31	1.058	-0.000	Sulfate
6	12.00	3.756	0.077	

OK SD 6/10/08

**Ion Chromatography Cover Sheet**

**Instrument:** Metrohm IC 861  
**Column:** Metrosep A Supp 5, 4mm, 12/31/2007

**Curve Date:** 06/10/2008                      **Loop size:** 50 uL Loop

**Analyst:** Tracy Christ                      **Analysis Date:** 6/10/08

**Is copy of LCS attached to run?**              YES / NO

**Standards Prep Dates & Log ID's:**

<i>Std Type</i>	<i>Prep Date</i>	<i>Log ID</i>		<i>Std Type</i>	<i>Prep Date</i>	<i>Log ID</i>
Calibration Intermediate	06/10/08	WC72050A		Working Calibration Stds	06/10/08	WC72050H
LCS / MS Intermediate	06/10/08	WC72050A		Working LCS/MS Standard	06/10/08	WC72093A
ICV Intermediate	05/05/08	WC72134B		Working ICV Standard	DAILY	WC72134H
CCV Intermediate	05/05/08	WC72134B		Working CCV Standard	DAILY	WC72134H

**Comments:**

---

**CALIBRATION EXPIRES ON 12/10/2008**

---

**CHORIDE LINEAR RANGE ONLY GOES UP TO 8.0 PPM**

---

**CALIBRATION INTERMEDIATE STOCK PREP**  
(used for Calibration and LCS / MS)

Analyte	1000ppm Stock ID	Conc. mg/L	mLs Stock	Final Vol. mL	Final Conc. mg/L	Analyst	Date Prepped	Lot ID	Exp. Date	Final Calibration Intermediate Stock ID
F	WC850MF	1000	10	200	50	TC	6/10/08	A	12/10/08	WC12-0050 A
Cl	WC1200J	1000	20		100			B		
NO2	WC1200J	1000	10		50			C		
Br	WC8516CD	1000	10	12 fl oz	50			D		
NO3	WC1200J	1000	10		50			E		
OPO4	---	1000	10		50			F		
SO4	WC1200J	1000	20		100			G		

**WORKING CALIBRATION STANDARDS PREP**

(Stocks delivered using Volumetric glassware and brought to volume with DI. Expire after 7 days.)

Std #	Calibration Intermediate Stock ID	mLs Intermediate Stock	Final Vol. mLs	Final Std Conc.										Analyst	Date Prepped	Lot ID	Exp. Date	Final Log ID				
				F		Cl		NO2		Br		NO3							OPO4		SO4	
				5.0	4.0	10.0	8.0	5.0	4.0	5.0	5.0	5.0	4.0						5.0	5.0	5.0	10.0
9		10.0	100																			
8		8.0																				
7		205.0	100																			
6		2.0																				
5		1.0																				
4		0.5																				
3		0.2																				
2		0.1																				
1		0.0																				

**WORKING LCS PREP**

Stocks delivered using Volumetric glassware and brought to volume with DI. LCS expires after 7 days.)

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

Analyte	Calibration Intermediate Stock ID	Intermediate Stock Conc (mg/L)	mLs Intermediate Stock	Final Vol. mLs	Final Conc. (mg/L)	Analyst	Date Prepped	Lot ID	Exp. Date	Final Log ID
F	WC12093A	50	2.0	100	1.0	TC	6/10/08	A	6/17/08	WC12093A
Cl		100			2.0			B		
NO2		50			1.0			C		
Br		50			1.0			D		
NO3		50			1.0			E		
OPO4		50			1.0			F		
SO4		100			2.0			G		
								H		
								I		
								J		
								K		
								L		
								M		
								N		
								O		
								P		
								Q		
								R		

ICV / CCV INTERMEDIATE STOCK PREP

Analyte	ICV / CCV Stock ID	Conc. mg/L	mLs Stock	Final Vol. mL	Final Conc. mg/L	Analyst	Date Prepped	Lot ID	Exp. Date	Final ICV / CCV Intermediate Stock ID
F	WC85057C	1000	4.0	1000	4.0	CMMW	3/25/08	A	9/25/08	WC720134A
Cl	WC85106D	650	20.0		13.0	TC	5/5/08	B	9/25/08	WC720134B
NO2	WC72007F	180	40.0		7.2			C		
Br	WC65037D	1000	4.0		4.0			D		
NO3	WC72007N	180	40.0		7.2			E		
OPO4	—	180	40.0		7.2			F		
SO4	WC72006Y	3200	4		12.8			G		

WORKING ICV / CCV PREP

(A 1:2 dilution of the Reference Intermediate Stock is done daily)

Analyte	ICV / CCV Intermediate Stock ID	Conc. mg/L	mLs Stock	Final Vol. mL	Final Conc. mg/L	Analyst	Date Prepped	Lot ID	Final Working ICV / CCV ID
F	WC720134A	4.0	5.0	10.0	2.0	CMMW	DAILY	AH	WC720134H
Cl		13.0			6.5				
NO2		7.2			3.6				
Br		4.0			2.0				
NO3		7.2			3.6				
OPO4		7.2			3.6				
SO4		12.8			6.4				

09/10/2004

Run #: 163413  
 Analyte: BROMIDE 9056  
 Printed: 07/10/08 09:58

BROMIDE BY ION CHROMATOGRAPHY

44666  
 44768

TYPE	SUBMISSION	ORDER #	MATRIX	REPORTED		DILUTION	PQL	% RECOVERY	% RSD	DATE	QC	PKG #
				RESULT						ANALYZED		
BLK5		1115515	SOIL/SEDIME	10.0	U	1.0	10.0			07/03/08		
ESMP	R2844666	1112363	SOIL/SEDIME	1.44		1.0	10.0			07/03/2008		ASPB
ESMP	R2844666	1112365	SOIL/SEDIME	4.62		1.0	10.0			07/03/2008		ASPB
BLK5		1115516	SOIL/SEDIME	10.0	U	1.0	10.0			07/03/2008		
ESMP	R2844666	1113245	SOIL/SEDIME	0.320		1.0	10.0			07/03/2008		ASPB
ESMP	R2844666	1113249	SOIL/SEDIME	0.370		1.0	10.0			07/03/2008		ASPB
ESMP	R2844666	1113250	SOIL/SEDIME	0.460		1.0	10.0			07/03/2008	QC	ASPB
LDUP		1115517	SOIL/SEDIME	0.560		1.0	10.0	85.0%	19.61	07/03/2008		
SPK1		1115518	SOIL/SEDIME	8.50		1.0	10.0	250.0		07/03/2008		
ESMP	R2844666	1113254	SOIL/SEDIME	0.280		1.0	10.0			07/03/2008		ASPB
ESMP	R2844666	1113255	SOIL/SEDIME	0.240		1.0	10.0	93.9%		07/03/2008		ASPB
LDUP		1115519	SOIL/SEDIME	0.270		1.0	10.0	93.9%	11.76	07/03/2008		
SPK1		1115520	SOIL/SEDIME	9.39		1.0	10.0	220.0		07/03/2008		
ESMP	R2844666	1113256	SOIL/SEDIME	0.470		1.0	10.0			07/03/2008		ASPB
ESMP	R2844666	1113257	SOIL/SEDIME	0.230		1.0	10.0			07/03/2008		ASPB
ESMP	R2844666	1113258	SOIL/SEDIME	10.0	U	1.0	10.0			07/03/2008		ASPB
ESMP	R2844666	1113259	SOIL/SEDIME	0.490		1.0	10.0			07/03/2008		ASPB
ESMP	R2844666	1113262	SOIL/SEDIME	0.230		1.0	10.0			07/03/2008		ASPB
ESMP	R2844768	1113696	WATER	0.544		10.0	0.100			07/03/2008		ASPB
CHR6		1115521	WATER	2.08		1.0	0.100	104.0		007/03/208		
BLK4		1115522	WATER	0.100	U	1.0	0.100			07/03/2008		
SPKB		1115523	WATER	0.985		1.0	0.100	98.5		07/03/2008		
ESMP	R2844768	1113698	WATER	1.66		10.0	0.100			07/03/2008		ASPB
ESMP	R2844768	1113699	WATER	1.57		10.0	0.100			07/03/2008		ASPB

Records printed: 24

Reviewed & Approved  
 By: S. Delta  
 Date: 7/10/08

Schedule File: J:\ACQU\DATA\IC\SCHEDULE\IC#4\070308.sch

01-05-08

Data Manually Entered

Analyst: CWoods  
Pipets: Nine  
Lug

Line	Sample	Sample Type	Level	Method	Data File	Volume	Dilution	Weight	Int. Std.	Comment
1	CCV	Sample		20080623.met	703_001.dxd	1	1	1		
2	CCB	Sample		20080623.met	703_002.dxd	1	1	1		
3	LCS	Sample		20080623.met	703_003.dxd	1	1	1		
4	1114419	Sample		20080623.met	703_004.dxd	1	1000	1		B
5	1114420	Sample		20080623.met	703_005.dxd	1	1000	1		B
6	1114421	Sample		20080623.met	703_006.dxd	1	1000	1		B
7	1114421 DUP	Sample		20080623.met	703_007.dxd	1	1000	1		B
8	1114421 SPK	Sample		20080623.met	703_008.dxd	1	1000	1		B
9	METHOD BLANK 6/26/08	Sample		20080623.met	703_009.dxd	1	1	1		EXTRACTION - B
10	1112363	Sample		20080623.met	703_010.dxd	1	1	1		EXTRACTION - B
11	1112365	Sample		20080623.met	703_011.dxd	1	1	1		EXTRACTION - B
12	1113695	Sample		20080623.met	703_012.dxd	1	10	1		EXTRACTION - B
13	1113696	Sample		20080623.met	703_013.dxd	1	10	1		EXTRACTION - B
14	1113697	Sample		20080623.met	703_014.dxd	1	10	1		EXTRACTION - B
15	1113698	Sample		20080623.met	703_015.dxd	1	10	1		EXTRACTION - B
16	1113699	Sample		20080623.met	703_016.dxd	1	10	1		EXTRACTION - B
17	CCV	Sample		20080623.met	703_017.dxd	1	1	1		
18	CCB	Sample		20080623.met	703_018.dxd	1	1	1		
19	1113245	Sample		20080623.met	703_019.dxd	1	1	1		EXTRACTION - B
20	1113249	Sample		20080623.met	703_020.dxd	1	1	1		EXTRACTION - B
21	1113250	Sample		20080623.met	703_021.dxd	1	1	1		EXTRACTION - B
22	1113250 DUP	Sample		20080623.met	703_022.dxd	1	1	1		EXTRACTION - B
23	1113250 SPK	Sample		20080623.met	703_023.dxd	1	1	1		EXTRACTION - B
24	1113254	Sample		20080623.met	703_024.dxd	1	1	1		EXTRACTION - B
25	1113255	Sample		20080623.met	703_025.dxd	1	1	1		EXTRACTION - B
26	1113255 DUP	Sample		20080623.met	703_026.dxd	1	1	1		EXTRACTION - B
27	1113255 SPK	Sample		20080623.met	703_027.dxd	1	1	1		EXTRACTION - B
28	1113256	Sample		20080623.met	703_028.dxd	1	1	1		EXTRACTION - B
29	1113257	Sample		20080623.met	703_029.dxd	1	1	1		EXTRACTION - B
30	1113258	Sample		20080623.met	703_030.dxd	1	1	1		EXTRACTION - B
31	1113259	Sample		20080623.met	703_031.dxd	1	1	1		EXTRACTION - B
32	1113262	Sample		20080623.met	703_032.dxd	1	1	1		EXTRACTION - B
33	METHOD BLANK 6/30/08	Sample		20080623.met	703_033.dxd	1	1	1		EXTRACTION - B
34	CCV	Sample		20080623.met	703_034.dxd	1	1	1		EXTRACTION - B
35	CCB	Sample		20080623.met	703_035.dxd	1	1	1		EXTRACTION - B
36	LCS	Sample		shutdown.met	703	1	1	1		EXTRACTION - B

Default Method Path: J:\ACQU\DATA\IC\METHOD.AC\IC#4  
Default Data Path: J:\ACQU\DATA\IC\DATA\IC#4\070308  
Comment:

Reviewed & Approved  
By: C. Woods  
Date: 7-10-08



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : CCV  
Data File Name : ... \703\_001.DXD  
Method File Name : ... \20080623.met  
Date Time Collected : 7/3/08 10:42:54

Detector Name :  
Column ID : AS-14 (022939) AG-14 (022002)  
Method Comment : Calibration 06.23.2008  
Method Analyst : T. CHRIST

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

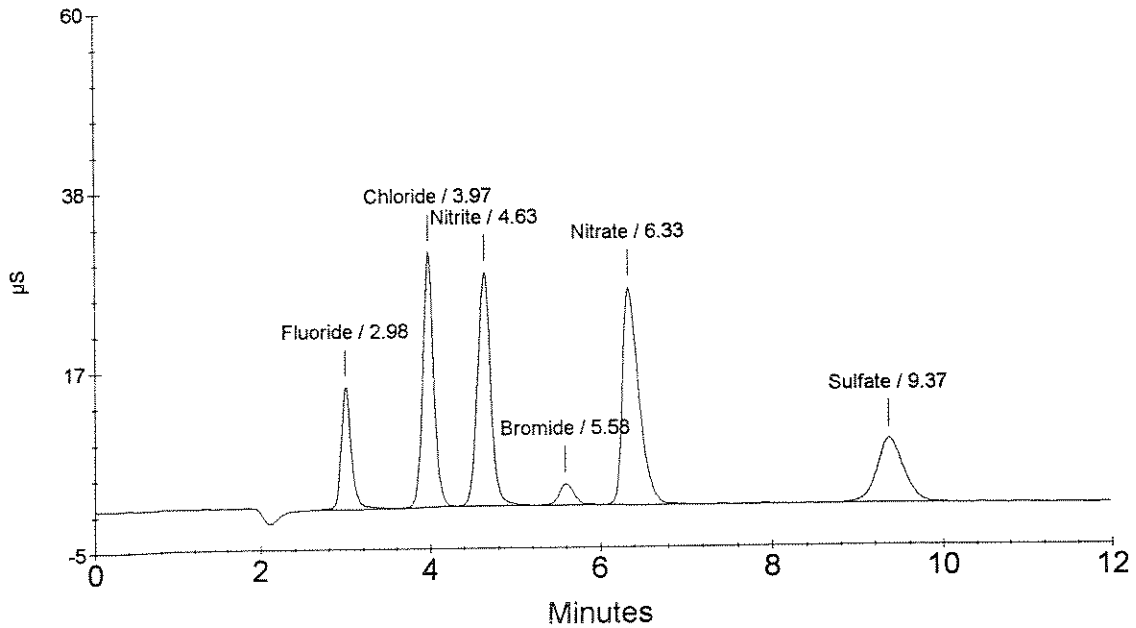
Data Collection Rate : 1.00 Hz  
Data Collection Period : 720.00 seconds  
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.98	Fluoride	2.061	1207671
2	3.97	Chloride	6.642	2789509
3	4.63	Nitrite	3.585	3025683
4	5.58	Bromide	2.080	321623
5	6.33	Nitrate	3.571	3525914
6	9.37	Sulfate	6.414	1684012

*OK*  
*7/3/08*

CCV





Ion Chromatography Analytical Report  
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 Rochester, NY 14607

Sample Name : CCB  
 Data File Name : ... \703\_002.DXD  
 Method File Name : ... \20080623.met  
 Date Time Collected : 7/3/08 10:57:12

Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Comment : Calibration 06.23.2008  
 Method Analyst : T. CHRIST

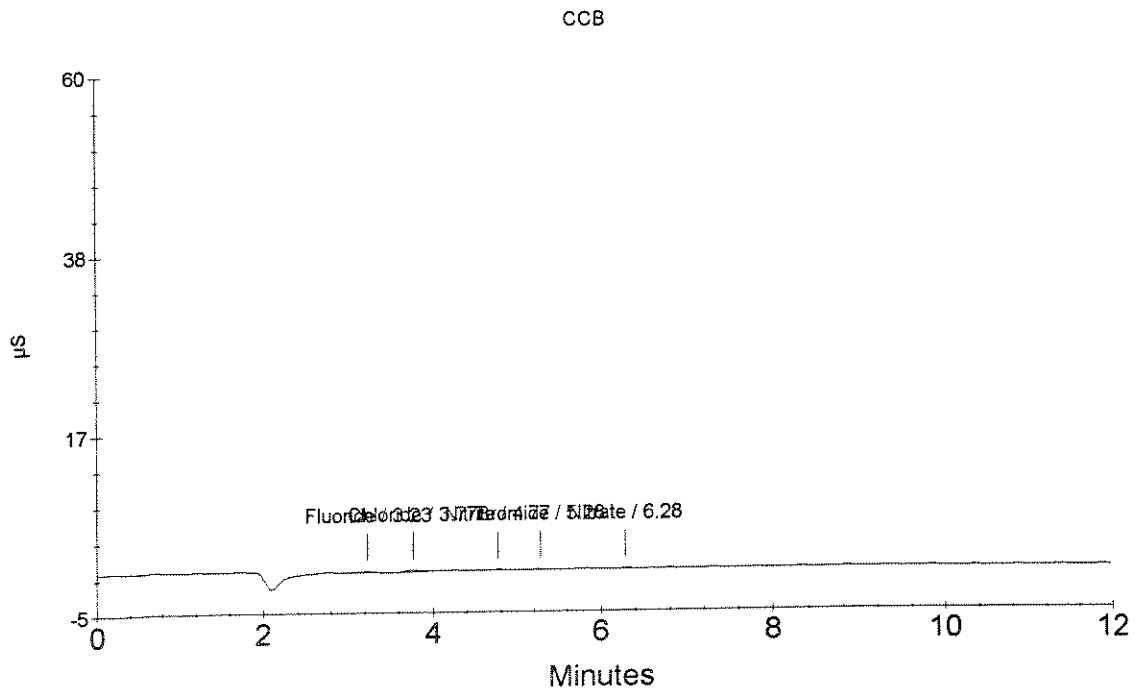
Dilution Factor : 1.00  
 Sample Type : Sample Analysis  
 Sample Comment :

Data Collection Rate : 1.00 Hz  
 Data Collection Period : 720.00 seconds  
 Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.23	Fluoride	0.065	16509
2	3.77	Chloride	0.117	22534
3	4.77	Nitrite	0.056	8439
4	5.28	Bromide	0.038	7838
5	6.28	Nitrate	0.085	7975
		Sulfate		

*OK*  

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 Columbia Analytical Services  
 Rochester, NY 14607

Sample Name : LCS  
 Data File Name : ...703\_003.DXD  
 Method File Name : ...20080623.met  
 Date Time Collected : 7/3/08 11:11:34

Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Comment : Calibration 06.23.2008  
 Method Analyst : T. CHRIST

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

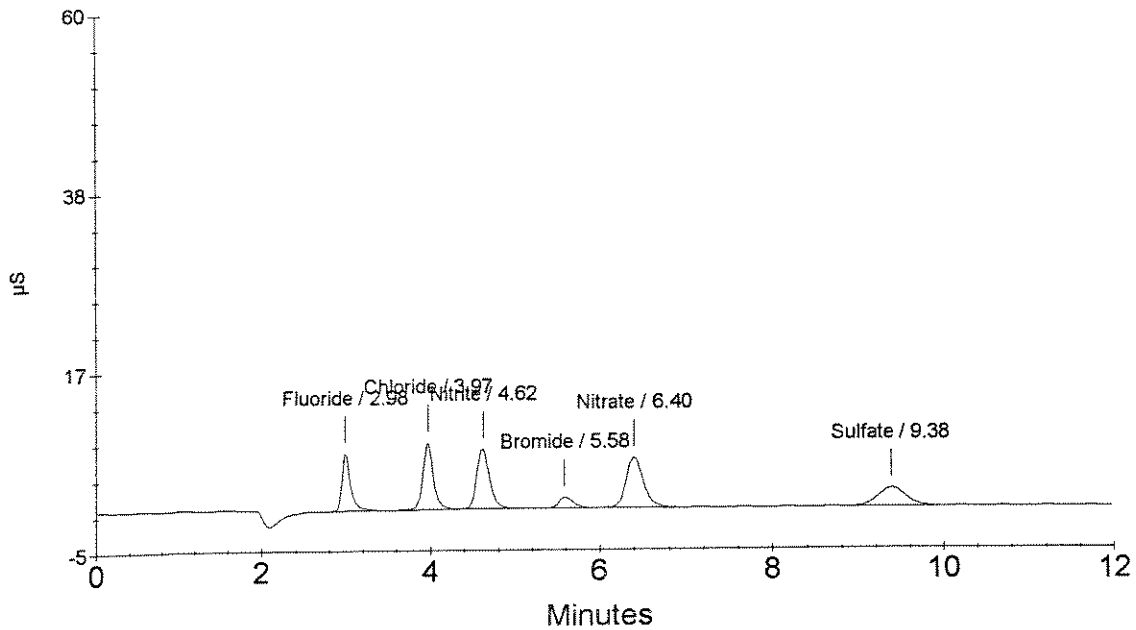
Data Collection Rate : 1.00 Hz  
 Data Collection Period : 720.00 seconds  
 Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.98	Fluoride	0.860	491095
2	3.97	Chloride	1.683	686548
3	4.62	Nitrite	0.932	757479
4	5.58	Bromide <i>OK</i>	0.985	153416
5	6.40	Nitrate	0.915	845559
6	9.38	Sulfate	1.921	490486

*T. Christ*  
 7/3/08

LCS



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1114419  
Data File Name : ...\\703\_004.DXD  
Method File Name : ...\\20080623.met  
Date Time Collected : 7/3/08 11:55:16

Detector Name :  
Column ID : AS-14 (022939) AG-14 (022002)  
Method Comment : Calibration 06.23.2008  
Method Analyst : T. CHRIST

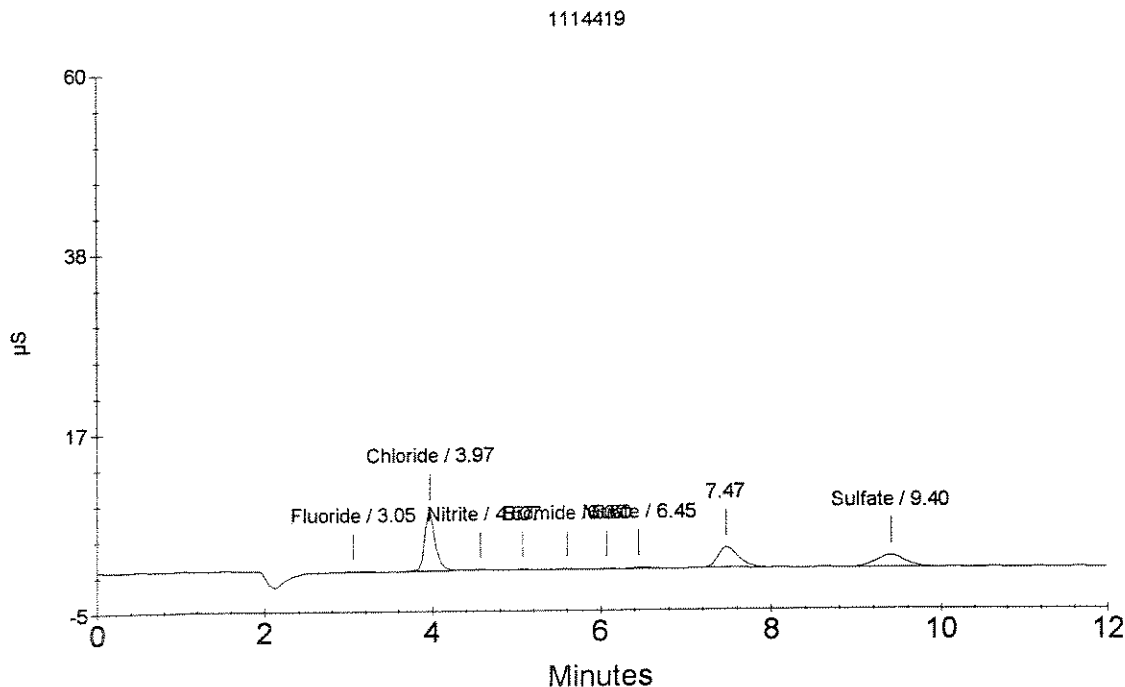
Dilution Factor : 1000.00  
Sample Type : Sample Analysis  
Sample Comment : B

Data Collection Rate : 1.00 Hz  
Data Collection Period : 720.00 seconds  
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.05	Fluoride	74.904	22272
2	3.97	Chloride	1549.707	630138
3	4.57	Nitrite	54.956	7702
5	5.60	Bromide <i>mt 1/40</i>	51.932	9993
7	6.45	Nitrate	104.015	27016
9	9.40	Sulfate	1321.011	330981

*7/3/08*



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Sample Name : 1114420  
 Data File Name : ...\\703\_005.DXD  
 Method File Name : ...\\20080623.met  
 Date Time Collected : 7/3/08 12:09:36

Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Comment : Calibration 06.23.2008  
 Method Analyst : T. CHRIST

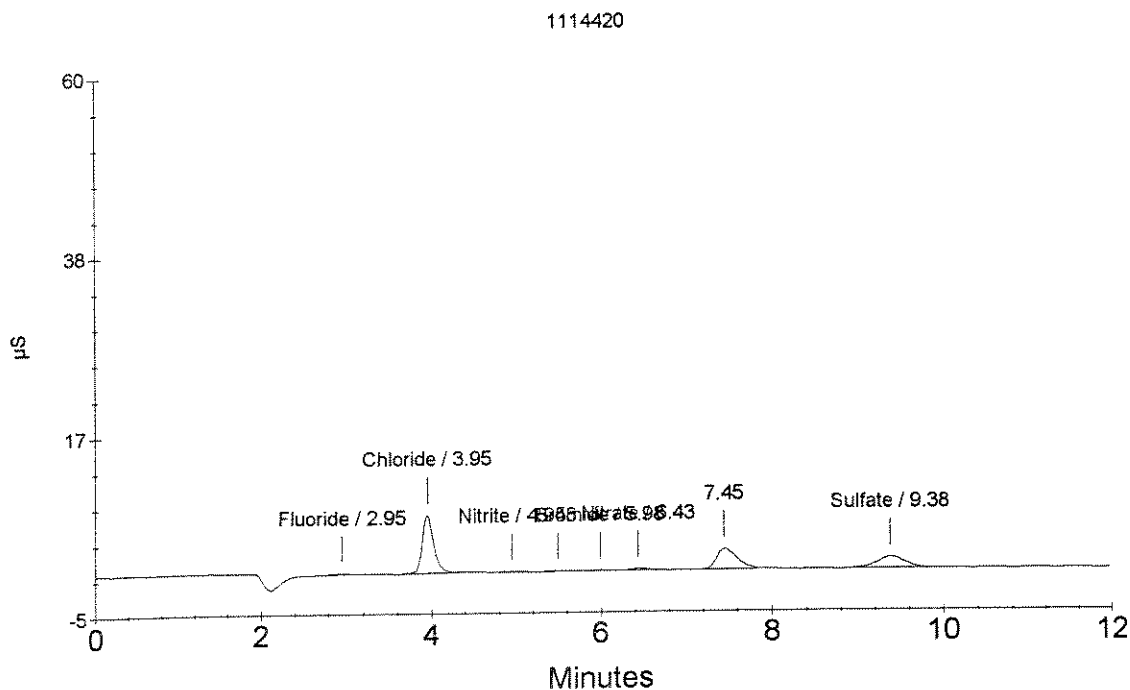
Dilution Factor : 1000.00  
 Sample Type : Sample Analysis  
 Sample Comment : B

Data Collection Rate : 1.00 Hz  
 Data Collection Period : 720.00 seconds  
 Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.95	Fluoride	57.437	11847
2	3.95	Chloride	1630.124	664239
3	4.95	Nitrite	54.771	7544
5	5.98	Bromide	41.389	8373
6	6.43	Nitrate	107.521	30554
8	9.38	Sulfate	1232.859	307562

*mp 1/40*  
*7/3/08*



Ion Chromatography Analytical Report  
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 Rochester, NY 14607

Sample Name : 1114421  
 Data File Name : ...\\703\_006.DXD  
 Method File Name : ...\\20080623.met  
 Date Time Collected : 7/3/08 12:23:57

Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Comment : Calibration 06.23.2008  
 Method Analyst : T. CHRIST

Dilution Factor : 1000.00  
 Sample Type : Sample Analysis  
 Sample Comment : B

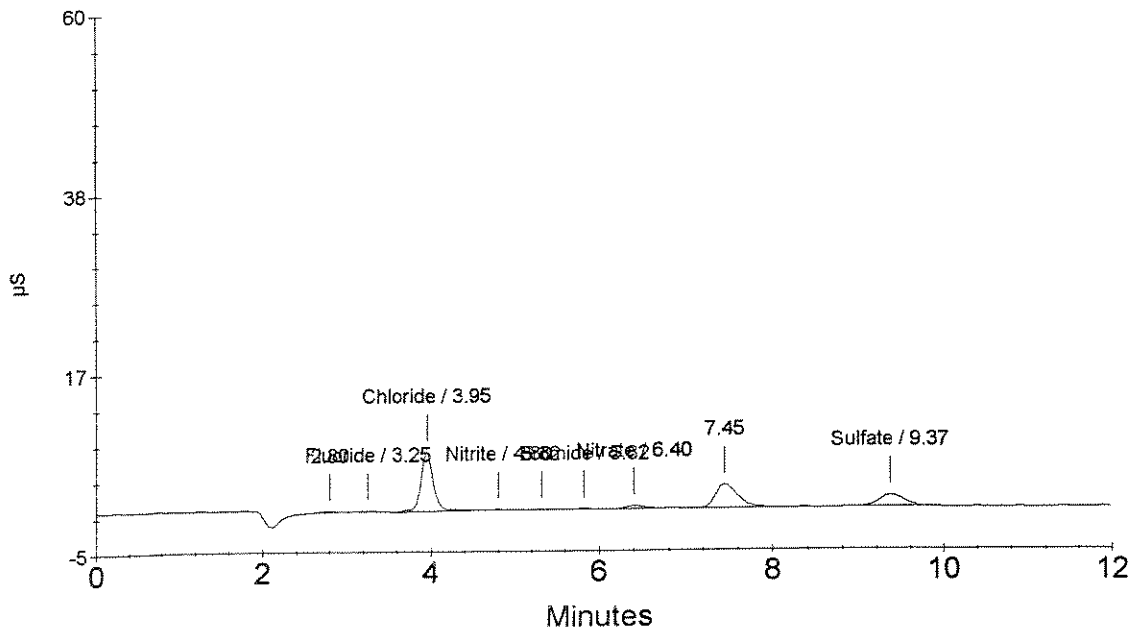
Data Collection Rate : 1.00 Hz  
 Data Collection Period : 720.00 seconds  
 Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
2	3.25	Fluoride	54.904	10335
3	3.95	Chloride	1748.770	714551
4	4.80	Nitrite	54.598	7396
6	5.82	Bromide <i>1/40</i>	35.018	7394
7	6.40	Nitrate	128.468	51692
9	9.37	Sulfate	1113.001	275719

*TC*  
*7/3/08*

1114421



Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14607

Sample Name : 1114421 DUP  
 Data File Name : ... \703\_007.DXD  
 Method File Name : ... \20080623.met  
 Date Time Collected : 7/3/08 12:38:19

Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Comment : Calibration 06.23.2008  
 Method Analyst : T. CHRIST

Dilution Factor : 1000.00  
 Sample Type : Sample Analysis  
 Sample Comment : B

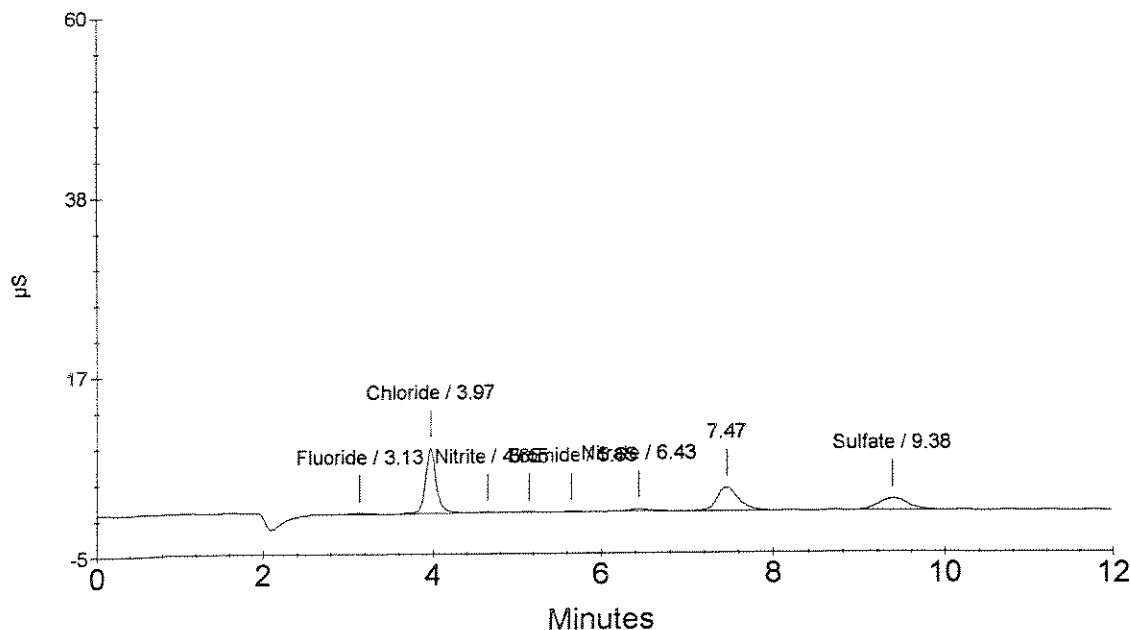
Data Collection Rate : 1.00 Hz  
 Data Collection Period : 720.00 seconds  
 Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.13	Fluoride	71.289	20114
2	3.97	Chloride	1695.702	692047
3	4.65	Nitrite	55.482	8152
5	5.65	Bromide <i>1/40</i>	50.865	9829
6	6.43	Nitrate	114.008	37100
8	9.38	Sulfate	1289.175	322523

*T. CHRIST*  
 7/3/08

1114421 DUP



Ion Chromatography Analytical Report  
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Sample Name : 1114421 SPK  
 Data File Name : ...703\_008.DXD  
 Method File Name : ...20080623.met  
 Data Time Collected : 7/3/08 12:52:42

Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Comment : Calibration 06.23.2008  
 Method Analyst : T. CHRIST

Dilution Factor : 1000.00  
 Sample Type : Sample Analysis  
 Sample Comment : B

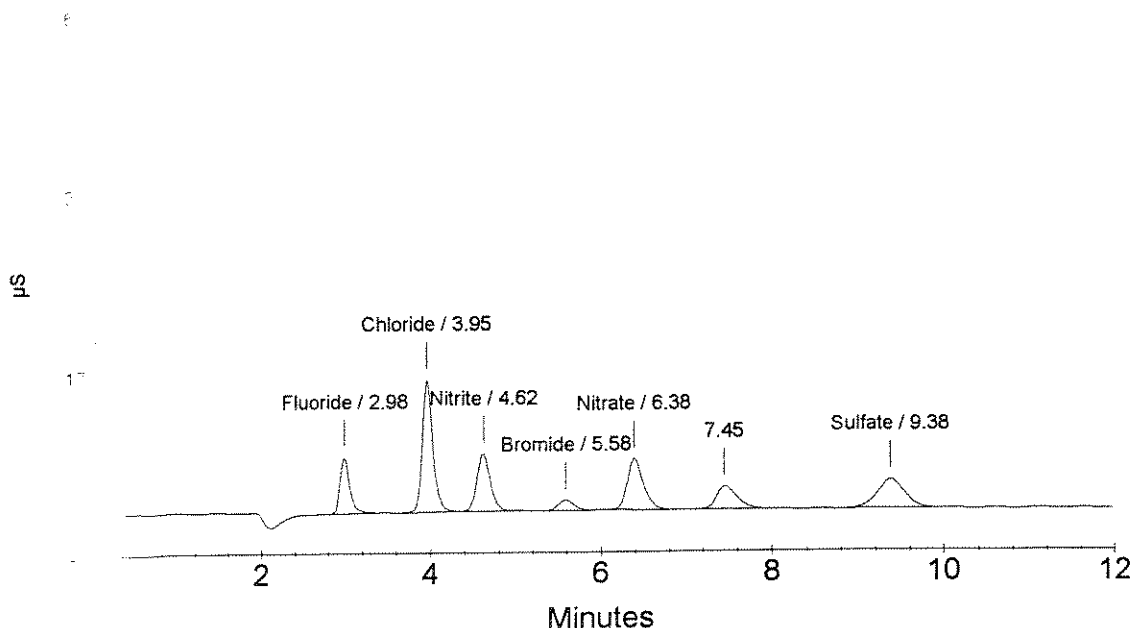
Data Collection Rate : 1.00 Hz  
 Data Collection Period : 720.00 seconds  
 Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.98	Fluoride	928.496	531739
2	3.95	Chloride	3337.577	1388288
3	4.62	Nitrite	958.992	780550
4	5.58	Bromide <i>1/40</i>	1019.368	158646
5	6.38	Nitrate	876.692	806752
7	9.38	Sulfate	2998.121	776543

*T. CHRIST*  
7/3/08

1114421 SPK



Ion Chromatography Analytical Report  
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Rochester, NY 14607

Sample Name : METHOD BLANK 6/26/08  
Data File Name : ...\\703\_009.DXD  
Method File Name : ...\\20080623.met  
Date Time Collected : 7/3/08 13:07:01

Detector Name :  
Column ID : AS-14 (022939) AG-14 (022002)  
Method Comment : Calibration 06.23.2008  
Method Analyst : T. CHRIST

Dilution Factor : 1.00  
Sample Type : Sample Analysis  
Sample Comment : EXTRACTION - B

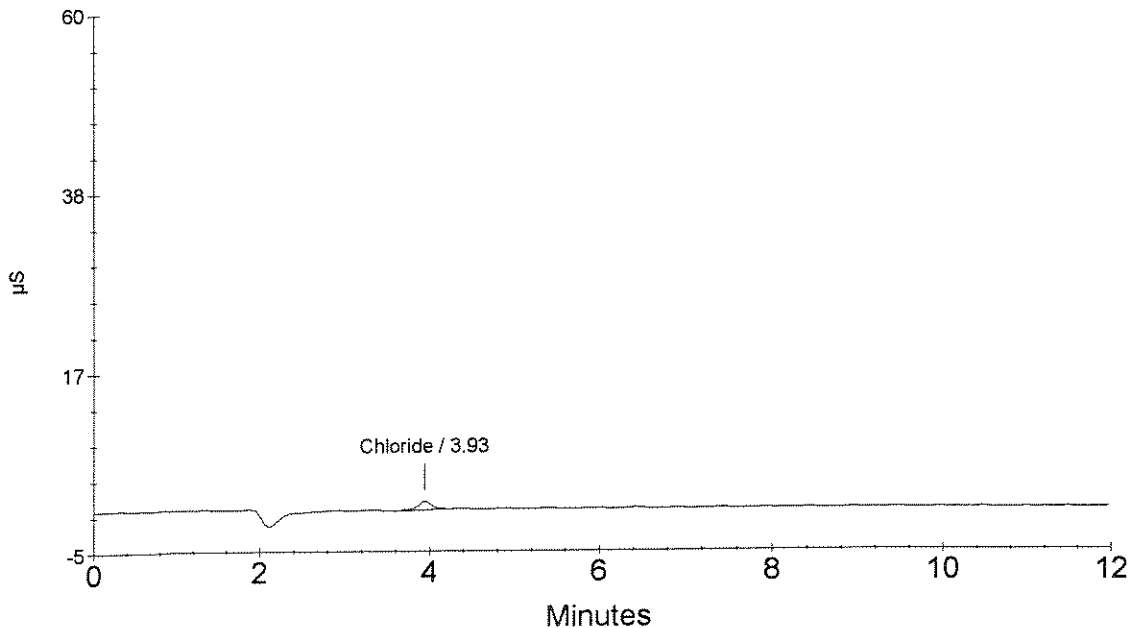
Data Collection Rate : 1.00 Hz  
Data Collection Period : 720.00 seconds  
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.93	Chloride	0.337	115802
1	3.93	Chloride	0.337	115802
		Nitrite		
		Bromide		
		Nitrate		
		Sulfate		

*ax*  
*7/3/08*

METHOD BLANK 6/26/08





Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14607

Sample Name : 1112363  
 Data File Name : ...\\703\_010.DXD  
 Method File Name : ...\\20080623.met  
 Date Time Collected : 7/3/08 13:21:21

Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Comment : Calibration 06.23.2008  
 Method Analyst : T. CHRIST

Dilution Factor : 1.00  
 Sample Type : Sample Analysis  
 Sample Comment : EXTRACTION - B

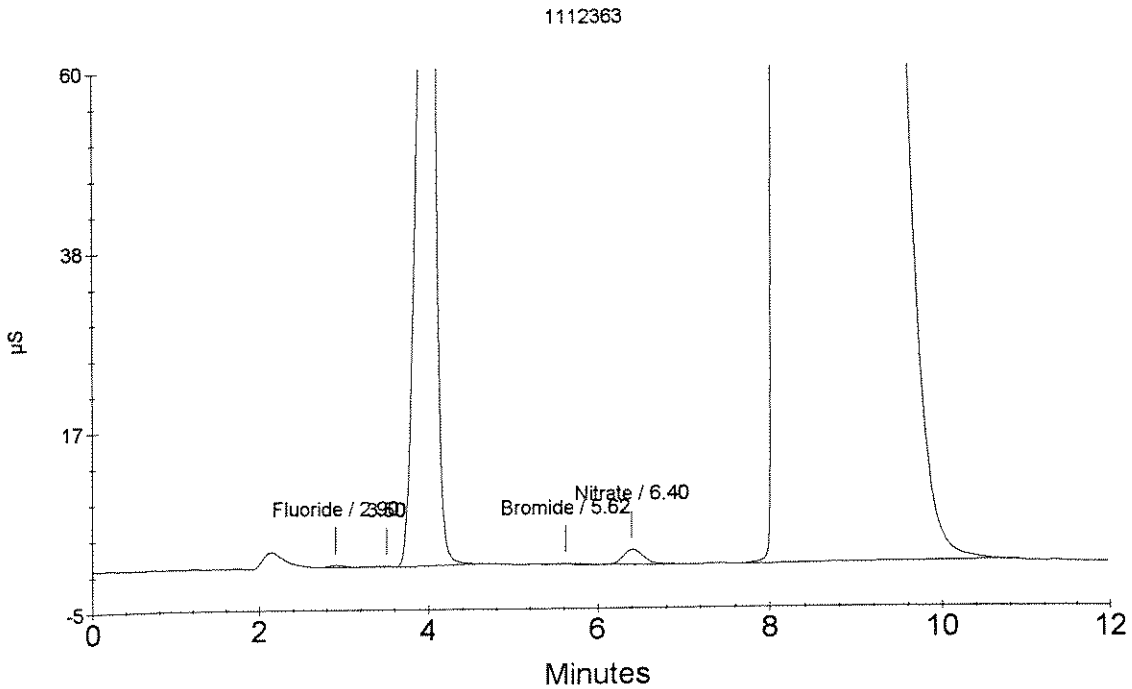
Data Collection Rate : 1.00 Hz  
 Data Collection Period : 720.00 seconds  
 Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.90	Fluoride	0.090	30985
3	4.00	Chloride Nitrite	42.427	17964304
4	5.62	Bromide	0.144	24120
5	6.40	Nitrate Sulfate	0.371	296599

*OK*  
*7/3/08*

*25g → 250ml*



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1112365  
Data File Name : ...703\_011.DXD  
Method File Name : ...20080623.met  
Date Time Collected : 7/3/08 13:35:39

Detector Name :  
Column ID : AS-14 (022939) AG-14 (022002)  
Method Comment : Calibration 06.23.2008  
Method Analyst : T. CHRIST

Dilution Factor : 1.00  
Sample Type : Sample Analysis  
Sample Comment : EXTRACTION - B

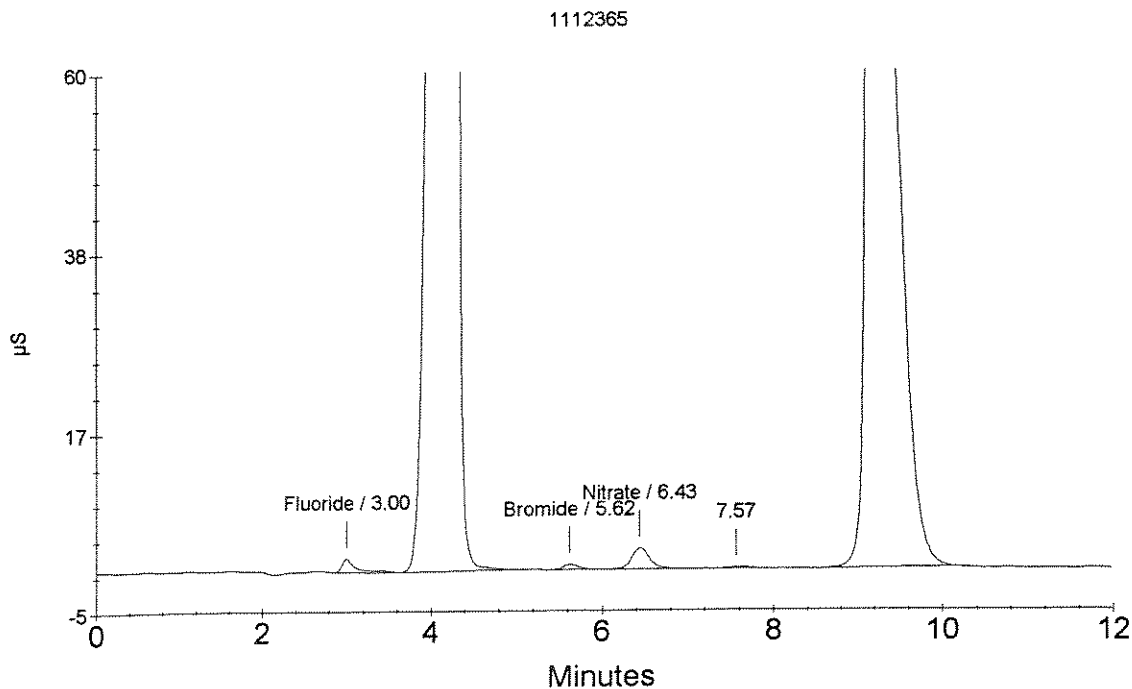
Data Collection Rate : 1.00 Hz  
Data Collection Period : 720.00 seconds  
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.00	Fluoride	0.357	190523
2	4.25	Chloride	152.819	64776295
		Nitrite		
3	5.62	Bromide <i>OK</i>	0.462	73041
4	6.43	Nitrate	0.446	371766
6	9.23	Sulfate	107.287	28483312

*W*  
*7/3/08*

*25g → 250ml*



Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14607

Sample Name : 1113695  
 Data File Name : ... \703\_012.DXD  
 Method File Name : ... \20080623.met  
 Date Time Collected : 7/3/08 13:49:59

Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Comment : Calibration 06.23.2008  
 Method Analyst : T. CHRIST

Dilution Factor : 10.00  
 Sample Type : Sample Analysis  
 Sample Comment : ~~EXTRACTION~~ - B

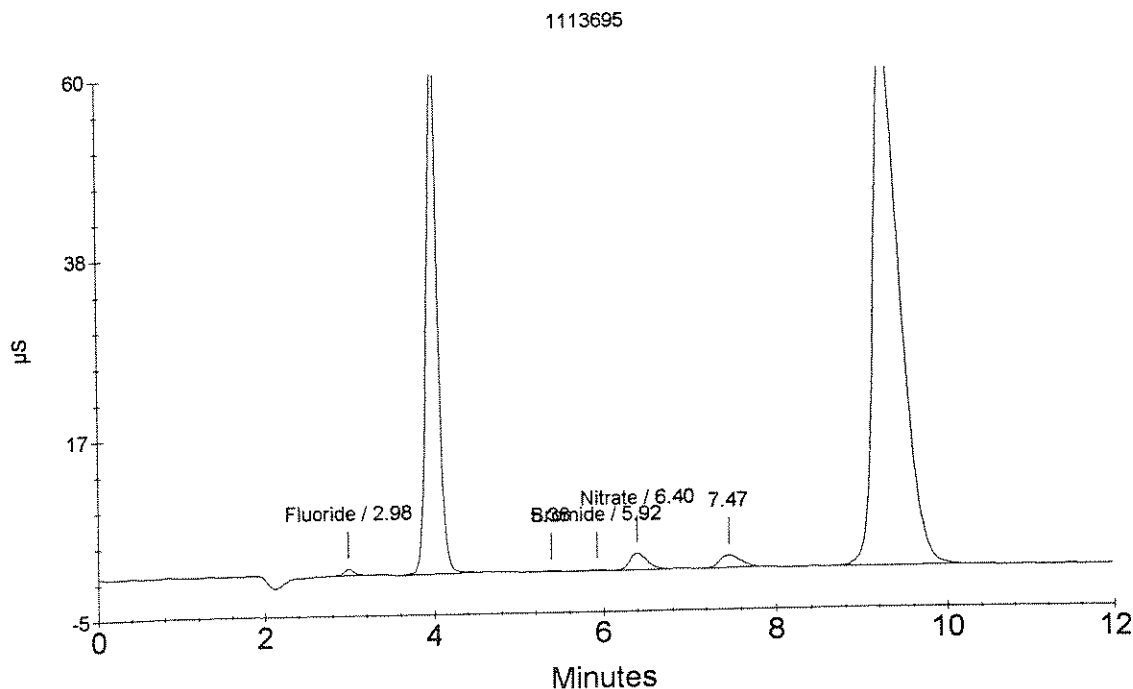
Data Collection Rate : 1.00 Hz  
 Data Collection Period : 720.00 seconds  
 Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.98	Fluoride	1.372	59434
2	3.98	Chloride	138.711	5855069
		Nitrite		
4	5.92	Bromide <i>STR</i>	0.347	7338
5	6.40	Nitrate	3.524	277693
7	9.32	Sulfate	521.467	13833985

*STR*  
*7/3/08*

*259*  
*SD 7/8/07*



Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14607

Sample Name : 1113696  
 Data File Name : ...\\703\_013.DXD  
 Method File Name : ...\\20080623.met  
 Date Time Collected : 7/3/08 14:04:20

Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Comment : Calibration 06.23.2008  
 Method Analyst : T. CHRIST

Dilution Factor : 10.00  
 Sample Type : Sample Analysis  
 Sample Comment : EXTRACTION - B

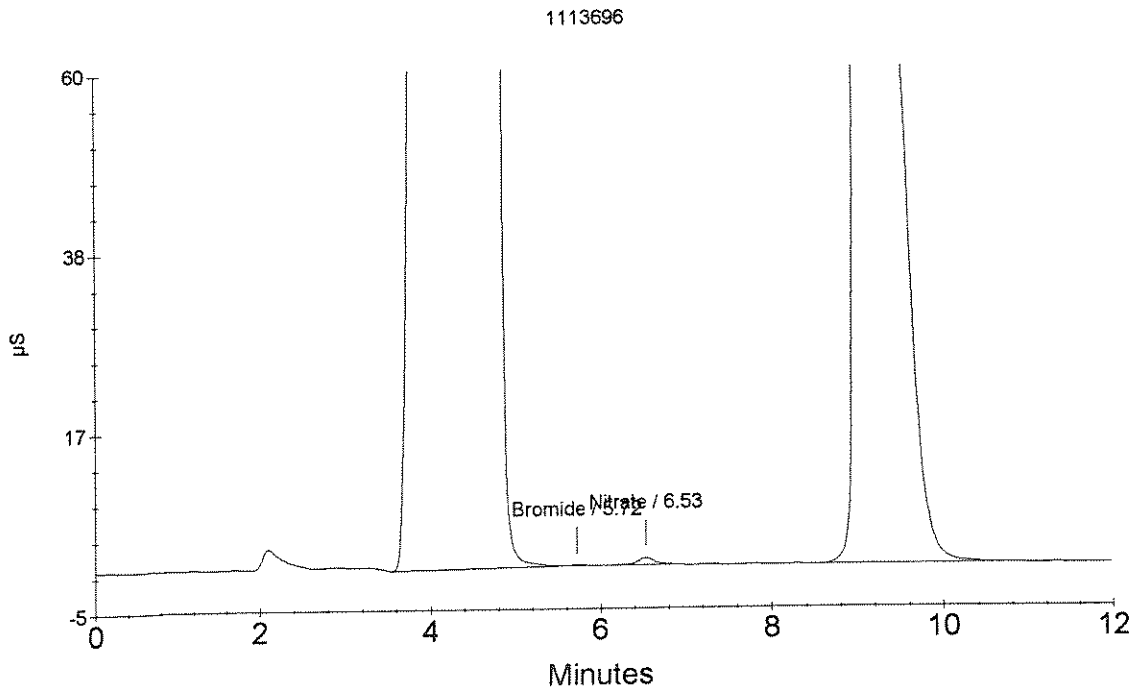
Data Collection Rate : 1.00 Hz  
 Data Collection Period : 720.00 seconds  
 Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	4.73	Nitrite Chloride	4106.069	350982711
1	4.73	Nitrite	4106.069	350982711
2	5.72	Bromide <i>OK</i>	0.544	10372
3	6.53	Nitrate	2.009	124738
4	9.13	Sulfate	2238.831	59459620

*7/3/08*

*25g → 250 ml  
SD 7/8/08*



Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14607

Sample Name : 1113697  
 Data File Name : ... \703\_014.DXD  
 Method File Name : ... \20080623.met  
 Date Time Collected : 7/3/08 14:18:40

Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Comment : Calibration 06.23.2008  
 Method Analyst : T. CHRIST

Dilution Factor : 10.00  
 Sample Type : Sample Analysis  
 Sample Comment : EXTRACTION - B

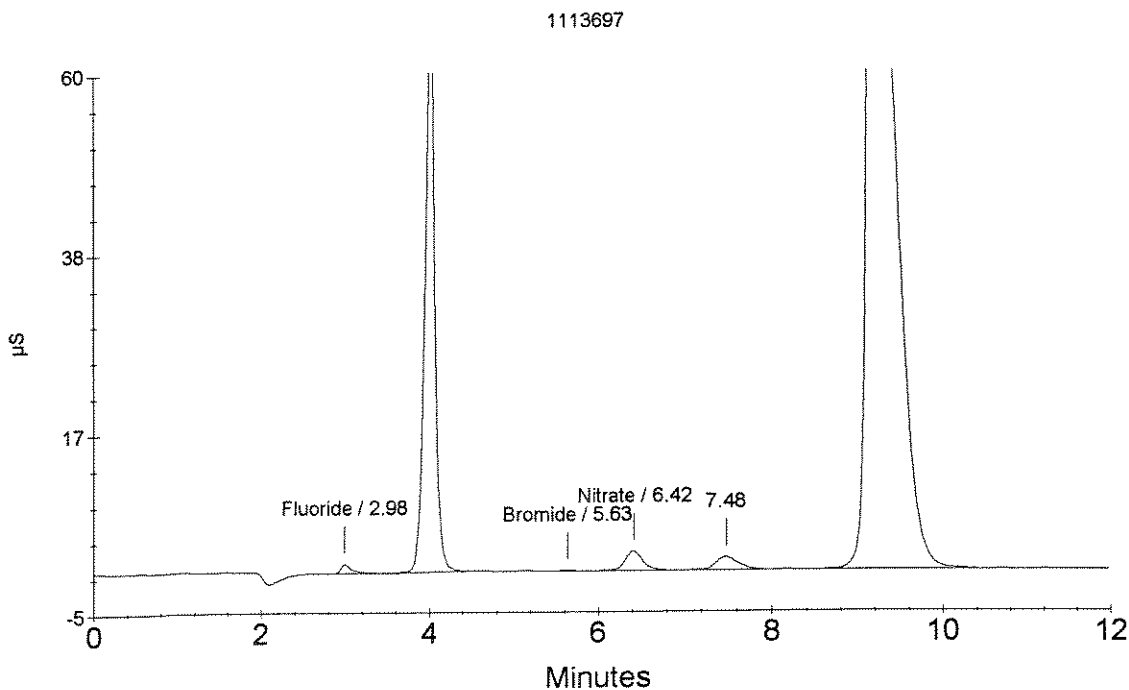
Data Collection Rate : 1.00 Hz  
 Data Collection Period : 720.00 seconds  
 Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.98	Fluoride	1.981	95824
2	4.00	Chloride	132.129	5575938
3	5.63	Nitrite Bromide <i>STR</i>	0.384	7908
4	6.42	Nitrate	4.187	344604
6	9.27	Sulfate	842.948	22374841

*STR*  
*7/3/08*

*25 J*  
*SD 7/18/08*



Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14607

Sample Name : 1113698  
 Data File Name : ...\\703\_015.DXD  
 Method File Name : ...\\20080623.met  
 Date Time Collected : 7/3/08 14:33:01

Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Comment : Calibration 06.23.2008  
 Method Analyst : T. CHRIST

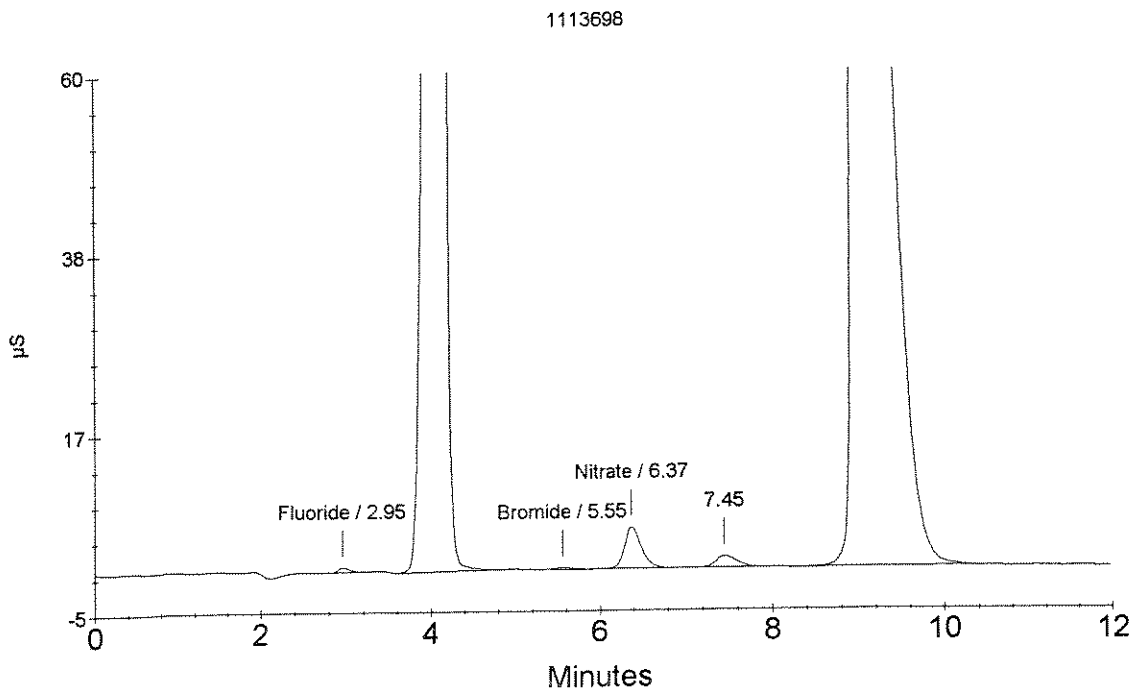
Dilution Factor : 10.00  
 Sample Type : Sample Analysis  
 Sample Comment : ~~EXTRACTION~~ - B

Data Collection Rate : 1.00 Hz  
 Data Collection Period : 720.00 seconds  
 Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.95	Fluoride	1.151	46247
2	4.12	Chloride	878.605	37230449
		Nitrite		
3	5.55	Bromide	1.662	27554
4	6.37	Nitrate	7.588	687745
6	9.08	Sulfate	1860.385	49405363

*SAE OK*  
*7/3/08*



Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14607

Sample Name : 1113699  
 Data File Name : ...\\703\_016.DXD  
 Method File Name : ...\\20080623.met  
 Date Time Collected : 7/3/08 14:47:20

Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Comment : Calibration 06.23.2008  
 Method Analyst : T. CHRIST

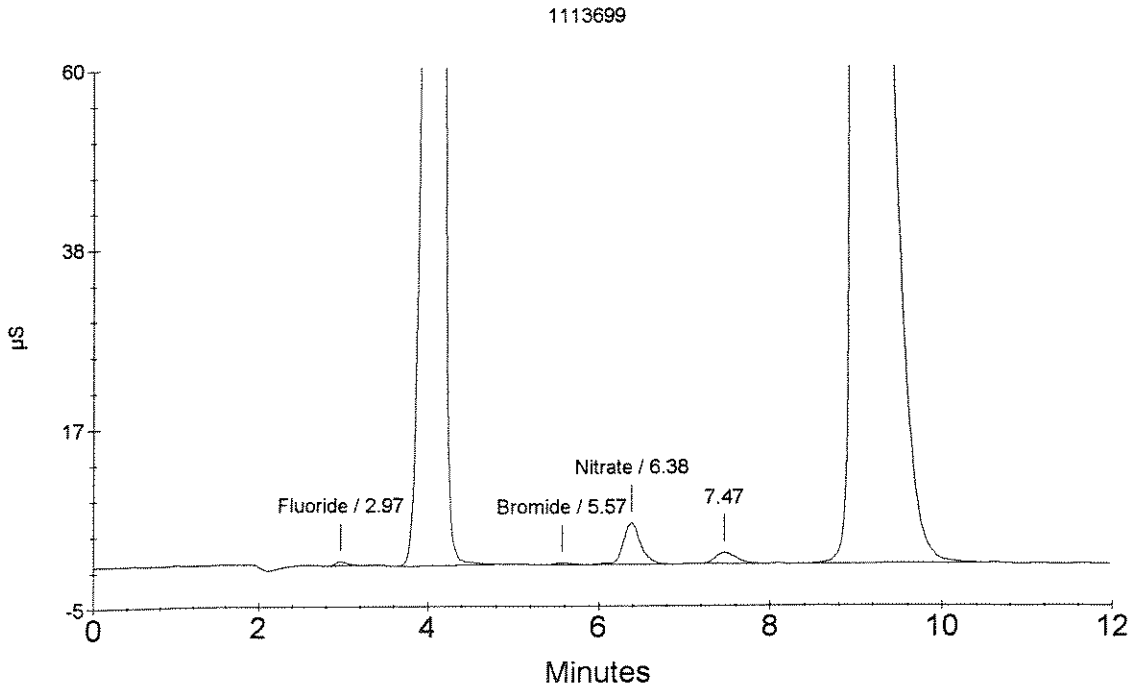
Dilution Factor : 10.00  
 Sample Type : Sample Analysis  
 Sample Comment : ~~EXTRACTION~~ - B

Data Collection Rate : 1.00 Hz  
 Data Collection Period : 720.00 seconds  
 Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.97	Fluoride	1.157	46607
2	4.12	Chloride	863.251	36579365
3	5.57	Nitrite	1.571	26156
4	6.38	Nitrate	7.785	707679
6	9.08	Sulfate	1841.085	48892613

*SPR OK*  
*7/3/08*



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : CCV  
Data File Name : ...\\703\_017.DXD  
Method File Name : ...\\20080623.met  
Date Time Collected : 7/3/08 15:01:39

Detector Name :  
Column ID : AS-14 (022939) AG-14 (022002)  
Method Comment : Calibration 06.23.2008  
Method Analyst : T. CHRIST

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

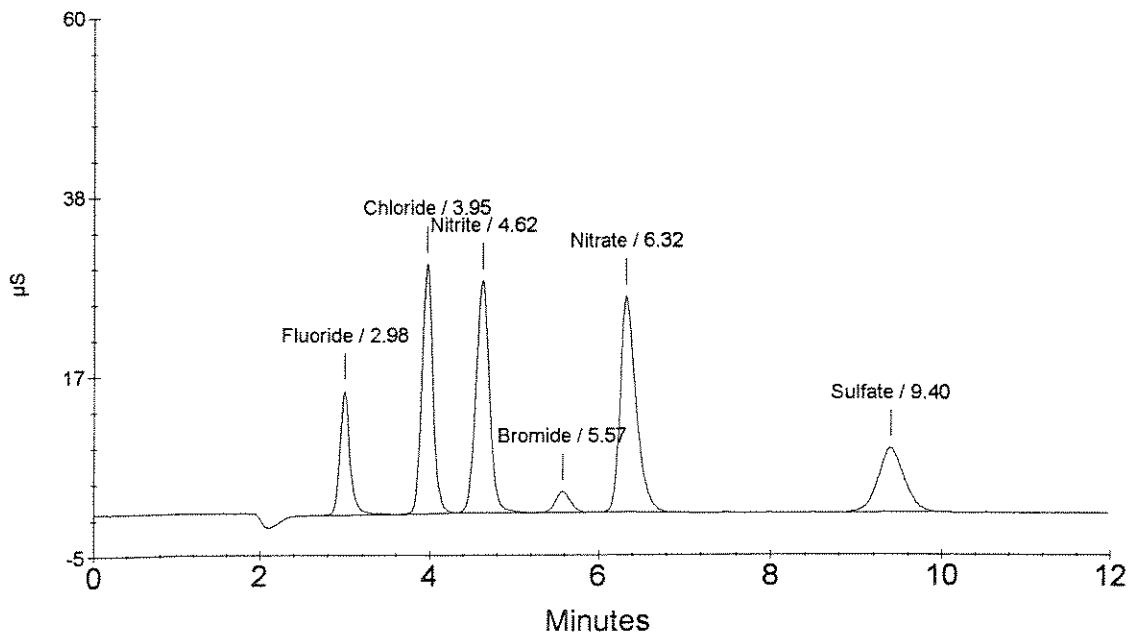
Data Collection Rate : 1.00 Hz  
Data Collection Period : 720.00 seconds  
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.98	Fluoride	2.058	1205936
2	3.95	Chloride	6.572	2759963
3	4.62	Nitrite	3.712	3134326
4	5.57	Bromide <i>OK</i>	1.981	306426
5	6.32	Nitrate	3.440	3393006
6	9.40	Sulfate	6.177	1621209

*CCV*  
*7/3/08*

CCV





Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14607

Sample Name : CCB  
 Data File Name : ... \703\_018.DXD  
 Method File Name : ... \20080623.met  
 Date Time Collected : 7/3/08 15:15:59

Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Comment : Calibration 06.23.2008  
 Method Analyst : T. CHRIST

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

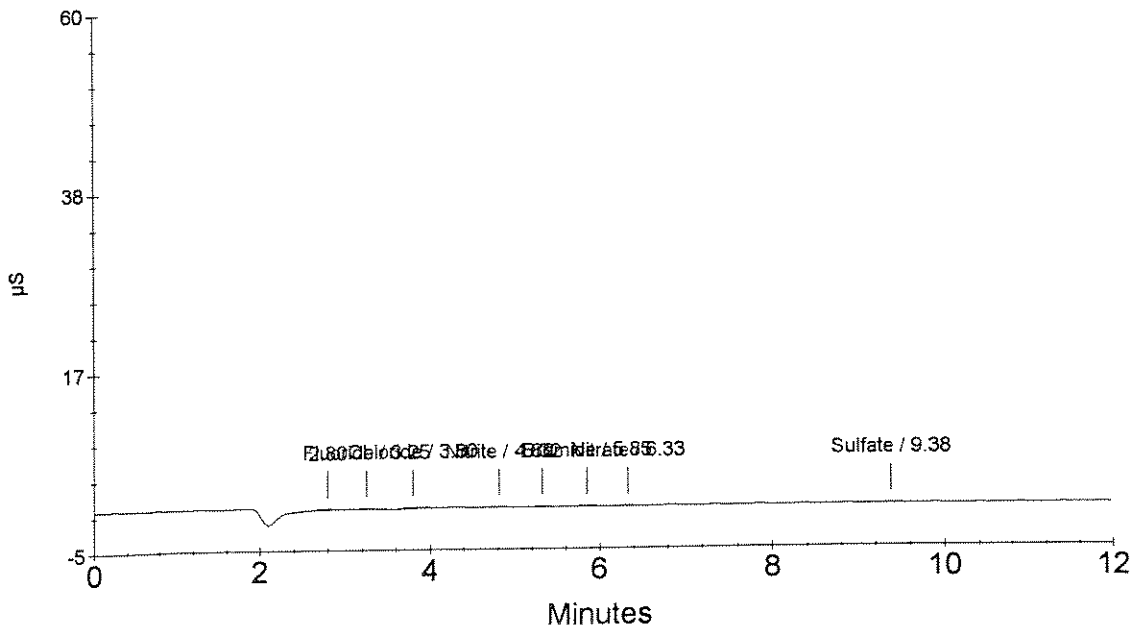
Data Collection Rate : 1.00 Hz  
 Data Collection Period : 720.00 seconds  
 Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
2	3.25	Fluoride	0.060	13391
3	3.80	Chloride	0.120	23896
4	4.82	Nitrite	0.055	7881
6	5.85	Bromide <i>OK</i>	0.049	9489
7	6.33	Nitrate	0.084	7272
8	9.38	Sulfate	0.122	12317

*W*  
 7/3/08

CCB



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1113245  
Data File Name : ...\\703\_019.DXD  
Method File Name : ...\\20080623.met  
Date Time Collected : 7/3/08 15:30:18

Detector Name :  
Column ID : AS-14 (022939) AG-14 (022002)  
Method Comment : Calibration 06.23.2008  
Method Analyst : T. CHRIST

Dilution Factor : 1.00  
Sample Type : Sample Analysis  
Sample Comment : EXTRACTION - B

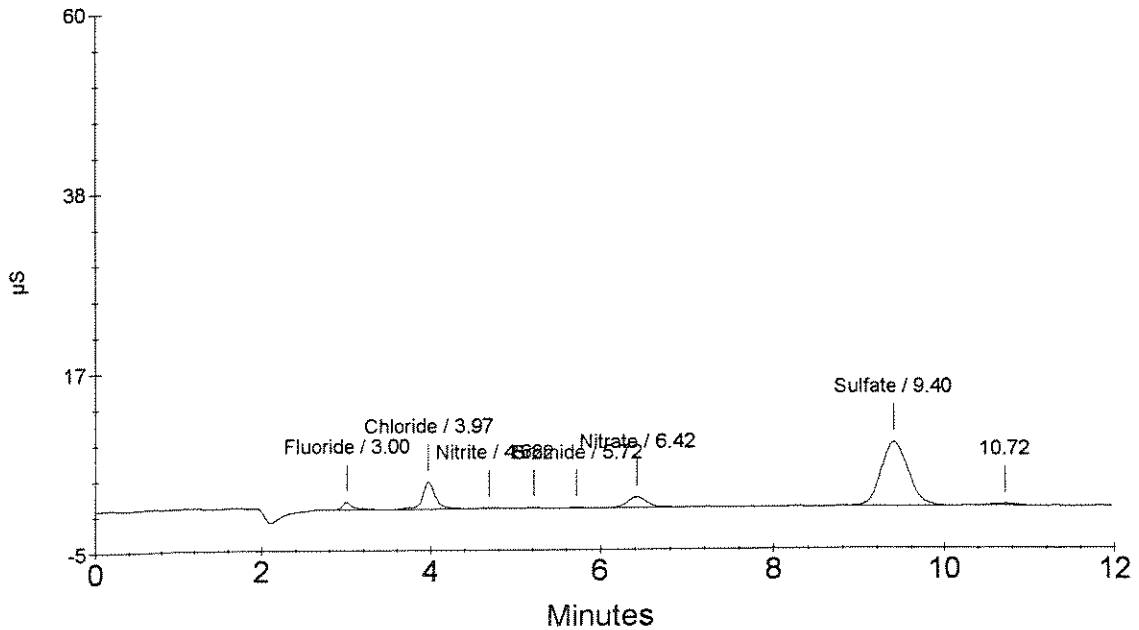
Data Collection Rate : 1.00 Hz  
Data Collection Period : 720.00 seconds  
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.00	Fluoride	0.178	84065
2	3.97	Chloride	0.904	356465
3	4.68	Nitrite	0.059	10797
5	5.72	Bromide <i>OK</i>	0.032	6928
6	6.42	Nitrate	0.277	201891
7	9.40	Sulfate	6.504	1707856

*OK*  
*7/3/08*  
*25g → 250ml*

1113245



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1113249  
Data File Name : ... \703\_020.DXD  
Method File Name : ... \20080623.met  
Date Time Collected : 7/3/08 15:44:39

Detector Name :  
Column ID : AS-14 (022939) AG-14 (022002)  
Method Comment : Calibration 06.23.2008  
Method Analyst : T. CHRIST

Dilution Factor : 1.00  
Sample Type : Sample Analysis  
Sample Comment : EXTRACTION - B

Data Collection Rate : 1.00 Hz  
Data Collection Period : 720.00 seconds  
Component Amount Units : mg/L

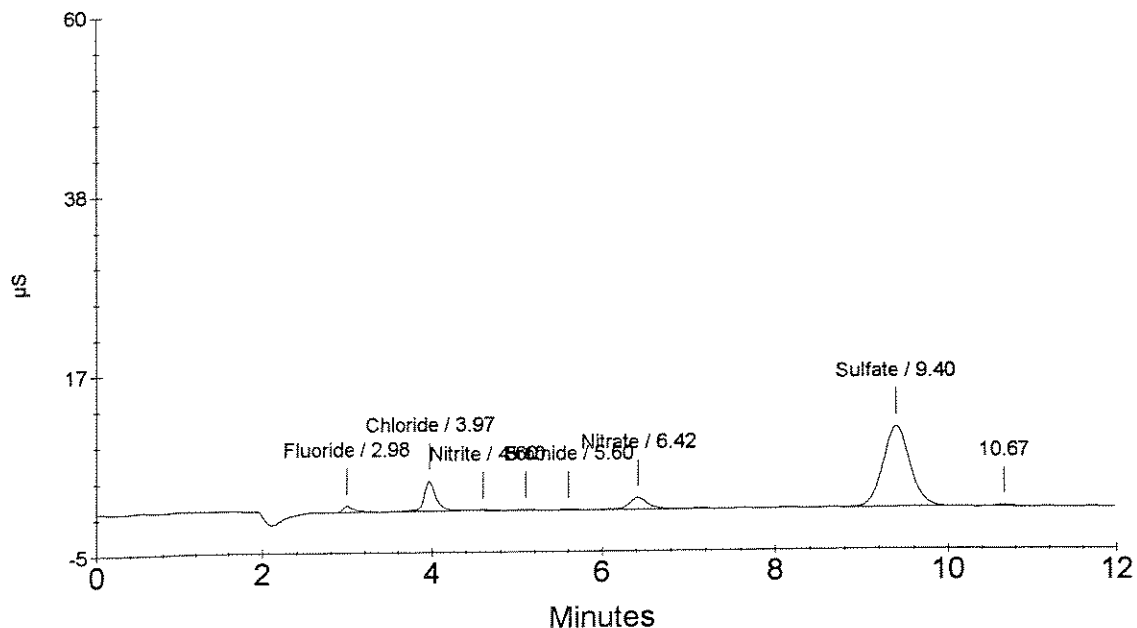
Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.98	Fluoride	0.155	69842
2	3.97	Chloride	0.882	346870
3	4.60	Nitrite	0.058	9991
5	5.60	Bromide <i>OK</i>	0.037	7695
6	6.42	Nitrate	0.284	208997
7	9.40	Sulfate	7.990	2102806

*OK*  
*7/3/08*

*25g → 250ml*

1113249



Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14607

Sample Name : 1113250  
 Data File Name : ...\\703\_021.DXD  
 Method File Name : ...\\20080623.met  
 Date Time Collected : 7/3/08 15:58:59

Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Comment : Calibration 06.23.2008  
 Method Analyst : T. CHRIST

Dilution Factor : 1.00  
 Sample Type : Sample Analysis  
 Sample Comment : EXTRACTION - B

Data Collection Rate : 1.00 Hz  
 Data Collection Period : 720.00 seconds  
 Component Amount Units : mg/L

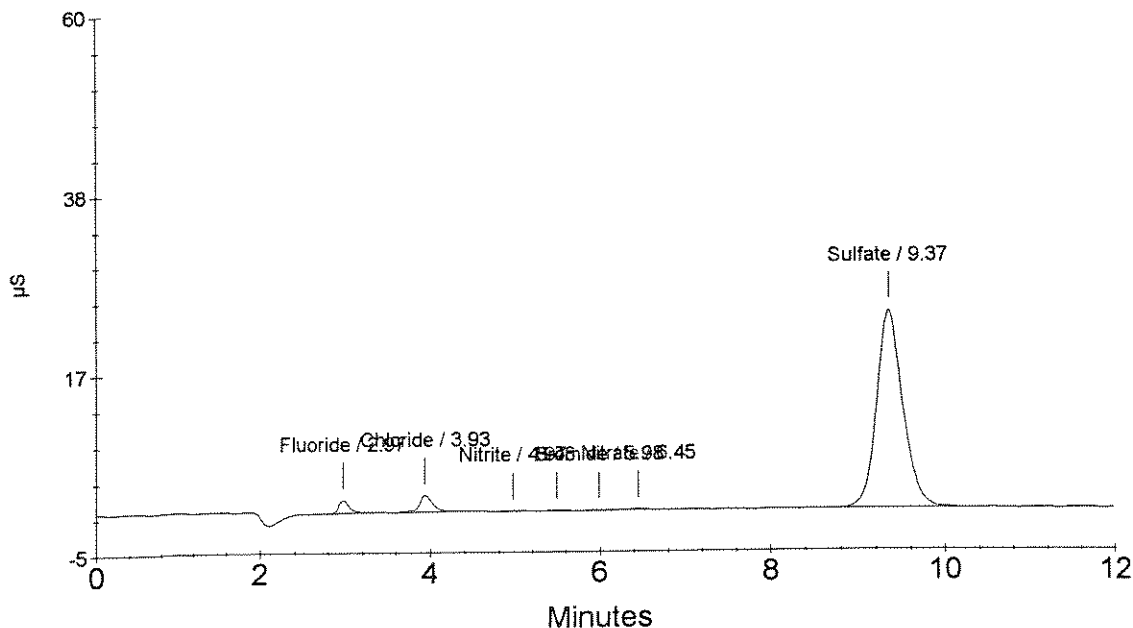
Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.97	Fluoride	0.258	131297
2	3.93	Chloride	0.575	216654
3	4.97	Nitrite	0.055	7437
5	5.98	Bromide	0.046	9147
6	6.45	Nitrate	0.096	18582
7	9.37	Sulfate	18.850	4988072

*OK*  
*7/3/08*

*259 → 250*

1113250



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1113250 DUP  
Data File Name : ...\\703\_022.DXD  
Method File Name : ...\\20080623.met  
Date Time Collected : 7/3/08 16:13:18

Detector Name :  
Column ID : AS-14 (022939) AG-14 (022002)  
Method Comment : Calibration 06.23.2008  
Method Analyst : T. CHRIST

Dilution Factor : 1.00  
Sample Type : Sample Analysis  
Sample Comment : EXTRACTION - B

Data Collection Rate : 1.00 Hz  
Data Collection Period : 720.00 seconds  
Component Amount Units : mg/L

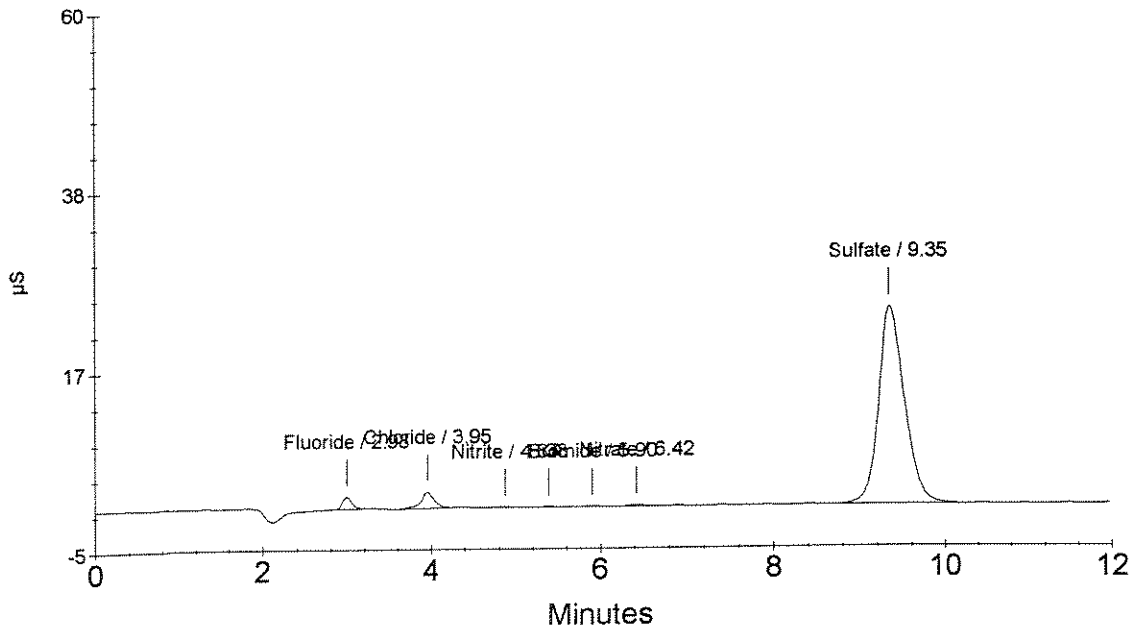
Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.98	Fluoride	0.224	111332
2	3.95	Chloride	0.588	222386
3	4.87	Nitrite	0.054	7265
5	5.90	Bromide <i>OK</i>	0.056	10603
6	6.42	Nitrate	0.102	24522
7	9.35	Sulfate	18.887	4997802

*OK*  
*7/3/08*

*25J → 250ml*

1113250 DUP



Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14607

Sample Name : 1113250 SPK  
 Data File Name : ...\\703\_023.DXD  
 Method File Name : ...\\20080623.met  
 Date Time Collected : 7/3/08 16:27:38

Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Comment : Calibration 06.23.2008  
 Method Analyst : T. CHRIST

Dilution Factor : 1.00  
 Sample Type : Sample Analysis  
 Sample Comment : EXTRACTION - B

Data Collection Rate : 1.00 Hz  
 Data Collection Period : 720.00 seconds  
 Component Amount Units : mg/L

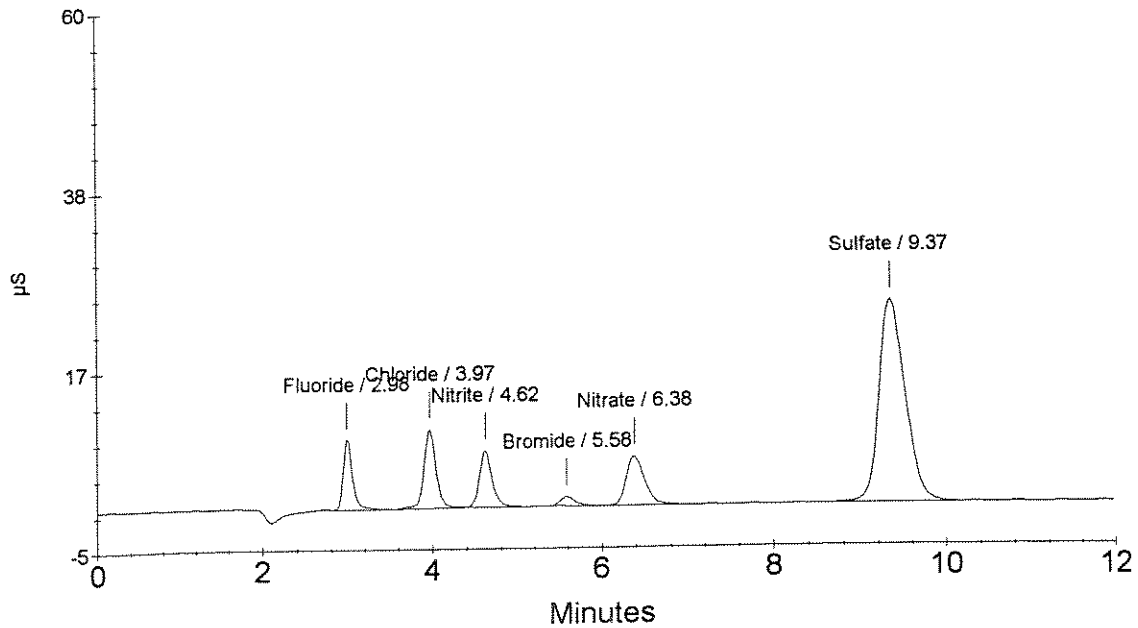
Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.98	Fluoride	1.127	650460
2	3.97	Chloride	2.257	930240
3	4.62	Nitrite	0.855	691450
4	5.58	Bromide <i>OK</i>	0.850	132641
5	6.38	Nitrate	0.942	872545
6	9.37	Sulfate	19.752	5227677

*M/T  
7/3/08*

*25g → 250ml*

1113250 SPK



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1113254  
Data File Name : ...\\703\_024.DXD  
Method File Name : ...\\20080623.met  
Date Time Collected : 7/3/08 16:41:57

Detector Name :  
Column ID : AS-14 (022939) AG-14 (022002)  
Method Comment : Calibration 06.23.2008  
Method Analyst : T. CHRIST

Dilution Factor : 1.00  
Sample Type : Sample Analysis  
Sample Comment : EXTRACTION - B

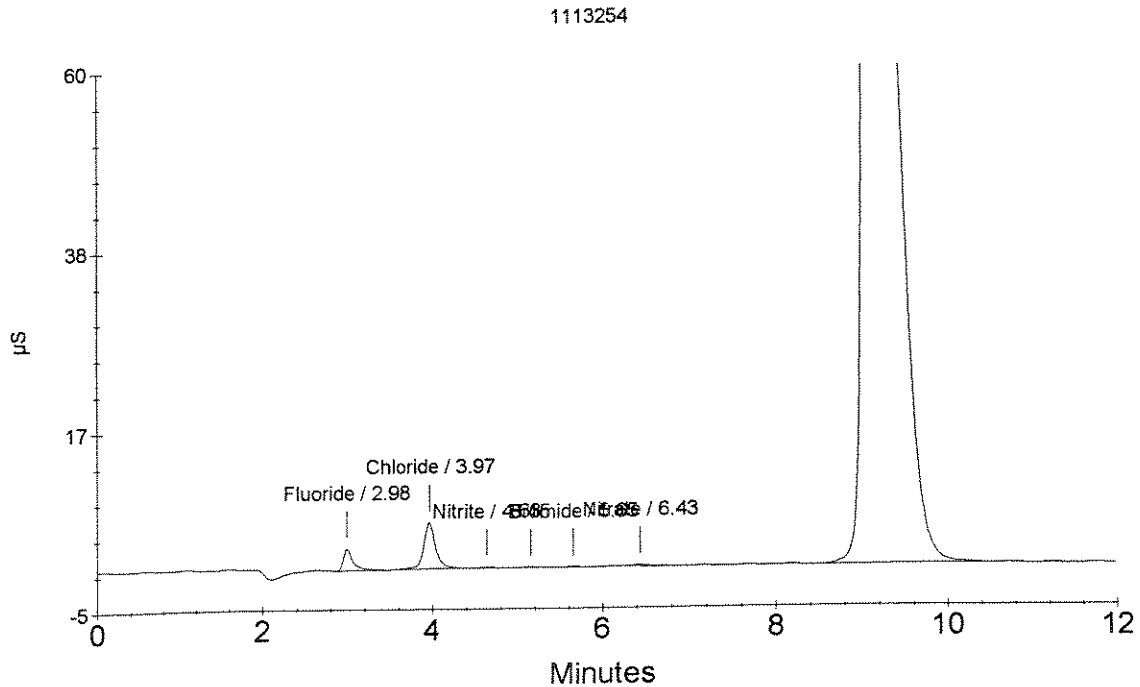
Data Collection Rate : 1.00 Hz  
Data Collection Period : 720.00 seconds  
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.98	Fluoride	0.374	200555
2	3.97	Chloride	1.336	539611
3	4.63	Nitrite	0.055	7418
5	5.65	Bromide <i>OK</i>	0.028	6364
6	6.43	Nitrate	0.102	24857
7	9.15	Sulfate	136.343	36202598

*7/3/08*

*255 → 250 ml*



Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14607

Sample Name : 1113255  
 Data File Name : ... \703\_025.DXD  
 Method File Name : ... \20080623.met  
 Date Time Collected : 7/3/08 16:56:16

Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Comment : Calibration 06.23.2008  
 Method Analyst : T. CHRIST

Dilution Factor : 1.00  
 Sample Type : Sample Analysis  
 Sample Comment : EXTRACTION - B

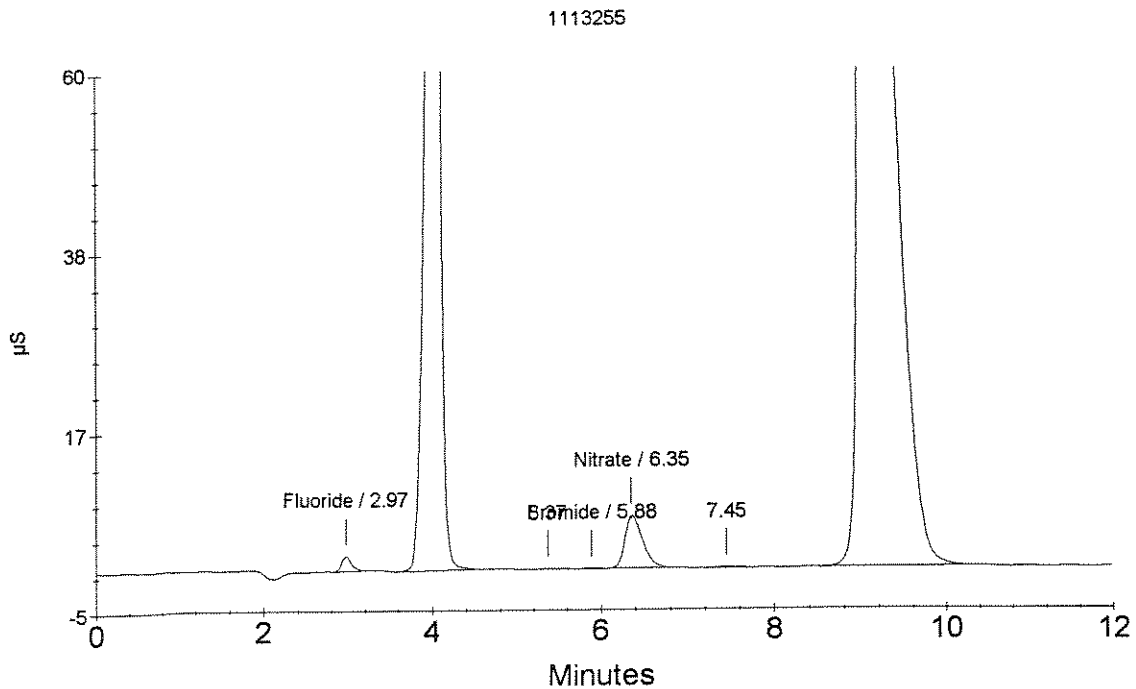
Data Collection Rate : 1.00 Hz  
 Data Collection Period : 720.00 seconds  
 Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.97	Fluoride	0.279	144013
2	4.02	Chloride	36.180	15315042
		Nitrite		
4	5.88	Bromide <i>OK</i>	0.024	5636
5	6.35	Nitrate	0.946	876879
7	9.13	Sulfate	144.675	38416122

*7/3/08*

*25g → 250ml*





Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1113255 DUP  
Data File Name : ... \703\_026.DXD  
Method File Name : ... \20080623.met  
Date Time Collected : 7/3/08 17:10:36

Detector Name :  
Column ID : AS-14 (022939) AG-14 (022002)  
Method Comment : Calibration 06.23.2008  
Method Analyst : T. CHRIST

Dilution Factor : 1.00  
Sample Type : Sample Analysis  
Sample Comment : EXTRACTION - B

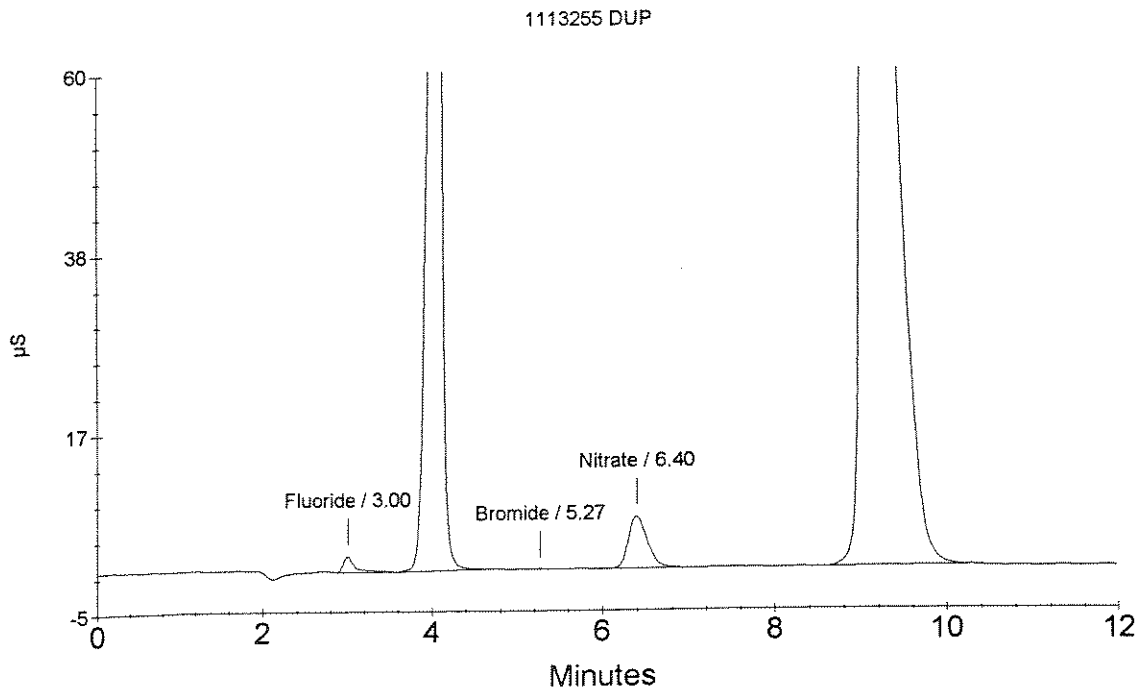
Data Collection Rate : 1.00 Hz  
Data Collection Period : 720.00 seconds  
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.00	Fluoride	0.347	184780
2	4.05	Chloride	33.906	14350903
		Nitrite		
3	5.27	Bromide <i>OK</i>	0.027	6152
4	6.40	Nitrate	1.008	939200
5	9.17	Sulfate	141.638	37609371

*7/3/08*

*25g → 250ml*



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1113255 SPK  
Data File Name : ...\\703\_027.DXD  
Method File Name : ...\\20080623.met  
Date Time Collected : 7/3/08 17:24:55

Detector Name :  
Column ID : AS-14 (022939) AG-14 (022002)  
Method Comment : Calibration 06.23.2008  
Method Analyst : T. CHRIST

Dilution Factor : 1.00  
Sample Type : Sample Analysis  
Sample Comment : EXTRACTION - B

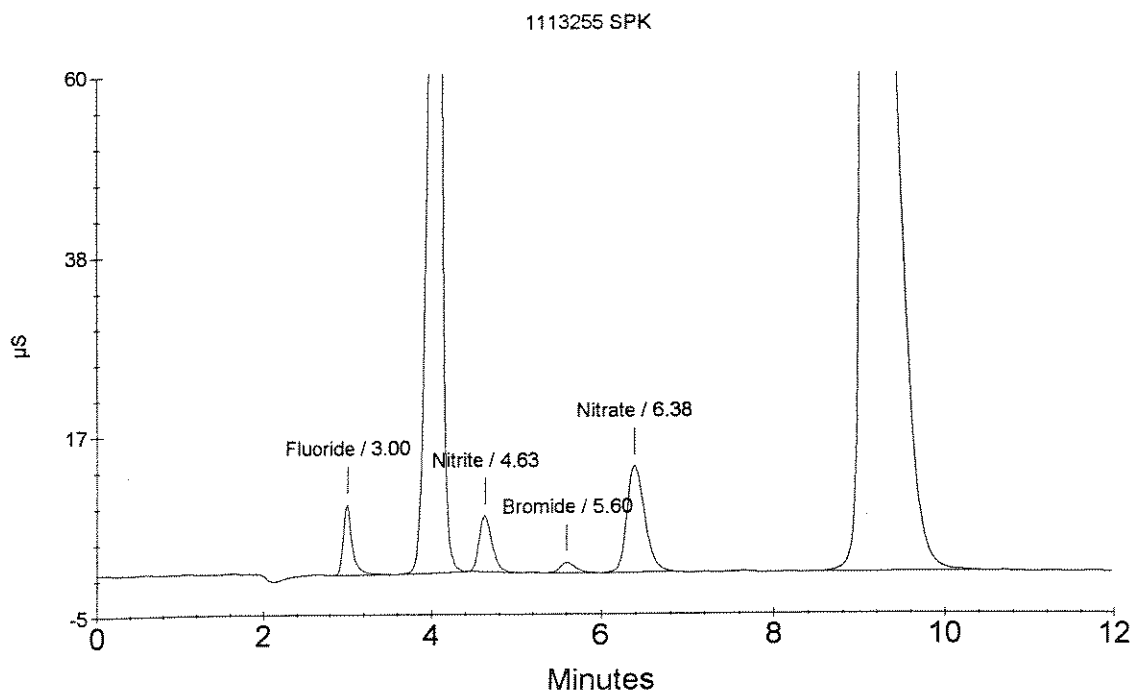
Data Collection Rate : 1.00 Hz  
Data Collection Period : 720.00 seconds  
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.00	Fluoride	1.111	640370
2	4.05	Chloride	33.677	14253596
3	4.63	Nitrite	0.887	718965
4	5.60	Bromide	0.939	146329
5	6.38	Nitrate	1.903	1842541
6	9.15	Sulfate	142.794	37916478

*OK*  
*cm*  
*7/3/08*

*25g → 250ml*



Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14607

Sample Name : 1113256  
 Data File Name : ...703\_028.DXD  
 Method File Name : ...20080623.met  
 Date Time Collected : 7/3/08 17:39:14

Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Comment : Calibration 06.23.2008  
 Method Analyst : T. CHRIST

Dilution Factor : 1.00  
 Sample Type : Sample Analysis  
 Sample Comment : EXTRACTION - B

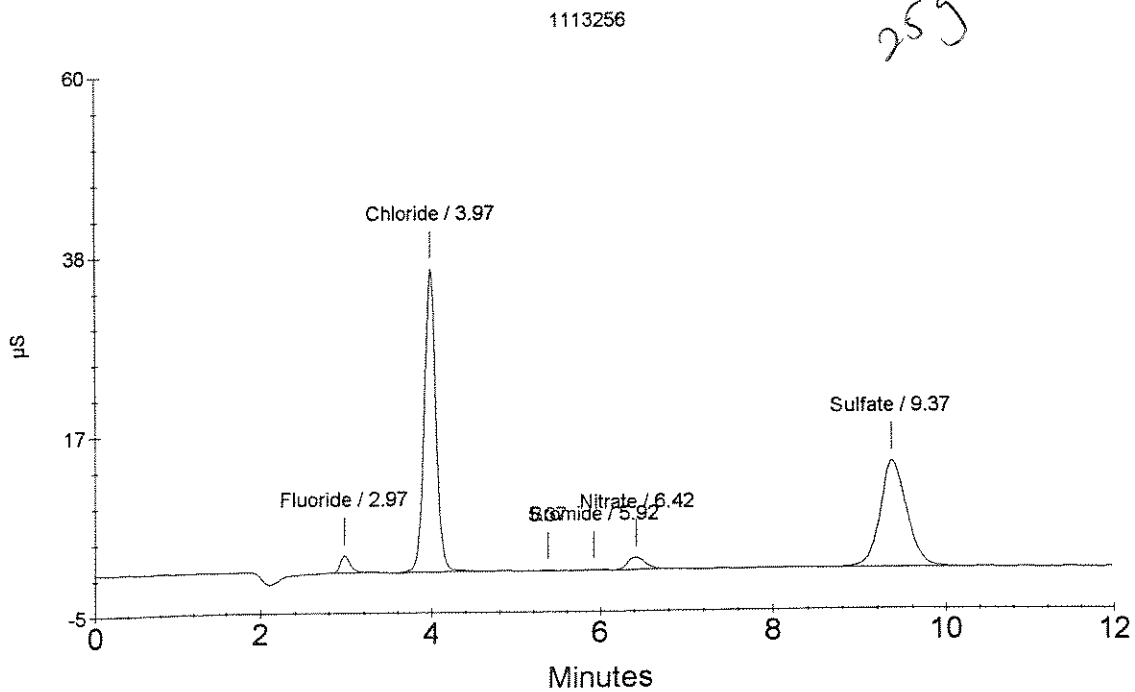
Data Collection Rate : 1.00 Hz  
 Data Collection Period : 720.00 seconds  
 Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.97	Fluoride	0.311	163051
2	3.97	Chloride	8.337	3508181
		Nitrite		
4	5.92	Bromide <i>OK</i>	0.047	9298
5	6.42	Nitrate	0.280	204406
6	9.37	Sulfate	10.339	2726764

*7/3/08*

*25g → 250ml*



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1113257  
Data File Name : ... \703\_029.DXD  
Method File Name : ... \20080623.met  
Date Time Collected : 7/3/08 17:53:34

Detector Name :  
Column ID : AS-14 (022939) AG-14 (022002)  
Method Comment : Calibration 06.23.2008  
Method Analyst : T. CHRIST

Dilution Factor : 1.00  
Sample Type : Sample Analysis  
Sample Comment : EXTRACTION - B

Data Collection Rate : 1.00 Hz  
Data Collection Period : 720.00 seconds  
Component Amount Units : mg/L

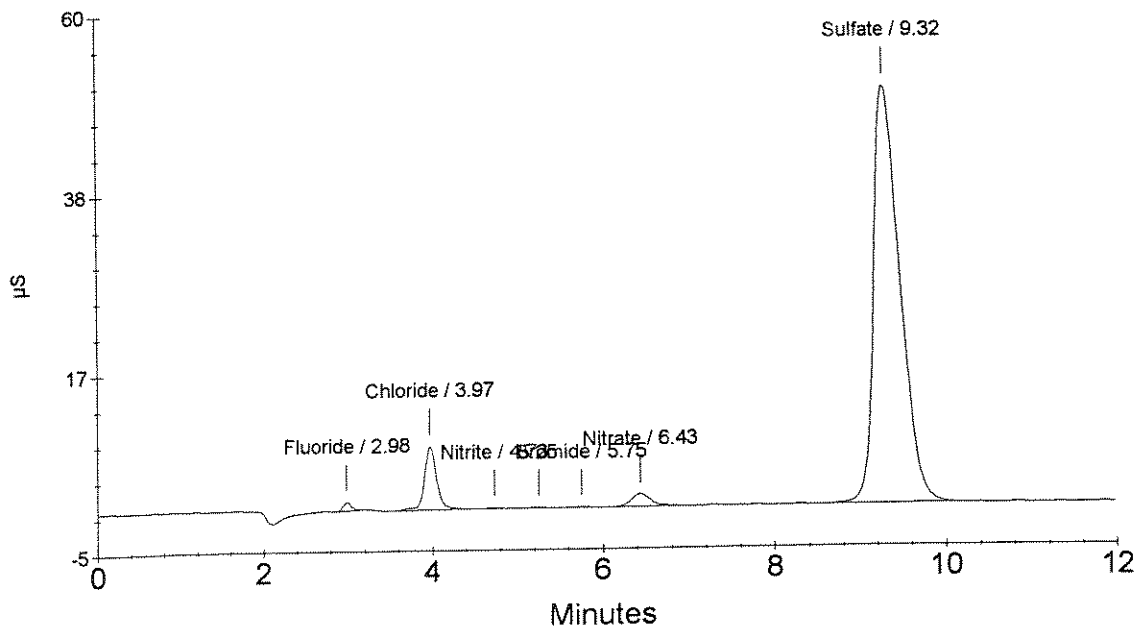
Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.98	Fluoride	0.154	69463
2	3.97	Chloride	1.892	775194
3	4.73	Nitrite	0.056	8259
5	5.75	Bromide <i>OK</i>	0.023	5562
6	6.43	Nitrate	0.307	231422
7	9.32	Sulfate	40.593	10764516

*OK*  
*7/3/08*

*25g → 250ml*

1113257



Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14607

Sample Name : 1113258  
 Data File Name : ...\\703\_030.DXD  
 Method File Name : ...\\20080623.met  
 Date Time Collected : 7/3/08 18:07:53

Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Comment : Calibration 06.23.2008  
 Method Analyst : T. CHRIST

Dilution Factor : 1.00  
 Sample Type : Sample Analysis  
 Sample Comment : EXTRACTION - B

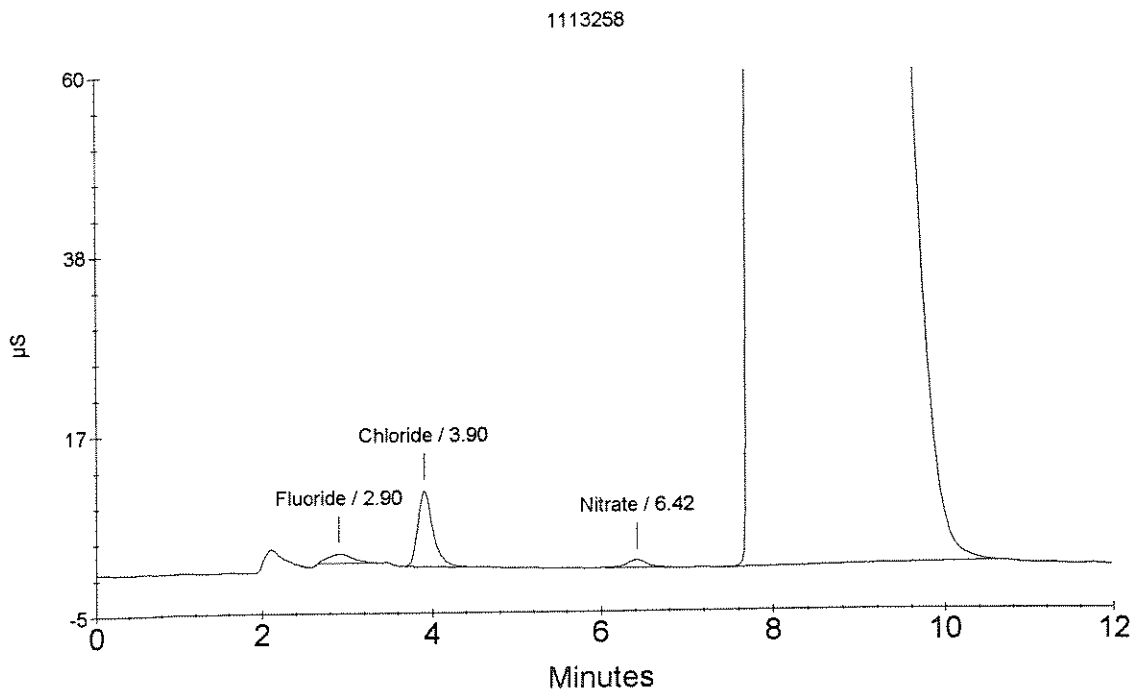
Data Collection Rate : 1.00 Hz  
 Data Collection Period : 720.00 seconds  
 Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.90	Fluoride	0.402	217451
2	3.90	Chloride	2.698	1117031
3	6.42	Nitrite	0.230	154165
		Bromide		
		Nitrate Sulfate		

*OK*  
*7/3/08*

*25g → 250ml*



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1113259  
Data File Name : ...\\703\_031.DXD  
Method File Name : ...\\20080623.met  
Date Time Collected : 7/3/08 18:22:14

Detector Name :  
Column ID : AS-14 (022939) AG-14 (022002)  
Method Comment : Calibration 06.23.2008  
Method Analyst : T. CHRIST

Dilution Factor : 1.00  
Sample Type : Sample Analysis  
Sample Comment : EXTRACTION - B

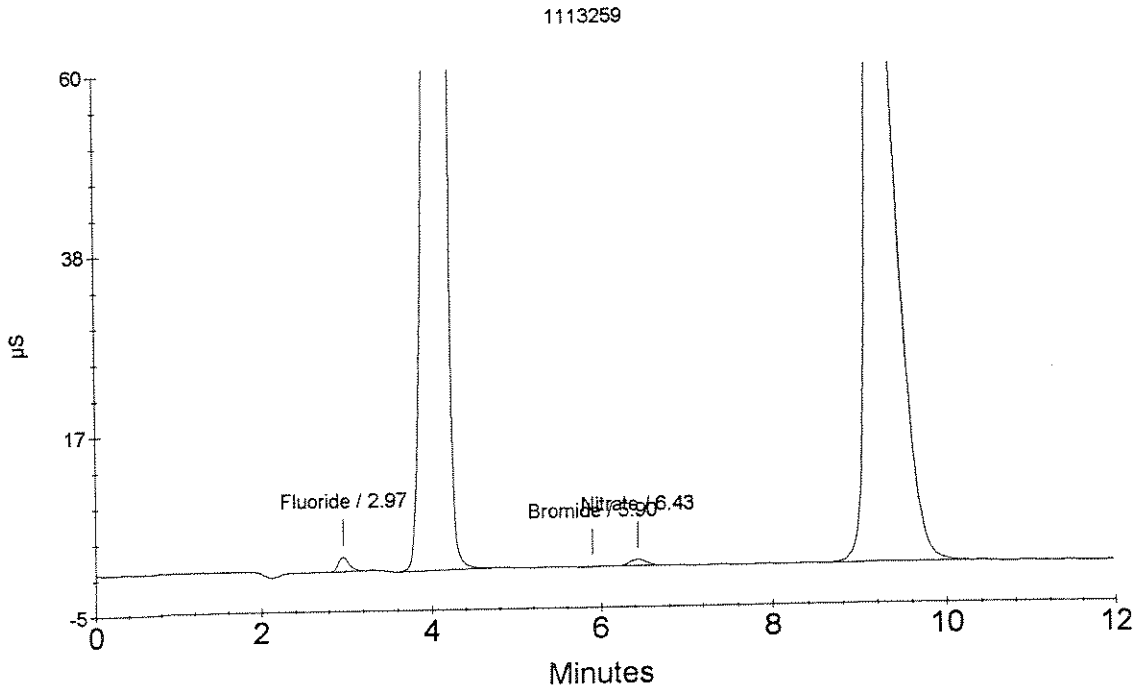
Data Collection Rate : 1.00 Hz  
Data Collection Period : 720.00 seconds  
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.97	Fluoride	0.289	149811
2	4.13	Chloride	87.749	37183291
		Nitrite		
3	5.90	Bromide <i>OK</i>	0.049	9570
4	6.43	Nitrate	0.187	110769
5	9.25	Sulfate	81.177	21546517

*Handwritten signature*  
7/3/08

*Handwritten note:* 25g → 250mg



Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14607

Sample Name : 1113262  
 Data File Name : ...\\703\_032.DXD  
 Method File Name : ...\\20080623.met  
 Date Time Collected : 7/3/08 18:36:33

Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Comment : Calibration 06.23.2008  
 Method Analyst : T. CHRIST

Dilution Factor : 1.00  
 Sample Type : Sample Analysis  
 Sample Comment : EXTRACTION - B

Data Collection Rate : 1.00 Hz  
 Data Collection Period : 720.00 seconds  
 Component Amount Units : mg/L

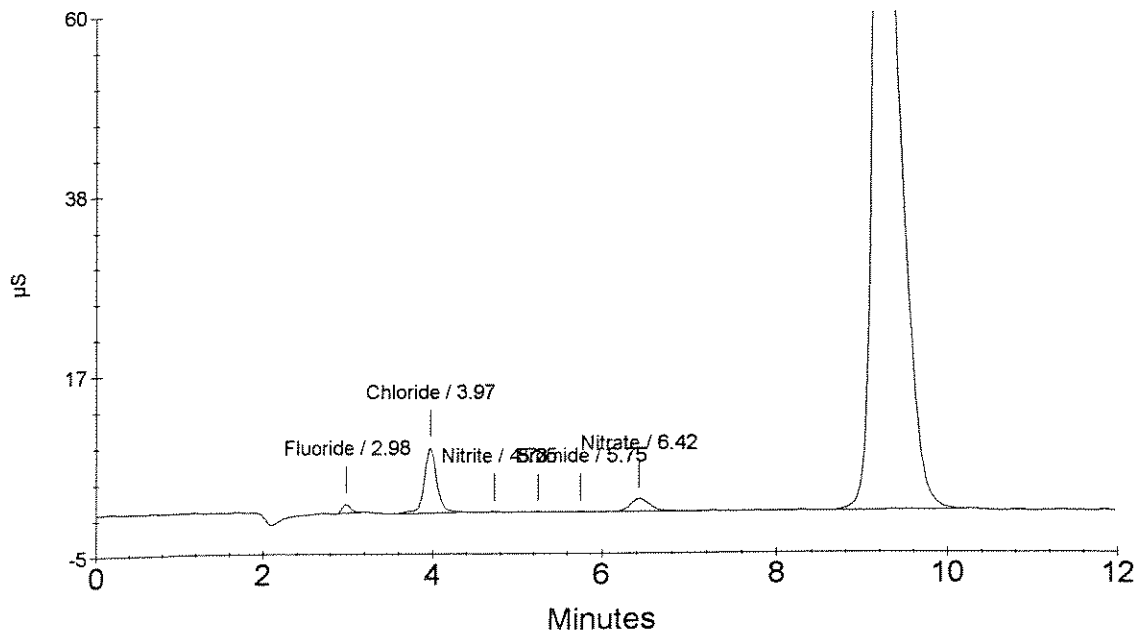
Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.98	Fluoride	0.161	73729
2	3.97	Chloride	1.961	804536
3	4.73	Nitrite	0.056	8237
5	5.75	Bromide <i>OK</i>	0.023	5619
6	6.42	Nitrate	0.313	237537
7	9.25	Sulfate	79.134	21003764

*M*  
7/3/08

*255 → 250.2*

1113262



Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14607

Sample Name : METHOD BLANK 6/30/08  
 Data File Name : ... \703\_033.DXD  
 Method File Name : ... \20080623.met  
 Date Time Collected : 7/3/08 18:50:52

Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Comment : Calibration 06.23.2008  
 Method Analyst : T. CHRIST

Dilution Factor : 1.00  
 Sample Type : Sample Analysis  
 Sample Comment : EXTRACTION - B

Data Collection Rate : 1.00 Hz  
 Data Collection Period : 720.00 seconds  
 Component Amount Units : mg/L

Peak Information : All Components

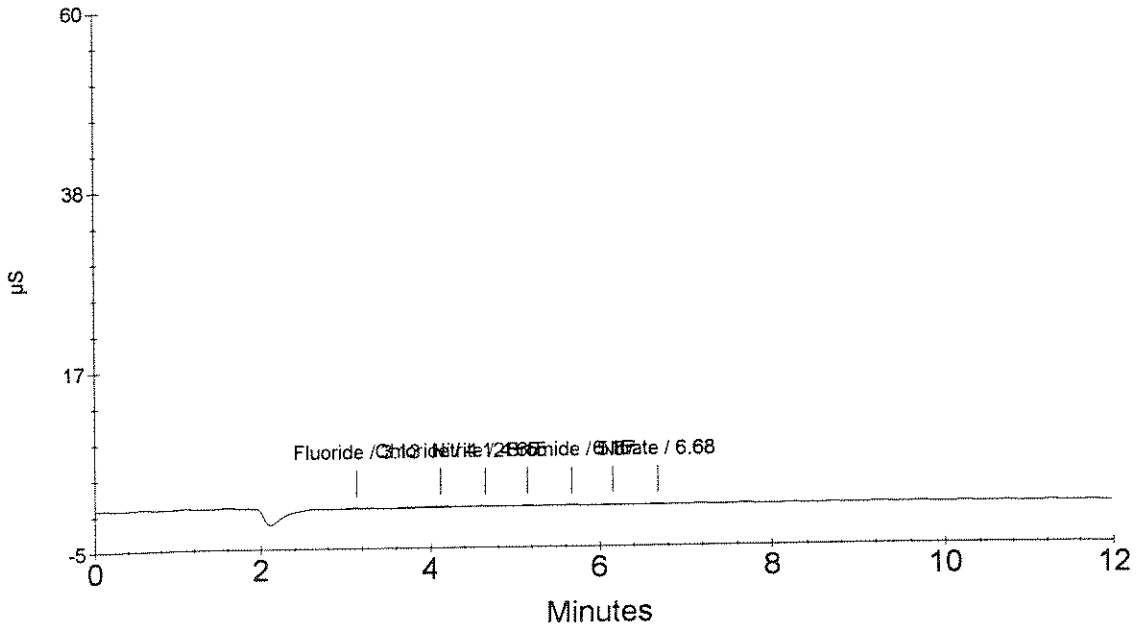
Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.13	Fluoride	0.070	19516
2	4.12	Chloride	0.156	39087
3	4.65	Nitrite	0.055	7738
5	5.67	Bromide	0.032	6961
7	6.68	Nitrate	0.085	7726
		Sulfate		

*OK*

*7/3/08*

*250 → 250ml*

METHOD BLANK 6/30/08





Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14607

Sample Name : CCV  
 Data File Name : ...\\703\_034.DXD  
 Method File Name : ...\\20080623.met  
 Date Time Collected : 7/3/08 19:05:11

Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Comment : Calibration 06.23.2008  
 Method Analyst : T. CHRIST

Dilution Factor : 1.00  
 Sample Type : Sample Analysis  
 Sample Comment : EXTRACTION - B

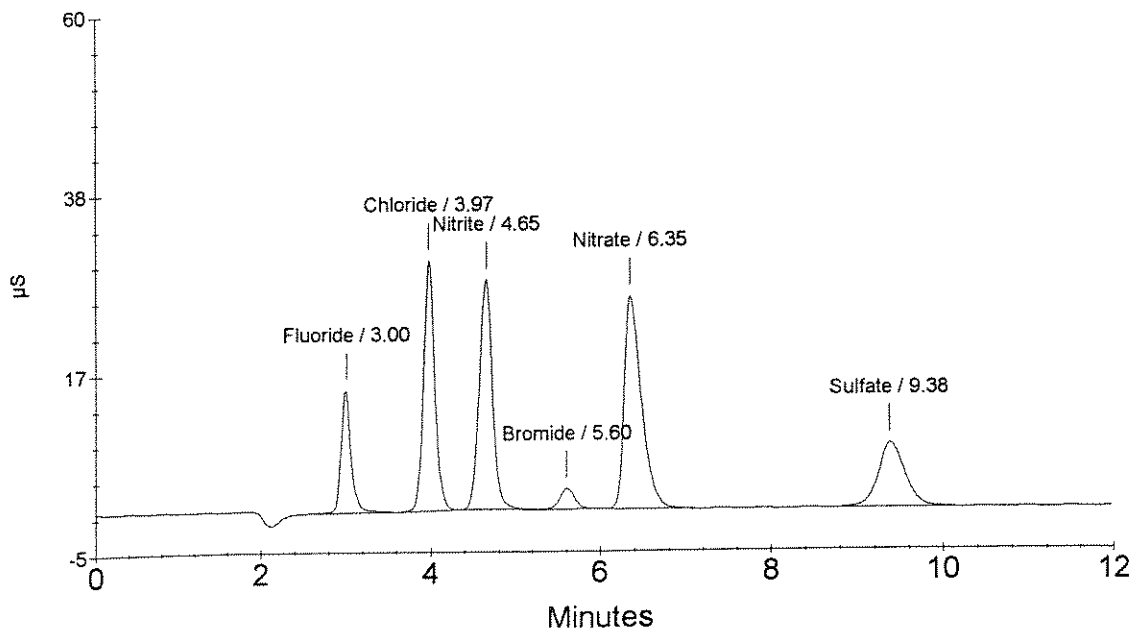
Data Collection Rate : 1.00 Hz  
 Data Collection Period : 720.00 seconds  
 Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.00	Fluoride	2.075	1215999
2	3.97	Chloride	6.631	2784966
3	4.65	Nitrite	3.561	3005298
4	5.60	Bromide <i>OK</i>	1.970	304768
5	6.35	Nitrate	3.590	3544621
6	9.38	Sulfate	6.420	1685570

*7/3/08*

CCV



Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14607

Sample Name : CCB  
 Data File Name : ... \703\_035.DXD  
 Method File Name : ... \20080623.met  
 Date Time Collected : 7/3/08 19:19:31

Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Comment : Calibration 06.23.2008  
 Method Analyst : T. CHRIST

Dilution Factor : 1.00  
 Sample Type : Sample Analysis  
 Sample Comment : EXTRACTION - B

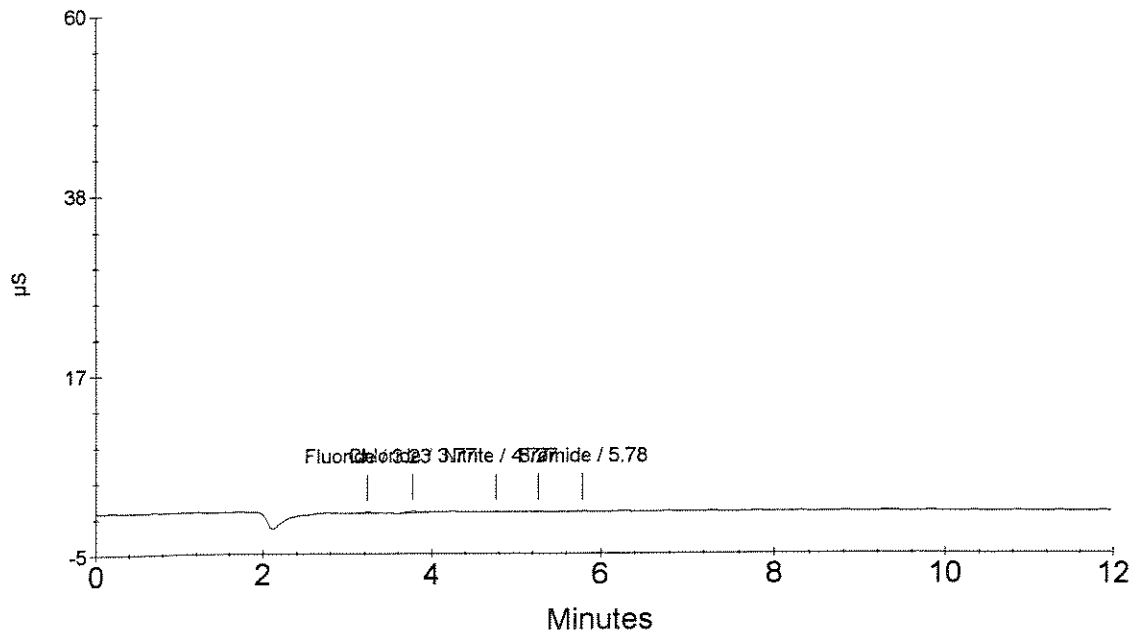
Data Collection Rate : 1.00 Hz  
 Data Collection Period : 720.00 seconds  
 Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.23	Fluoride	0.062	14541
2	3.77	Chloride	0.122	24595
3	4.77	Nitrite	0.055	7805
5	5.78	Bromide Nitrate Sulfate	0.024	5643

*OK*  
*[Signature]*  
7/3/08

CCB



**Ion Chromatography Cover Sheet**

Instrument: Dionex 500DX Ion Chromatogram

Column: Dionex AS-14/AG-14, 4/10/2007

Curve Date: ~~06/10/08~~  
6/23/08 <sup>reprep</sup>

Loop size: 100 uL

Analyst: Tracy Christ

Analysis Date: 6/23/08

Is copy of LCS attached to run? YES / NO

**Standards Prep Dates & Log ID's:**

<i>Std Type</i>	<i>Prep Date</i>	<i>Log ID</i>		<i>Std Type</i>	<i>Prep Date</i>	<i>Log ID</i>
Calibration Intermediate	06/10/08	WC72050A		Working Calibration Stds	<del>06/10/08</del> 6/23/08 <sup>reprep</sup>	WC72050I
LCS / MS Intermediate	06/23/08	WC72050A		Working LCS/MS Standard	06/23/08	WC72093C
ICV Intermediate	06/23/08	WC90100A		Working ICV Standard	06/23/08	WC90100H
CCV Intermediate	06/23/08	WC90100A		Working CCV Standard	DAILY	WC90100H

**Comments:**

---

**CURVE EXPIRES 12/10/08**

---

**WORKING LCS PREP**  
 (Stocks delivered using Volumetric glassware and brought to volume with DI. LCS expires after 7 days.)

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

Analyte	Calibration Intermediate Stock ID	Intermediate Stock Conc (mg/L)	mLs Intermediate Stock	Final Vol. mLs	Final Conc. (mg/L)	Analyst	Date Prepped	Lot ID	Exp. Date	Final Log ID
F	WC720093A	50	2.0	100	1.0	TC	6/10/08	A	6/17/08	WC720093A
Cl		100			2.0	TC	6/16/08	B	6/23/08	WC720093B
NO2		50			1.0	TC	6/23/08	C	6/30/08	WC720093C
Br		50			1.0	TC	6/26/08	D	7/3/08	WC720093D
NO3		50			1.0	CMW	7/3/08	E	7/16/08	WC720093E
OPO4		50			1.0			F		
SO4		100			2.0			G		
								H		
								I		
								J		
								K		
								L		
								M		
								N		
								O		
								P		
								Q		
								R		

**Ion Chromatography Cover Sheet**

**Instrument:** Dionex 500DX Ion Chromatogram  
**Column:** Dionex AS-14/AG-14, 4/10/2007

**Curve Date:** ~~06/10/08~~ 6/23/08 *gph* **Loop size:** 100 uL

**Analyst:** Tracy Christ **Analysis Date:** 6/23/08

Is copy of LCS attached to run?  YES / NO

**Standards Prep Dates & Log ID's:**

<i>Std Type</i>	<i>Prep Date</i>	<i>Log ID</i>		<i>Std Type</i>	<i>Prep Date</i>	<i>Log ID</i>
Calibration Intermediate	06/10/08	WC72050A		Working Calibration Stds	<del>06/10/08</del> <u>6/23/08</u> <i>gph</i>	WC72050I
LCS / MS Intermediate	06/23/08	WC72050A		Working LCS/MS Standard	06/23/08	WC72093C
ICV Intermediate	06/23/08	WC90100A		Working ICV Standard	06/23/08	WC90100H
CCV Intermediate	06/23/08	WC90100A		Working CCV Standard	DAILY	WC90100H

**Comments:**

---

**CURVE EXPIRES 12/10/08**

---

**CALIBRATION INTERMEDIATE STOCK PREP**  
(used for Calibration and LCS / MS)

Analyte	1000ppm Stock ID	Conc. mg/L	mLs Stock	Final Vol. mL	Final Conc. mg/L	Analyst	Date Prepped	Lot ID	Exp. Date	Final Calibration Intermediate Stock ID
F	WC85099F	1000	10	200	50	TC	6/10/08	A	12/10/08	WC120050A
Cl	WC85106C	1000	20		100			B		
NO2	WC12001J	1000	10		50			C		
Br	WC85160D	1000	10	49.12/10/08	50			D		
NO3	WC12002N	1000	10		50			E		
OPO4	—	1000	10		50			F		
SO4	WC12001Y	1000	20		100			G		

**WORKING CALIBRATION STANDARDS PREP**

(Stocks delivered using Volumetric glassware and brought to volume with DI. Expire after 7 days.)

Std #	Calibration Intermediate Stock ID	mLs Intermediate Stock	Final Vol. mLs	Final Std Conc.							Analyst	Date Prepped	Lot ID	Exp. Date	Final Log ID	
				F	Cl	NO2	Br	NO3	OPO4	SO4						
9		10.0	100	5.0	10.0	5.0	5.0	5.0	5.0	5.0	10.0	TC	6/10/08	H	6/17/08	WC120050H
8		8.0		4.0	8.0	4.0	4.0	4.0	4.0	4.0	8.0	TC	6/23/08	I	6/23/08	WC120050I
7		205.0	205.0	2.5	5.0	2.5	2.5	2.5	2.5	2.5	5.0			J		
6		2.0		1.0	2.0	1.0	1.0	1.0	1.0	1.0	2.0			K		
5		1.0		0.5	1.0	0.50	0.50	0.50	0.50	0.50	1.0			L		
4		0.5		0.25	0.50	0.25	0.25	0.25	0.25	0.25	0.50			M		
3		0.2		0.10	0.20	0.10	0.10	0.10	0.10	0.10	0.20			N		
2		0.1		0.05	0.10	0.05	0.05	0.05	0.05	0.05	0.10			O		
1		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			P		

99974

**WORKING LCS PREP**

(Stocks delivered using Volumetric glassware and brought to volume with DI. LCS expires after 7 days.)

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

Analyte	Calibration Intermediate Stock ID	Intermediate Stock Conc (mg/L)	mLs Intermediate Stock	Final Vol. mLs	Final Conc. (mg/L)	Analyst	Date Prepped	Lot ID	Exp. Date	Final Log ID
F	WC720050A	50	2.0	100	1.0	TC	6/10/08	A	6/17/08	WC720093A
Cl		100			2.0	TC	6/16/08	B	6/23/08	WC720093B
NO2		50			1.0	TC	6/23/08	C	6/30/08	WC720093C
Br		50			1.0			D		
NO3		50			1.0			E		
OPO4		50			1.0			F		
SO4		100			2.0			G		
								H		
								I		
								J		
								K		
								L		
								M		
								N		
								O		
								P		
								Q		
								R		

ICV / CCV INTERMEDIATE STOCK PREP

Analyte	ICV / CCV Stock ID	Conc. mg/L	mLs Stock	Final Vol. mL	Final Conc. mg/L	Analyst	Date Prepped	Lot ID	Exp. Date	Final ICV / CCV Intermediate Stock ID
F	WC85057C	1000	4.0	1000	4.0	TC	6/23/08	A	9/25/08	WC90100A
Cl	WC85100D	650	20.0		13.0			B		
NO2	WC72007E	180	40.0		7.2			C		
Br	WC85057D	1000	4.0		4.0			D		
NO3	WC72007N	180	40.0		7.2			E		
OPO4	—	180	40.0		7.2			F		
SO4	WC72000Y	3200	4.0		12.8			G		

WORKING ICV / CCV PREP

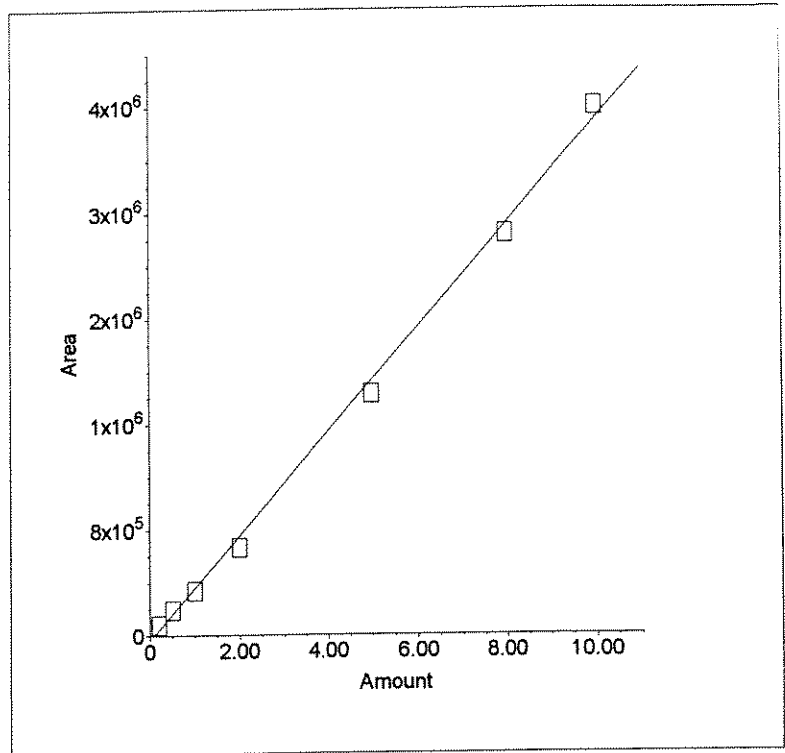
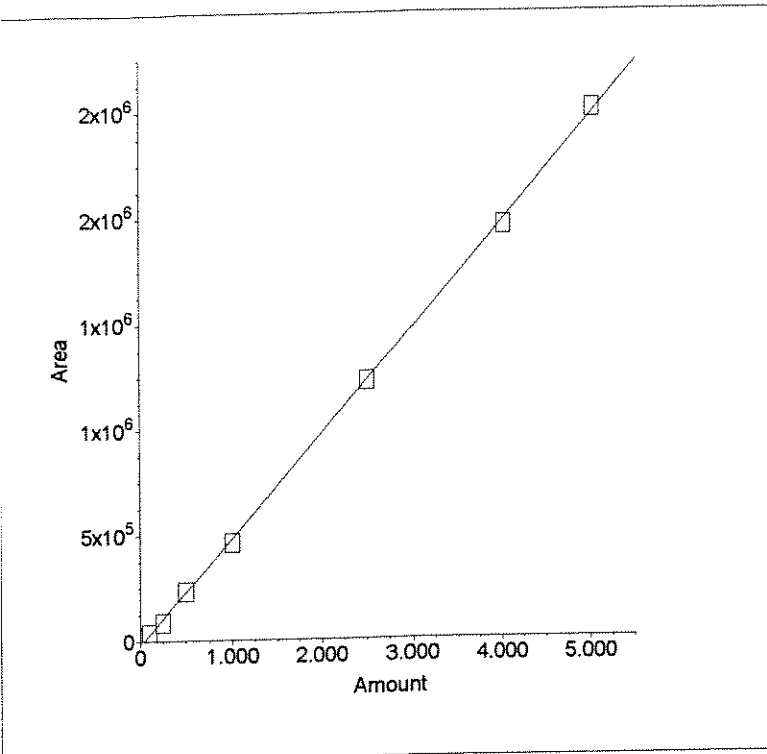
(A 1:2 dilution of the Reference Intermediate Stock is done daily)

Analyte	ICV / CCV Intermediate Stock ID	Conc. mg/L	mLs Stock	Final Vol. mL	Final Conc. mg/L	Analyst	Date Prepped	Lot ID	Final Working ICV / CCV ID
F	WC90100A	4.0	5.0	20.0	1.0	TC	DAILY	H	WC90100H
Cl		13.0			3.25				
NO2		7.2			3.6				
Br		4.0			2.0				
NO3		7.2			3.6				
OPO4		7.2			3.6				
SO4		12.8			6.4				



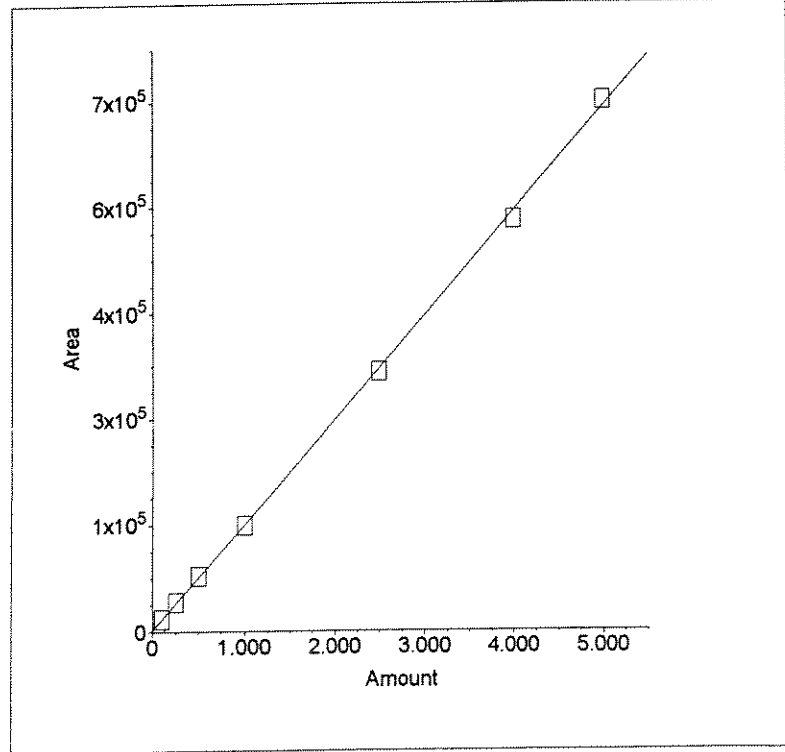
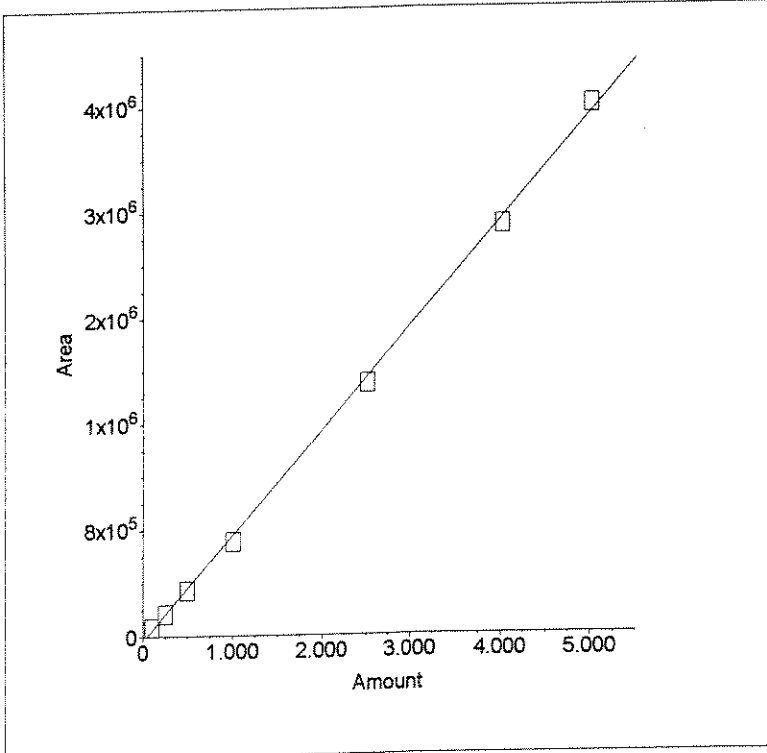
1. Component: Fluoride  
Standard: External Fit Type: Linear  
Origin: Include Calibration: Area  
 $r^2=0.999665$   
 $Amt=1.675e-006*Resp+0.03759$

2. Component: Chloride  
Standard: External Fit Type: Linear  
Origin: Include Calibration: Area  
 $r^2=0.997779$   
 $Amt=2.351e-006*Resp+0.08597$



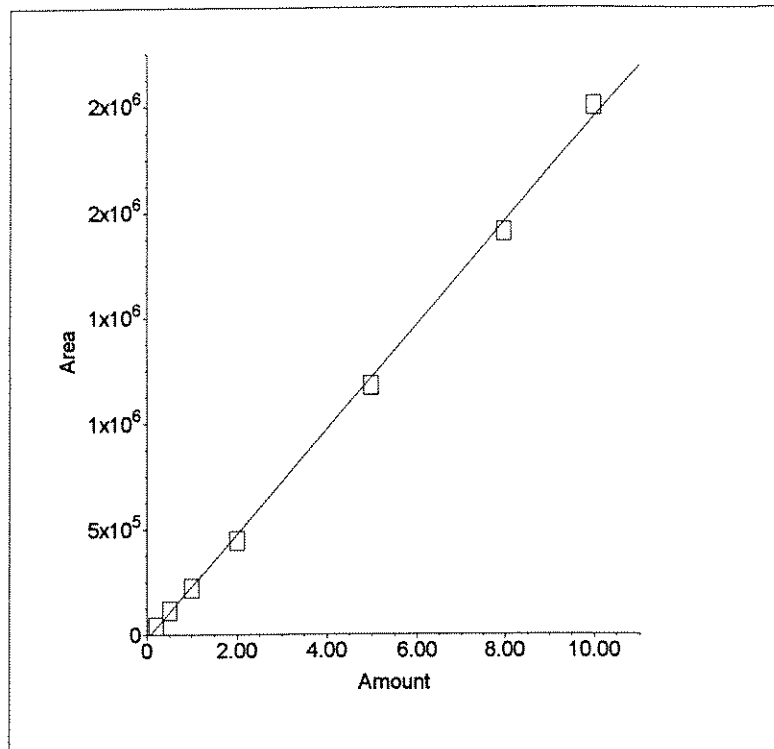
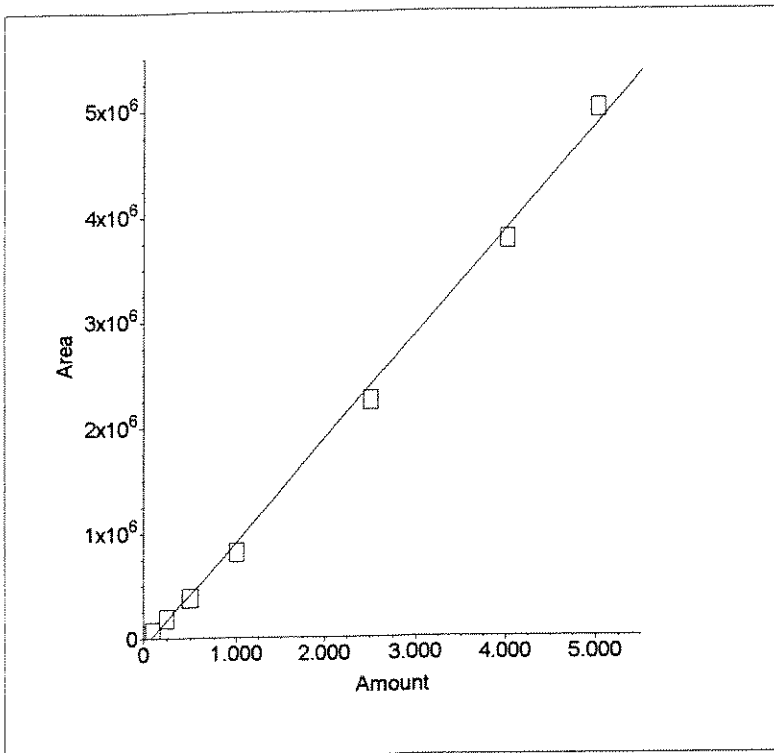
3. Component: Nitrite  
Standard: External Fit Type: Linear  
Origin: Include Calibration: Area  
 $r^2=0.999196$   
 $Amt=1.17e-006*Resp+0.04595$

4. Component: Bromide  
Standard: External Fit Type: Linear  
Origin: Include Calibration: Area  
 $r^2=0.999576$   
 $Amt=6.508e-006*Resp+-0.0131$



5. Component: Nitrate  
Standard: External Fit Type: Linear  
Origin: Include Calibration: Area  
 $r^2=0.997377$   
Amt= $9.909e-007$ \*Resp+ $0.07724$

6. Component: Sulfate  
Standard: External Fit Type: Linear  
Origin: Include Calibration: Area  
 $r^2=0.998832$   
Amt= $3.764e-006$ \*Resp+ $0.07519$



Method Report - 20080623.met

---

Method Information : Select Module(s)

System Name : DX-Lan IC#4  
System Number : 1  
Method Type : Ion Chromatography  
Column : AS-14 (022939) AG-14 (022002)  
Analyst : T. CHRIST  
Comment : Calibration 06.23.2008

---

ED40 Timed Events

Module Name :  
Module Serial Number :  
Operating Mode : Conductivity  
SRS Current : 100 mA  
Temperature Compensation : 1.7  
Cell Temperature : 35 °C

Time	Range (μS)	Offset	Mark	TTL1	TTL2	Relay1	Relay2	Collect
Init	10.000	*		Low	Low	Open	Closed	
0.00	10.000	*		Low	Low	Open	Closed	
0.10	10.000			Low	Low	Closed	Closed	
2.20	0.010	*		Low	Low	Open	Closed	Begin

---

ED40 Detector Parameters

Detector Type : ED40  
Data collection time (minutes) : 12.00  
Data Collection Rate : 1.00  
Real time plot scale maximum (μS) : 60.000  
Real time plot scale minimum (μS) : -5.000

---

ED40 Integration Parameters

Peak detection algorithm : Standard  
Starting peak width (seconds) : 10.00  
Peak threshold : 5.00  
Peak area reject (area counts) : 10.00  
Reference peak area reject (area counts) : 1000.00

---

ED40 Smoothing Parameters

Filter Type : No filter

---

---

ED40 Report Data

Report Format File : J:\ACQUDATA\IC\METHOD.ACI\lc#4\As14.rpt  
Print Sample Analysis : Yes  
Print Calibration Update : Yes  
Print Check Standard : Yes  
System Suitability Tests :  
No system suitability tests selected.

---

ED40 Integration Data Events

Time	Description
0.00	Stop peak detection
2.50	Force baseline at start of all peaks
2.65	Start peak detection
3.03	Halve peak threshold
6.75	Double peak threshold

---

ED40 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 : mg/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

---

ED40 Component Identification Table

Component	Retention	Tolerance	Reference
Fluoride	3.03 min	10.00 %	
Chloride	4.05 min	10.00 %	
Nitrite	4.75 min	10.00 %	
Bromide	5.77 min	10.00 %	
Nitrate	6.55 min	10.00 %	
Sulfate	9.58 min	10.00 %	

---

**ED40 Component Quantitation Table**

Component	Retention	Low Limit	High Limit
Fluoride	3.03 min	0.05	5
Chloride	4.05 min	0.1	10
Nitrite	4.75 min	0.05	5
Bromide	5.77 min	0.05	5
Nitrate	6.55 min	0.05	5
Sulfate	9.58 min	0.1	10

**ED40 Component Calibration Table**

Component	Retention Time	Curve Fit	Origin	Cal. by	Response Component	Relative Factor
Fluoride	3.03 min	Linear	Include	Area		0.00
Chloride	4.05 min	Linear	Include	Area	Fluoride	0.00
Nitrite	4.75 min	Linear	Include	Area	Fluoride	0.00
Bromide	5.77 min	Linear	Include	Area	Fluoride	0.00
Nitrate	6.55 min	Linear	Include	Area	Fluoride	0.00
Sulfate	9.58 min	Linear	Include	Area	Fluoride	0.00

**ED40 Component = Fluoride Levels Table**

Retention Time : 3.03 min  
 Amount units : mg/L  
 Replicate unit type : Area  
 Number of levels : 9  
 Number of replicates : 1

Level	Amount	Replicate 1
1	0.00	14479.5 <i>anomaly</i>
2	0.05	20511
3	0.10	43487
4	0.25	105401
5	0.50	280927
6	1.00	552422
7	2.50	1.46795e + 006
8	4.00	2.33476e + 006
9	5.00	2.99043e + 006

---

ED40 Component = Chloride Levels Table

Retention Time : 4.05 min  
Amount units : mg/L  
Replicate unit type : Area  
Number of levels : 9  
Number of replicates : 1

Level	Amount	Replicate 1
1	0.00	24587 <i>anomaly</i>
2	0.10	60631.5
3	0.20	89946.5
4	0.50	211274
5	1.00	372164
6	2.00	726484
7	5.00	1.98111e + 006
8	8.00	3.29425e + 006
9	10.00	4.33396e + 006

---

ED40 Component = Nitrite Levels Table

Retention Time : 4.75 min  
Amount units : mg/L  
Replicate unit type : Area  
Number of levels : 9  
Number of replicates : 1

Level	Amount	Replicate 1
1	0.00	8660 <i>anomaly</i>
2	0.05	33073
3	0.10	69578
4	0.25	180651
5	0.50	368469
6	1.00	765373
7	2.50	2.04825e + 006
8	4.00	3.32678e + 006
9	5.00	4.30979e + 006

---

---

ED40 Component = Bromide Levels Table

Retention Time : 5.77 min  
Amount units : mg/L  
Replicate unit type : Area  
Number of levels : 9  
Number of replicates : 1

Level	Amount	Replicate 1
1	0.00	27470 <i>anomaly</i>
2	0.05	10012
3	0.10	18904.5
4	0.25	43438
5	0.50	81453
6	1.00	155388
7	2.50	381974
8	4.00	605052
9	5.00	780891

---

ED40 Component = Nitrate Levels Table

Retention Time : 6.55 min  
Amount units : mg/L  
Replicate unit type : Area  
Number of levels : 9  
Number of replicates : 1

Level	Amount	Replicate 1
1	0.00	5310.5 <i>anomaly</i>
2	0.05	35011
3	0.10	71578.5
4	0.25	194199
5	0.50	397776
6	1.00	839066
7	2.50	2.30165e + 006
8	4.00	3.85904e + 006
9	5.00	5.12256e + 006

---

ED40 Component = Sulfate Levels Table

Retention Time : 9.58 min  
Amount units : mg/L  
Replicate unit type : Area  
Number of levels : 9  
Number of replicates : 1

Level	Amount	Replicate 1
1	0.00	7283 <i>(anomaly)</i>
2	0.10	24864.5
3	0.20	44110
4	0.50	126543
5	1.00	239635
6	2.00	482251
7	5.00	1.26865e + 006
8	8.00	2.05728e + 006
9	10.00	2.69691e + 006

---

ED40 XY Data Parameters

---



---

GP40 Timed Events

Module Name :

Module Serial Number :

Description : Anions on an AS-16/AG-16 Column setup with a carbonate/bicarbonate eluent.

High Pressure Limit : 4000.0

Low Pressure Limit : 30.0

Eluent A :

Eluent B : 35mM Na<sub>2</sub>CO<sub>3</sub> / 10mM NaHCO<sub>3</sub>

Eluent C :

Eluent D :

Piston Size : Standard

Pressure Unit : psi

Oven Not Installed

Time	Flow	%A	%B	%C	%D	Curve	Comment
Init	1.00	0.00	100.00	0.00	0.00	5	start AS40 load cycl
0.00	1.00	0.00	100.00	0.00	0.00	5	preparing to inject
0.10	1.00	0.00	100.00	0.00	0.00	5	preparing to inject
2.20	1.00	0.00	100.00	0.00	0.00	5	Injecting sample
3.20	1.00	0.00	100.00	0.00	0.00	5	Finished injection

Time	Valve	Column	TTL1	TTL2	Relay1	Relay2
Init	Load	A	High	Low	Open	Open
0.00	Load	A	High	Low	Open	Open
0.10	Load	A	High	High	Open	Open
2.20	Inject	A	High	Low	Open	Open
3.20	Load	A	Low	Low	Open	Open

---

Ion Chromatography Calibration Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : STANDARD 1  
Sample Type : Calibration Update  
Data File Name : ...\\0623\_001.DXD  
Method File Name : ...\\20080623.met

Date Time Collected : 6/23/08 14:13:30  
Detector Name :  
Column ID : AS-14 (022939) AG-14 (022002)  
Method Analyst : T. CHRIST

Dilution Factor : 1.00  
Sample Comment : ANALYST: TC  
Data Collection Rate : 1.00 Hz

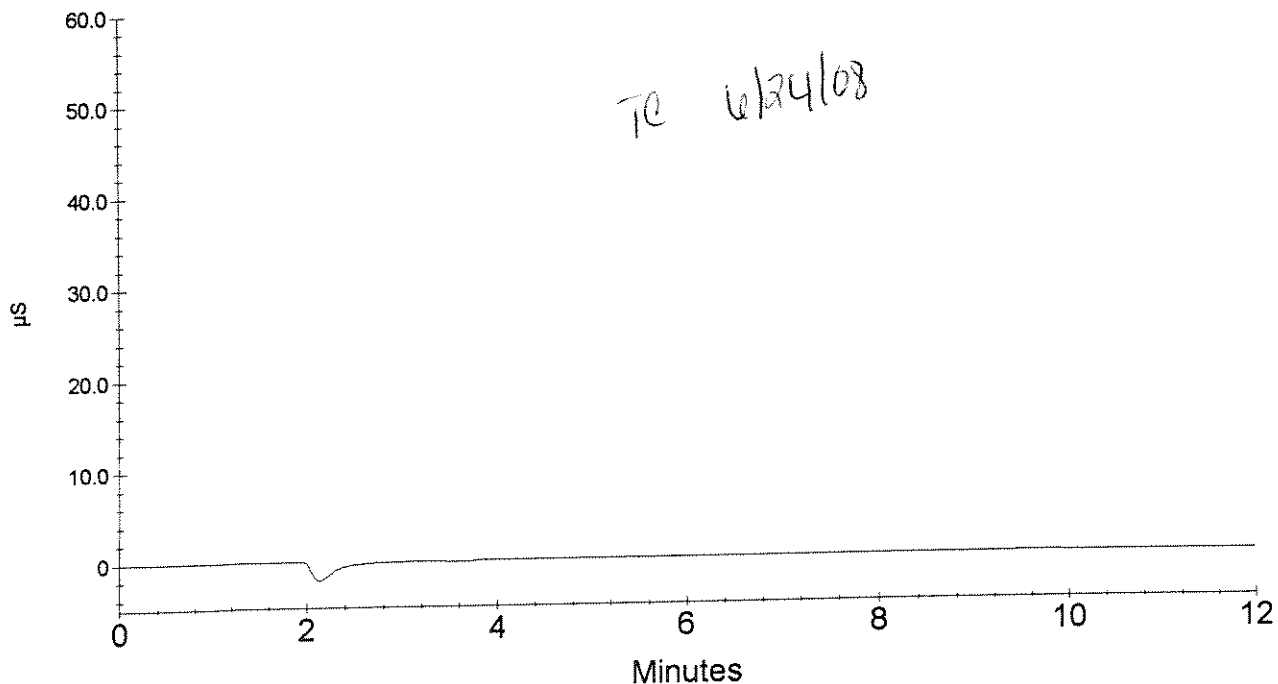
Calibration Type : EXTERNAL  
Calibration Level : 1

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Cal Response Previous
0	0.00	(null) Chloride Nitrite Bromide Nitrate Sulfate	0.00	0	0.00

*OK*

STANDARD 1



Ion Chromatography Calibration Report  
 Columbia Analytical Services  
 Rochester, NY 14607

Sample Name : STANDARD 2  
 Sample Type : Calibration Update  
 Data File Name : ...\\0623\_002.DXD  
 Method File Name : ...\\20080623.met

Date Time Collected : 6/23/08 14:27:46  
 Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Analyst : T. CHRIST

Dilution Factor : 1.00  
 Sample Comment :  
 Data Collection Rate : 1.00 Hz

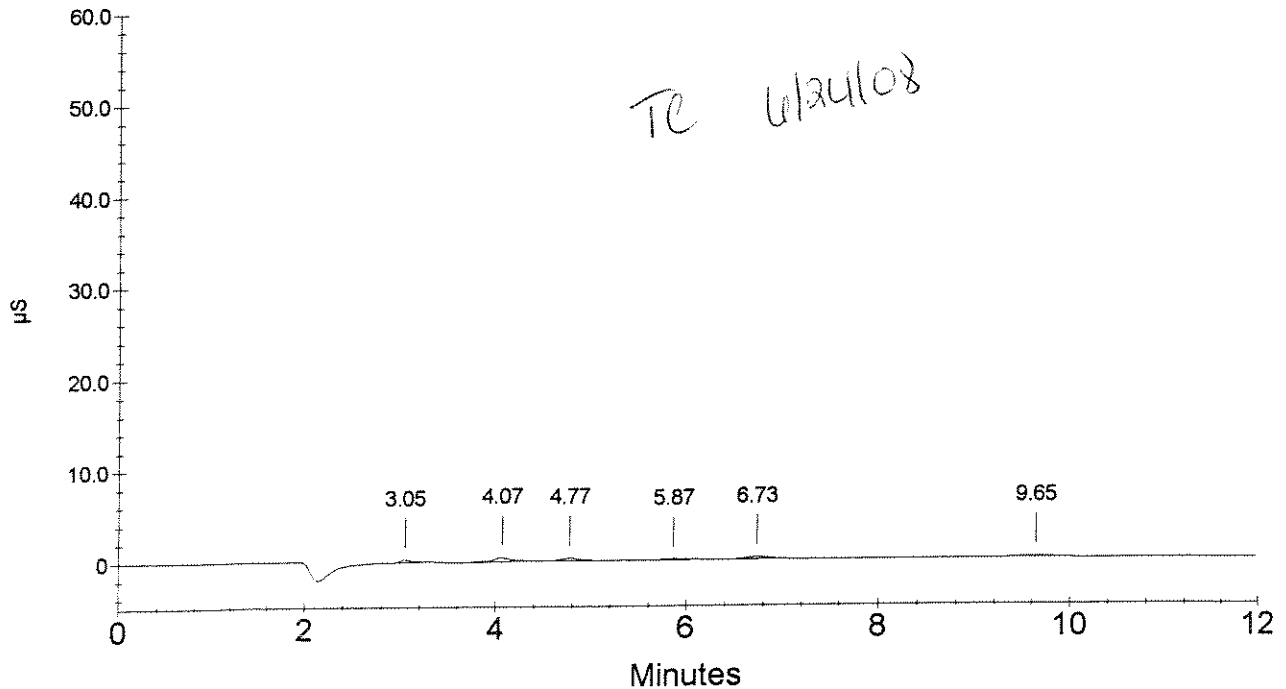
Calibration Type : EXTERNAL  
 Calibration Level : 2

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Cal Response Previous
1	3.05	Fluoride	0.05	20511	20511.00
2	4.07	Chloride	0.10	60632	60631.50
3	4.77	Nitrite	0.05	33073	33073.00
4	5.87	Bromide	0.05	10012	10012.00
5	6.73	Nitrate	0.05	35011	35011.00
6	9.65	Sulfate	0.10	24865	24864.50

OK

STANDARD 2



Ion Chromatography Calibration Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : STANDARD 3  
Sample Type : Calibration Update  
Data File Name : ...\\0623\_003.DXD  
Method File Name : ...\\20080623.met

Date Time Collected : 6/23/08 14:42:03  
Detector Name :  
Column ID : AS-14 (022939) AG-14 (022002)  
Method Analyst : T. CHRIST

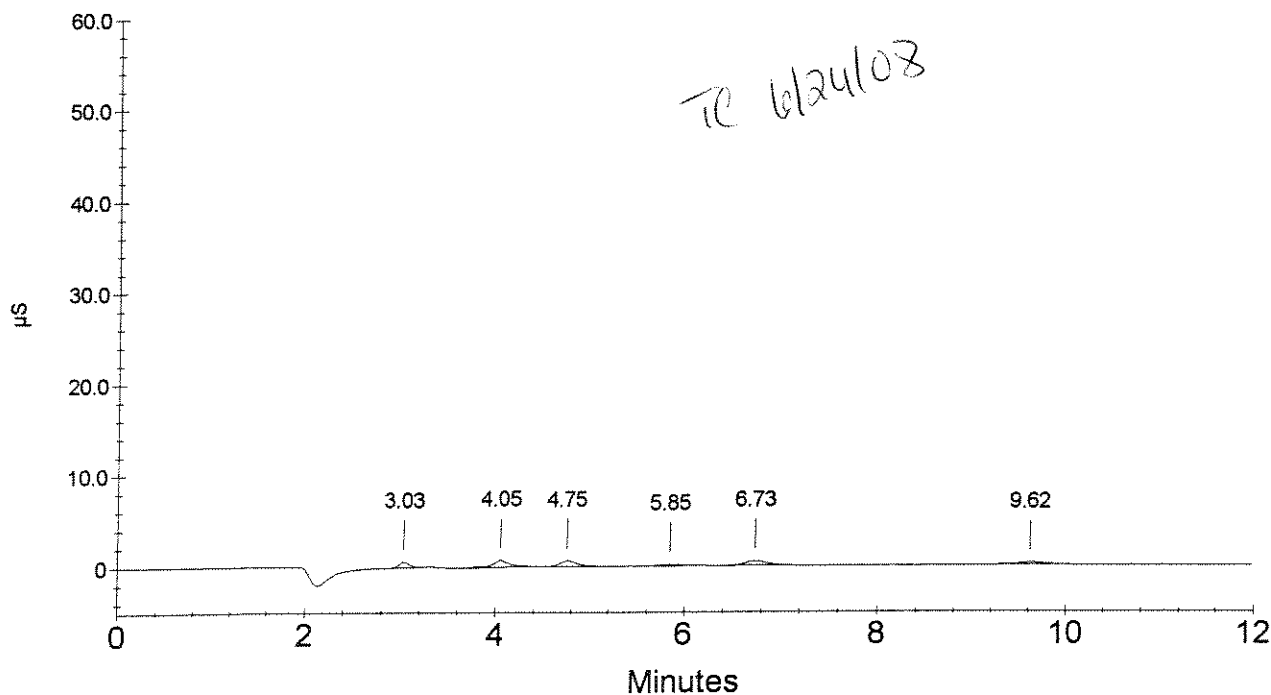
Dilution Factor : 1.00  
Sample Comment :  
Data Collection Rate : 1.00 Hz

Calibration Type : EXTERNAL  
Calibration Level : 3

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Cal Response Previous
1	3.03	Fluoride	0.10	43487	43487.00
2	4.05	Chloride	0.20	89947	89946.50
3	4.75	Nitrite	0.10	69578	69578.00
4	5.85	Bromide	0.10	18905	18904.50
5	6.73	Nitrate	0.10	71579	71578.50
6	9.62	Sulfate	0.20	44110	44110.00

STANDARD 3



Ion Chromatography Calibration Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : STANDARD 4  
Sample Type : Calibration Update  
Data File Name : ...\\0623\_004.DXD  
Method File Name : ...\\20080623.met

Date Time Collected : 6/23/08 14:56:25  
Detector Name :  
Column ID : AS-14 (022939) AG-14 (022002)  
Method Analyst : T. CHRIST

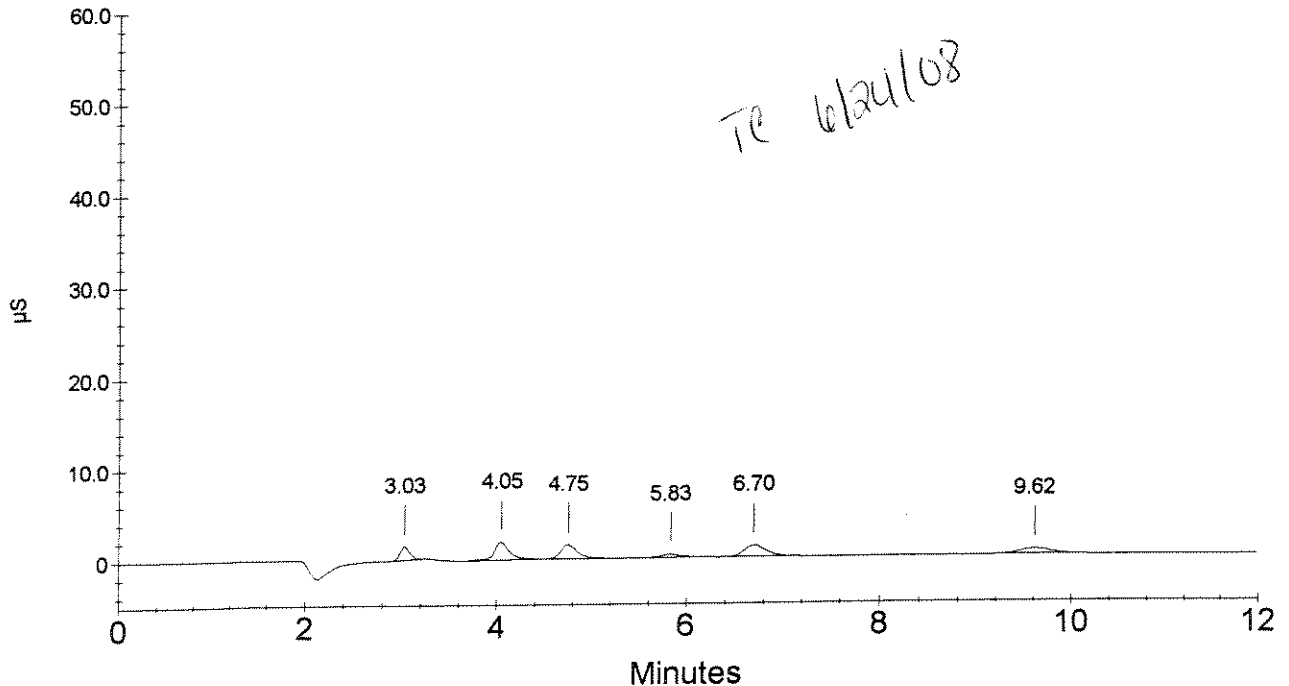
Dilution Factor : 1.00  
Sample Comment :  
Data Collection Rate : 1.00 Hz

Calibration Type : EXTERNAL  
Calibration Level : 4

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Cal Response Previous
1	3.03	Fluoride	0.25	105401	105400.50
2	4.05	Chloride	0.50	211274	211273.50
3	4.75	Nitrite	0.25	180651	180651.00
4	5.83	Bromide	0.25	43438	43438.00
5	6.70	Nitrate	0.25	194199	194199.00
6	9.62	Sulfate	0.50	126543	126543.00

STANDARD 4



Ion Chromatography Calibration Report  
 Columbia Analytical Services  
 Rochester, NY 14607

Sample Name : STANDARD 5  
 Sample Type : Calibration Update  
 Data File Name : ...\\0623\_005.DXD  
 Method File Name : ...\\20080623.met

Date Time Collected : 6/23/08 15:10:47  
 Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Analyst : T. CHRIST

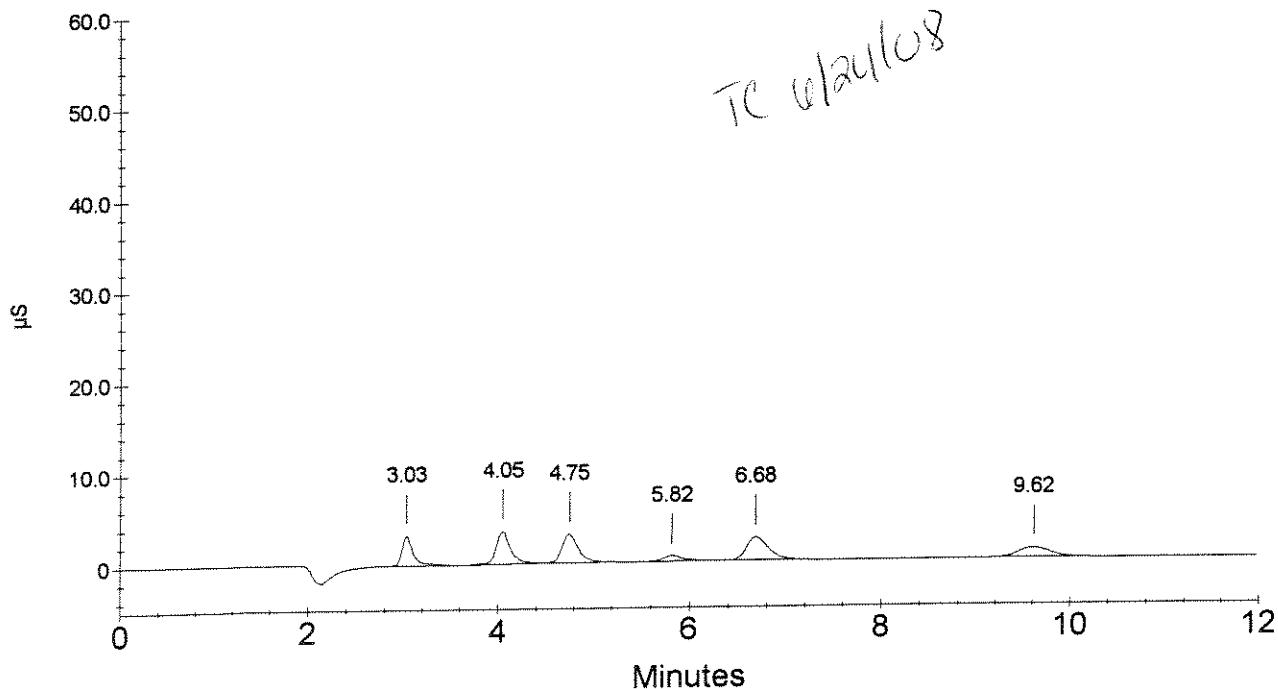
Dilution Factor : 1.00  
 Sample Comment :  
 Data Collection Rate : 1.00 Hz

Calibration Type : EXTERNAL  
 Calibration Level : 5

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Cal Response Previous
1	3.03	Fluoride	0.50	280927	280927.00
2	4.05	Chloride	1.00	372164	372164.00
3	4.75	Nitrite	0.50	368469	368469.00
4	5.82	Bromide	0.50	81453	81453.00
5	6.68	Nitrate	0.50	397776	397775.50
6	9.62	Sulfate	1.00	239635	239635.00

STANDARD 5



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Sample Name : STANDARD 6  
 Sample Type : Calibration Update  
 Data File Name : ...\\0623\_006.DXD  
 Method File Name : ...\\20080623.met

Date Time Collected : 6/23/08 15:25:08  
 Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Analyst : T. CHRIST

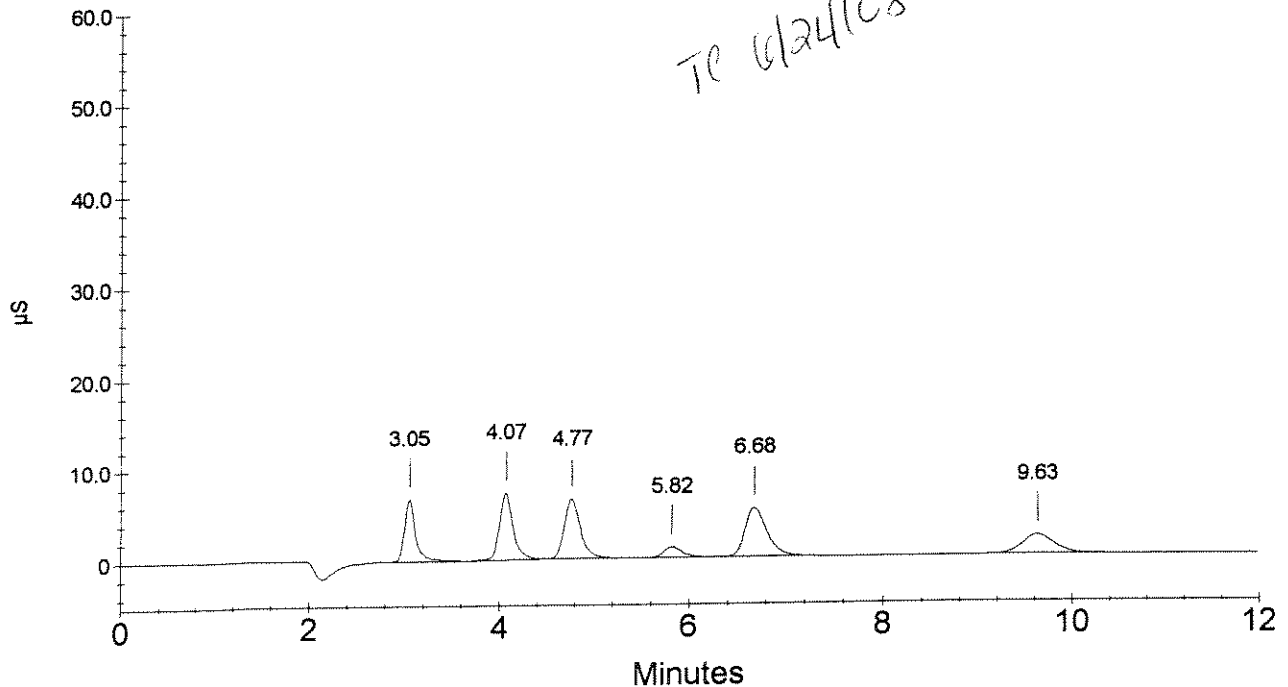
Dilution Factor : 1.00  
 Sample Comment :  
 Data Collection Rate : 1.00 Hz

Calibration Type : EXTERNAL  
 Calibration Level : 6

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Cal Response Previous
1	3.05	Fluoride	1.00	552422	552422.00
2	4.07	Chloride	2.00	726484	726483.50
3	4.77	Nitrite	1.00	765373	765373.00
4	5.82	Bromide	1.00	155388	155388.00
5	6.68	Nitrate	1.00	839066	839066.00
6	9.63	Sulfate	2.00	482251	482250.50

STANDARD 6



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Sample Name : STANDARD 7  
Sample Type : Calibration Update  
Data File Name : ...\\0623\_007.DXD  
Method File Name : ...\\20080623.met

Date Time Collected : 6/23/08 15:39:24  
Detector Name :  
Column ID : AS-14 (022939) AG-14 (022002)  
Method Analyst : T. CHRIST

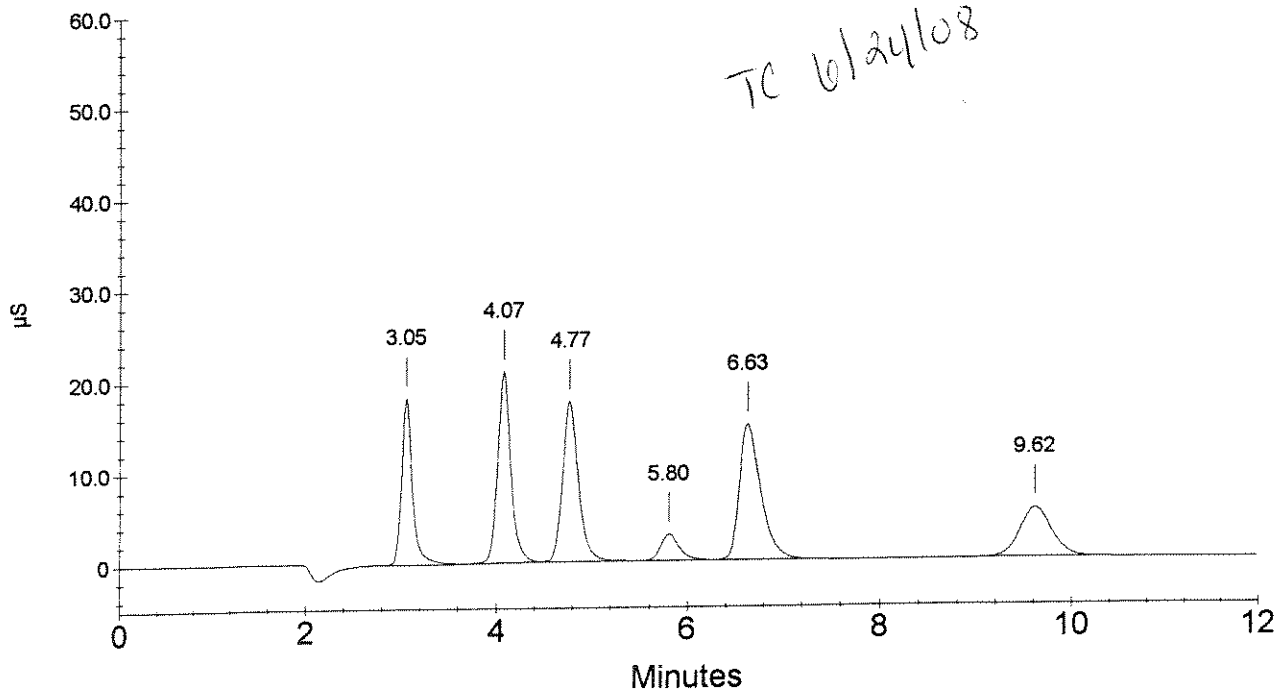
Dilution Factor : 1.00  
Sample Comment :  
Data Collection Rate : 1.00 Hz

Calibration Type : EXTERNAL  
Calibration Level : 7

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Cal Response Previous
1	3.05	Fluoride	2.50	1467948	1467948.00
2	4.07	Chloride	5.00	1981112	1981111.50
3	4.77	Nitrite	2.50	2048245	2048245.00
4	5.80	Bromide	2.50	381974	381974.00
5	6.63	Nitrate	2.50	2301648	2301647.50
6	9.62	Sulfate	5.00	1268654	1268653.50

STANDARD 7





Ion Chromatography Calibration Report  
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Sample Name : STANDARD 8  
Sample Type : Calibration Update  
Data File Name : ...\\0623\_008.DXD  
Method File Name : ...\\20080623.met

Date Time Collected : 6/23/08 15:53:40  
Detector Name :  
Column ID : AS-14 (022939) AG-14 (022002)  
Method Analyst : T. CHRIST

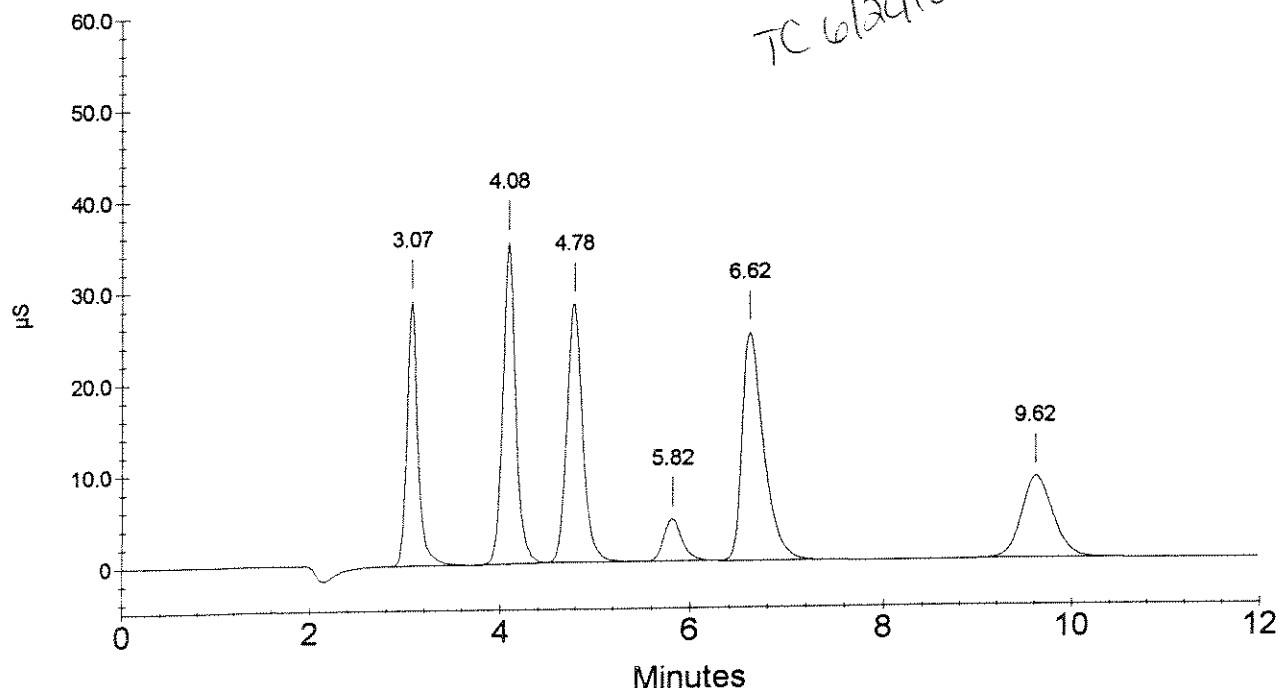
Dilution Factor : 1.00  
Sample Comment :  
Data Collection Rate : 1.00 Hz

Calibration Type : EXTERNAL  
Calibration Level : 8

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Cal Response Previous
1	3.07	Fluoride	4.00	2334759	2334759.00
2	4.08	Chloride	8.00	3294251	3294251.00
3	4.78	Nitrite	4.00	3326781	3326780.50
4	5.82	Bromide	4.00	605052	605052.00
5	6.62	Nitrate	4.00	3859036	3859035.50
6	9.62	Sulfate	8.00	2057283	2057282.50

STANDARD 8



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Sample Name : STANDARD 9  
 Sample Type : Calibration Update  
 Data File Name : ...\\0623\_009.DXD  
 Method File Name : ...\\20080623.met

Date Time Collected : 6/23/08 16:07:57  
 Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Analyst : T. CHRIST

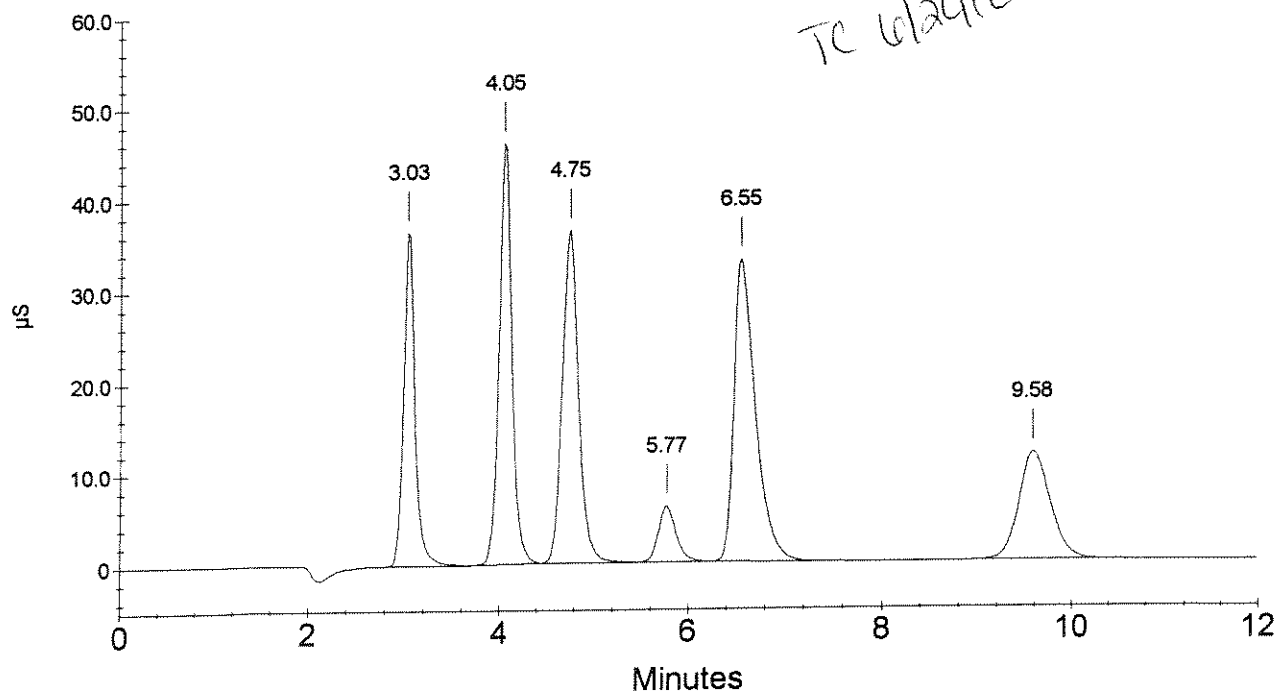
Dilution Factor : 1.00  
 Sample Comment :  
 Data Collection Rate : 1.00 Hz

Calibration Type : EXTERNAL  
 Calibration Level : 9

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Cal Response Previous
1	3.03	Fluoride	5.00	2990431	2990431.00
2	4.05	Chloride	10.00	4333962	4333962.00
3	4.75	Nitrite	5.00	4309791	4309791.00
4	5.77	Bromide	5.00	780891	780891.00
5	6.55	Nitrate	5.00	5122564	5122564.00
6	9.58	Sulfate	10.00	2696907	2696907.00

STANDARD 9



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Sample Name : ICV  
 Data File Name : ...\\0623\_010.DXD  
 Method File Name : ...\\20080623.met  
 Date Time Collected : 6/23/08 16:22:17

Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Comment : Calibration 06.23.2008  
 Method Analyst : T. CHRIST

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

Data Collection Rate : 1.00 Hz  
 Data Collection Period : 720.00 seconds  
 Component Amount Units : mg/L

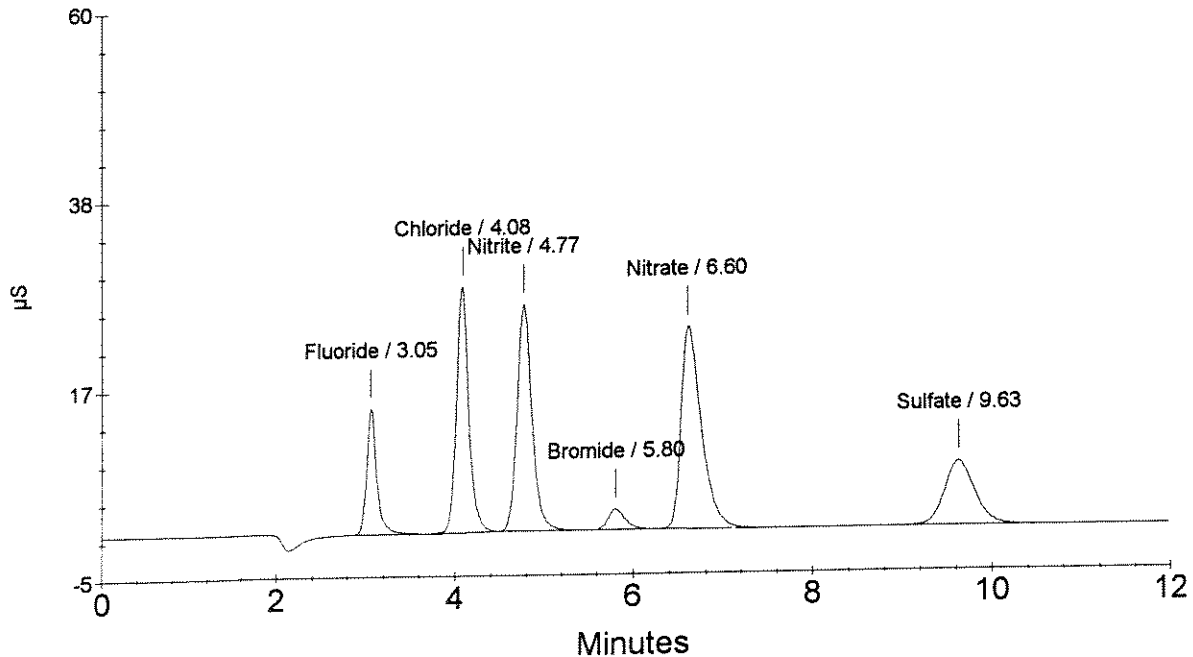
Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.05	Fluoride	1.971	1153862
2	4.08	Chloride	6.356	2668144
3	4.77	Nitrite	3.595	3034218
4	5.80	Bromide	2.014	311470
5	6.60	Nitrate	3.634	3589277
6	9.63	Sulfate	6.484	1702522

OK  
↓

TE 6/24/08

ICV



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Sample Name : ICB  
 Data File Name : ... \0623\_011.DXD  
 Method File Name : ... \20080623.met  
 Date Time Collected : 6/23/08 16:36:33

Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Comment : Calibration 06.23.2008  
 Method Analyst : T. CHRIST

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

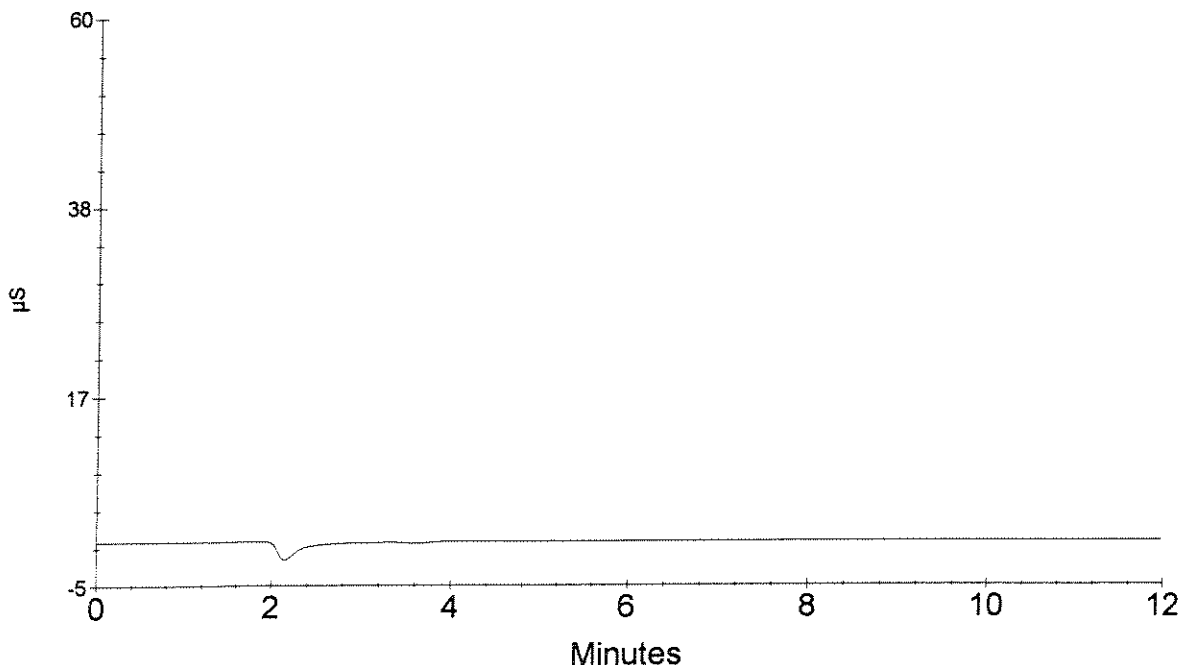
Data Collection Rate : 1.00 Hz  
 Data Collection Period : 720.00 seconds  
 Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
0	0.00	(null) Chloride Nitrite Bromide Nitrate Sulfate	0.000	0

OK  
 ↓  
 TE 6/24/08

ICB



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : LCS  
Data File Name : ...0623\_012.DXD  
Method File Name : ...20080623.met  
Date Time Collected : 6/23/08 16:50:50

Detector Name :  
Column ID : AS-14 (022939) AG-14 (022002)  
Method Comment : Calibration 06.23.2008  
Method Analyst : T. CHRIST

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

Data Collection Rate : 1.00 Hz  
Data Collection Period : 720.00 seconds  
Component Amount Units : mg/L

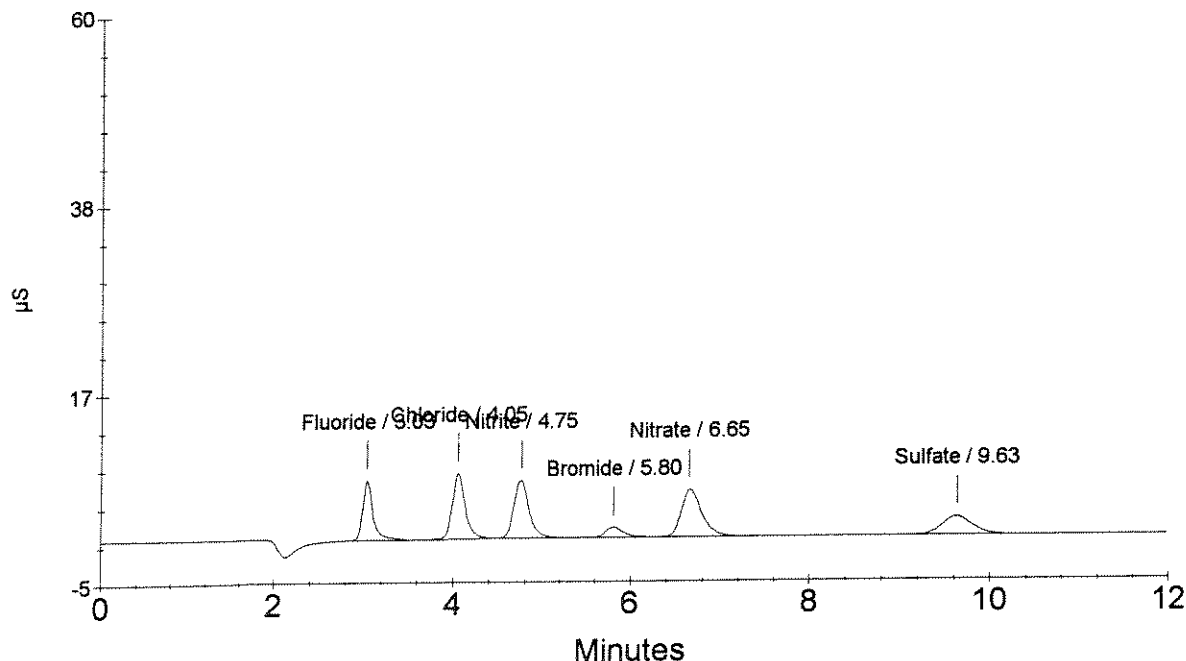
Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.03	Fluoride	0.983	563988
2	4.05	Chloride	1.816	743056
3	4.75	Nitrite	0.949	771669
4	5.80	Bromide	1.011	157366
5	6.65	Nitrate	0.914	843913
6	9.63	Sulfate	1.899	484590

OK  
↓

TC 6/24/08

LCS



Run #: 164404

Analyte: CHLORIDE 9056

CHLORIDE BY ION CHROMATOGRAPHY

Printed: 07/23/08 10:14

<u>TYPE</u>	<u>SUBMISSION</u>	<u>ORDER #</u>	<u>MATRIX</u>	<u>REPORTED</u>		<u>DILUTION</u>	<u>PQL</u>	<u>% RECOVERY</u>	<u>% RSD</u>	<u>DATE</u>	<u>QC</u>	<u>PKG #</u>
				<u>RESULT</u>						<u>ANALYZED</u>		
ESMP	R2844768	1113696	WATER	5930		1000.0	0.200			07/23/08		ASPB
CHK5		1120030	WATER	6.08		1.0	0.200	93.5		07/22/08		
BLK4		1120031	WATER	0.200	U	1.0	0.200			07/22/08		
SPKE		1120032	WATER	1.81		1.0	0.200	90.5		07/22/08		

Records printed: 4

Data Manually Entered

Analyst: C Woods  
 Pipets: Mine  
 Lucy

WORKLISTS  
 UPDATED

Line	Sample	Sample Type	Level	Method	Data File	Dilution	Comment
1	CCV	Sample		20080717.met	721_001.dxd	1	
2	CCB	Sample		20080717.met	721_002.dxd	1	
3	LCS	Sample		20080717.met	721_003.dxd	1	S
4	1113042 R-44734	Sample		20080717.met	721_004.dxd	100	S
5	1113042 DUP	Sample		20080717.met	721_005.dxd	100	S
6	1113042 SPK	Sample		20080717.met	721_006.dxd	100	S
7	LNAQ0715	Sample		20080717.met	721_007.dxd	40	BTU
8	1115397A	Sample		20080717.met	721_008.dxd	40	BTU
9	1115397B	Sample		20080717.met	721_009.dxd	40	BTU
10	1115397A SPK	Sample		20080717.met	721_010.dxd	40	BTU
11	1115398B	Sample		20080717.met	721_011.dxd	40	BTU
12	1115399A	Sample		20080717.met	721_012.dxd	40	BTU
13	CCV	Sample		20080717.met	721_013.dxd	1	
14	CCB	Sample		20080717.met	721_014.dxd	1	
15	1115469	Sample		20080717.met	721_015.dxd	400	S
16	1115475	Sample		20080717.met	721_016.dxd	400	S
17	1115477	Sample		20080717.met	721_017.dxd	400	S
18	1115927	Sample		20080717.met	721_018.dxd	20	S
19	1115929	Sample		20080717.met	721_019.dxd	400	S
20	1116525	Sample		20080717.met	721_020.dxd	10	S
21	1116525 DUP	Sample		20080717.met	721_021.dxd	10	S
22	1116525 SPK	Sample		20080717.met	721_022.dxd	10	S
23	1116526	Sample		20080717.met	721_023.dxd	100	S
24	1116527	Sample		20080717.met	721_024.dxd	400	S
25	1116528	Sample		20080717.met	721_025.dxd	10	S
26	1116529	Sample		20080717.met	721_026.dxd	40	S
27	CCV	Sample		20080717.met	721_027.dxd	1	
28	CCB	Sample		20080717.met	721_028.dxd	1	
29	LCS	Sample		20080717.met	721_029.dxd	1	
30	1116530	Sample		20080717.met	721_030.dxd	40	S
31	1116530 DUP	Sample		20080717.met	721_031.dxd	40	S
32	1116530 SPK	Sample		20080717.met	721_032.dxd	40	S
33	1116531	Sample		20080717.met	721_033.dxd	400	S
34	1116532	Sample		20080717.met	721_034.dxd	200	S
35	1116533	Sample		20080717.met	721_035.dxd	400	S
36	1116752	Sample		20080717.met	721_036.dxd	10	CS
37	1116752 DUP	Sample		20080717.met	721_037.dxd	10	CS
38	1116752 SPK	Sample		20080717.met	721_038.dxd	10	CS
39	1116756	Sample		20080717.met	721_039.dxd	10	CS
40	1116757	Sample		20080717.met	721_040.dxd	10	CS
41	1116758	Sample		20080717.met	721_041.dxd	10	CS
42	1116761	Sample		20080717.met	721_042.dxd	10	CS
43	1116763	Sample		20080717.met	721_043.dxd	10	CS
44	CCV	Sample		20080717.met	721_044.dxd	1	
45	CCB	Sample		20080717.met	721_045.dxd	1	



Schedule File: J:\ACQUDATA\IC\SCHEDULE\IC#4\072208.sch

Line	Sample	Sample Type	Level	Method	Data File	Dilution	Comment
16	1116764	Sample		20080717.met	721_046.dxd	10	CS
17	1116764 DUP	Sample		20080717.met	721_047.dxd	10	CS
18	1116764 SPK	Sample		20080717.met	721_048.dxd	10	CS
19	1116765	Sample		20080717.met	721_049.dxd	10	CS
20	1116766	Sample		20080717.met	721_050.dxd	10	CS
31	1116767	Sample		20080717.met	721_051.dxd	10	CS
52	1116768	Sample		20080717.met	721_052.dxd	10	CS
53	1116769	Sample		20080717.met	721_053.dxd	10	CS
54	1116770	Sample		20080717.met	721_054.dxd	10	CS
55	1116893	Sample		20080717.met	721_055.dxd	10	CS
56	1115903	Sample		20080717.met	721_056.dxd	40	S
57	1113696	Sample		20080717.met	721_057.dxd	1000	C
58	CCV	Sample		20080717.met	721_058.dxd	1	
59	CCB	Sample		20080717.met	721_059.dxd	1	
60	END	Sample		shutdown.met	721	1	

Default Method Path: J:\ACQUDATA\IC\METHOD.AC\IC#4

Default Data Path: J:\ACQUDATA\IC\DATA\IC#4\072208

Comment:

01000



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Sample Name : CCV  
Data File Name : ...\\721\_001.DXD  
Method File Name : ...\\20080717.met  
Date Time Collected : 7/22/08 13:49:01

Detector Name :  
Column ID : AS-14 (022939) AG-14 (022002)  
Method Comment : Calibration 07.17.2008  
Method Analyst : C. WOODS

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

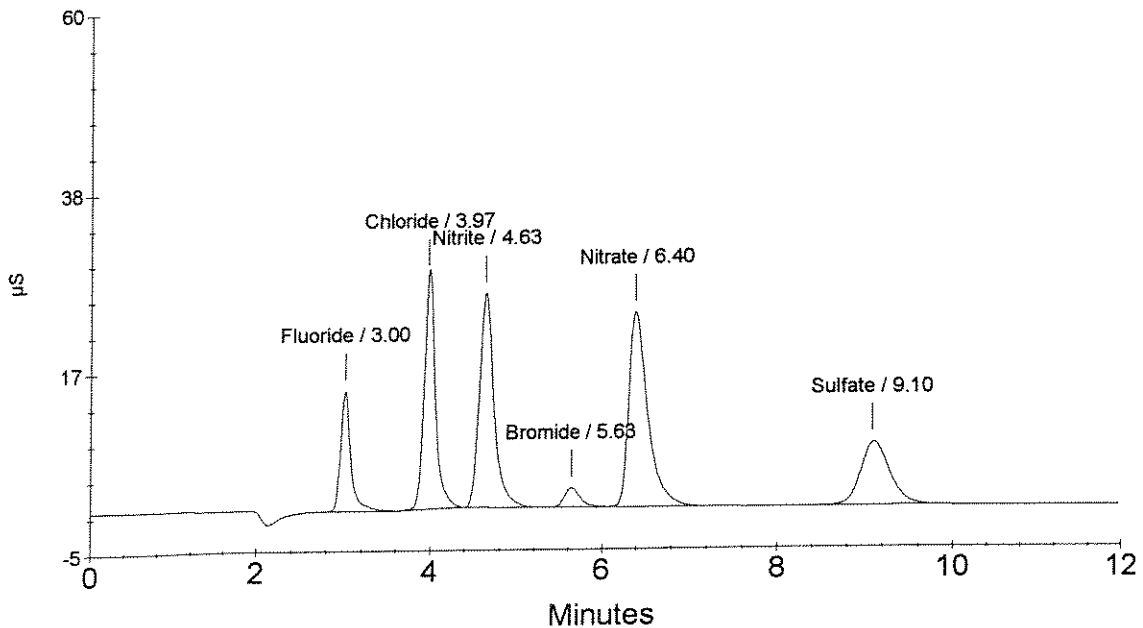
Data Collection Rate : 1.00 Hz  
Data Collection Period : 720.00 seconds  
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.00	Fluoride	1.954	1158308
2	3.97	Chloride	6.075	2622393
3	4.63	Nitrite	3.584	2980596
4	5.63	Bromide	1.958	295243
5	6.40	Nitrate	3.425	3548155
6	9.10	Sulfate	6.455	1708556


CCV



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Sample Name : CCB  
 Data File Name : ... \721\_002.DXD  
 Method File Name : ... \20080717.met  
 Date Time Collected : 7/22/08 14:03:17

Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Comment : Calibration 07.17.2008  
 Method Analyst : C. WOODS

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

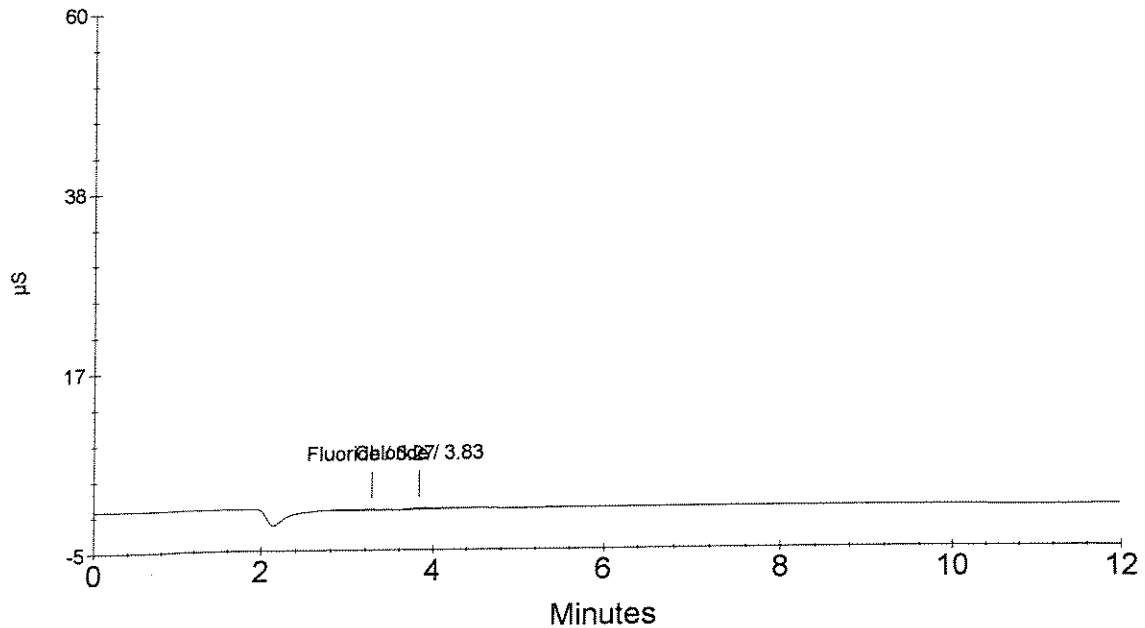
Data Collection Rate : 1.00 Hz  
 Data Collection Period : 720.00 seconds  
 Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.27	Fluoride	0.055	24933
2	3.83	Chloride	0.166	36667
		Nitrite		
		Bromide		
		Nitrate		
		Sulfate		

*OK*  
 ↓  
*CCB*  
 7/22/08

CCB



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Sample Name : LCS  
Data File Name : ... \721\_003.DXD  
Method File Name : ... \20080717.met  
Date Time Collected : 7/22/08 14:17:36

Detector Name :  
Column ID : AS-14 (022939) AG-14 (022002)  
Method Comment : Calibration 07.17.2008  
Method Analyst : C. WOODS

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

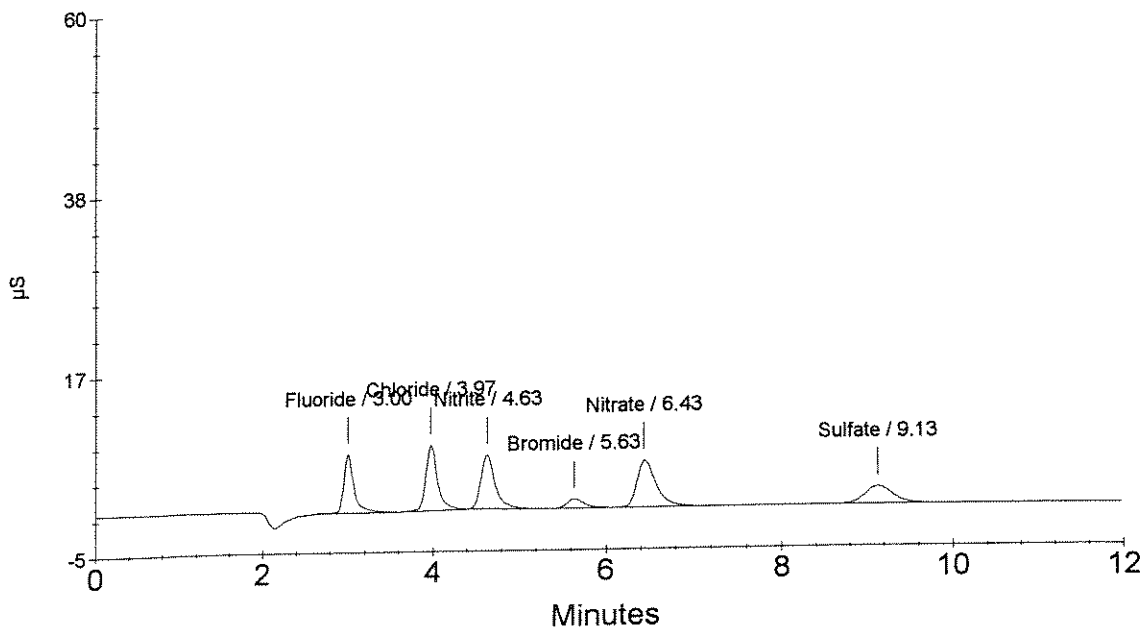
Data Collection Rate : 1.00 Hz  
Data Collection Period : 720.00 seconds  
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.00	Fluoride	0.972	572103
2	3.97	Chloride	1.810	756257
3	4.63	Nitrite	0.929	745407
4	5.63	Bromide	0.992	150538
5	6.43	Nitrate	0.895	862512
6	9.13	Sulfate	1.885	488602

*OK*  
↓  
*7/23/08*

LCS



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Sample Name : 1113042 R-44734  
Data File Name : ...\\721\_004.DXD  
Method File Name : ...\\20080717.met  
Date Time Collected : 7/22/08 14:33:58

Detector Name :  
Column ID : AS-14 (022939) AG-14 (022002)  
Method Comment : Calibration 07.17.2008  
Method Analyst : C. WOODS

Dilution Factor : 100.00  
Sample Type : Sample Analysis  
Sample Comment : S

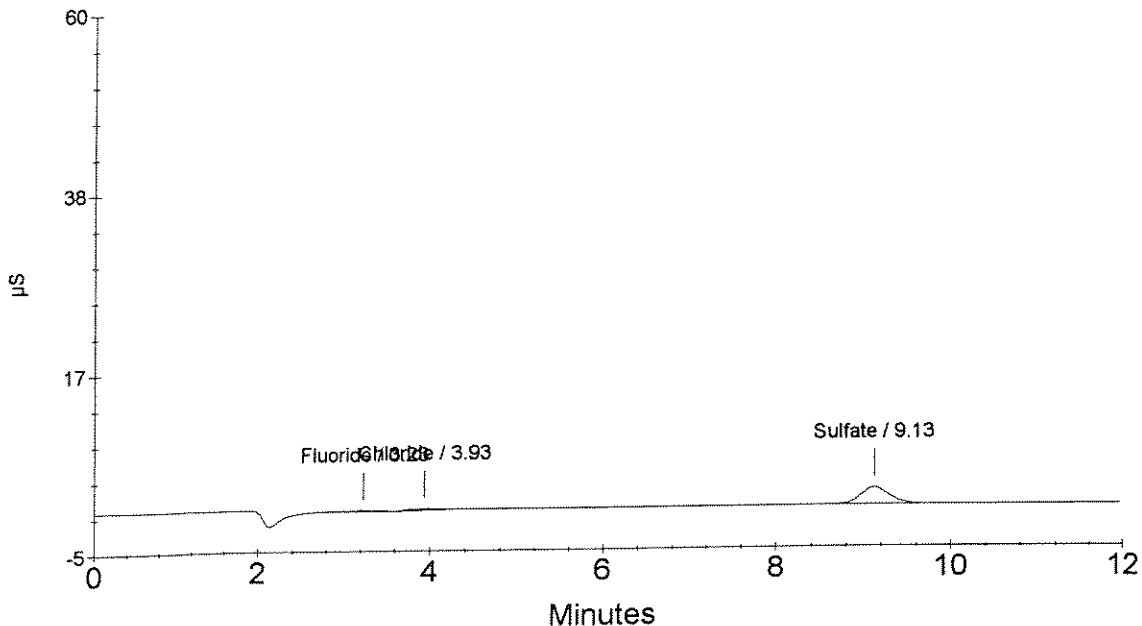
Data Collection Rate : 1.00 Hz  
Data Collection Period : 720.00 seconds  
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.23	Fluoride	5.559	25266
2	3.93	Chloride Nitrite Bromide Nitrate	15.825	33313
3	9.13	Sulfate <i>OK</i>	176.900	457636

*Handwritten signature and date: 7/23/08*

1113042 R-44734



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Sample Name : 1113042 DUP  
 Data File Name : ... \721\_005.DXD  
 Method File Name : ... \20080717.met  
 Date Time Collected : 7/22/08 14:48:15

Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Comment : Calibration 07.17.2008  
 Method Analyst : C. WOODS

Dilution Factor : 100.00  
 Sample Type : Sample Analysis  
 Sample Comment : S

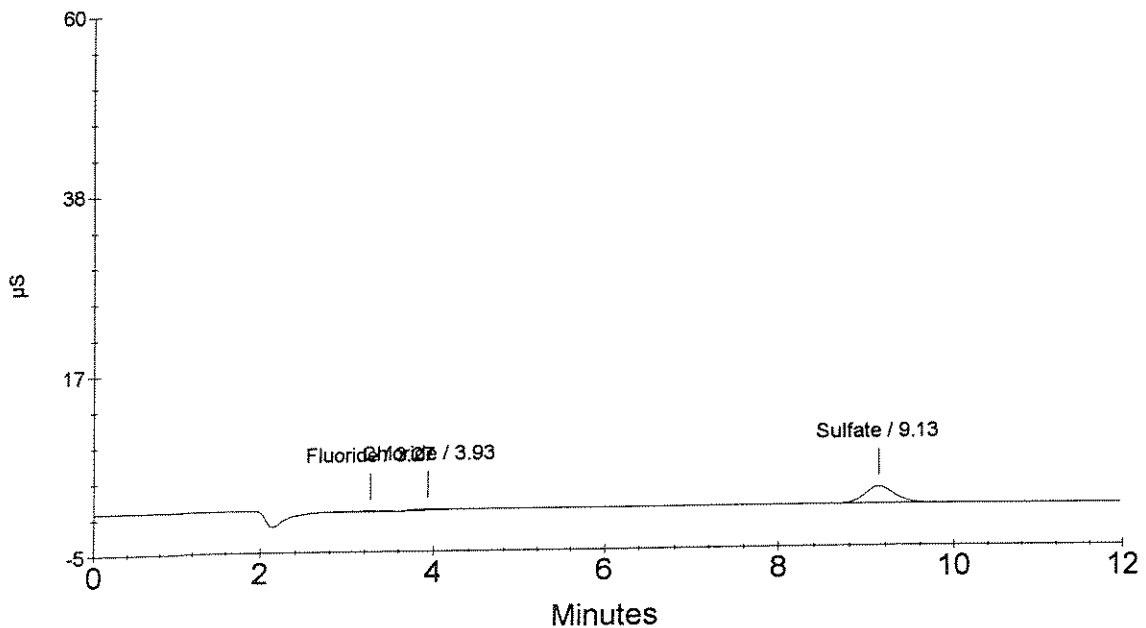
Data Collection Rate : 1.00 Hz  
 Data Collection Period : 720.00 seconds  
 Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.27	Fluoride	5.602	25519
2	3.93	Chloride Nitrite Bromide Nitrate	15.421	31541
3	9.13	Sulfate	178.131	460921

*OK*  
*[Signature]*  
*7/23/08*

1113042 DUP



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Sample Name : 1113042 SPK  
Data File Name : ...\\721\_006.DXD  
Method File Name : ...\\20080717.met  
Date Time Collected : 7/22/08 15:02:34

Detector Name :  
Column ID : AS-14 (022939) AG-14 (022002)  
Method Comment : Calibration 07.17.2008  
Method Analyst : C. WOODS

Dilution Factor : 100.00  
Sample Type : Sample Analysis  
Sample Comment : S

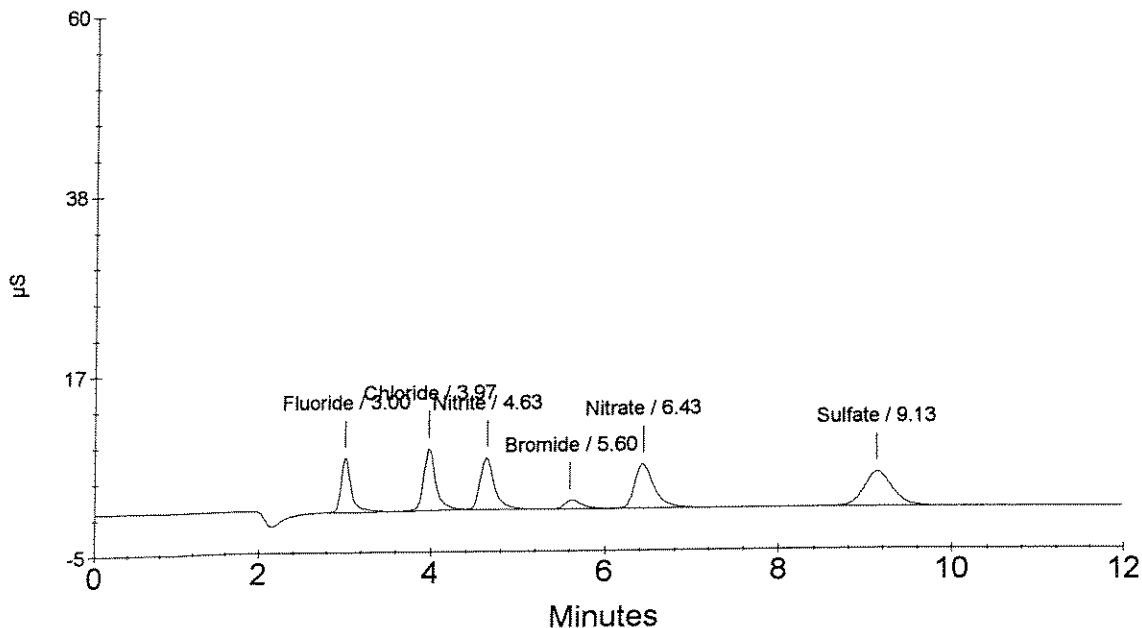
Data Collection Rate : 1.00 Hz  
Data Collection Period : 720.00 seconds  
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.00	Fluoride	90.722	533605
2	3.97	Chloride	170.724	711183
3	4.63	Nitrite	88.548	708448
4	5.60	Bromide	90.650	137806
5	6.43	Nitrate	84.580	810176
6	9.13	Sulfate	359.010	943731

*OK*  
*7/22/08*

1113042 SPK



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : LNAQ0715  
Data File Name : ...721\_007.DXD  
Method File Name : ...20080717.met  
Date Time Collected : 7/22/08 15:16:54

Detector Name :  
Column ID : AS-14 (022939) AG-14 (022002)  
Method Comment : Calibration 07.17.2008  
Method Analyst : C. WOODS

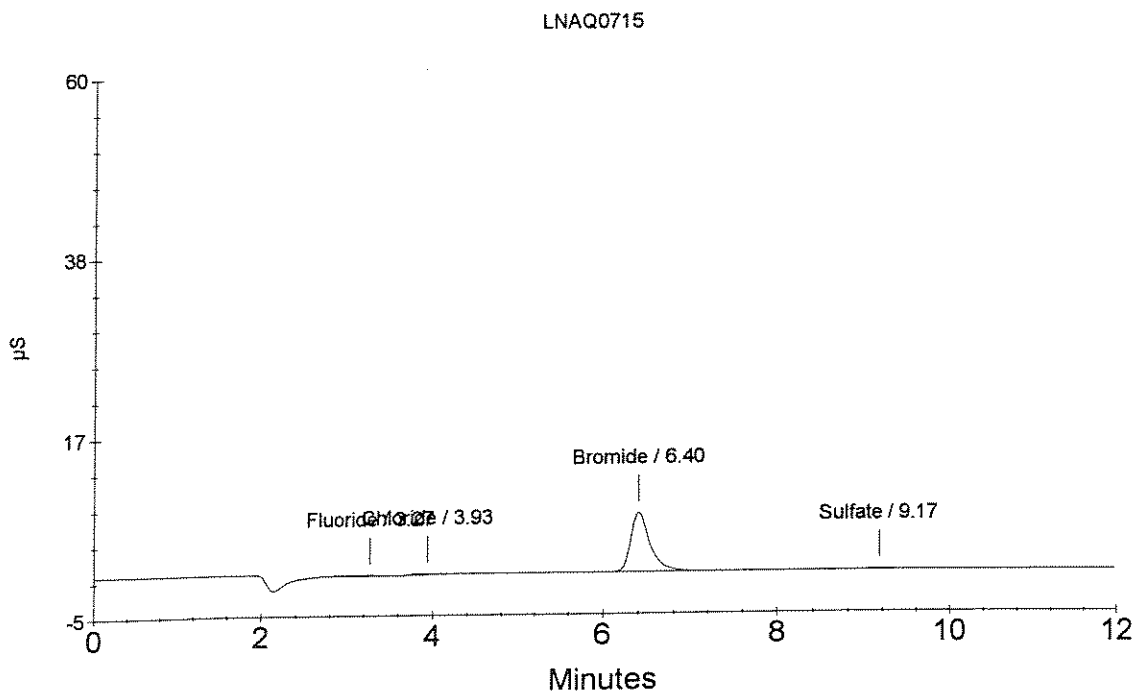
Dilution Factor : 40.00  
Sample Type : Sample Analysis  
Sample Comment : BTU

Data Collection Rate : 1.00 Hz  
Data Collection Period : 720.00 seconds  
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.27	Fluoride	2.386	27693
2	3.93	Chloride	6.004	29741
3	6.40	Nitrite Bromide	286.234	1073250
4	9.17	Nitrate Sulfate	4.942	18426

*OK*  
*7/23/08*



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1115397A  
Data File Name : ...\\721\_008.DXD  
Method File Name : ...\\20080717.met  
Date Time Collected : 7/22/08 15:31:13

Detector Name :  
Column ID : AS-14 (022939) AG-14 (022002)  
Method Comment : Calibration 07.17.2008  
Method Analyst : C. WOODS

Dilution Factor : 40.00  
Sample Type : Sample Analysis  
Sample Comment : BTU

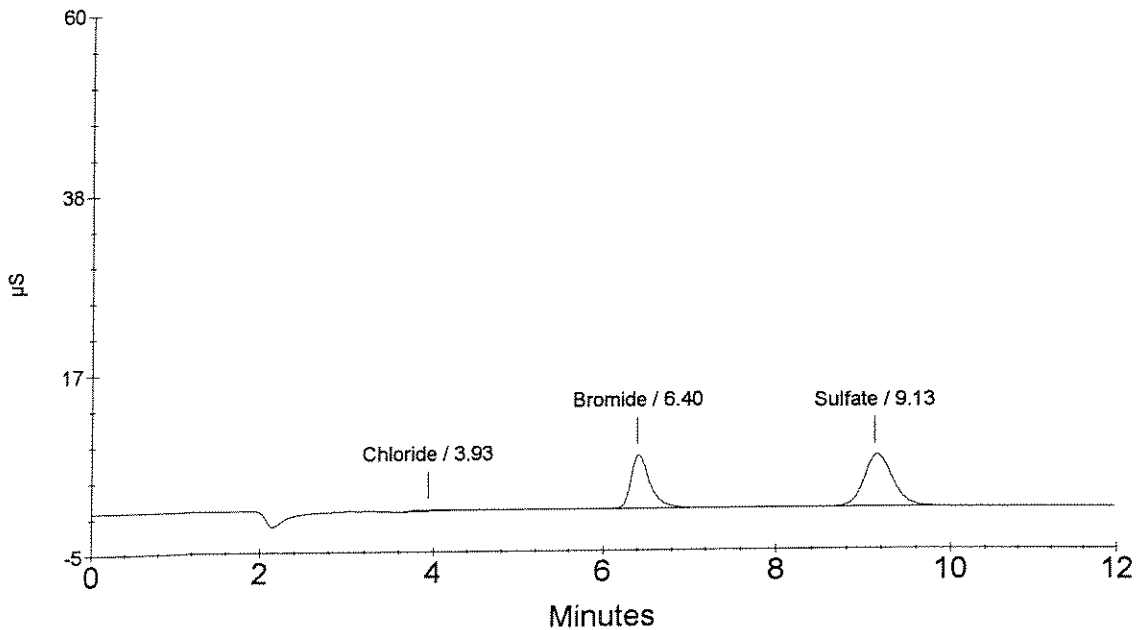
Data Collection Rate : 1.00 Hz  
Data Collection Period : 720.00 seconds  
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.93	Chloride	6.376	33809
1	3.93	Chloride Nitrite	6.376	33809
2	6.40	Bromide	260.096	975438
3	9.13	Nitrate Sulfate	214.624	1417653

*OK*  
*7/23/08*

1115397A





Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14607

Sample Name : 1115397B  
 Data File Name : ...\\721\_009.DXD  
 Method File Name : ...\\20080717.met  
 Date Time Collected : 7/22/08 15:45:31

Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Comment : Calibration 07.17.2008  
 Method Analyst : C. WOODS

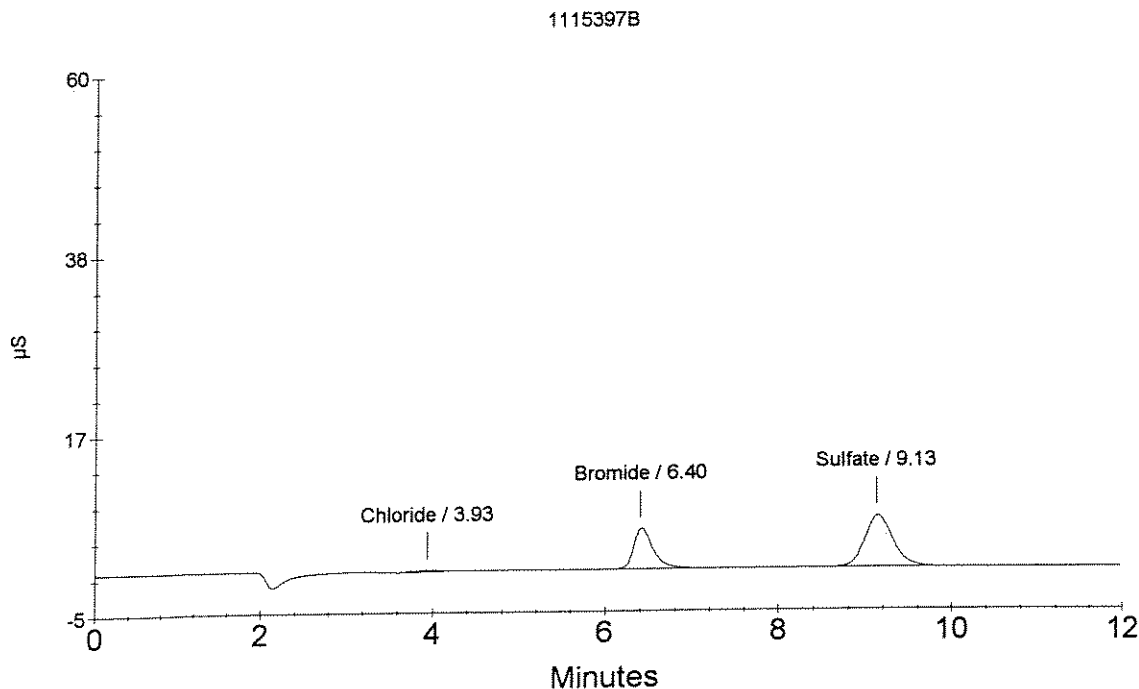
Dilution Factor : 40.00  
 Sample Type : Sample Analysis  
 Sample Comment : BTU

Data Collection Rate : 1.00 Hz  
 Data Collection Period : 720.00 seconds  
 Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.93	Chloride	6.680	37138
1	3.93	Chloride	6.680	37138
		Nitrite		
2	6.40	Bromide	197.492	741163
		Nitrate		
3	9.13	Sulfate	209.433	1383017

*OK*  
*7/23/08*



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1115397A SPK  
Data File Name : ... \721\_010.DXD  
Method File Name : ... \20080717.met  
Date Time Collected : 7/22/08 15:59:51

Detector Name :  
Column ID : AS-14 (022939) AG-14 (022002)  
Method Comment : Calibration 07.17.2008  
Method Analyst : C. WOODS

Dilution Factor : 40.00  
Sample Type : Sample Analysis  
Sample Comment : BTU

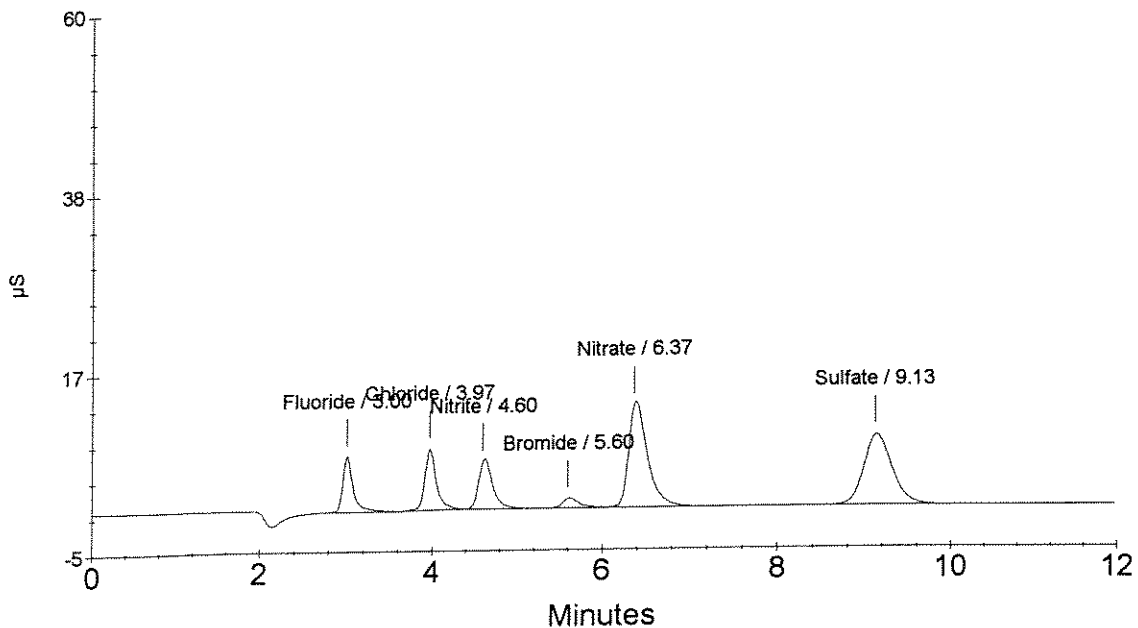
Data Collection Rate : 1.00 Hz  
Data Collection Period : 720.00 seconds  
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.00	Fluoride	37.577	552822
2	3.97	Chloride	67.709	704834
3	4.60	Nitrite	34.381	686592
4	5.60	Bromide	40.932	155291
5	6.37	Nitrate	75.066	1904590
6	9.13	Sulfate	288.388	1909894

*OK*  
*7/22/08*

1115397A SPK



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1115398B  
Data File Name : ...\\721\_011.DXD  
Method File Name : ...\\20080717.met  
Date Time Collected : 7/22/08 16:14:10

Detector Name :  
Column ID : AS-14 (022939) AG-14 (022002)  
Method Comment : Calibration 07.17.2008  
Method Analyst : C. WOODS

Dilution Factor : 40.00  
Sample Type : Sample Analysis  
Sample Comment : BTU

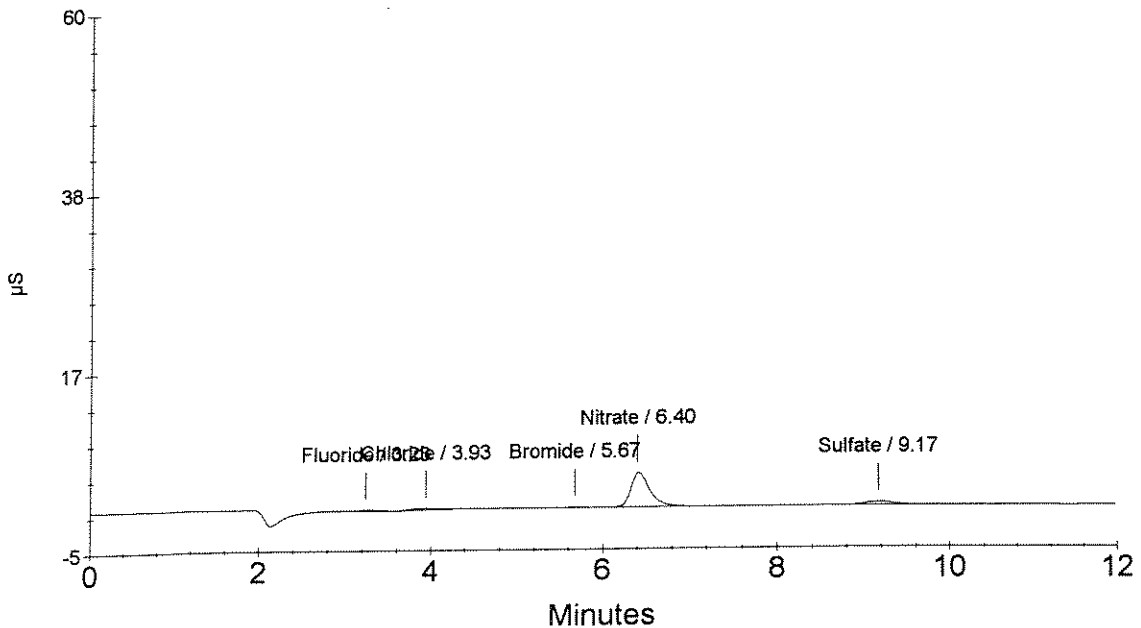
Data Collection Rate : 1.00 Hz  
Data Collection Period : 720.00 seconds  
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.23	Fluoride	2.456	28738
2	3.93	Chloride Nitrite	6.544	35651
3	5.67	Bromide	2.940	13118
4	6.40	Nitrate	27.028	629581
5	9.17	Sulfate	15.456	88584

*OK*  
*CW*  
*7/22/08*

1115398B



Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14607

Sample Name : 1115399A  
 Data File Name : ... \721\_012.DXD  
 Method File Name : ... \20080717.met  
 Date Time Collected : 7/22/08 16:28:31

Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Comment : Calibration 07.17.2008  
 Method Analyst : C. WOODS

Dilution Factor : 40.00  
 Sample Type : Sample Analysis  
 Sample Comment : BTU

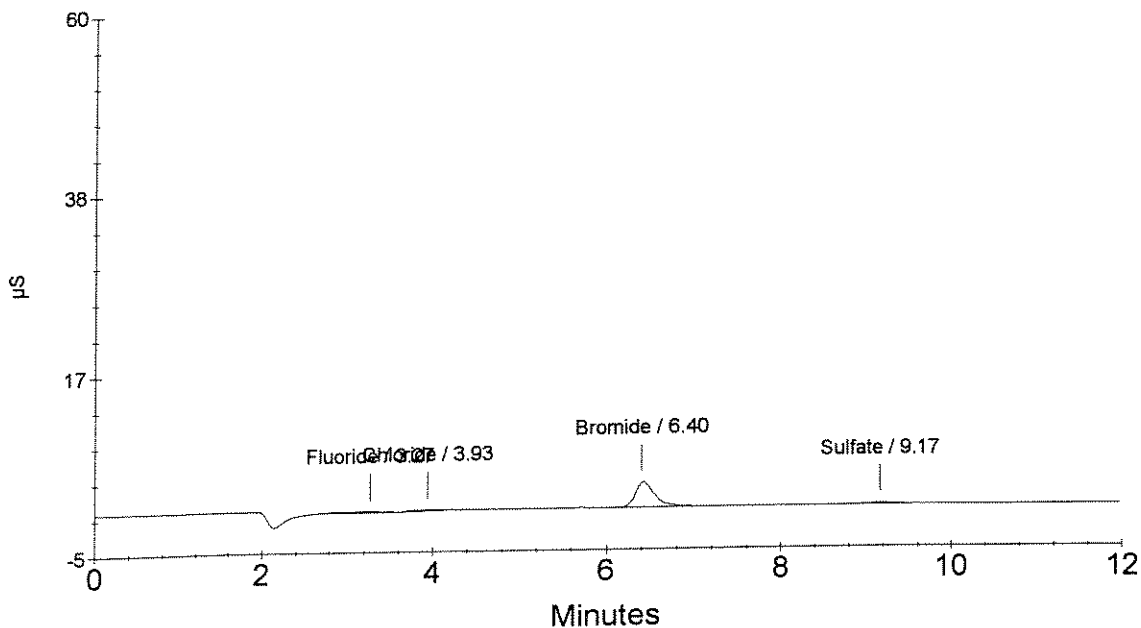
Data Collection Rate : 1.00 Hz  
 Data Collection Period : 720.00 seconds  
 Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.27	Fluoride	2.453	28692
2	3.93	Chloride Nitrite	5.961	29270
3	6.40	Bromide	122.758	461496
4	9.17	Nitrate Sulfate	5.936	25061

*OK*  
*7/23/08*

1115399A



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : CCV  
Data File Name : ...\\721\_013.DXD  
Method File Name : ...\\20080717.met  
Date Time Collected : 7/22/08 16:51:20

Detector Name :  
Column ID : AS-14 (022939) AG-14 (022002)  
Method Comment : Calibration 07.17.2008  
Method Analyst : C. WOODS

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

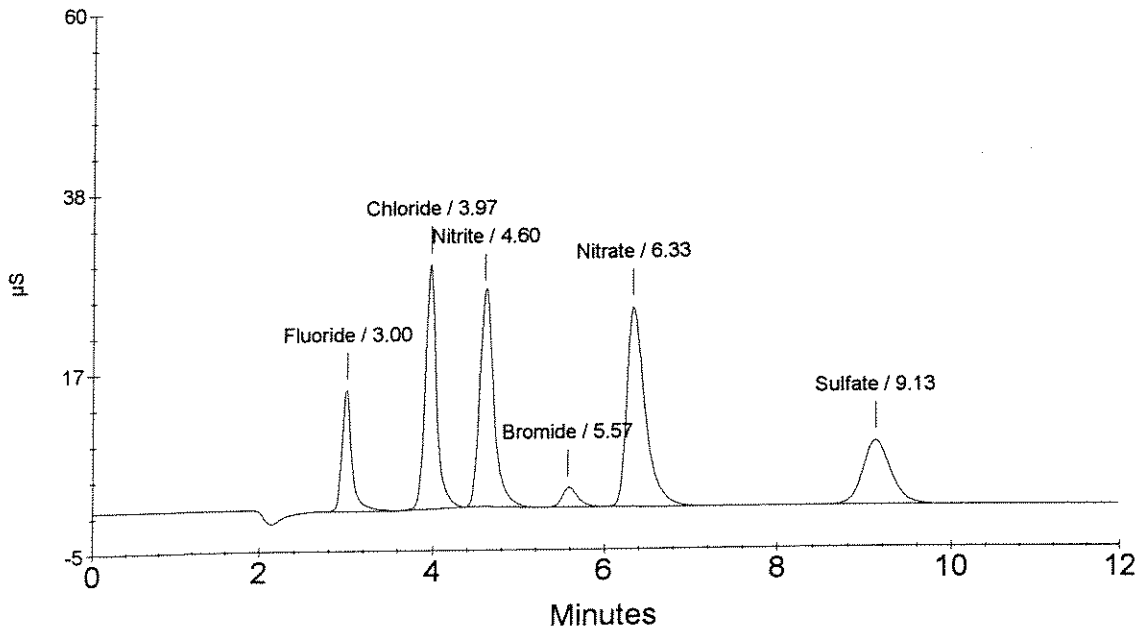
Data Collection Rate : 1.00 Hz  
Data Collection Period : 720.00 seconds  
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.00	Fluoride	1.960	1162039
2	3.97	Chloride	6.152	2656240
3	4.60	Nitrite	3.573	2971301
4	5.57	Bromide	2.005	302241
5	6.33	Nitrate	3.456	3581658
6	9.13	Sulfate	6.537	1730300

7/23/08

CCV



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : CCB  
Data File Name : ...\\721\_014.DXD  
Method File Name : ...\\20080717.met  
Date Time Collected : 7/22/08 17:05:35

Detector Name :  
Column ID : AS-14 (022939) AG-14 (022002)  
Method Comment : Calibration 07.17.2008  
Method Analyst : C. WOODS

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

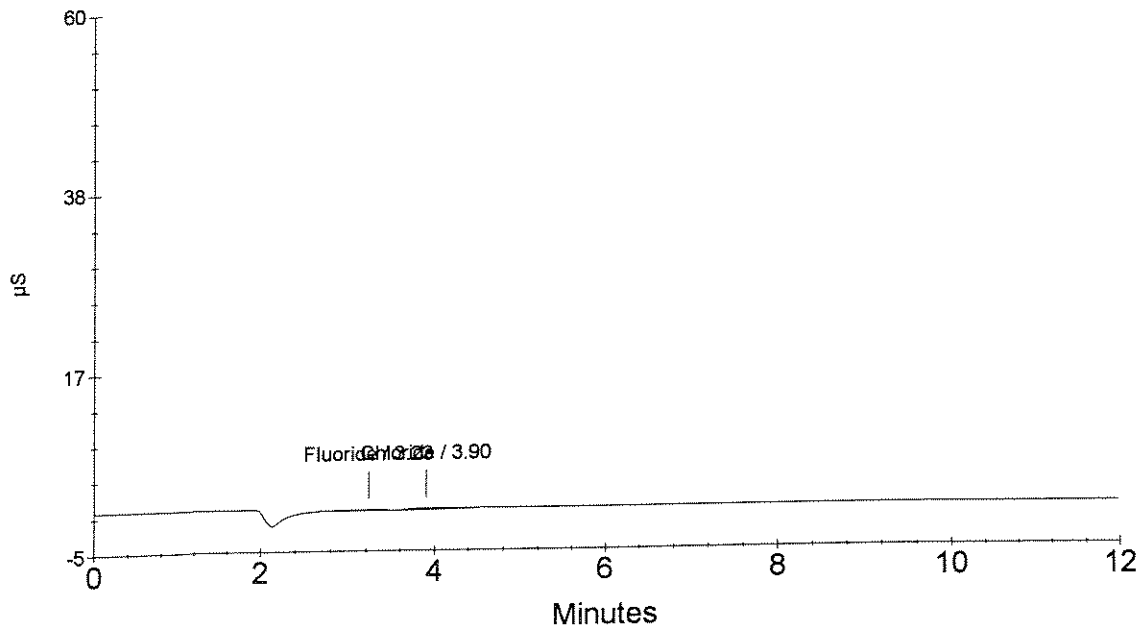
Data Collection Rate : 1.00 Hz  
Data Collection Period : 720.00 seconds  
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.23	Fluoride	0.057	25844
2	3.90	Chloride Nitrite Bromide Nitrate Sulfate	0.179	42309

OK  
↓  
7/23/08

CCB



Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14607

Sample Name : 1115469  
 Data File Name : ...\\721\_015.DXD  
 Method File Name : ...\\20080717.met  
 Date Time Collected : 7/22/08 17:44:02

Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Comment : Calibration 07.17.2008  
 Method Analyst : C. WOODS

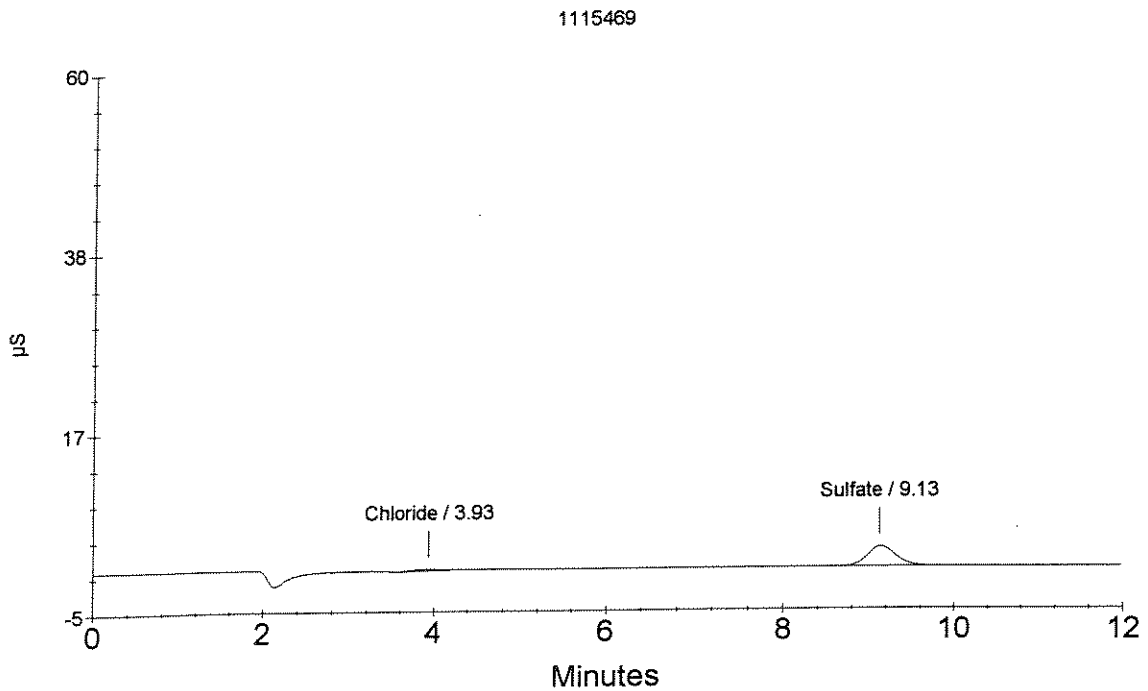
Dilution Factor : 400.00  
 Sample Type : Sample Analysis  
 Sample Comment : S

Data Collection Rate : 1.00 Hz  
 Data Collection Period : 720.00 seconds  
 Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.93	Chloride	65.976	36239
1	3.93	Chloride	65.976	36239
		Nitrite		
		Bromide		
		Nitrate		
2	9.13	Sulfate	843.181	548110

*OK*  
*CV*  
*7/23/08*



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1115475  
Data File Name : ...\\721\_016.DXD  
Method File Name : ...\\20080717.met  
Date Time Collected : 7/22/08 17:58:19

Detector Name :  
Column ID : AS-14 (022939) AG-14 (022002)  
Method Comment : Calibration 07.17.2008  
Method Analyst : C. WOODS

Dilution Factor : 400.00  
Sample Type : Sample Analysis  
Sample Comment : S

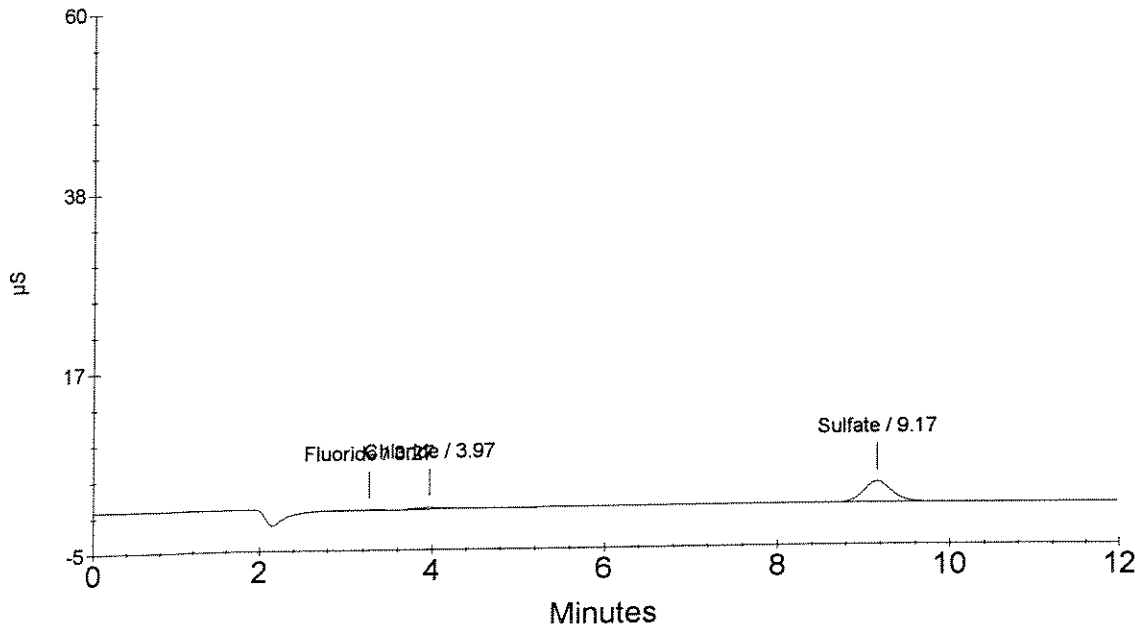
Data Collection Rate : 1.00 Hz  
Data Collection Period : 720.00 seconds  
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.27	Fluoride	24.042	27959
2	3.97	Chloride Nitrite Bromide	66.651	36978
3	9.17	Nitrate Sulfate	881.922	573963

*OK*  
*7/23/08*

1115475





Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14607

Sample Name : 1115477  
 Data File Name : ... \721\_017.DXD  
 Method File Name : ... \20080717.met  
 Date Time Collected : 7/22/08 18:12:39

Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Comment : Calibration 07.17.2008  
 Method Analyst : C. WOODS

Dilution Factor : 400.00  
 Sample Type : Sample Analysis  
 Sample Comment : S

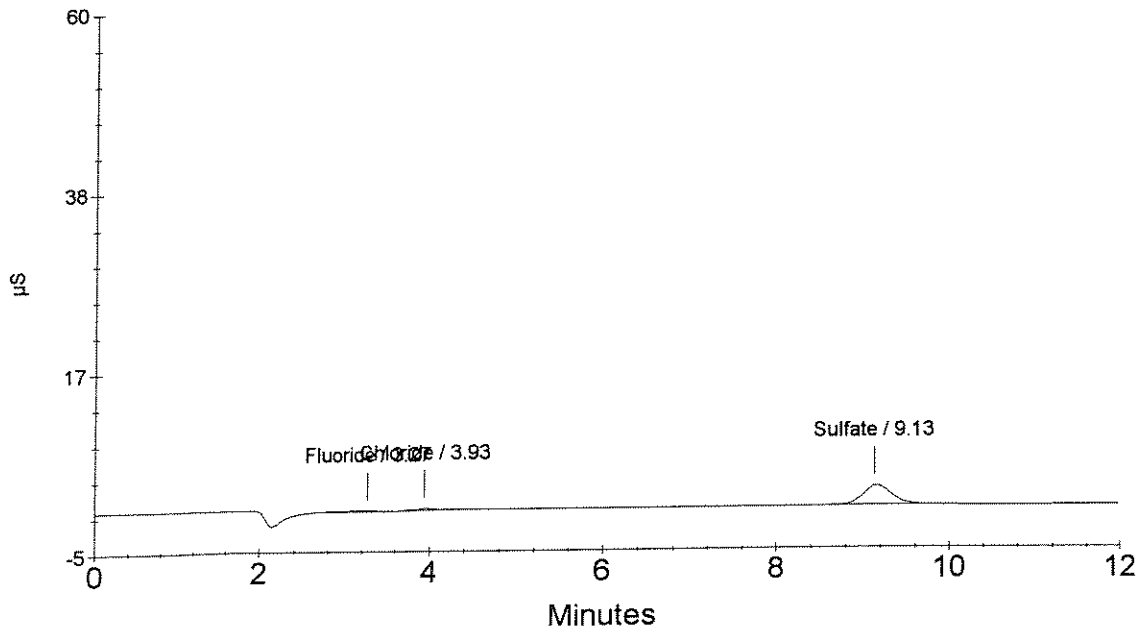
Data Collection Rate : 1.00 Hz  
 Data Collection Period : 720.00 seconds  
 Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.27	Fluoride	23.678	27417
2	3.93	Chloride Nitrite Bromide	67.116	37486
3	9.13	Nitrate Sulfate	810.541	526329

*OK*  
 7/23/08

1115477



Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14607

Sample Name : 1115927  
 Data File Name : ... \721\_018.DXD  
 Method File Name : ... \20080717.met  
 Date Time Collected : 7/22/08 18:26:57

Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Comment : Calibration 07.17.2008  
 Method Analyst : C. WOODS

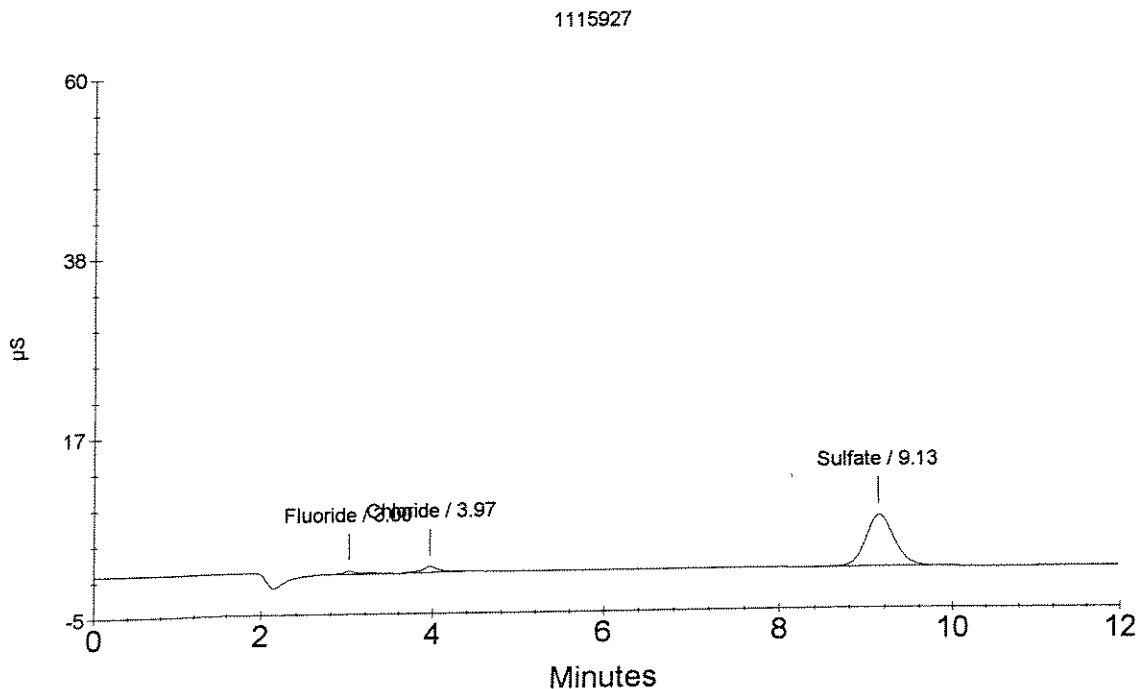
Dilution Factor : 20.00  
 Sample Type : Sample Analysis  
 Sample Comment : S

Data Collection Rate : 1.00 Hz  
 Data Collection Period : 720.00 seconds  
 Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.00	Fluoride	1.950	50285
2	3.97	Chloride	6.229	100344
		Nitrite		
		Bromide		
		Nitrate		
3	9.13	Sulfate	105.831	1397887

*OK*  
*7/22/08*



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1115929  
Data File Name : ... \721\_019.DXD  
Method File Name : ... \20080717.met  
Date Time Collected : 7/22/08 18:41:17

Detector Name :  
Column ID : AS-14 (022939) AG-14 (022002)  
Method Comment : Calibration 07.17.2008  
Method Analyst : C. WOODS

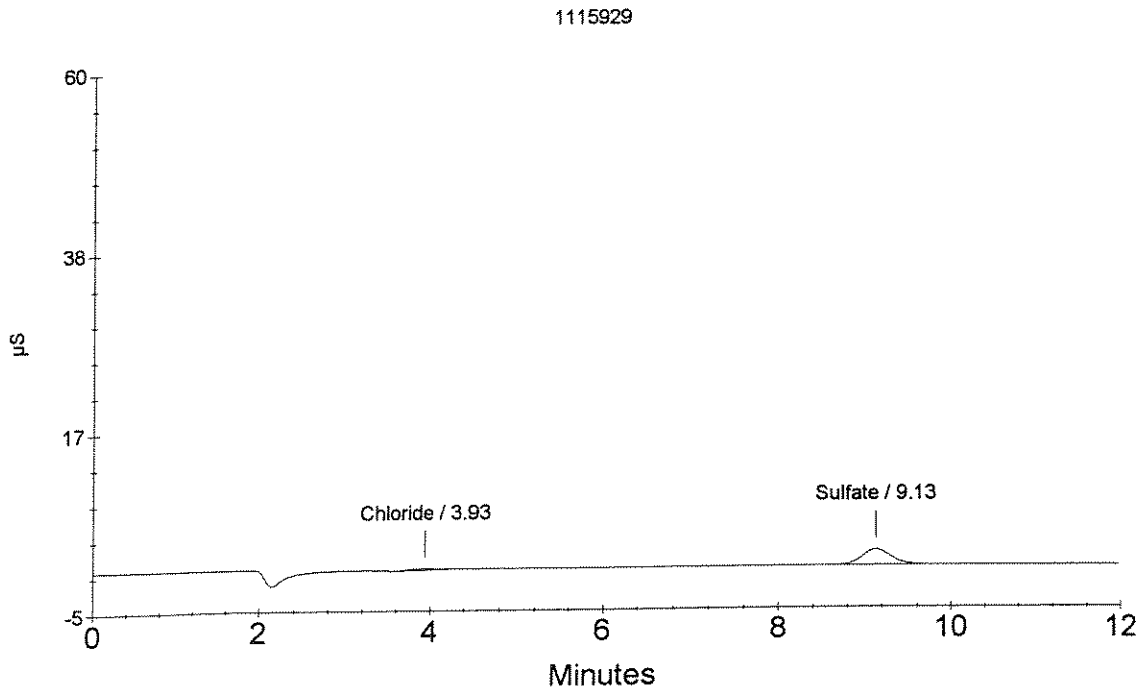
Dilution Factor : 400.00  
Sample Type : Sample Analysis  
Sample Comment : S

Data Collection Rate : 1.00 Hz  
Data Collection Period : 720.00 seconds  
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.93	Chloride	65.867	36119
1	3.93	Chloride Nitrite Bromide Nitrate	65.867	36119
2	9.13	Sulfate	652.633	420956

*OK*  
*7/23/08*



Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14607

Sample Name : 1116525  
 Data File Name : ... \721\_020.DXD  
 Method File Name : ... \20080717.met  
 Date Time Collected : 7/22/08 18:55:35

Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Comment : Calibration 07.17.2008  
 Method Analyst : C. WOODS

Dilution Factor : 10.00  
 Sample Type : Sample Analysis  
 Sample Comment : S

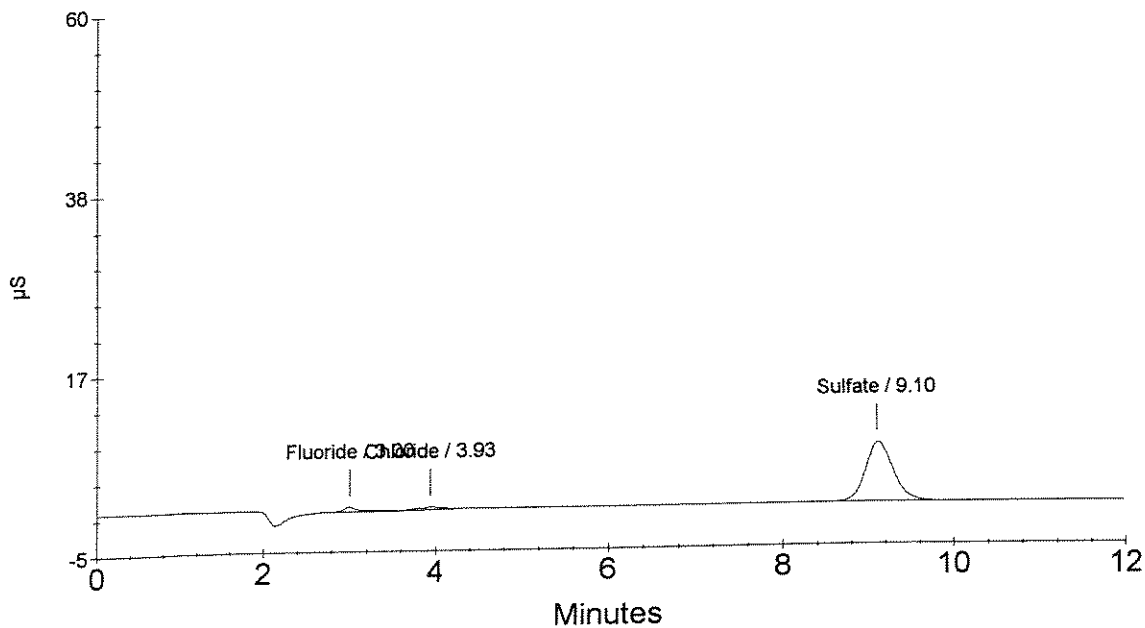
Data Collection Rate : 1.00 Hz  
 Data Collection Period : 720.00 seconds  
 Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.00	Fluoride	1.180	62522
2	3.93	Chloride Nitrite Bromide Nitrate	2.196	60166
3	9.10	Sulfate	60.183	1591885

*OK*  
*7/23/08*

1116525



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1116525 DUP  
Data File Name : ... \721\_021.DXD  
Method File Name : ... \20080717.met  
Date Time Collected : 7/22/08 19:09:56

Detector Name :  
Column ID : AS-14 (022939) AG-14 (022002)  
Method Comment : Calibration 07.17.2008  
Method Analyst : C. WOODS

Dilution Factor : 10.00  
Sample Type : Sample Analysis  
Sample Comment : S

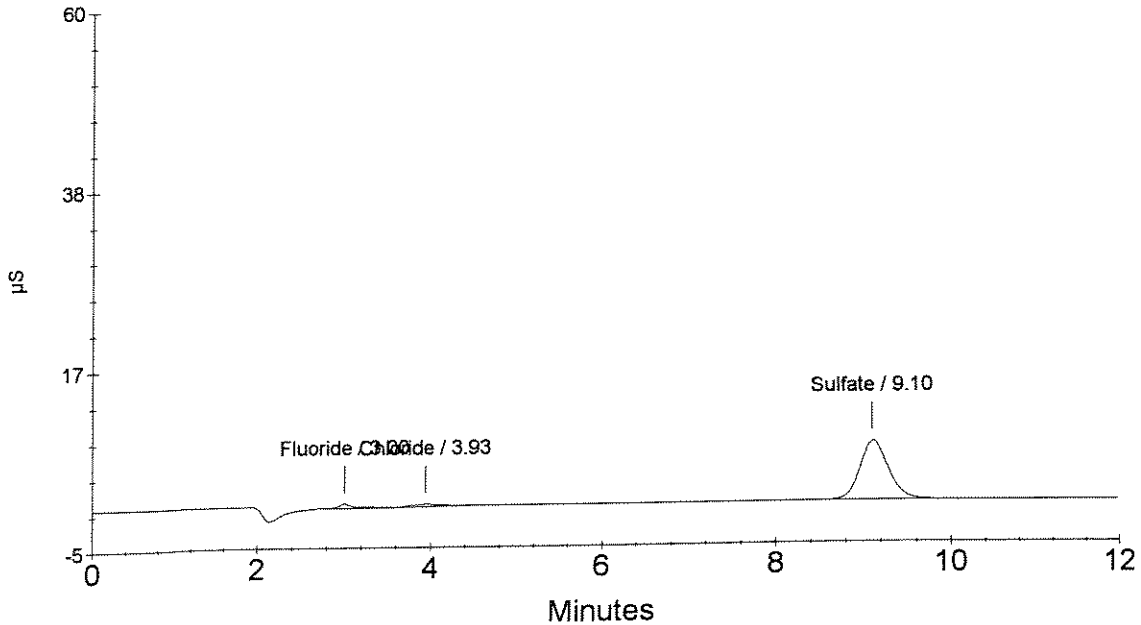
Data Collection Rate : 1.00 Hz  
Data Collection Period : 720.00 seconds  
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.00	Fluoride	1.171	61964
2	3.93	Chloride Nitrite Bromide	2.650	80020
3	9.10	Nitrate Sulfate	60.102	1589710

*OK*  
*7/23/08*

1116525 DUP



Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14607

Sample Name : 1116525 SPK  
 Data File Name : ...\\721\_022.DXD  
 Method File Name : ...\\20080717.met  
 Date Time Collected : 7/22/08 19:24:16

Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Comment : Calibration 07.17.2008  
 Method Analyst : C. WOODS

Dilution Factor : 10.00  
 Sample Type : Sample Analysis  
 Sample Comment : S

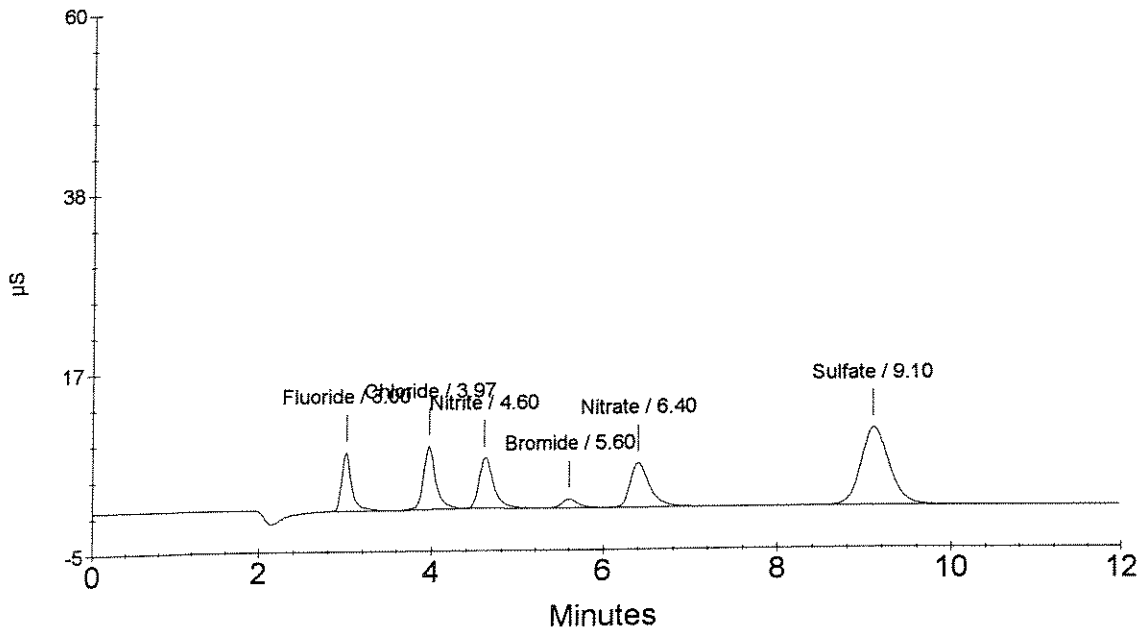
Data Collection Rate : 1.00 Hz  
 Data Collection Period : 720.00 seconds  
 Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.00	Fluoride	9.638	567396
2	3.97	Chloride	17.536	731472
3	4.60	Nitrite	8.739	698672
4	5.60	Bromide	8.947	136037
5	6.40	Nitrate	8.432	807456
6	9.10	Sulfate	78.038	2068471

*OK*  
*7/23/08*

1116525 SPK



Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14607

Sample Name : 1116526  
 Data File Name : ... \721\_023.DXD  
 Method File Name : ... \20080717.met  
 Date Time Collected : 7/22/08 19:38:35

Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Comment : Calibration 07.17.2008  
 Method Analyst : C. WOODS

Dilution Factor : 100.00  
 Sample Type : Sample Analysis  
 Sample Comment : S

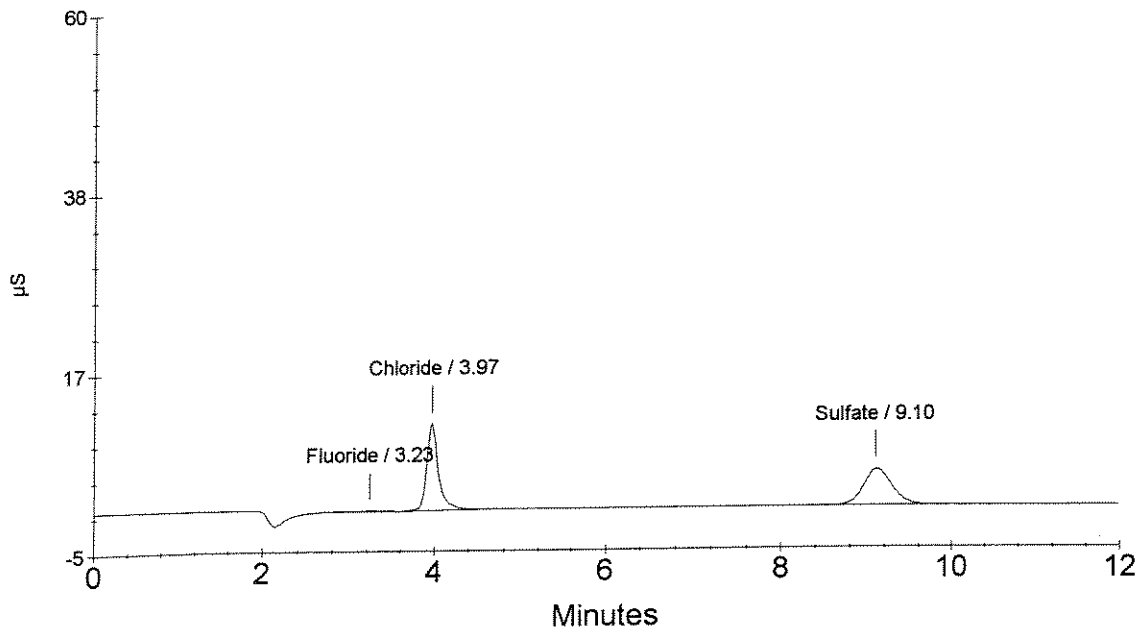
Data Collection Rate : 1.00 Hz  
 Data Collection Period : 720.00 seconds  
 Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.23	Fluoride	5.541	25158
2	3.97	Chloride Nitrite Bromide	237.121	1001747
3	9.10	Nitrate Sulfate	374.927	986218

*OK  
 CW  
 7/23/08*

1116526



Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14607

Sample Name : 1116527  
 Data File Name : ... \721\_024.DXD  
 Method File Name : ... \20080717.met  
 Date Time Collected : 7/22/08 19:52:54

Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Comment : Calibration 07.17.2008  
 Method Analyst : C. WOODS

Dilution Factor : 400.00  
 Sample Type : Sample Analysis  
 Sample Comment : S

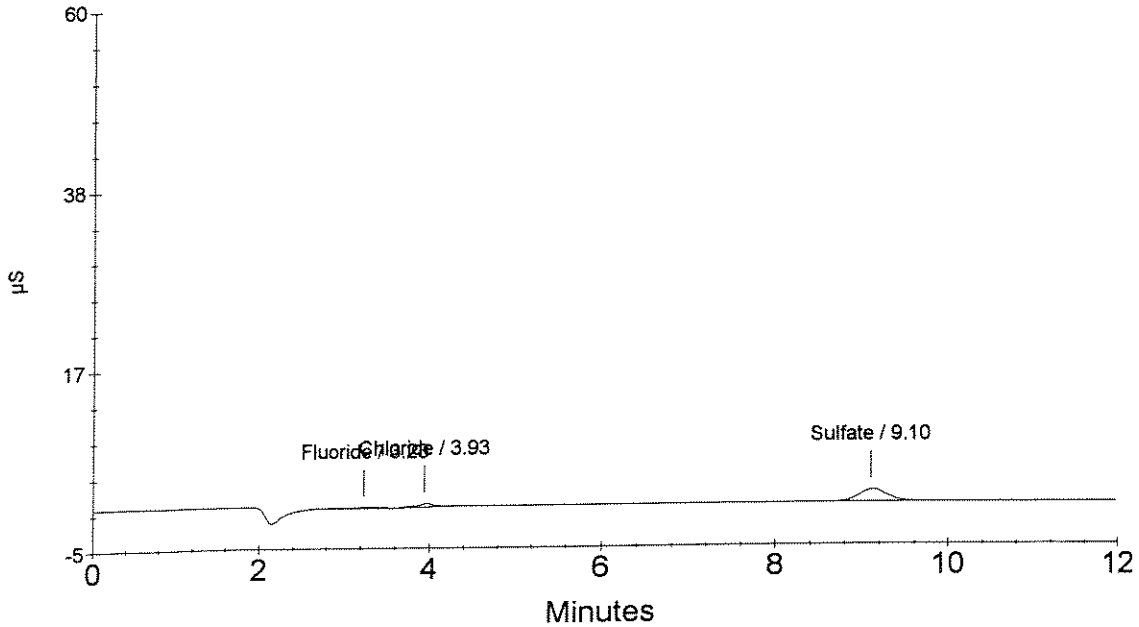
Data Collection Rate : 1.00 Hz  
 Data Collection Period : 720.00 seconds  
 Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.23	Fluoride	23.075	26517
2	3.93	Chloride	90.452	63017
		Nitrite		
		Bromide		
		Nitrate		
3	9.10	Sulfate	517.699	330913

*OK*  
*7/23/08*

1116527





Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14607

Sample Name : 1116528  
 Data File Name : ...\\721\_025.DXD  
 Method File Name : ...\\20080717.met  
 Date Time Collected : 7/22/08 20:07:13

Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Comment : Calibration 07.17.2008  
 Method Analyst : C. WOODS

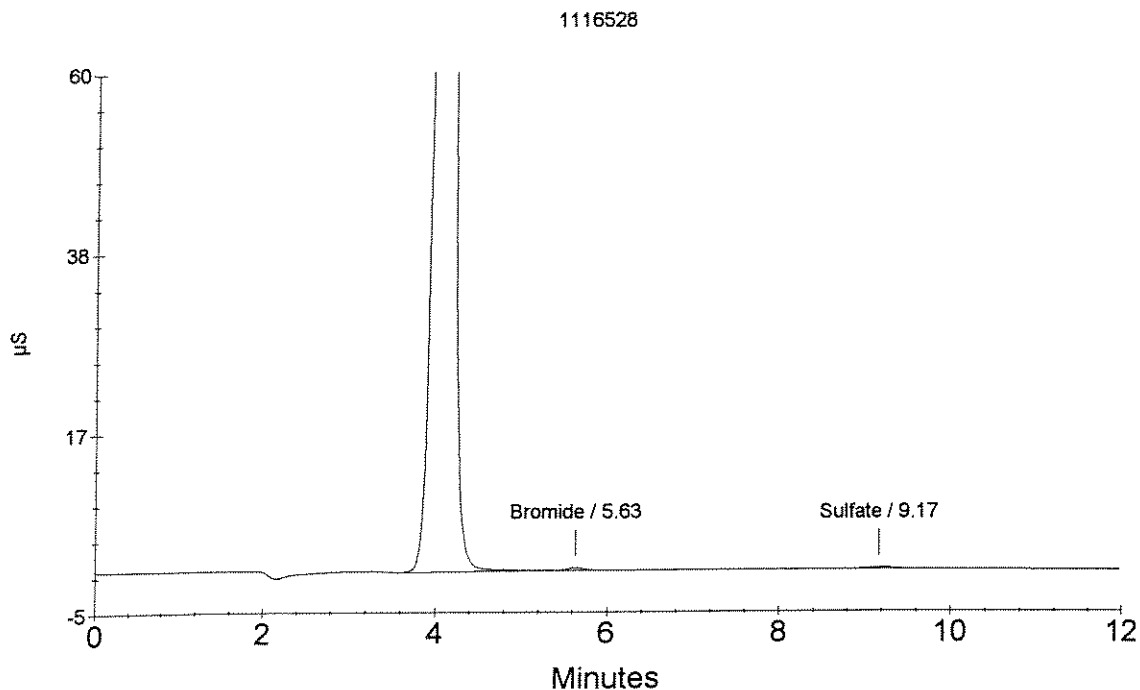
Dilution Factor : 10.00  
 Sample Type : Sample Analysis  
 Sample Comment : S

Data Collection Rate : 1.00 Hz  
 Data Collection Period : 720.00 seconds  
 Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	4.10	Chloride	666.796	29144448
1	4.10	Chloride	666.796	29144448
		Nitrite		
2	5.63	Bromide	2.556	40376
		Nitrate		
3	9.17	Sulfate	2.121	42057

*OK*  
*7/23/08*



Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14607

Sample Name : 1116529  
 Data File Name : ... \721\_026.DXD  
 Method File Name : ... \20080717.met  
 Date Time Collected : 7/22/08 20:21:31

Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Comment : Calibration 07.17.2008  
 Method Analyst : C. WOODS

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

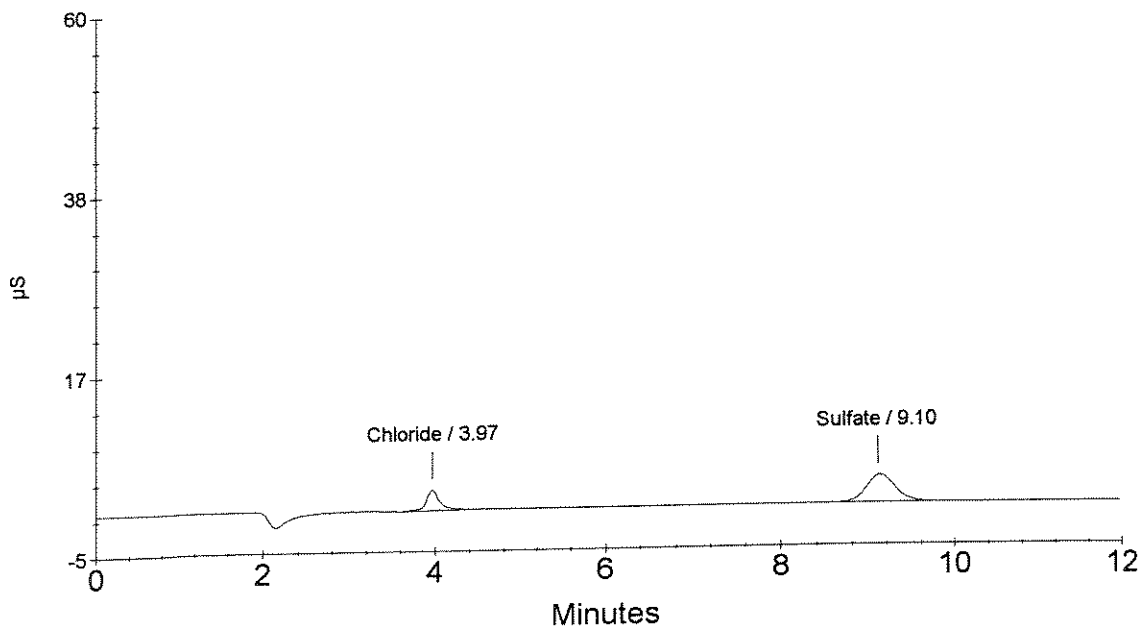
Data Collection Rate : 1.00 Hz  
 Data Collection Period : 720.00 seconds  
 Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.97	Chloride	27.937	269701
1	3.97	Chloride Nitrite Bromide Nitrate	27.937	269701
2	9.10	Sulfate	115.088	753440

*OK*  
*7/23/08*

1116529



Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14607

Sample Name : CCV  
 Data File Name : ... \721\_027.DXD  
 Method File Name : ... \20080717.met  
 Date Time Collected : 7/22/08 20:35:52

Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Comment : Calibration 07.17.2008  
 Method Analyst : C. WOODS

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

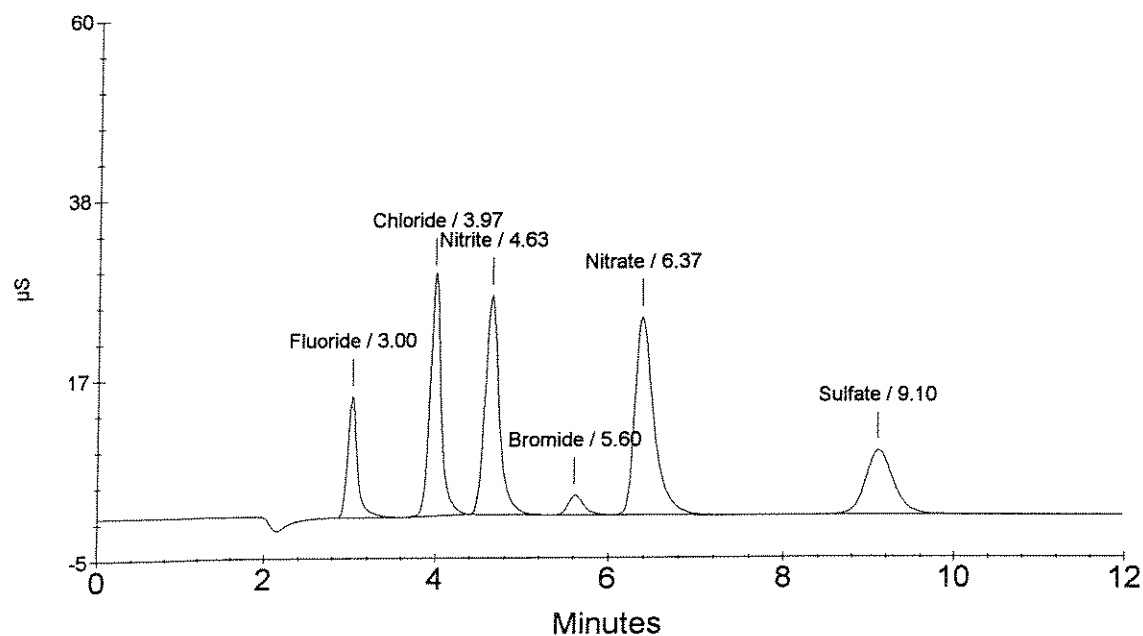
Data Collection Rate : 1.00 Hz  
 Data Collection Period : 720.00 seconds  
 Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.00	Fluoride	1.967	1166076
2	3.97	Chloride	6.128	2645587
3	4.63	Nitrite	3.603	2995926
4	5.60	Bromide	1.944	293052
5	6.37	Nitrate	3.448	3572972
6	9.10	Sulfate	6.507	1722314

OK  
 ↓  
 CCV  
 7/23/08

CCV



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : CCB  
Data File Name : ...\\721\_028.DXD  
Method File Name : ...\\20080717.met  
Date Time Collected : 7/22/08 20:50:10

Detector Name :  
Column ID : AS-14 (022939) AG-14 (022002)  
Method Comment : Calibration 07.17.2008  
Method Analyst : C. WOODS

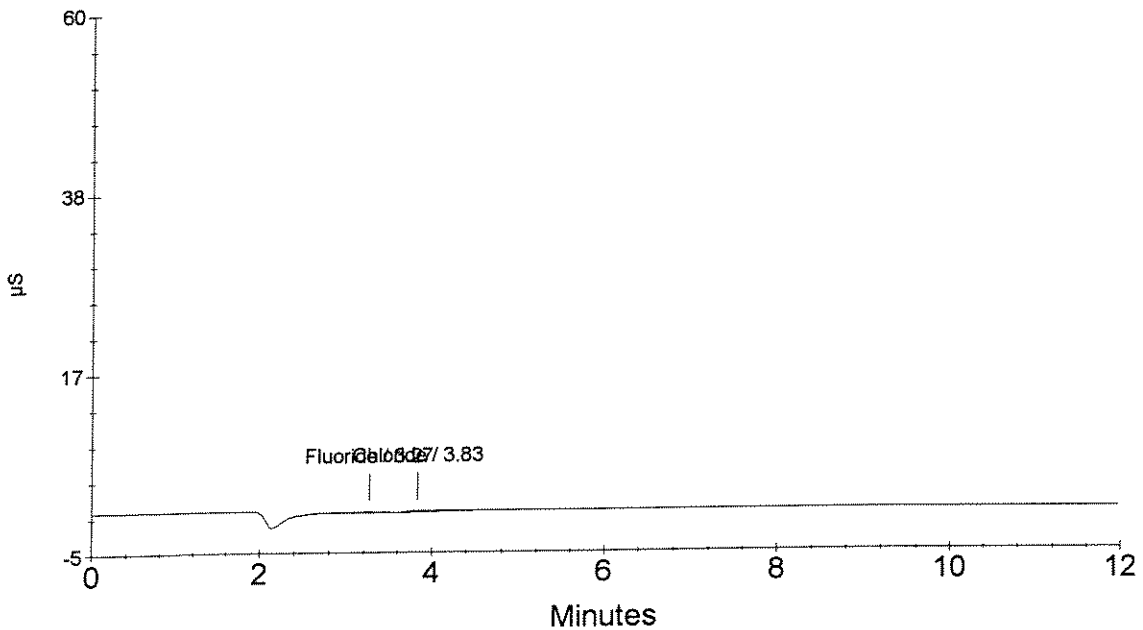
Dilution Factor : 1.00  
Sample Type : Sample Analysis  
Sample Comment :

Data Collection Rate : 1.00 Hz  
Data Collection Period : 720.00 seconds  
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.27	Fluoride	0.057	26079
2	3.83	Chloride	0.170	38449
		Nitrite		
		Bromide		
		Nitrate		
		Sulfate		

OK  
↓  
*C. Woods*  
7/23/08  
CCB



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : LCS  
Data File Name : ...\\721\_029.DXD  
Method File Name : ...\\20080717.met  
Date Time Collected : 7/22/08 21:04:29

Detector Name :  
Column ID : AS-14 (022939) AG-14 (022002)  
Method Comment : Calibration 07.17.2008  
Method Analyst : C. WOODS

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

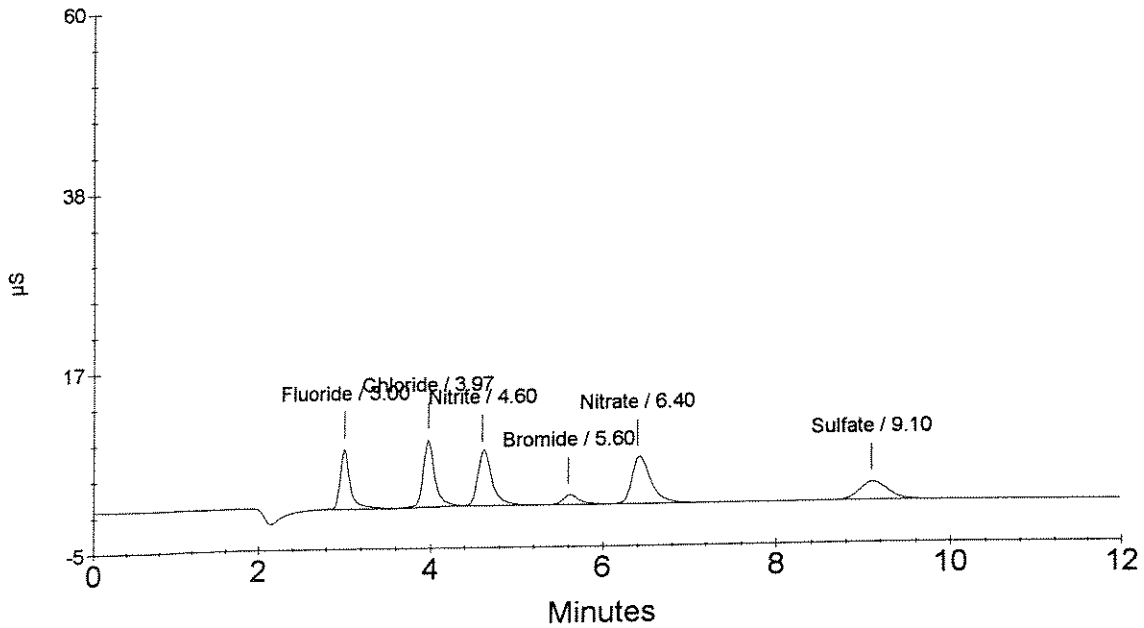
Data Collection Rate : 1.00 Hz  
Data Collection Period : 720.00 seconds  
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.00	Fluoride	0.976	574688
2	3.97	Chloride	1.807	754904
3	4.60	Nitrite	0.943	756549
4	5.60	Bromide	0.985	149522
5	6.40	Nitrate	0.900	868076
6	9.10	Sulfate	1.901	492835

*OK*  
↓  
*7/23/08*

LCS



Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14607

Sample Name : 1116530  
 Data File Name : ...\\721\_030.DXD  
 Method File Name : ...\\20080717.met  
 Date Time Collected : 7/22/08 21:18:49

Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Comment : Calibration 07.17.2008  
 Method Analyst : C. WOODS

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

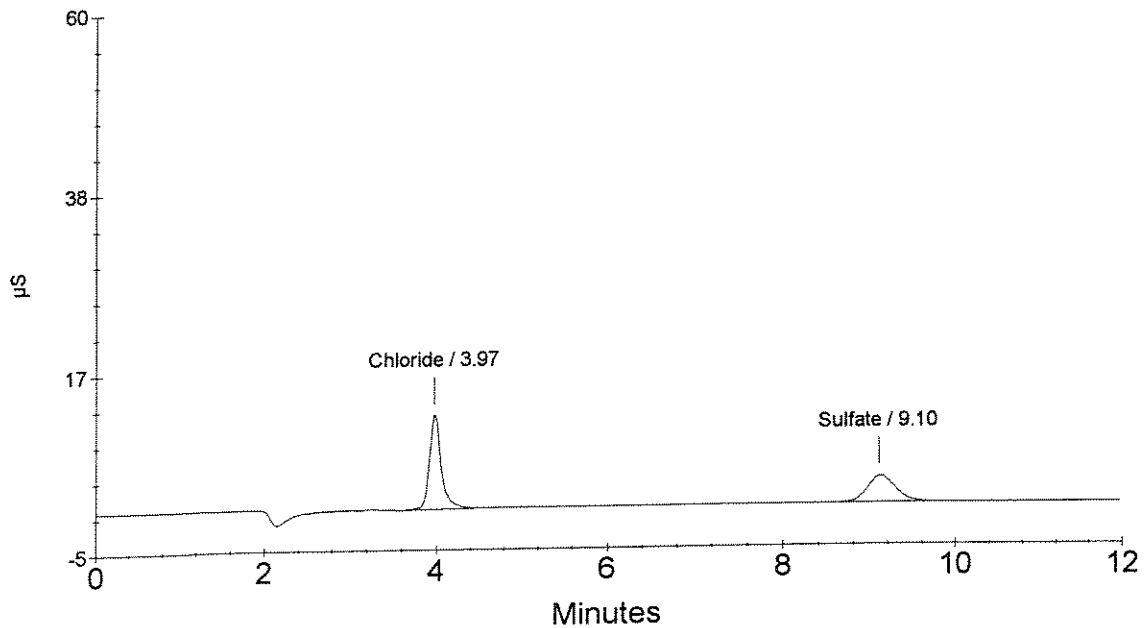
Data Collection Rate : 1.00 Hz  
 Data Collection Period : 720.00 seconds  
 Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.97	Chloride	103.445	1095802
1	3.97	Chloride Nitrite Bromide Nitrate	103.445	1095802
2	9.10	Sulfate <i>OK</i>	111.411	728905

*CM*  
 7/23/08

1116530



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1116530 DUP  
Data File Name : ...\\721\_031.DXD  
Method File Name : ...\\20080717.met  
Date Time Collected : 7/22/08 21:33:08

Detector Name :  
Column ID : AS-14 (022939) AG-14 (022002)  
Method Comment : Calibration 07.17.2008  
Method Analyst : C. WOODS

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

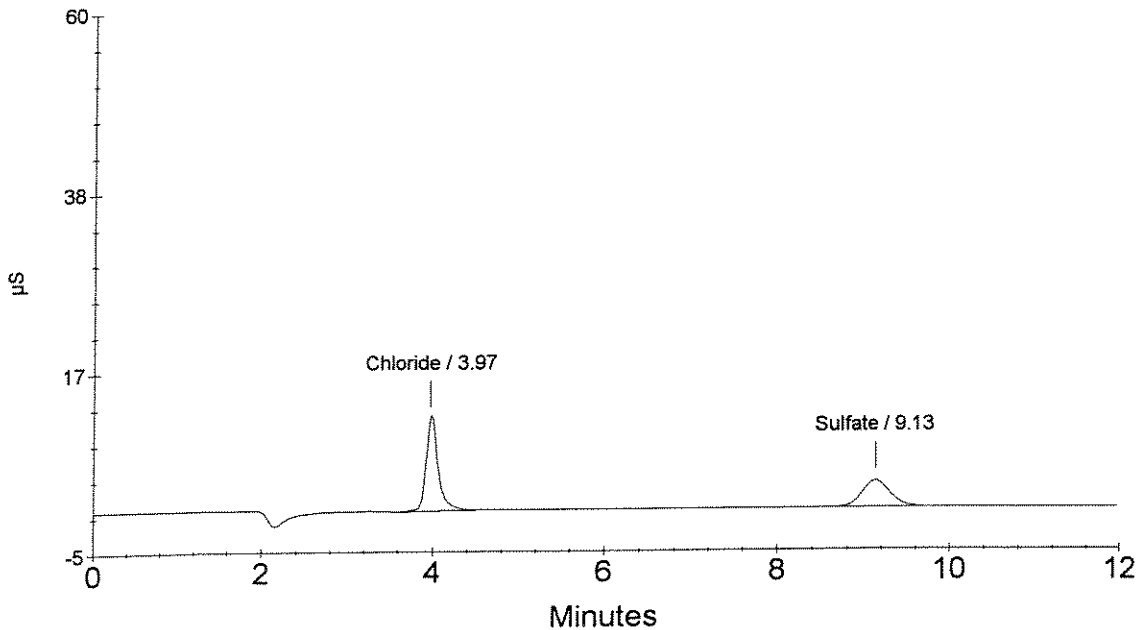
Data Collection Rate : 1.00 Hz  
Data Collection Period : 720.00 seconds  
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.97	Chloride	103.253	1093703
1	3.97	Chloride Nitrite Bromide Nitrate	103.253	1093703
2	9.13	Sulfate <i>OK</i>	110.798	724816

*OK*  
*7/23/08*

1116530 DUP



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1116530 SPK  
Data File Name : ...\\721\_032.DXD  
Method File Name : ...\\20080717.met  
Date Time Collected : 7/22/08 21:47:27

Detector Name :  
Column ID : AS-14 (022939) AG-14 (022002)  
Method Comment : Calibration 07.17.2008  
Method Analyst : C. WOODS

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

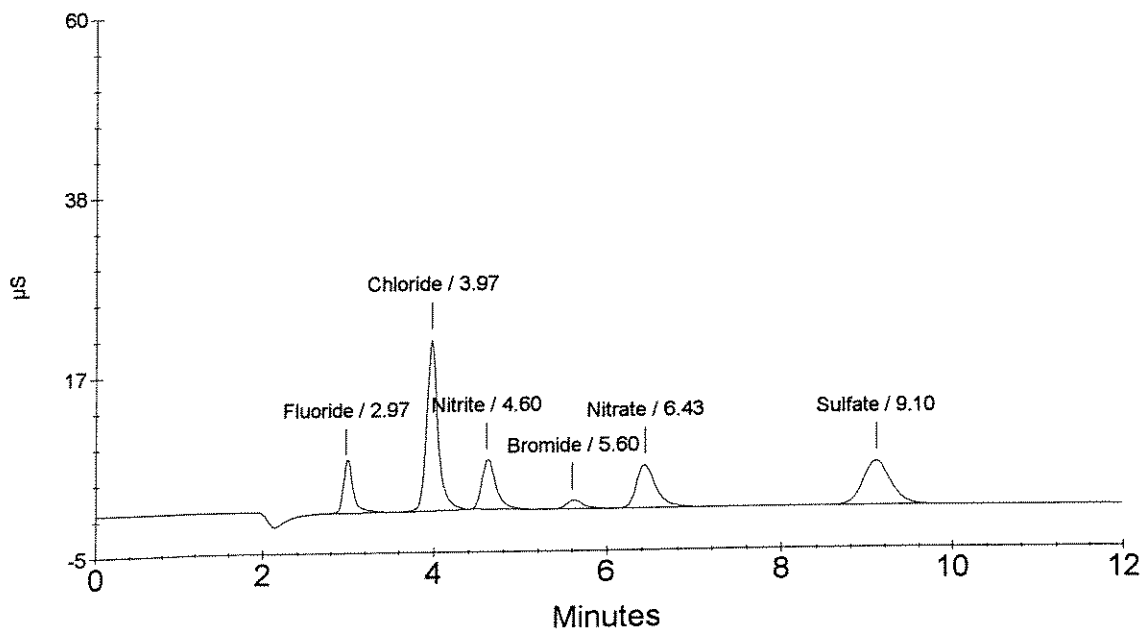
Data Collection Rate : 1.00 Hz  
Data Collection Period : 720.00 seconds  
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.97	Fluoride	35.741	525432
2	3.97	Chloride	174.518	1873379
3	4.60	Nitrite	33.881	676069
4	5.60	Bromide	35.845	136254
5	6.43	Nitrate	33.318	796534
6	9.10	Sulfate	182.956	1206334

*OK*  
*7/23/08*

1116530 SPK





Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14607

Sample Name : 1116531  
 Data File Name : ...\\721\_033.DXD  
 Method File Name : ...\\20080717.met  
 Date Time Collected : 7/22/08 22:01:46

Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Comment : Calibration 07.17.2008  
 Method Analyst : C. WOODS

Dilution Factor : 400.00  
 Sample Type : Sample Analysis  
 Sample Comment : S

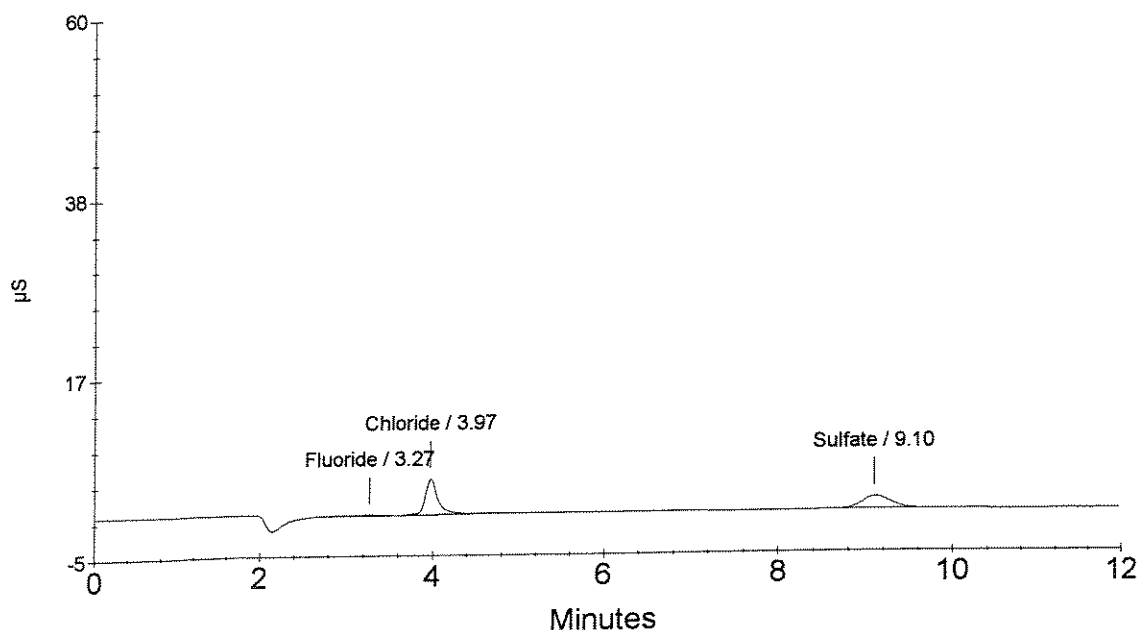
Data Collection Rate : 1.00 Hz  
 Data Collection Period : 720.00 seconds  
 Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.27	Fluoride	23.476	27116
2	3.97	Chloride Nitrite Bromide Nitrate	434.009	438886
3	9.10	Sulfate <i>OK</i>	533.622	341538

*CW*  
7/23/08

1116531



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1116532  
Data File Name : ...\\721\_034.DXD  
Method File Name : ...\\20080717.met  
Date Time Collected : 7/22/08 22:16:05

Detector Name :  
Column ID : AS-14 (022939) AG-14 (022002)  
Method Comment : Calibration 07.17.2008  
Method Analyst : C. WOODS

Dilution Factor : 200.00  
Sample Type : Sample Analysis  
Sample Comment : S

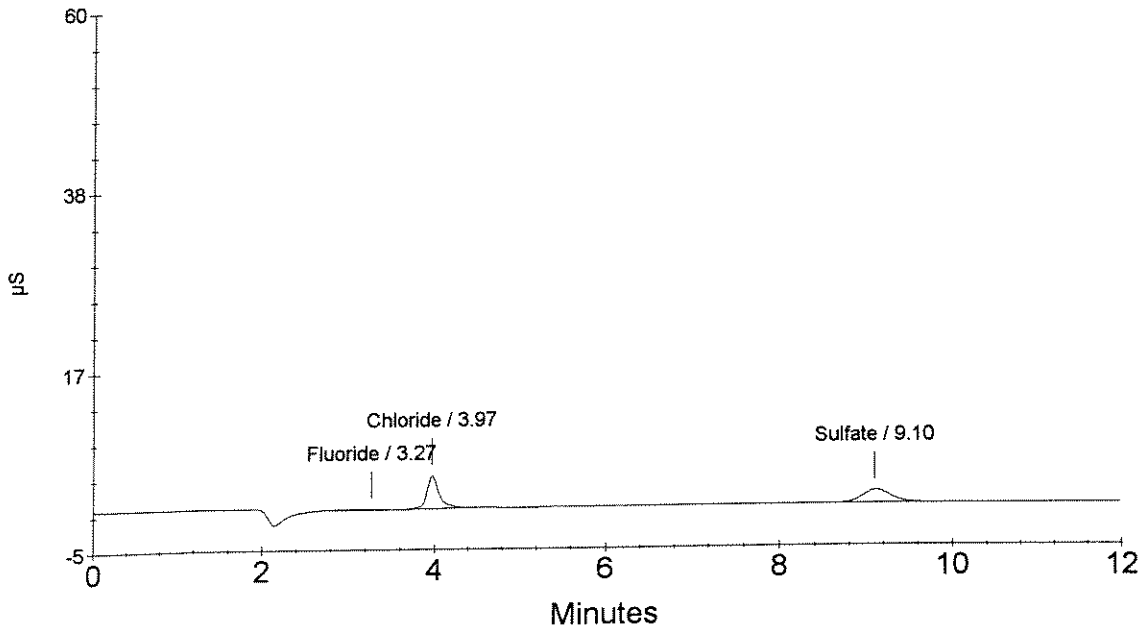
Data Collection Rate : 1.00 Hz  
Data Collection Period : 720.00 seconds  
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.27	Fluoride	11.637	26814
2	3.97	Chloride Nitrite Bromide Nitrate	202.834	407879
3	9.10	Sulfate	270.302	346198

*OK*  
*7/22/08*

1116532



Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14607

Sample Name : 1116533  
 Data File Name : ... \721\_035.DXD  
 Method File Name : ... \20080717.met  
 Date Time Collected : 7/22/08 22:30:25

Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Comment : Calibration 07.17.2008  
 Method Analyst : C. WOODS

Dilution Factor : 400.00  
 Sample Type : Sample Analysis  
 Sample Comment : S

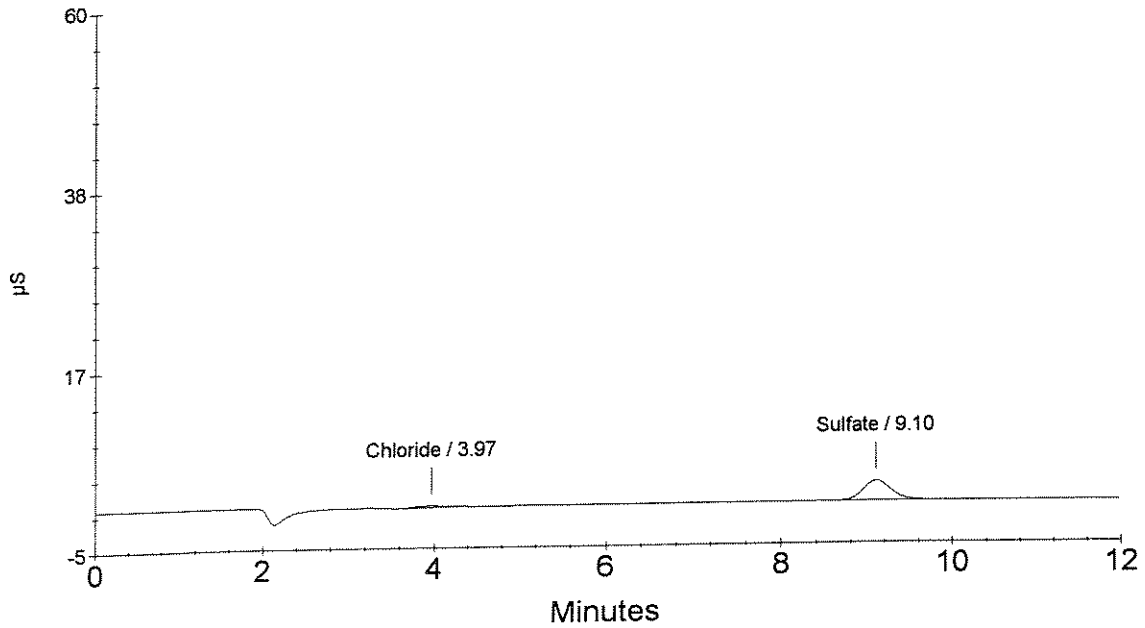
Data Collection Rate : 1.00 Hz  
 Data Collection Period : 720.00 seconds  
 Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.97	Chloride	71.523	42308
1	3.97	Chloride Nitrite Bromide Nitrate	71.523	42308
2	9.10	Sulfate <i>OK</i>	841.043	546684

*OK*  
*7/23/08*

1116533



Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14607

Sample Name : 1116752  
 Data File Name : ...\\721\_036.DXD  
 Method File Name : ...\\20080717.met  
 Date Time Collected : 7/22/08 22:44:44

Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Comment : Calibration 07.17.2008  
 Method Analyst : C. WOODS

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

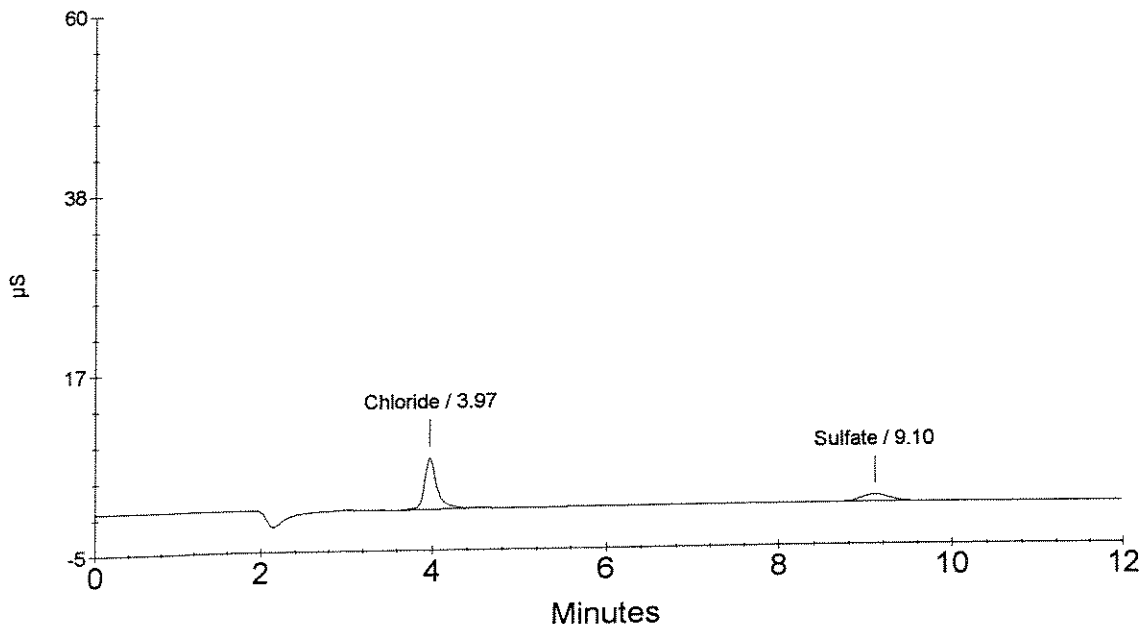
Data Collection Rate : 1.00 Hz  
 Data Collection Period : 720.00 seconds  
 Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.97	Chloride	14.786	611113
1	3.97	Chloride <i>OK</i>	14.786	611113
		Nitrite		
		Bromide		
		Nitrate		
2	9.10	Sulfate <i>OK</i>	7.751	192329

*CS*  
 7/23/08

1116752



Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14607

Sample Name : 1116752 DUP  
 Data File Name : ... \721\_037.DXD  
 Method File Name : ... \20080717.met  
 Date Time Collected : 7/22/08 22:59:03

Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Comment : Calibration 07.17.2008  
 Method Analyst : C. WOODS

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

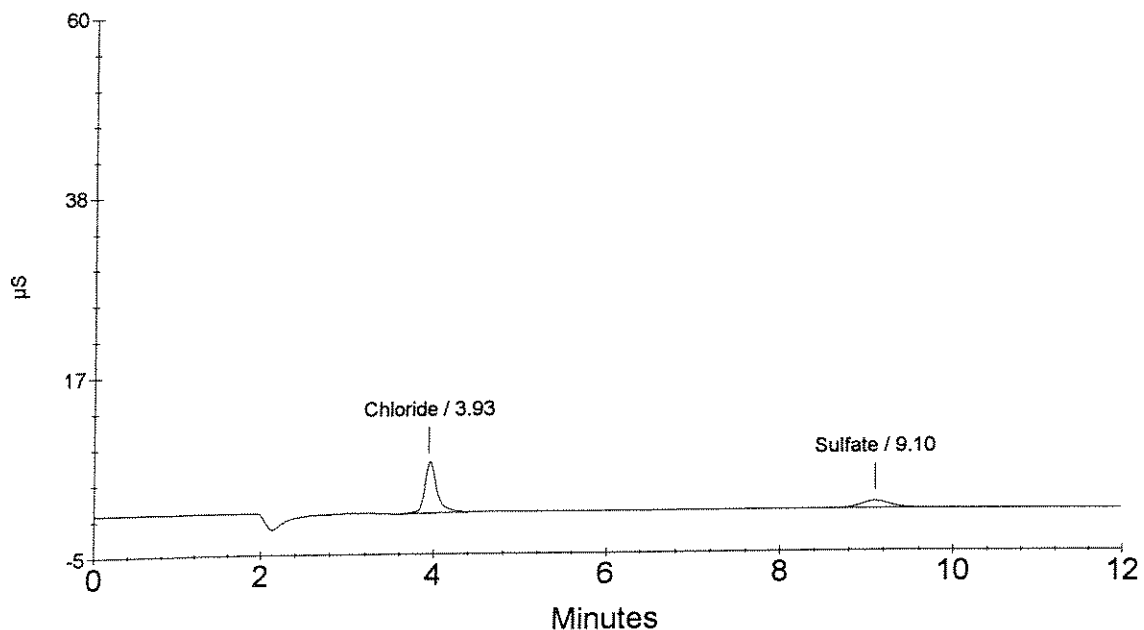
Data Collection Rate : 1.00 Hz  
 Data Collection Period : 720.00 seconds  
 Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.93	Chloride	14.906	616365
1	3.93	Chloride <i>OK</i>	14.906	616365
		Nitrite		
		Bromide		
		Nitrate		
2	9.10	Sulfate <i>OK</i>	7.837	194644

*CS*  
*7/22/08*

1116752 DUP



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1116752 SPK  
Data File Name : ...\\721\_038.DXD  
Method File Name : ...\\20080717.met  
Date Time Collected : 7/22/08 23:13:23

Detector Name :  
Column ID : AS-14 (022939) AG-14 (022002)  
Method Comment : Calibration 07.17.2008  
Method Analyst : C. WOODS

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

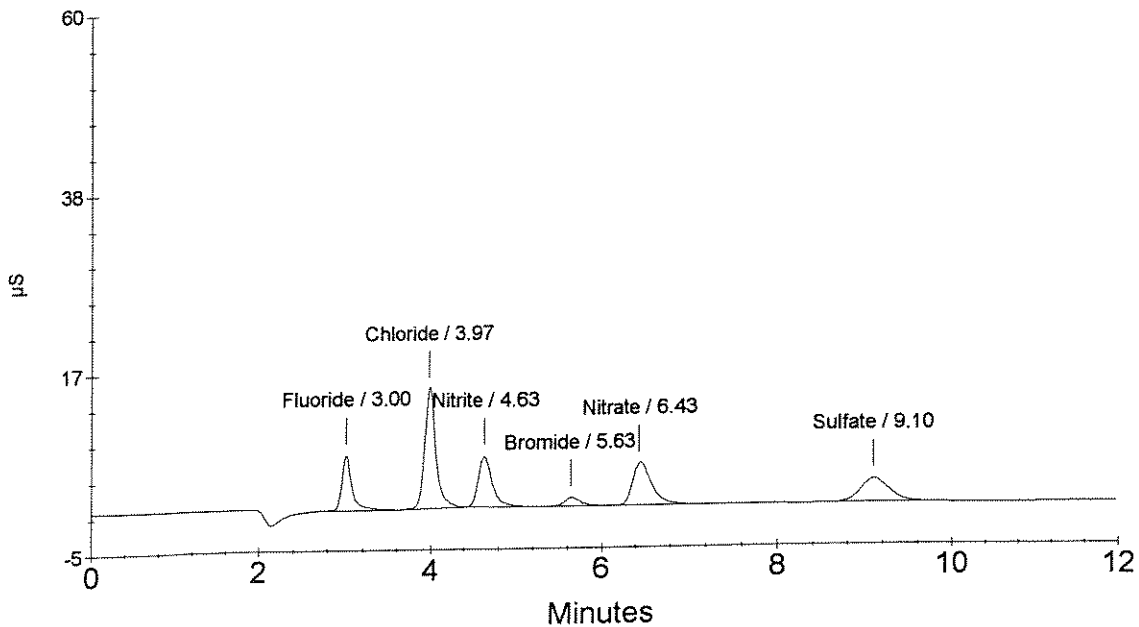
Data Collection Rate : 1.00 Hz  
Data Collection Period : 720.00 seconds  
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.00	Fluoride	9.098	535144
2	3.97	Chloride <i>OK</i>	31.562	1345282
3	4.63	Nitrite	8.633	689733
4	5.63	Bromide	8.933	135824
5	6.43	Nitrate	8.342	797887
6	9.10	Sulfate <i>OK</i>	24.965	651819

*CS*  
*7/23/08*

1116752 SPK



Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14607

Sample Name : 1116756  
 Data File Name : ... \721\_039.DXD  
 Method File Name : ... \20080717.met  
 Date Time Collected : 7/22/08 23:27:42

Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Comment : Calibration 07.17.2008  
 Method Analyst : C. WOODS

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

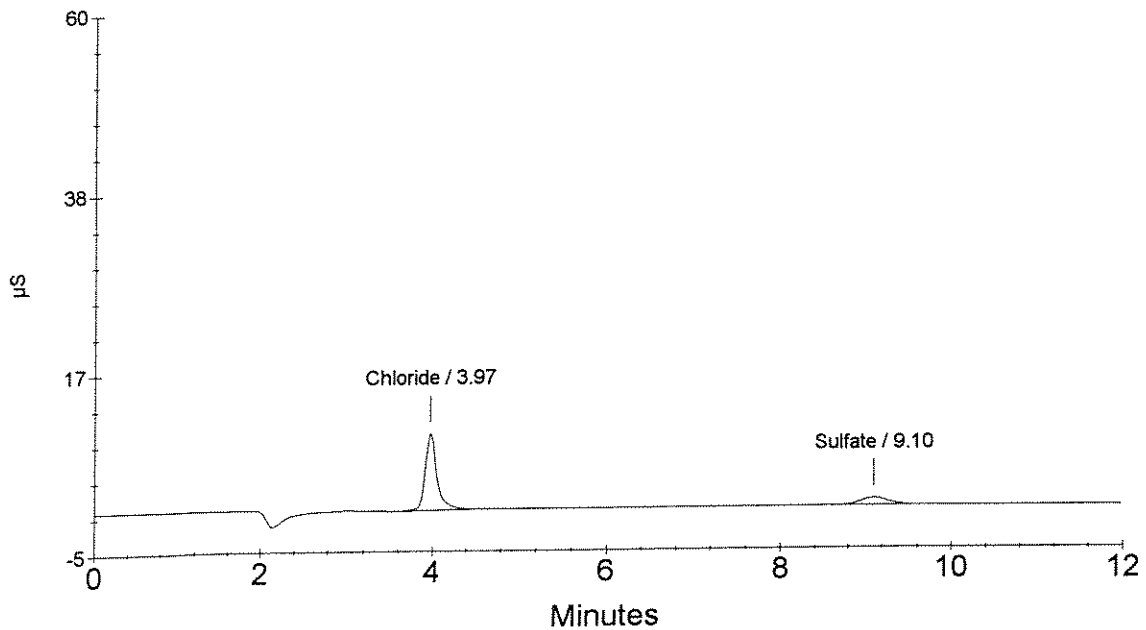
Data Collection Rate : 1.00 Hz  
 Data Collection Period : 720.00 seconds  
 Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.97	Chloride	21.197	891690
1	3.97	Chloride <i>OK</i>	21.197	891690
		Nitrite		
		Bromide		
		Nitrate		
2	9.10	Sulfate <i>OK</i>	7.981	198481

*OK*  
*7/23/08*

1116756



Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14607

Sample Name : 1116757  
 Data File Name : ... \721\_040.DXD  
 Method File Name : ... \20080717.met  
 Date Time Collected : 7/22/08 23:42:02

Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Comment : Calibration 07.17.2008  
 Method Analyst : C. WOODS

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

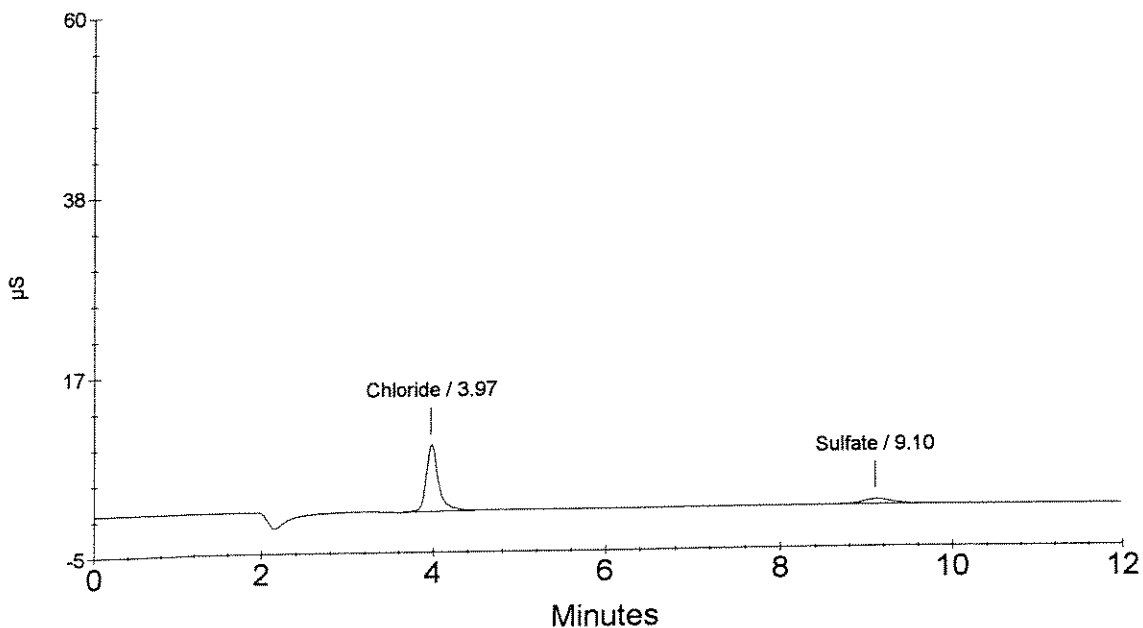
Data Collection Rate : 1.00 Hz  
 Data Collection Period : 720.00 seconds  
 Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.97	Chloride	18.758	784928
1	3.97	Chloride <i>OK</i>	18.758	784928
		Nitrite		
		Bromide		
		Nitrate		
2	9.10	Sulfate <i>OK</i>	5.494	132088

*CW*  
*7/23/08*

1116757





Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1116758  
Data File Name : ...\\721\_041.DXD  
Method File Name : ...\\20080717.met  
Date Time Collected : 7/22/08 23:56:23

Detector Name :  
Column ID : AS-14 (022939) AG-14 (022002)  
Method Comment : Calibration 07.17.2008  
Method Analyst : C. WOODS

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

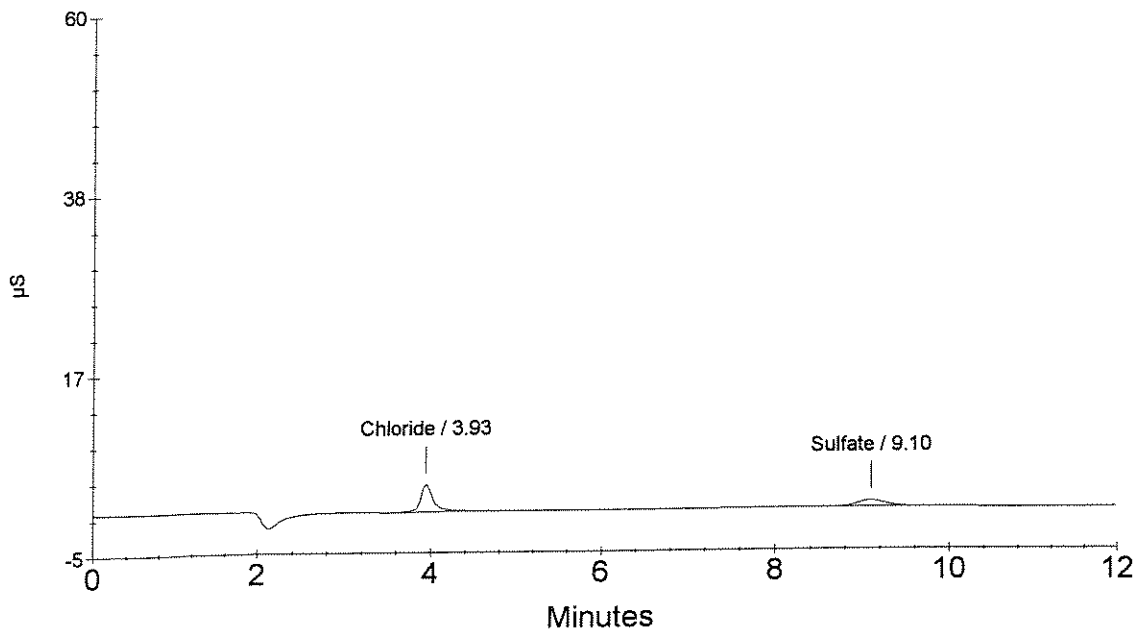
Data Collection Rate : 1.00 Hz  
Data Collection Period : 720.00 seconds  
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.93	Chloride	8.580	339541
1	3.93	Chloride <i>OK</i>	8.580	339541
		Nitrite		
		Bromide		
		Nitrate		
2	9.10	Sulfate <i>OK</i>	6.738	165304

*CW*  
*7/23/08*

1116758



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1116761  
Data File Name : ...\\721\_042.DXD  
Method File Name : ...\\20080717.met  
Date Time Collected : 7/23/08 00:10:42

Detector Name :  
Column ID : AS-14 (022939) AG-14 (022002)  
Method Comment : Calibration 07.17.2008  
Method Analyst : C. WOODS

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

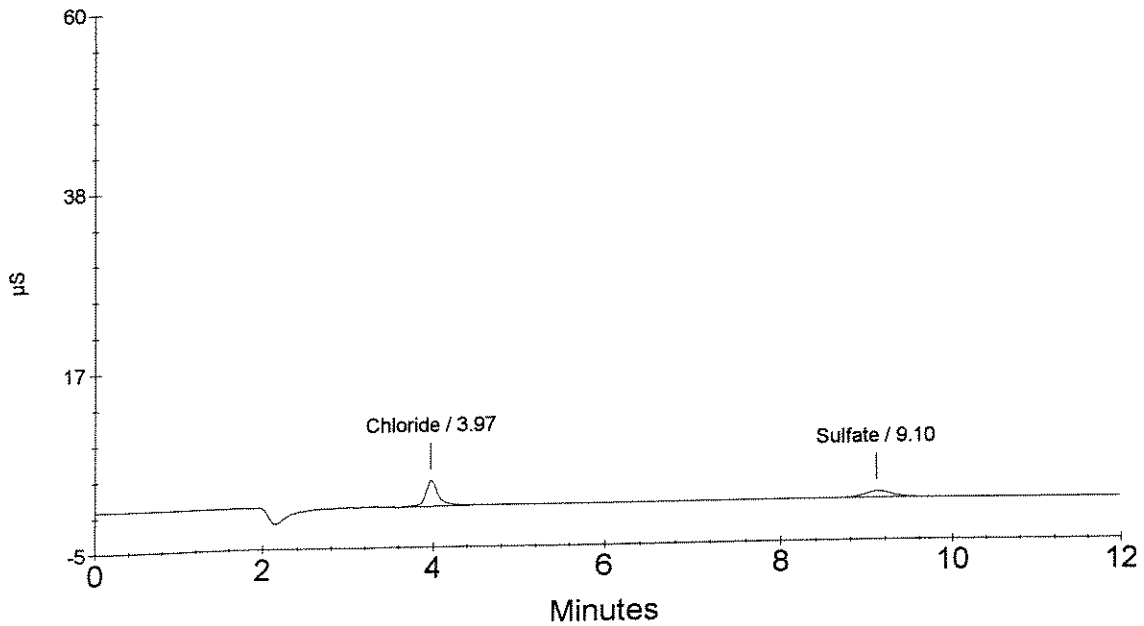
Data Collection Rate : 1.00 Hz  
Data Collection Period : 720.00 seconds  
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.97	Chloride	8.367	330214
1	3.97	Chloride Nitrite Bromide Nitrate	8.367	330214
2	9.10	Sulfate	6.795	166816

*OK*  
*OK*  
*7/23/08*

1116761



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : 1116763  
Data File Name : ...721\_043.DXD  
Method File Name : ...20080717.met  
Date Time Collected : 7/23/08 00:25:03

Detector Name :  
Column ID : AS-14 (022939) AG-14 (022002)  
Method Comment : Calibration 07.17.2008  
Method Analyst : C. WOODS

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

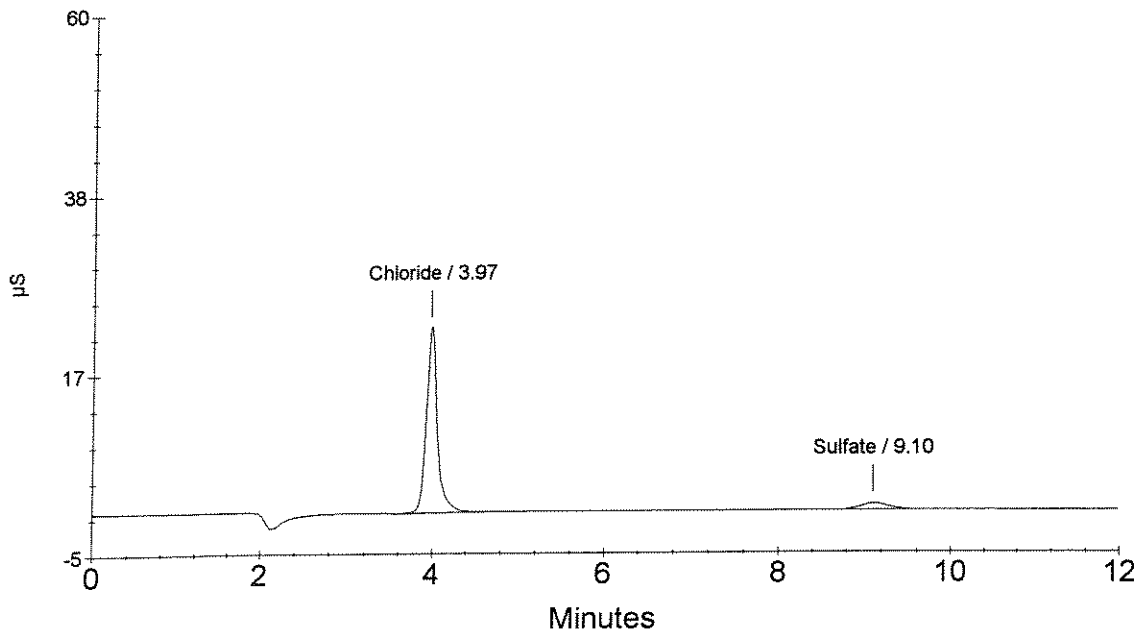
Data Collection Rate : 1.00 Hz  
Data Collection Period : 720.00 seconds  
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.97	Chloride	48.198	2073295
1	3.97	Chloride <i>OK</i>	48.198	2073295
		Nitrite		
		Bromide		
		Nitrate		
2	9.10	Sulfate <i>OK</i>	6.997	172209

*FW*  
*7/23/08*

1116763



Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14607

Sample Name : CCV  
 Data File Name : ...\\721\_044.DXD  
 Method File Name : ...\\20080717.met  
 Date Time Collected : 7/23/08 00:39:22

Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Comment : Calibration 07.17.2008  
 Method Analyst : C. WOODS

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

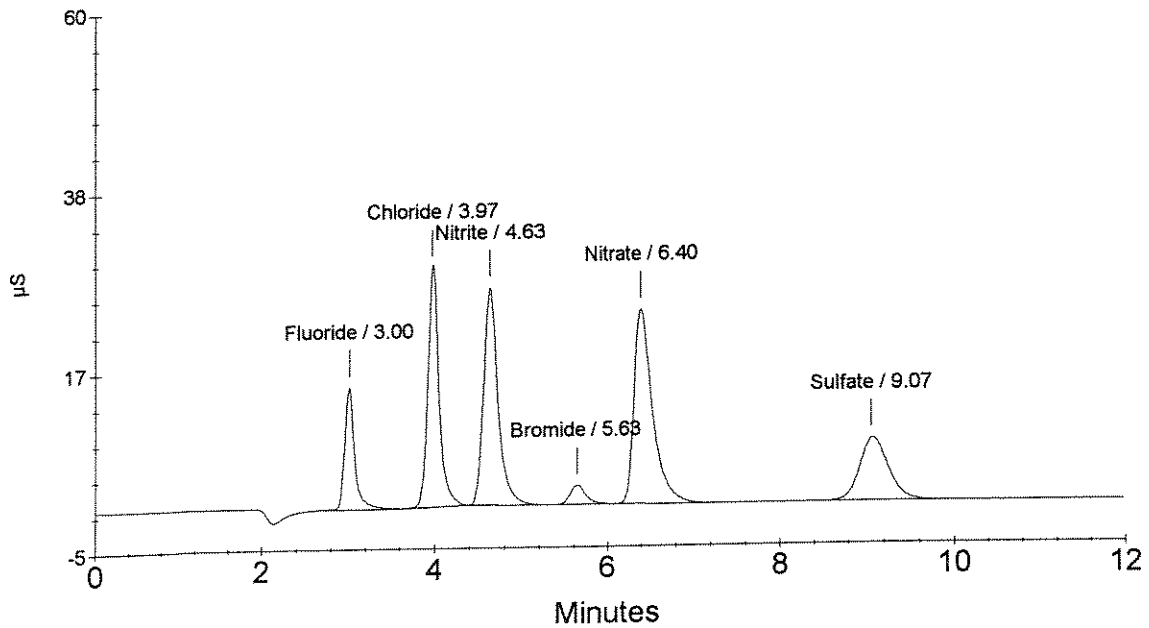
Data Collection Rate : 1.00 Hz  
 Data Collection Period : 720.00 seconds  
 Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.00	Fluoride	1.962	1163096
2	3.97	Chloride	6.120	2642408
3	4.63	Nitrite	3.604	2997515
4	5.63	Bromide	1.965	296266
5	6.40	Nitrate	3.438	3562147
6	9.07	Sulfate	6.494	1718742

*OK*  
 ↓  
*CCV*  
 7/23/08

ccv



Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14607

Sample Name : CCB  
 Data File Name : ... \721\_045.DXD  
 Method File Name : ... \20080717.met  
 Date Time Collected : 7/23/08 00:53:42

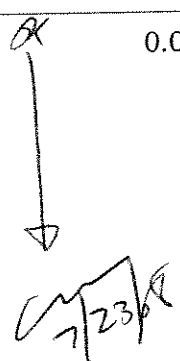
Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Comment : Calibration 07.17.2008  
 Method Analyst : C. WOODS

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

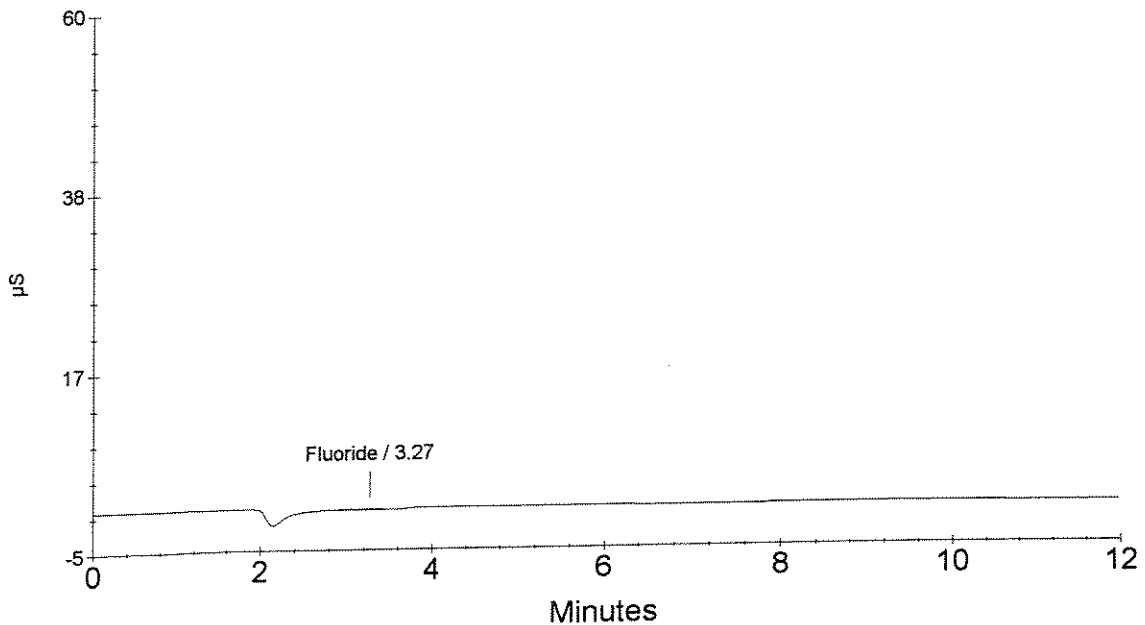
Data Collection Rate : 1.00 Hz  
 Data Collection Period : 720.00 seconds  
 Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.27	Fluoride Chloride Nitrite Bromide Nitrate Sulfate	0.057	26111



CCB



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 Rochester, NY 14607

Sample Name : 1116764  
 Data File Name : ...\\721\_046.DXD  
 Method File Name : ...\\20080717.met  
 Date Time Collected : 7/23/08 01:08:01

Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Comment : Calibration 07.17.2008  
 Method Analyst : C. WOODS

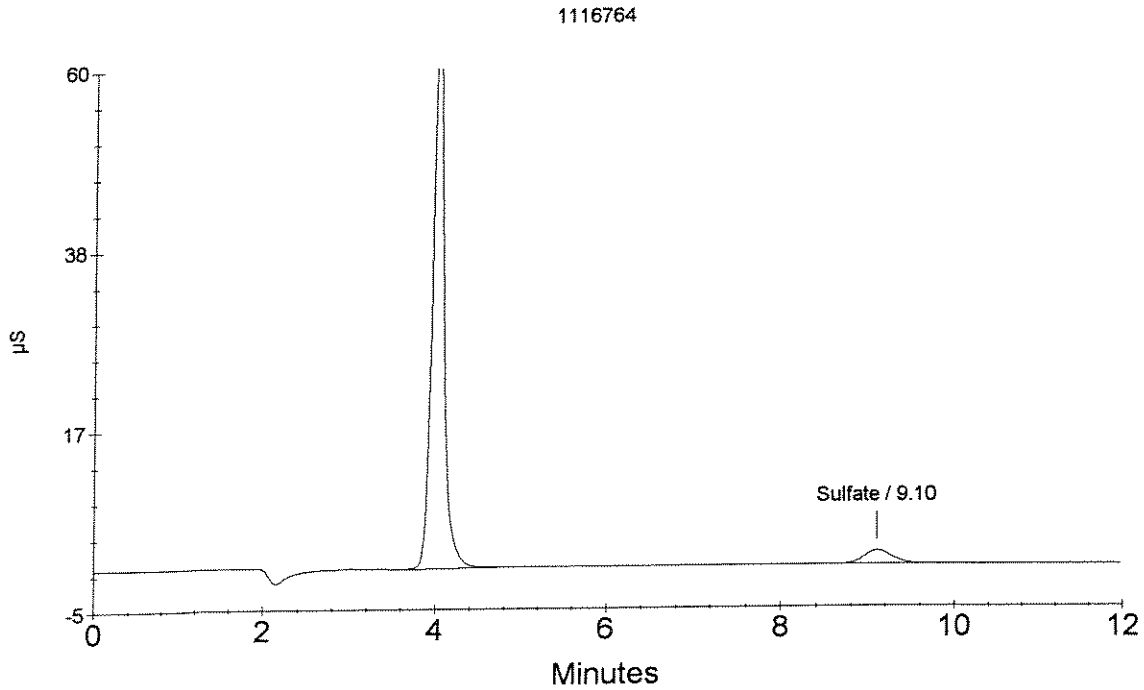
Dilution Factor : 10.00  
 Sample Type : Sample Analysis  
 Sample Comment : CS

Data Collection Rate : 1.00 Hz  
 Data Collection Period : 720.00 seconds  
 Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	4.00	Chloride	143.572	6247074
1	4.00	Chloride	143.572	6247074
		Nitrite		
		Bromide		
		Nitrate		
2	9.10	Sulfate	14.461	371457

*ppt @ 1/40*  
*OK*  
*7/23/08*



Ion Chromatography Analytical Report  
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Rochester, NY 14607

Sample Name : 1116764 DUP  
Data File Name : ...\\721\_047.DXD  
Method File Name : ...\\20080717.met  
Date Time Collected : 7/23/08 01:22:20

Detector Name :  
Column ID : AS-14 (022939) AG-14 (022002)  
Method Comment : Calibration 07.17.2008  
Method Analyst : C. WOODS

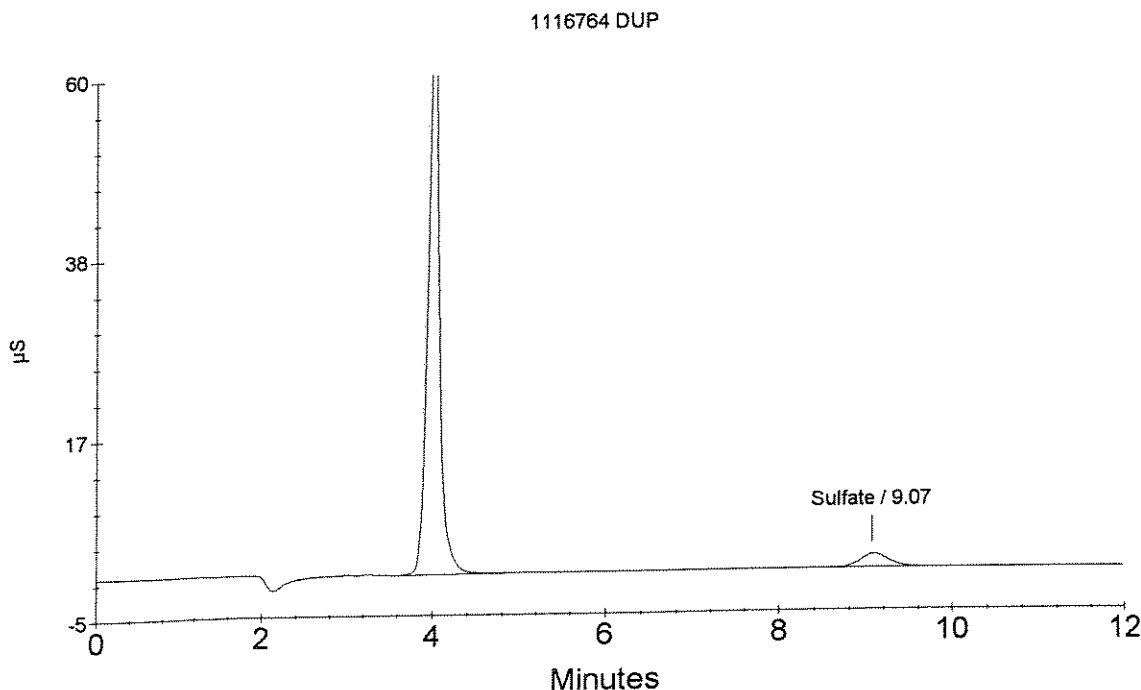
Dilution Factor : 10.00  
Sample Type : Sample Analysis  
Sample Comment : CS

Data Collection Rate : 1.00 Hz  
Data Collection Period : 720.00 seconds  
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	4.00	Chloride	142.829	6214541
1	4.00	Chloride	142.829	6214541
		Nitrite		
		Bromide		
		Nitrate		
2	9.07	Sulfate	14.628	375911

*OK*  
*7/23/08*



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Sample Name : 1116764 SPK  
Data File Name : ...\\721\_048.DXD  
Method File Name : ...\\20080717.met  
Date Time Collected : 7/23/08 01:36:39

Detector Name :  
Column ID : AS-14 (022939) AG-14 (022002)  
Method Comment : Calibration 07.17.2008  
Method Analyst : C. WOODS

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

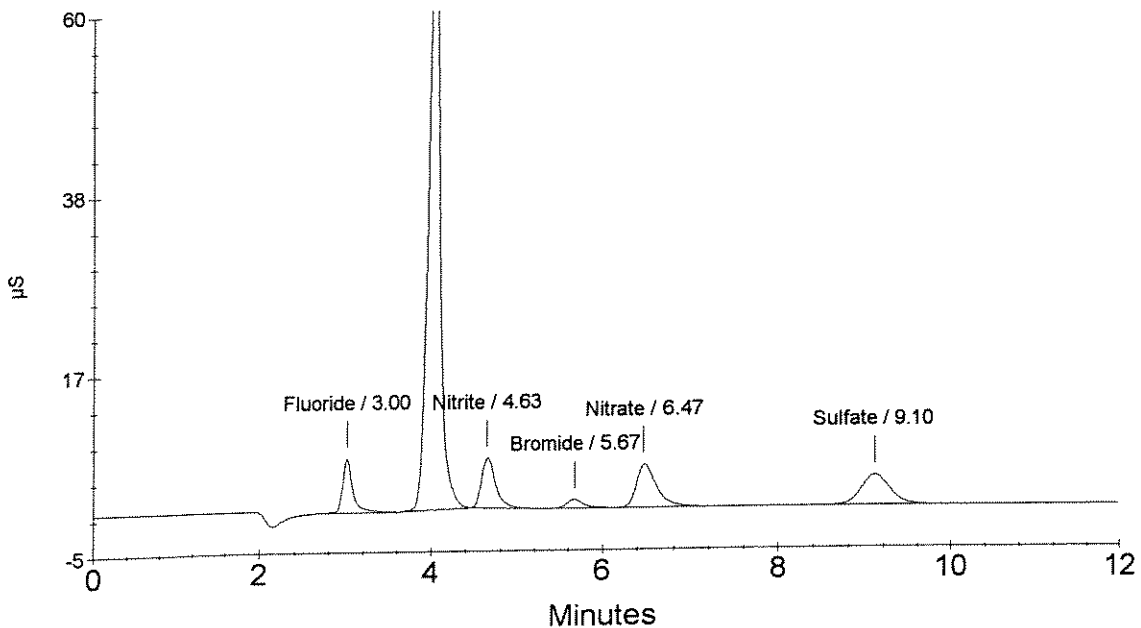
Data Collection Rate : 1.00 Hz  
Data Collection Period : 720.00 seconds  
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.00	Fluoride	9.045	531970
2	4.00	Chloride	158.595	6904516
3	4.63	Nitrite	8.362	666966
4	5.67	Bromide	8.938	135912
5	6.47	Nitrate	8.337	797310
6	9.10	Sulfate	31.533	827142

*Handwritten signature*  
7/23/08

1116764 SPK





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Sample Name : 1116765  
 Data File Name : ... \721\_049.DXD  
 Method File Name : ... \20080717.met  
 Date Time Collected : 7/23/08 01:50:59

Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Comment : Calibration 07.17.2008  
 Method Analyst : C. WOODS

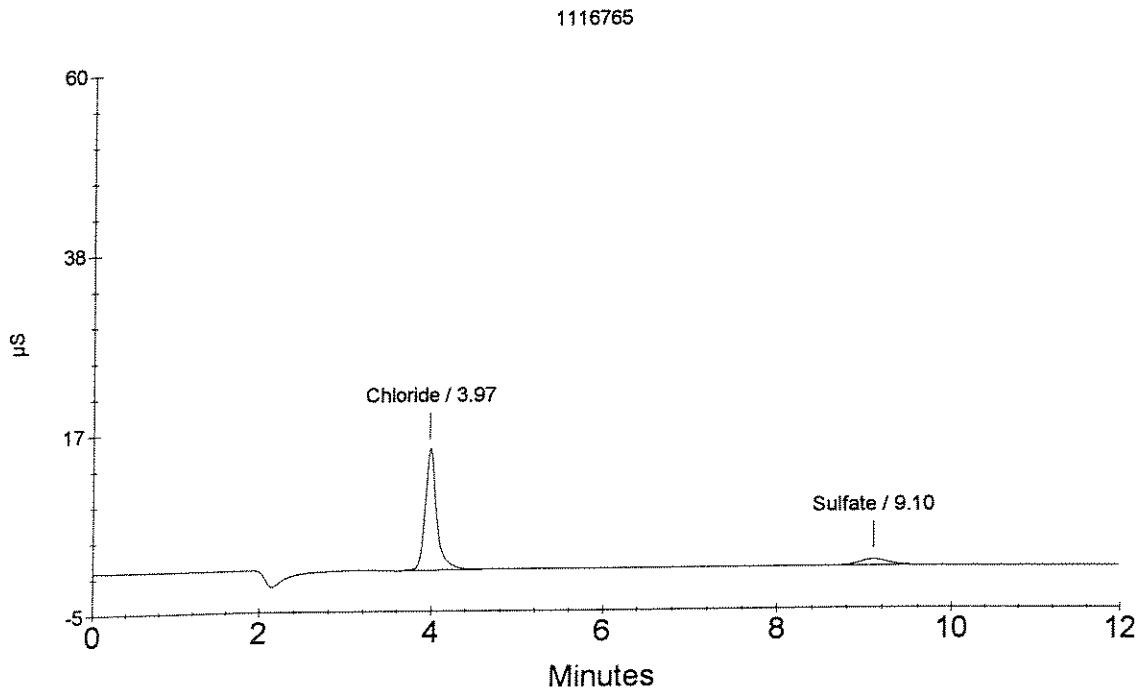
Dilution Factor : 10.00  
 Sample Type : Sample Analysis  
 Sample Comment : CS

Data Collection Rate : 1.00 Hz  
 Data Collection Period : 720.00 seconds  
 Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.97	Chloride	32.526	1387456
1	3.97	Chloride <i>α</i>	32.526	1387456
		Nitrite		
		Bromide		
		Nitrate		
2	9.10	Sulfate <i>α</i>	6.807	167137

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 7/23/08



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Sample Name : 1116766  
 Data File Name : ... \721\_050.DXD  
 Method File Name : ... \20080717.met  
 Date Time Collected : 7/23/08 02:05:17

Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Comment : Calibration 07.17.2008  
 Method Analyst : C. WOODS

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

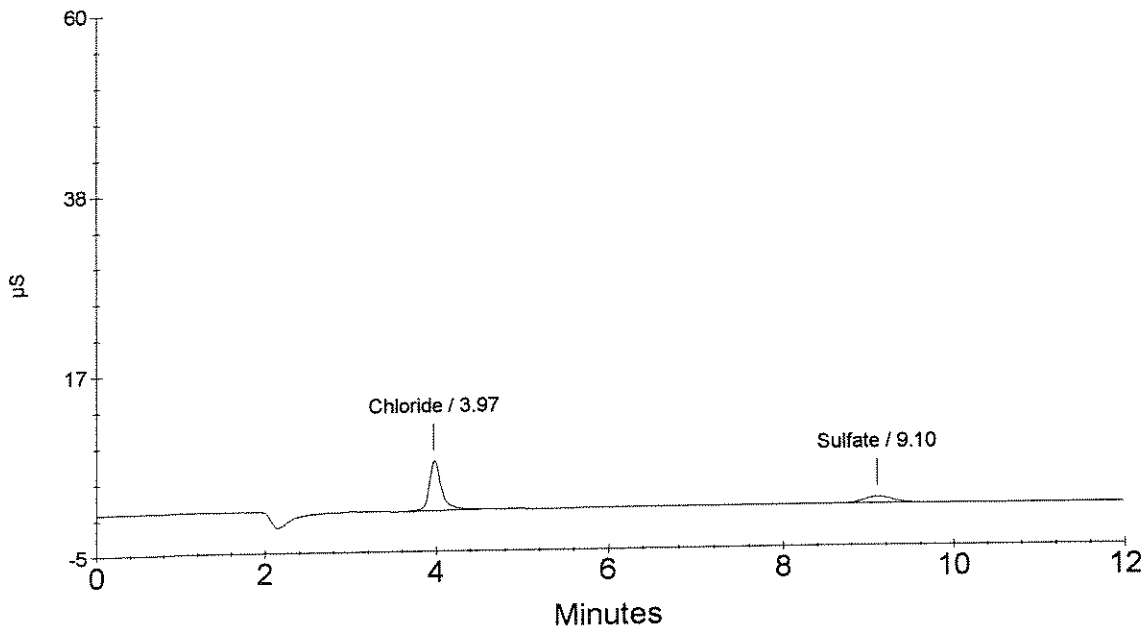
Data Collection Rate : 1.00 Hz  
 Data Collection Period : 720.00 seconds  
 Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.97	Chloride	14.521	599520
1	3.97	Chloride Nitrite Bromide Nitrate	14.521	599520
2	9.10	Sulfate	7.029	173062

*OK*  
*CS*  
*7/23/08*

1116766



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Sample Name : 1116767  
 Data File Name : ...\\721\_051.DXD  
 Method File Name : ...\\20080717.met  
 Date Time Collected : 7/23/08 02:19:38

Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Comment : Calibration 07.17.2008  
 Method Analyst : C. WOODS

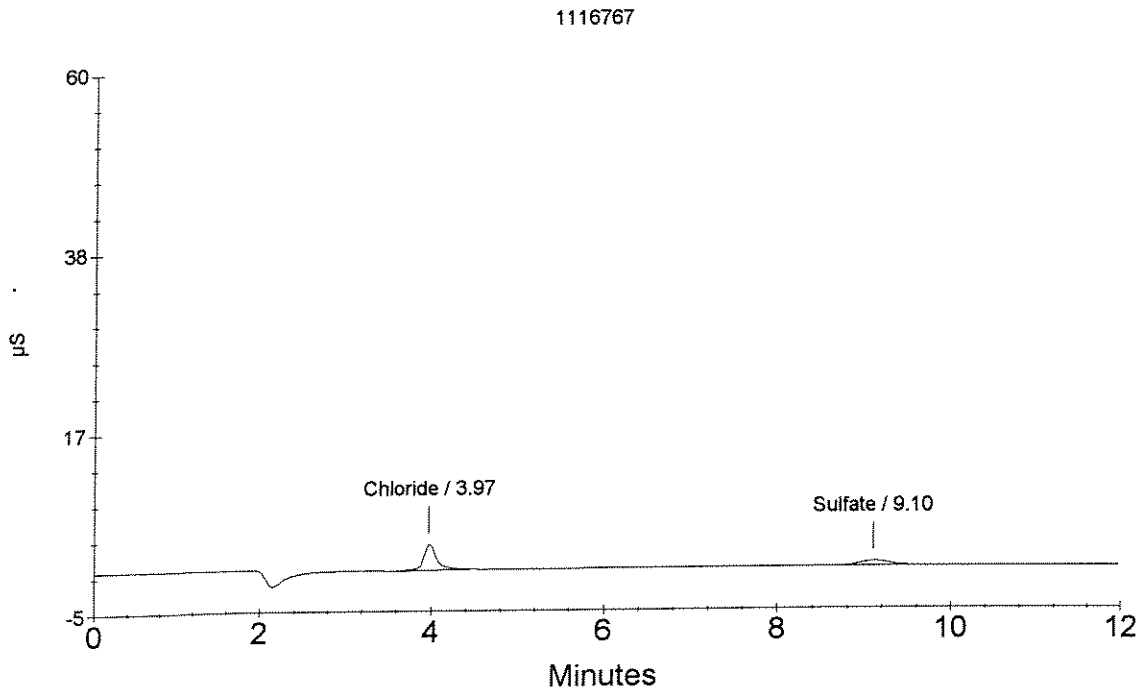
Dilution Factor : 10.00  
 Sample Type : Sample Analysis  
 Sample Comment : CS

Data Collection Rate : 1.00 Hz  
 Data Collection Period : 720.00 seconds  
 Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.97	Chloride	8.288	326745
1	3.97	Chloride <i>OK</i>	8.288	326745
		Nitrite		
		Bromide		
		Nitrate		
2	9.10	Sulfate <i>OK</i>	5.590	134646

*CW*  
*7/23/08*



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Sample Name : 1116768  
 Data File Name : ... \721\_052.DXD  
 Method File Name : ... \20080717.met  
 Date Time Collected : 7/23/08 02:33:56

Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Comment : Calibration 07.17.2008  
 Method Analyst : C. WOODS

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

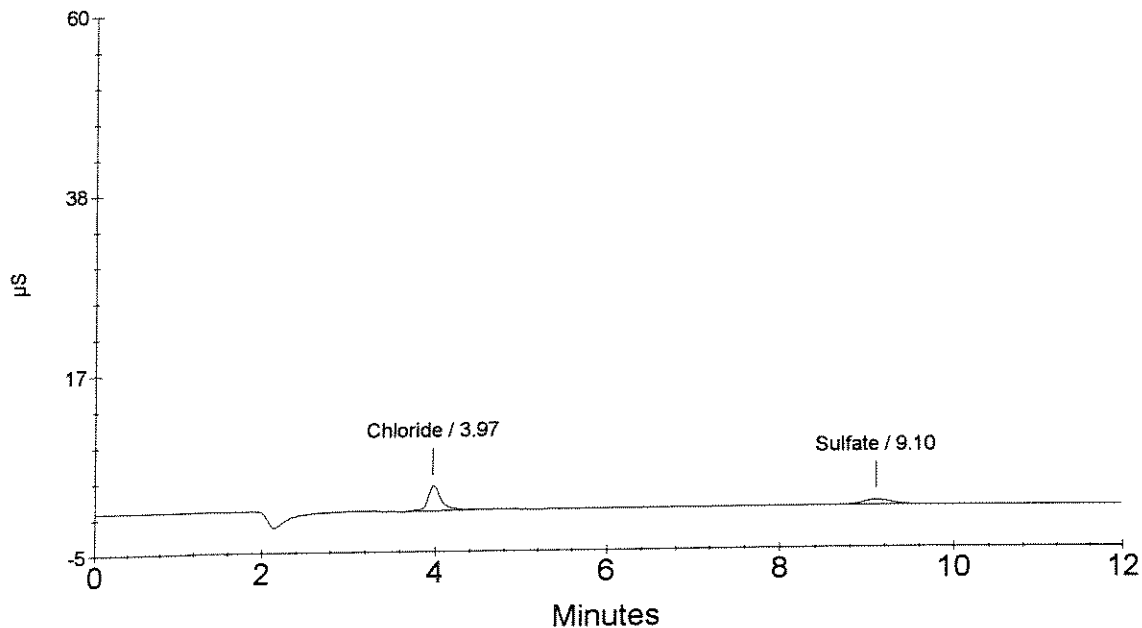
Data Collection Rate : 1.00 Hz  
 Data Collection Period : 720.00 seconds  
 Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.97	Chloride	8.243	324803
1	3.97	Chloride Nitrite Bromide Nitrate	8.243	324803
2	9.10	Sulfate	5.740	138653

*OK*  
*CS*  
*7/23/08*

1116768



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Sample Name : 1116769  
 Data File Name : ...\\721\_053.DXD  
 Method File Name : ...\\20080717.met  
 Date Time Collected : 7/23/08 02:48:15

Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Comment : Calibration 07.17.2008  
 Method Analyst : C. WOODS

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

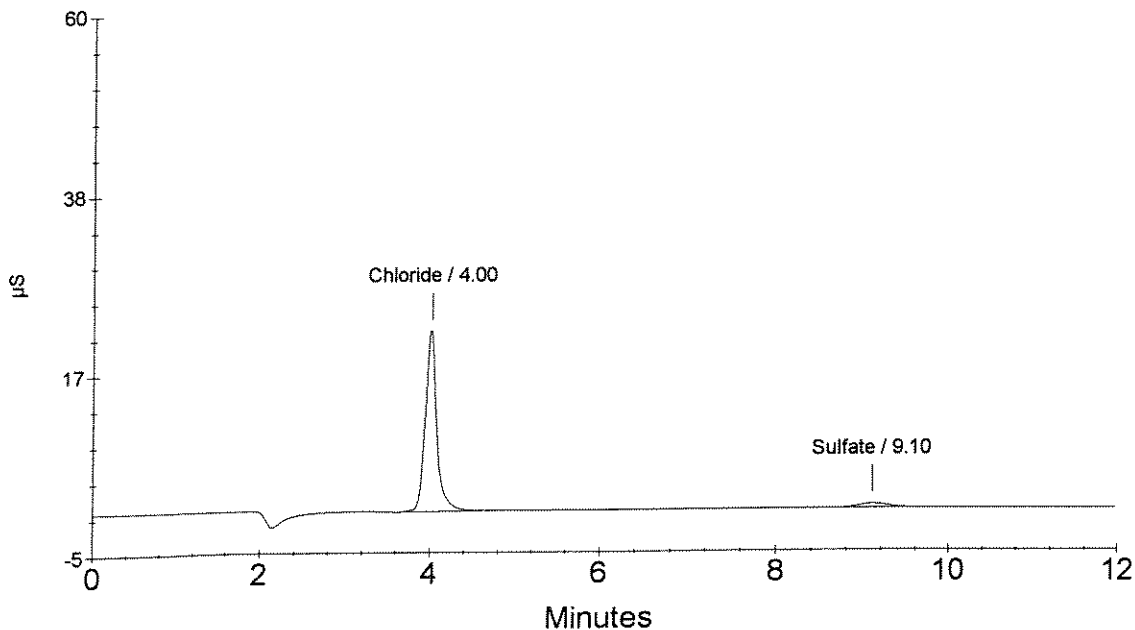
Data Collection Rate : 1.00 Hz  
 Data Collection Period : 720.00 seconds  
 Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	4.00	Chloride	47.583	2046400
1	4.00	Chloride <i>OK</i>	47.583	2046400
		Nitrite		
		Bromide		
		Nitrate		
2	9.10	Sulfate <i>OK</i>	4.714	111284

*CS*  
*7/23/08*

1116769



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Sample Name : 1116770  
 Data File Name : ... \721\_054.DXD  
 Method File Name : ... \20080717.met  
 Date Time Collected : 7/23/08 03:02:35

Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Comment : Calibration 07.17.2008  
 Method Analyst : C. WOODS

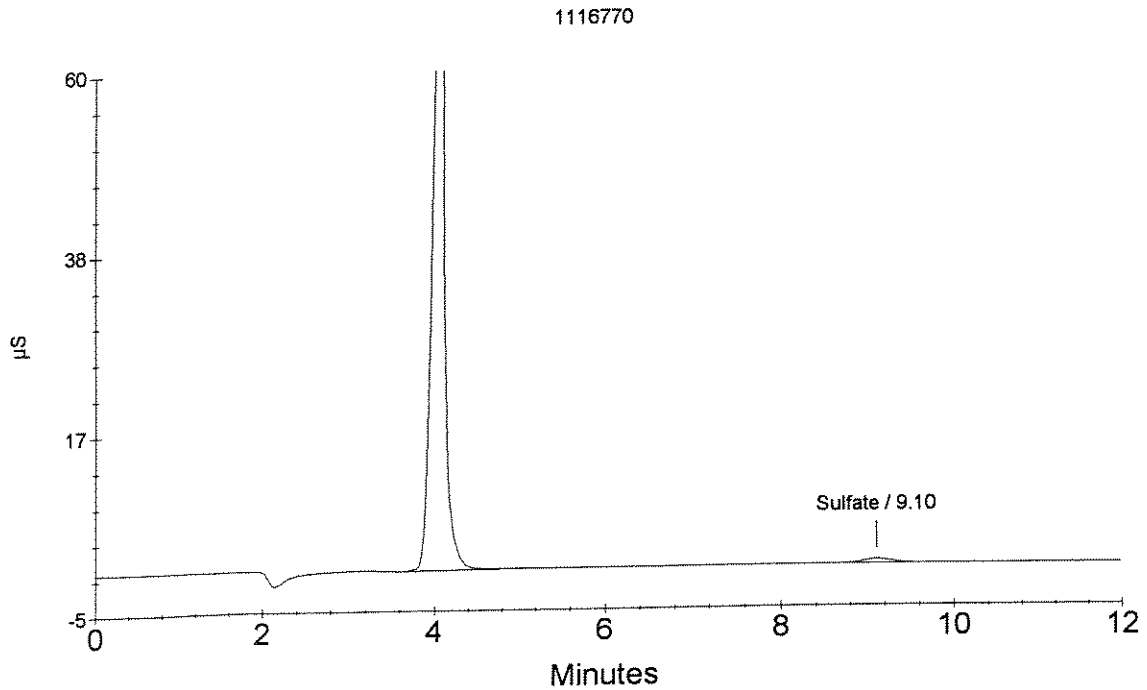
Dilution Factor : 10.00  
 Sample Type : Sample Analysis  
 Sample Comment : CS

Data Collection Rate : 1.00 Hz  
 Data Collection Period : 720.00 seconds  
 Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	4.00	Chloride	185.097	8064296
1	4.00	Chloride Nitrite Bromide Nitrate Sulfate	185.097	8064296
2	9.10	Sulfate	4.695	110772

*apt 1/100*  
  
*OK*  
  
*CW 7/23/08*



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Sample Name : 1116893  
Data File Name : ...\\721\_055.DXD  
Method File Name : ...\\20080717.met  
Date Time Collected : 7/23/08 03:16:54

Detector Name :  
Column ID : AS-14 (022939) AG-14 (022002)  
Method Comment : Calibration 07.17.2008  
Method Analyst : C. WOODS

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

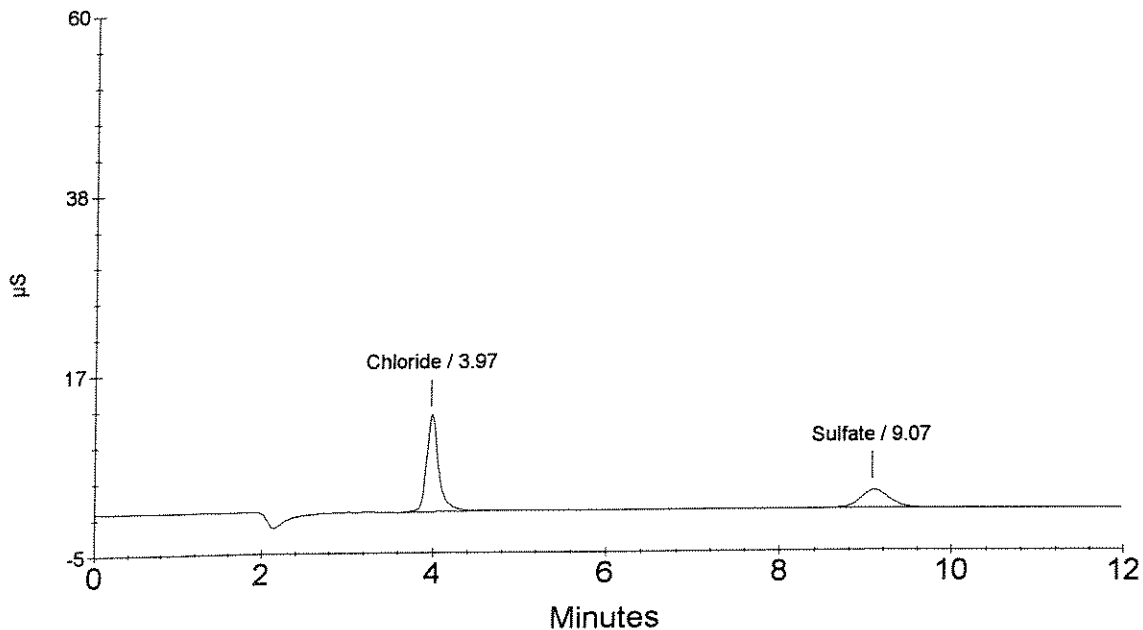
Data Collection Rate : 1.00 Hz  
Data Collection Period : 720.00 seconds  
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.97	Chloride	26.384	1118657
1	3.97	Chloride <i>OK</i>	26.384	1118657
		Nitrite		
		Bromide		
		Nitrate		
2	9.07	Sulfate <i>OK</i>	18.992	492388

*OK*  
*7/23/08*

1116893



Ion Chromatography Analytical Report  
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Sample Name : 1115903  
Data File Name : ...\\721\_056.DXD  
Method File Name : ...\\20080717.met  
Date Time Collected : 7/23/08 03:31:13

Detector Name :  
Column ID : AS-14 (022939) AG-14 (022002)  
Method Comment : Calibration 07.17.2008  
Method Analyst : C. WOODS

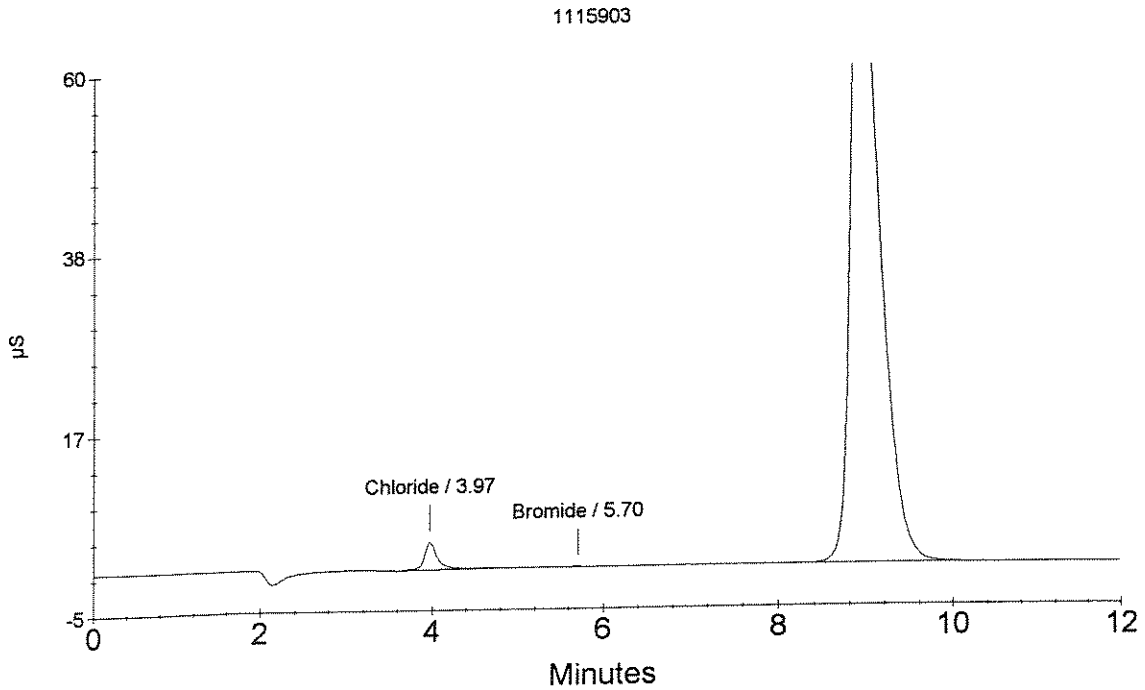
Dilution Factor : 40.00  
Sample Type : Sample Analysis  
Sample Comment : S

Data Collection Rate : 1.00 Hz  
Data Collection Period : 720.00 seconds  
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.97	Chloride	36.353	361778
1	3.97	Chloride	36.353	361778
		Nitrite		
2	5.70	Bromide	1.919	9295
		Nitrate		
3	8.97	Sulfate <i>pp + 1/400</i>	2749.883	18335711

*CW*  
*7/23/08*





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Sample Name : 1113696  
 Data File Name : ...\\721\_057.DXD  
 Method File Name : ...\\20080717.met  
 Date Time Collected : 7/23/08 03:45:32

Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Comment : Calibration 07.17.2008  
 Method Analyst : C. WOODS

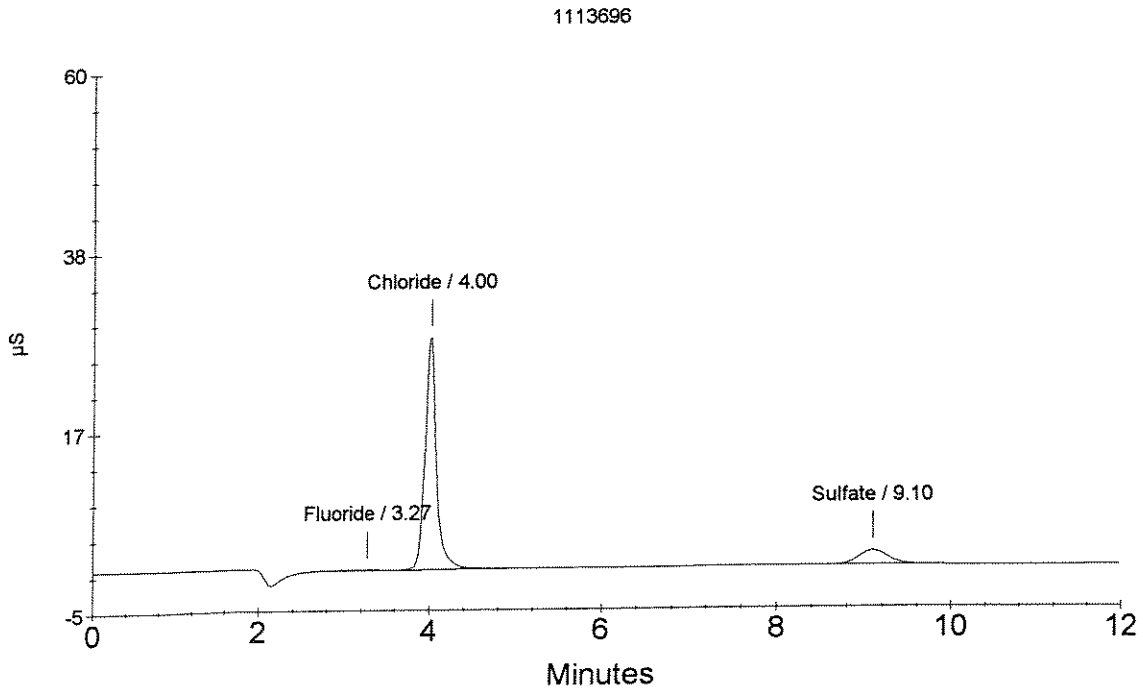
Dilution Factor : 1000.00  
 Sample Type : Sample Analysis  
 Sample Comment : C

Data Collection Rate : 1.00 Hz  
 Data Collection Period : 720.00 seconds  
 Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.27	Fluoride	57.961	26680
2	4.00	Chloride Nitrite Bromide Nitrate	5934.220	2560996
3	9.10	Sulfate	1517.358	390466

*OK*  
*7/23/08*



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Sample Name : CCV  
 Data File Name : ... \721\_058.DXD  
 Method File Name : ... \20080717.met  
 Date Time Collected : 7/23/08 03:59:52

Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Comment : Calibration 07.17.2008  
 Method Analyst : C. WOODS

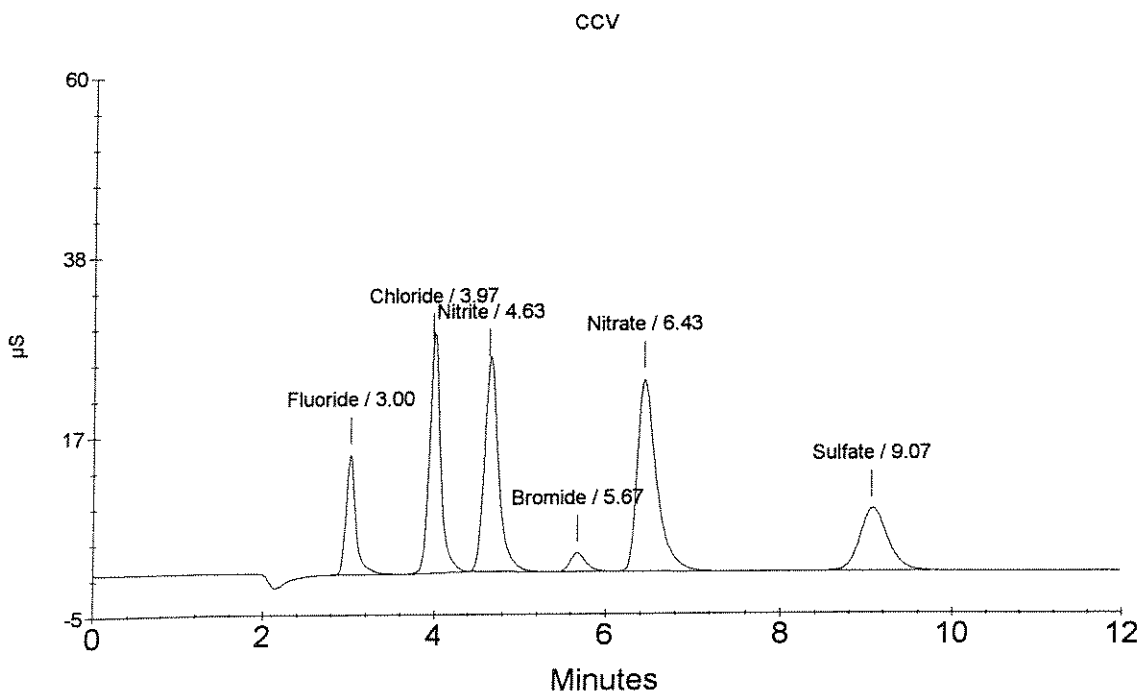
Dilution Factor : 1.00  
 Sample Type : Sample Analysis  
 Sample Comment :

Data Collection Rate : 1.00 Hz  
 Data Collection Period : 720.00 seconds  
 Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.00	Fluoride	1.963	1163508
2	3.97	Chloride	6.139	2650802
3	4.63	Nitrite	3.593	2987506
4	5.67	Bromide	1.947	293508
5	6.43	Nitrate	3.439	3562737
6	9.07	Sulfate	6.473	1713189

OK  
 ↓  
 C. Woods  
 7/23/08



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Sample Name : CCB  
 Data File Name : ... \721\_059.DXD  
 Method File Name : ... \20080717.met  
 Date Time Collected : 7/23/08 04:14:12

Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Comment : Calibration 07.17.2008  
 Method Analyst : C. WOODS

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

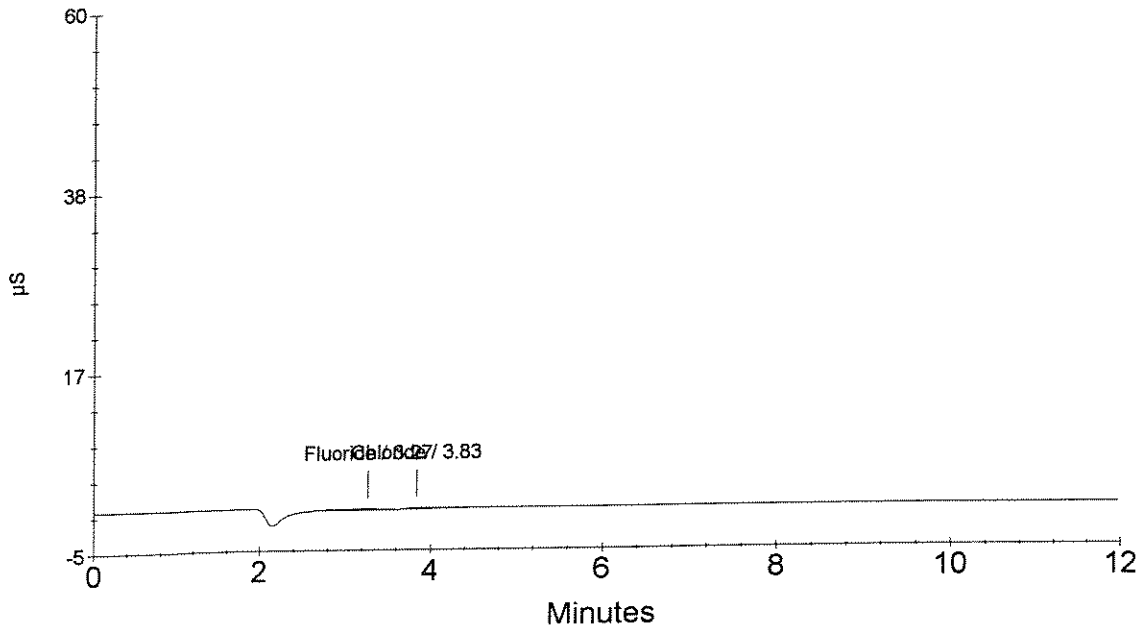
Data Collection Rate : 1.00 Hz  
 Data Collection Period : 720.00 seconds  
 Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.27	Fluoride	0.059	27413
2	3.83	Chloride	0.169	37865
		Nitrite		
		Bromide		
		Nitrate		
		Sulfate		

*OK*  
 ↓  
*7/23/08*

CCB



**Ion Chromatography Cover Sheet**

Instrument: Dionex 500DX Ion Chromatogram

Column: Dionex AS-14/AG-14, 4/10/2007

Curve Date: 07/14/08

Loop size: 100 uL

Analyst: C. Woods

Analysis Date: 7-22-08

Is copy of LCS attached to run? YES / NO

**Standards Prep Dates & Log ID's:**

<i>Std Type</i>	<i>Prep Date</i>	<i>Log ID</i>		<i>Std Type</i>	<i>Prep Date</i>	<i>Log ID</i>
Calibration Intermediate	07/14/08	WC90011A		Working Calibration Stds	07/14/08	WC90011H
LCS / MS Intermediate	07/14/08	WC90011A		Working LCS/MS Standard	07/14/08	WC90051B
ICV Intermediate	06/23/08	WC90100A		Working ICV Standard	06/23/08	WC90100H
CCV Intermediate	06/23/08	WC90100A		Working CCV Standard	DAILY	WC90100H

**Comments:**

---

**CURVE EXPIRES 12/10/08**

---

**WORKING LCS PREP**  
 (Stocks delivered using Volumetric glassware and brought to volume with DI. LCS expires after 7 days.)

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

Analyte	Calibration Intermediate Stock ID	Intermediate Stock Conc (mg/L)	mLs Intermediate Stock	Final Vol. mLs	Final Conc. (mg/L)	Analyst	Date Prepped	Lot ID	Exp. Date	Final Log ID
F	WC90051A	50	2.0	100	1.0	CMW	7/14/08	A	7/21/08	WC90051A
Cl		100			2.0	CMW	7/21/08	B	7/28/08	WC90051B
NO2		50			1.0			C		
Br		50			1.0			D		
NO3		50			1.0			E		
OPO4		50			1.0			F		
SO4		100			2.0			G		
								H		
								I		
								J		
								K		
								L		
								M		
								N		
								O		
								P		
								Q		
								R		

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Sample Name : STANDARD 1  
 Sample Type : Calibration Update  
 Data File Name : ...\\717\_001.DXD  
 Method File Name : ...\\20080717.met

Date Time Collected : 7/17/08 13:46:21  
 Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Analyst : C. WOODS

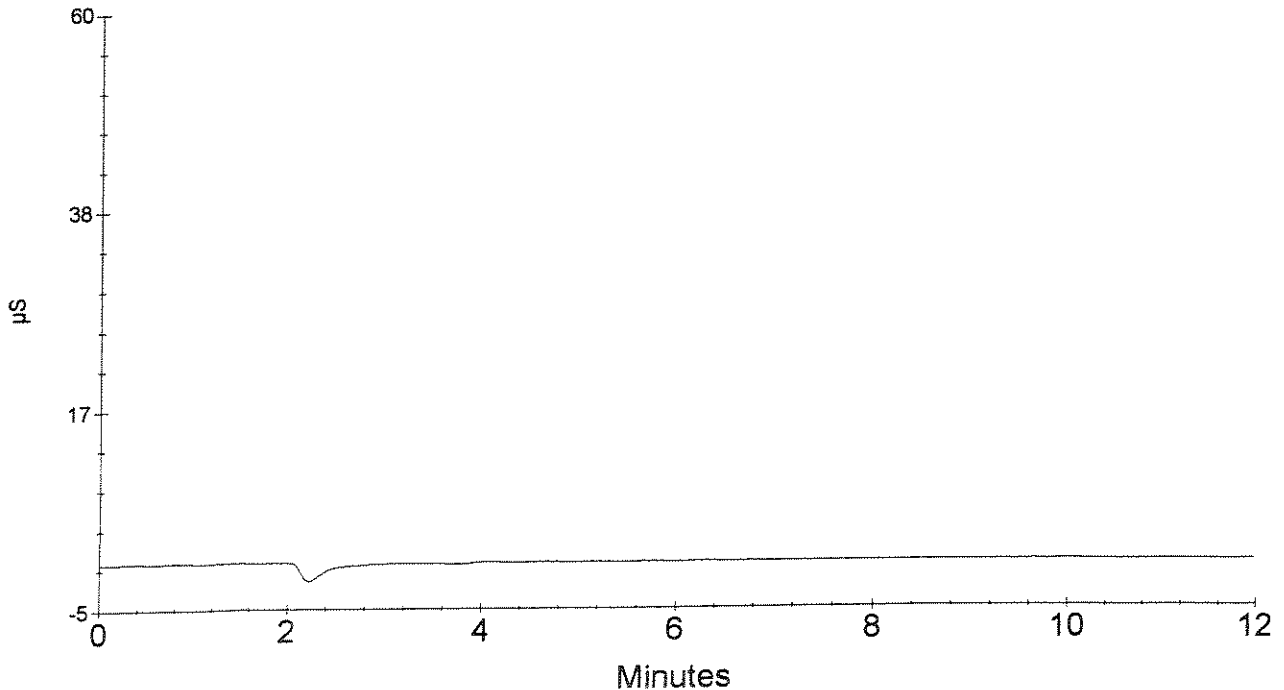
Dilution Factor : 1.00  
 Sample Comment :  
 Data Collection Rate : 1.00 Hz

Calibration Type : EXTERNAL  
 Calibration Level : 1

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Cal Response Previous
0	0.00	(null) Chloride Nitrite Bromide Nitrate Sulfate	0.00	0	0.00

*OK*  
  
 STANDARD 1



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Sample Name : STANDARD 2  
 Sample Type : Calibration Update  
 Data File Name : ...\\717\_002.DXD  
 Method File Name : ...\\20080717.met

Date Time Collected : 7/17/08 14:00:39  
 Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Analyst : C. WOODS

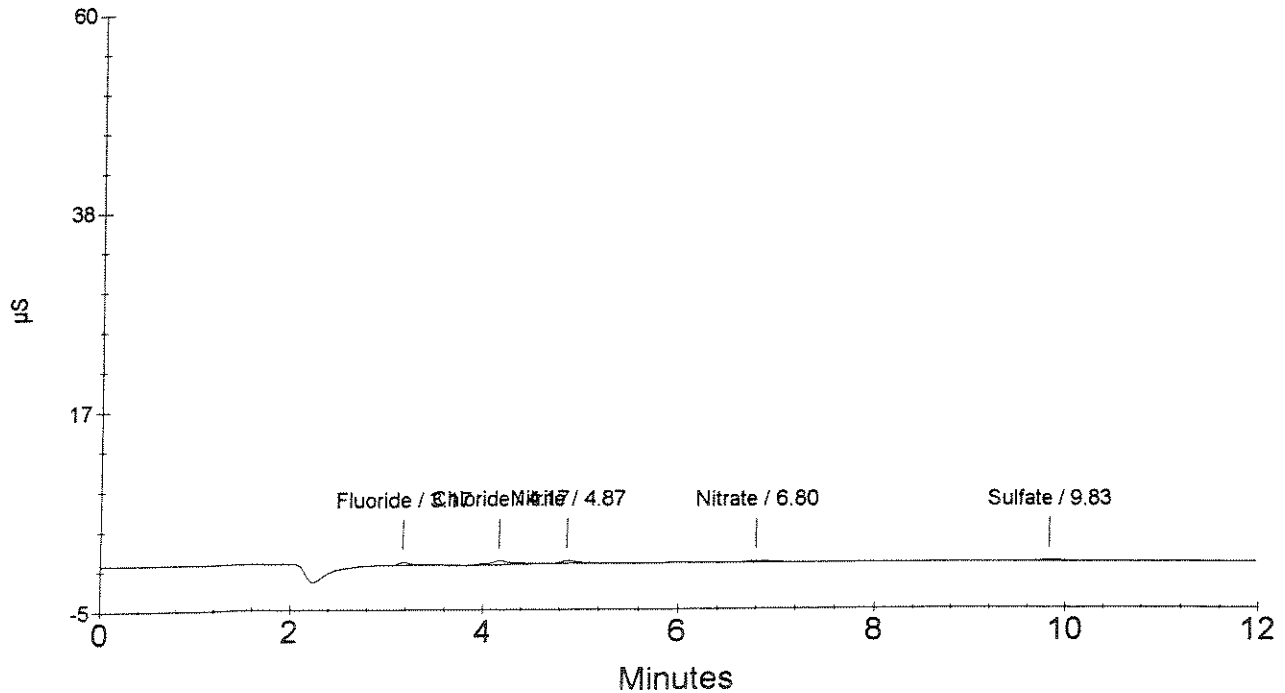
Dilution Factor : 1.00  
 Sample Comment :  
 Data Collection Rate : 1.00 Hz

Calibration Type : EXTERNAL  
 Calibration Level : 2

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Cal Response Previous
1	3.17	Fluoride	0.05	46751	46750.50
2	4.17	Chloride	0.10	73922	73921.50
3	4.87	Nitrite	0.05	39020	39019.50
4	6.80	Bromide Nitrate	0.05	31233	22029.50
5	9.83	Sulfate	0.10	29454	29454.00

*OK*  
 ↓  
 7/17/08  
 STANDARD 2



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Sample Name : STANDARD 3  
 Sample Type : Calibration Update  
 Data File Name : ...\\717\_003.DXD  
 Method File Name : ...\\20080717.met

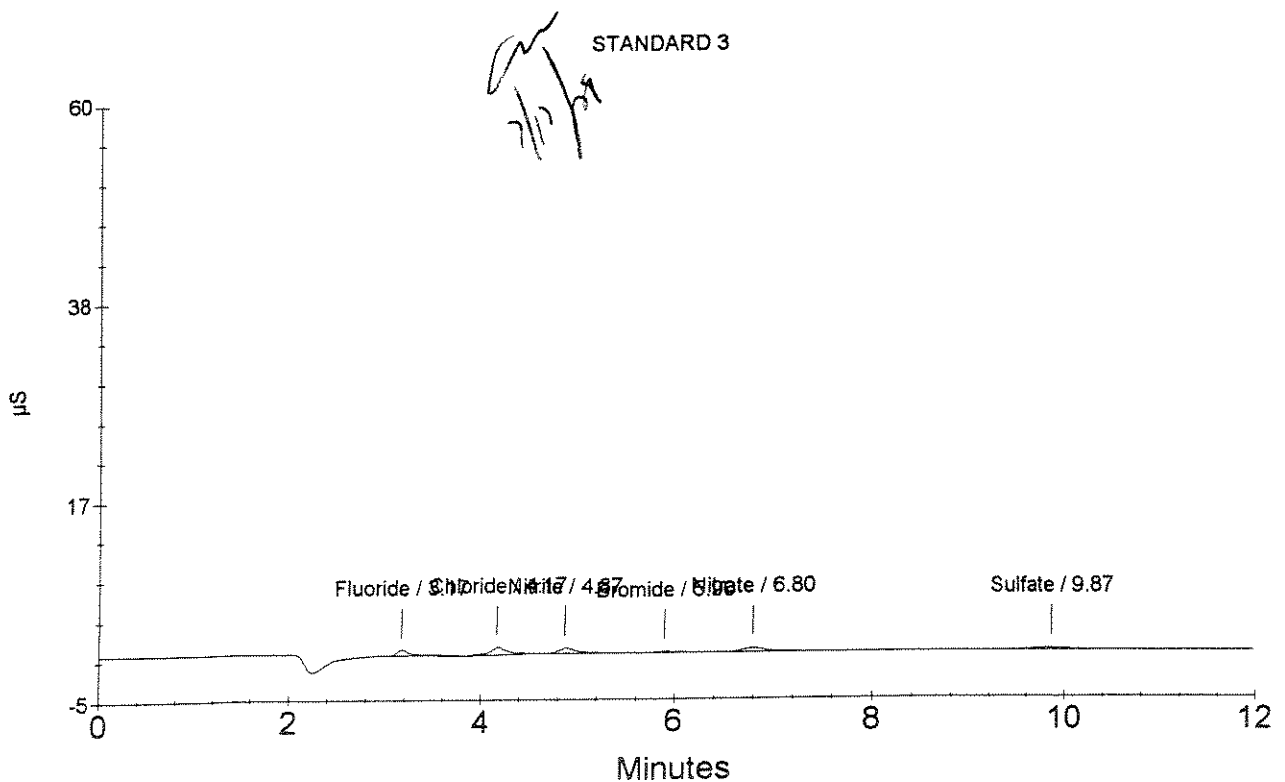
Date Time Collected : 7/17/08 14:15:01  
 Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Analyst : C. WOODS

Dilution Factor : 1.00  
 Sample Comment :  
 Data Collection Rate : 1.00 Hz

Calibration Type : EXTERNAL  
 Calibration Level : 3

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Cal Response Previous
1	3.17	Fluoride	0.10	73442	73441.50
2	4.17	Chloride	0.20	104632	104631.50
3	4.87	Nitrite	0.10	72312	72312.00
4	5.90	Bromide	0.10	20192	75083.00
5	6.80	Nitrate	0.10	75083	62564.00
6	9.87	Sulfate	0.20	49742	49741.50





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Sample Name : STANDARD 4  
 Sample Type : Calibration Update  
 Data File Name : ...\\717\_004.DXD  
 Method File Name : ...\\20080717.met

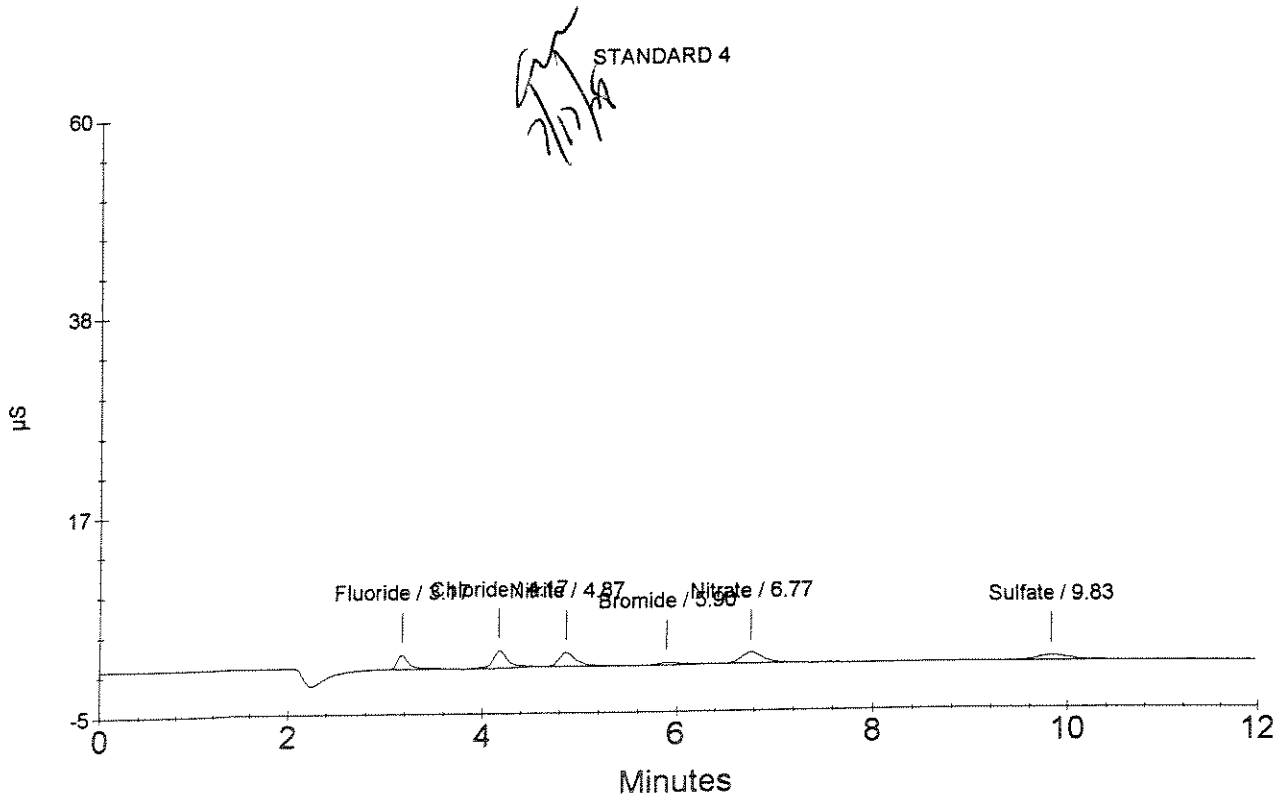
Date Time Collected : 7/17/08 14:29:21  
 Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Analyst : C. WOODS

Dilution Factor : 1.00  
 Sample Comment :  
 Data Collection Rate : 1.00 Hz

Calibration Type : EXTERNAL  
 Calibration Level : 4

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Cal Response Previous
1	3.17	Fluoride	0.25	148941	148941.00
2	4.17	Chloride	0.50	211105	211104.50
3	4.87	Nitrite	0.25	183017	183016.50
4	5.90	Bromide	0.25	42975	187185.00
5	6.77	Nitrate	0.25	187185	199001.50
6	9.83	Sulfate	0.50	126515	126515.00



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 Rochester, NY 14607

Sample Name : STANDARD 5  
 Sample Type : Calibration Update  
 Data File Name : ...\\717\_005.DXD  
 Method File Name : ...\\20080717.met

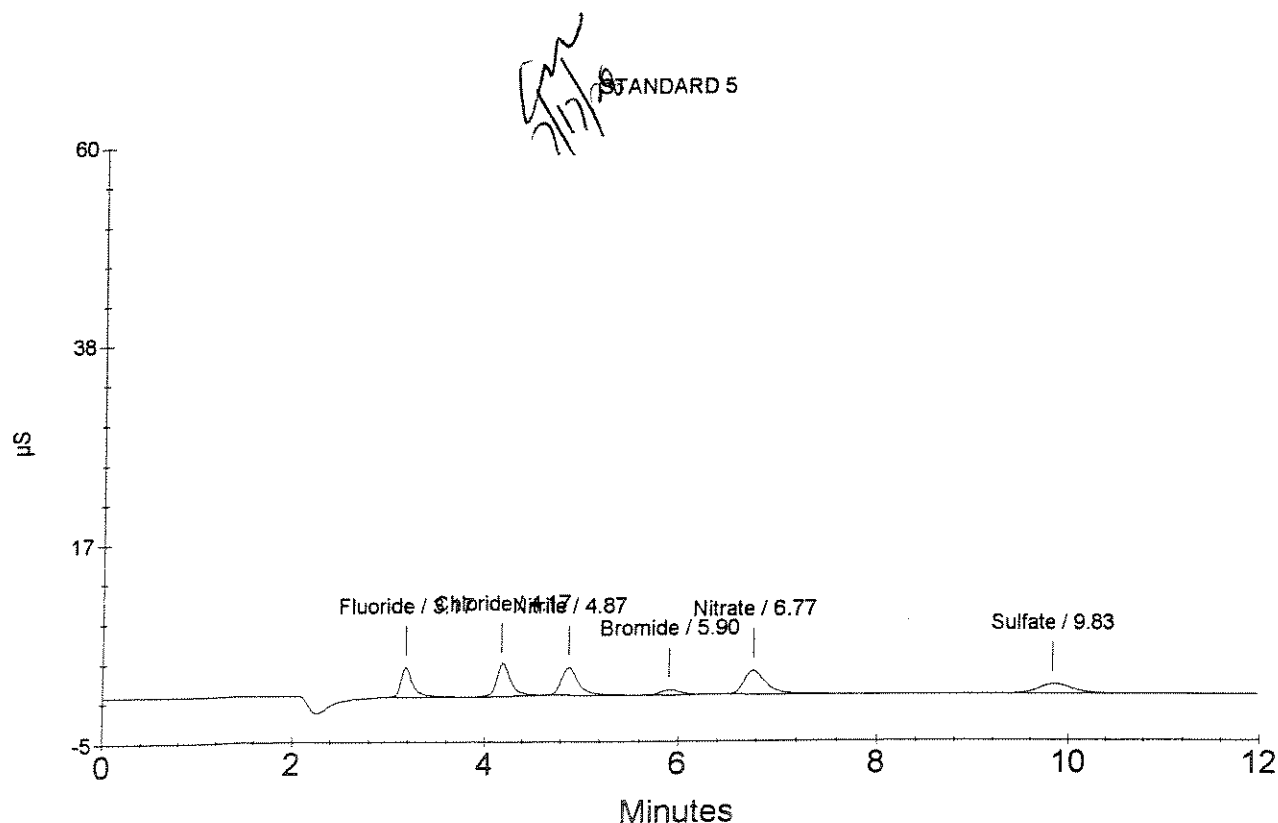
Date Time Collected : 7/17/08 14:43:39  
 Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Analyst : C. WOODS

Dilution Factor : 1.00  
 Sample Comment :  
 Data Collection Rate : 1.00 Hz

Calibration Type : EXTERNAL  
 Calibration Level : 5

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Cal Response Previous
1	3.17	Fluoride	0.50	283698	283698.00
2	4.17	Chloride	1.00	373114	373114.00
3	4.87	Nitrite	0.50	370523	370523.00
4	5.90	Bromide	0.50	79401	402859.00
5	6.77	Nitrate	0.50	402859	427081.50
6	9.83	Sulfate	1.00	252575	252575.00



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Sample Name : STANDARD 6  
 Sample Type : Calibration Update  
 Data File Name : ...\\717\_006.DXD  
 Method File Name : ...\\20080717.met

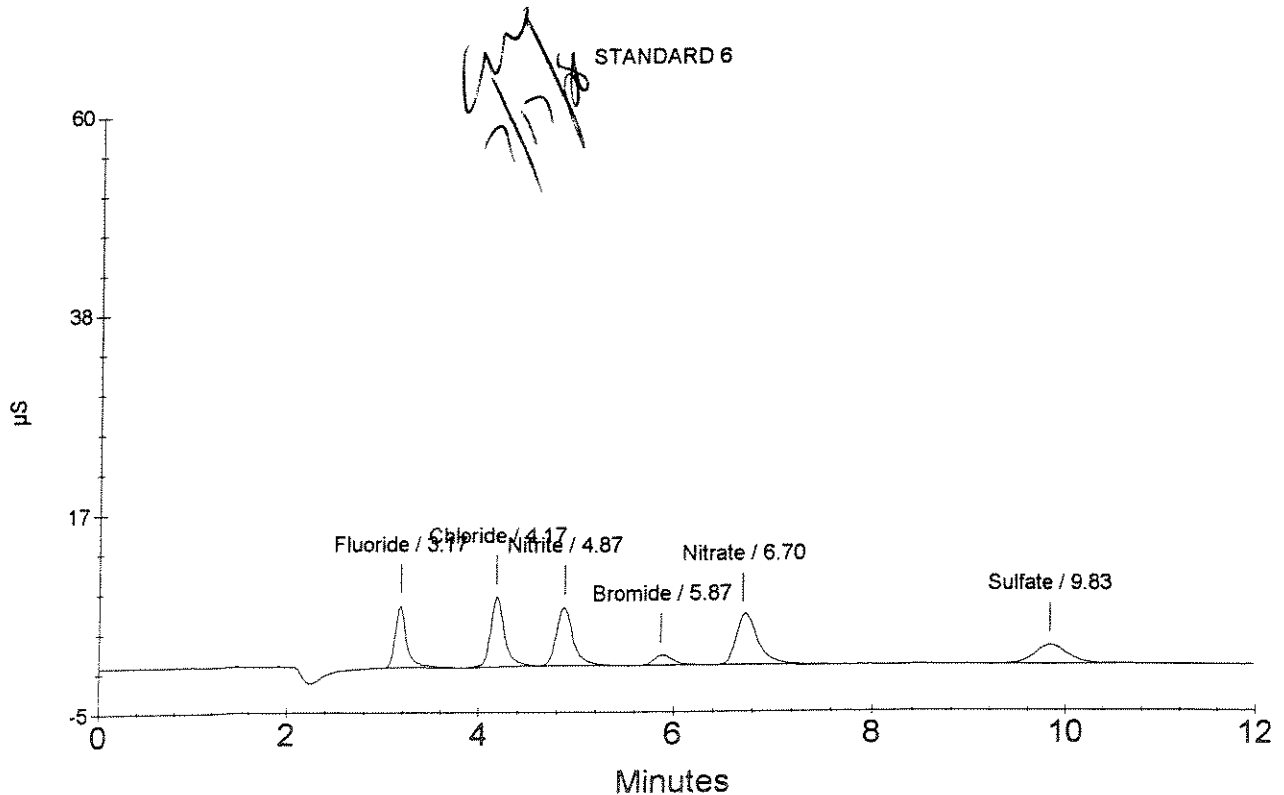
Date Time Collected : 7/17/08 14:57:59  
 Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Analyst : C. WOODS

Dilution Factor : 1.00  
 Sample Comment :  
 Data Collection Rate : 1.00 Hz

Calibration Type : EXTERNAL  
 Calibration Level : 6

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Cal Response Previous
1	3.17	Fluoride	1.00	555665	555664.50
2	4.17	Chloride	2.00	748194	748194.00
3	4.87	Nitrite	1.00	753723	753722.50
4	5.87	Bromide	1.00	151724	852212.00
5	6.70	Nitrate	1.00	852212	921604.50
6	9.83	Sulfate	2.00	490459	490458.50



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Sample Name : STANDARD 7  
Sample Type : Calibration Update  
Data File Name : ...\\717\_007.DXD  
Method File Name : ...\\20080717.met

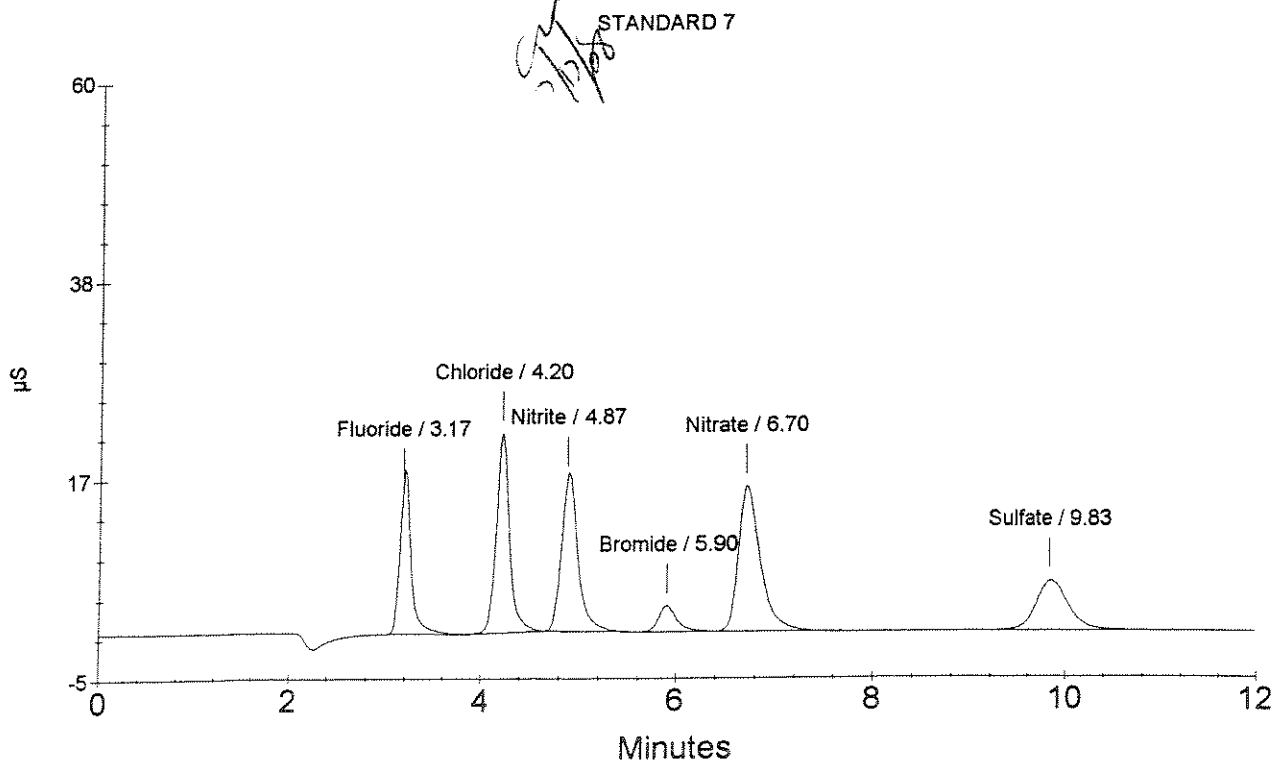
Date Time Collected : 7/17/08 15:12:19  
Detector Name :  
Column ID : AS-14 (022939) AG-14 (022002)  
Method Analyst : C. WOODS

Dilution Factor : 1.00  
Sample Comment :  
Data Collection Rate : 1.00 Hz

Calibration Type : EXTERNAL  
Calibration Level : 7

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Cal Response Previous
1	3.17	Fluoride	2.50	1426192	1426192.00
2	4.20	Chloride	5.00	1996257	1996257.00
3	4.87	Nitrite	2.50	1956834	1956834.00
4	5.90	Bromide	2.50	363340	2410282.50
5	6.70	Nitrate	2.50	2410283	2553150.50
6	9.83	Sulfate	5.00	1265333	1265333.00



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Sample Name : STANDARD 8  
 Sample Type : Calibration Update  
 Data File Name : ... \717\_008.DXD  
 Method File Name : ... \20080717.met

Date Time Collected : 7/17/08 15:26:38  
 Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Analyst : C. WOODS

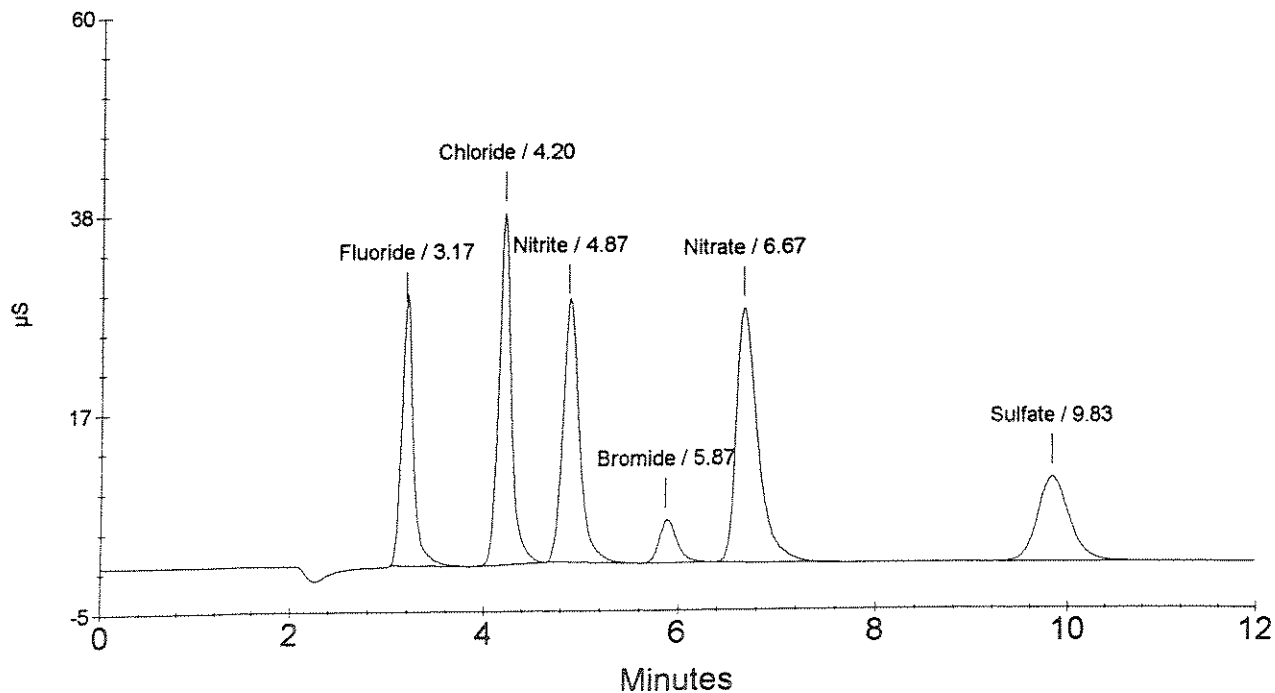
Dilution Factor : 1.00  
 Sample Comment :  
 Data Collection Rate : 1.00 Hz

Calibration Type : EXTERNAL  
 Calibration Level : 8

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Cal Response Previous
1	3.17	Fluoride	4.00	2394916	2394915.50
2	4.20	Chloride	8.00	3500653	3500653.00
3	4.87	Nitrite	4.00	3375363	3375362.50
4	5.87	Bromide	4.00	603157	4186710.50
5	6.67	Nitrate	4.00	4186711	5650313.50
6	9.83	Sulfate	8.00	2133567	2133566.50

*[Handwritten Signature]*  
 STANDARD 8



Ion Chromatography Calibration Report  
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Sample Name : STANDARD 9  
 Sample Type : Calibration Update  
 Data File Name : ...\\717\_009.DXD  
 Method File Name : ...\\20080717.met

Date Time Collected : 7/17/08 15:40:57  
 Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Analyst : C. WOODS

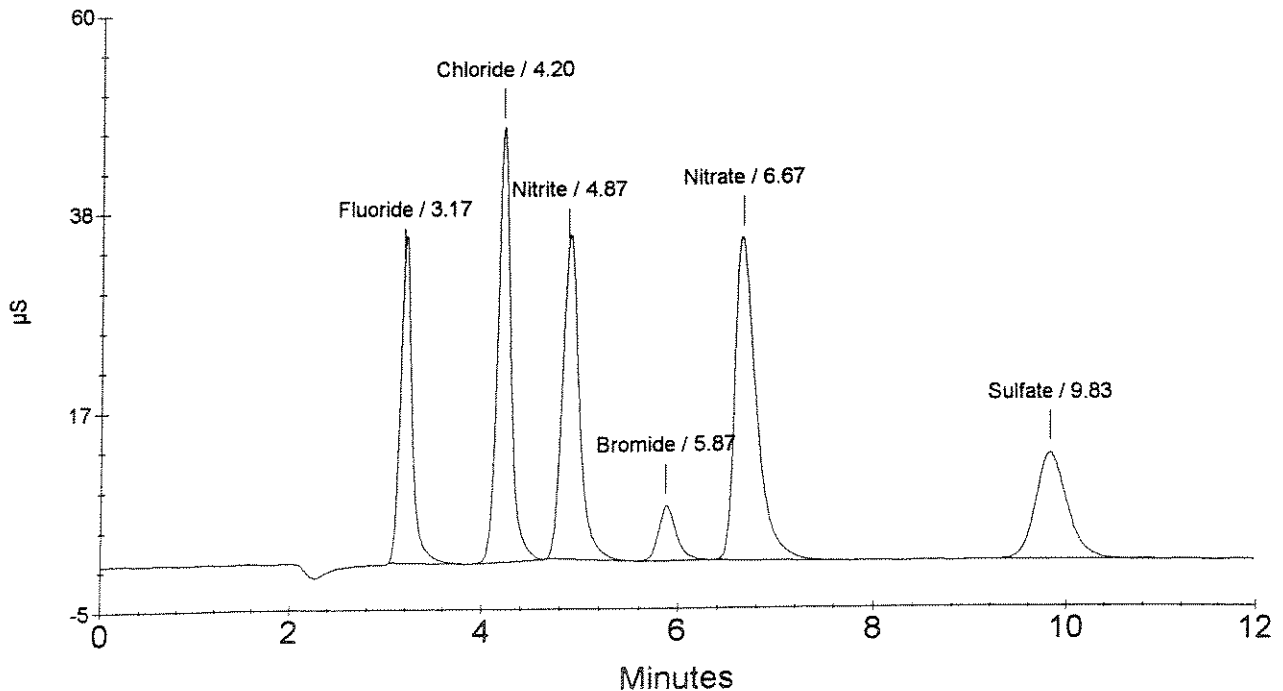
Dilution Factor : 1.00  
 Sample Comment :  
 Data Collection Rate : 1.00 Hz

Calibration Type : EXTERNAL  
 Calibration Level : 9

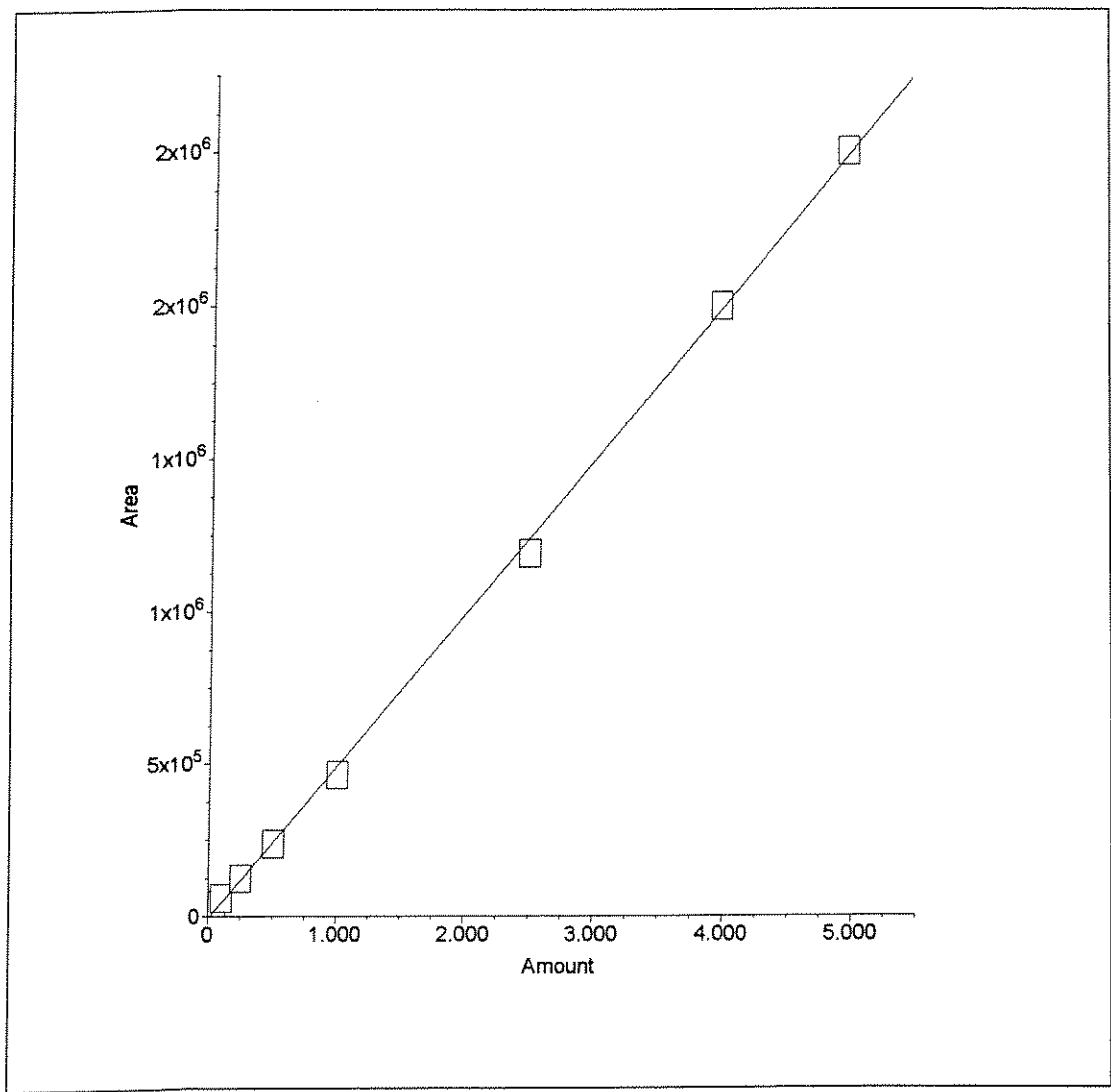
Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Cal Response Previous
1	3.17	Fluoride	5.00	2997593	2997592.50
2	4.20	Chloride	10.00	4396879	4396879.00
3	4.87	Nitrite	5.00	4197354	4197353.50
4	5.87	Bromide	5.00	754451	5290658.50
5	6.67	Nitrate	5.00	5290659	5648535.00
6	9.83	Sulfate	10.00	2674946	2674945.50

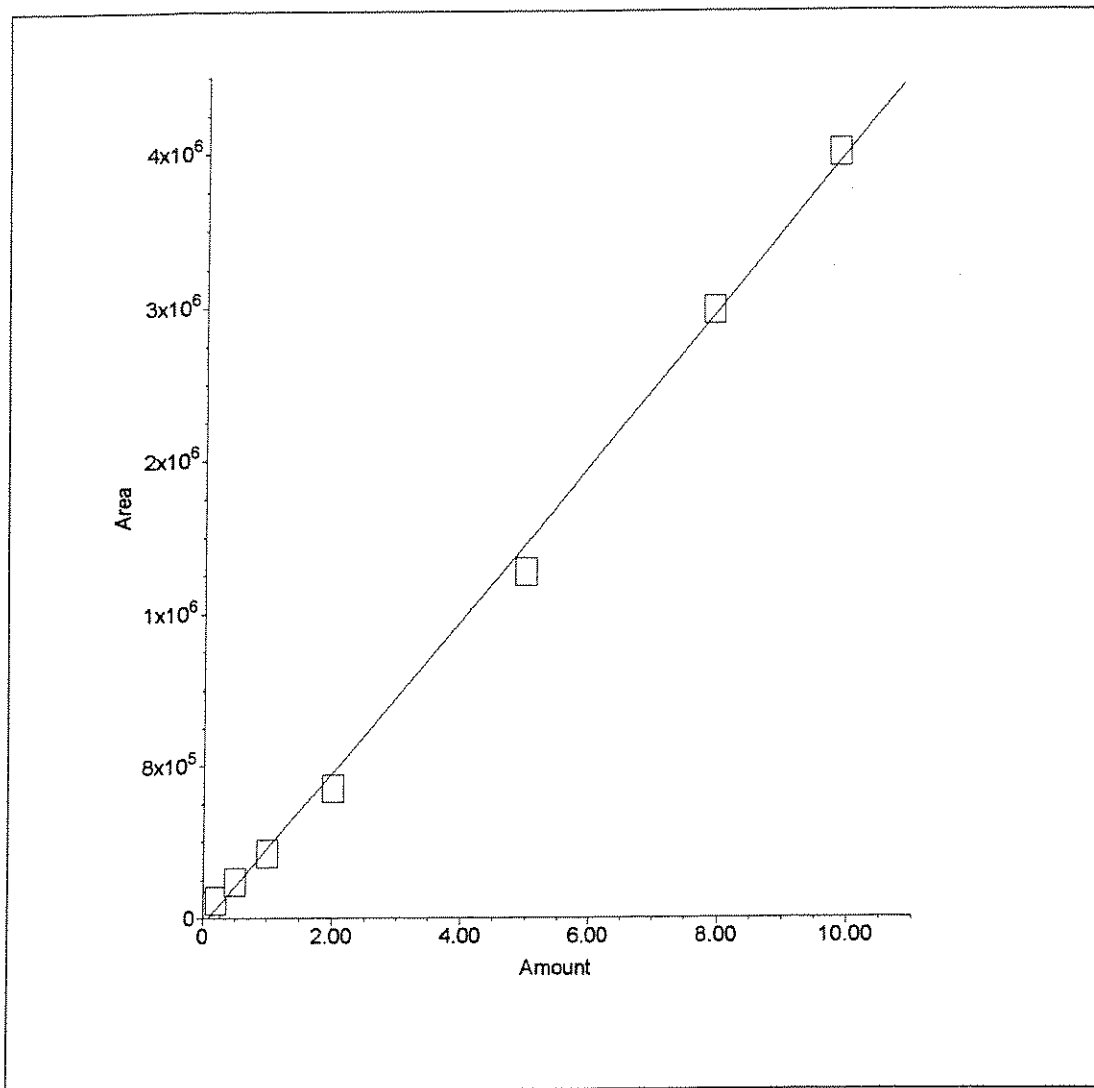
*OK*  
  
 STANDARD 9



1. Component: Fluoride  
Standard: External Fit Type: Linear  
Origin: Include Calibration: Area  
 $r^2=0.999371$   
Amt= $1.675e-006 * Resp + 0.01326$

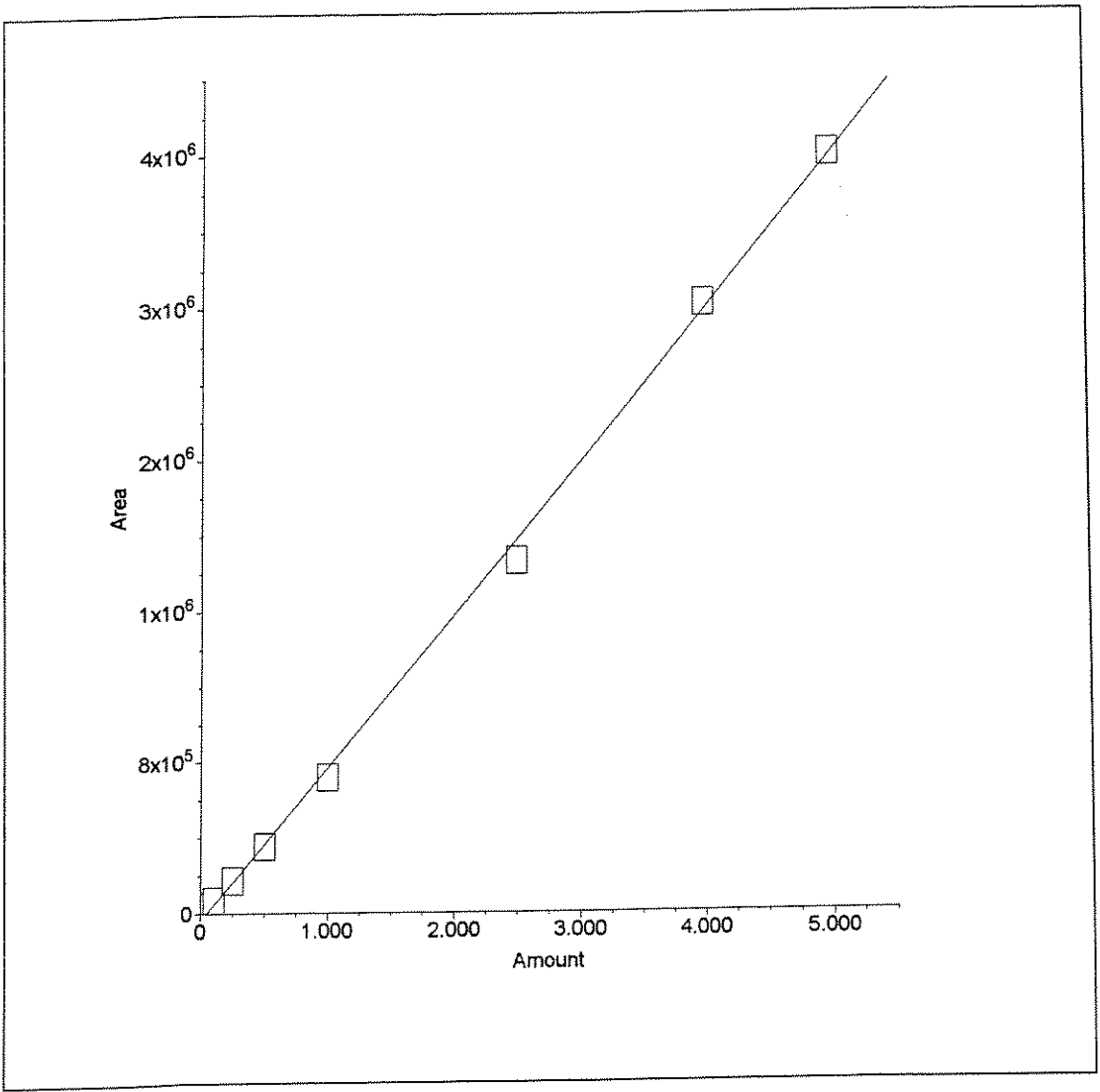


2. Component: Chloride  
Standard: External Fit Type: Linear  
Origin: Include Calibration: Area  
 $r^2=0.997849$   
Amt= $2.285e-006 * Resp + 0.08213$

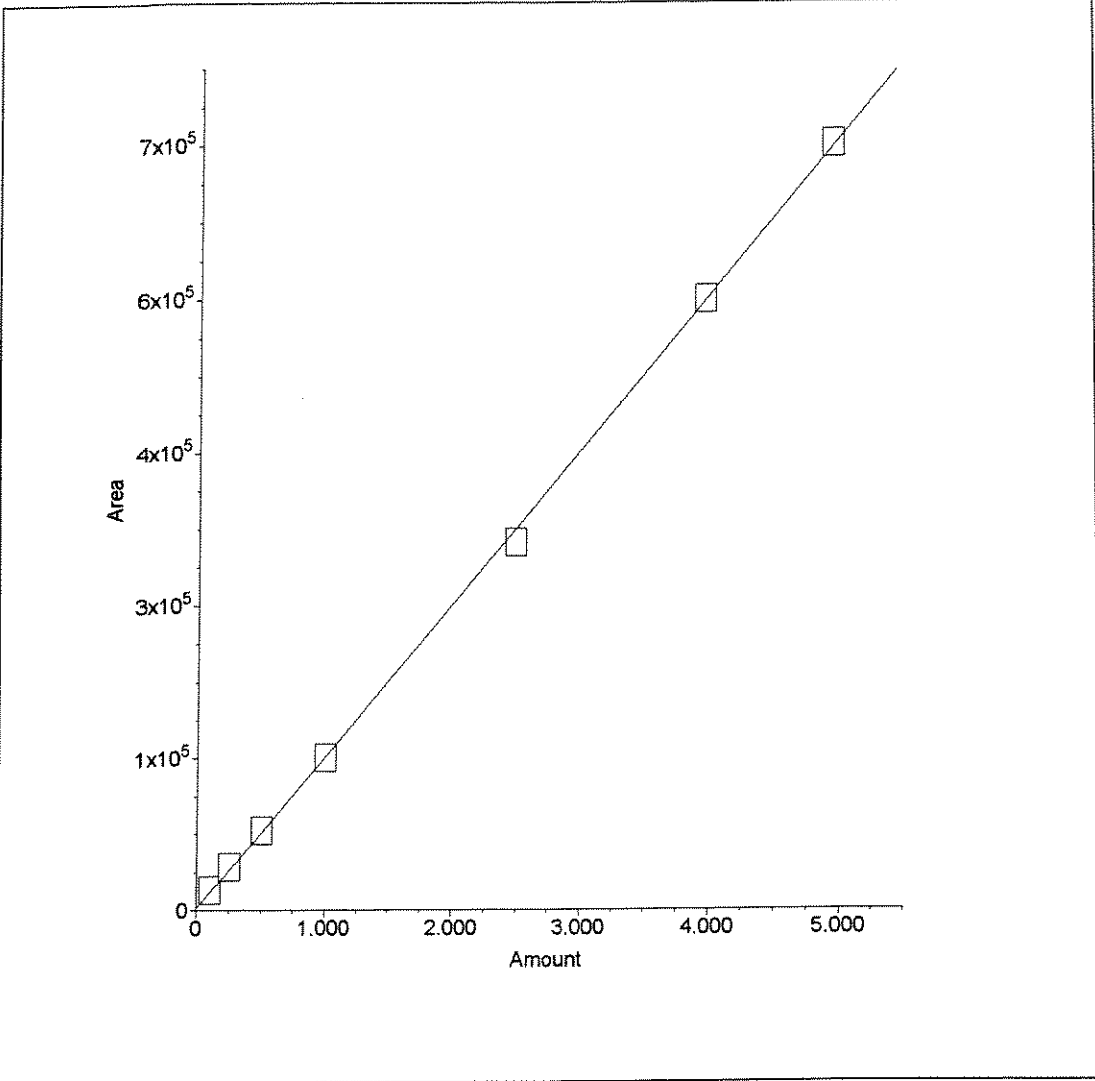




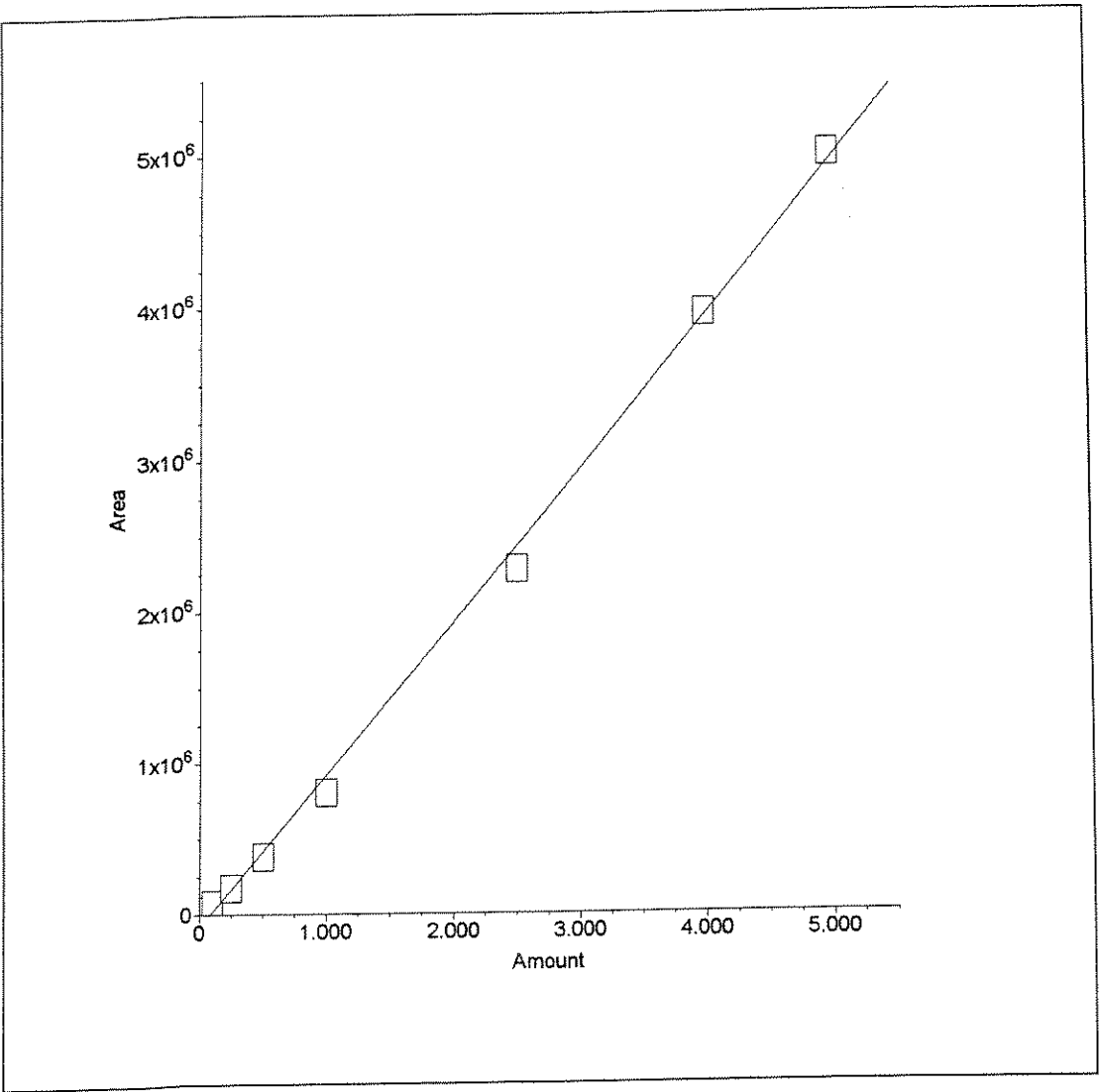
3. Component: Nitrite  
Standard: External Fit Type: Linear  
Origin: Include Calibration: Area  
 $r^2 = 0.998967$   
Amt =  $1.188e-006 * Resp + 0.044$



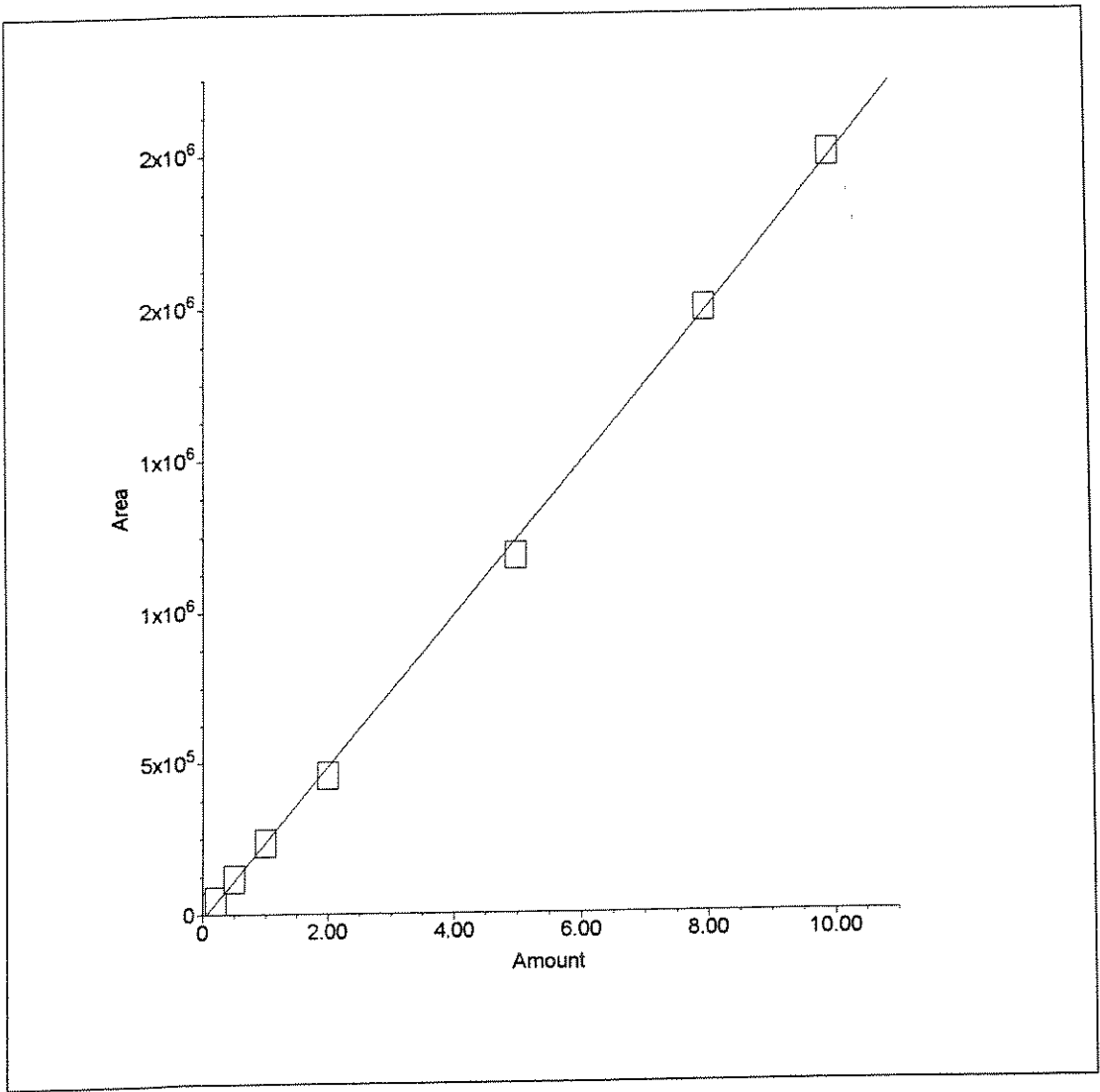
4. Component: Bromide  
Standard: External Fit Type: Linear  
Origin: Include Calibration: Area  
 $r^2=0.999625$   
Amt= $6.681e-006 * Resp + -0.01413$



5. Component:Nitrate  
Standard:External Fit Type:Linear  
Origin:Include Calibration:Area  
 $r^2=0.998083$   
Amt= $9.419e-007 * Resp + 0.08267$



6. Component: Sulfate  
Standard: External Fit Type: Linear  
Origin: Include Calibration: Area  
 $r^2=0.999376$   
 $Amt=3.746e-006*Resp+0.05452$



---

Method Information : Select Module(s)

System Name : DX-Lan IC#4  
System Number : 1  
Method Type : Ion Chromatography  
Column : AS-14 (022939) AG-14 (022002)  
Analyst : C. WOODS  
Comment : Calibration 07.17.2008

---

ED40 Timed Events

Module Name :  
Module Serial Number :  
Operating Mode : Conductivity  
SRS Current : 100 mA  
Temperature Compensation : 1.7  
Cell Temperature : 35 °C

Time	Range ( $\mu$ S)	Offset	Mark	TTL1	TTL2	Relay1	Relay2	Collect
Init	10.000	*		Low	Low	Open	Closed	
0.00	10.000	*		Low	Low	Open	Closed	
0.10	10.000			Low	Low	Closed	Closed	
2.20	0.010	*		Low	Low	Open	Closed	Begin

---

ED40 Detector Parameters

Detector Type : ED40  
Data collection time (minutes) : 12.00  
Data Collection Rate : 1.00  
Real time plot scale maximum ( $\mu$ S) : 60.000  
Real time plot scale minimum ( $\mu$ S) : -5.000

---

ED40 Integration Parameters

Peak detection algorithm : Standard  
Starting peak width (seconds) : 15.00  
Peak threshold : 2.00  
Peak area reject (area counts) : 10.00  
Reference peak area reject (area counts) : 1000.00

---

ED40 Smoothing Parameters

Filter Type : No filter

---

---

ED40 Report Data

Report Format File : J:\ACQUDATA\IC\METHOD.ACI\lc#4\As14.rpt  
Print Sample Analysis : Yes  
Print Calibration Update : Yes  
Print Check Standard : Yes  
System Suitability Tests :  
No system suitability tests selected.

---

ED40 Integration Data Events

Time	Description
0.00	Stop peak detection
2.50	Force baseline at start of all peaks
3.03	Halve peak threshold
3.05	Start peak detection
6.75	Double peak threshold

---

ED40 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 : mg/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

---

ED40 Component Identification Table

Component	Retention	Tolerance	Reference
Fluoride	3.17 min	10.00 %	
Chloride	4.20 min	10.00 %	
Nitrite	4.87 min	10.00 %	
Bromide	5.87 min	10.00 %	
Nitrate	6.67 min	10.00 %	
Sulfate	9.83 min	10.00 %	

---

**ED40 Component Quantitation Table**

Component	Retention	Low Limit	High Limit
Fluoride	3.17 min	0.05	5
Chloride	4.20 min	0.1	10
Nitrite	4.87 min	0.05	5
Bromide	5.87 min	0.05	5
Nitrate	6.67 min	0.05	5
Sulfate	9.83 min	0.1	10

**ED40 Component Calibration Table**

Component	Retention Time	Curve Fit	Origin	Cal. by	Response Component	Relative Factor
Fluoride	3.17 min	Linear	Include	Area	Fluoride	0.00
Chloride	4.20 min	Linear	Include	Area	Fluoride	0.00
Nitrite	4.87 min	Linear	Include	Area	Fluoride	0.00
Bromide	5.87 min	Linear	Include	Area	Fluoride	0.00
Nitrate	6.67 min	Linear	Include	Area	Fluoride	0.00
Sulfate	9.83 min	Linear	Include	Area	Fluoride	0.00

**ED40 Component = Fluoride Levels Table**

Retention Time : 3.17 min  
 Amount units : mg/L  
 Replicate unit type : Area  
 Number of levels : 9  
 Number of replicates : 1

Level	Amount	Replicate 1
1	0.00	<del>37771</del> No PEAK DETECTED
2	0.05	46750.5
3	0.10	73441.5
4	0.25	148941
5	0.50	283698
6	1.00	555665
7	2.50	1.42619e + 006
8	4.00	2.39492e + 006
9	5.00	2.99759e + 006

---

ED40 Component = Chloride Levels Table

Retention Time : 4.20 min  
Amount units : mg/L  
Replicate unit type : Area  
Number of levels : 9  
Number of replicates : 1

Level	Amount	Replicate 1
1	0.00	<del>28442</del> NO PEAK DETECTED
2	0.10	73921.5
3	0.20	104632
4	0.50	211105
5	1.00	373114
6	2.00	748194
7	5.00	1.99626e + 006
8	8.00	3.50065e + 006
9	10.00	4.39688e + 006

---

ED40 Component = Nitrite Levels Table

Retention Time : 4.87 min  
Amount units : mg/L  
Replicate unit type : Area  
Number of levels : 9  
Number of replicates : 1

Level	Amount	Replicate 1
1	0.00	<del>70747.5</del> NO PEAK DETECTED
2	0.05	39019.5
3	0.10	72312
4	0.25	183017
5	0.50	370523
6	1.00	753723
7	2.50	1.95683e + 006
8	4.00	3.37536e + 006
9	5.00	4.19735e + 006



---

ED40 Component = Bromide Levels Table

Retention Time : 5.87 min  
Amount units : mg/L  
Replicate unit type : Area  
Number of levels : 9  
Number of replicates : 1

Level	Amount	Replicate 1
1	0.00	<del>27470</del> NO PEAK DETECTED
2	0.05	<del>31233</del>
3	0.10	20192
4	0.25	42975
5	0.50	79400.5
6	1.00	151724
7	2.50	363340
8	4.00	603157
9	5.00	754451

---

ED40 Component = Nitrate Levels Table

Retention Time : 6.67 min  
Amount units : mg/L  
Replicate unit type : Area  
Number of levels : 9  
Number of replicates : 1

Level	Amount	Replicate 1
1	0.00	<del>5310.5</del> NO PEAK DETECTED
2	0.05	31233
3	0.10	75083
4	0.25	187185
5	0.50	402859
6	1.00	852212
7	2.50	2.41028e+006
8	4.00	4.18671e+006
9	5.00	5.29066e+006

---

ED40 Component = Sulfate Levels Table

Retention Time : 9.83 min  
Amount units : mg/L  
Replicate unit type : Area  
Number of levels : 9  
Number of replicates : 1

Level	Amount	Replicate 1
1	0.00	<del>7283</del> NO PEAK DETECTED
2	0.10	29454
3	0.20	49741.5
4	0.50	126515
5	1.00	252575
6	2.00	490459
7	5.00	1.26533e + 006
8	8.00	2.13357e + 006
9	10.00	2.67495e + 006

---

ED40 XY Data Parameters

---

---

GP40 Timed Events

Module Name :

Module Serial Number :

Description : Anions on an AS-16/AG-16 Column setup with a carbonate/bicarbonate eluent.

High Pressure Limit : 4000.0

Low Pressure Limit : 30.0

Eluent A :

Eluent B : 35mM Na<sub>2</sub>CO<sub>3</sub> / 10mM NaHCO<sub>3</sub>

Eluent C :

Eluent D :

Piston Size : Standard

Pressure Unit : psi

Oven Not Installed

Time	Flow	%A	%B	%C	%D	Curve	Comment
Init	1.00	0.00	100.00	0.00	0.00	5	start AS40 load cycl
0.00	1.00	0.00	100.00	0.00	0.00	5	preparing to inject
0.10	1.00	0.00	100.00	0.00	0.00	5	preparing to inject
2.20	1.00	0.00	100.00	0.00	0.00	5	Injecting sample
3.20	1.00	0.00	100.00	0.00	0.00	5	Finished injection

Time	Valve	Column	TTL1	TTL2	Relay1	Relay2
Init	Load	A	High	Low	Open	Open
0.00	Load	A	High	Low	Open	Open
0.10	Load	A	High	High	Open	Open
2.20	Inject	A	High	Low	Open	Open
3.20	Load	A	Low	Low	Open	Open

---

Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : ICV  
Data File Name : ...\\717\_010.DXD  
Method File Name : ...\\20080717.met  
Date Time Collected : 7/17/08 15:55:17

Detector Name :  
Column ID : AS-14 (022939) AG-14 (022002)  
Method Comment : Calibration 07.17.2008  
Method Analyst : C. WOODS

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

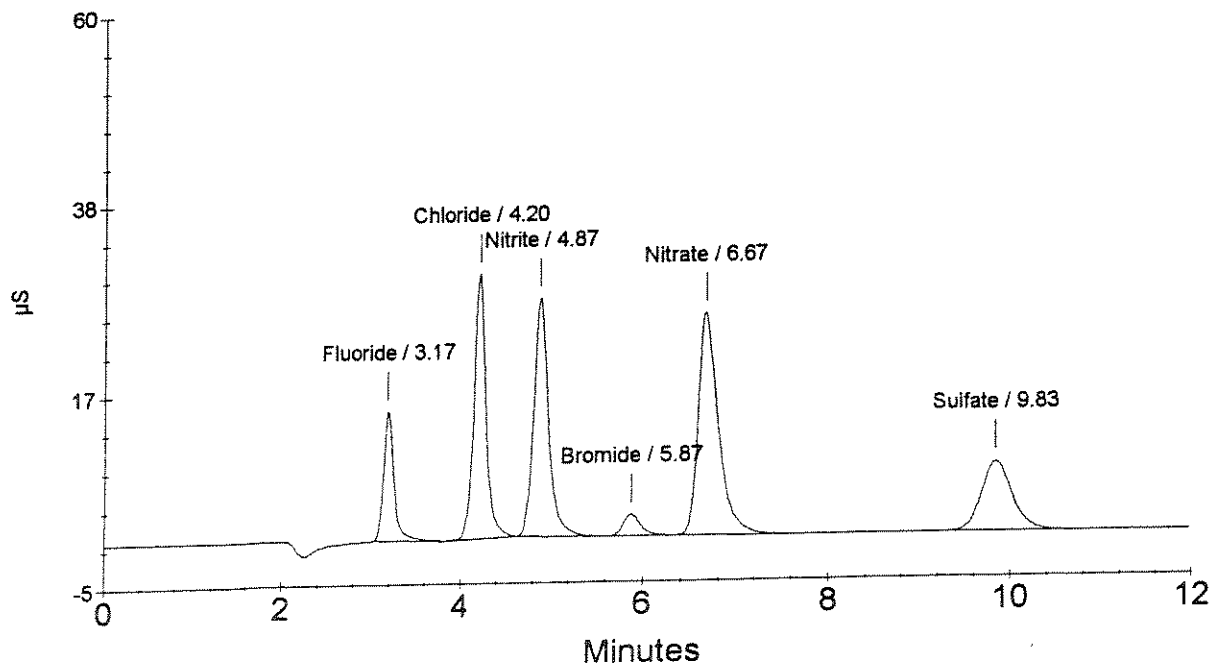
Data Collection Rate : 1.00 Hz  
Data Collection Period : 720.00 seconds  
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.17	Fluoride	1.998	1184978
2	4.20	Chloride	6.496	2808200
3	4.87	Nitrite	3.737	3108750
4	5.87	Bromide	2.036	308673
5	6.67	Nitrate	3.621	3756785
6	9.83	Sulfate	6.934	1836215

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7/18/08

ICV



Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14607

Sample Name : ICB  
 Data File Name : ...\\717\_011.DXD  
 Method File Name : ...\\20080717.met  
 Date Time Collected : 7/17/08 16:09:38

Detector Name :  
 Column ID : AS-14 (022939) AG-14 (022002)  
 Method Comment : Calibration 07.17.2008  
 Method Analyst : C. WOODS

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

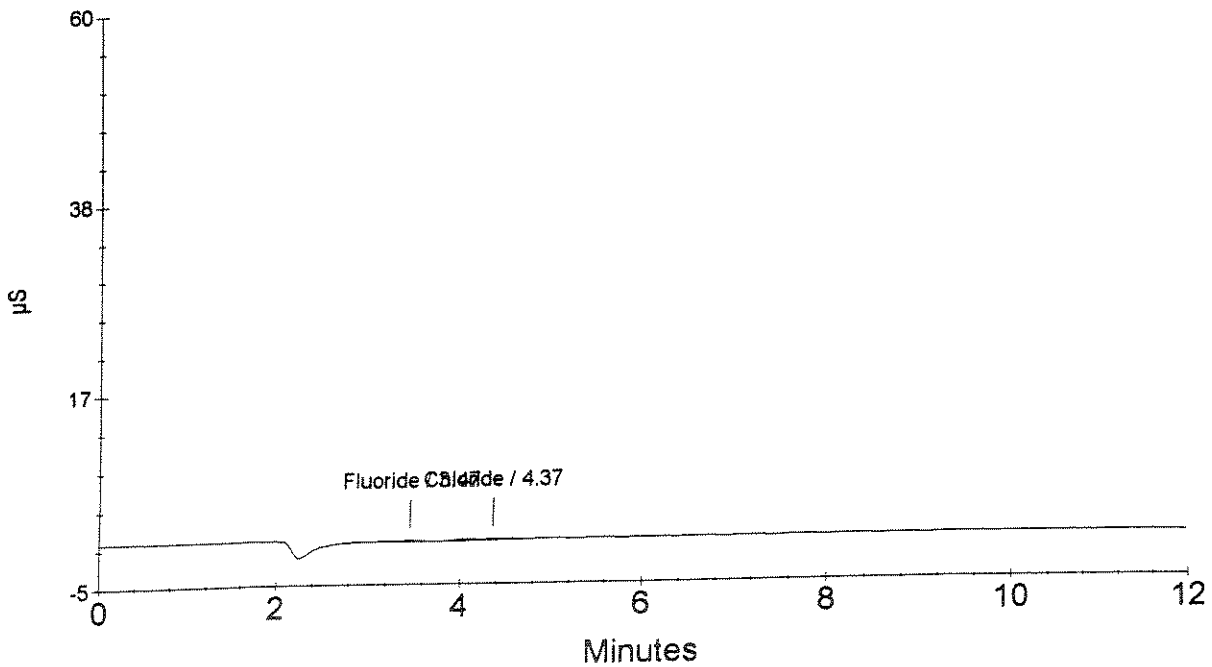
Data Collection Rate : 1.00 Hz  
 Data Collection Period : 720.00 seconds  
 Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.47	Fluoride	0.054	24277
2	4.37	Chloride	0.168	47386
		Nitrite		
		Bromide		
		Nitrate		
		Sulfate		

OK  
 ↓  
 CWS  
 7/18/08

ICB



Ion Chromatography Analytical Report  
Columbia Analytical Services  
Rochester, NY 14607

Sample Name : LCS  
Data File Name : ... \717\_012.DXD  
Method File Name : ... \20080717.met  
Date Time Collected : 7/17/08 16:23:56

Detector Name :  
Column ID : AS-14 (022939) AG-14 (022002)  
Method Comment : Calibration 07.17.2008  
Method Analyst : C. WOODS

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

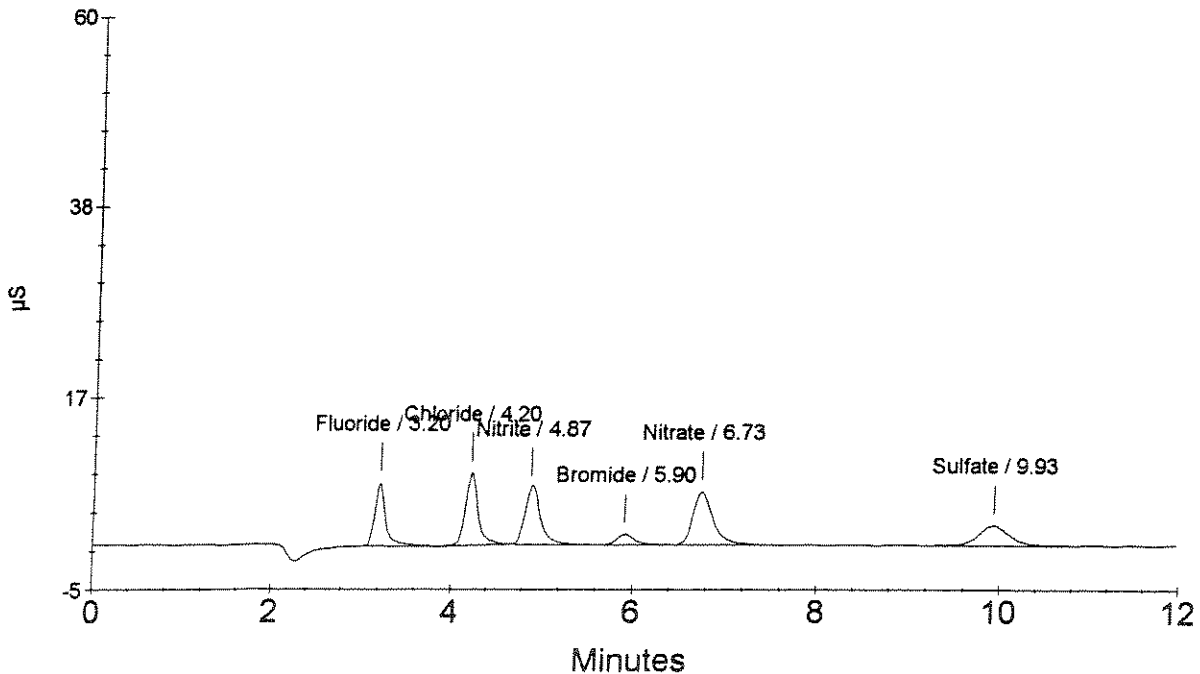
Data Collection Rate : 1.00 Hz  
Data Collection Period : 720.00 seconds  
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.20	Fluoride	0.994	585654
2	4.20	Chloride	1.901	803279
3	4.87	Nitrite	0.957	769074
4	5.90	Bromide	1.014	156717
5	6.73	Nitrate	0.933	902372
6	9.93	Sulfate	2.016	523638

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7/18/08

LCS



**Ion Chromatography Cover Sheet**

Instrument: Dionex 500DX Ion Chromatogram  
 Column: Dionex AS-14/AG-14, 4/10/2007

Curve Date: 07/17/08 Loop size: 100 uL

Analyst: C. Woods Analysis Date: 7-17-08

Is copy of LCS attached to run? YES / NO

**Standards Prep Dates & Log ID's:**

<i>Std Type</i>	<i>Prep Date</i>	<i>Log ID</i>		<i>Std Type</i>	<i>Prep Date</i>	<i>Log ID</i>
Calibration Intermediate	07/14/08	WC90011A		Working Calibration Stds	07/14/08	WC90011H
LCS / MS Intermediate	07/14/08	WC90011A		Working LCS/MS Standard	07/14/08	WC90051A
ICV Intermediate	06/23/08	WC90100A		Working ICV Standard	06/23/08	WC90100H
CCV Intermediate	06/23/08	WC90100A		Working CCV Standard	DAILY	WC90100H

**Comments:**

**CURVE EXPIRES 12/10/08**

**CALIBRATION INTERMEDIATE STOCK PREP**  
(used for Calibration and LCS / MS)

Analyte	1000ppm Stock ID	Conc. mg/L	mLs Stock	Final Vol. mL	Final Conc. mg/L	Analyst	Date Prepped	Lot ID	Exp. Date	Final Calibration Intermediate Stock ID
F	WC85091F	1000	10	200	50	CANW	7/14/08	A	12/10/08	WC90011A
Cl	WC85106C	1000	20		100			B		
NO2	WC72001J	1000	10		50			C		
Br	WC85160D	1000	10		50			D		
NO3	WC85170E	1000	10		50			E		
OPO4	—	1000	10		50			F		
SO4	WC72001Y	1000	20		100			G		

**WORKING CALIBRATION STANDARDS PREP**

(Stocks delivered using Volumetric glassware and brought to volume with DI. Expire after 7 days.)

Std #	Calibration Intermediate Stock ID	mLs Intermediate Stock	Final Vol. mLs	Final Std Conc.							Analyst	Date Prepped	Lot ID	Exp. Date	Final Log ID	
				F	Cl	NO2	Br	NO3	OPO4	SO4						
9		10.0	100	5.0	10.0	5.0	5.0	5.0	5.0	5.0	10.0	CANW	7/14/08	H	7/21/08	WC90011H
8		8.0		4.0	8.0	4.0	4.0	4.0	4.0	4.0	8.0			I		
7		2.0	5.0	2.5	5.0	2.5	2.5	2.5	2.5	2.5	5.0			J		
6		2.0		1.0	2.0	1.0	1.0	1.0	1.0	1.0	2.0			K		
5		1.0		0.5	1.0	0.50	0.50	0.50	0.50	0.50	1.0			L		
4		0.5		0.25	0.50	0.25	0.25	0.25	0.25	0.25	0.50			M		
3		0.2		0.10	0.20	0.10	0.10	0.10	0.10	0.10	0.20			N		
2		0.1		0.05	0.10	0.05	0.05	0.05	0.05	0.05	0.10			O		
1		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			P		



ICV / CCV INTERMEDIATE STOCK PREP

Analyte	ICV / CCV Stock ID	Conc. mg/L	mLs Stock	Final Vol. mL	Final Conc. mg/L	Analyst	Date Prepped	Lot ID	Exp. Date	Final ICV / CCV Intermediate Stock ID
F	WC85037C	1000	4.0	1000	4.0	TC	6/23/08	A	9/25/08	WC90100A
Cl	WC85106D	650	20.0		13.0			B		
NO2	WC72007F	180	40.0		7.2			C		
Br	WC85067D	1000	4.0		4.0			D		
NO3	WC72007N	180	40.0		7.2			E		
OPO4	—	180	40.0		7.2			F		
SO4	WC72006Y	3200	4.0		12.8			G		

WORKING ICV / CCV PREP  
(A 1:2 dilution of the Reference Intermediate Stock is done daily)

Analyte	ICV / CCV Intermediate Stock ID	Conc. mg/L	mLs Stock	Final Vol. mL	Final Conc. mg/L	Analyst	Date Prepped	Lot ID	Final Working ICV / CCV ID
F	WC90100A	4.0	5.0	20.0	1.0	TC	DAILY	H	WC90100H
Cl		13.0			3.25				
NO2		7.2			3.6				
Br		4.0			2.0				
NO3		7.2			3.6				
OPO4		7.2			3.6				
SO4		12.8			6.4				

81500

**WORKING LCS PREP**

(Stocks delivered using Volumetric glassware and brought to volume with DI. LCS expires after 7 days.)

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

Analyte	Calibration Intermediate Stock ID	Intermediate Stock Conc (mg/L)	mLs Intermediate Stock	Final Vol. mLs	Final Conc. (mg/L)	Analyst	Date Prepped	Lot ID	Exp. Date	Final Log ID
F	WC90011A	50	2.0	100	1.0	CMW	7/14/08	A	7/21/08	WC90051A
Cl		100			2.0			B		
NO2		50			1.0			C		
Br		50			1.0			D		
NO3		50			1.0			E		
OPO4		50			1.0			F		
SO4		100			2.0			G		
								H		
								I		
								J		
								K		
								L		
								M		
								N		
								O		
								P		
								Q		
								R		

Run #: 164560

Analyte: BROMIDE 9056

BROMIDE BY ION CHROMATOGRAPHY

Printed: 07/25/08 16:28

TYPE	SUBMISSION	ORDER #	MATRIX	REPORTED	DILUTION	PQL	% RECOVERY	% RSD	DATE	QC	PKG #
				RESULT					ANALYZED		
ESMP	R2844768	1113695	WATER	18.7	10.0	0.100			07/25/08		ASPB
CHK5		1120965	WATER	2.00	1.0	0.100	99.9		07/24/08		
BLK4		1120966	WATER	0.100	1.0	0.100			07/24/08		
SPKB		1120967	WATER	0.955	1.0	0.100	95.5		07/24/08		
ESMP	R2844768	1113697	WATER	21.2	10.0	0.100			07/25/08		ASPB
BLK5		1120964	SOIL/SEDIME	2.00	1.0	10.0			07/24/08		
ESMP	R2844797	1114366	SOIL/SEDIME	6.60	4.0	10.0			07/24/08		ASPB
ESMP	R2844797	1114376	SOIL/SEDIME	100	10.0	10.0			07/24/08		ASPB
ESMP	R2844797	1114379	SOIL/SEDIME	0.840	1.0	10.0			07/24/08		ASPB
ESMP	R2844797	1114380	SOIL/SEDIME	1.73	2.0	10.0			07/24/08	QC	ASPB
LDUP		1120968	SOIL/SEDIME	1.69	2.0	10.0			07/24/08		
SPK1		1120969	SOIL/SEDIME	16.6	2.0	10.0			07/24/08		
ESMP	R2844797	1114382	SOIL/SEDIME	0.920	1.0	10.0			07/24/08		ASPB
ESMP	R2844803	1114419	WATER	2880	2000.0	0.100			07/24/08		ASPB
ESMP	R2844803	1114420	WATER	2780	2000.0	0.100			07/25/08		ASPB
ESMP	R2844803	1114421	WATER	3270	2000.0	0.100			07/24/08	QC	ASPB
LDUP		1120970	WATER	3240	2000.0	0.100			07/24/08		
SPK1		1120971	WATER	5110	2000.0	0.100	91.9		07/24/08		
ESMP	R2844803	1114756	WATER	6750 <i>6720</i>	4000.0	0.100			07/24/08		ASPB
LDUP		1120972	WATER	6770	4000.0	0.100			07/24/08		
SPK1		1120973	WATER	10500	4000.0	0.100			07/24/08		

*83.1%*  
*830.5*  
*7/25/08*

*6720*  
*6750*  
*7/24/08*

*0.14*  
*0.25*

*94.0*  
*93.2*

Records printed: 21

ANALYTE: G:\STARLIMS\ASBAR.RP1

Page 1



System	Ident	Vial	Volume	Dilution	Amount	Internal Standard Amount	Level	Injections	Done	Sample Info 1	Sample Info 2
Columbia-no dilution.4.1116397		55	1.0	10.0	1.0	100.0	0	1	1	1 B	
Columbia-no dilution.4.MTD BLK 7/10/08		56	1.0	1.0	1.0	100.0	0	1	1	1 25g -> 250mL (CS)	
Columbia-no dilution.4.1116234		57	1.0	400.0	1.0	100.0	0	1	1	1 25g -> 250mL (CS)	
Columbia-no dilution.4.1116238		58	1.0	100.0	1.0	100.0	0	1	1	1 25g -> 250mL (S)	
Columbia-no dilution.4.1116238 DUP @ IC		59	1.0	100.0	1.0	100.0	0	1	1	1 25g -> 250mL (S)	
Columbia-no dilution.4.1116238 SPK @ IC		60	1.0	100.0	1.0	100.0	0	1	1	1 25g -> 250mL (S)	
Columbia-no dilution.4.1116265		61	1.0	40.0	1.0	100.0	0	1	1	1 25g -> 250mL (S)	
Columbia-no dilution.4.1116273		62	1.0	40.0	1.0	100.0	0	1	1	1 25g -> 250mL (S)	
Columbia-no dilution.4.1116274		63	1.0	40.0	1.0	100.0	0	1	1	1 25g -> 250mL (S)	
Columbia-no dilution.4.1116278		64	1.0	40.0	1.0	100.0	0	1	1	1 25g -> 250mL (S)	
Columbia-no dilution.4.1116279		65	1.0	100.0	1.0	100.0	0	1	1	1 25g -> 250mL (S)	
Columbia-no dilution.4.1116264		66	1.0	100.0	1.0	100.0	0	1	1	1 25g -> 250mL (C)	
Columbia-no dilution.4.CCV		67	1.0	1.0	1.0	100.0	0	1	1		
Columbia-no dilution.4.CCB		68	1.0	1.0	1.0	100.0	0	1	1		
Columbia-no dilution.4.LCS		69	1.0	1.0	1.0	100.0	0	1	1		
Columbia-no dilution.4.MTD BLK 7/14/08		70	1.0	1.0	1.0	100.0	0	1	1	1 25g -> 250mL (CS)	
Columbia-no dilution.4.1116802		71	1.0	1.0	1.0	100.0	0	1	1	1 25g -> 250mL (CS)	
Columbia-no dilution.4.1116803		72	1.0	1.0	1.0	100.0	0	1	1	1 25g -> 250mL (CS)	
Columbia-no dilution.4.1116804		73	1.0	100.0	1.0	100.0	0	1	1	1 25g -> 250mL (S)	
Columbia-no dilution.4.1116804 DUP @ IC		74	1.0	100.0	1.0	100.0	0	1	1	1 25g -> 250mL (S)	
Columbia-no dilution.4.1116804 SPK @ IC		75	1.0	100.0	1.0	100.0	0	1	1	1 25g -> 250mL (S)	
Columbia-no dilution.4.1116805		76	1.0	100.0	1.0	100.0	0	1	1	1 25g -> 250mL (S)	
Columbia-no dilution.4.1116806		77	1.0	100.0	1.0	100.0	0	1	1	1 25g -> 250mL (CS)	
Columbia-no dilution.4.1116806 DUP @ IC		78	1.0	100.0	1.0	100.0	0	1	1	1 25g -> 250mL (CS)	
Columbia-no dilution.4.1116806 SPK @ IC		79	1.0	100.0	1.0	100.0	0	1	1	1 25g -> 250mL (CS)	
Columbia-no dilution.4.1116807		80	1.0	2.0	1.0	100.0	0	1	1	1 25g -> 250mL (CS)	
Columbia-no dilution.4.1116808		81	1.0	1.0	1.0	100.0	0	1	1	1 25g -> 250mL (CS)	
Columbia-no dilution.4.1116809		82	1.0	1.0	1.0	100.0	0	1	1	1 25g -> 250mL (CS)	
Columbia-no dilution.4.1116810		83	1.0	1.0	1.0	100.0	0	1	1	1 25g -> 250mL (S)	
Columbia-no dilution.4.1116811		84	1.0	40.0	1.0	100.0	0	1	1	1 25g -> 250mL (S)	
Columbia-no dilution.4.CCV		85	1.0	1.0	1.0	100.0	0	1	1		
Columbia-no dilution.4.CCB		86	1.0	1.0	1.0	100.0	0	1	1		
Columbia-no dilution.4.1116812		87	1.0	4.0	1.0	100.0	0	1	1	1 25g -> 250mL (S)	
Columbia-no dilution.4.1116813		88	1.0	1.0	1.0	100.0	0	1	1	1 25g -> 250mL (CS)	
Columbia-no dilution.4.1116814		89	1.0	10.0	1.0	100.0	0	1	1	1 25g -> 250mL (S)	
Columbia-no dilution.4.1116815		90	1.0	20.0	1.0	100.0	0	1	1	1 25g -> 250mL (S)	
Columbia-no dilution.4.1116816		91	1.0	4.0	1.0	100.0	0	1	1	1 25g -> 250mL (S)	
Columbia-no dilution.4.1116817		92	1.0	10.0	1.0	100.0	0	1	1	1 25g -> 250mL (S)	
Columbia-no dilution.4.1116818		93	1.0	4.0	1.0	100.0	0	1	1	1 25g -> 250mL (S)	
Columbia-no dilution.4.1116819		94	1.0	4.0	1.0	100.0	0	1	1	1 25g -> 250mL (S)	
Columbia-no dilution.4.WEX-0208-SB		95	1.0	10.0	1.0	100.0	0	1	1	1 CBNS	
Columbia-no dilution.4.WEX-0208-SB DUP		96	1.0	10.0	1.0	100.0	0	1	1	1 CBNS	
Columbia-no dilution.4.WEX-0208-SB SPK		97	1.0	10.0	1.0	100.0	0	1	1	1 CBNS	
Columbia-no dilution.4.WEX-0208-UT		98	1.0	10.0	1.0	100.0	0	1	1	1 CBNS	
Columbia-no dilution.4.CCV		99	1.0	1.0	1.0	100.0	0	1	1		
Columbia-no dilution.4.CCB		100	1.0	1.0	1.0	100.0	0	1	1		
Columbia-no dilution.4.LCS		101	1.0	1.0	1.0	100.0	0	1	1		
Columbia-no dilution.4.WEX-0208-LL		102	1.0	10.0	1.0	100.0	0	1	1	1 CBNS	
Columbia-no dilution.4.WEX-0214-SB		103	1.0	10.0	1.0	100.0	0	1	1	1 CBNS	
Columbia-no dilution.4.WEX-0214-UT		104	1.0	10.0	1.0	100.0	0	1	1	1 CBNS	
Columbia-no dilution.4.WEX-0214-LL		105	1.0	10.0	1.0	100.0	0	1	1	1 CBNS	
Columbia-no dilution.4.1114420		21	1.0	2000.0	1.0	100.0	0	1	1	1 B	
Columbia-no dilution.4.CCV		106	1.0	1.0	1.0	100.0	0	1	1		
Columbia-no dilution.4.CCB		107	1.0	1.0	1.0	100.0	0	1	1		



Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14609  
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 Ident: CCV  
 Analysis from: 7/24/2008 11:39:29  
 File: S7241139.CHW

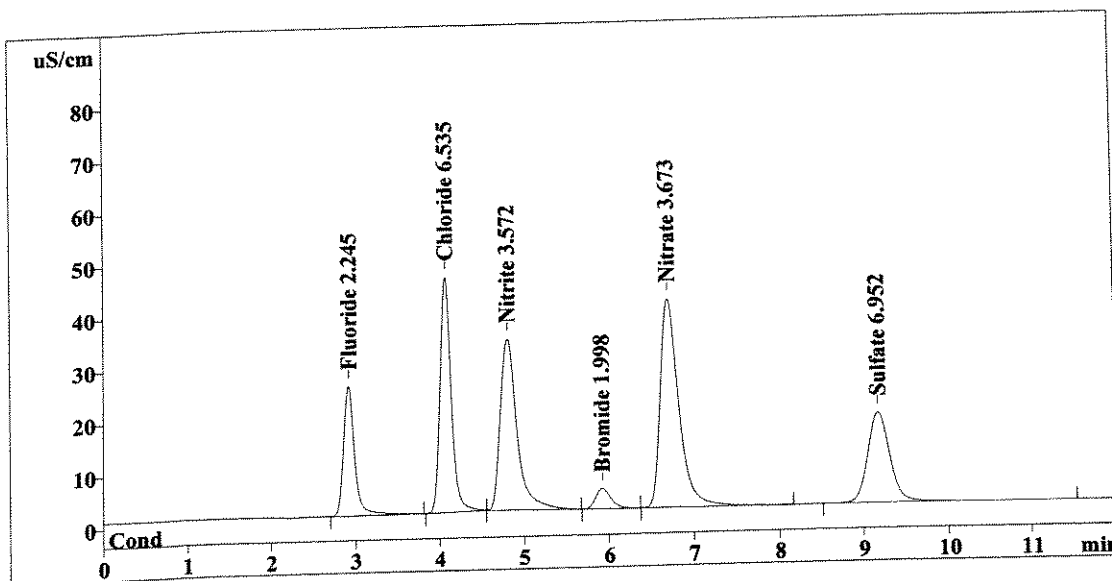
Method 300.0/9056

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Last save: 7/24/2008 11:35:17

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38633  
 SAMPLE:  
 Vial number: 1  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.91	227.805	2.245	Fluoride
2	4.07	417.779	6.535	Chloride
3	4.81	444.801	3.572	Nitrite
4	5.92	48.940	1.998	Bromide
5	6.71	596.762	3.673	Nitrate
6	9.18	312.400	6.952	Sulfate
6	12.00	2048.488	24.975	

*Handwritten signature and date: 7/24/08*

This report has been created by IC Net  
 METROHM LTD

Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14609

Method 300.0/9056

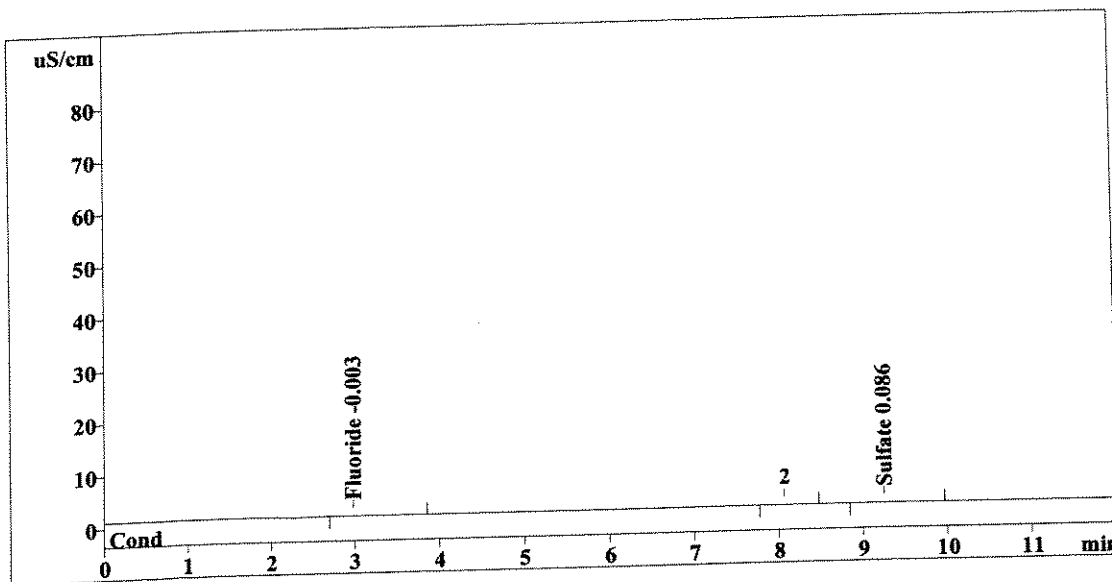
Report date: 7/24/2008 12:05:33  
 Printed by: User  
 Ident: CCB  
 Analysis from: 7/24/2008 11:53:35  
 File: S7241153.CHW

Last save: 7/24/2008 12:05:33

Last save: 7/24/2008 11:35:17

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38634  
 SAMPLE:  
 Vial number: 2  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.99	0.523	-0.003	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	0.00	0.000	0.000	Nitrate
6	9.24	0.468	0.086	Sulfate
6	12.00	0.991	0.089	

OK  
 ↓  
 CCB  
 7/24/08

This report has been created by IC Net  
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Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14609

Method 300.0/9056

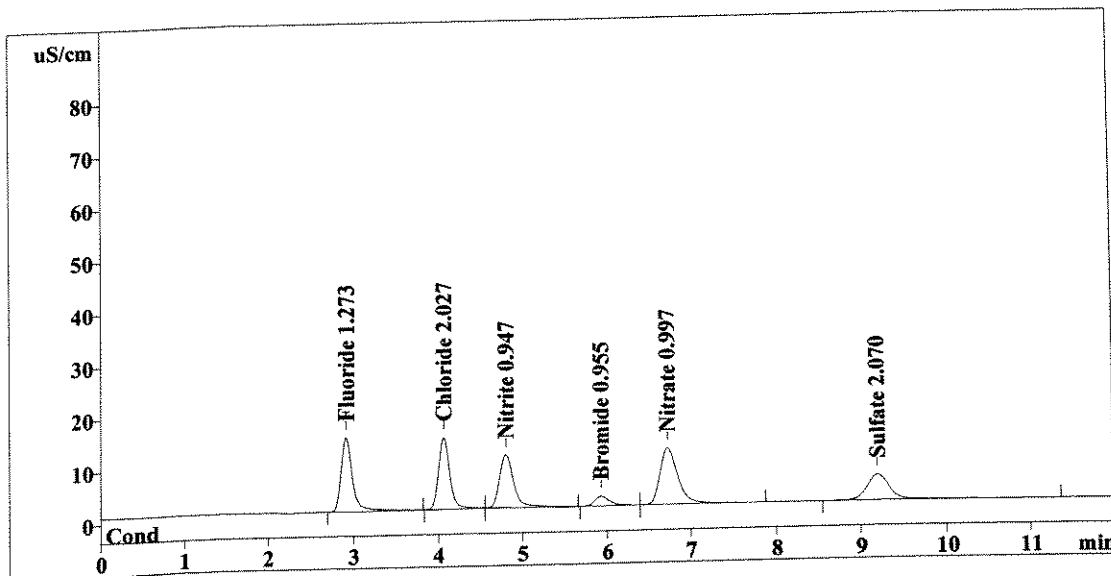
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 Analysis from: 7/24/2008 12:07:41  
 File: S7241207.CHW

Last save: 7/24/2008 12:19:39

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38635  
 SAMPLE:  
 Vial number: 3  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.91	129.524	1.273	Fluoride
2	4.06	126.550	2.027	Chloride
3	4.80	116.953	0.947	Nitrite
4	5.93	22.632	0.955	Bromide
5	6.73	157.642	0.997	Nitrate
6	9.20	90.612	2.070	Sulfate
6	12.00	643.913	8.268	

Handwritten annotations: a checkmark, a downward arrow, and a signature 'CJM 7/24/08'.

This report has been created by IC Net  
 METROHM LTD



Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14609

Method 300.0/9056

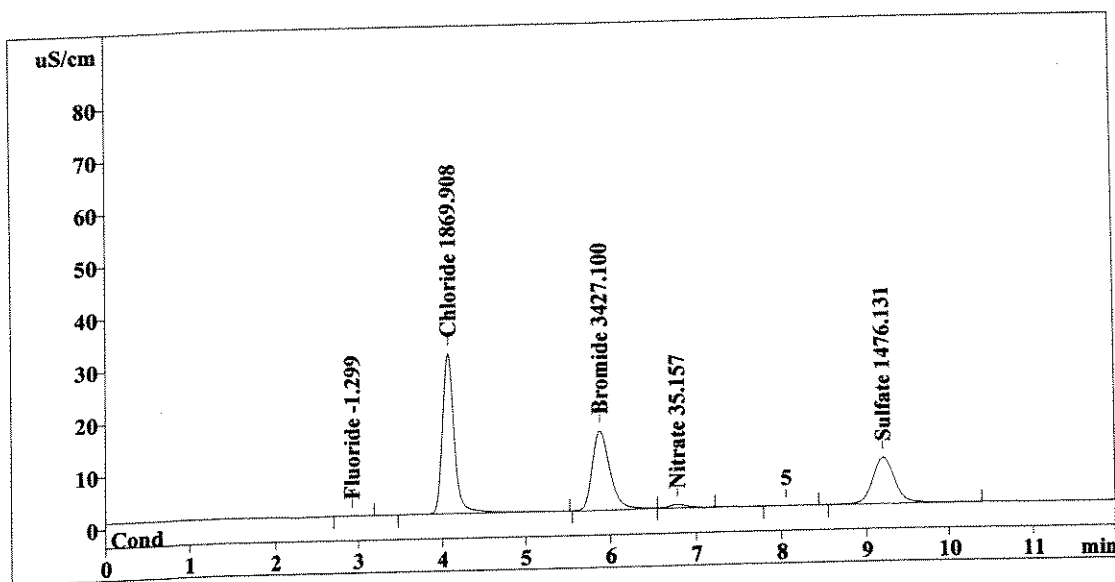
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 Analysis from: 7/24/2008 12:21:46  
 File: S7241221.CHW

Last save: 7/24/2008 12:33:45

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38636  
 SAMPLE: B  
 Vial number: 4  
 Volume: 1.0 µL  
 Dilution: 400.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.92	0.500	-1.299	Fluoride
2	4.06	297.594	1869.908	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.88	214.544	3427.100	Bromide
5	6.78	8.510	35.157	Nitrate
6	9.21	164.220	1476.131	Sulfate
6	12.00	685.367	6809.595	

*mt 1/2000*  
*7/24/08*

This report has been created by IC Net  
 METROHM LTD

Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14609

Method 300.0/9056

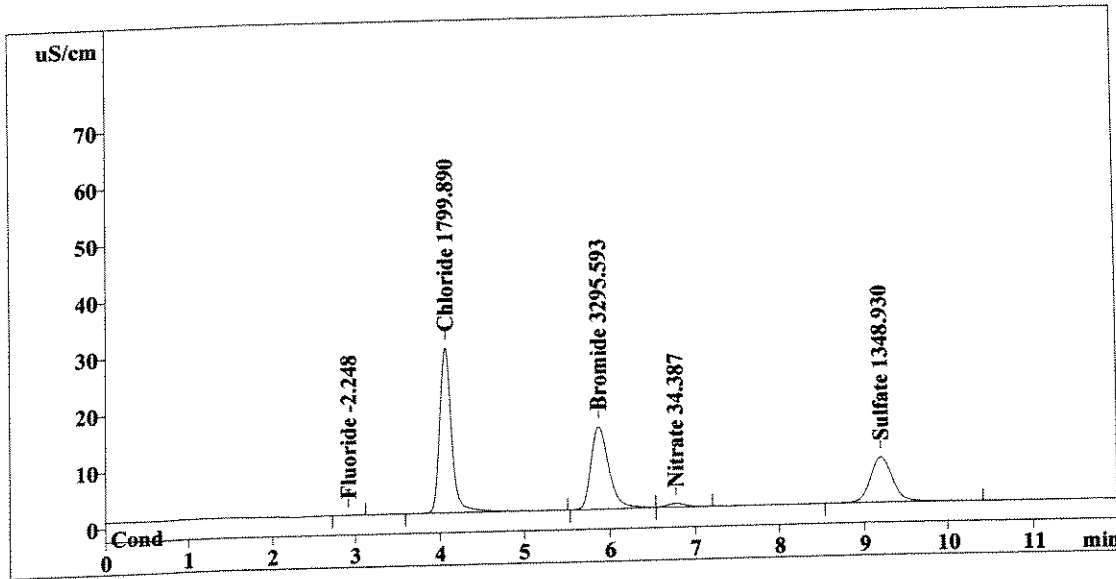
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 Ident: 1114420  
 Analysis from: 7/24/2008 12:35:52  
 File: S7241235.CHW

Last save: 7/24/2008 12:47:50

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38637  
 SAMPLE: B  
 Vial number: 5  
 Volume: 1.0 µL  
 Dilution: 400.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.92	0.260	-2.248	Fluoride
2	4.06	286.285	1799.890	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.88	206.256	3295.593	Bromide
5	6.77	8.194	34.387	Nitrate
6	9.21	149.773	1348.930	Sulfate
6	12.00	650.768	6481.048	

*1/2000*

*7/24/08*

This report has been created by IC Net  
 METROHM LTD

Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14609

Method 300.0/9056

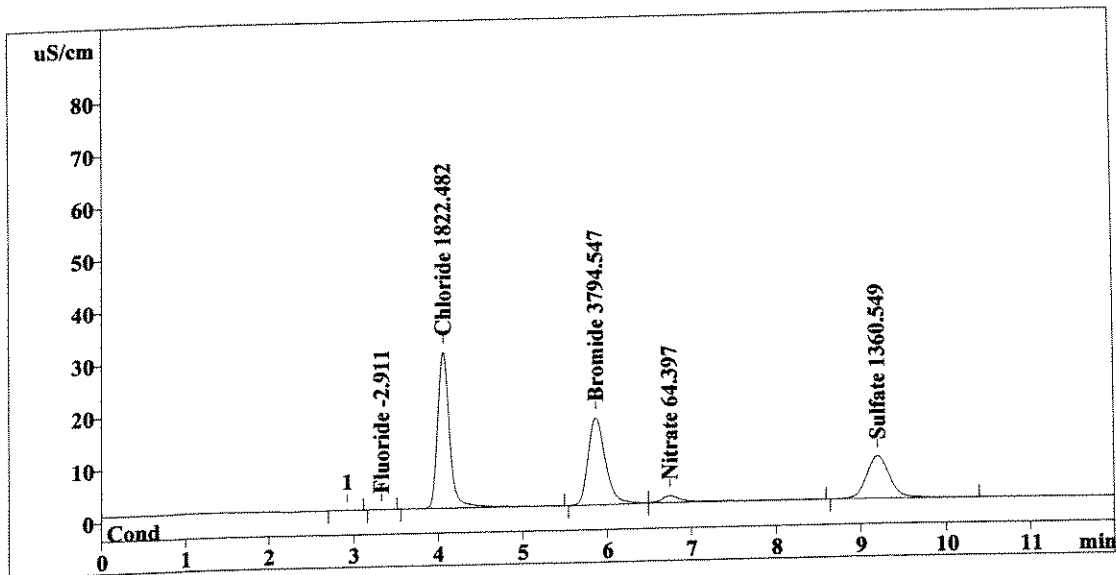
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 Printed by: User  
 Ident: 1114421  
 Analysis from: 7/24/2008 12:49:58  
 File: S7241249.CHW

Last save: 7/24/2008 13:01:56

Last save: 7/24/2008 11:35:17

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38638  
 SAMPLE: B  
 Vial number: 6  
 Volume: 1.0 µL  
 Dilution: 400.00  
 Amount: 1.0000

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.33	0.092	-2.911	Fluoride
2	4.06	289.934	1822.482	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.87	237.700	3794.547	Bromide
5	6.75	20.504	64.397	Nitrate
6	9.20	151.093	1360.549	Sulfate
6		12.00	699.324	7044.886

*Handwritten signature and date: 7/24/08*

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Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14609

Method 300.0/9056

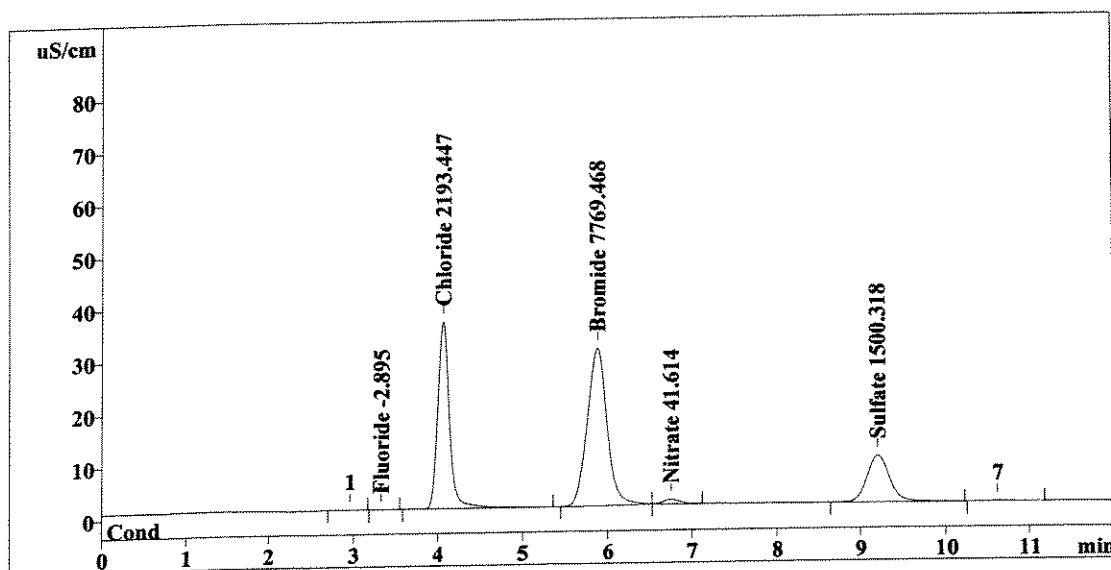
Report date: 7/24/2008 13:16:02  
 Printed by: User  
 Ident: 1114756  
 Analysis from: 7/24/2008 13:04:04  
 File: S7241304.CHW

Last save: 7/24/2008 13:16:02

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38639  
 SAMPLE: B  
 Vial number: 7  
 Volume: 1.0 µL  
 Dilution: 400.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.33	0.096	-2.895	Fluoride
2	4.06	349.852	2193.447	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.88	488.200	7769.468	Bromide
5	6.75	11.158	41.614	Nitrate
6	9.21	166.966	1500.318	Sulfate
6	12.00	1016.274	11507.742	

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Method 300.0/9056

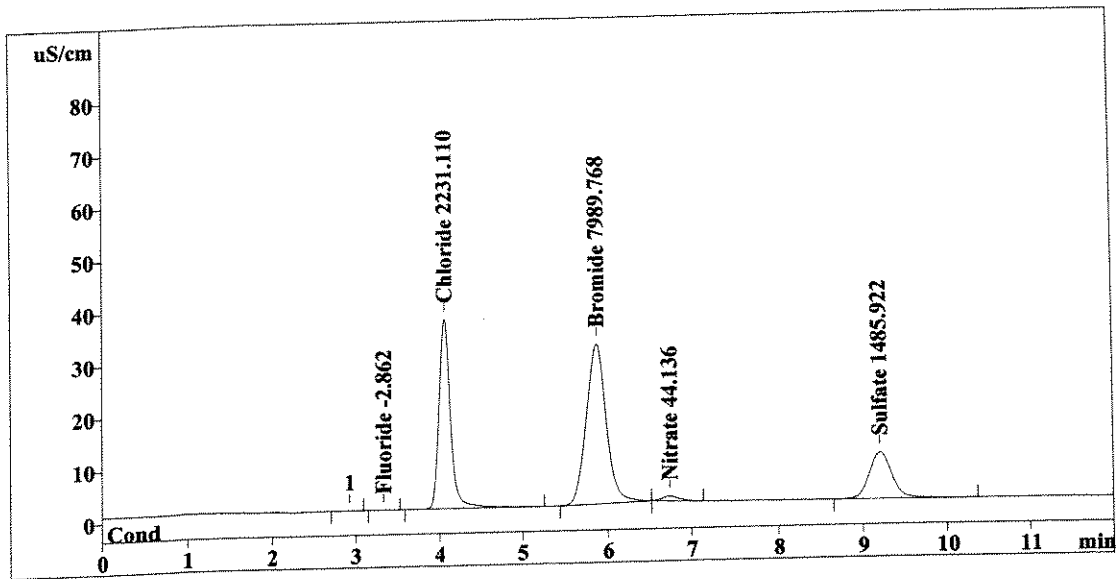
Report date: 7/24/2008 13:30:08  
 Printed by: User  
 Ident: 1114756 DUP  
 Analysis from: 7/24/2008 13:18:10  
 File: S7241318.CHW

Last save: 7/24/2008 13:30:08

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38640  
 SAMPLE: B  
 Vial number: 8  
 Volume: 1.0 µL  
 Dilution: 400.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.33	0.105	-2.862	Fluoride
2	4.06	355.936	2231.110	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.87	502.083	7989.768	Bromide
5	6.75	12.193	44.136	Nitrate
6	9.21	165.331	1485.922	Sulfate
6	12.00	1035.648	11753.797	

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Method 300.0/9056

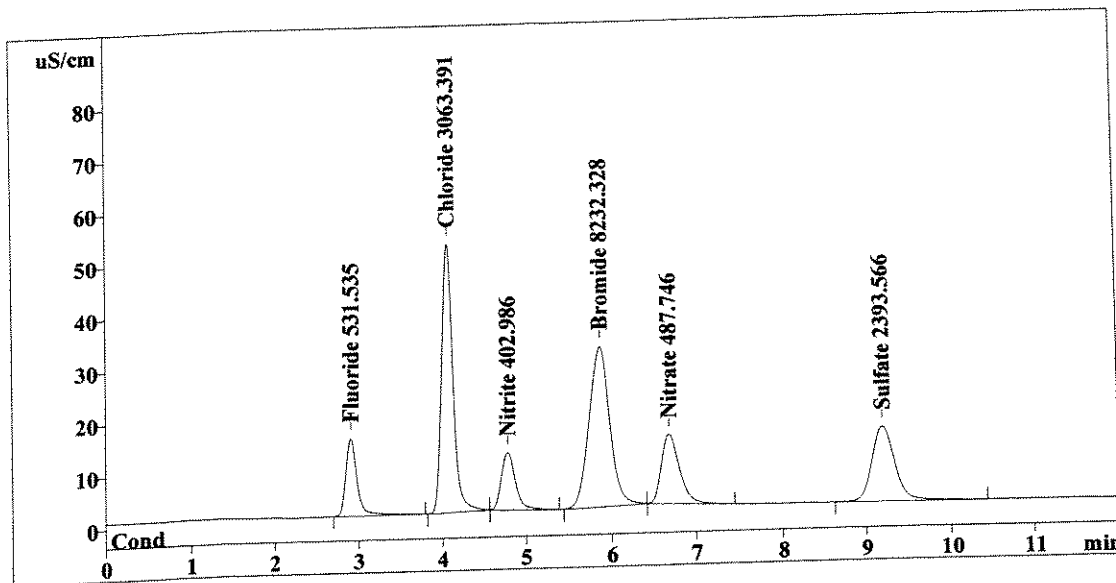
Report date: 7/24/2008 13:44:14  
 Printed by: User  
 Ident: 1114756 SPK  
 Analysis from: 7/24/2008 13:32:16  
 File: S7241332.CHW

Last save: 7/24/2008 13:44:14

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38641  
 SAMPLE: B  
 Vial number: 9  
 Volume: 1.0 µL  
 Dilution: 400.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.90	135.202	531.535	Fluoride
2	4.06	490.366	3063.391	Chloride
3	4.78	124.516	402.986	Nitrite
4	5.87	517.370	8232.328	Bromide
5	6.69	194.167	487.746	Nitrate
6	9.20	268.411	2393.566	Sulfate
6	12.00	1730.032	15111.552	

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Method 300.0/9056

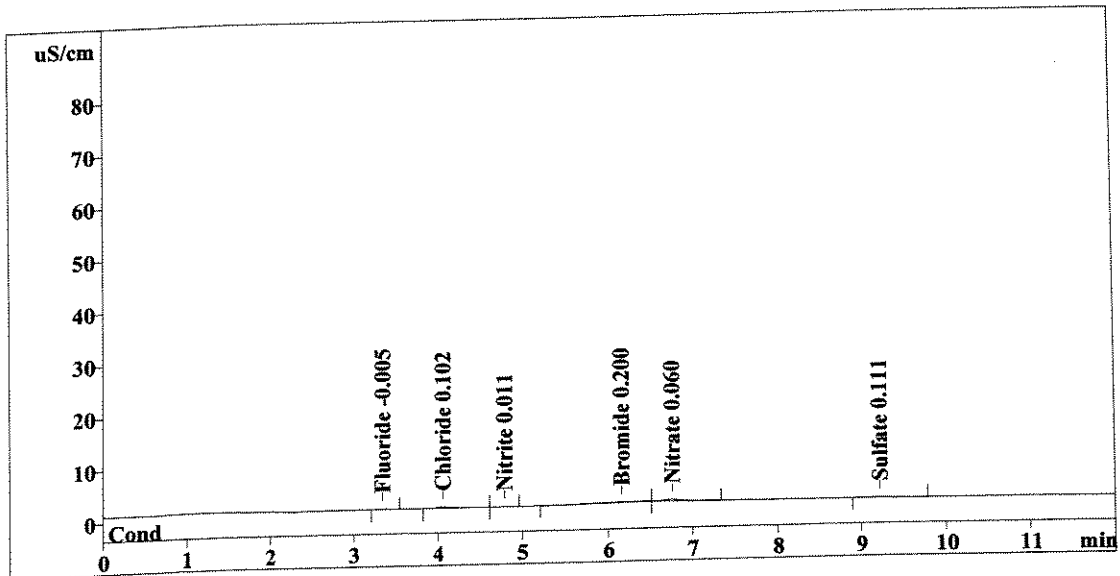
Report date: 7/24/2008 13:58:20  
 Printed by: User  
 Ident: MTD BLK 7/2/08  
 Analysis from: 7/24/2008 13:46:22  
 File: S7241346.CHW

Last save: 7/24/2008 13:58:20

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38642  
 SAMPLE: 2.5g -> 250mL (B) ; results x 10  
 Vial number: 10  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.34	0.307	-0.005	Fluoride
2	4.06	2.175	0.102	Chloride
3	4.79	0.055	0.011	Nitrite
4	6.15	3.612	0.200	Bromide
5	6.76	3.905	0.060	Nitrate
6	9.23	1.622	0.111	Sulfate
<hr/>				
6	12.00	11.676	0.489	

*OK*  
*7/24/08*

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Method 300.0/9056

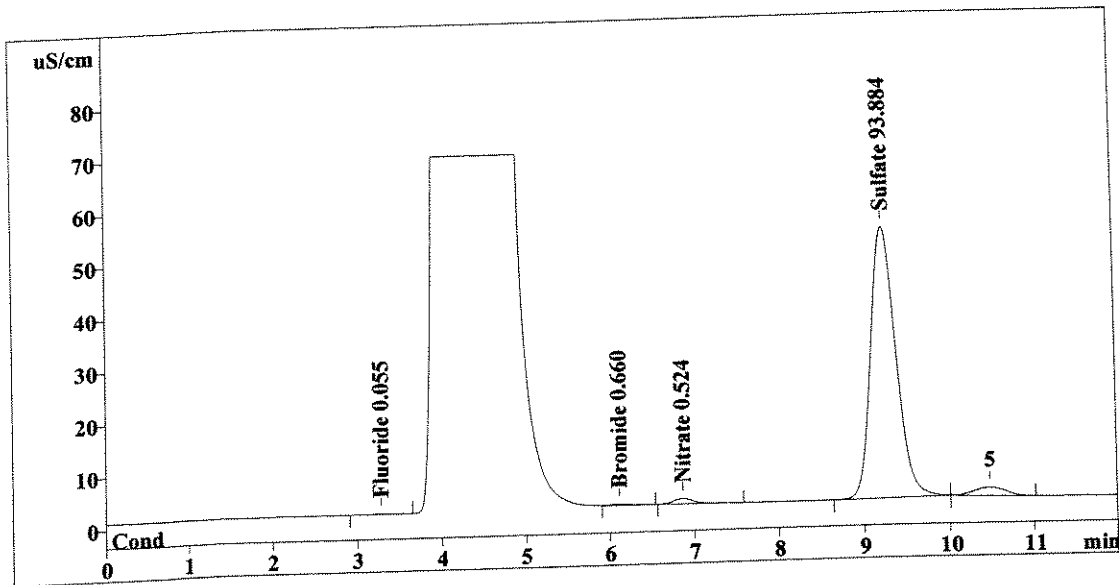
Report date: 7/24/2008 14:12:26  
 Printed by: User  
 Ident: 1114366  
 Analysis from: 7/24/2008 14:00:28  
 File: S7241400.CHW

Last save: 7/24/2008 14:12:26

Last save: 7/24/2008 11:35:17

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38643  
 SAMPLE: 2.5g -> 250mL (B)  
 Vial number: 11  
 Volume: 1.0 µL  
 Dilution: 4.00  
 Amount: 1.0000

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.28	2.211	0.055	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.12	2.727	0.660	Bromide
5	6.87	15.573	0.524	Nitrate
6	9.26	1062.801	93.884	Sulfate
6	12.00	1083.312	95.122	

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Method 300.0/9056

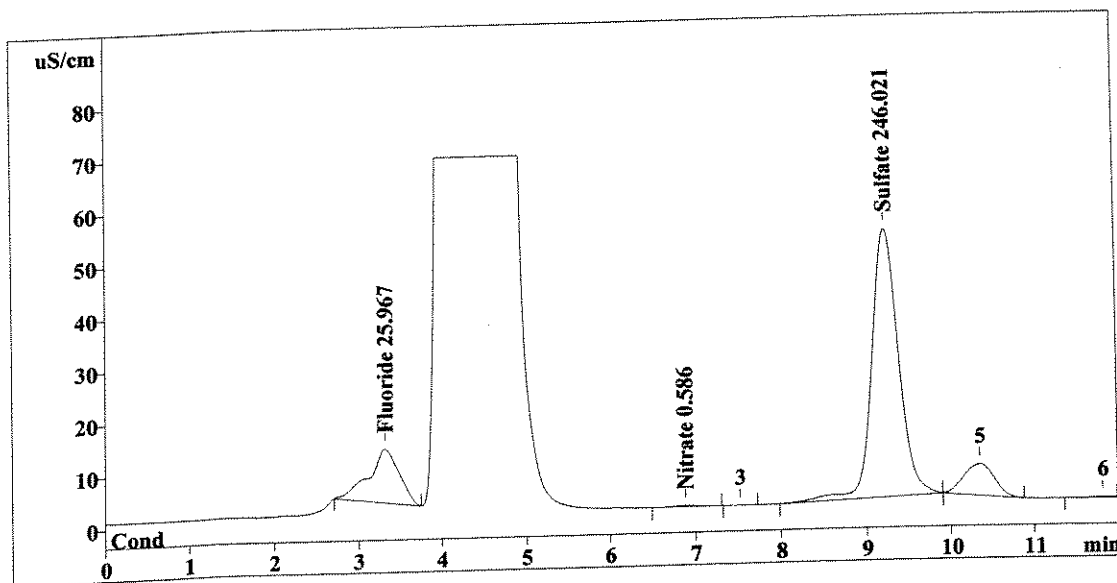
Report date: 7/24/2008 14:26:32  
 Printed by: User  
 Ident: 1114376  
 Analysis from: 7/24/2008 14:14:34  
 File: S7241414.CHW

Last save: 7/24/2008 14:26:32

Last save: 7/24/2008 11:35:17

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38644  
 SAMPLE: 2.5g -> 250mL (B)  
 Vial number: 12  
 Volume: 1.0 µL  
 Dilution: 10.00  
 Amount: 1.0000

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.32	263.415	25.967	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.89	3.697	0.586	Nitrate
6	9.25	1114.187	246.021	Sulfate
6	12.00	1381.299	272.574	

*OK*  
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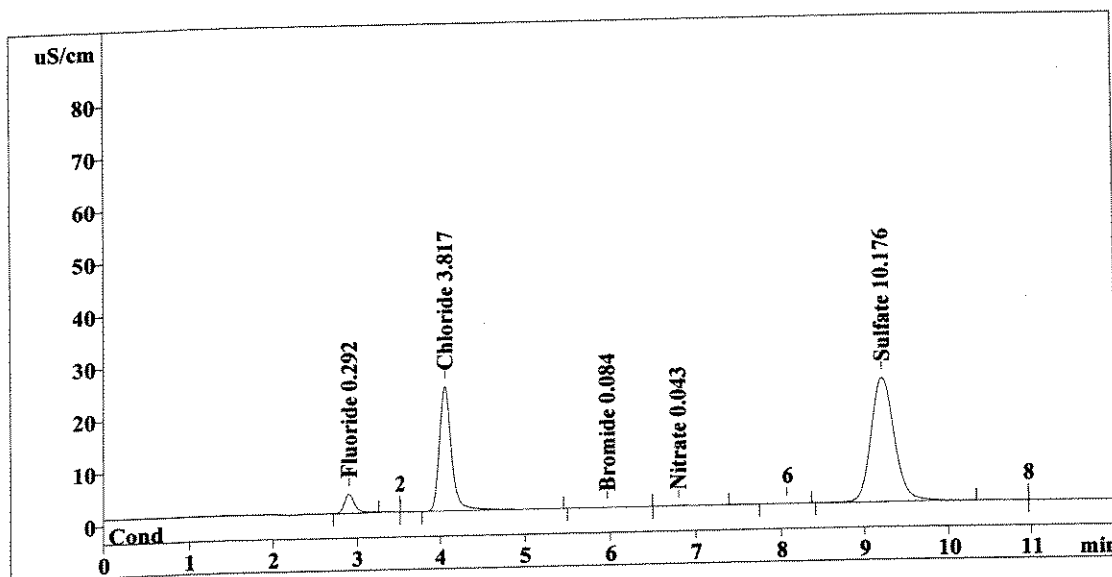
Report date: 7/24/2008 14:40:37  
 Printed by: User  
 Ident: 1114379  
 Analysis from: 7/24/2008 14:28:39  
 File: S7241428.CHW

Last save: 7/24/2008 14:40:38

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38645  
 SAMPLE: 2.5g -> 250mL (B)  
 Vial number: 13  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.90	30.346	0.292	Fluoride
2	4.05	242.153	3.817	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.97	0.692	0.084	Bromide
5	6.80	1.131	0.043	Nitrate
6	9.22	458.858	10.176	Sulfate
<hr/>				
6	12.00	733.181	14.412	

*OK*  
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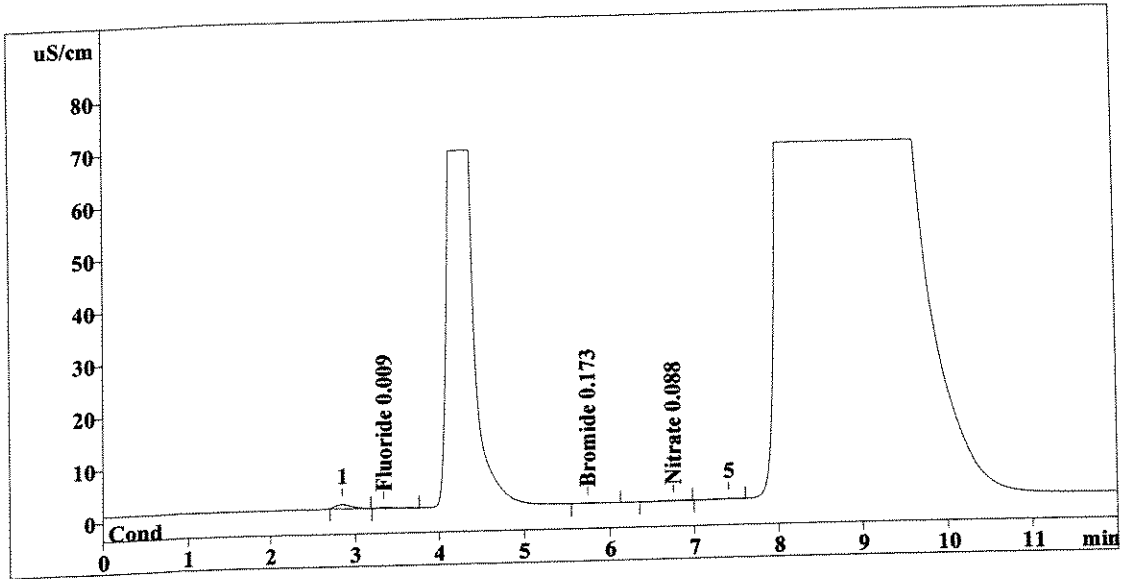
Report date: 7/24/2008 14:54:43  
 Printed by: User  
 Ident: 1114380  
 Analysis from: 7/24/2008 14:42:45  
 File: S7241442.CHW

Last save: 7/24/2008 14:54:43

Last save: 7/24/2008 11:35:17

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38646  
 SAMPLE: 2.5g -> 250mL (B)  
 Vial number: 14  
 Volume: 1.0 µL  
 Dilution: 2.00  
 Amount: 1.0000

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.34	1.299	0.009	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.74	0.746	0.173	Bromide
5	6.74	1.280	0.088	Nitrate
6	0.00	0.000	0.000	Sulfate
6	12.00	3.325	0.270	

*OK*  
*7/24/08*

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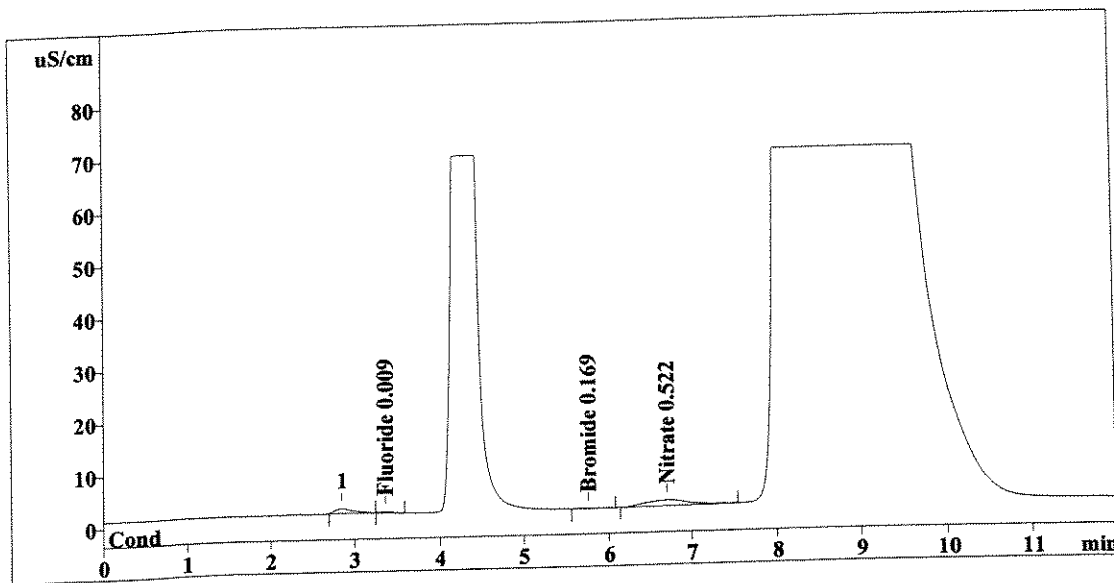
Report date: 7/24/2008 15:08:49  
 Printed by: User  
 Ident: 1114380 DUP  
 Analysis from: 7/24/2008 14:56:51  
 File: S7241456.CHW

Last save: 7/24/2008 15:08:49

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38647  
 SAMPLE: 2.5g -> 250mL (B)  
 Vial number: 15  
 Volume: 1.0 µL  
 Dilution: 2.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.35	1.298	0.009	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.75	0.703	0.169	Bromide
5	6.70	36.899	0.522	Nitrate
6	0.00	0.000	0.000	Sulfate
6	12.00	38.900	0.701	

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Method 300.0/9056

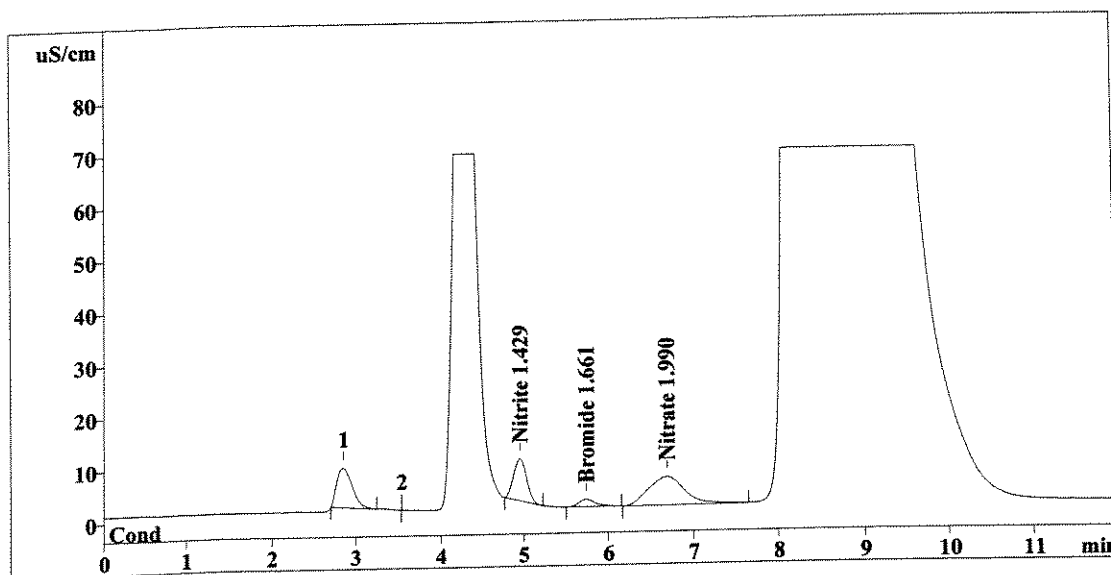
Report date: 7/24/2008 15:22:55  
 Printed by: User  
 Ident: 1114380 SPK  
 Analysis from: 7/24/2008 15:10:57  
 File: S7241510.CHW

Last save: 7/24/2008 15:22:55

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38648  
 SAMPLE: 2.5g -> 250mL (B)  
 Vial number: 16  
 Volume: 1.0 µL  
 Dilution: 2.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	0.00	0.000	0.000	Fluoride
2	0.00	0.000	0.000	Chloride
3	4.95	87.929	1.429	Nitrite
4	5.74	19.502	1.661	Bromide
5	6.68	157.353	1.990	Nitrate
6	0.00	0.000	0.000	Sulfate
<hr/>				
6	12.00	264.783	5.080	

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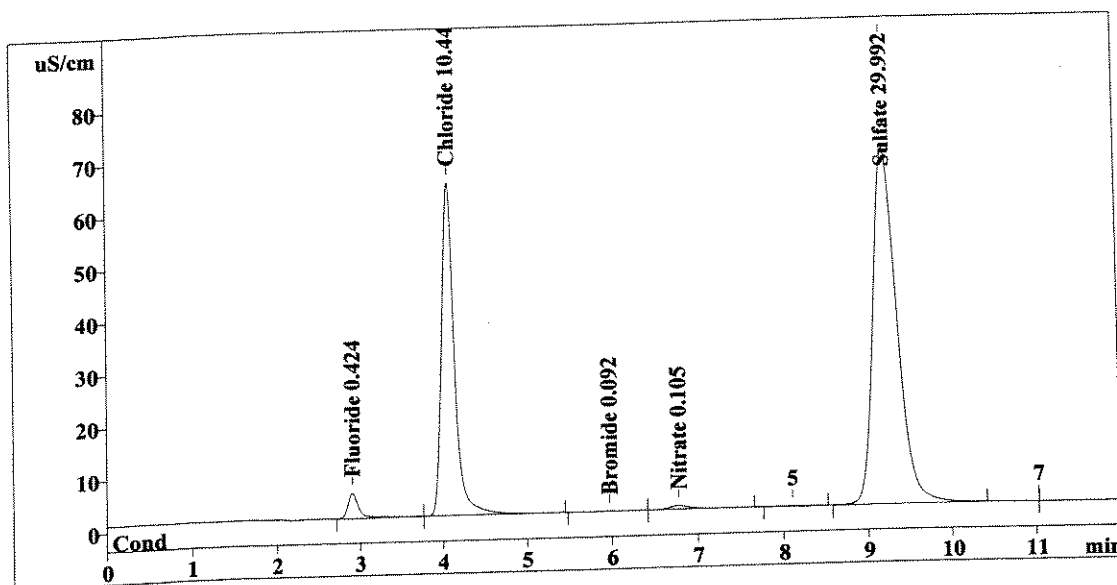
Report date: 7/24/2008 15:37:01  
 Printed by: User  
 Ident: 1114382  
 Analysis from: 7/24/2008 15:25:02  
 File: S7241525.CHW

Last save: 7/24/2008 15:37:01

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38649  
 SAMPLE: 2.5g -> 250mL (B)  
 Vial number: 17  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.90	43.732	0.424	Fluoride
2	4.06	670.678	10.449	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.98	0.899	0.092	Bromide
5	6.78	11.296	0.105	Nitrate
6	9.23	1359.035	29.992	Sulfate
6	12.00	2085.639	41.063	

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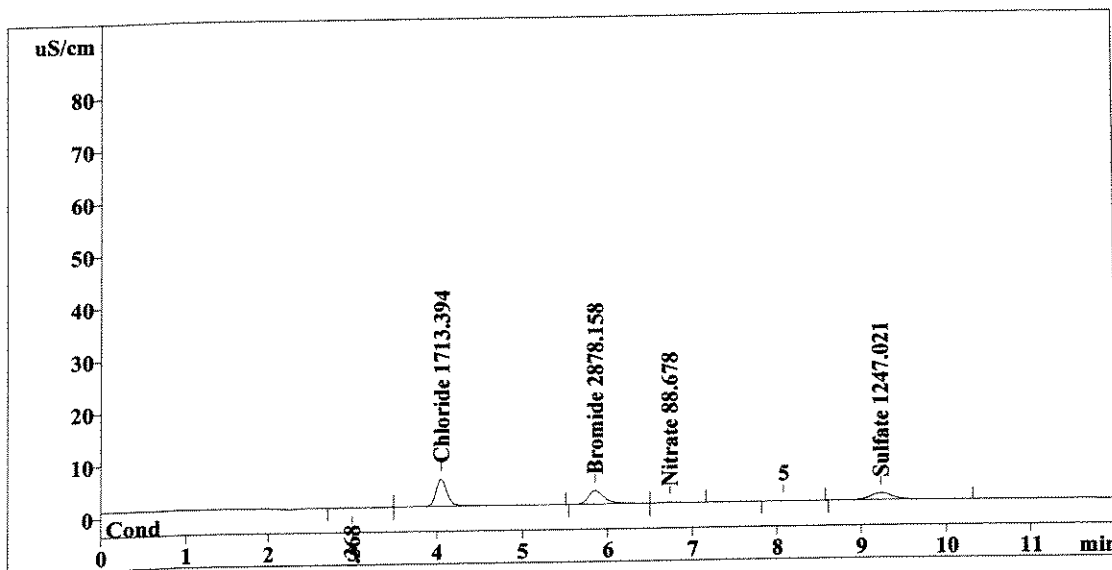
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 Printed by: User  
 Ident: 1114419  
 Analysis from: 7/24/2008 15:39:08  
 File: S7241539.CHW

Last save: 7/24/2008 15:51:07

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38650  
 SAMPLE: B  
 Vial number: 18  
 Volume: 1.0 µL  
 Dilution: 2000.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.99	0.304	-10.368	Fluoride
2	4.05	50.916	1713.394	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.85	34.844	2878.158	Bromide
5	6.73	1.363	88.678	Nitrate
6	9.23	24.902	1247.021	Sulfate
6	12.00	112.329	5937.619	

*OK*  
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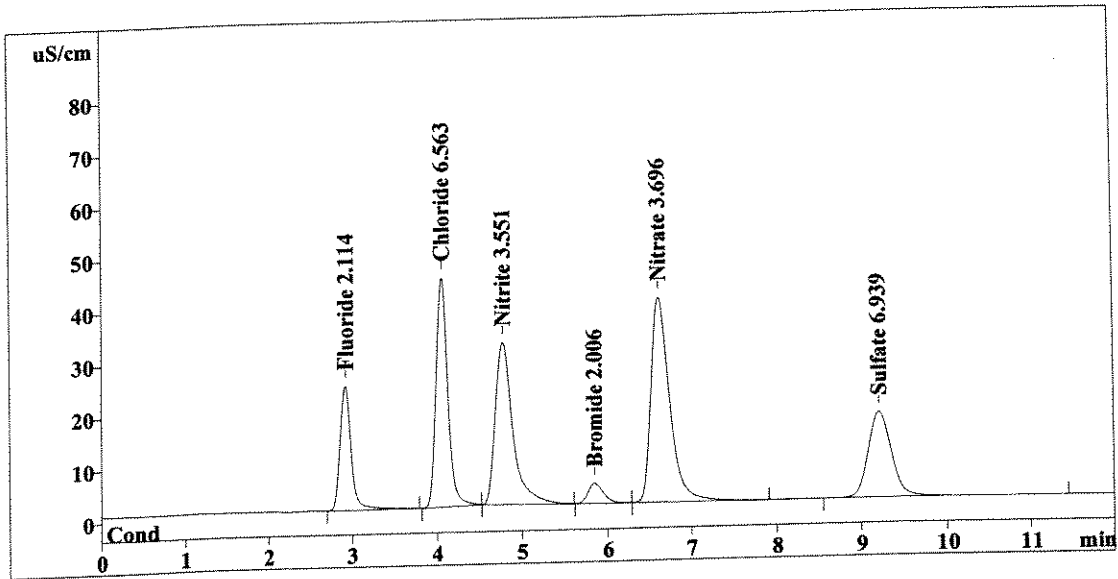
Report date: 7/24/2008 16:05:13  
 Printed by: User  
 Ident: CCV  
 Analysis from: 7/24/2008 15:53:14  
 File: S7241553.CHW

Last save: 7/24/2008 16:05:13

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38651  
 SAMPLE:  
 Vial number: 19  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.91	214.624	2.114	Fluoride
2	4.05	419.609	6.563	Chloride
3	4.77	442.262	3.551	Nitrite
4	5.84	49.129	2.006	Bromide
5	6.62	600.508	3.696	Nitrate
6	9.22	311.797	6.939	Sulfate
<hr/>				
6	12.00	2037.929	24.869	

Handwritten annotations: a checkmark (✓) next to the Chloride row, a downward arrow (↓) pointing to the Bromide row, and a signature 'C. J. 7/24/08' at the bottom of the table.

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Method 300.0/9056

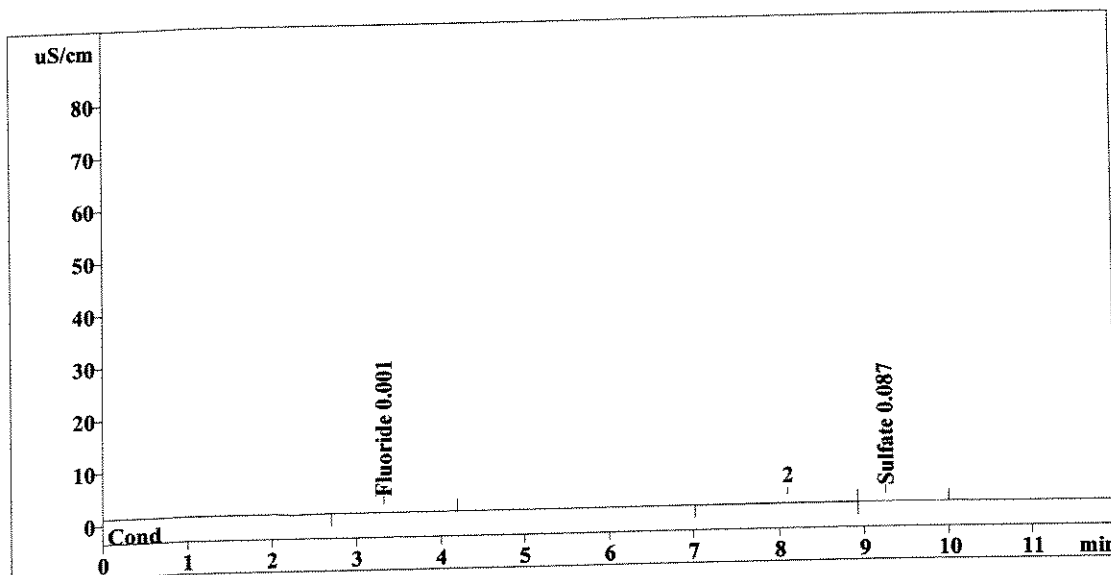
Report date: 7/24/2008 16:19:18  
 Printed by: User  
 Ident: CCB  
 Analysis from: 7/24/2008 16:07:20  
 File: S7241607.CHW

Last save: 7/24/2008 16:19:19

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38652  
 SAMPLE:  
 Vial number: 20  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.33	0.898	0.001	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	0.00	0.000	0.000	Nitrate
6	9.26	0.529	0.087	Sulfate
<hr/>				
6	12.00	1.427	0.088	

*OK*  
 ↓  
*7/24/08*

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Method 300.0/9056

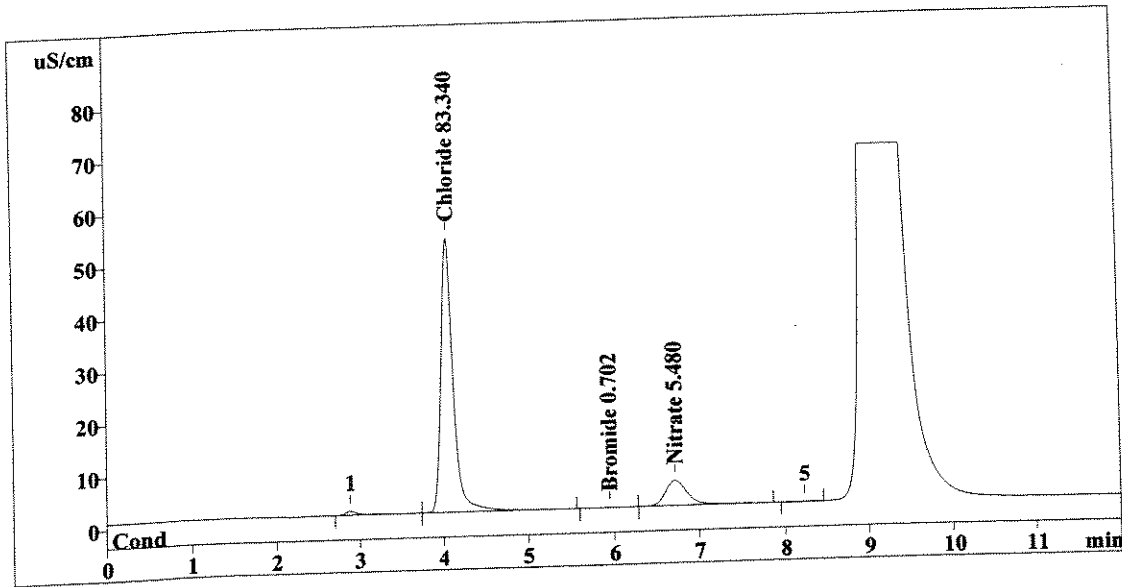
Report date: 7/24/2008 16:33:24  
 Printed by: User  
 Ident: OUTFALL 001  
 Analysis from: 7/24/2008 16:21:26  
 File: S7241621.CHW

Last save: 7/24/2008 16:33:25

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38653  
 SAMPLE: NO3, NO2, S  
 Vial number: 108  
 Volume: 1.0 µL  
 Dilution: 10.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	0.00	0.000	0.000	Fluoride
2	4.04	534.009	83.340	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.94	0.337	0.702	Bromide
5	6.72	84.008	5.480	Nitrate
6	0.00	0.000	0.000	Sulfate
<hr/>			89.522	
6	12.00	618.354		

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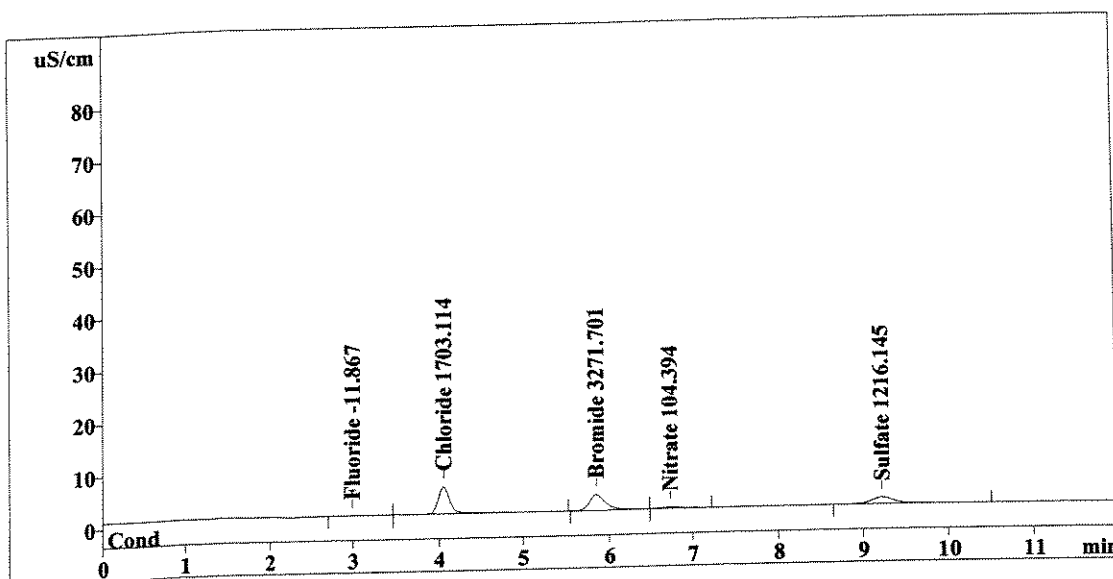
Report date: 7/24/2008 16:47:37  
 Printed by: User  
 Ident: 1114421  
 Analysis from: 7/24/2008 16:35:32  
 File: S7241635.CHW

Last save: 7/24/2008 16:47:37

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38654  
 SAMPLE: B  
 Vial number: 22  
 Volume: 1.0 µL  
 Dilution: 2000.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.99	0.228	-11.867	Fluoride
2	4.05	50.584	1703.114	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.85	39.804	3271.701	Bromide
5	6.73	2.652	104.394	Nitrate
6	9.23	24.201	1216.145	Sulfate
<hr/>			6307.220	
6	12.00	117.469		

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Method 300.0/9056

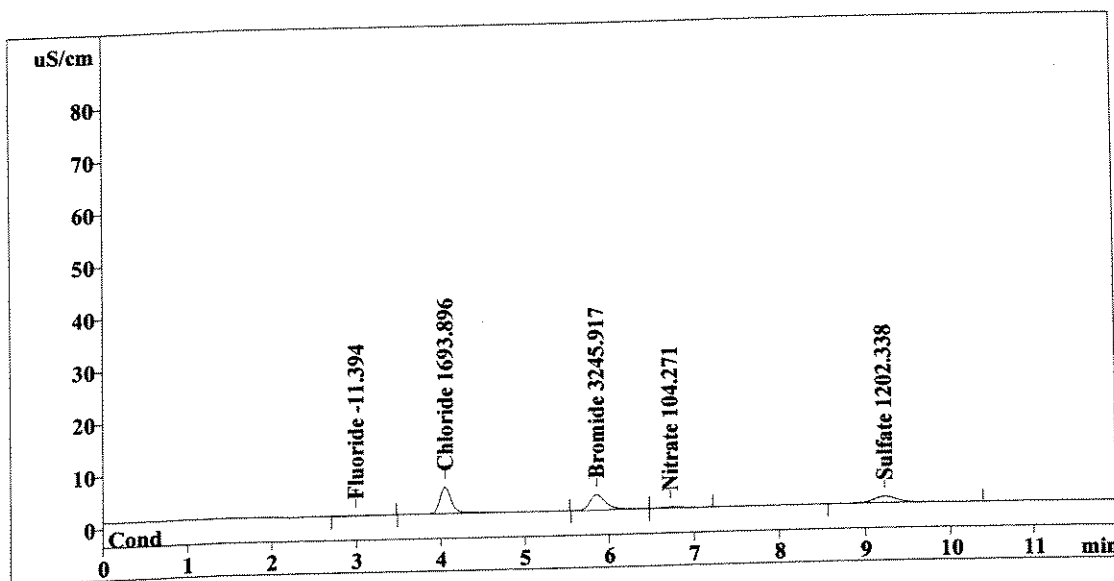
Report date: 7/24/2008 17:01:52  
 Printed by: User  
 Ident: 1114421 DUP  
 Analysis from: 7/24/2008 16:49:53  
 File: S7241649.CHW

Last save: 7/24/2008 17:01:52

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38655  
 SAMPLE: B  
 Vial number: 23  
 Volume: 1.0 µL  
 Dilution: 2000.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.99	0.252	-11.394	Fluoride
2	4.05	50.286	1693.896	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.85	39.479	3245.917	Bromide
5	6.72	2.642	104.271	Nitrate
6	9.23	23.887	1202.338	Sulfate
<hr/>				
6	12.00	116.547	6257.815	

*Handwritten signature and date: 7/24/08*

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Method 300.0/9056

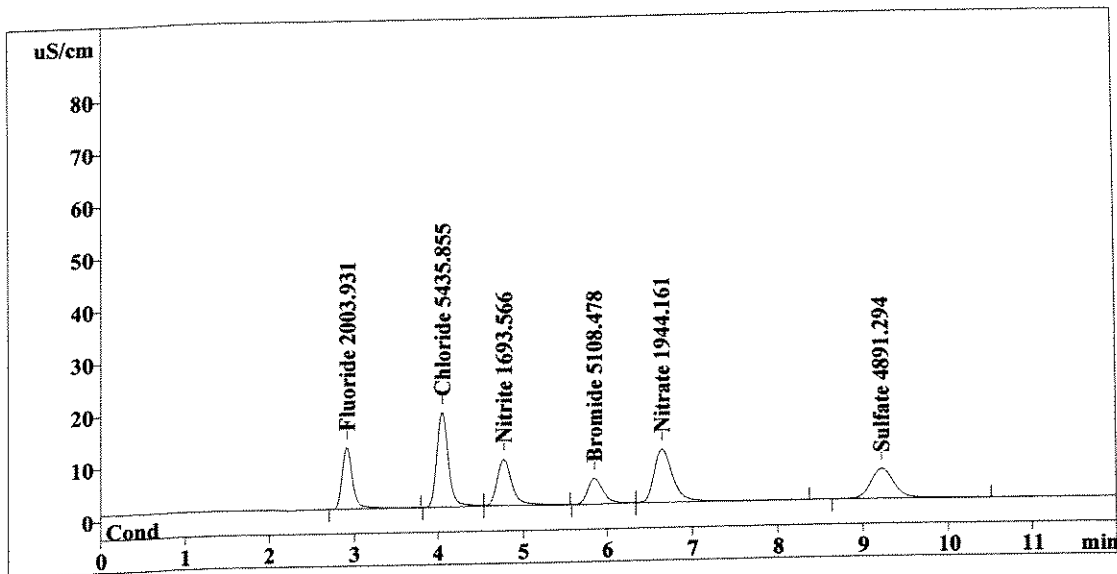
Report date: 7/24/2008 17:15:57  
 Printed by: User  
 Ident: 1114421 SPK  
 Analysis from: 7/24/2008 17:03:59  
 File: S7241703.CHW

Last save: 7/24/2008 17:15:57

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38656  
 SAMPLE: B  
 Vial number: 24  
 Volume: 1.0 µL  
 Dilution: 2000.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.91	102.148	2003.931	Fluoride
2	4.05	171.166	5435.855	Chloride
3	4.77	104.446	1693.566	Nitrite
4	5.85	62.955	5108.478	Bromide
5	6.65	153.591	1944.161	Nitrate
6	9.22	107.677	4891.294	Sulfate
6	12.00	701.984	21077.286	

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Method 300.0/9056

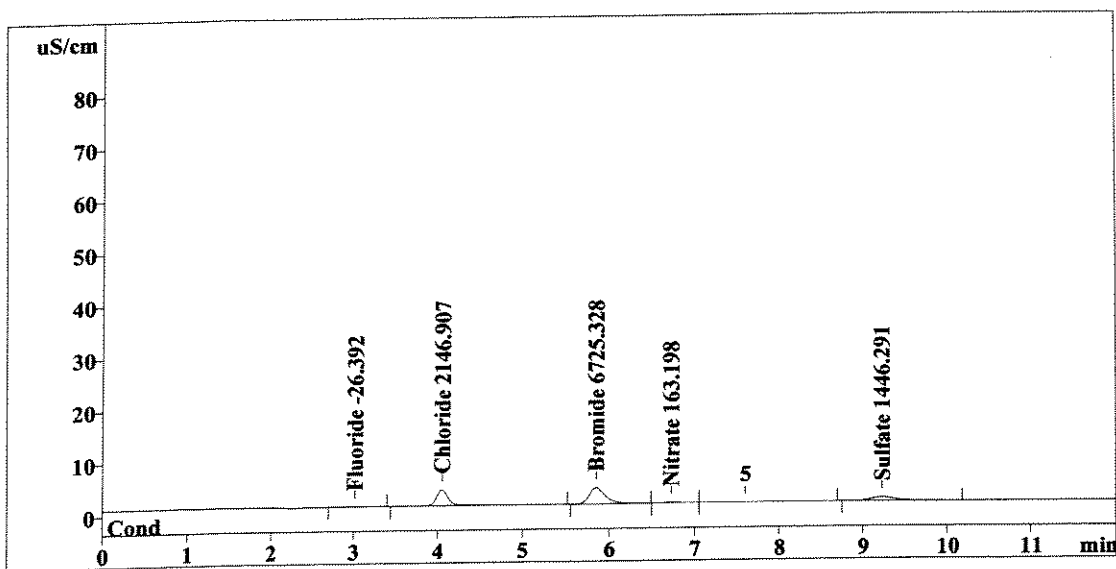
Report date: 7/24/2008 17:30:03  
 Printed by: User  
 Ident: 1114756  
 Analysis from: 7/24/2008 17:18:05  
 File: S7241718.CHW

Last save: 7/24/2008 17:30:03

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38657  
 SAMPLE: B  
 Vial number: 25  
 Volume: 1.0 µL  
 Dilution: 4000.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.01	0.161	-26.392	Fluoride
2	4.05	30.243	2146.907	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.85	40.951	6725.328	Bromide
5	6.73	0.782	163.198	Nitrate
6	9.23	13.003	1446.291	Sulfate
<hr/>				
6	12.00	85.140	10508.116	

*Handwritten signature and date: 7/24/08*

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Method 300.0/9056

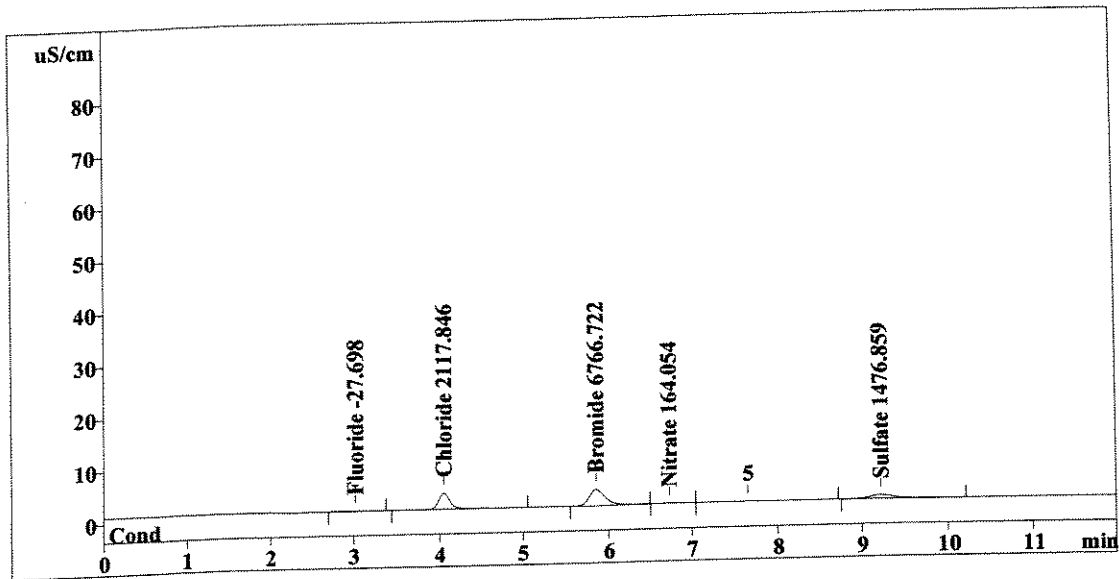
Report date: 7/24/2008 17:44:09  
 Printed by: User  
 Ident: 1114756 DUP  
 Analysis from: 7/24/2008 17:32:11  
 File: S7241732.CHW

Last save: 7/24/2008 17:44:09

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38658  
 SAMPLE: B  
 Vial number: 26  
 Volume: 1.0 µL  
 Dilution: 4000.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.02	0.128	-27.698	Fluoride
2	4.05	29.774	2117.846	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.85	41.212	6766.722	Bromide
5	6.73	0.817	164.054	Nitrate
6	9.23	13.350	1476.859	Sulfate
6	12.00	85.281	10553.179	

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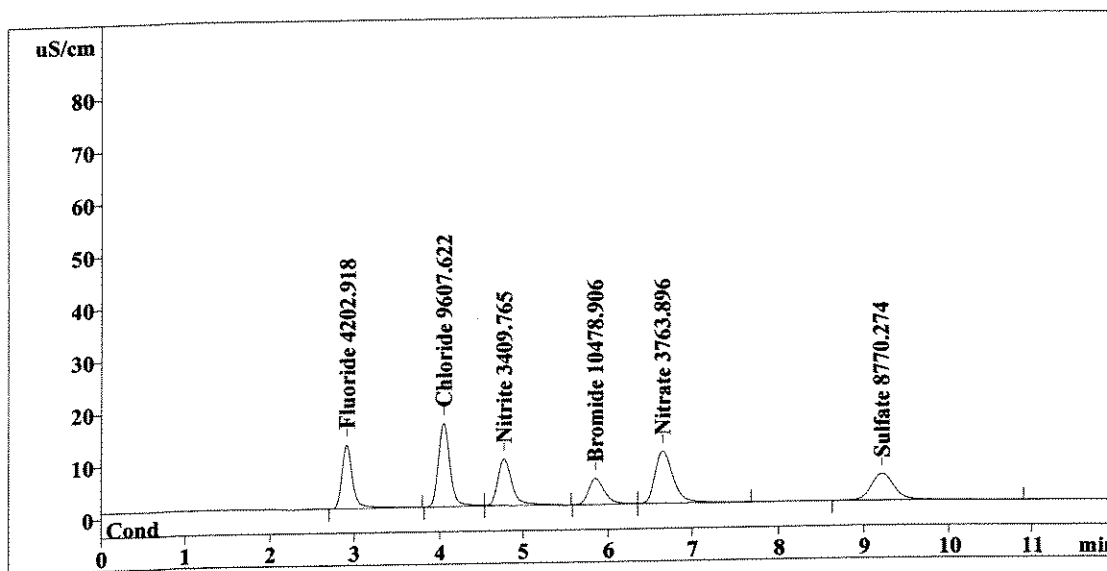
Report date: 7/24/2008 17:58:15  
 Printed by: User  
 Ident: 1114756 SPK  
 Analysis from: 7/24/2008 17:46:17  
 File: S7241746.CHW

Last save: 7/24/2008 17:58:15

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38659  
 SAMPLE: B  
 Vial number: 27  
 Volume: 1.0 µL  
 Dilution: 4000.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.91	107.080	4202.918	Fluoride
2	4.04	150.749	9607.622	Chloride
3	4.77	105.153	3409.765	Nitrite
4	5.85	64.606	10478.906	Bromide
5	6.65	148.487	3763.896	Nitrate
6	9.22	96.180	8770.274	Sulfate
6	12.00	672.255	40233.383	

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Method 300.0/9056

Report date: 7/24/2008 18:12:21  
 Printed by: User  
 Ident: 08-2574-8655  
 Analysis from: 7/24/2008 18:00:23  
 File: S7241800.CHW

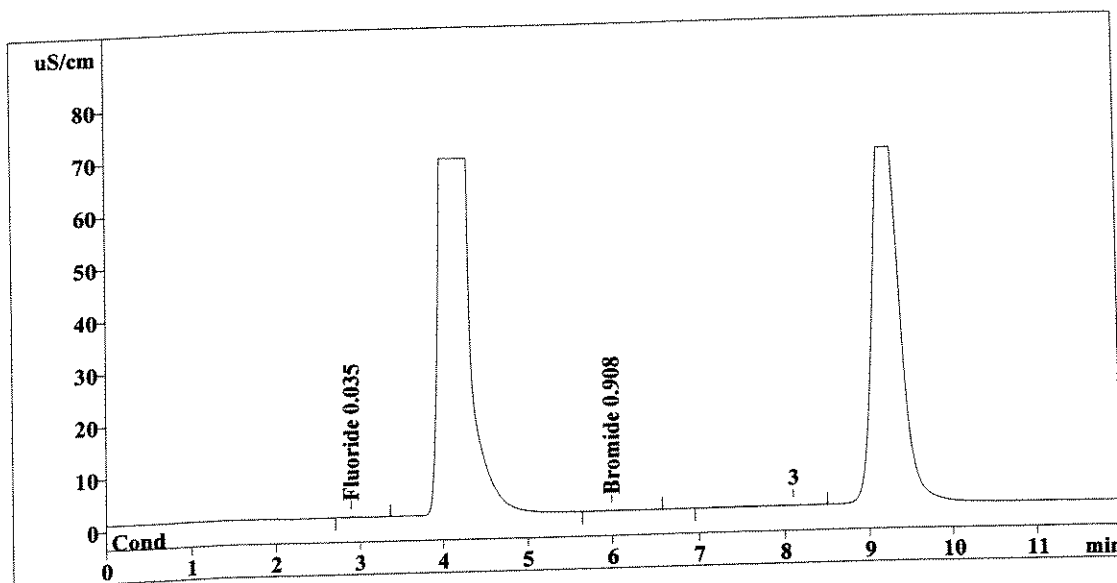
1120249

Last save: 7/24/2008 18:12:21

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38660  
 SAMPLE: NO3  
 Vial number: 28  
 Volume: 1.0 µL  
 Dilution: 10.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.89	1.179	0.035	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.99	0.857	0.908	Bromide
5	0.00	0.000	0.000	Nitrate
6	0.00	0.000	0.000	Sulfate
<hr/>				
6	12.00	2.036	0.943	

OK  
 CW  
 7/25/08

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Method 300.0/9056

Report date: 7/24/2008 18:26:27  
 Printed by: User  
 Ident: 08-2574-8657  
 Analysis from: 7/24/2008 18:14:29  
 File: S7241814.CHW

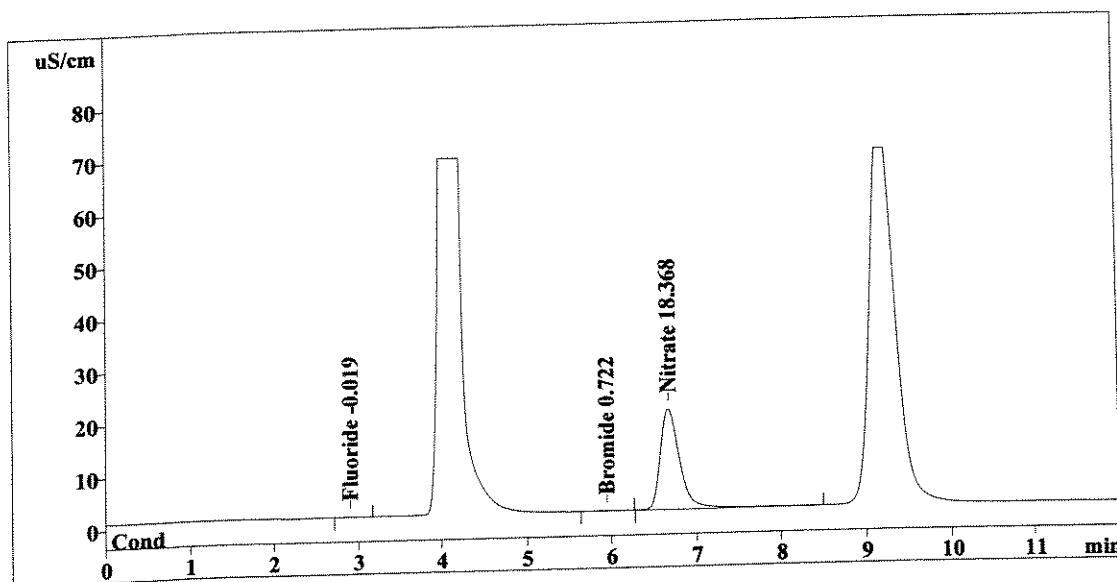
1120250

Last save: 7/24/2008 18:26:27

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38661  
 SAMPLE: NO3  
 Vial number: 29  
 Volume: 1.0 µL  
 Dilution: 10.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.89	0.633	-0.019	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.94	0.388	0.722	Bromide
5	6.68	295.483	18.368	Nitrate
6	0.00	0.000	0.000	Sulfate
6	12.00	296.503	19.110	

OK  
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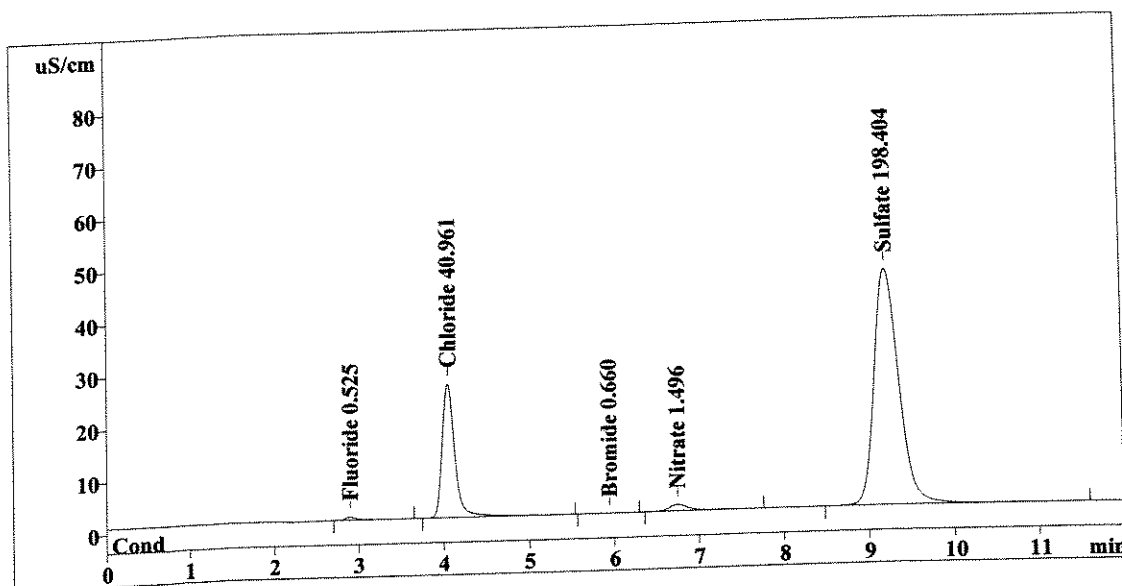
Report date: 7/24/2008 18:40:33  
 Printed by: User  
 Ident: 1112842  
 Analysis from: 7/24/2008 18:28:35  
 File: S7241828.CHW

Last save: 7/24/2008 18:40:33

Last save: 7/24/2008 11:35:17

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38662  
 SAMPLE: CBNS  
 Vial number: 30  
 Volume: 1.0 µL  
 Dilution: 10.00  
 Amount: 1.0000

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.89	6.135	0.525	Fluoride
2	4.05	260.209	40.961	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.94	0.231	0.660	Bromide
5	6.75	18.636	1.496	Nitrate
6	9.22	897.877	198.404	Sulfate
6	12.00	1183.088	242.046	

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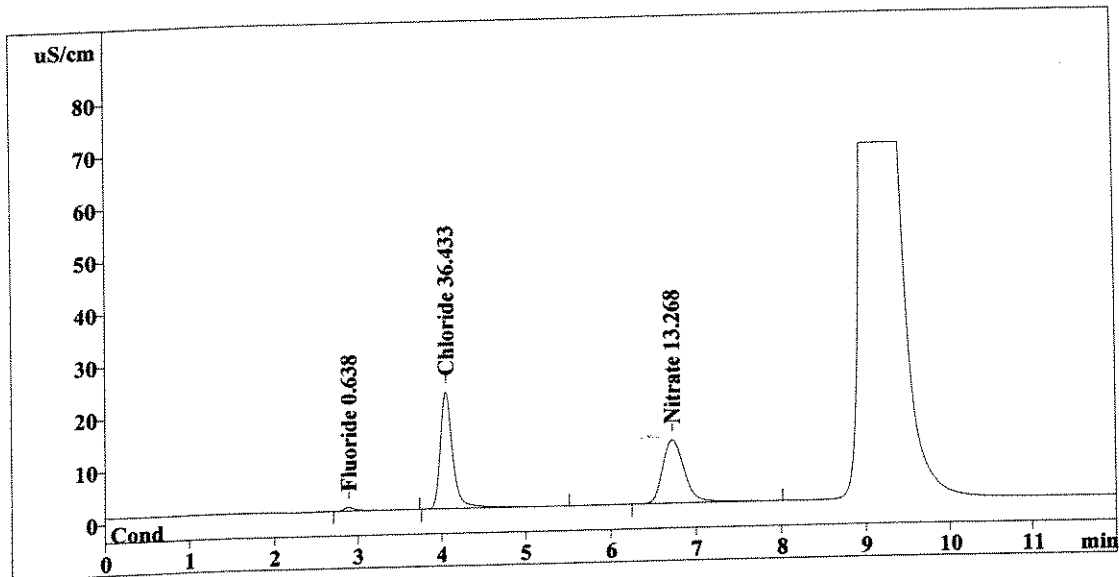
Report date: 7/24/2008 18:54:39  
 Printed by: User  
 Ident: 1112843  
 Analysis from: 7/24/2008 18:42:40  
 File: S7241842.CHW

Last save: 7/24/2008 18:54:39

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38663  
 SAMPLE: CBNS  
 Vial number: 31  
 Volume: 1.0 µL  
 Dilution: 10.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.89	7.279	0.638	Fluoride
2	4.05	230.956	36.433	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.73	211.800	13.268	Nitrate
6	0.00	0.000	0.000	Sulfate
<hr/>			50.340	
6	12.00	450.035		

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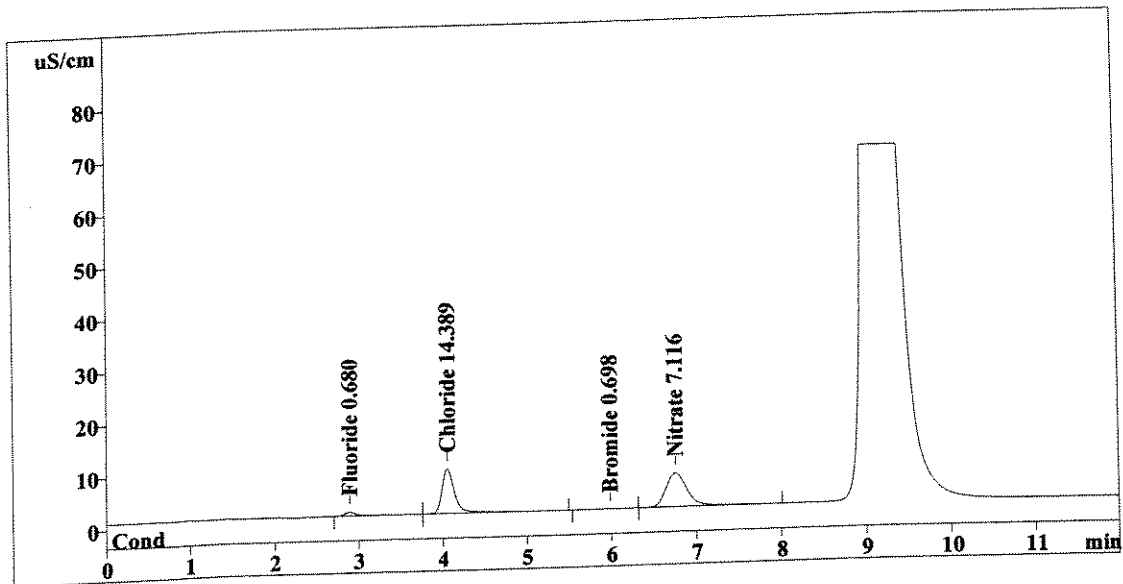
Report date: 7/24/2008 19:08:44  
 Printed by: User  
 Ident: 1112844  
 Analysis from: 7/24/2008 18:56:46  
 File: S7241856.CHW

Last save: 7/24/2008 19:08:44

Last save: 7/24/2008 11:35:17

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38664  
 SAMPLE: CBNS  
 Vial number: 32  
 Volume: 1.0 µL  
 Dilution: 10.00  
 Amount: 1.0000

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.89	7.708	0.680	Fluoride
2	4.05	88.533	14.389	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.98	0.327	0.698	Bromide
5	6.76	110.851	7.116	Nitrate
6	0.00	0.000	0.000	Sulfate
6	12.00	207.420	22.884	

*Handwritten notes:*  
 OK  
 OK  
 1/2000  
 CM 7/25/08

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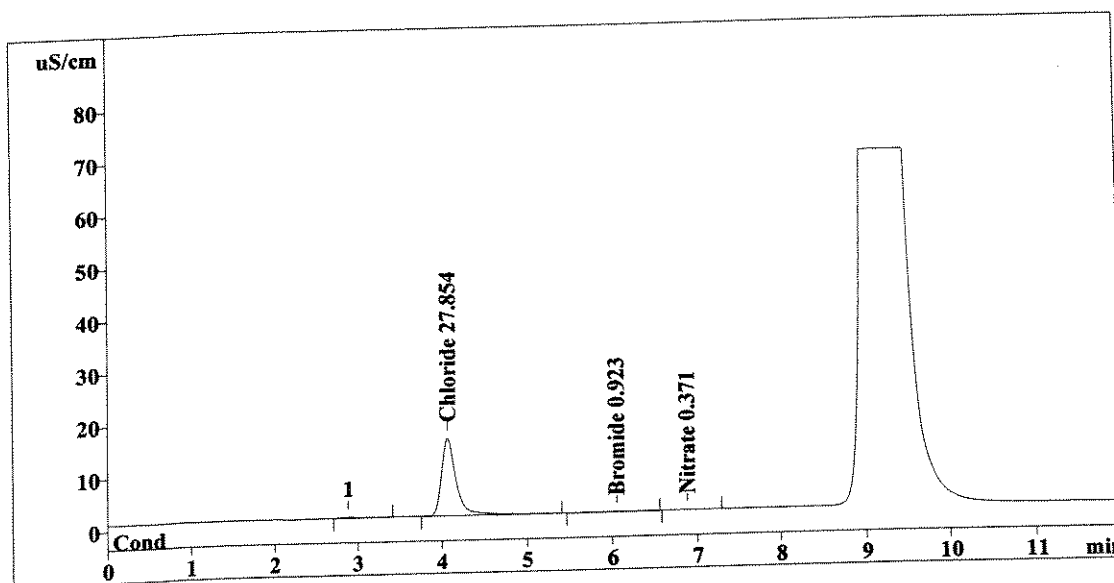
Report date: 7/24/2008 19:22:50  
 Printed by: User  
 Ident: 1112845  
 Analysis from: 7/24/2008 19:10:52  
 File: S7241910.CHW

Last save: 7/24/2008 19:22:50

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38665  
 SAMPLE: CBNS  
 Vial number: 33  
 Volume: 1.0 µL  
 Dilution: 10.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	0.00	0.000	0.000	Fluoride
2	4.07	175.526	27.854	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.05	0.893	0.923	Bromide
5	6.88	0.174	0.371	Nitrate
6	0.00	0.000	0.000	Sulfate
6	12.00	176.593	29.148	

*Handwritten notes: 'OK' next to Chloride, Bromide, and Nitrate rows. '1/2000' next to Sulfate row. Signature 'LW 7/25/08' over the final row.*

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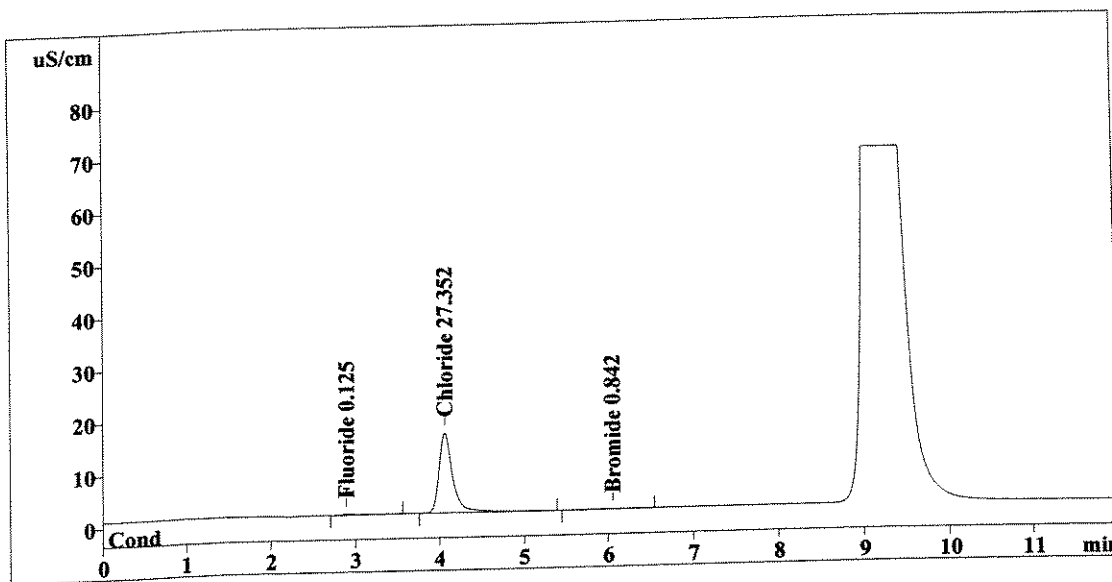
Report date: 7/24/2008 19:36:56  
 Printed by: User  
 Ident: 1112846  
 Analysis from: 7/24/2008 19:24:58  
 File: S7241924.CHW

Last save: 7/24/2008 19:36:56

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38666  
 SAMPLE: CBNS  
 Vial number: 34  
 Volume: 1.0 µL  
 Dilution: 10.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.89	2.094	0.125	Fluoride
2	4.06	172.285	27.352	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.05	0.691	0.842	Bromide
5	0.00	0.000	0.000	Nitrate
6	0.00	0.000	0.000	Sulfate
6	12.00	175.070	28.320	

*OK*  
*OK*  
*1/1000*  
*LM 7/25/08*

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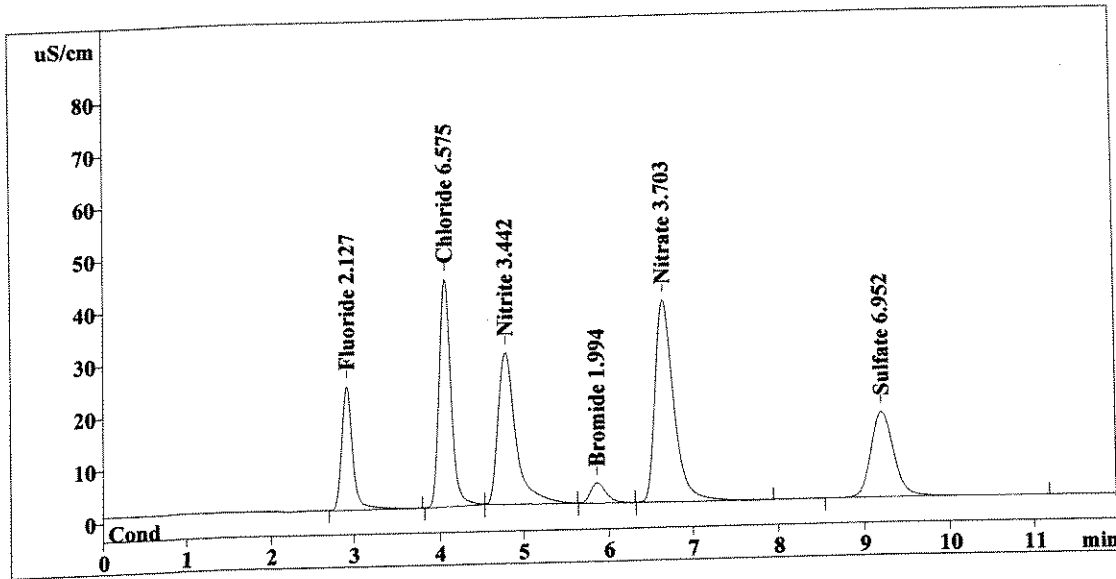
Report date: 7/24/2008 19:51:02  
 Printed by: User  
 Ident: CCV  
 Analysis from: 7/24/2008 19:39:04  
 File: S7241939.CHW

Last save: 7/24/2008 19:51:02

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38667  
 SAMPLE:  
 Vial number: 35  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.91	215.876	2.127	Fluoride
2	4.06	420.396	6.575	Chloride
3	4.78	428.577	3.442	Nitrite
4	5.87	48.821	1.994	Bromide
5	6.65	601.680	3.703	Nitrate
6	9.21	312.403	6.952	Sulfate
6	12.00	2027.752	24.793	

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Method 300.0/9056

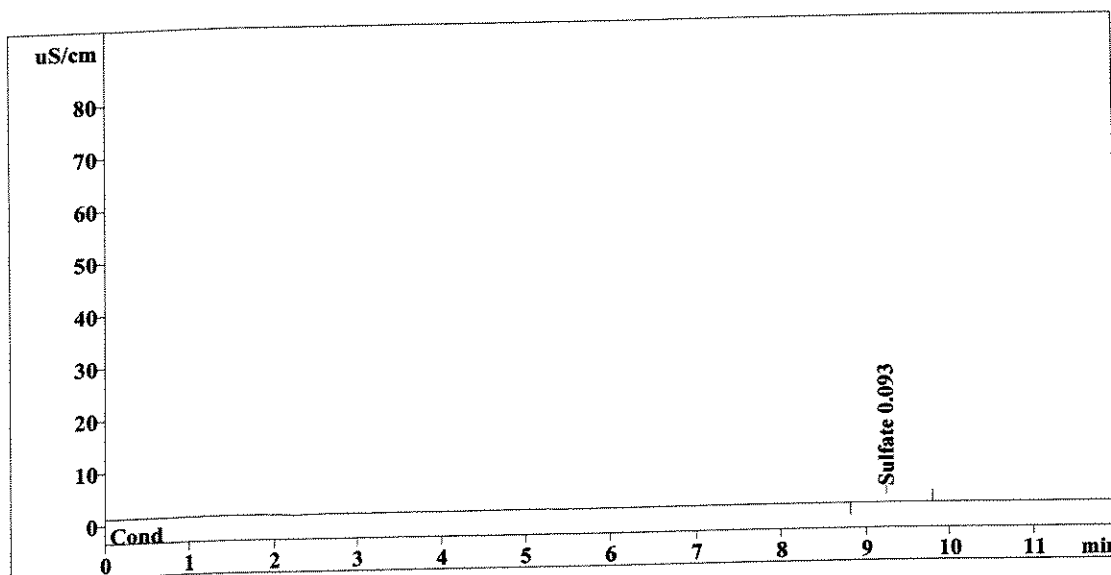
Report date: 7/24/2008 20:05:08  
 Printed by: User  
 Ident: CCB  
 Analysis from: 7/24/2008 19:53:10  
 File: S7241953.CHW

Last save: 7/24/2008 20:05:08

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38668  
 SAMPLE:  
 Vial number: 36  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	0.00	0.000	0.000	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	0.00	0.000	0.000	Nitrate
6	9.24	0.799	0.093	Sulfate
<hr/>			0.093	
6	12.00	0.799		

OK  
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 7/25/08

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Method 300.0/9056

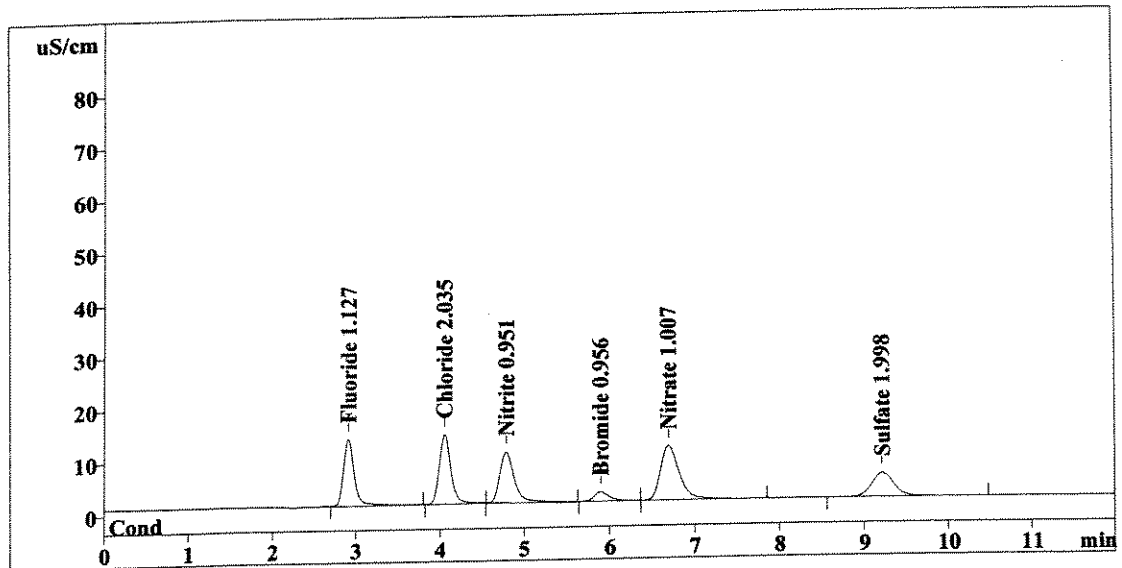
Report date: 7/24/2008 20:19:14  
 Printed by: User  
 Ident: LCS  
 Analysis from: 7/24/2008 20:07:16  
 File: S7242007.CHW

Last save: 7/24/2008 20:19:14

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38669  
 SAMPLE:  
 Vial number: 37  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.91	114.757	1.127	Fluoride
2	4.05	127.068	2.035	Chloride
3	4.79	117.461	0.951	Nitrite
4	5.90	22.664	0.956	Bromide
5	6.69	159.283	1.007	Nitrate
6	9.21	87.350	1.998	Sulfate
<hr/>			8.074	
6	12.00	628.583		

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Method 300.0/9056

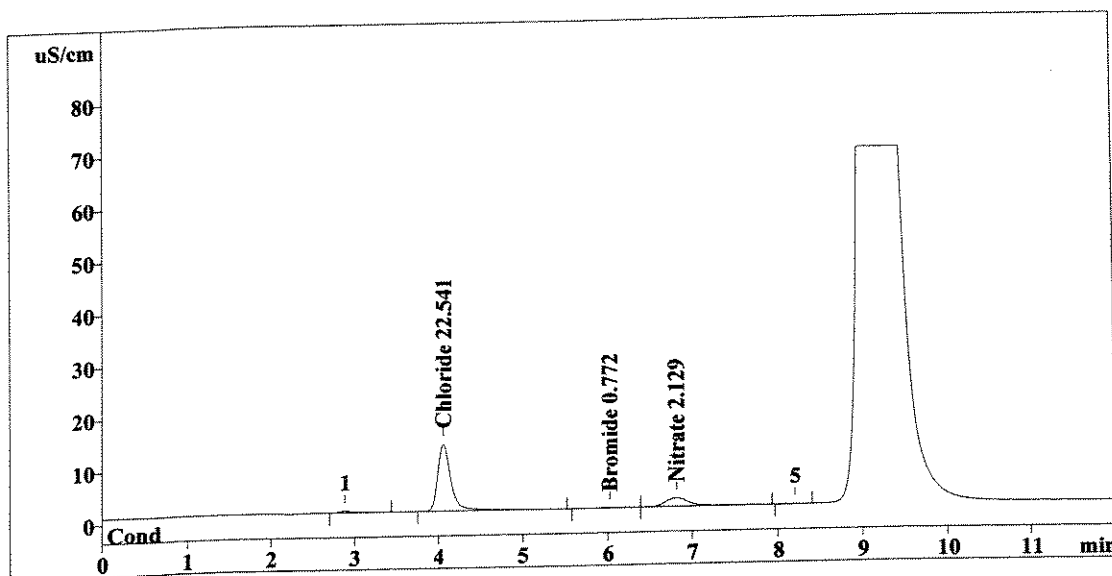
Report date: 7/24/2008 20:33:20  
 Printed by: User  
 Ident: 1112847  
 Analysis from: 7/24/2008 20:21:22  
 File: S7242021.CHW

Last save: 7/24/2008 20:33:20

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38670  
 SAMPLE: CBNS  
 Vial number: 38  
 Volume: 1.0 µL  
 Dilution: 10.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	0.00	0.000	0.000	Fluoride
2	4.06	141.197	22.541	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.02	0.513	0.772	Bromide
5	6.82	29.029	2.129	Nitrate
6	0.00	0.000	0.000	Sulfate
6	12.00	170.740	25.442	

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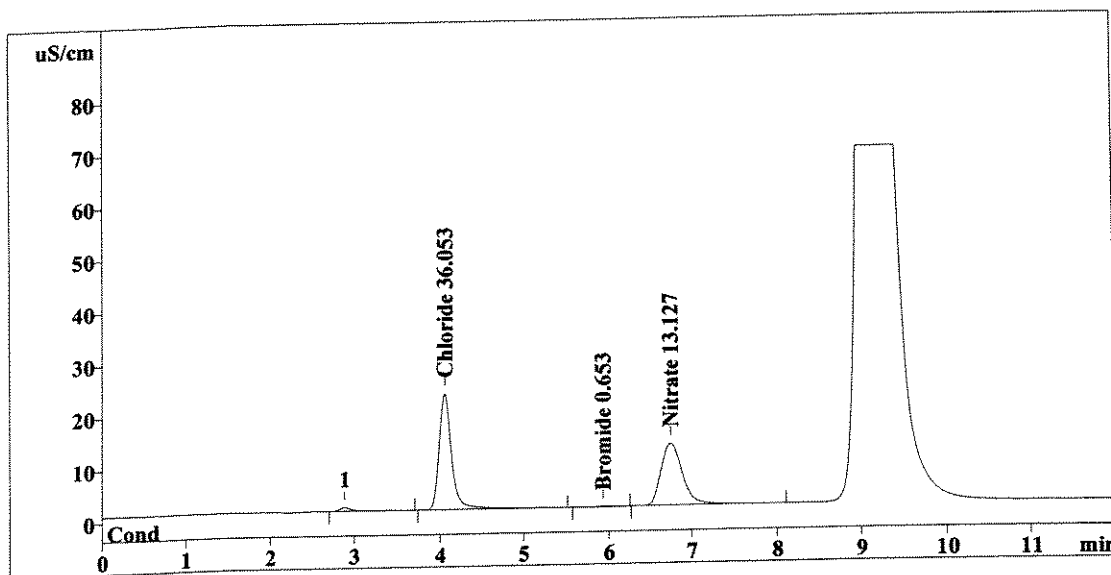
Report date: 7/24/2008 20:47:26  
 Printed by: User  
 Ident: 1112848  
 Analysis from: 7/24/2008 20:35:27  
 File: S7242035.CHW

Last save: 7/24/2008 20:47:25

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38671  
 SAMPLE: CBNS  
 Vial number: 39  
 Volume: 1.0 µL  
 Dilution: 10.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	0.00	0.000	0.000	Fluoride
2	4.05	228.499 <i>OK</i>	36.053	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.93	0.213 <i>OK</i>	0.653	Bromide
5	6.75	209.486 <i>OK</i>	13.127	Nitrate
6	0.00	0.000 <i>1/1000</i>	0.000	Sulfate
6	12.00	438.197	49.833	

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Method 300.0/9056

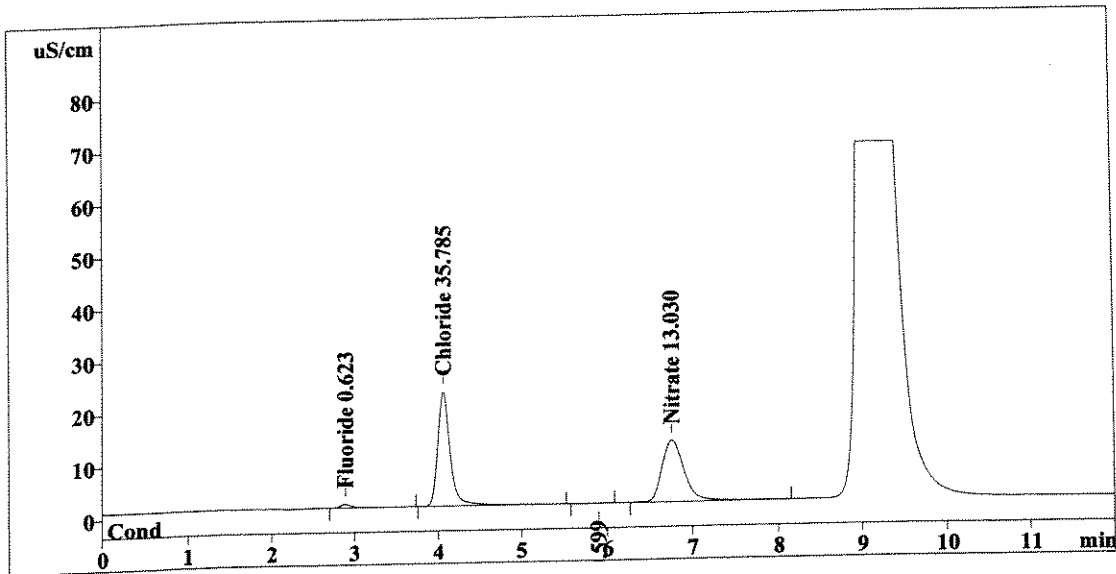
Report date: 7/24/2008 21:01:31  
 Printed by: User  
 Ident: 1112848 DUP  
 Analysis from: 7/24/2008 20:49:33  
 File: S7242049.CHW

Last save: 7/24/2008 21:01:31

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38672  
 SAMPLE: CBNS  
 Vial number: 40  
 Volume: 1.0 µL  
 Dilution: 10.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.89	7.124	0.623	Fluoride
2	4.06	226.765	35.785	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.89	0.078	0.599	Bromide
5	6.76	207.883	13.030	Nitrate
6	0.00	0.000	0.000	Sulfate
6	12.00	441.851	50.036	

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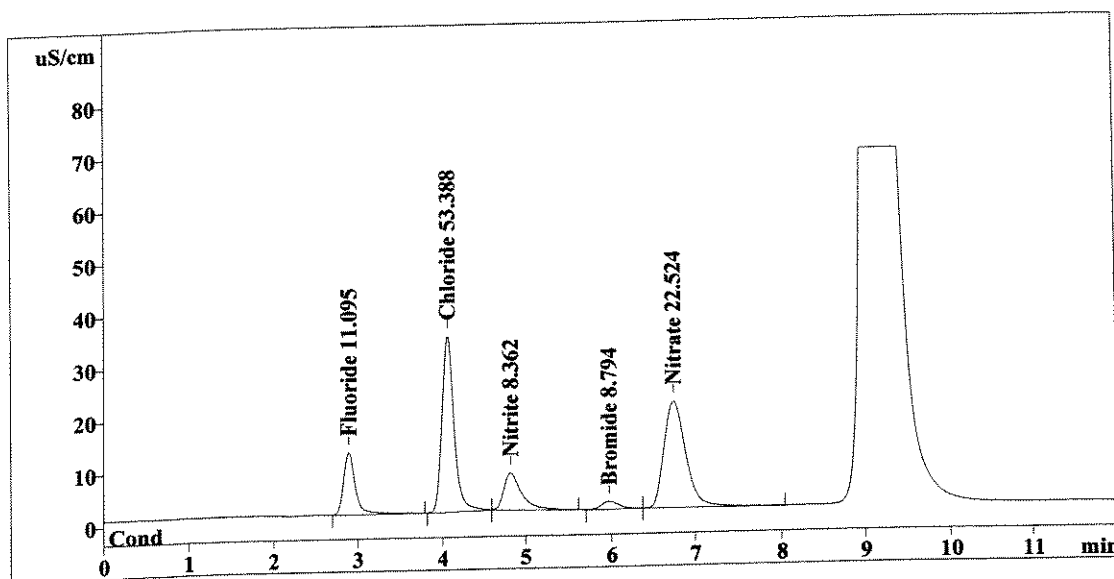
Report date: 7/24/2008 21:15:37  
 Printed by: User  
 Ident: 1112848 SPK  
 Analysis from: 7/24/2008 21:03:39  
 File: S7242103.CHW

Last save: 7/24/2008 21:15:37

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38673  
 SAMPLE: CBNS  
 Vial number: 41  
 Volume: 1.0 µL  
 Dilution: 10.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.89	113.018	11.095	Fluoride
2	4.06	340.497	53.388	Chloride
3	4.82	103.124	8.362	Nitrite
4	5.97	20.736	8.794	Bromide
5	6.75	363.669	22.524	Nitrate
6	0.00	0.000	0.000	Sulfate
<hr/>				
6	12.00	941.044	104.163	

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Method 300.0/9056

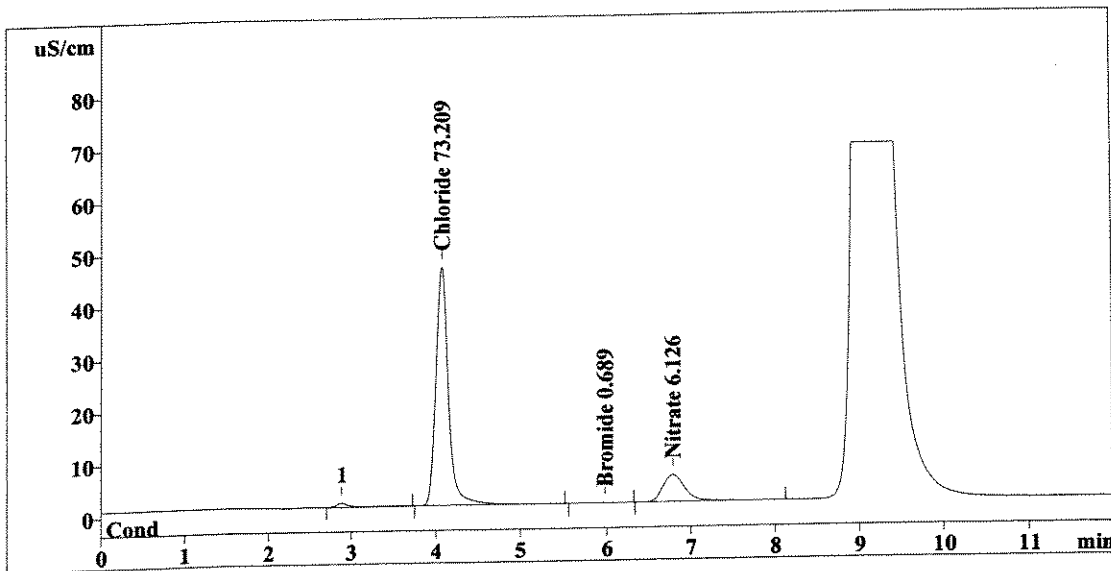
Report date: 7/24/2008 21:29:43  
 Printed by: User  
 Ident: 1118162  
 Analysis from: 7/24/2008 21:17:45  
 File: S7242117.CHW

Last save: 7/24/2008 21:29:43

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38674  
 SAMPLE: NO3, NO2, S  
 Vial number: 42  
 Volume: 1.0 µL  
 Dilution: 10.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	0.00	0.000	0.000	Fluoride
2	4.06	468.557	73.209	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.98	0.304	0.689	Bromide
5	6.78	94.598	6.126	Nitrate
6	0.00	0.000	0.000	Sulfate
6	12.00	563.459	80.024	

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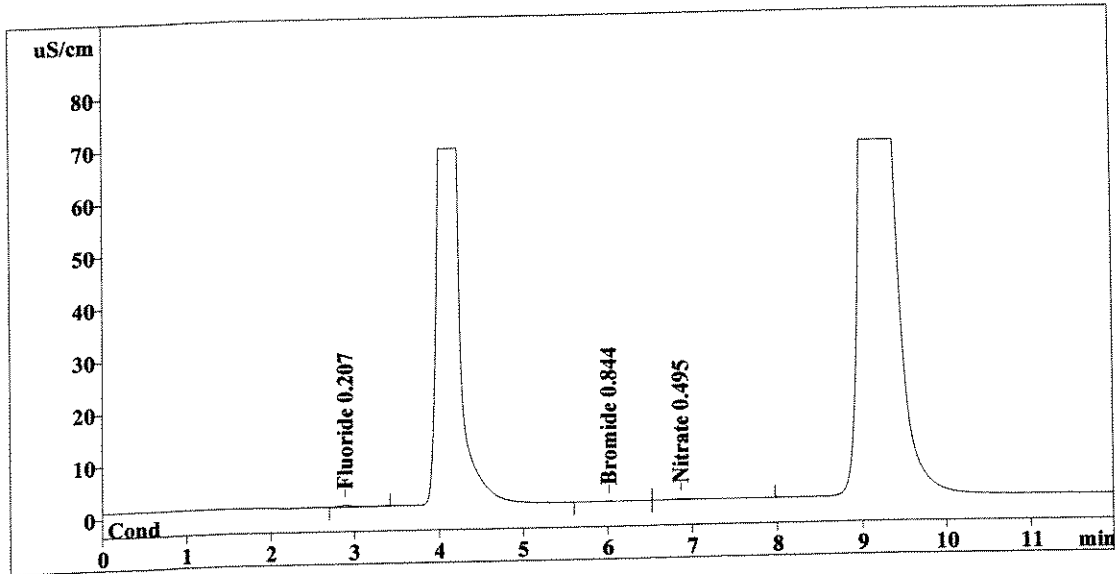
Report date: 7/24/2008 21:43:49  
 Printed by: User  
 Ident: 1120201  
 Analysis from: 7/24/2008 21:31:51  
 File: S7242131.CHW

Last save: 7/24/2008 21:43:49

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38675  
 SAMPLE: CBNS  
 Vial number: 43  
 Volume: 1.0 µL  
 Dilution: 10.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.88	2.921	0.207	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.02	0.694	0.844	Bromide
5	6.86	2.206	0.495	Nitrate
6	0.00	0.000	0.000	Sulfate
6	12.00	5.822	1.545	

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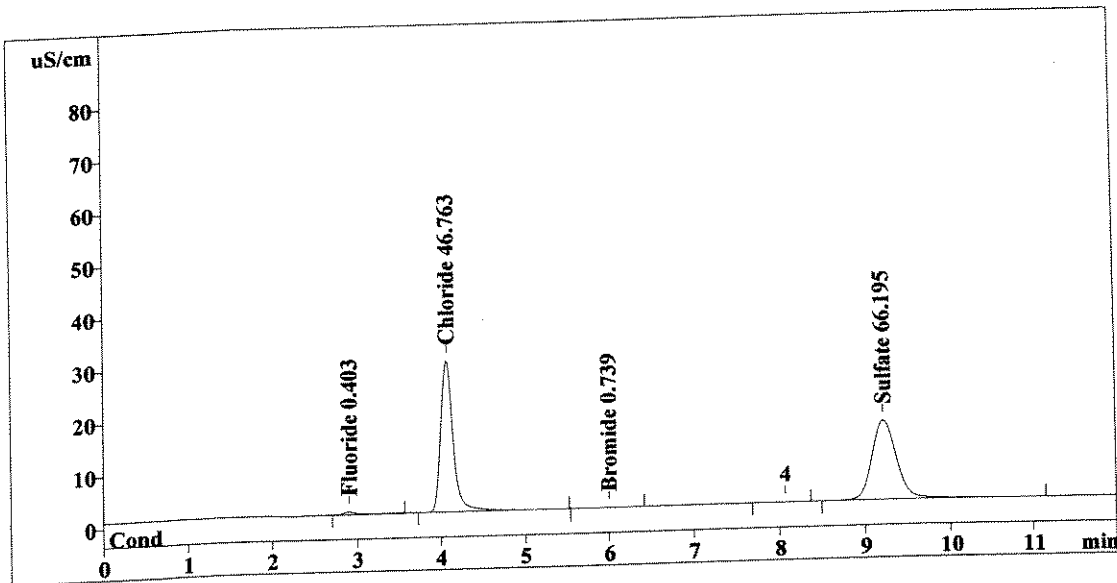
Report date: 7/24/2008 21:57:55  
 Printed by: User  
 Ident: 1120202  
 Analysis from: 7/24/2008 21:45:57  
 File: S7242145.CHW

Last save: 7/24/2008 21:57:55

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38676  
 SAMPLE: CBNS  
 Vial number: 44  
 Volume: 1.0 µL  
 Dilution: 10.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.90	4.903	0.403	Fluoride
2	4.07	297.694	46.763	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.00	0.431	0.739	Bromide
5	0.00	0.000	0.000	Nitrate
6	9.22	297.282	66.195	Sulfate
6	12.00	600.310	114.100	

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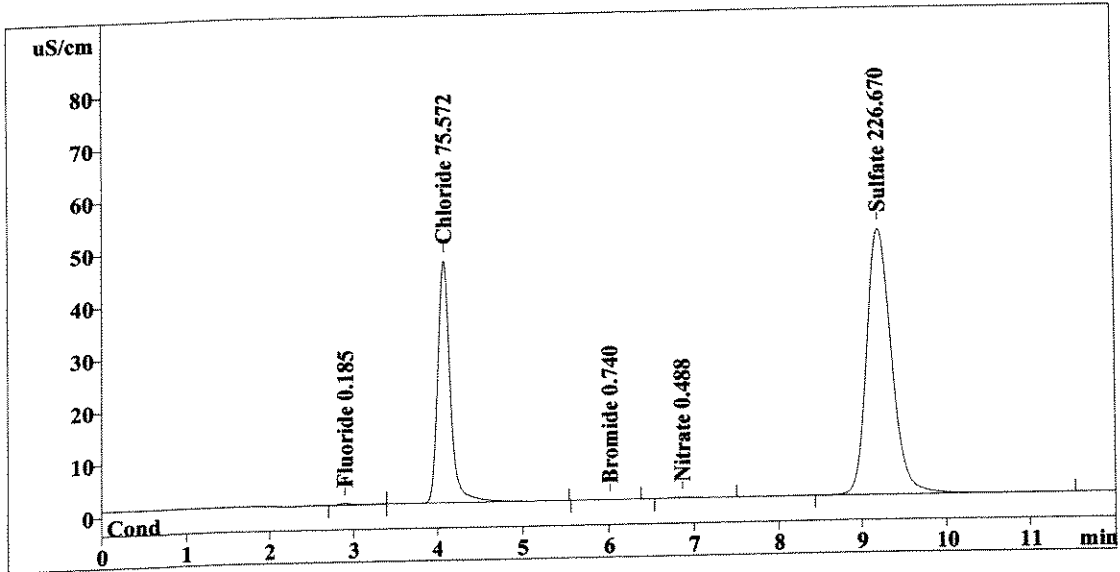
Report date: 7/24/2008 22:12:01  
 Printed by: User  
 Ident: 1120203  
 Analysis from: 7/24/2008 22:00:03  
 File: S7242200.CHW

Last save: 7/24/2008 22:12:01

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38677  
 SAMPLE: CBNS  
 Vial number: 45  
 Volume: 1.0 µL  
 Dilution: 10.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.89	2.703	0.185	Fluoride
2	4.07	483.820	75.572	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.02	0.433	0.740	Bromide
5	6.86	2.092	0.488	Nitrate
6	9.21	1026.279	226.670	Sulfate
<hr/>				
6	12.00	1515.328	303.655	

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Method 300.0/9056

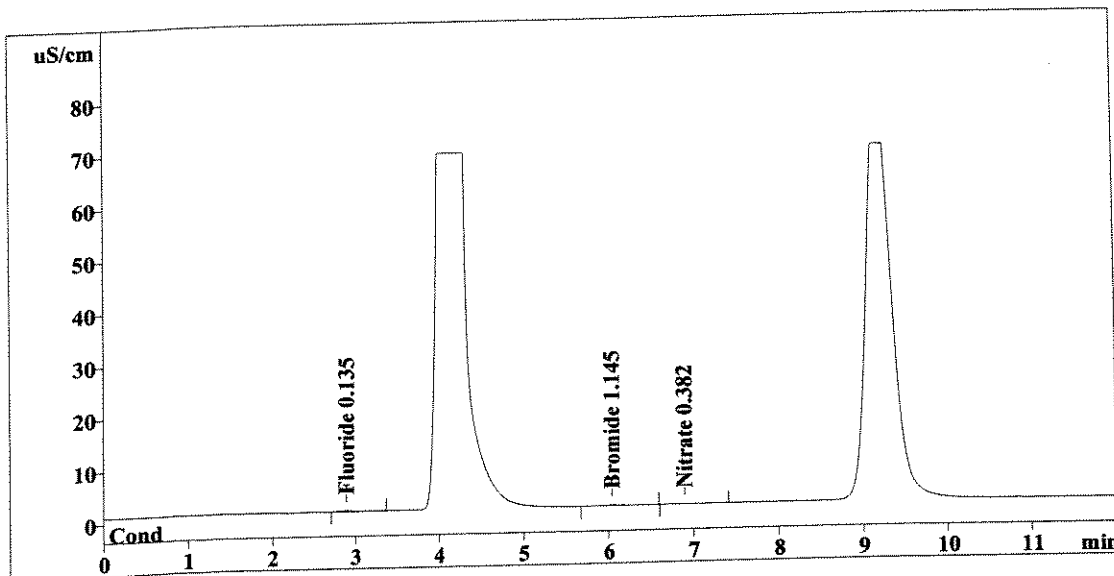
Report date: 7/24/2008 22:26:07  
 Printed by: User  
 Ident: 1120204  
 Analysis from: 7/24/2008 22:14:09  
 File: S7242214.CHW

Last save: 7/24/2008 22:26:07

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38678  
 SAMPLE: CBNS  
 Vial number: 46  
 Volume: 1.0 µL  
 Dilution: 10.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.88	2.191	0.135	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.04	1.454	1.145	Bromide
5	6.89	0.353	0.382	Nitrate
6	0.00	0.000	0.000	Sulfate
6	12.00	3.998	1.661	

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Method 300.0/9056

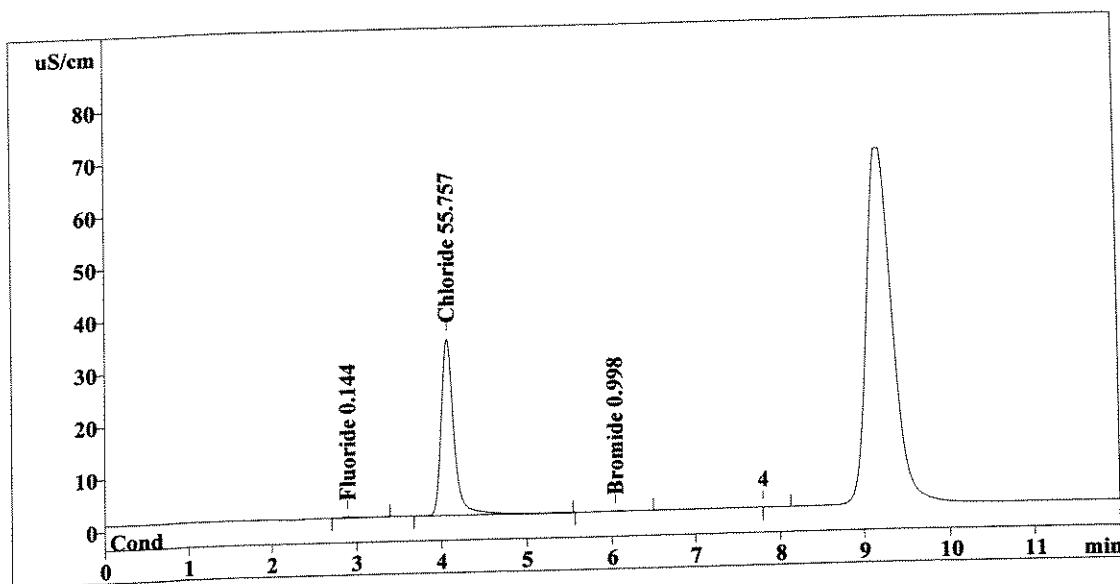
Report date: 7/24/2008 22:40:13  
 Printed by: User  
 Ident: 1120205  
 Analysis from: 7/24/2008 22:28:14  
 File: S7242228.CHW

Last save: 7/24/2008 22:40:13

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38679  
 SAMPLE: CBNS  
 Vial number: 47  
 Volume: 1.0 µL  
 Dilution: 10.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.89	2.285	0.144	Fluoride
2	4.07	355.802	55.757	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.04	1.084	0.998	Bromide
5	0.00	0.000	0.000	Nitrate
6	0.00	0.000	0.000	Sulfate
6	12.00	359.171	56.899	

*OK*  
*OK*  
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Method 300.0/9056

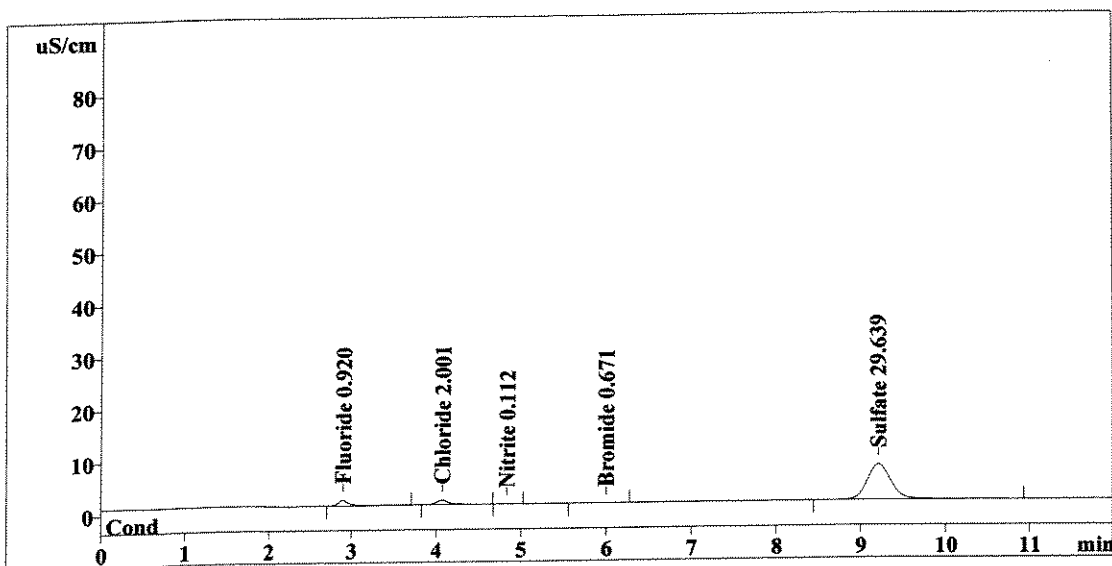
Report date: 7/24/2008 22:54:19  
 Printed by: User  
 Ident: 1120206  
 Analysis from: 7/24/2008 22:42:20  
 File: S7242242.CHW

Last save: 7/24/2008 22:54:18

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38680  
 SAMPLE: CBNS  
 Vial number: 48  
 Volume: 1.0 µL  
 Dilution: 10.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.89	10.130	0.920	Fluoride
2	4.07	8.497	2.001	Chloride
3	4.83	0.083	0.112	Nitrite
4	6.00	0.260	0.671	Bromide
5	0.00	0.000	0.000	Nitrate
6	9.21	131.222	29.639	Sulfate
<hr/>				
6	12.00	150.191	33.344	

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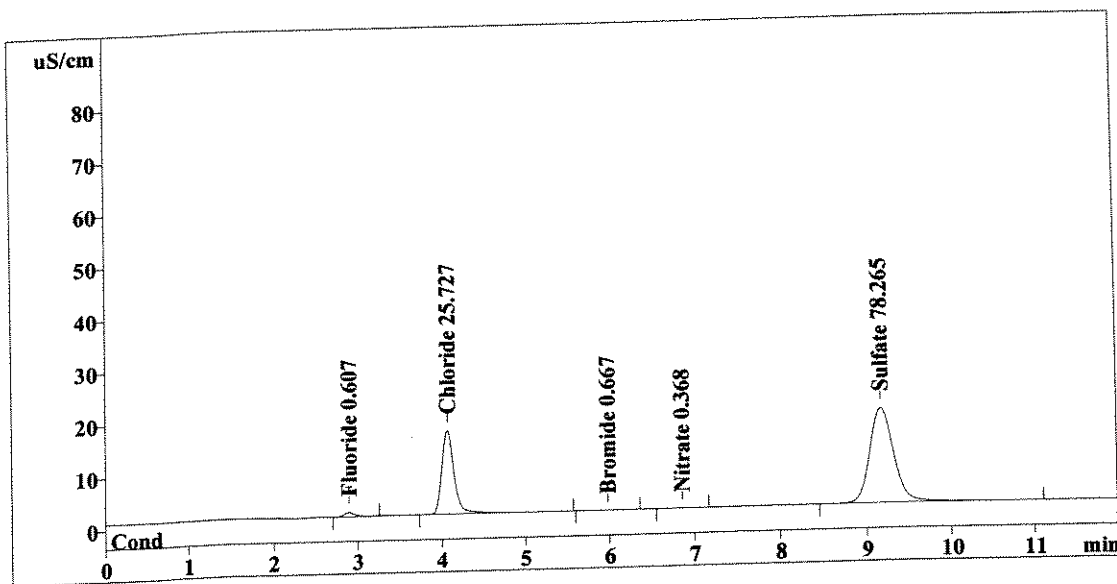
Report date: 7/24/2008 23:08:25  
 Printed by: User  
 Ident: 1120207  
 Analysis from: 7/24/2008 22:56:26  
 File: S7242256.CHW

Last save: 7/24/2008 23:08:24

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38681  
 SAMPLE: CBNS  
 Vial number: 49  
 Volume: 1.0 µL  
 Dilution: 10.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.89	6.965	0.607	Fluoride
2	4.06	161.781	25.727	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.98	0.249	0.667	Bromide
5	6.86	0.124	0.368	Nitrate
6	9.18	352.116	78.265	Sulfate
6	12.00	521.235	105.634	

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Method 300.0/9056

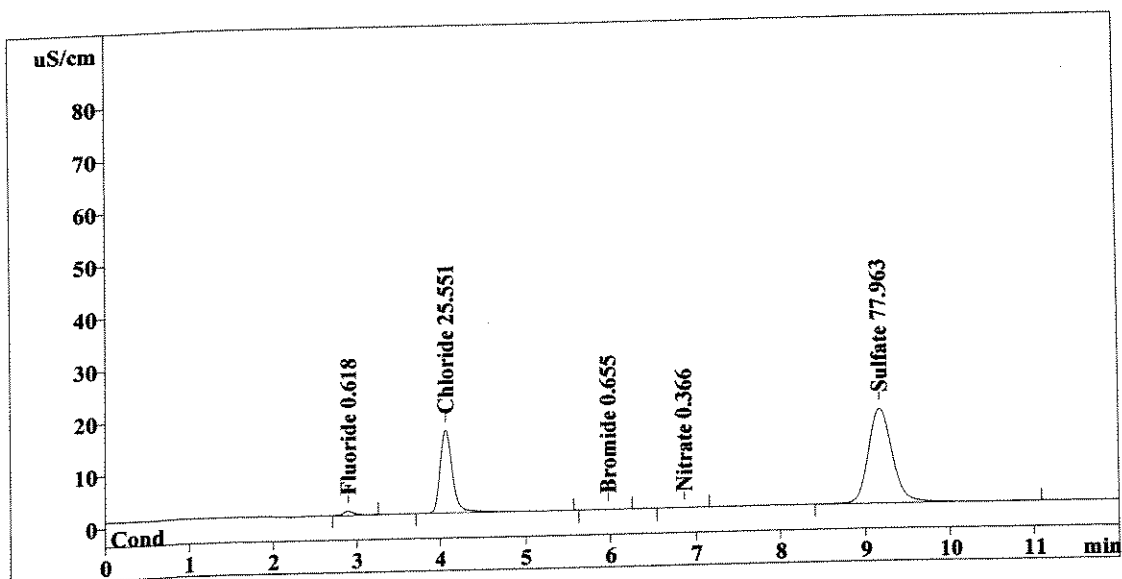
Report date: 7/24/2008 23:22:31  
 Printed by: User  
 Ident: 1120207 DUP  
 Analysis from: 7/24/2008 23:10:32  
 File: S7242310.CHW

Last save: 7/24/2008 23:22:30

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38682  
 SAMPLE: CBNS  
 Vial number: 50  
 Volume: 1.0 µL  
 Dilution: 10.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.89	7.079	0.618	Fluoride
2	4.06	160.649	25.551	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.98	0.219	0.655	Bromide
5	6.86	0.097	0.366	Nitrate
6	9.17	350.742	77.963	Sulfate
6	12.00	518.787	105.154	

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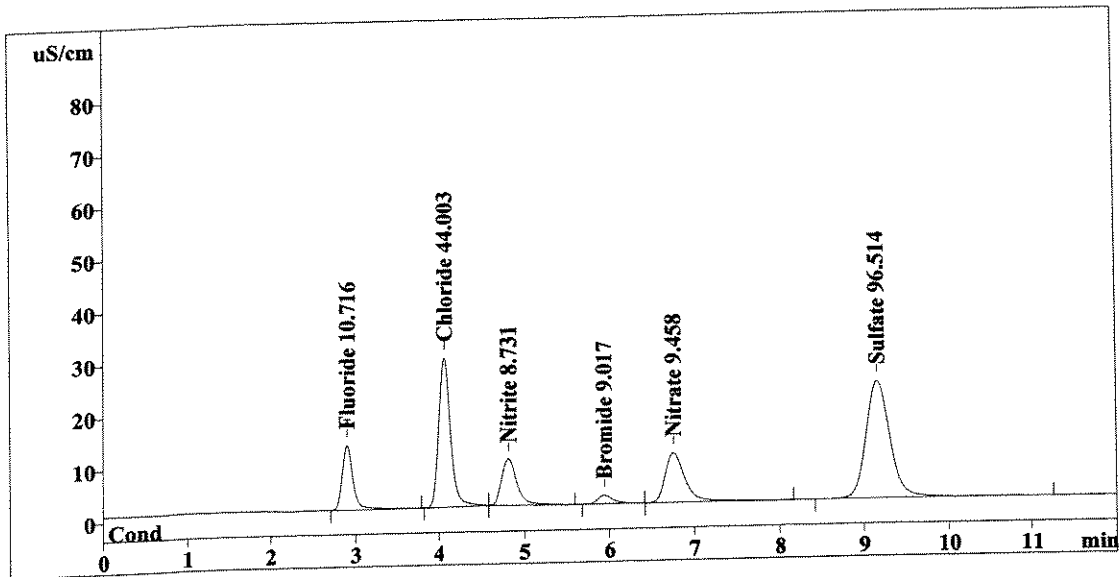
Report date: 7/24/2008 23:36:37  
 Printed by: User  
 Ident: 1120207 SPK  
 Analysis from: 7/24/2008 23:24:39  
 File: S7242324.CHW

Last save: 7/24/2008 23:36:37

Last save: 7/24/2008 11:35:17

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38683  
 SAMPLE: CBNS  
 Vial number: 51  
 Volume: 1.0 µL  
 Dilution: 10.00  
 Amount: 1.0000

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.89	109.191	10.716	Fluoride
2	4.06	279.861	44.003	Chloride
3	4.81	107.739	8.731	Nitrite
4	5.94	21.297	9.017	Bromide
5	6.76	149.279	9.458	Nitrate
6	9.16	435.013	96.514	Sulfate
6		12.00	1102.381	178.439

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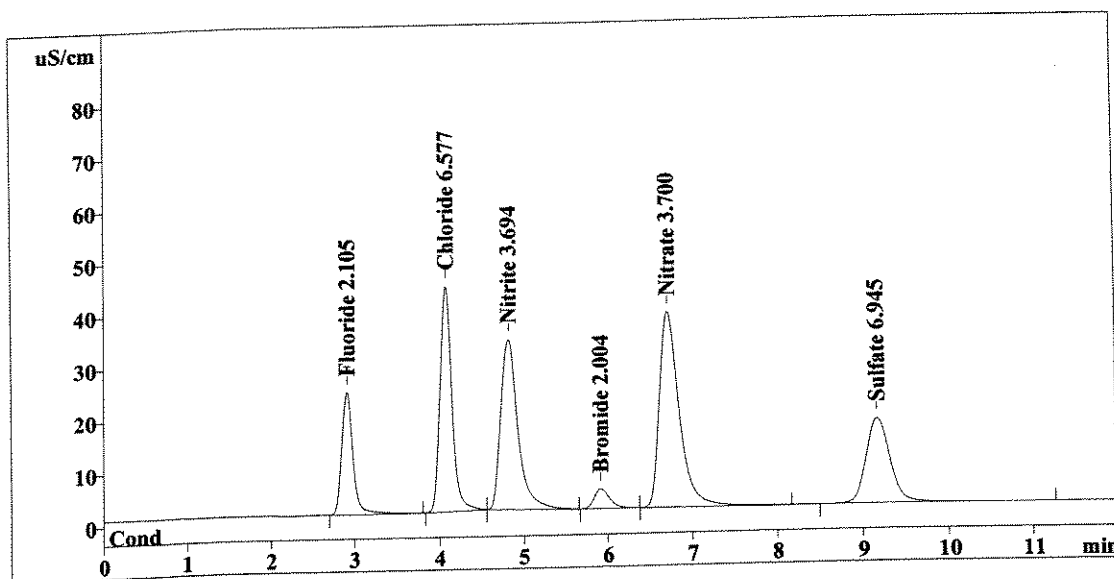
Report date: 7/24/2008 23:50:43  
 Printed by: User  
 Ident: CCV  
 Analysis from: 7/24/2008 23:38:45  
 File: S7242338.CHW

Last save: 7/24/2008 23:50:43

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38684  
 SAMPLE:  
 Vial number: 52  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.91	213.681	2.105	Fluoride
2	4.07	420.498	6.577	Chloride
3	4.81	460.034	3.694	Nitrite
4	5.92	49.080	2.004	Bromide
5	6.72	601.163	3.700	Nitrate
6	9.17	312.082	6.945	Sulfate
6		12.00	2056.538	25.024

OK  
↓

*Handwritten signature*  
7/25/08

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Method 300.0/9056

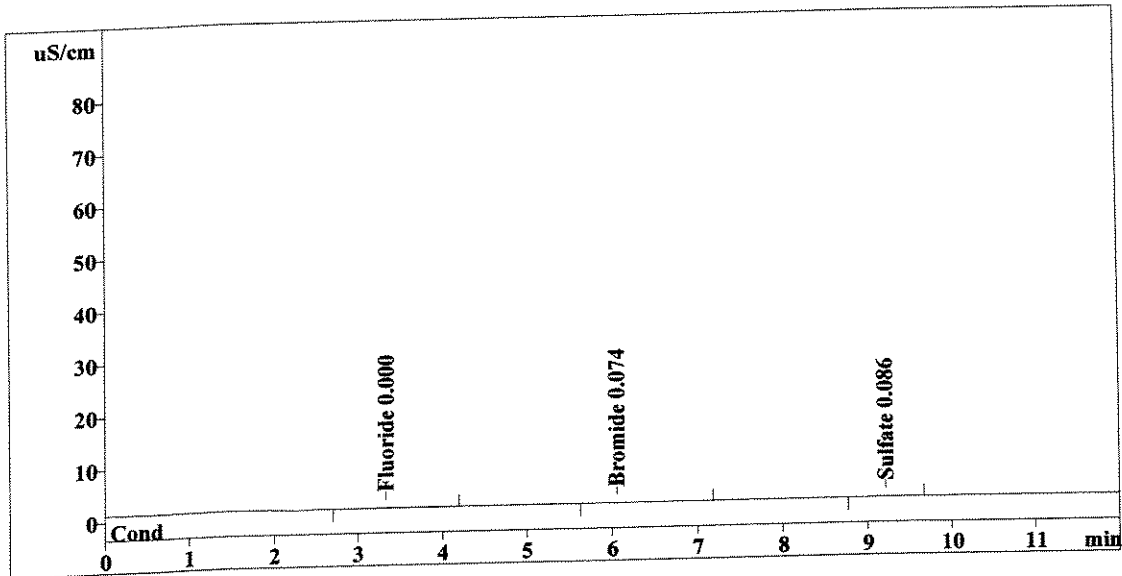
Report date: 7/25/2008 00:04:49  
 Printed by: User  
 Ident: CCB  
 Analysis from: 7/24/2008 23:52:50  
 File: S7242352.CHW

Last save: 7/25/2008 00:04:48

Last save: 7/24/2008 11:35:17

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38685  
 SAMPLE:  
 Vial number: 53  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.33	0.868	0.000	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.07	0.442	0.074	Bromide
5	0.00	0.000	0.000	Nitrate
6	9.21	0.476	0.086	Sulfate
6	12.00	1.787	0.161	

*Handwritten notes:*  
 A checkmark is next to the first row.  
 A downward arrow points from the second row to the sixth row.  
 A signature and date '7/25/08' are written below the table.

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Method 300.0/9056

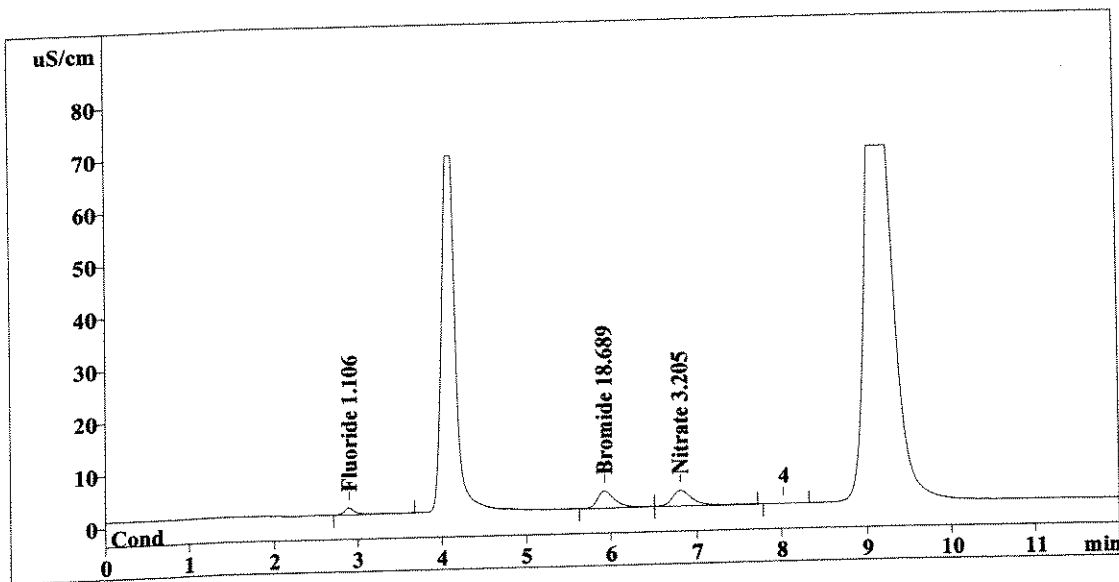
Report date: 7/25/2008 00:18:55  
 Printed by: User  
 Ident: 1113695  
 Analysis from: 7/25/2008 00:06:56  
 File: S7250006.CHW

Last save: 7/25/2008 00:18:54

Last save: 7/24/2008 11:35:17

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38686  
 SAMPLE: B  
 Vial number: 54  
 Volume: 1.0 µL  
 Dilution: 10.00  
 Amount: 1.0000

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.89	12.013	1.106	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.93	45.679	18.689	Bromide
5	6.81	46.669	3.205	Nitrate
6	0.00	0.000	0.000	Sulfate
<hr/>				
6	12.00	104.362	23.000	

*Handwritten signature and date: 7/25/08*

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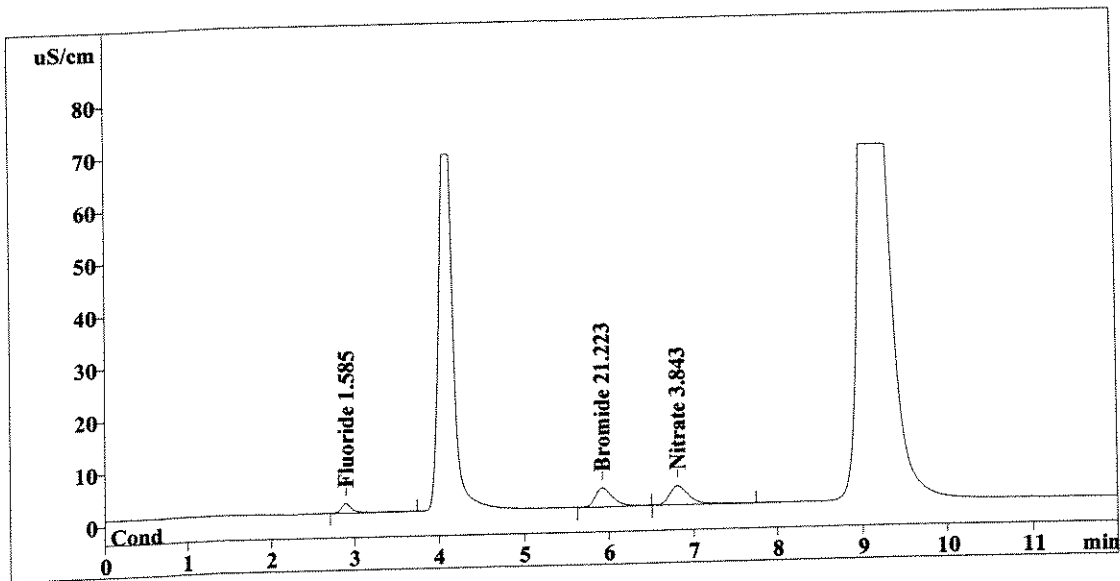
Report date: 7/25/2008 00:33:01  
 Printed by: User  
 Ident: 1113697  
 Analysis from: 7/25/2008 00:21:02  
 File: S7250021.CHW

Last save: 7/25/2008 00:33:00

Last save: 7/24/2008 11:35:17

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38687  
 SAMPLE: B  
 Vial number: 55  
 Volume: 1.0 µL  
 Dilution: 10.00  
 Amount: 1.0000

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.89	16.853	1.585	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.92	52.065	21.223	Bromide
5	6.81	57.149	3.843	Nitrate
6	0.00	0.000	0.000	Sulfate
6	12.00	126.067	26.650	

*OK*  
*7/25/08*

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Method 300.0/9056

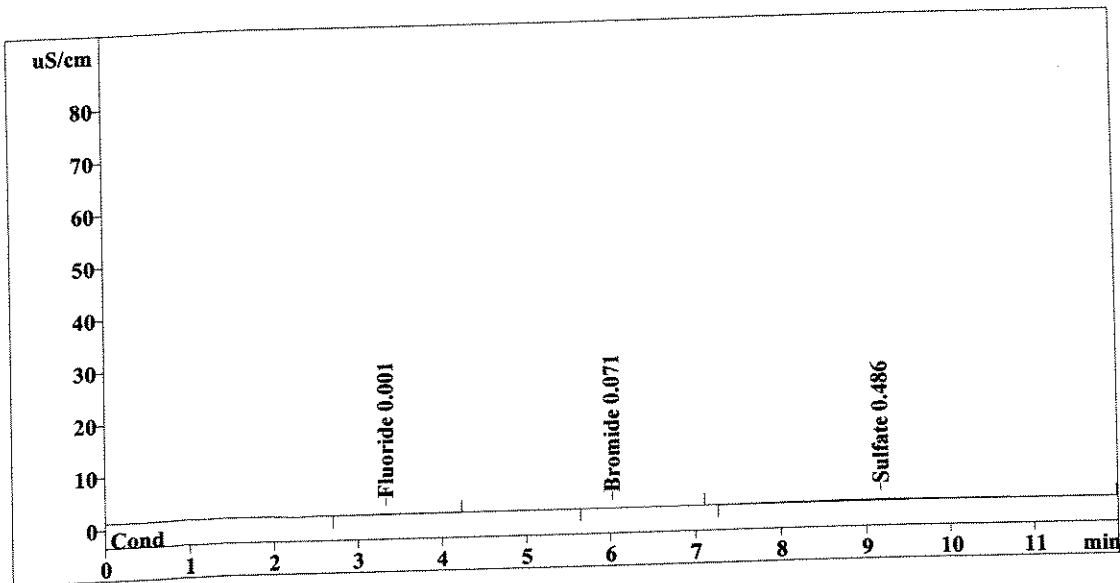
Report date: 7/25/2008 00:47:07  
 Printed by: User  
 Ident: MTD BLK 7/10/08  
 Analysis from: 7/25/2008 00:35:08  
 File: S7250035.CHW

Last save: 7/25/2008 00:47:06

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38688  
 SAMPLE: 25g -> 250mL (CS) ∴ results × 10  
 Vial number: 56  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.33	0.939	0.001	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.06	0.356	0.071	Bromide
5	0.00	0.000	0.000	Nitrate
6	9.16	18.670	0.486	Sulfate
6	12.00	19.965	0.558	

*OK*  
*OK*  
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Method 300.0/9056

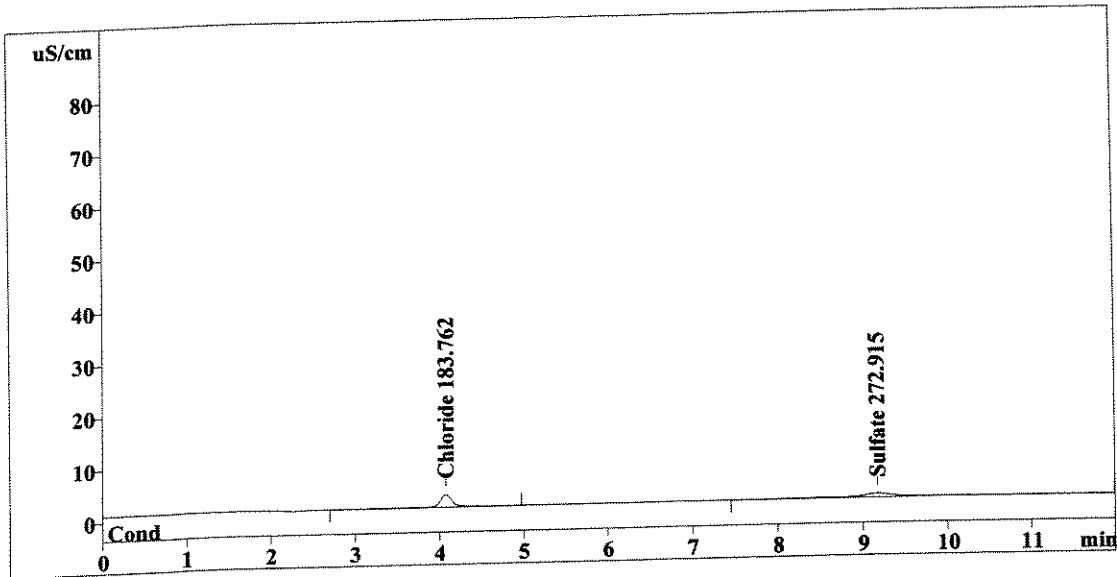
Report date: 7/25/2008 01:01:13  
 Printed by: User  
 Ident: 1116254  
 Analysis from: 7/25/2008 00:49:14  
 File: S7250049.CHW

Last save: 7/25/2008 01:01:12

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38689  
 SAMPLE: 25g -> 250mL (CS)  
 Vial number: 57  
 Volume: 1.0 µL  
 Dilution: 400.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	0.00	0.000	0.000	Fluoride
2	4.07	25.247	183.762	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	0.00	0.000	0.000	Nitrate
6	9.17	27.572	272.915	Sulfate
<hr/>				
6	12.00	52.820	456.678	

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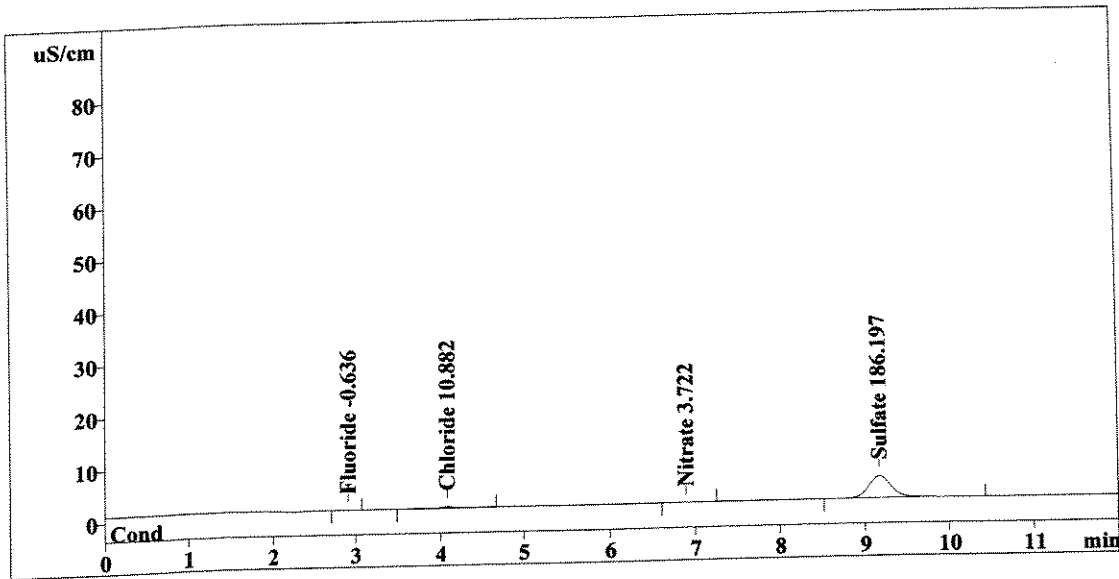
Report date: 7/25/2008 01:15:19  
 Printed by: User  
 Ident: 1116258  
 Analysis from: 7/25/2008 01:03:20  
 File: S7250103.CHW

Last save: 7/25/2008 01:15:18

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38690  
 SAMPLE: 25g -> 250mL (S)  
 Vial number: 58  
 Volume: 1.0 µL  
 Dilution: 100.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.91	0.185	-0.636	Fluoride
2	4.08	2.597	10.882	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.89	0.195	3.722	Nitrate
6	9.17	81.162	186.197	Sulfate
6	12.00	84.139	201.438	

*OK*  
*7/25/08*

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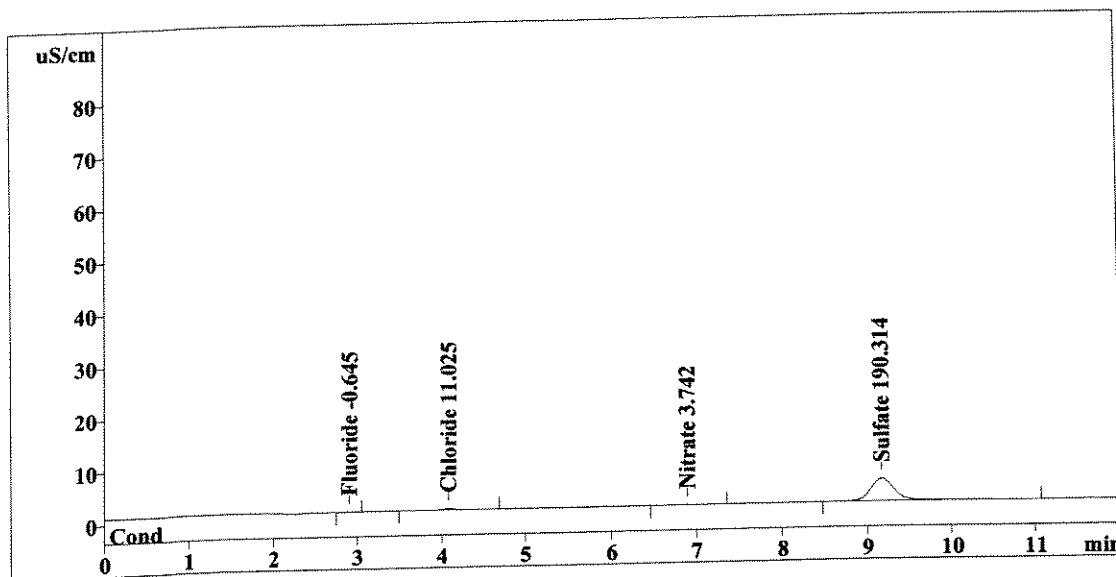
Report date: 7/25/2008 01:29:24  
 Printed by: User  
 Ident: 1116258 DUP @ IC  
 Analysis from: 7/25/2008 01:17:26  
 File: S7250117.CHW

Last save: 7/25/2008 01:29:24

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38691  
 SAMPLE: 25g -> 250mL (S)  
 Vial number: 59  
 Volume: 1.0 µL  
 Dilution: 100.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.90	0.176	-0.645	Fluoride
2	4.08	2.689	11.025	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.90	0.228	3.742	Nitrate
6	9.17	83.032	190.314	Sulfate
6	12.00	86.125	205.726	

*OK*  
*CVT 7/25/08*

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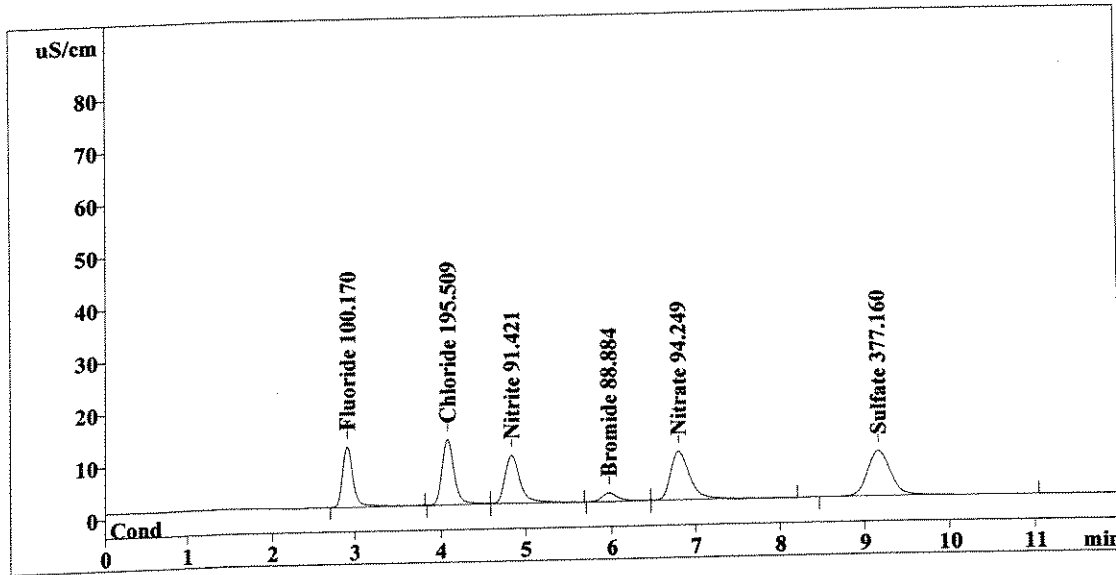
Report date: 7/25/2008 01:43:30  
 Printed by: User  
 Ident: 1116258 SPK @ IC  
 Analysis from: 7/25/2008 01:31:32  
 File: S7250131.CHW

Last save: 7/25/2008 01:43:30

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38692  
 SAMPLE: 25g -> 250mL (S)  
 Vial number: 60  
 Volume: 1.0 µL  
 Dilution: 100.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.90	102.122	100.170	Fluoride
2	4.07	121.881	195.509	Chloride
3	4.83	112.868	91.421	Nitrite
4	5.97	20.973	88.884	Bromide
5	6.80	148.735	94.249	Nitrate
6	9.16	167.911	377.160	Sulfate
<hr/>				
6	12.00	674.490	947.392	

*OK*  
*7/25/08*

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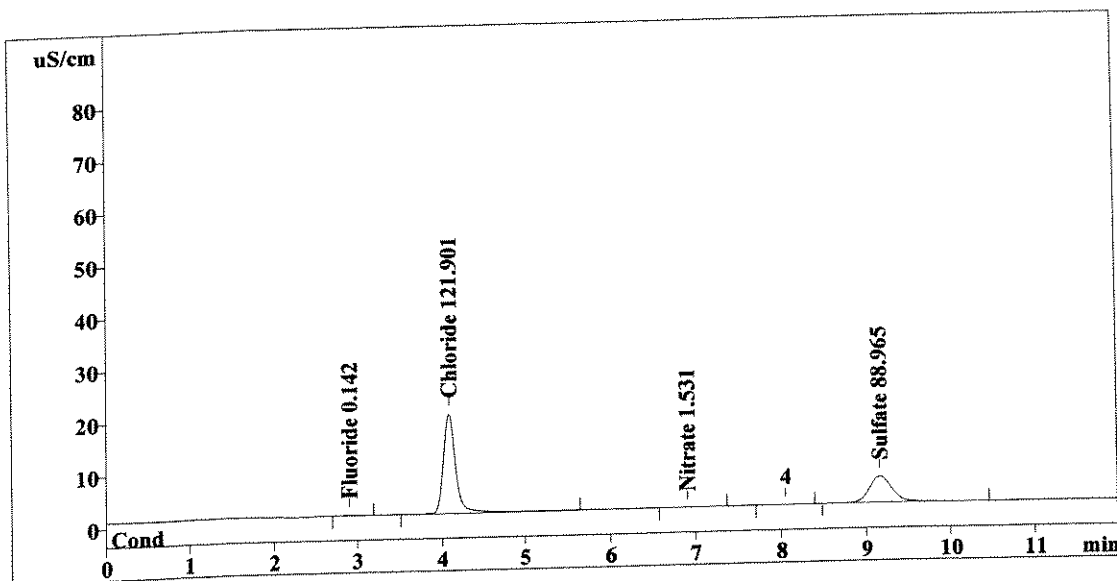
Report date: 7/25/2008 01:57:36  
 Printed by: User  
 Ident: 1116265  
 Analysis from: 7/25/2008 01:45:38  
 File: S7250145.CHW

Last save: 7/25/2008 01:57:36

Last save: 7/24/2008 11:35:17

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38693  
 SAMPLE: 25g -> 250mL (S)  
 Vial number: 61  
 Volume: 1.0 µL  
 Dilution: 40.00  
 Amount: 1.0000

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.90	1.187	0.142	Fluoride
2	4.08	192.461	121.901	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.90	0.369	1.531	Nitrate
6	9.17	97.614	88.965	Sulfate
6	12.00	291.631	212.539	

*OK*  
*CM 7/25/08*

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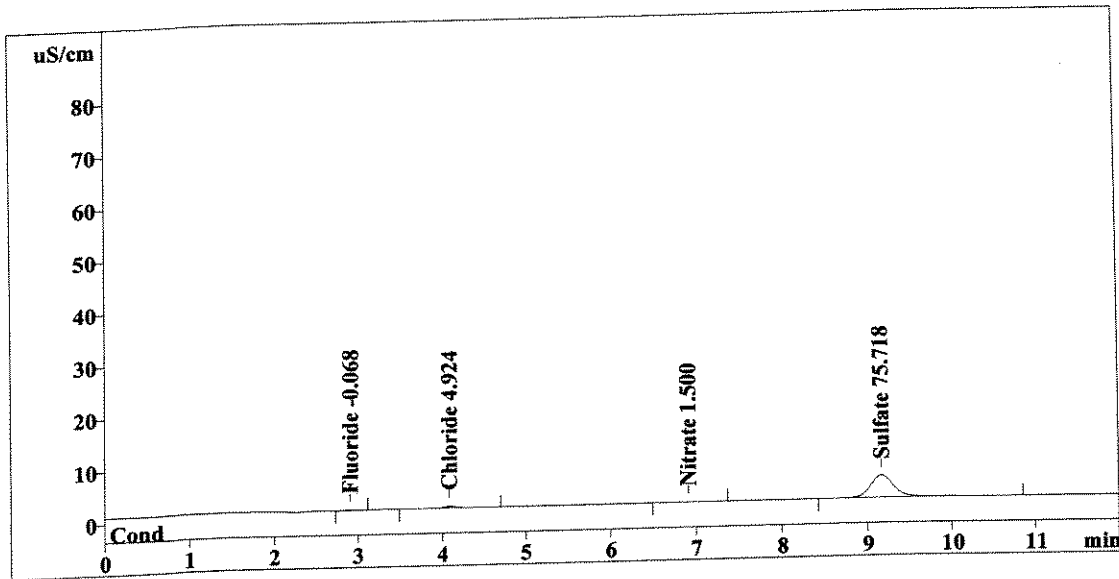
Report date: 7/25/2008 02:11:42  
 Printed by: User  
 Ident: 1116273  
 Analysis from: 7/25/2008 01:59:44  
 File: S7250159.CHW

Last save: 7/25/2008 02:11:42

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38694  
 SAMPLE: 25g -> 250mL (S)  
 Vial number: 62  
 Volume: 1.0 µL  
 Dilution: 40.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.90	0.655	-0.068	Fluoride
2	4.08	3.519	4.924	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.91	0.242	1.500	Nitrate
6	9.17	82.569	75.718	Sulfate
6	12.00	86.985	82.210	

*OK*  
*7/25/08*

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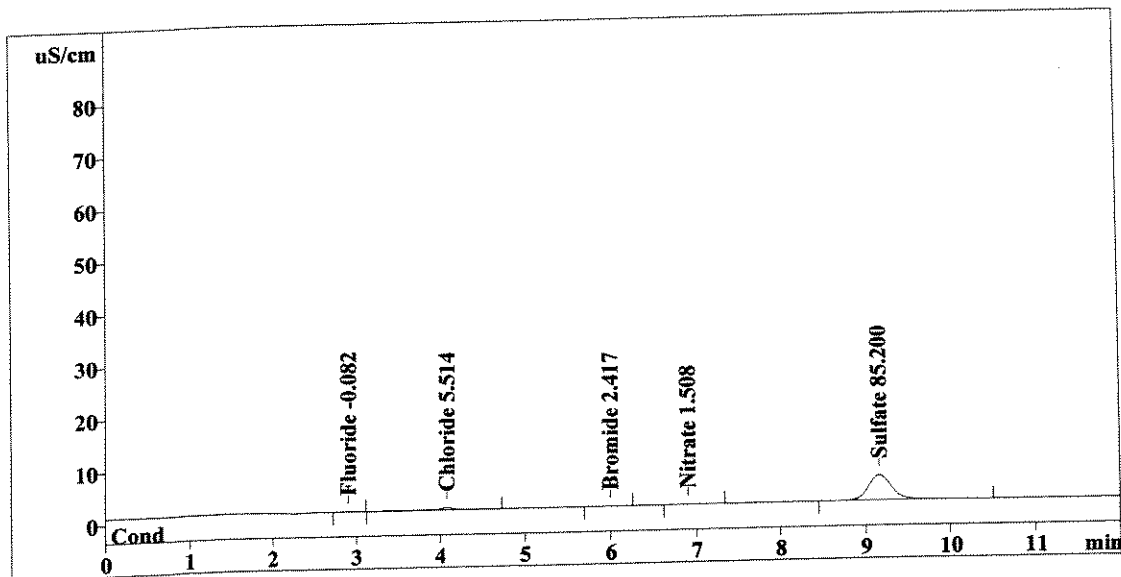
Report date: 7/25/2008 02:25:48  
 Printed by: User  
 Ident: 1116274  
 Analysis from: 7/25/2008 02:13:50  
 File: S7250213.CHW

Last save: 7/25/2008 02:25:48

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38695  
 SAMPLE: 25g -> 250mL (S)  
 Vial number: 63  
 Volume: 1.0 µL  
 Dilution: 40.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.90	0.622	-0.082	Fluoride
2	4.08	4.472	5.514	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.99	0.091	2.417	Bromide
5	6.91	0.274	1.508	Nitrate
6	9.16	93.338	85.200	Sulfate
<hr/>				
6	12.00	98.796	94.720	

*OK*  
*CV 7/25/08*

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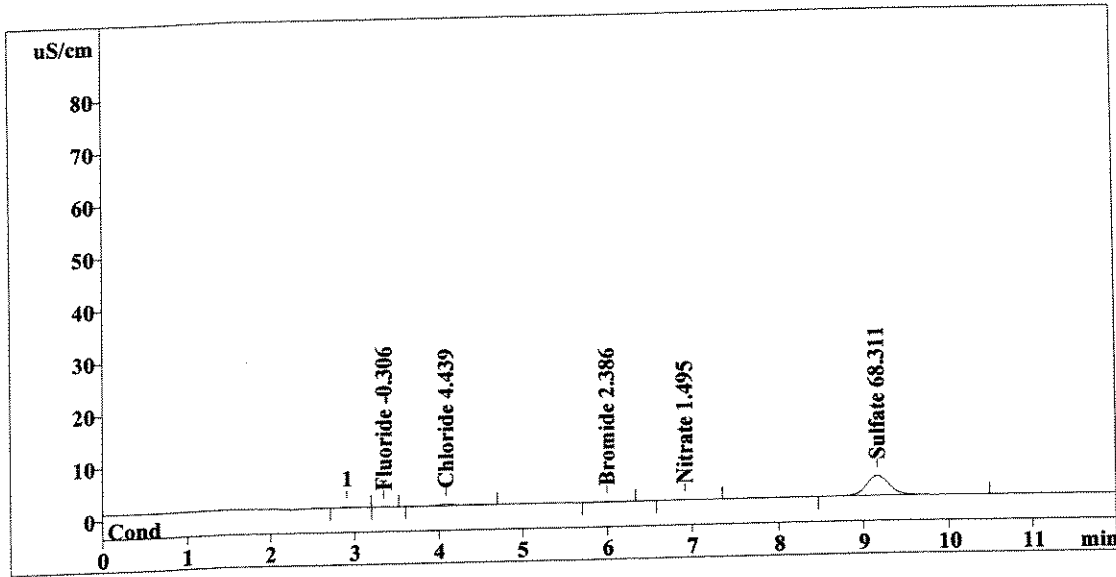
Report date: 7/25/2008 02:39:54  
 Printed by: User  
 Ident: 1116278  
 Analysis from: 7/25/2008 02:27:56  
 File: S7250227.CHW

Last save: 7/25/2008 02:39:54

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38696  
 SAMPLE: 25g -> 250mL (S)  
 Vial number: 64  
 Volume: 1.0 µL  
 Dilution: 40.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.34	0.055	-0.306	Fluoride
2	4.08	2.736	4.439	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.99	0.071	2.386	Bromide
5	6.91	0.220	1.495	Nitrate
6	9.16	74.157	68.311	Sulfate
6	12.00	77.241	76.937	

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 Report date: 7/25/2008 02:54:00  
 Printed by: User  
 Ident: 1116279  
 Analysis from: 7/25/2008 02:42:02  
 File: S7250242.CHW

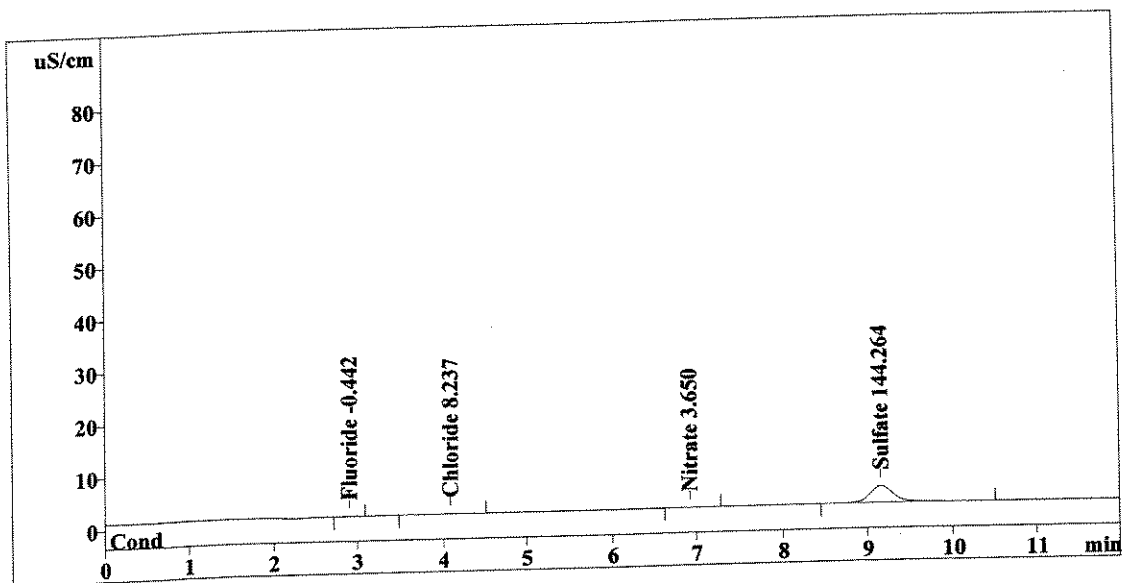
Method 300.0/9056

Last save: 7/25/2008 02:54:00

Last save: 7/24/2008 11:35:17

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38697  
 SAMPLE: 25g -> 250mL (S)  
 Vial number: 65  
 Volume: 1.0 µL  
 Dilution: 100.00  
 Amount: 1.0000

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.90	0.381	-0.442	Fluoride
2	4.08	0.888	8.237	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.92	0.076	3.650	Nitrate
6	9.16	62.113	144.264	Sulfate
6	12.00	63.458	156.593	

*OK*  
*CM*  
*7/25/08*

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Method 300.0/9056

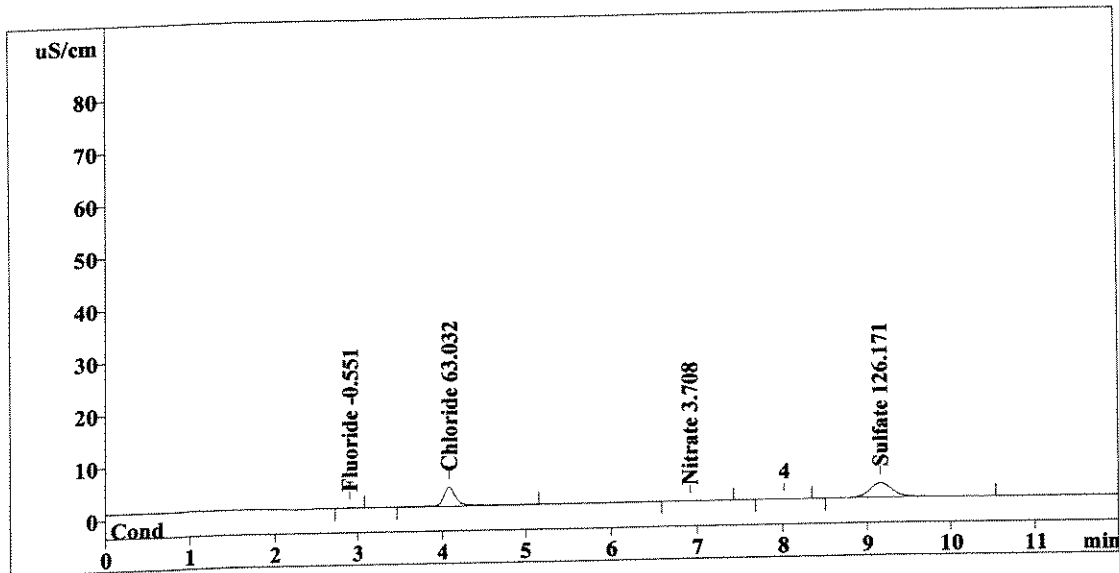
Report date: 7/25/2008 03:08:06  
 Printed by: User  
 Ident: 1116264  
 Analysis from: 7/25/2008 02:56:08  
 File: S7250256.CHW

Last save: 7/25/2008 03:08:06

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38698  
 SAMPLE: 25g -> 250mL (C)  
 Vial number: 66  
 Volume: 1.0 µL  
 Dilution: 100.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.90	0.271	-0.551	Fluoride
2	4.08	36.290	63.032	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.92	0.172	3.708	Nitrate
6	9.16	53.894	126.171	Sulfate
6	12.00	90.627	193.462	

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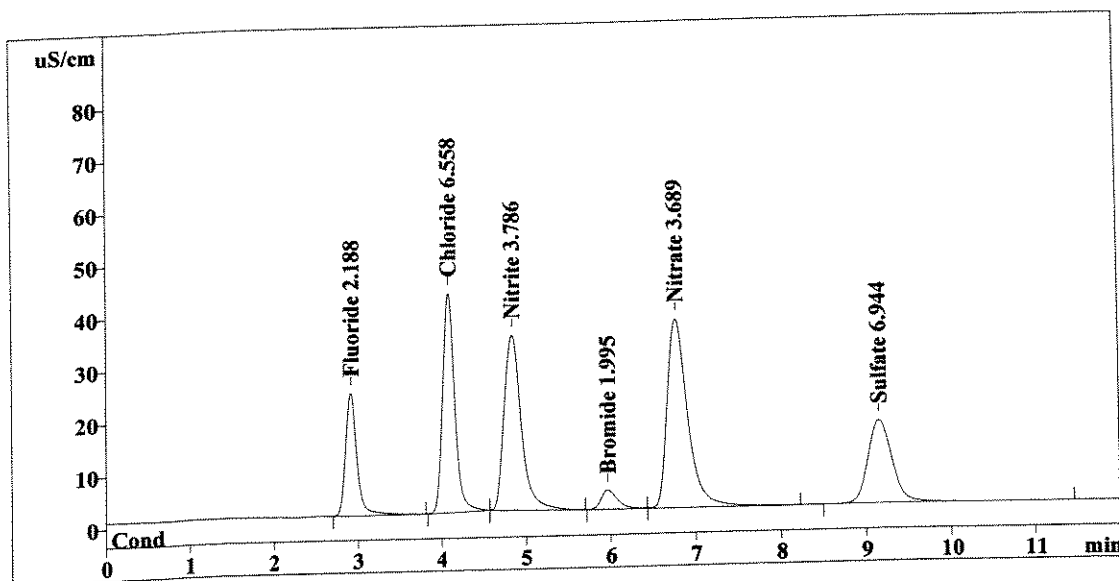
Report date: 7/25/2008 03:22:12  
 Printed by: User  
 Ident: CCV  
 Analysis from: 7/25/2008 03:10:14  
 File: S7250310.CHW

Last save: 7/25/2008 03:22:12

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38699  
 SAMPLE:  
 Vial number: 67  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.91	222.075	2.188	Fluoride
2	4.08	419.288	6.558	Chloride
3	4.83	471.600	3.786	Nitrite
4	5.97	48.866	1.995	Bromide
5	6.77	599.446	3.689	Nitrate
6	9.16	312.023	6.944	Sulfate
6	12.00	2073.297	25.161	

OK  
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 [Handwritten signature]

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 Rochester, NY 14609

Method 300.0/9056

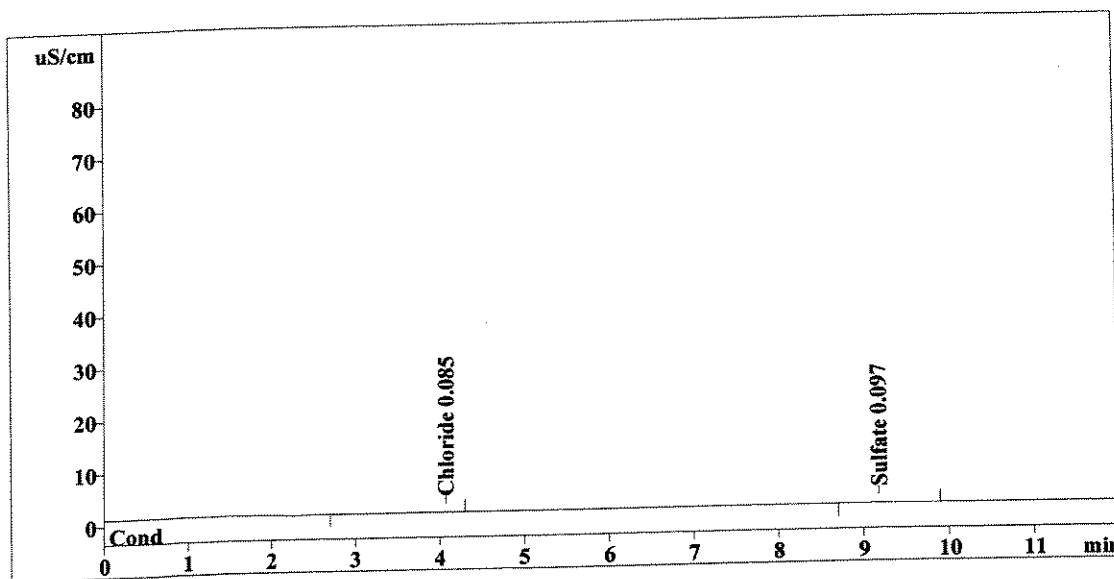
Report date: 7/25/2008 03:36:18  
 Printed by: User  
 Ident: CCB  
 Analysis from: 7/25/2008 03:24:19  
 File: S7250324.CHW

Last save: 7/25/2008 03:36:18

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38700  
 SAMPLE:  
 Vial number: 68  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	0.00	0.000	0.000	Fluoride
2	4.07	1.086	0.085	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	0.00	0.000	0.000	Nitrate
6	9.18	0.985	0.097	Sulfate
6	12.00	2.070	0.182	

*OK*  
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*W*  
*7/25/08*

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Method 300.0/9056

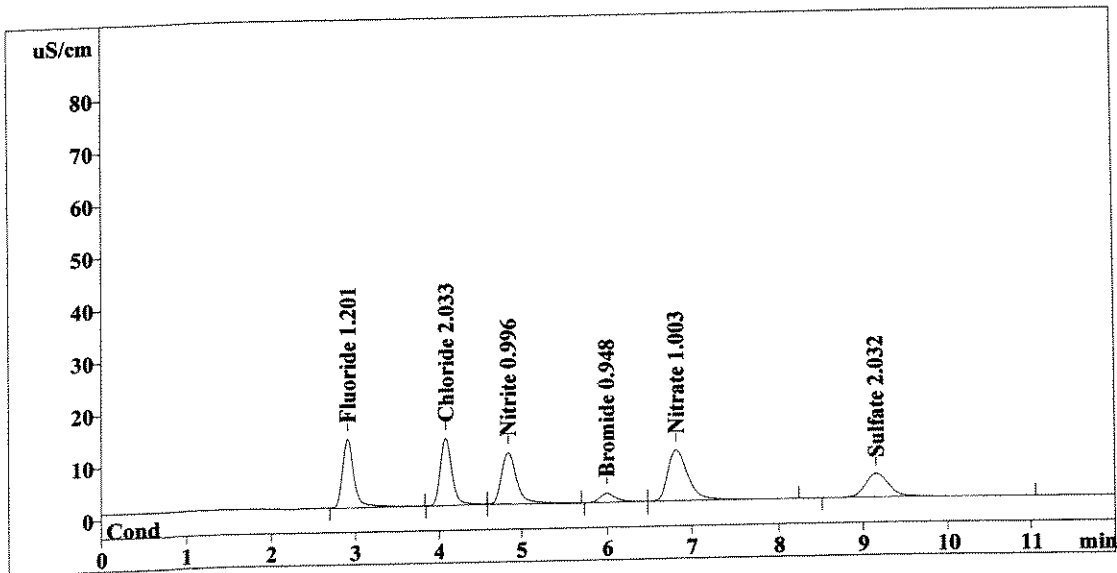
Report date: 7/25/2008 03:50:24  
 Printed by: User  
 Ident: LCS  
 Analysis from: 7/25/2008 03:38:25  
 File: S7250338.CHW

Last save: 7/25/2008 03:50:24

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38701  
 SAMPLE:  
 Vial number: 69  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.90	122.308	1.201	Fluoride
2	4.08	126.934	2.033	Chloride
3	4.84	123.071	0.996	Nitrite
4	6.00	22.454	0.948	Bromide
5	6.82	158.668	1.003	Nitrate
6	9.16	88.865	2.032	Sulfate
<hr/>			8.213	
6	12.00	642.300		

Handwritten notes: a checkmark and a downward arrow pointing to the 6th row of the table, with a signature below it.

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Method 300.0/9056

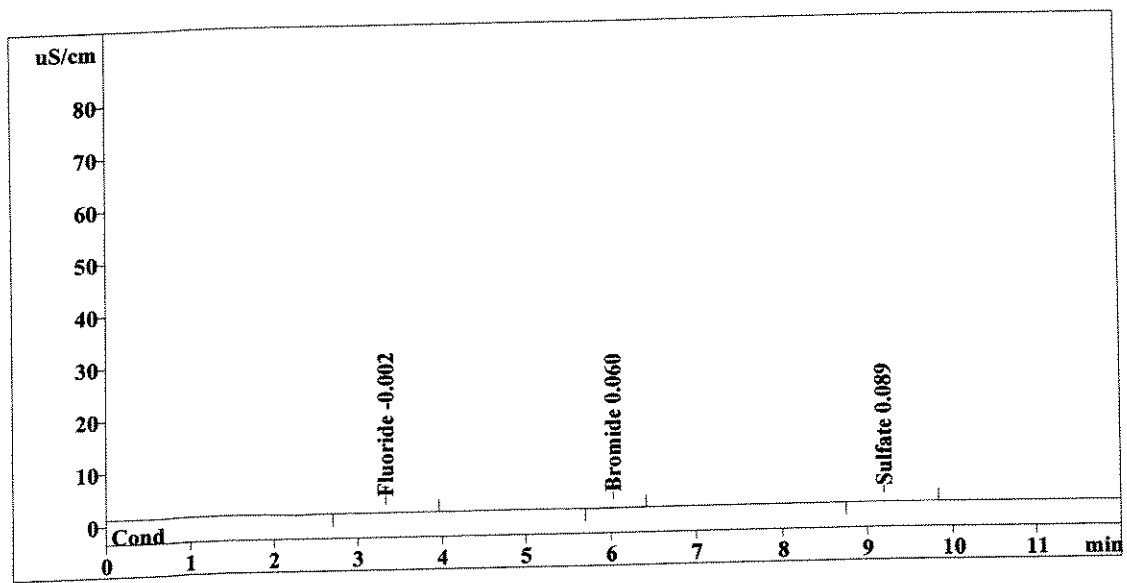
Report date: 7/25/2008 04:04:30  
 Printed by: User  
 Ident: MTD BLK 7/14/08  
 Analysis from: 7/25/2008 03:52:31  
 File: S7250352.CHW

Last save: 7/25/2008 04:04:30

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38702  
 SAMPLE: 25g -> 250mL (CS) ; *results x 10*  
 Vial number: 70  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.33	0.619	-0.002	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.03	0.079	0.060	Bromide
5	0.00	0.000	0.000	Nitrate
6	9.20	0.602	0.089	Sulfate
6	12.00	1.300	0.151	

*OK*  
*OK*  
*OK*  
*7/25/08*

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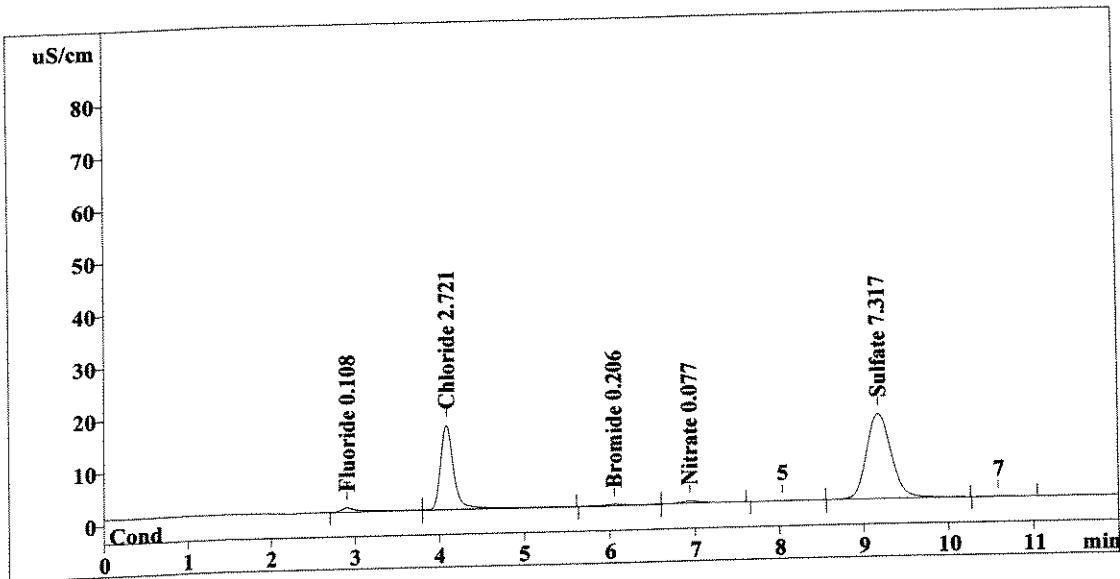
Report date: 7/25/2008 04:18:36  
 Printed by: User  
 Ident: 1116802  
 Analysis from: 7/25/2008 04:06:37  
 File: S7250406.CHW

Last save: 7/25/2008 04:18:36

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38703  
 SAMPLE: 25g -> 250mL (CS)  
 Vial number: 71  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.90	11.718	0.108	Fluoride
2	4.08	171.383	2.721	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.05	3.750	0.206	Bromide
5	6.94	6.796	0.077	Nitrate
6	9.18	328.991	7.317	Sulfate
6	12.00	522.638	10.429	

*OK*  
*OK*  
*GW*  
*7/25/08*

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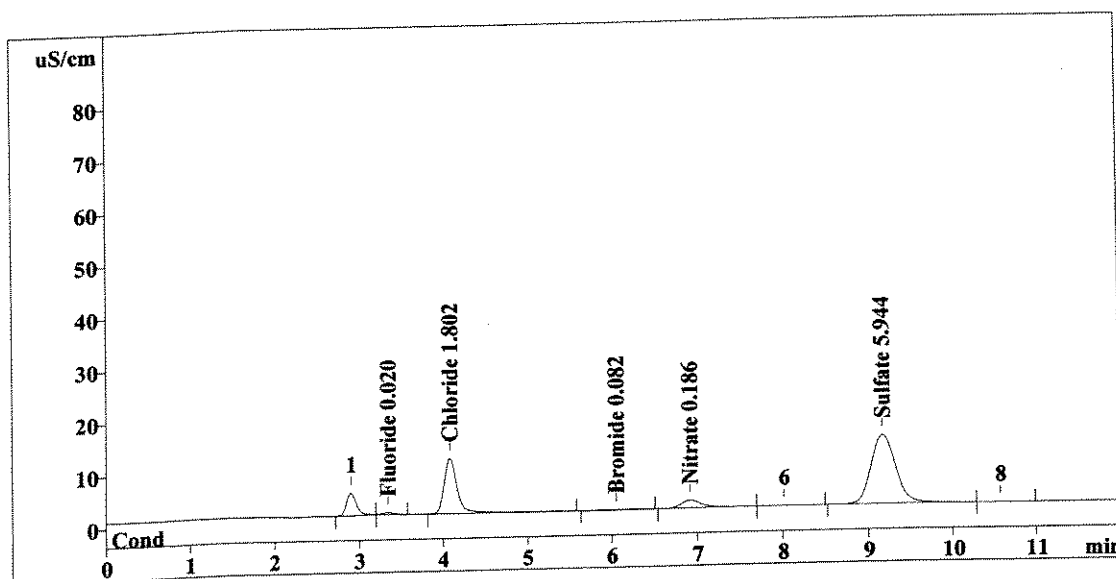
Report date: 7/25/2008 04:32:42  
 Printed by: User  
 Ident: 1116803  
 Analysis from: 7/25/2008 04:20:43  
 File: S7250420.CHW

Last save: 7/25/2008 04:32:42

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38704  
 SAMPLE: 25g -> 250mL (CS)  
 Vial number: 72  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.34	2.821	0.020	Fluoride
2	4.08	112.017	1.802	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.06	0.636	0.082	Bromide
5	6.91	24.665	0.186	Nitrate
6	9.17	266.600	5.944	Sulfate
6	12.00	406.740	8.035	

*Handwritten signature and date: CM 7/25/08*

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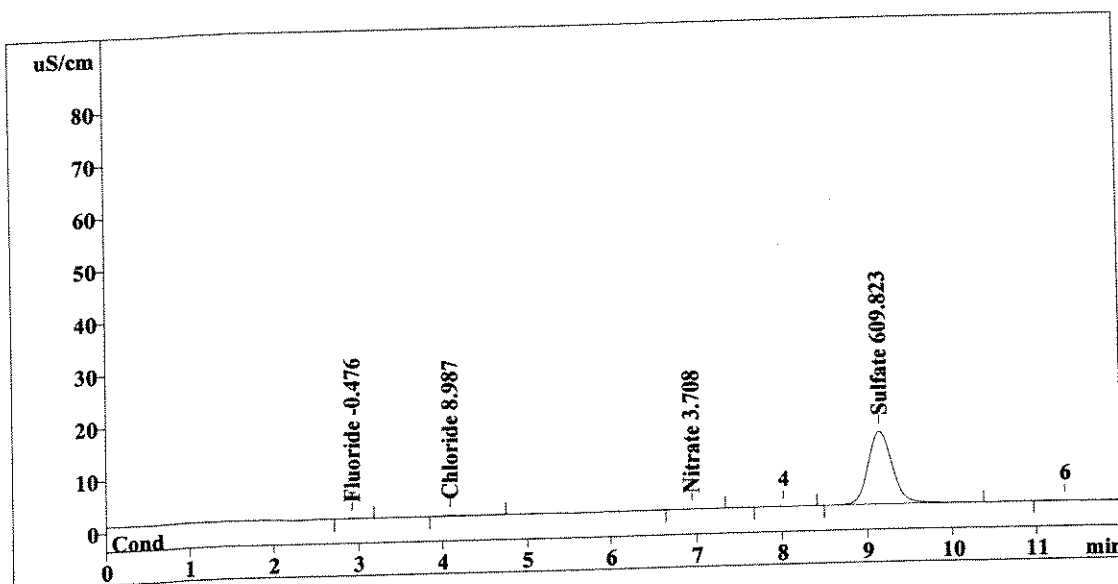
Report date: 7/25/2008 04:46:48  
 Printed by: User  
 Ident: 1116804  
 Analysis from: 7/25/2008 04:34:49  
 File: S7250434.CHW

Last save: 7/25/2008 04:46:48

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38705  
 SAMPLE: 25g -> 250mL (S)  
 Vial number: 73  
 Volume: 1.0 µL  
 Dilution: 100.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.92	0.347	-0.476	Fluoride
2	4.09	1.373	8.987	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.94	0.171	3.708	Nitrate
6	9.15	273.604	609.823	Sulfate
6	12.00	275.495	622.995	

*OK*  
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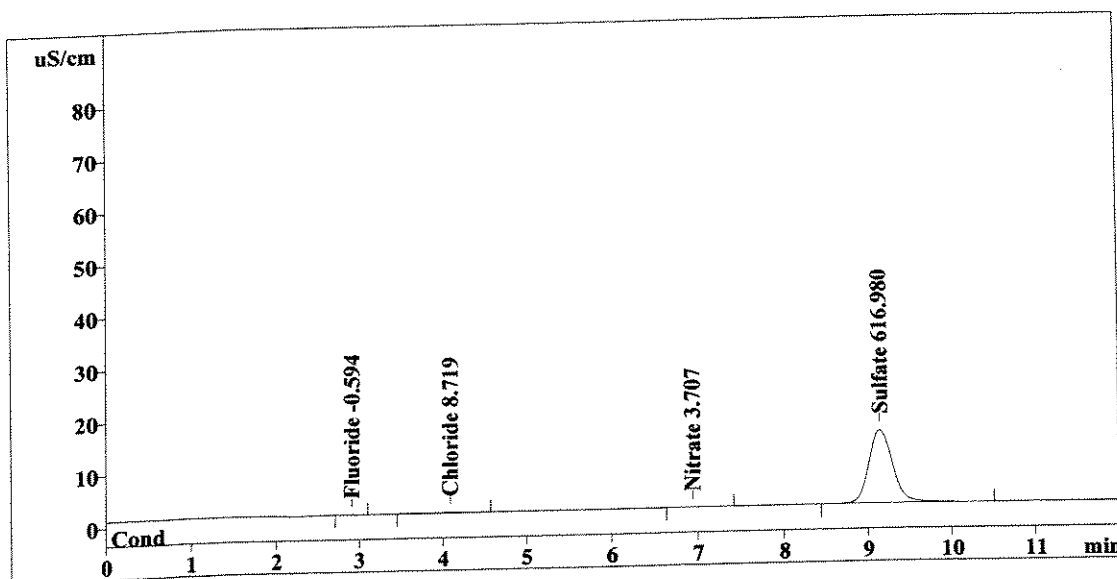
Report date: 7/25/2008 05:00:54  
 Printed by: User  
 Ident: 1116804 DUP @ IC  
 Analysis from: 7/25/2008 04:48:55  
 File: S7250448.CHW

Last save: 7/25/2008 05:00:54

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38706  
 SAMPLE: 25g -> 250mL (S)  
 Vial number: 74  
 Volume: 1.0 µL  
 Dilution: 100.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.91	0.227	-0.594	Fluoride
2	4.09	1.199	8.719	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.94	0.170	3.707	Nitrate
6	9.15	276.855	616.980	Sulfate
6	12.00	278.452	630.000	

*OK*  
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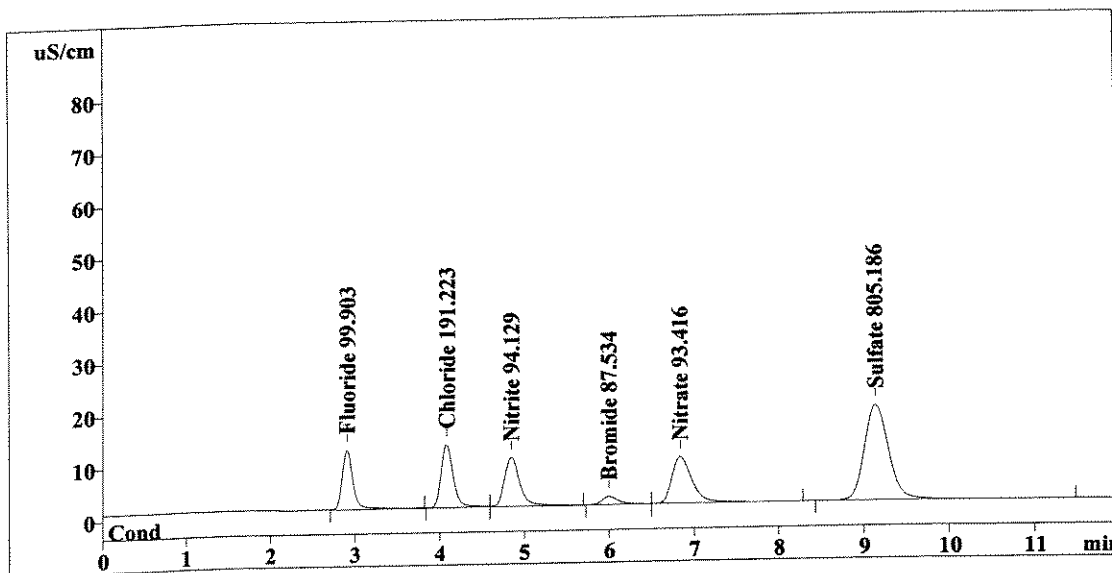
Report date: 7/25/2008 05:15:00  
 Printed by: User  
 Ident: 1116804 SPK @ IC  
 Analysis from: 7/25/2008 05:03:01  
 File: S7250503.CHW

Last save: 7/25/2008 05:15:00

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38707  
 SAMPLE: 25g -> 250mL (S)  
 Vial number: 75  
 Volume: 1.0 µL  
 Dilution: 100.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.90	101.851	99.903	Fluoride
2	4.08	119.112	191.223	Chloride
3	4.84	116.251	94.129	Nitrite
4	6.00	20.633	87.534	Bromide
5	6.84	147.368	93.416	Nitrate
6	9.14	362.353	805.186	Sulfate
<hr/>				
6	12.00	867.568	1371.391	

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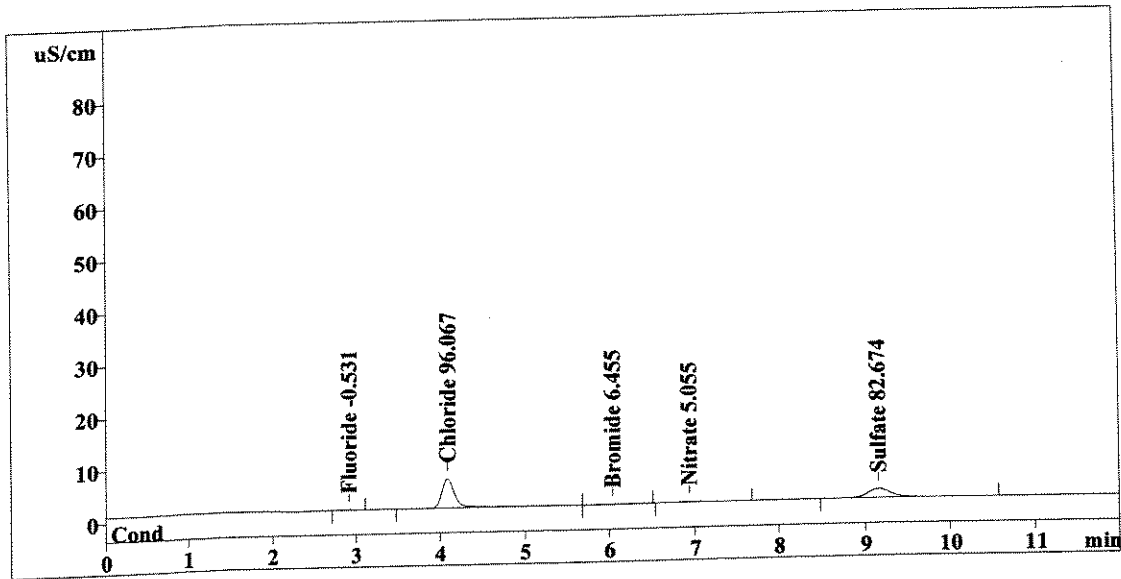
Report date: 7/25/2008 05:29:06  
 Printed by: User  
 Ident: 1116805  
 Analysis from: 7/25/2008 05:17:07  
 File: S7250517.CHW

Last save: 7/25/2008 05:29:06

Last save: 7/24/2008 11:35:17

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38708  
 SAMPLE: 25g -> 250mL (CS)  
 Vial number: 76  
 Volume: 1.0 µL  
 Dilution: 100.00  
 Amount: 1.0000

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.91	0.291	-0.531	Fluoride
2	4.09	57.633	96.067	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.04	0.195	6.455	Bromide
5	6.93	2.383	5.055	Nitrate
6	9.15	34.134	82.674	Sulfate
6	12.00	94.637	190.782	

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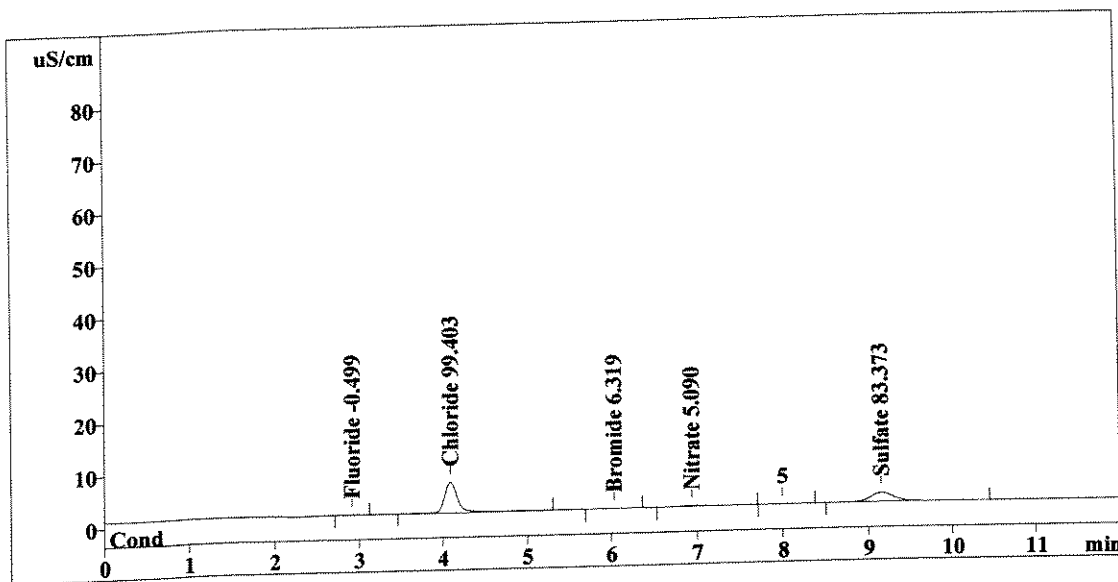
Report date: 7/25/2008 05:43:12  
 Printed by: User  
 Ident: 1116806  
 Analysis from: 7/25/2008 05:31:13  
 File: S7250531.CHW

Last save: 7/25/2008 05:43:11

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38709  
 SAMPLE: 25g -> 250mL (CS)  
 Vial number: 77  
 Volume: 1.0 µL  
 Dilution: 100.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.91	0.323	-0.499	Fluoride
2	4.09	59.788	99.403	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.04	0.161	6.319	Bromide
5	6.94	2.439	5.090	Nitrate
6	9.15	34.452	83.373	Sulfate
6	12.00	97.163	194.684	

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Method 300.0/9056

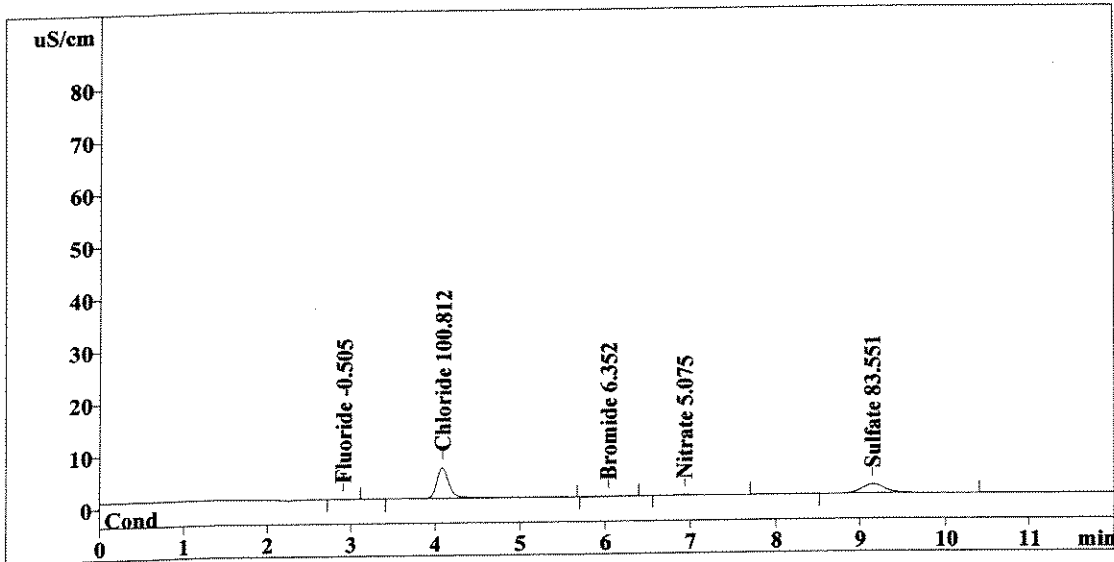
Report date: 7/25/2008 05:57:18  
 Printed by: User  
 Ident: 1116806 DUP @ IC  
 Analysis from: 7/25/2008 05:45:19  
 File: S7250545.CHW

Last save: 7/25/2008 05:57:18

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38710  
 SAMPLE: 25g -> 250mL (CS)  
 Vial number: 78  
 Volume: 1.0 µL  
 Dilution: 100.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.90	0.318	-0.505	Fluoride
2	4.08	60.699	100.812	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.04	0.169	6.352	Bromide
5	6.93	2.416	5.075	Nitrate
6	9.15	34.533	83.551	Sulfate
6	12.00	98.133	196.295	

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Method 300.0/9056

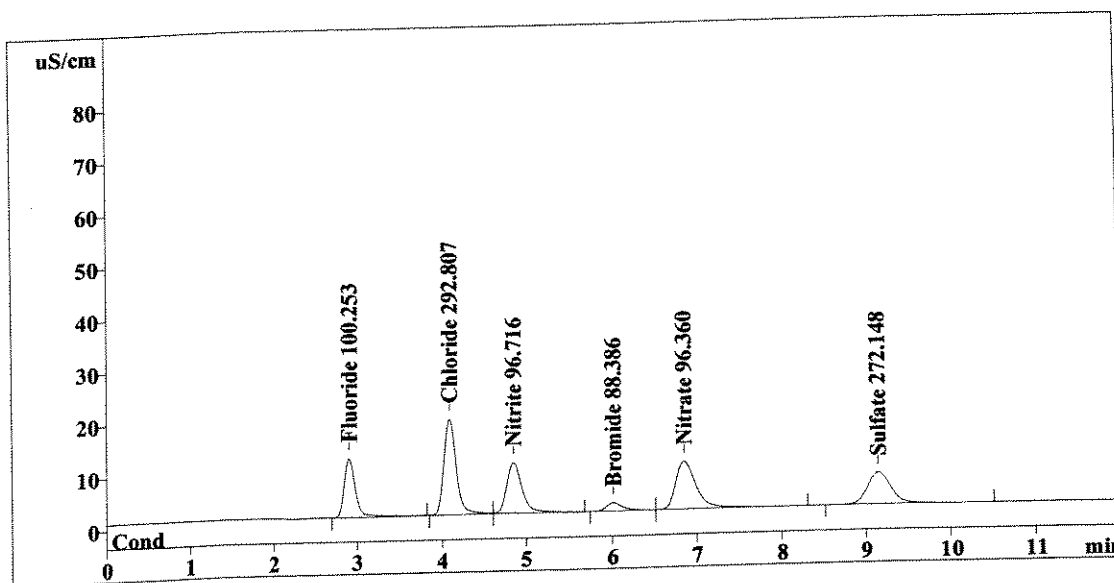
Report date: 7/25/2008 06:11:24  
 Printed by: User  
 Ident: 1116806 SPK @ IC  
 Analysis from: 7/25/2008 05:59:25  
 File: S7250559.CHW

Last save: 7/25/2008 06:11:23

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38711  
 SAMPLE: 25g -> 250mL (CS)  
 Vial number: 79  
 Volume: 1.0 µL  
 Dilution: 100.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.90	102.205	100.253	Fluoride
2	4.09	184.743	292.807	Chloride
3	4.85	119.481	96.716	Nitrite
4	6.02	20.848	88.386	Bromide
5	6.85	152.200	96.360	Nitrate
6	9.15	120.207	272.148	Sulfate
6	12.00	699.684	946.668	

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 Report date: 7/25/2008 06:25:30  
 Printed by: User  
 Ident: 1116807  
 Analysis from: 7/25/2008 06:13:31  
 File: S7250613.CHW

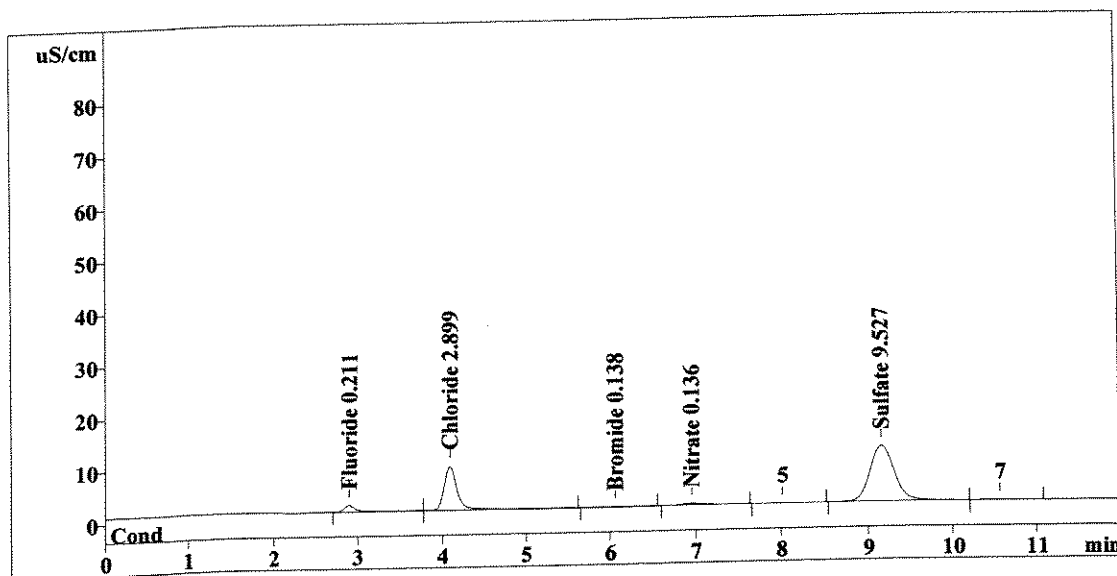
Method 300.0/9056

Last save: 7/25/2008 06:25:29

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38712  
 SAMPLE: 25g -> 250mL (CS)  
 Vial number: 80  
 Volume: 1.0 µL  
 Dilution: 2.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.90	11.488	0.211	Fluoride
2	4.08	89.219	2.899	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.07	0.304	0.138	Bromide
5	6.95	5.236	0.136	Nitrate
6	9.16	212.980	9.527	Sulfate
6	12.00	319.228	12.911	

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Method 300.0/9056

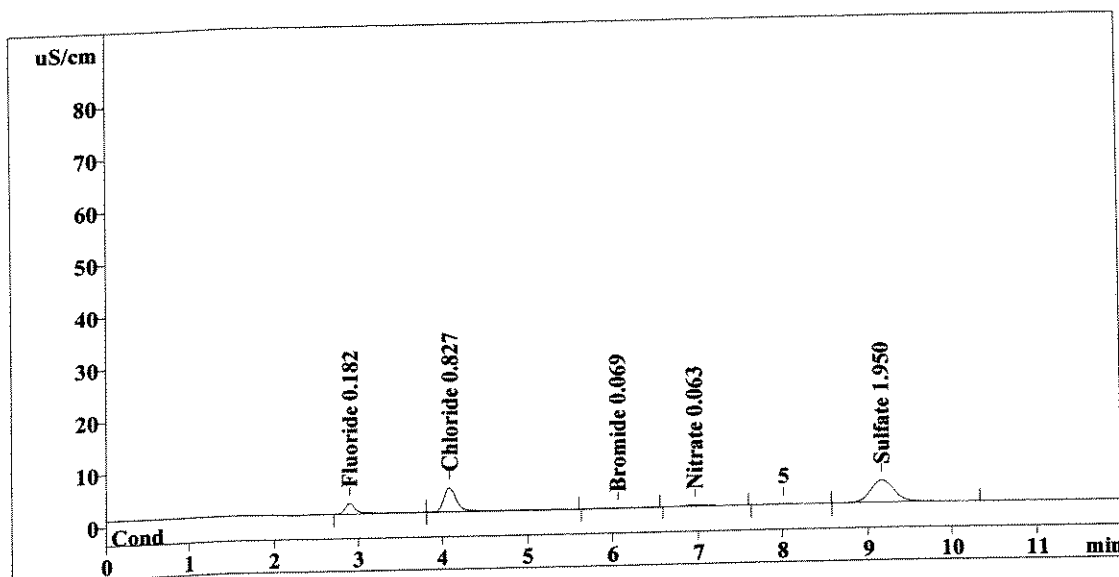
Report date: 7/25/2008 06:39:36  
 Printed by: User  
 Ident: 1116808  
 Analysis from: 7/25/2008 06:27:37  
 File: S7250627.CHW

Last save: 7/25/2008 06:39:35

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38713  
 SAMPLE: 25g -> 250mL (CS)  
 Vial number: 81  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.89	19.191	0.182	Fluoride
2	4.08	49.005	0.827	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.06	0.303	0.069	Bromide
5	6.96	4.458	0.063	Nitrate
6	9.16	85.164	1.950	Sulfate
6	12.00	158.121	3.091	

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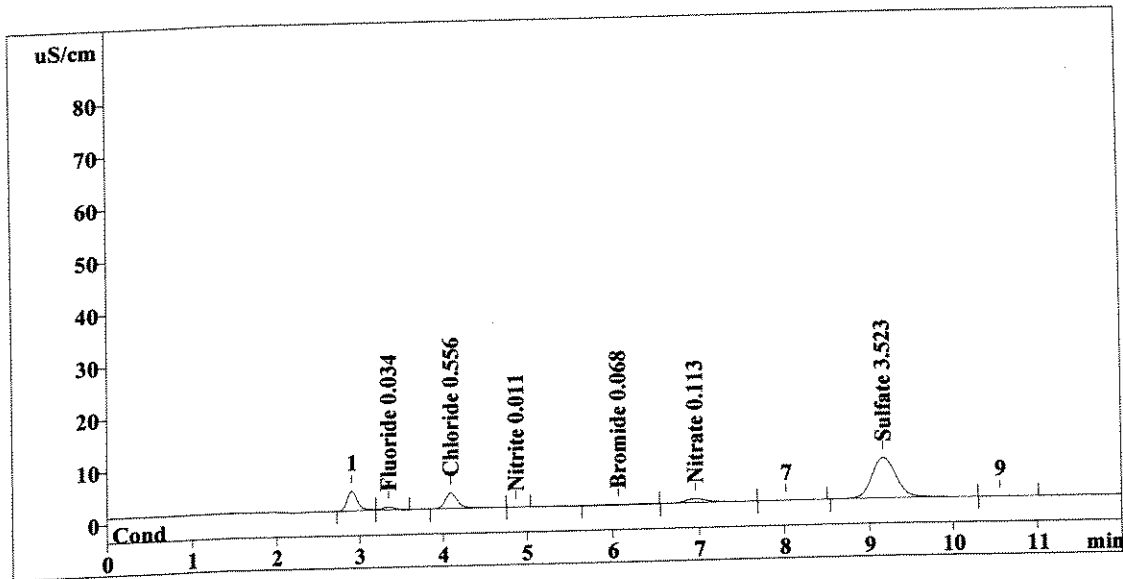
Report date: 7/25/2008 06:53:41  
 Printed by: User  
 Ident: 1116809  
 Analysis from: 7/25/2008 06:41:43  
 File: S7250641.CHW

Last save: 7/25/2008 06:53:41

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38714  
 SAMPLE: 25g -> 250mL (CS)  
 Vial number: 82  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.35	4.278	0.034	Fluoride
2	4.09	31.520	0.556	Chloride
3	4.87	0.056	0.011	Nitrite
4	6.08	0.292	0.068	Bromide
5	6.95	12.658	0.113	Nitrate
6	9.17	156.606	3.523	Sulfate
6	12.00	205.410	4.306	

*Handwritten signature and date: CM 7/25/08*

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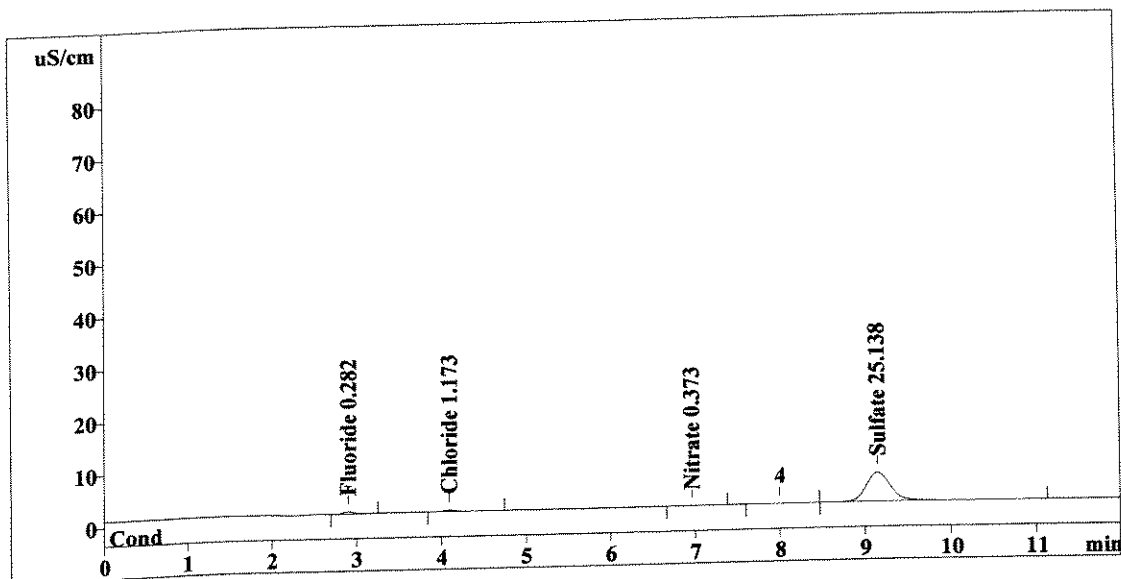
Report date: 7/25/2008 07:07:48  
 Printed by: User  
 Ident: 1116810  
 Analysis from: 7/25/2008 06:55:49  
 File: S7250655.CHW

Last save: 7/25/2008 07:07:47

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38715  
 SAMPLE: 25g -> 250mL (S)  
 Vial number: 83  
 Volume: 1.0 µL  
 Dilution: 10.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.90	3.684	0.282	Fluoride
2	4.09	3.148	1.173	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.96	0.204	0.373	Nitrate
6	9.15	110.771	25.138	Sulfate
6	12.00	117.806	26.966	

*OK*  
*7/25/08*

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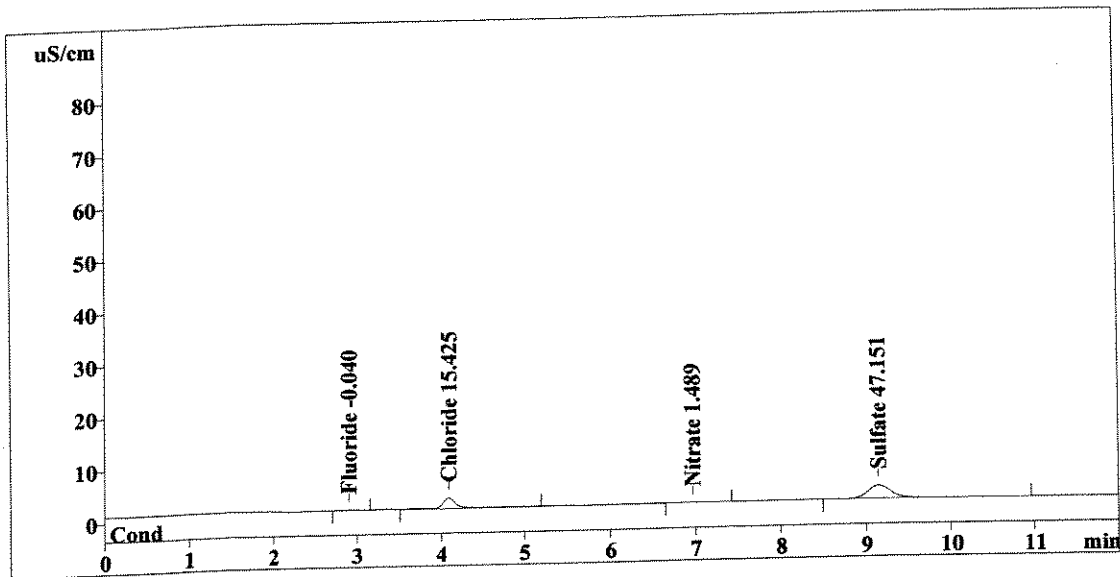
Report date: 7/25/2008 07:21:53  
 Printed by: User  
 Ident: 1116811  
 Analysis from: 7/25/2008 07:09:55  
 File: S7250709.CHW

Last save: 7/25/2008 07:21:53

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38716  
 SAMPLE: 25g -> 250mL (S)  
 Vial number: 84  
 Volume: 1.0 µL  
 Dilution: 40.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.90	0.726	-0.040	Fluoride
2	4.09	20.481	15.425	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.96	0.194	1.489	Nitrate
6	9.15	50.126	47.151	Sulfate
6	12.00	71.527	64.105	

*ax*  
*SM*  
*7/25/08*

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 Report date: 7/25/2008 07:35:59  
 Printed by: User  
 Ident: CCV  
 Analysis from: 7/25/2008 07:24:01  
 File: S7250724.CHW

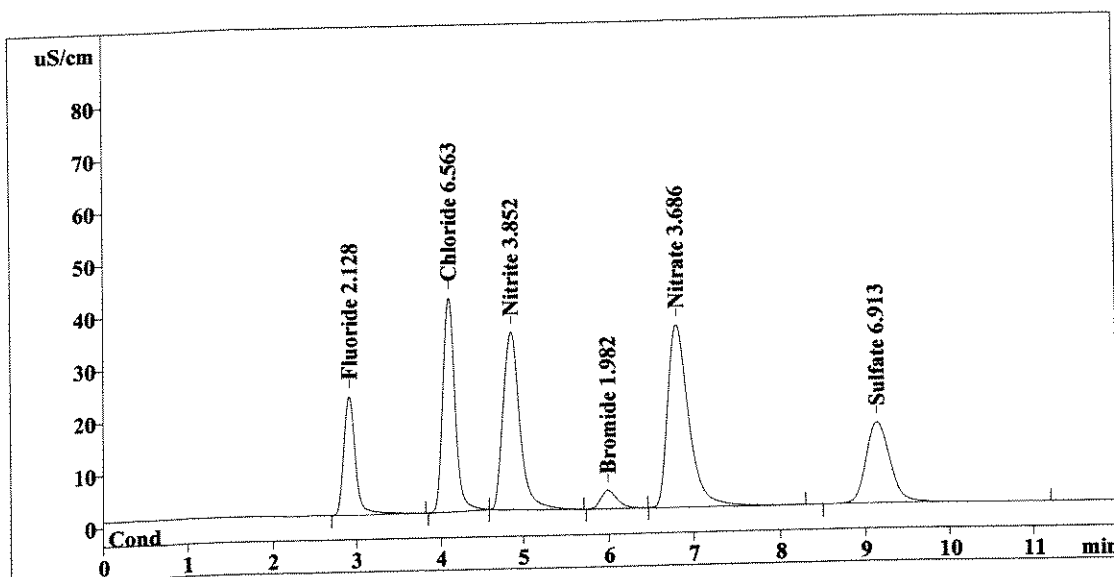
Method 300.0/9056

Last save: 7/25/2008 07:35:59

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38717  
 SAMPLE:  
 Vial number: 85  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.91	215.982	2.128	Fluoride
2	4.09	419.574	6.563	Chloride
3	4.84	479.827	3.852	Nitrite
4	5.99	48.540	1.982	Bromide
5	6.80	598.978	3.686	Nitrate
6	9.14	310.627	6.913	Sulfate
<hr/>			25.125	
6	12.00	2073.527		

*Handwritten notes:*  
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 7/25/08

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 Report date: 7/25/2008 07:50:05  
 Printed by: User  
 Ident: CCB  
 Analysis from: 7/25/2008 07:38:07  
 File: S7250738.CHW

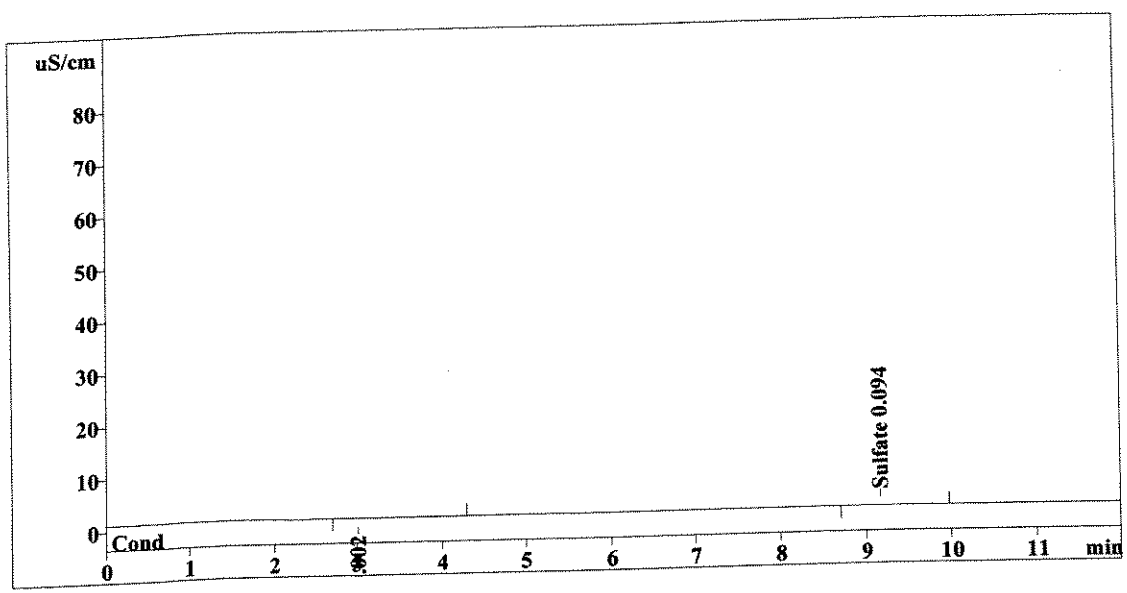
Method 300.0/9056

Last save: 7/25/2008 07:50:05

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38718  
 SAMPLE:  
 Vial number: 86  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.01	0.990	0.002	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	0.00	0.000	0.000	Nitrate
6	9.17	0.866	0.094	Sulfate
6	12.00	1.855	0.096	

OK ↓

*Handwritten signature and date: 7/25/08*

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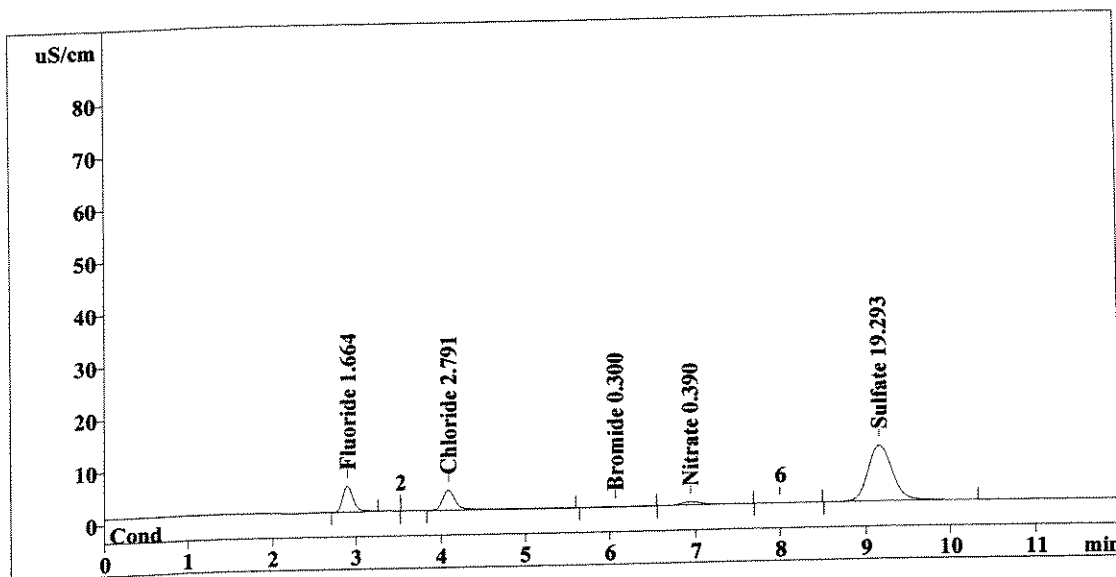
Report date: 7/25/2008 08:04:11  
 Printed by: User  
 Ident: 1116812  
 Analysis from: 7/25/2008 07:52:13  
 File: S7250752.CHW

Last save: 7/25/2008 08:04:11

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38719  
 SAMPLE: 25g -> 250mL (S)  
 Vial number: 87  
 Volume: 1.0 µL  
 Dilution: 4.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.89	42.905	1.664	Fluoride
2	4.08	40.645	2.791	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.07	0.461	0.300	Bromide
5	6.94	10.085	0.390	Nitrate
6	9.16	215.683	19.293	Sulfate
<hr/>				
6	12.00	309.778	24.439	

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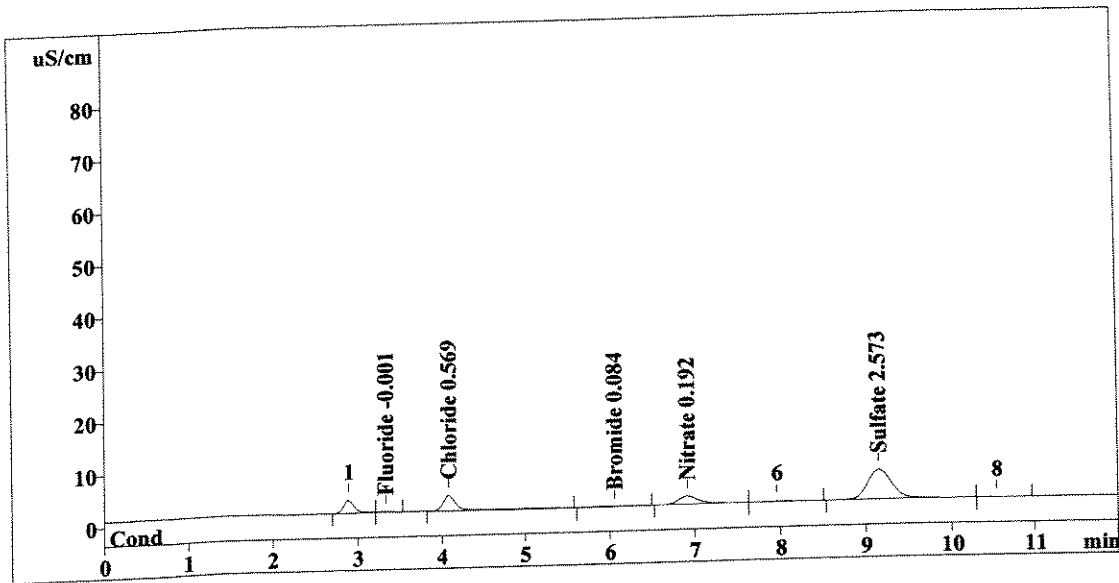
Report date: 7/25/2008 08:18:17  
 Printed by: User  
 Ident: 1116813  
 Analysis from: 7/25/2008 08:06:19  
 File: S7250806.CHW

Last save: 7/25/2008 08:18:17

Last save: 7/24/2008 11:35:17

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38720  
 SAMPLE: 25g -> 250mL (CS)  
 Vial number: 88  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.33	0.685	-0.001	Fluoride
2	4.08	32.303	0.569	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.06	0.686	0.084	Bromide
5	6.92	25.546	0.192	Nitrate
6	9.16	113.478	2.573	Sulfate
6	12.00	172.699	3.419	

*GM*  
 7/25/08

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 Report date: 7/25/2008 08:32:23  
 Printed by: User  
 Ident: 1116814  
 Analysis from: 7/25/2008 08:20:25  
 File: S7250820.CHW

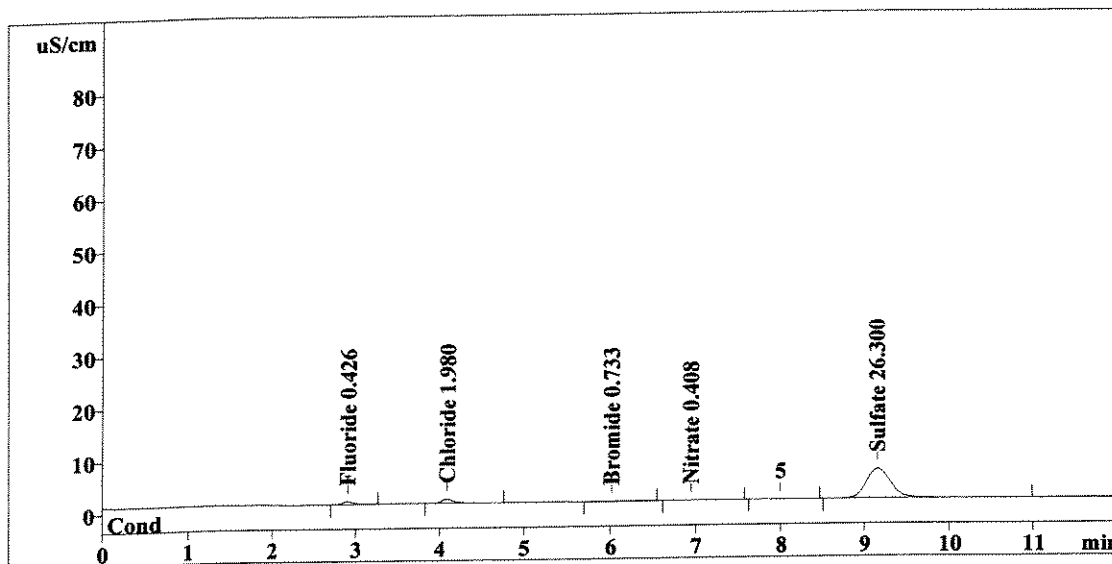
Method 300.0/9056

Last save: 7/25/2008 08:32:23

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38721  
 SAMPLE: 25g -> 250mL (S)  
 Vial number: 89  
 Volume: 1.0 µL  
 Dilution: 10.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.90	5.132	0.426	Fluoride
2	4.09	8.357	1.980	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.02	0.415	0.733	Bromide
5	6.95	0.775	0.408	Nitrate
6	9.16	116.050	26.300	Sulfate
6	12.00	130.730	29.846	

*OK*  
*WY 7/25/08*

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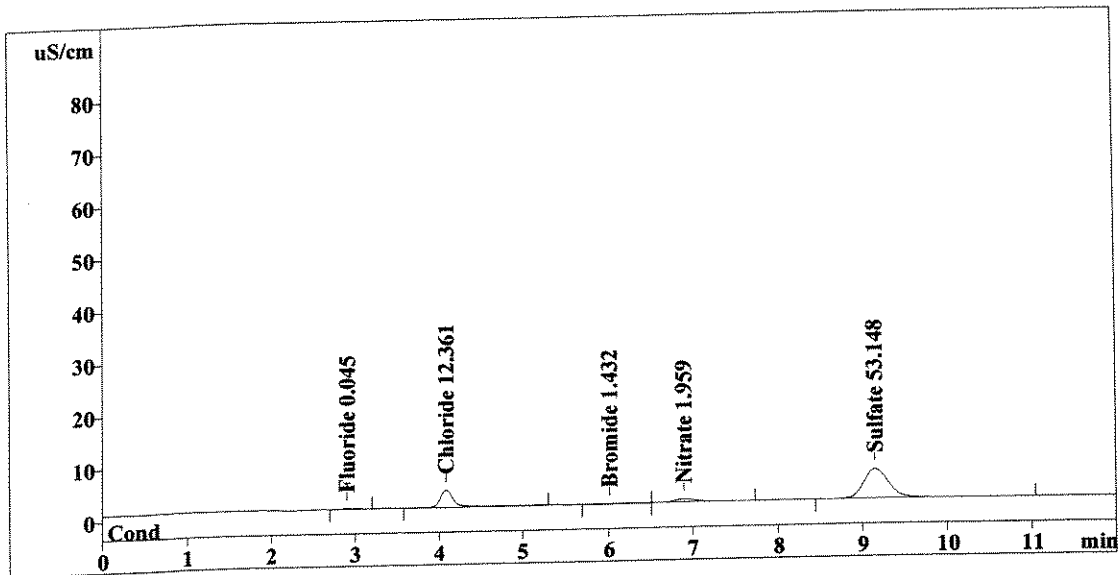
Report date: 7/25/2008 08:46:29  
 Printed by: User  
 Ident: 1116815  
 Analysis from: 7/25/2008 08:34:31  
 File: S7250834.CHW

Last save: 7/25/2008 08:46:29

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38722  
 SAMPLE: 25g -> 250mL (S)  
 Vial number: 90  
 Volume: 1.0 µL  
 Dilution: 20.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.90	1.057	0.045	Fluoride
2	4.08	35.498	12.361	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.01	0.373	1.432	Bromide
5	6.90	10.161	1.959	Nitrate
6	9.15	117.295	53.148	Sulfate
6	12.00	164.384	68.945	

*OK*  
*CM*  
*7/25/08*

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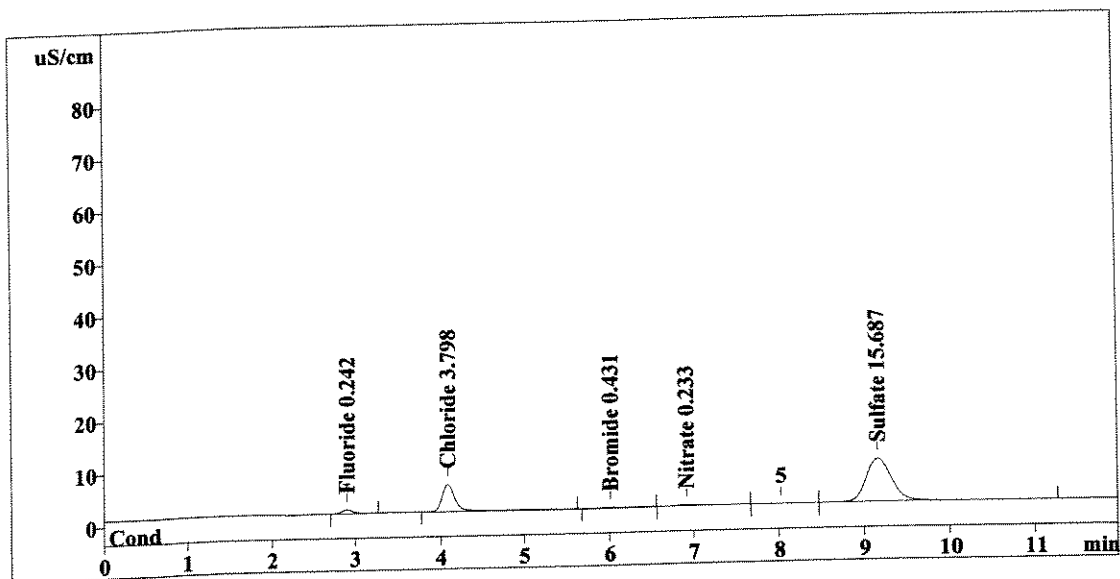
Report date: 7/25/2008 09:00:35  
 Printed by: User  
 Ident: 1116816  
 Analysis from: 7/25/2008 08:48:37  
 File: S7250848.CHW

Last save: 7/25/2008 09:00:35

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38723  
 SAMPLE: 25g -> 250mL (S)  
 Vial number: 91  
 Volume: 1.0 µL  
 Dilution: 4.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.90	6.940	0.242	Fluoride
2	4.08	56.913	3.798	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.01	1.282	0.431	Bromide
5	6.91	3.628	0.233	Nitrate
6	9.16	174.729	15.687	Sulfate
6	12.00	243.491	20.390	

*OK*  
*7/25/08*

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Method 300.0/9056

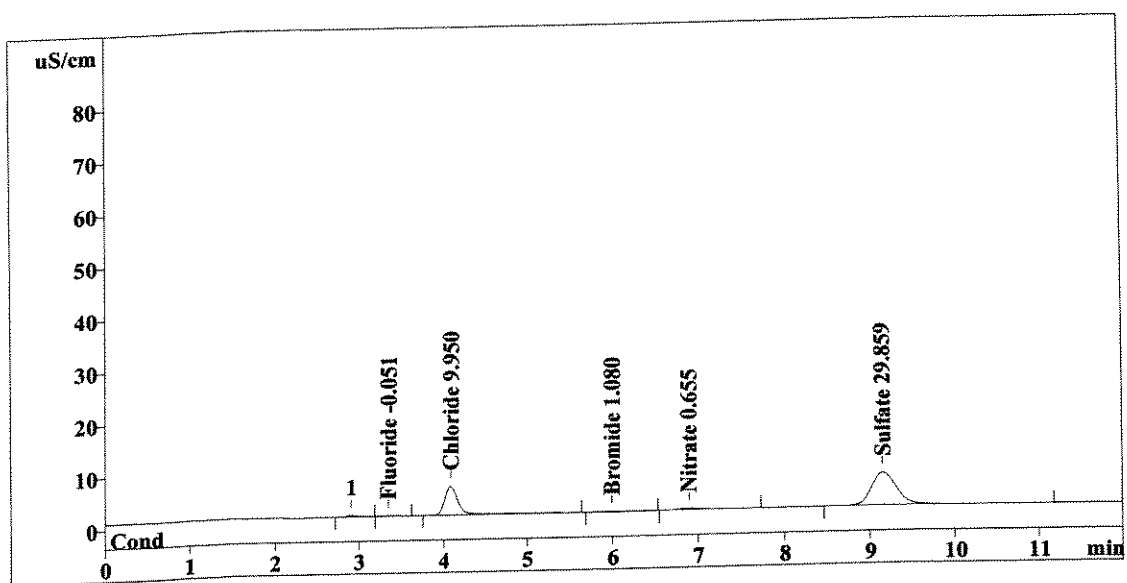
Report date: 7/25/2008 09:14:41  
 Printed by: User  
 Ident: 1116817  
 Analysis from: 7/25/2008 09:02:43  
 File: S7250902.CHW

Last save: 7/25/2008 09:14:41

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38724  
 SAMPLE: 25g -> 250mL (S)  
 Vial number: 92  
 Volume: 1.0 µL  
 Dilution: 10.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.34	0.309	-0.051	Fluoride
2	4.08	59.853	9.950	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.99	1.289	1.080	Bromide
5	6.89	4.839	0.655	Nitrate
6	9.15	132.217	29.859	Sulfate
6	12.00	198.507	41.595	

*OK*  
*CM*  
*7/25/08*

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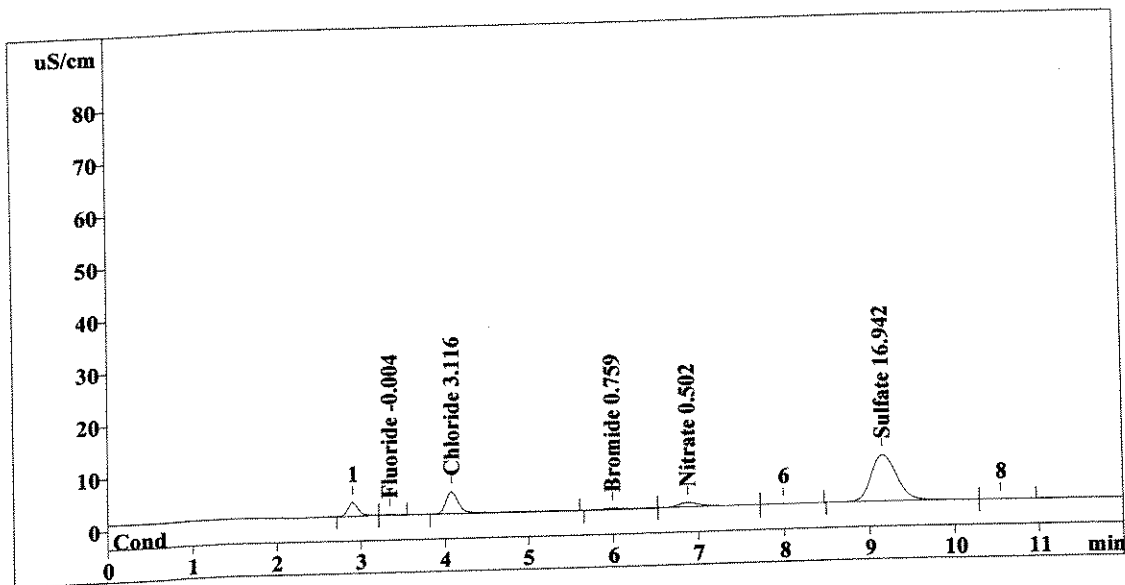
Report date: 7/25/2008 09:28:48  
 Printed by: User  
 Ident: 1116818  
 Analysis from: 7/25/2008 09:16:49  
 File: S7250916.CHW

Last save: 7/25/2008 09:28:47

Last save: 7/24/2008 11:35:17

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38725  
 SAMPLE: 25g -> 250mL (S)  
 Vial number: 93  
 Volume: 1.0 µL  
 Dilution: 4.00  
 Amount: 1.0000

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.34	0.738	-0.004	Fluoride
2	4.08	45.889	3.116	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.99	3.349	0.759	Bromide
5	6.88	14.677	0.502	Nitrate
6	9.16	188.981	16.942	Sulfate
6	12.00	253.633	21.321	

*OK*  
*7/25/08*

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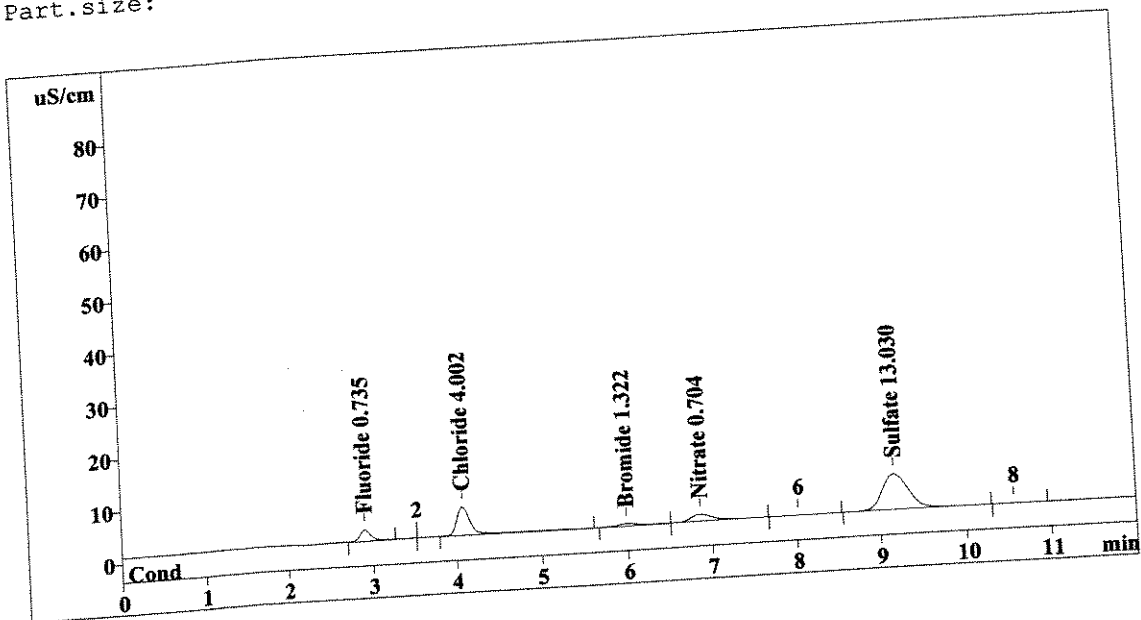
Report date: 7/25/2008 09:42:54  
 Printed by: User  
 Ident: 1116819  
 Analysis from: 7/25/2008 09:30:55  
 File: S7250930.CHW

Last save: 7/25/2008 09:42:53

Last save: 7/24/2008 11:35:17

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38726  
 SAMPLE: 25g -> 250mL (S)  
 Vial number: 94  
 Volume: 1.0 µL  
 Dilution: 4.00  
 Amount: 1.0000

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.90	19.409	0.735	Fluoride
2	4.08	60.205	4.002	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.99	6.899	1.322	Bromide
5	6.86	22.961	0.704	Nitrate
6	9.17	144.556	13.030	Sulfate
6	12.00	254.030	19.793	

*OK*  
*7/25/08*

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Method 300.0/9056

Report date: 7/25/2008 09:56:59  
 Printed by: User  
 Ident: WEX-0208-SB  
 Analysis from: 7/25/2008 09:45:01  
 File: S7250945.CHW

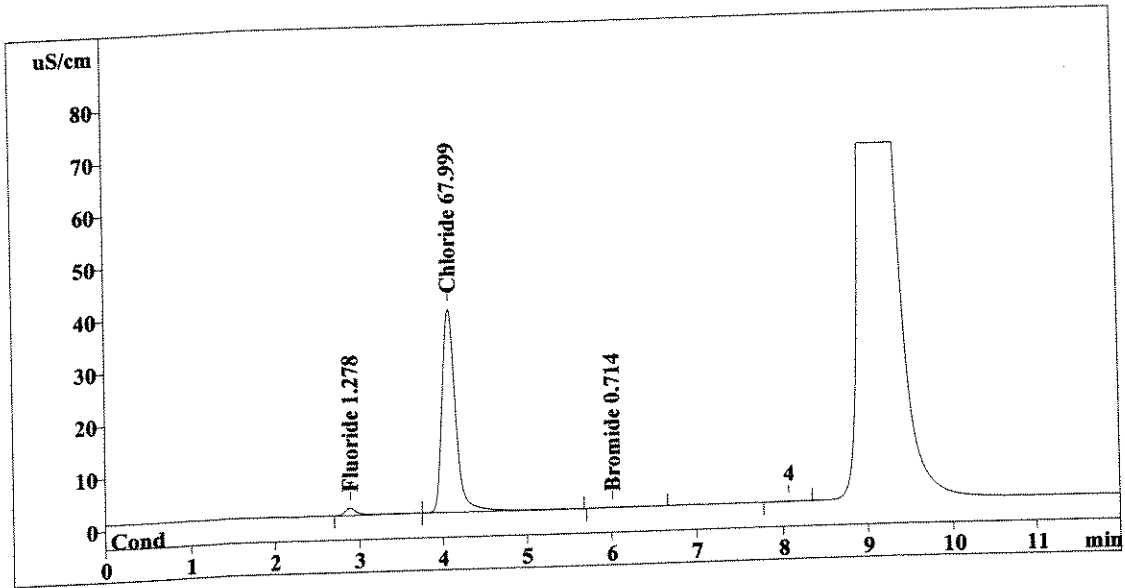
1120561

Last save: 7/25/2008 09:56:59

Last save: 7/24/2008 11:35:17

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38727  
 SAMPLE: CBNS  
 Vial number: 95  
 Volume: 1.0 µL  
 Dilution: 10.00  
 Amount: 1.0000

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.89	13.747	1.278	Fluoride
2	4.07	434.895	67.999	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.02	0.367	0.714	Bromide
5	0.00	0.000	0.000	Nitrate
6	0.00	0.000	0.000	Sulfate
<hr/>				
6	12.00	449.009	69.990	

Handwritten signature and date: 7/25/08

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Method 300.0/9056

Report date: 7/25/2008 10:11:05  
 Printed by: User  
 Ident: WEX-0208-SB DUP  
 Analysis from: 7/25/2008 09:59:07  
 File: S7250959.CHW

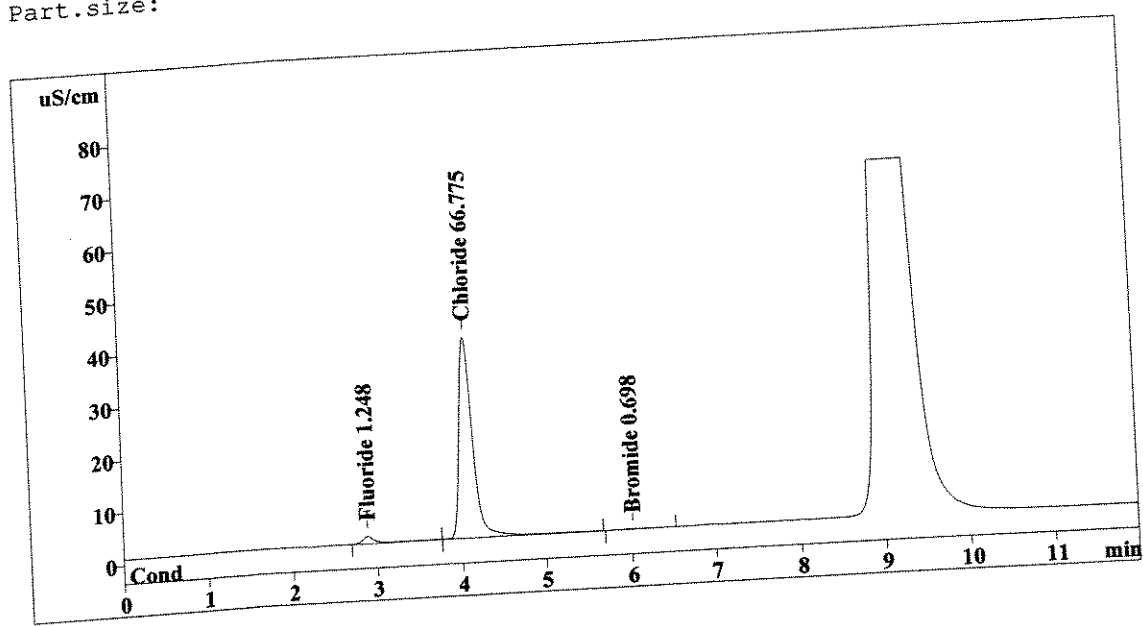
*1120561 DUP*

Last save: 7/25/2008 10:11:05

Last save: 7/24/2008 11:35:17

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38728  
 SAMPLE: CBNS  
 Vial number: 96  
 Volume: 1.0 µL  
 Dilution: 10.00  
 Amount: 1.0000

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.88	13.450	1.248	Fluoride
2	4.06	426.989	66.775	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.01	0.326	0.698	Bromide
5	0.00	0.000	0.000	Nitrate
6	0.00	0.000	0.000	Sulfate
6		12.00	440.765	68.721

*WJ*  
*7/25/08*

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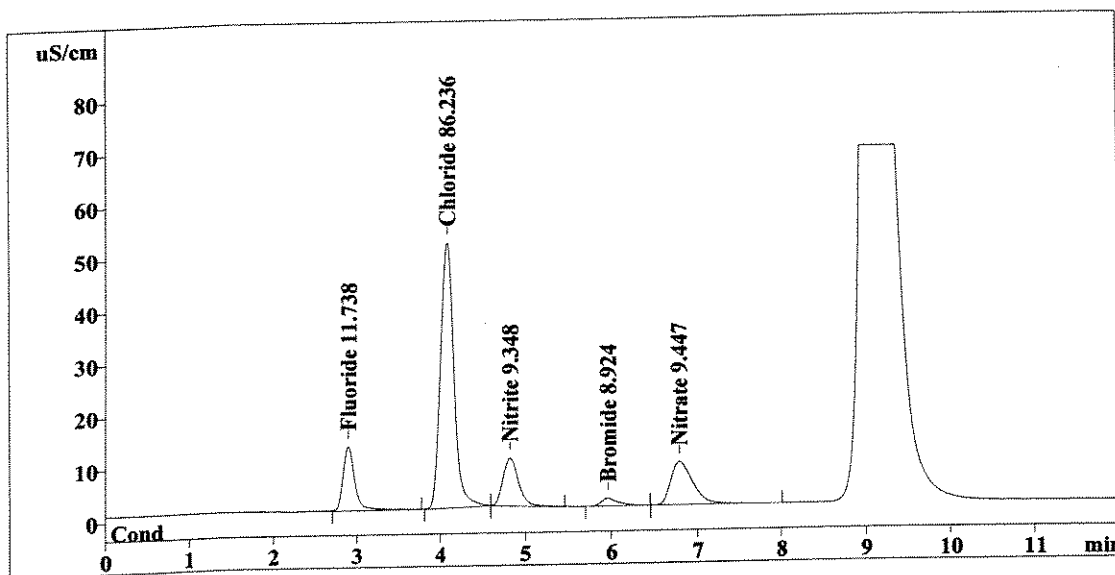
Report date: 7/25/2008 10:25:11  
 Printed by: User  
 Ident: WEX-0208-SB SPK  
 Analysis from: 7/25/2008 10:13:13  
 File: S7251013.CHW

Last save: 7/25/2008 10:25:11

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38729  
 SAMPLE: CBNS  
 Vial number: 97  
 Volume: 1.0 µL  
 Dilution: 10.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.89	119.521	11.738	Fluoride
2	4.06	552.721	86.236	Chloride
3	4.82	115.443	9.348	Nitrite
4	5.96	21.062	8.924	Bromide
5	6.79	149.098	9.447	Nitrate
6	0.00	0.000	0.000	Sulfate
<hr/>				
6	12.00	957.846	125.693	

*Handwritten notes:* "avg 7/25/08" and "OK average" are written next to the first five rows. "OK" is written next to the sixth row. "7/25/08" is written at the bottom of the table.

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Method 300.0/9056

Report date: 7/25/2008 10:39:17  
 Printed by: User  
 Ident: WEX-0208-UT  
 Analysis from: 7/25/2008 10:27:19  
 File: S7251027.CHW

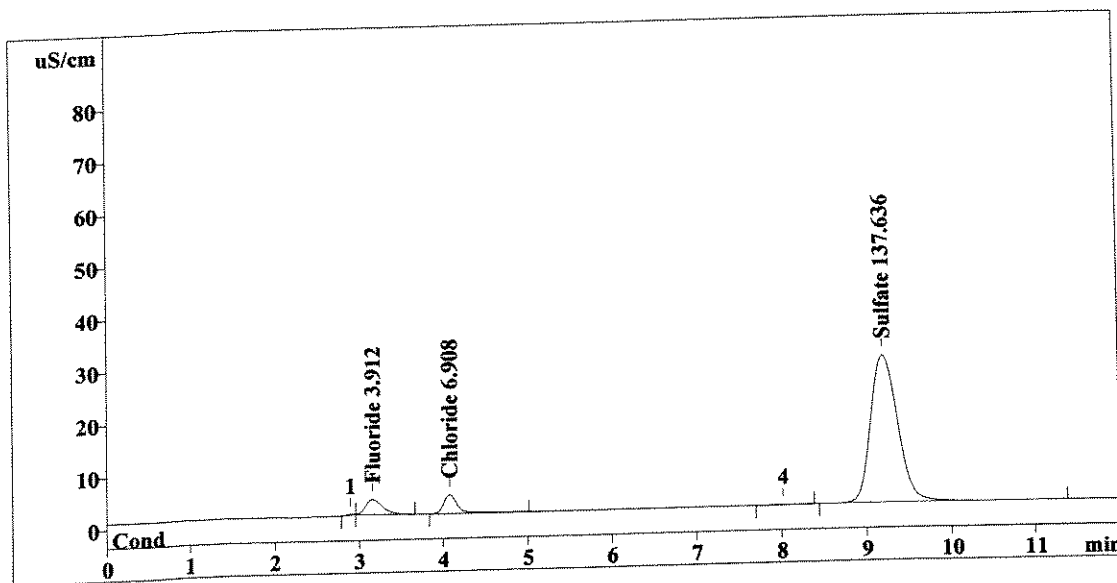
1120562

Last save: 7/25/2008 10:39:17

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38730  
 SAMPLE: CBNS  
 Vial number: 98  
 Volume: 1.0 µL  
 Dilution: 10.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.16	40.390	3.912	Fluoride
2	4.07	40.199	6.908	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	0.00	0.000	0.000	Nitrate
6	9.20	621.823	137.636	Sulfate
6	12.00	702.412	148.457	

OK  
 OK  
 OK  
 1/40  
 CM 7/25/08

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Method 300.0/9056

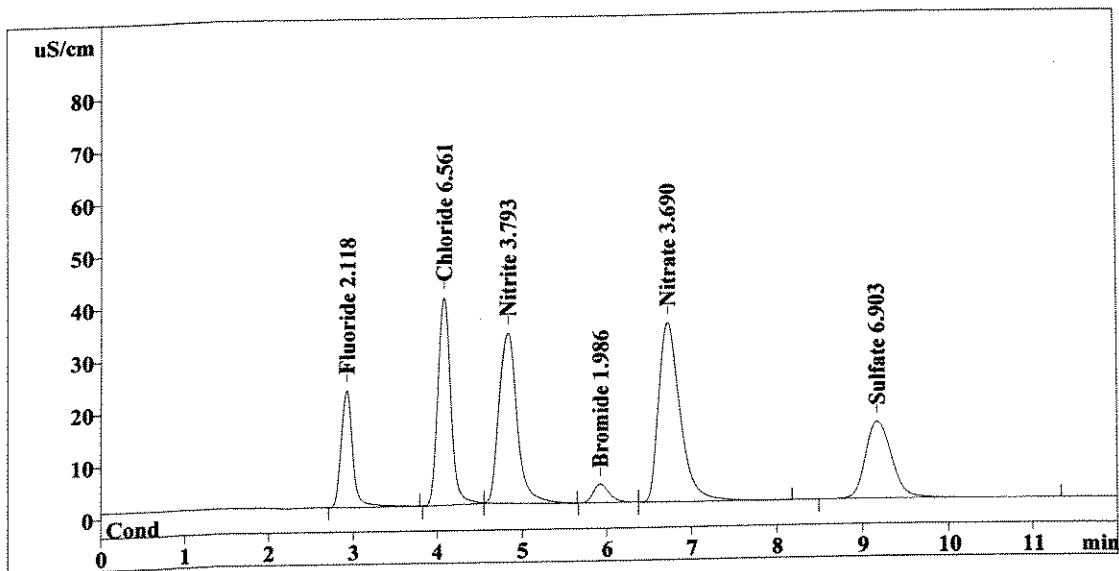
Report date: 7/25/2008 10:53:23  
 Printed by: User  
 Ident: CCV  
 Analysis from: 7/25/2008 10:41:25  
 File: S7251041.CHW

Last save: 7/25/2008 10:53:23

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38731  
 SAMPLE:  
 Vial number: 99  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.91	214.986	2.118	Fluoride
2	4.07	419.475	6.561	Chloride
3	4.82	472.387	3.793	Nitrite
4	5.92	48.627	1.986	Bromide
5	6.72	599.497	3.690	Nitrate
6	9.17	310.148	6.903	Sulfate
6		12.00	2065.121	25.050

Handwritten annotations: a checkmark and a downward arrow pointing to the 6th row of the table, and a signature '7/25/08'.

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Method 300.0/9056

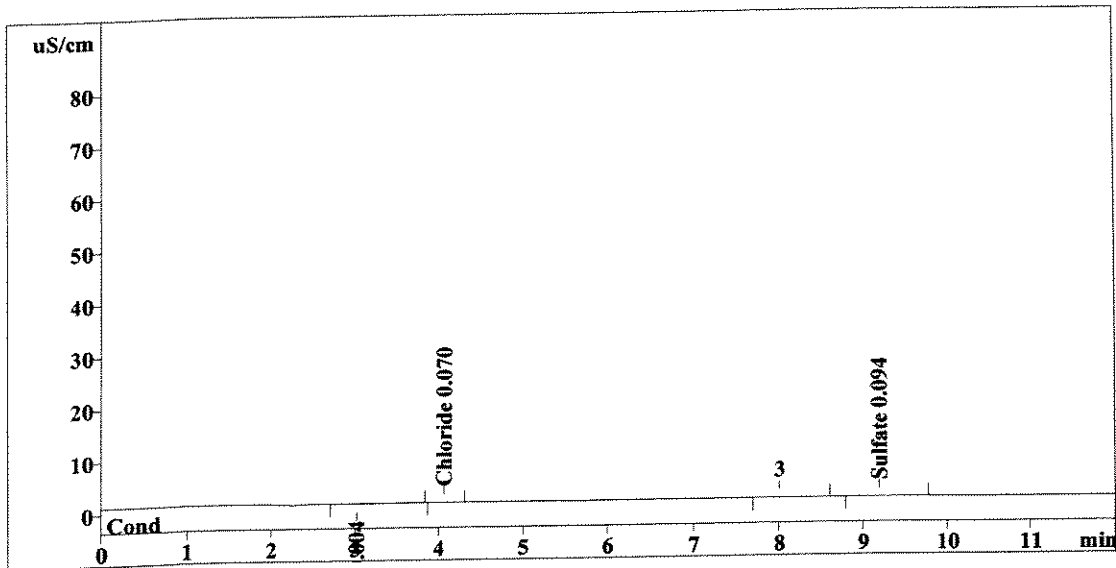
Report date: 7/25/2008 11:07:29  
 Printed by: User  
 Ident: CCB  
 Analysis from: 7/25/2008 10:55:31  
 File: S7251055.CHW

Last save: 7/25/2008 11:07:29

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38732  
 SAMPLE:  
 Vial number: 100  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.03	0.472	-0.004	Fluoride
2	4.06	0.101	0.070	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	0.00	0.000	0.000	Nitrate
6	9.20	0.865	0.094	Sulfate
<hr/>				
6	12.00	1.439	0.168	

OK  
 ↓  
 7/25/08

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Method 300.0/9056

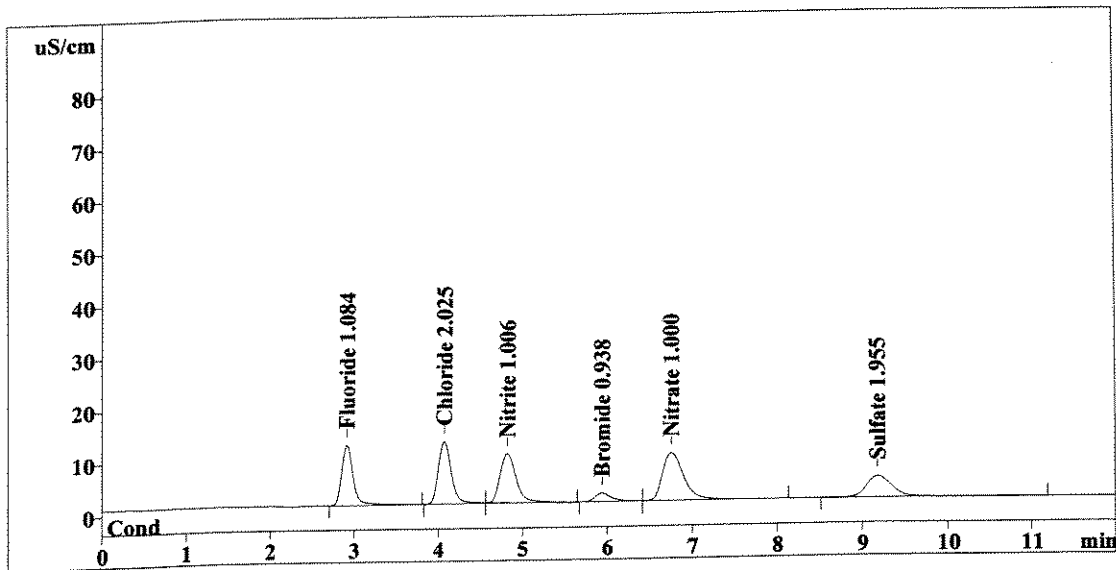
Report date: 7/25/2008 11:21:35  
 Printed by: User  
 Ident: LCS  
 Analysis from: 7/25/2008 11:09:37  
 File: S7251109.CHW

Last save: 7/25/2008 11:21:35

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38733  
 SAMPLE:  
 Vial number: 101  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.91	110.412	1.084	Fluoride
2	4.07	126.418	2.025	Chloride
3	4.82	124.311	1.006	Nitrite
4	5.94	22.215	0.938	Bromide
5	6.75	158.254	1.000	Nitrate
6	9.18	85.366	1.955	Sulfate
6	12.00	626.976	8.008	

*OK*  
 ↓  
*CV 7/25/08*

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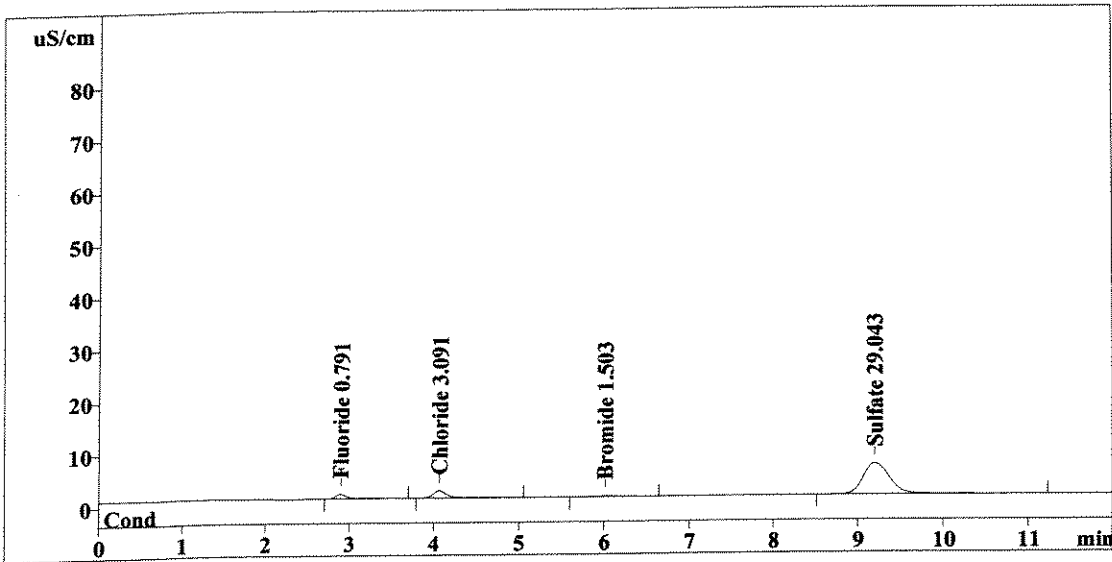
Report date: 7/25/2008 11:35:41  
 Printed by: User  
 Ident: WEX-0208-LL 1120563  
 Analysis from: 7/25/2008 11:23:43  
 File: S7251123.CHW

Last save: 7/25/2008 11:35:41

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38734  
 SAMPLE: CBNS  
 Vial number: 102  
 Volume: 1.0 µL  
 Dilution: 10.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.89	8.829	0.791	Fluoride
2	4.07	15.535	3.091	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.01	2.356	1.503	Bromide
5	0.00	0.000	0.000	Nitrate
6	9.20	128.511	29.043	Sulfate
6	12.00	155.230	34.427	

*Handwritten signature and date: 7/25/08*

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Method 300.0/9056

Report date: 7/25/2008 11:49:47  
 Printed by: User  
 Ident: WEX-0214-SB  
 Analysis from: 7/25/2008 11:37:49  
 File: S7251137.CHW

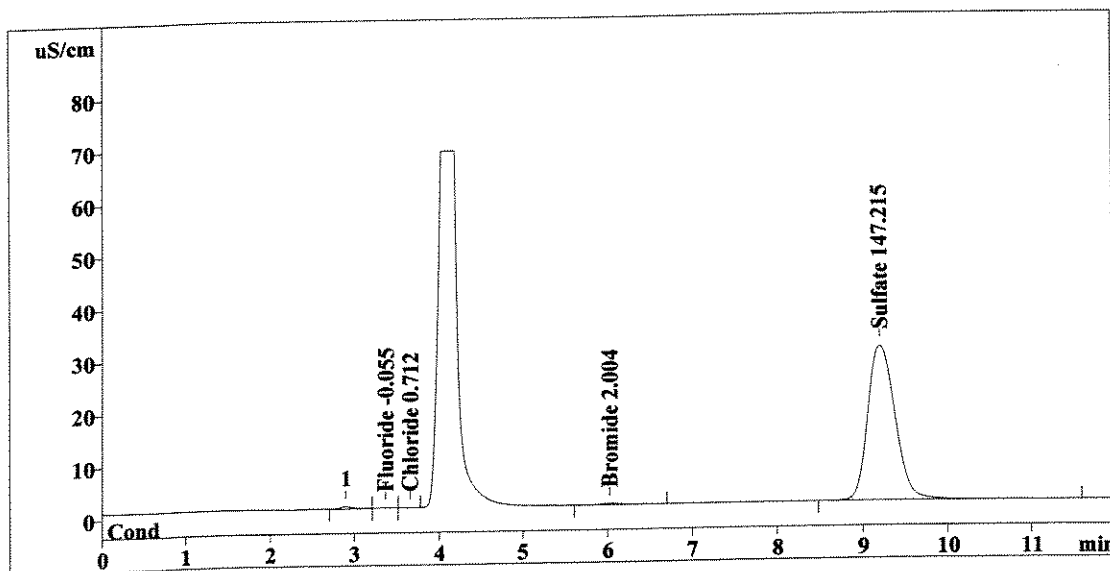
1120566

Last save: 7/25/2008 11:49:47

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38735  
 SAMPLE: CBNS  
 Vial number: 103  
 Volume: 1.0 µL  
 Dilution: 10.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.36	0.276	-0.055	Fluoride
2	3.65	0.167	0.712	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.03	3.619	2.004	Bromide
5	0.00	0.000	0.000	Nitrate
6	9.21	665.336	147.215	Sulfate
<hr/>				
6	12.00	669.399	149.986	

WJ  
 7/25/08

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Method 300.0/9056

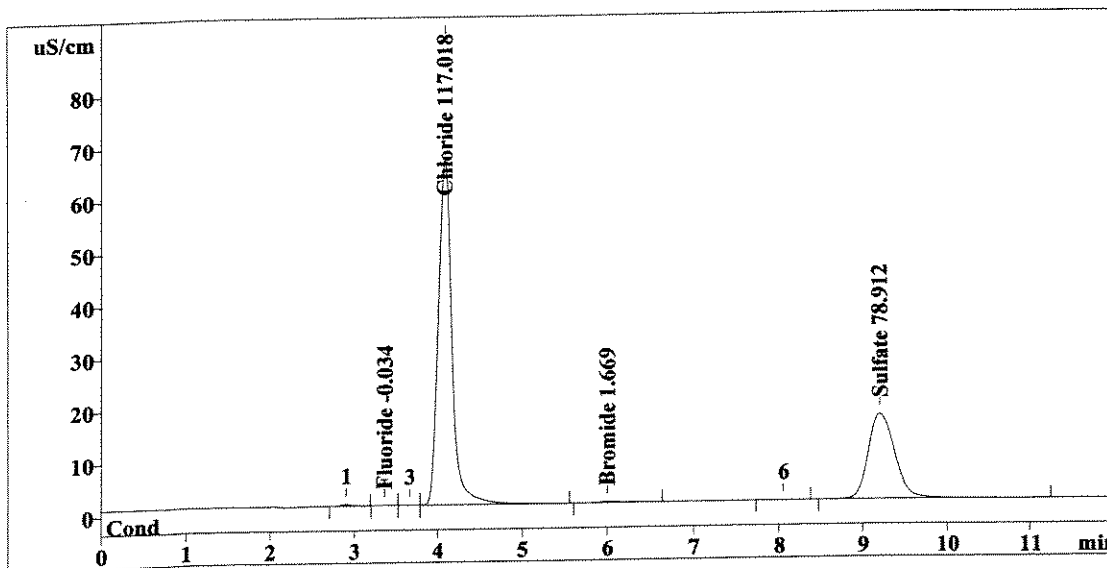
Report date: 7/25/2008 12:03:53  
 Printed by: User  
 Ident: WEX-0214-UT  
 Analysis from: 7/25/2008 11:51:54  
 File: S7251151.CHW

Last save: 7/25/2008 12:03:53

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38736  
 SAMPLE: CBNS  
 Vial number: 104  
 Volume: 1.0 µL  
 Dilution: 10.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.36	0.483	-0.034	Fluoride
2	4.07	751.598	117.018	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.00	2.774	1.669	Bromide
5	0.00	0.000	0.000	Nitrate
6	9.21	355.056	78.912	Sulfate
6	12.00	1109.911	197.633	

*Handwritten signature and date: CW 7/25/08*

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Method 300.0/9056

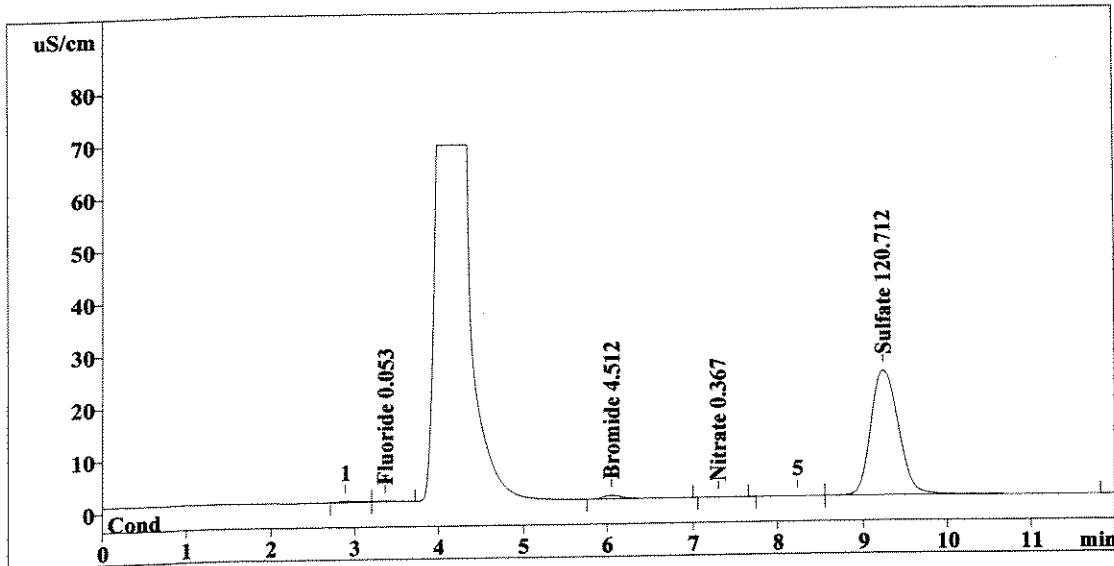
Report date: 7/25/2008 12:17:58  
 Printed by: User  
 Ident: WEX-0214-LL  
 Analysis from: 7/25/2008 12:06:00  
 File: S7251206.CHW

Last save: 7/25/2008 12:17:58

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38737  
 SAMPLE: CBNS  
 Vial number: 105  
 Volume: 1.0 µL  
 Dilution: 10.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.36	1.362	0.053	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.05	9.940	4.512	Bromide
5	7.30	0.102	0.367	Nitrate
6	9.24	544.940	120.712	Sulfate
<hr/>				
6	12.00	556.344	125.643	

*OK*  
*OK*  
*1/40*  
 CW  
 7/25/08

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Method 300.0/9056

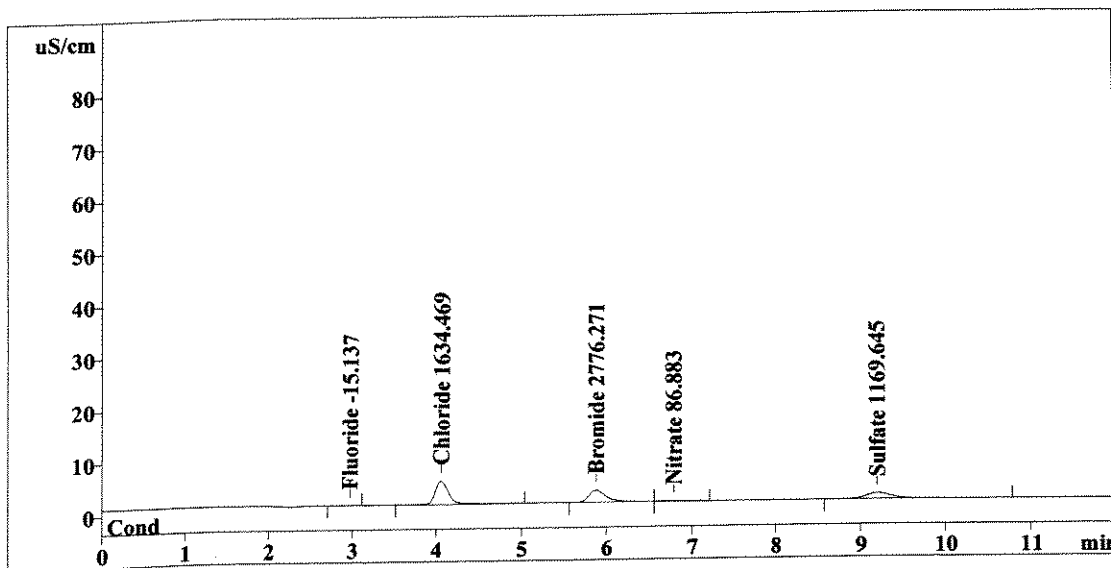
Report date: 7/25/2008 12:32:04  
 Printed by: User  
 Ident: 1114420  
 Analysis from: 7/25/2008 12:20:06  
 File: S7251220.CHW

Last save: 7/25/2008 12:32:04

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38738  
 SAMPLE: B  
 Vial number: 21  
 Volume: 1.0 µL  
 Dilution: 2000.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.96	0.063	-15.137	Fluoride
2	4.06	48.366	1634.469	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.88	33.560	2776.271	Bromide
5	6.79	1.216	86.883	Nitrate
6	9.19	23.145	1169.645	Sulfate
<hr/>				
6	12.00	106.349	5682.404	

*OK*  
*7/25/08*

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Method 300.0/9056

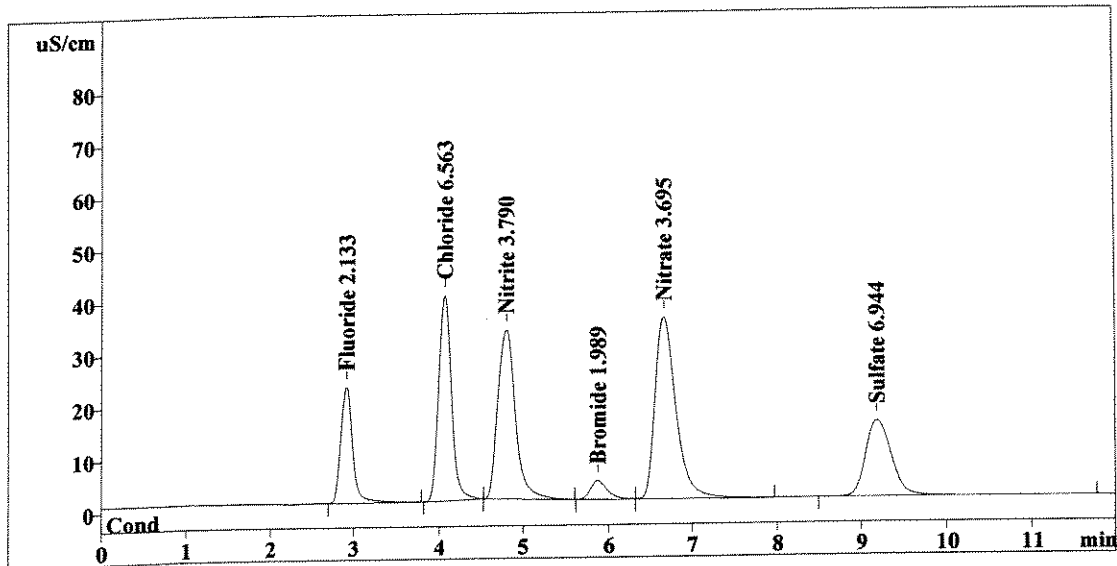
Report date: 7/25/2008 12:46:12  
 Printed by: User  
 Ident: CCV  
 Analysis from: 7/25/2008 12:34:12  
 File: S7251234.CHW

Last save: 7/25/2008 12:46:12

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38739  
 SAMPLE:  
 Vial number: 106  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.91	216.472	2.133	Fluoride
2	4.05	419.617	6.563	Chloride
3	4.79	472.030	3.790	Nitrite
4	5.87	48.712	1.989	Bromide
5	6.66	600.385	3.695	Nitrate
6	9.19	312.034	6.944	Sulfate
6		12.00	2069.252	25.114

OK  
↓

LM  
7/25/08

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Method 300.0/9056

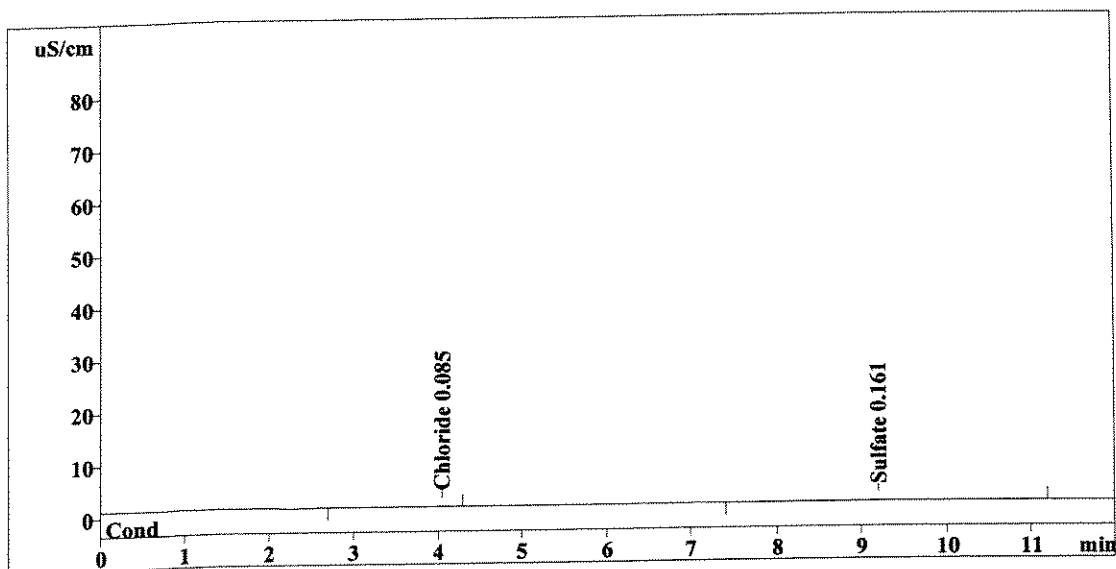
Report date: 7/25/2008 13:00:22  
 Printed by: User  
 Ident: CCB  
 Analysis from: 7/25/2008 12:48:23  
 File: S7251248.CHW

Last save: 7/25/2008 13:00:21

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38740  
 SAMPLE:  
 Vial number: 107  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/24/2008 11:35:17

COLUMN: METROSEP A SUPP 5 - 100 (6.1006.510)  
 Size: 4.0 x 100 mm  
 Number: 7503293  
 Part.size: 5.0 µm



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	0.00	0.000	0.000	Fluoride
2	4.04	1.076	0.085	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	0.00	0.000	0.000	Nitrate
6	9.21	3.892	0.161	Sulfate
6	12.00	4.968	0.246	

*Handwritten notes:*  
 A checkmark is next to the first row.  
 A vertical arrow points from the second row down to the sixth row.  
 A signature and date '7/25/08' are written below the table.

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**Ion Chromatography Cover Sheet**

Instrument: Metrohm IC 861  
 Column: Metrosep A Supp 5, 4mm, 12/31/2007

Curve Date: 07/17/2008 Loop size: 50 uL Loop

Analyst: C. Woods Analysis Date: <sup>07/25/08</sup> 7-24-08

Is copy of LCS attached to run?  YES / NO

**Standards Prep Dates & Log ID's:**

<i>Std Type</i>	<i>Prep Date</i>	<i>Log ID</i>	<i>Std Type</i>	<i>Prep Date</i>	<i>Log ID</i>
Calibration Intermediate	07/14/08	WC90011A	Working Calibration Stds	07/14/08	WC90011H
LCS / MS Intermediate	07/14/08	WC90011A	Working LCS/MS Standard	07/21/08	WC90051B
ICV Intermediate	06/23/08	WC90100A	Working ICV Standard	DAILY	WC90100H
CCV Intermediate	06/23/08	WC90100A	Working CCV Standard	DAILY	WC90100H

**Comments:**

- CALIBRATION EXPIRES 12/10/2008
- CALIBRATION INVALID FOR FLUORIDE (ICV FAIL HIGH)
- CHLORIDE LINEAR RANGE ONLY GOES UP TO 8.0 PPM

**WORKING LCS PREP**

(Stocks delivered using Volumetric glassware and brought to volume with DI. LCS expires after 7 days.)

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

Analyte	Calibration Intermediate Stock ID	Intermediate Stock Conc (mg/L)	mLs Intermediate Stock	Final Vol. mLs	Final Conc. (mg/L)	Analyst	Date Prepped	Lot ID	Exp. Date	Final Log ID
F	WC90011A	50	2.0	100	1.0	CMW	7/14/08	A	7/21/08	WC90051A
Cl		100			2.0	CMW	7/21/08	B	7/28/08	WC90051B
NO2		50			1.0			C		
Br		50			1.0			D		
NO3		50			1.0			E		
OPO4		50			1.0			F		
SO4		100			2.0			G		
								H		
								I		
								J		
								K		
								L		
								M		
								N		
								O		
								P		
								Q		
								R		

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Method 300.0/9056

Report date: 7/22/2008 15:56:22  
 Printed by: User  
 Ident: STANDARD 1  
 Analysis from: 7/17/2008 21:16:22  
 File: s7172116.chw

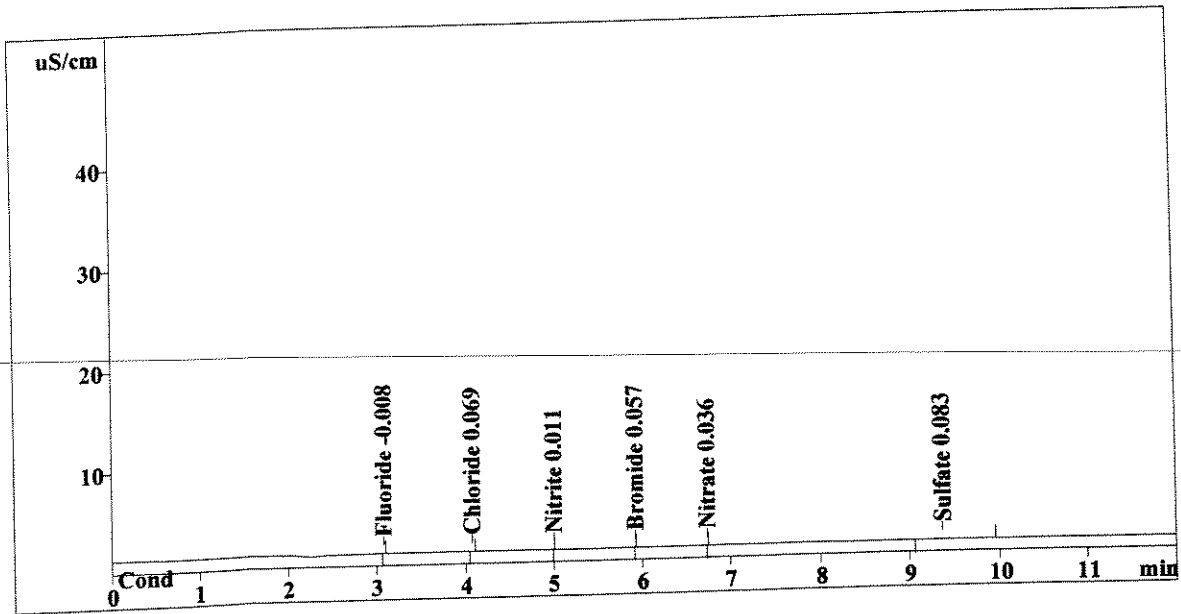
Last save: 7/22/2008 15:55:51

Manual peaks!  
 Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38455  
 SAMPLE:  
 Vial number: 125  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/17/2008 20:55:39

ELUENT: 3.2 mM Na<sub>2</sub>CO<sub>3</sub> / 1.0 mM NaHCO<sub>3</sub>

Flow: 0.70 mL/min  
 Temperature: 20.0°C  
 Pressure: 6.0 MPa



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.08	0.000	-0.008	Fluoride
2	4.07	0.002	0.069	Chloride
3	5.00	0.000	0.011	Nitrite
4	5.92	0.000	0.057	Bromide
5	6.74	-0.000	0.036	Nitrate
6	9.36	0.370	0.083	Sulfate
<hr/>			0.264	
6	12.00	0.372		

*Handwritten notes:* A downward arrow points from the 'Area' column to the 'Conc.' column. A signature and date '7/22/08' are written below the table.

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Method 300.0/9056

Report date: 7/22/2008 15:56:27  
 Printed by: User  
 Ident: STANDARD 2  
 Analysis from: 7/17/2008 21:30:28  
 File: s7172130.chw

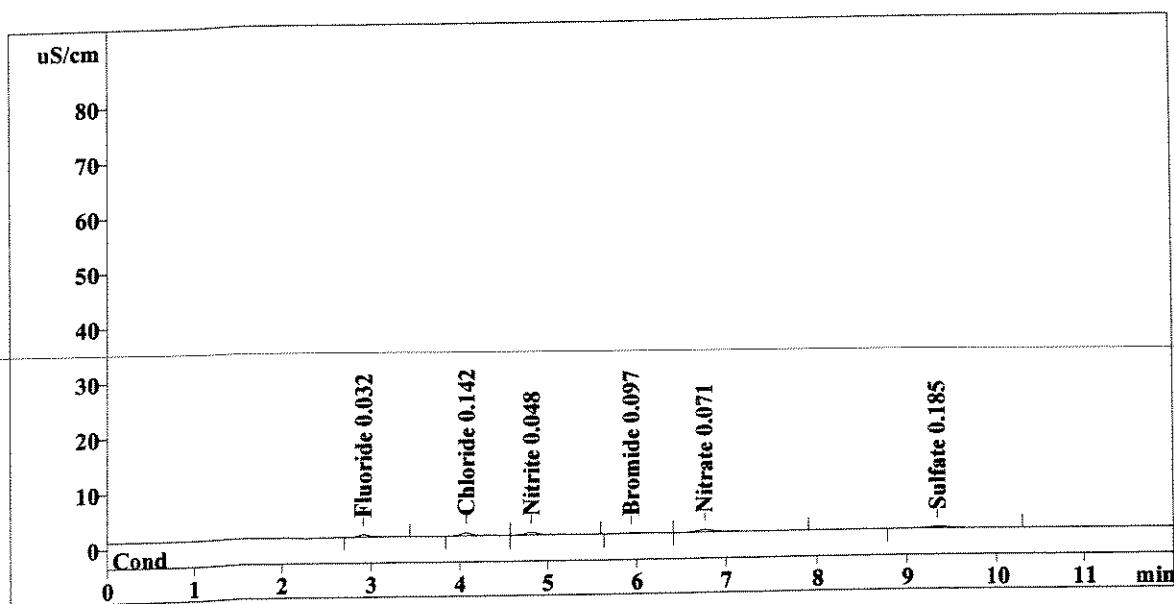
Last save: 7/22/2008 15:55:51

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38456  
 SAMPLE:  
 Vial number: 126  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/17/2008 20:55:39

ELUENT: 3.2 mM Na<sub>2</sub>CO<sub>3</sub> / 1.0 mM NaHCO<sub>3</sub>

Flow: 0.70 mL/min  
 Temperature: 20.0°C  
 Pressure: 5.9 MPa



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.91	4.064	0.032	Fluoride
2	4.07	4.715	0.142	Chloride
3	4.81	4.687	0.048	Nitrite
4	5.94	1.018	0.097	Bromide
5	6.76	5.725	0.071	Nitrate
6	9.34	4.991	0.185	Sulfate
6	12.00	25.200	0.575	

OK  
 ↓  
 7/22/08

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Method 300.0/9056

Report date: 7/22/2008 15:56:31  
 Printed by: User  
 Ident: STANDARD 3  
 Analysis from: 7/17/2008 21:44:34  
 File: s7172144.chw

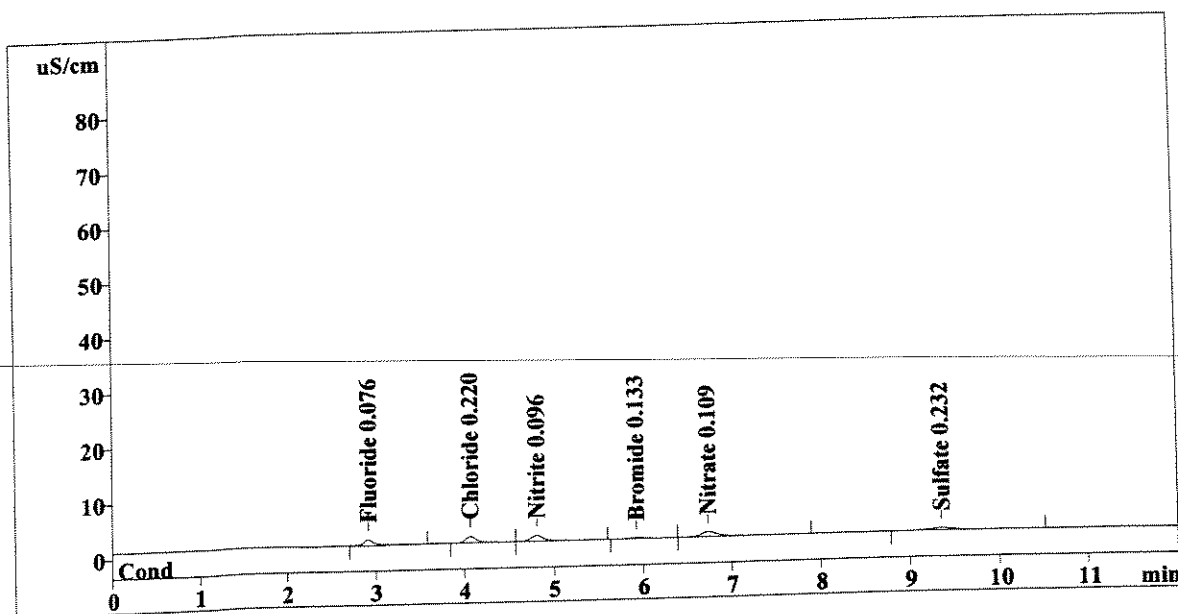
Last save: 7/22/2008 15:55:51

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38457  
 SAMPLE:  
 Vial number: 127  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/17/2008 20:55:39

ELUENT: 3.2 mM Na<sub>2</sub>CO<sub>3</sub> / 1.0 mM NaHCO<sub>3</sub>

Flow: 0.70 mL/min  
 Temperature: 20.0°C  
 Pressure: 5.9 MPa



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.91	8.549	0.076	Fluoride
2	4.07	9.762	0.220	Chloride
3	4.81	10.676	0.096	Nitrite
4	5.92	1.918	0.133	Bromide
5	6.74	12.031	0.109	Nitrate
6	9.35	7.110	0.232	Sulfate
<hr/>				
6	12.00	50.046	0.866	

*OK*  
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*7/22/08*

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Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14609

Method 300.0/9056

Report date: 7/22/2008 15:56:34  
 Printed by: User  
 Ident: STANDARD 4  
 Analysis from: 7/17/2008 21:58:40  
 File: s7172158.chw

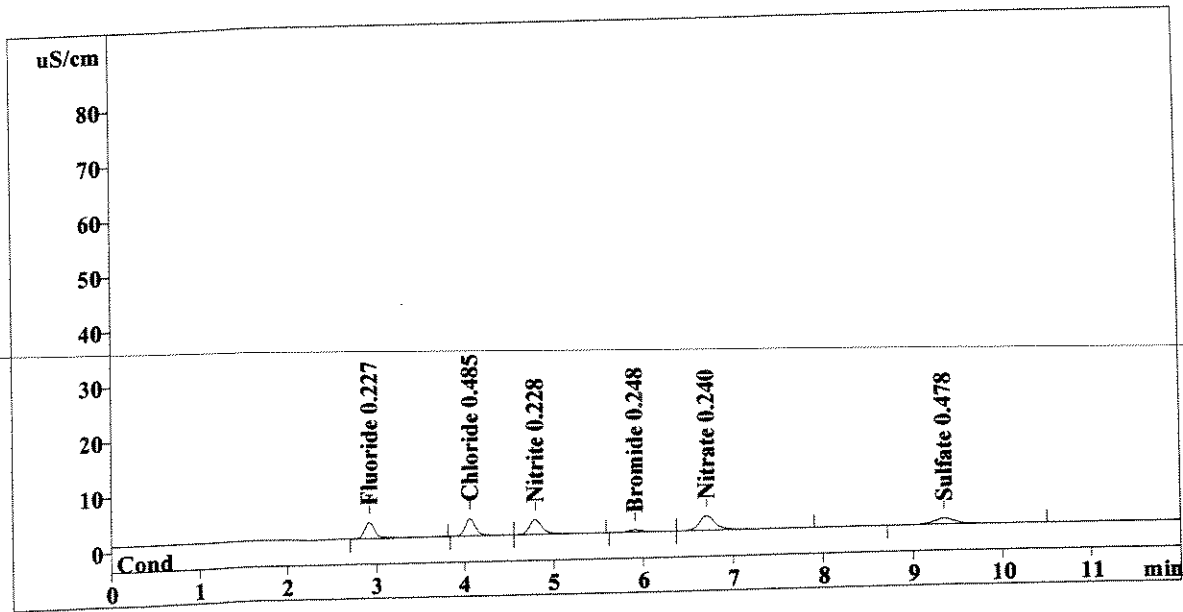
Last save: 7/22/2008 15:55:51

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38458  
 SAMPLE:  
 Vial number: 128  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/17/2008 20:55:39

ELUENT: 3.2 mM Na<sub>2</sub>CO<sub>3</sub> / 1.0 mM NaHCO<sub>3</sub>

Flow: 0.70 mL/min  
 Temperature: 20.0°C  
 Pressure: 5.8 MPa



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.91	23.819	0.227	Fluoride
2	4.06	26.920	0.485	Chloride
3	4.79	27.193	0.228	Nitrite
4	5.91	4.830	0.248	Bromide
5	6.70	33.460	0.240	Nitrate
6	9.35	18.301	0.478	Sulfate
<hr/>			1.908	
6	12.00	134.524		

OK  
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Ion Chromatography Analytical Report  
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 Rochester, NY 14609

Method 300.0/9056

Report date: 7/22/2008 15:56:37  
 Printed by: User  
 Ident: STANDARD 5  
 Analysis from: 7/17/2008 22:12:46  
 File: s7172212.chw

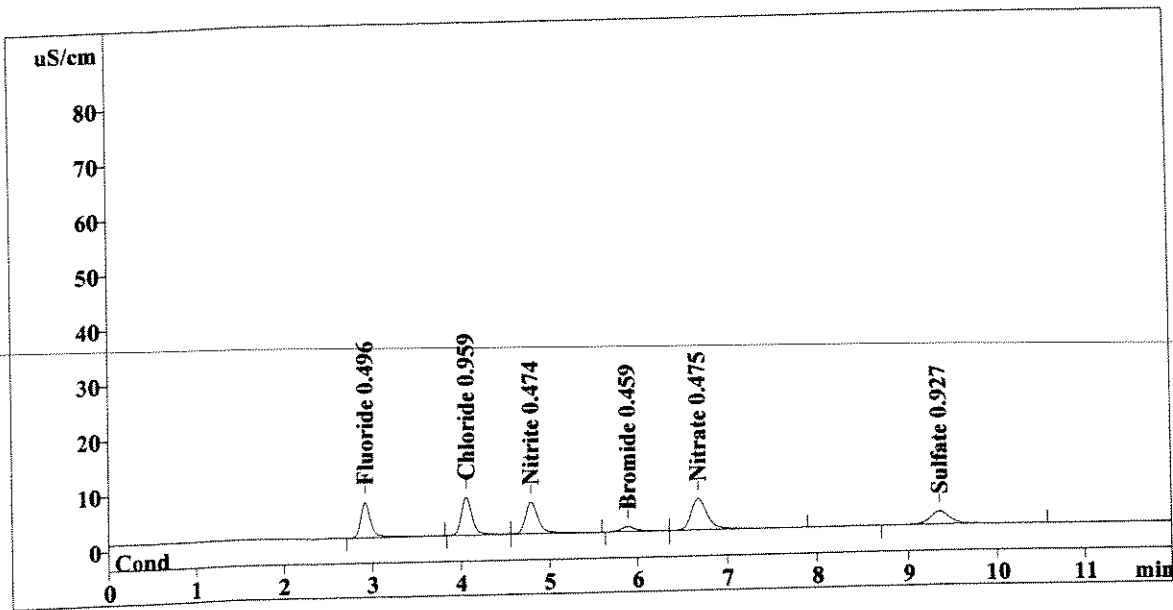
Last save: 7/22/2008 15:55:52

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38459  
 SAMPLE:  
 Vial number: 129  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/17/2008 20:55:39

ELUENT: 3.2 mM Na<sub>2</sub>CO<sub>3</sub> / 1.0 mM NaHCO<sub>3</sub>

Flow: 0.70 mL/min  
 Temperature: 20.0°C  
 Pressure: 5.8 MPa



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.91	51.010	0.496	Fluoride
2	4.06	57.495	0.959	Chloride
3	4.79	57.846	0.474	Nitrite
4	5.89	10.149	0.459	Bromide
5	6.68	72.071	0.475	Nitrate
6	9.35	38.700	0.927	Sulfate
<hr/>				
6	12.00	287.271	3.790	

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 Rochester, NY 14609

Method 300.0/9056

Report date: 7/22/2008 15:56:40  
 Printed by: User  
 Ident: STANDARD 6  
 Analysis from: 7/17/2008 22:26:52  
 File: s7172226.chw

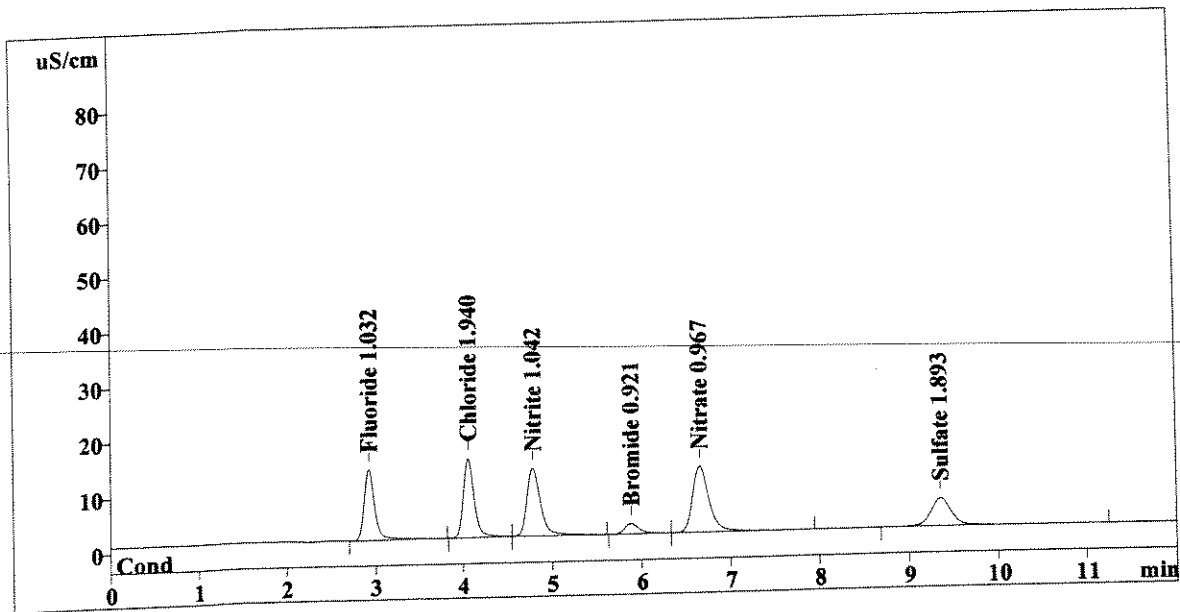
Last save: 7/22/2008 15:55:52

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38460  
 SAMPLE:  
 Vial number: 130  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/17/2008 20:55:39

ELUENT: 3.2 mM Na<sub>2</sub>CO<sub>3</sub> / 1.0 mM NaHCO<sub>3</sub>

Flow: 0.70 mL/min  
 Temperature: 20.0°C  
 Pressure: 5.8 MPa



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.92	105.195	1.032	Fluoride
2	4.06	120.919	1.940	Chloride
3	4.78	128.793	1.042	Nitrite
4	5.88	21.795	0.921	Bromide
5	6.65	152.794	0.967	Nitrate
6	9.35	82.555	1.893	Sulfate
<hr/>			7.795	
6	12.00	612.050		

*OK*  
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Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14609

Method 300.0/9056

Report date: 7/22/2008 15:56:43  
 Printed by: User  
 Ident: STANDARD 7  
 Analysis from: 7/17/2008 22:40:58  
 File: s7172240.chw

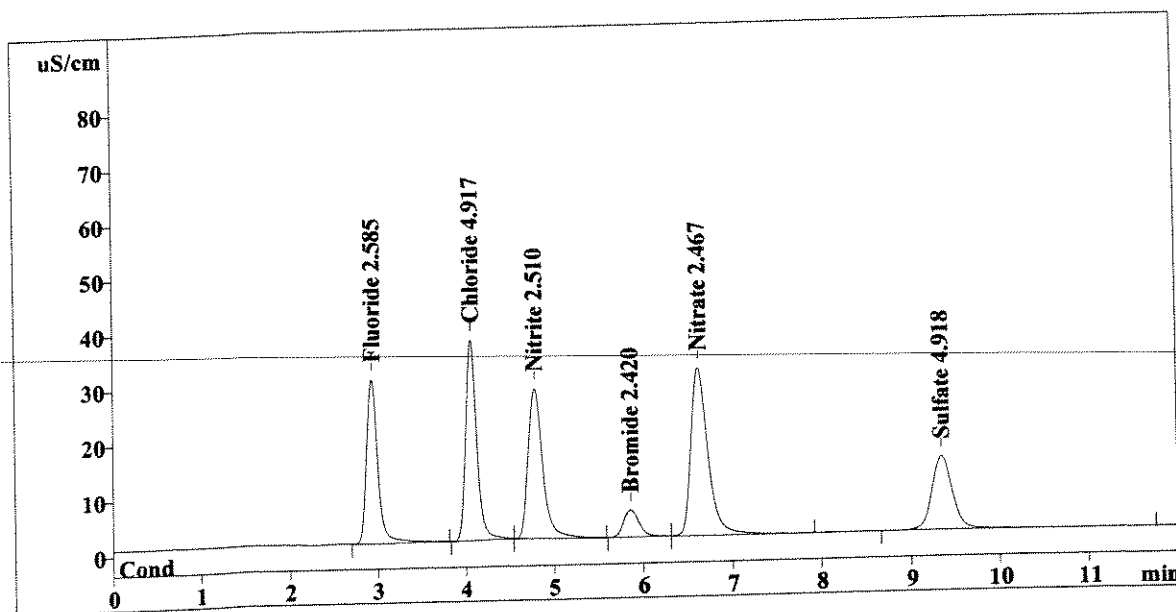
Last save: 7/22/2008 15:55:53

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38461  
 SAMPLE:  
 Vial number: 131  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/17/2008 20:55:39

ELUENT: 3.2 mM Na<sub>2</sub>CO<sub>3</sub> / 1.0 mM NaHCO<sub>3</sub>

Flow: 0.70 mL/min  
 Temperature: 20.0°C  
 Pressure: 5.8 MPa



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.93	262.256	2.585	Fluoride
2	4.06	313.254	4.917	Chloride
3	4.78	312.176	2.510	Nitrite
4	5.86	59.562	2.420	Bromide
5	6.62	398.883	2.467	Nitrate
6	9.35	219.992	4.918	Sulfate
6		12.00	1566.123	19.817

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Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14609

Method 300.0/9056

Report date: 7/22/2008 15:56:46  
 Printed by: User  
 Ident: STANDARD 8  
 Analysis from: 7/17/2008 22:55:04  
 File: s7172255.chw

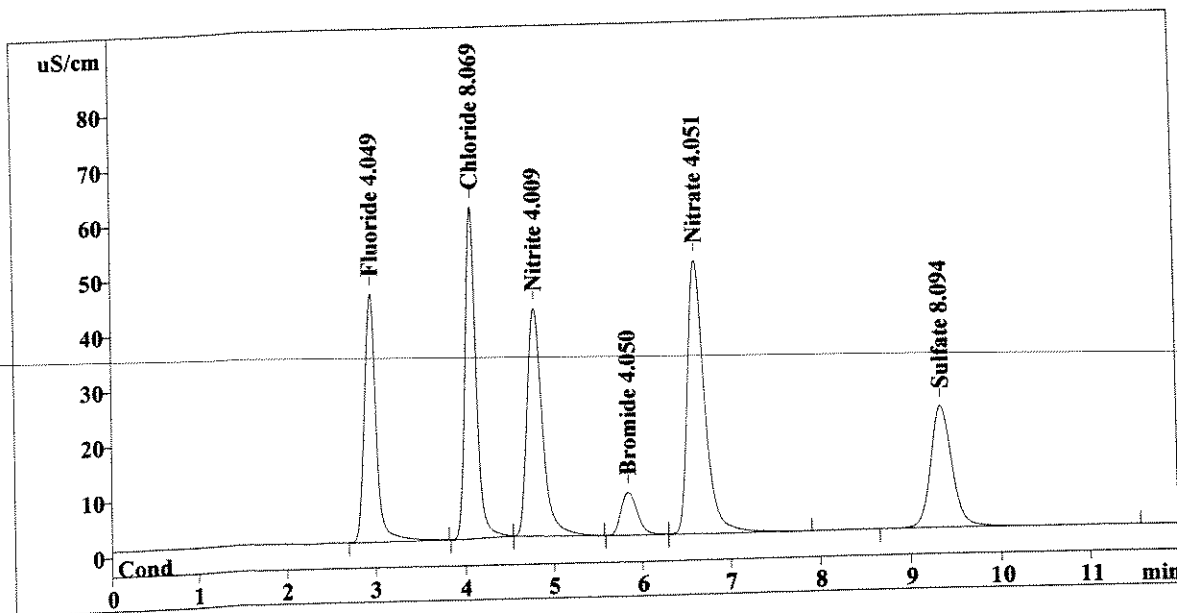
Last save: 7/22/2008 15:55:53

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38462  
 SAMPLE:  
 Vial number: 132  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/17/2008 20:55:39

ELUENT: 3.2 mM Na<sub>2</sub>CO<sub>3</sub> / 1.0 mM NaHCO<sub>3</sub>

Flow: 0.70 mL/min  
 Temperature: 20.0°C  
 Pressure: 5.8 MPa



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.94	410.282	4.049	Fluoride
2	4.06	516.878	8.069	Chloride
3	4.77	499.464	4.009	Nitrite
4	5.84	100.648	4.050	Bromide
5	6.61	658.754	4.051	Nitrate
6	9.34	364.284	8.094	Sulfate
6	12.00	2550.309	32.322	

OK  
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Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14609

Method 300.0/9056

Report date: 7/22/2008 15:56:49  
 Printed by: User  
 Ident: STANDARD 9  
 Analysis from: 7/17/2008 23:09:10  
 File: s7172309.chw

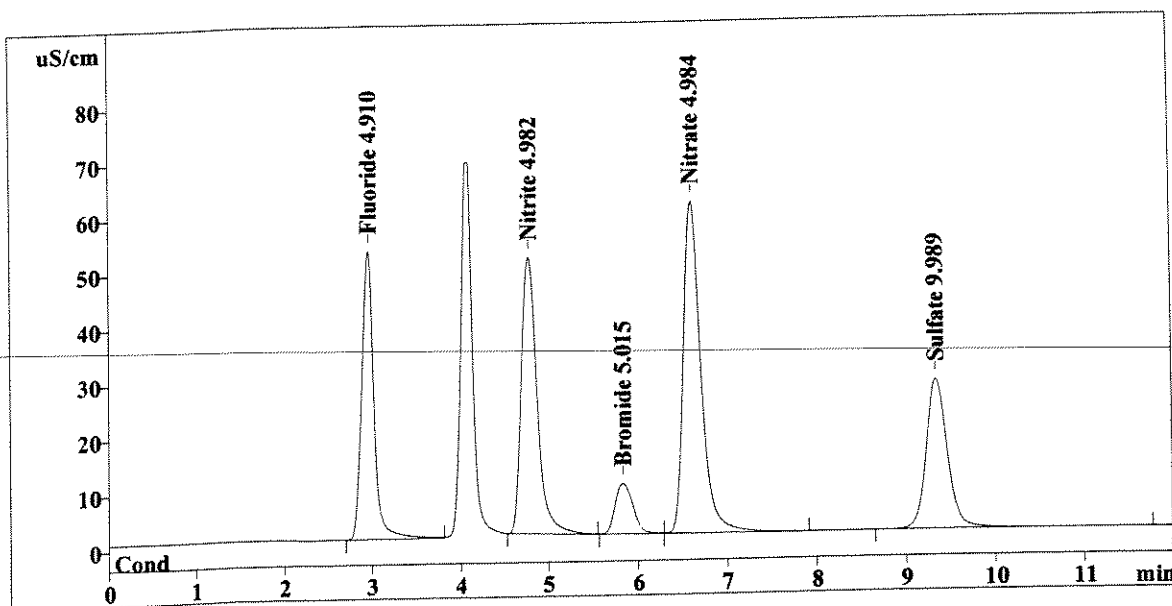
Last save: 7/22/2008 15:55:53

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38463  
 SAMPLE:  
 Vial number: 133  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/17/2008 20:55:39

ELUENT: 3.2 mM Na<sub>2</sub>CO<sub>3</sub> / 1.0 mM NaHCO<sub>3</sub>

Flow: 0.70 mL/min  
 Temperature: 20.0°C  
 Pressure: 5.8 MPa



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.94	497.307	4.910	Fluoride
2	0.00	0.000	0.000	Chloride
3	4.77	621.001	4.982	Nitrite
4	5.83	124.975	5.015	Bromide
5	6.60	811.812	4.984	Nitrate
6	9.34	450.352	9.989	Sulfate
6		12.00	2505.446	29.879

OK  
 OK  
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ACQUISITION PARAMETERS

Channels: 1  
 Method duration: 12.00min  
 Run duration: 0.00min  
 Measurements (method): 7200  
 Measurements (run): 0  
 Freq.divisor: 1  
 Sampling: 10.00 pts/sec  
 Start delay: sec  
 Device: 732 IC Detector  
 Program before:  
 Program after:  
 Spikes filter: No  
 Median filter: No  
   slit: 0  
 Gauss filter: No  
   slit: 0

INTEGRATION DEFAULTS

Channel: Cond  
 Delay: 2.70 min  
 Width: 2.00 sec  
 Broadening: 2.00  
 Slope: 1.00  
 Asymmetry: 1.00  
 MinArea: 0.05  
 MinHeight: 0.00  
 Rider ratio: 0.00  
 No. min  
 1 0.00 Enable valley-to-valley

CALIBRATION

Channel: Cond  
 Method: External standard  
 Response: Area  
 Standard: No

IDENTIFICATION

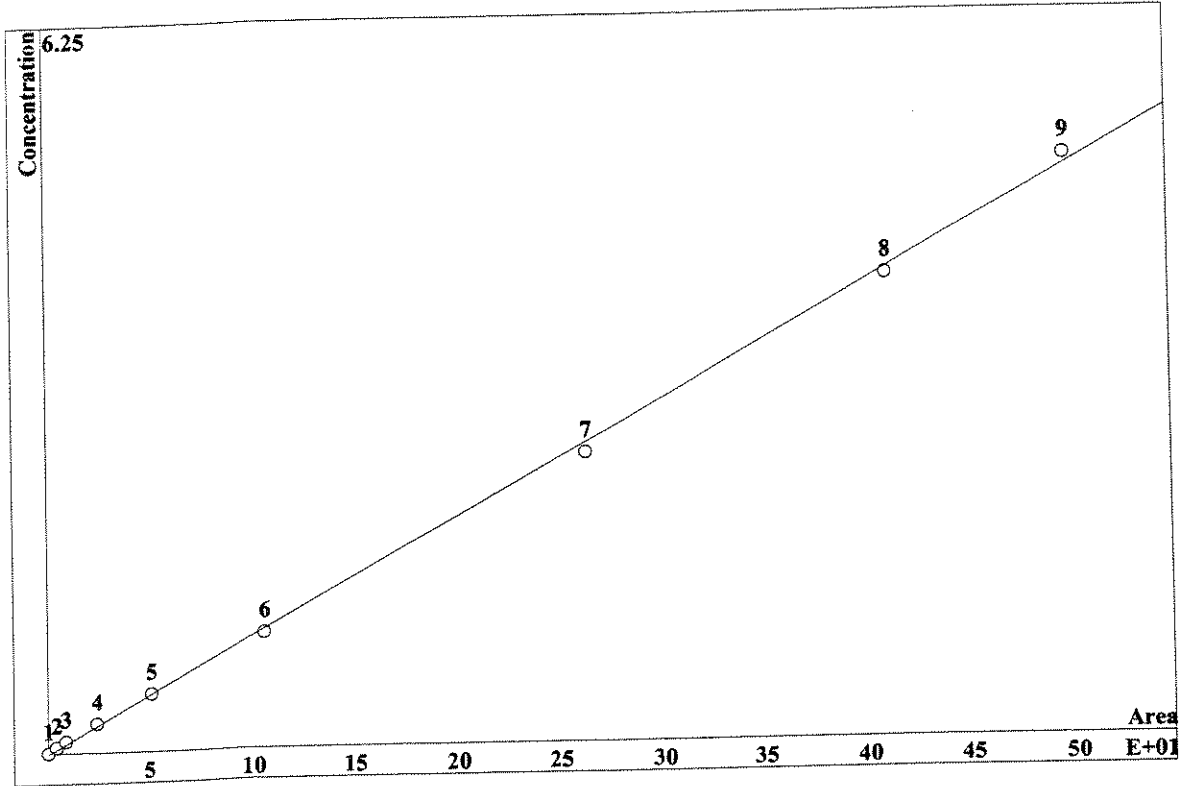
Reference peaks: Time  
 Other peaks: Time  
 Retention units: min

No	Retention	Window%	RF	Conc.	Index	Type	Group	Name
1	3.20	10.0	9.889e-03	0.00	0.000		0	Fluoride
2	4.04	10.0	1.548e-02	0.00	0.000		0	Chloride
3	5.07	10.0	8.006e-03	0.00	0.000		0	Nitrite
4	6.08	10.0	3.967e-02	0.00	0.000		0	Bromide
5	6.98	10.0	6.094e-03	0.00	0.000		0	Nitrate
6	9.51	10.0	2.201e-02	0.00	0.000		0	Sulfate

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CALIBRATION OF COMPONENT Fluoride

Method: 07-17-08CAL.mtw  
 Equation:  $Q = 0.0098891 \cdot A - 0.00819104$   
 RSD: 3.621 %  
 Correlation coefficient: 0.999645

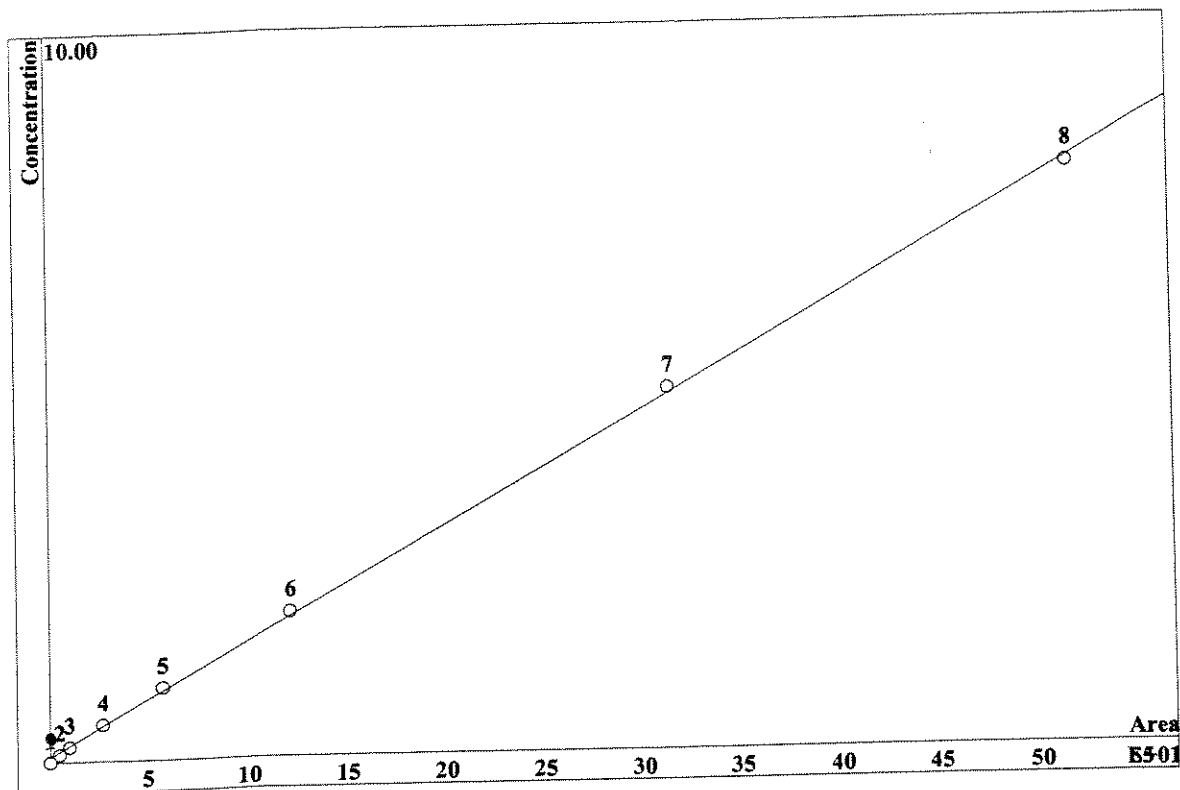


K3 = 0    K2 = 0    K1 = 0.0098891    K0 = -0.00819104  
 Base: Area  
 Ref.channel: Cond  
 ISTD:  
 Formula: Linear  
 Weight: 1

Level	Height	Area	Conc.	Vol/Dil	Retention	Used	File
1	5.5e-05	6.95e-05	1e-05	1	3.202	Yes	s7172116.chw
2	0.473	4.064	0.05	1	3.202	Yes	s7172130.chw
3	1.008	8.549	0.1	1	3.202	Yes	s7172144.chw
4	2.883	23.82	0.25	1	3.202	Yes	s7172158.chw
5	6.337	51.01	0.5	1	3.202	Yes	s7172212.chw
6	12.77	105.2	1	1	3.202	Yes	s7172226.chw
7	29.73	262.3	2.5	1	3.202	Yes	s7172240.chw
8	45.02	410.3	4	1	3.202	Yes	s7172255.chw
9	52.22	497.3	5	1	3.202	Yes	s7172309.chw

CALIBRATION OF COMPONENT Chloride

Method: 07-17-08CAL.mtw  
 Equation:  $Q = 0.0154779 \cdot A + 0.0686283$   
 RSD: 3.008 %  
 Correlation coefficient: 0.999797



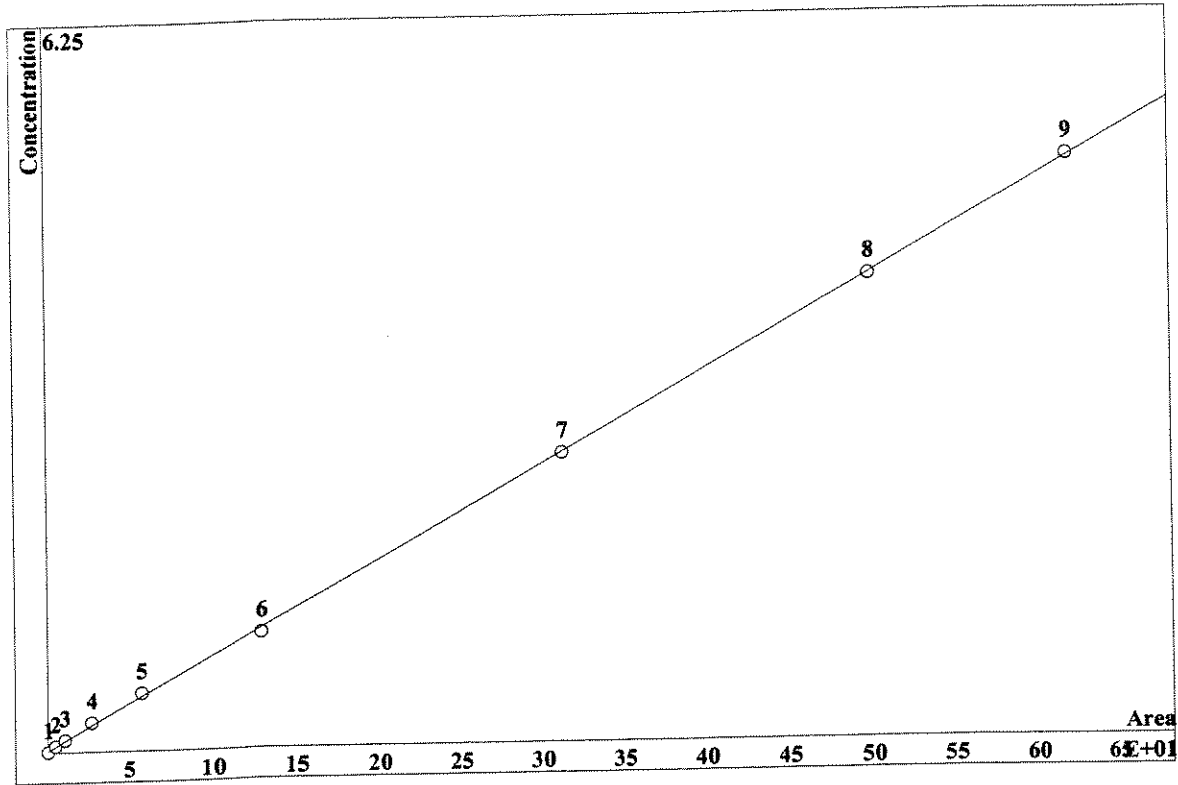
K3 = 0      K2 = 0      K1 = 0.0154779      K0 = 0.0686283  
 Base: Area  
 Ref.channel: Cond  
 ISTD:  
 Formula: Linear  
 Weight: 1

Level	Height	Area	Conc.	Vol/Dil	Retention	Used	File
1	0.001035	0.002151	1e-05	1	4.04	Yes	s7172116.chw
2	0.5372	4.715	0.1	1	4.04	Yes	s7172130.chw
3	1.129	9.762	0.2	1	4.04	Yes	s7172144.chw
4	3.159	26.92	0.5	1	4.04	Yes	s7172158.chw
5	6.862	57.5	1	1	4.04	Yes	s7172212.chw
6	14.3	120.9	2	1	4.04	Yes	s7172226.chw
7	36.36	313.3	5	1	4.04	Yes	s7172240.chw
8	60.26	516.9	8	1	4.04	Yes	s7172255.chw
9	0	0	10	0	0	No	s7172309.chw



CALIBRATION OF COMPONENT Nitrite

Method: 07-17-08CAL.mtw  
 Equation:  $Q = 0.00800608 \cdot A + 0.0105792$   
 RSD: 1.508 %  
 Correlation coefficient: 0.999938

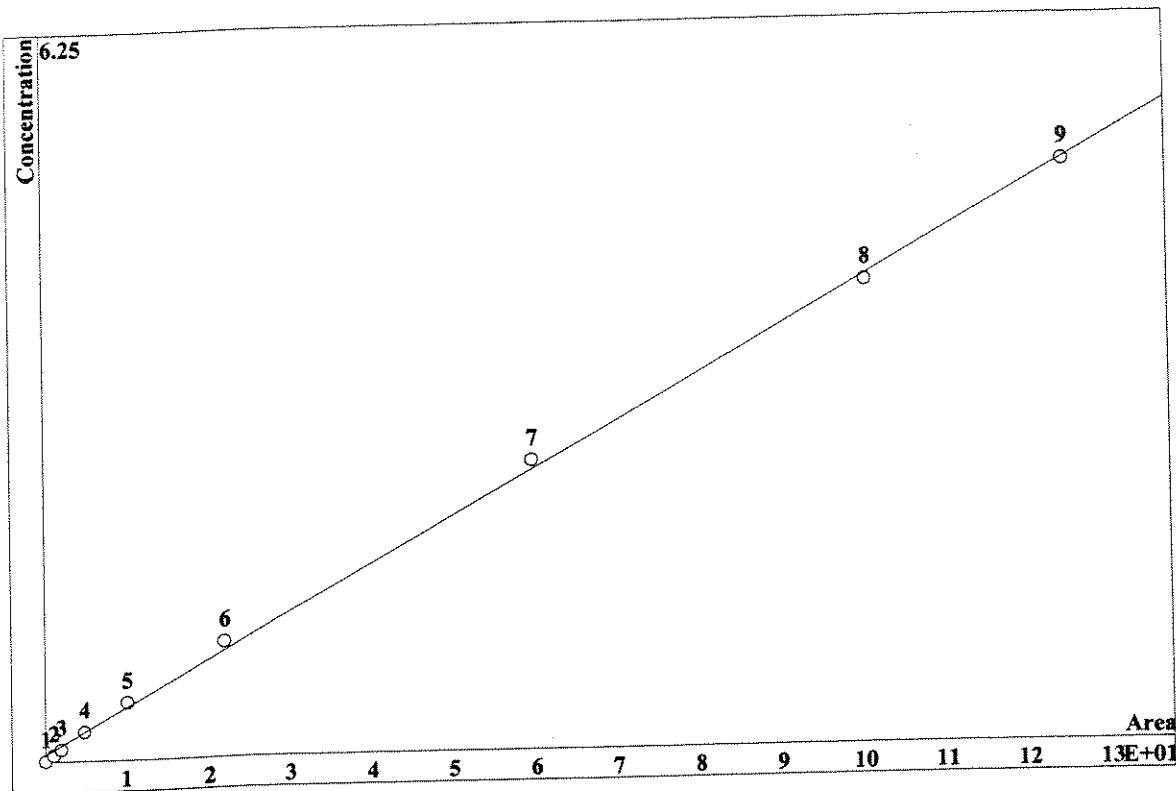


K3 = 0      K2 = 0      K1 = 0.00800608      K0 = 0.0105792  
 Base: Area  
 Ref.channel: Cond  
 ISTD:  
 Formula: Linear  
 Weight: 1

Level	Height	Area	Conc.	Vol/Dil	Retention	Used	File
1	-3.667e-05	5e-06	1e-05	1	5.073	Yes	s7172116.chw
2	0.4363	4.687	0.05	1	5.073	Yes	s7172130.chw
3	1.026	10.68	0.1	1	5.073	Yes	s7172144.chw
4	2.687	27.19	0.25	1	5.073	Yes	s7172158.chw
5	5.703	57.85	0.5	1	5.073	Yes	s7172212.chw
6	12.2	128.8	1	1	5.073	Yes	s7172226.chw
7	27.14	312.2	2.5	1	5.073	Yes	s7172240.chw
8	41.27	499.5	4	1	5.073	Yes	s7172255.chw
9	50.11	621	5	1	5.073	Yes	s7172309.chw

CALIBRATION OF COMPONENT Bromide

Method: 07-17-08CAL.mtw  
 Equation:  $Q = 0.0396699 \cdot A + 0.0568244$   
 RSD: 3.890 %  
 Correlation coefficient: 0.999590

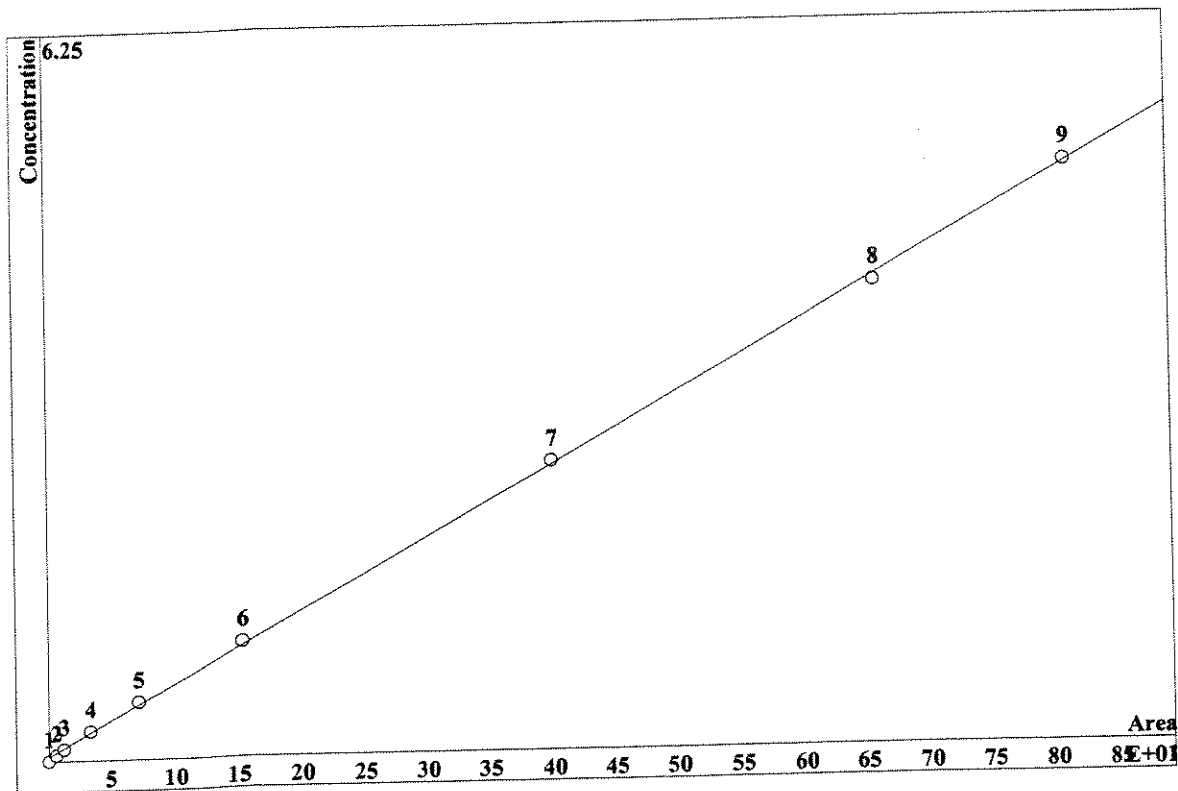


K3 = 0      K2 = 0      K1 = 0.0396699      K0 = 0.0568244  
 Base: Area  
 Ref.channel: Cond  
 ISTD:  
 Formula: Linear  
 Weight: 1

Level	Height	Area	Conc.	Vol/Dil	Retention	Used	File
1	-1e-05	3e-06	1e-05	1	6.08	Yes	s7172116.chw
2	0.07658	1.018	0.05	1	6.08	Yes	s7172130.chw
3	0.1512	1.918	0.1	1	6.08	Yes	s7172144.chw
4	0.3975	4.83	0.25	1	6.08	Yes	s7172158.chw
5	0.8655	10.15	0.5	1	6.08	Yes	s7172212.chw
6	1.878	21.79	1	1	6.08	Yes	s7172226.chw
7	4.914	59.56	2.5	1	6.08	Yes	s7172240.chw
8	7.741	100.6	4	1	6.08	Yes	s7172255.chw
9	9.138	125	5	1	6.08	Yes	s7172309.chw

CALIBRATION OF COMPONENT Nitrate

Method: 07-17-08CAL.mtw  
 Equation:  $Q = 0.0060944 \cdot A + 0.0360326$   
 RSD: 2.205 %  
 Correlation coefficient: 0.999868

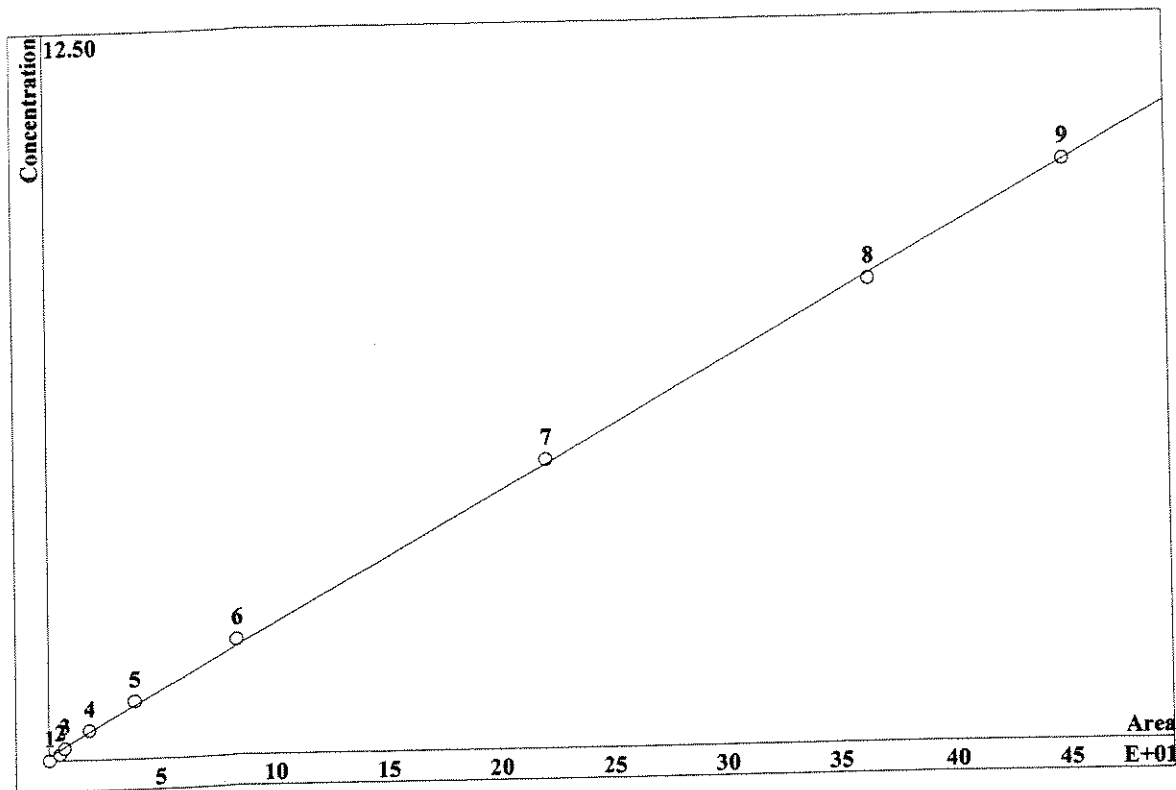


K3 = 0      K2 = 0      K1 = 0.0060944      K0 = 0.0360326  
 Base: Area  
 Ref.channel: Cond  
 ISTD:  
 Formula: Linear  
 Weight: 1

Level	Height	Area	Conc.	Vol/Dil	Retention	Used	File
1	3.333e-06	-1e-05	1e-05	1	6.975	Yes	s7172116.chw
2	0.4237	5.725	0.05	1	6.975	Yes	s7172130.chw
3	0.9124	12.03	0.1	1	6.975	Yes	s7172144.chw
4	2.61	33.46	0.25	1	6.975	Yes	s7172158.chw
5	5.682	72.07	0.5	1	6.975	Yes	s7172212.chw
6	11.93	152.8	1	1	6.975	Yes	s7172226.chw
7	30.39	398.9	2.5	1	6.975	Yes	s7172240.chw
8	49.55	658.8	4	1	6.975	Yes	s7172255.chw
9	60.2	811.8	5	1	6.975	Yes	s7172309.chw

CALIBRATION OF COMPONENT Sulfate

Method: 07-17-08CAL.mtw  
 Equation:  $Q = 0.0220132 \cdot A + 0.0753373$   
 RSD: 2.789 %  
 Correlation coefficient: 0.999789



K3 = 0      K2 = 0      K1 = 0.0220132      K0 = 0.0753373  
 Base: Area  
 Ref.channel: Cond  
 ISTD:  
 Formula: Linear  
 Weight: 1

Level	Height	Area	Conc.	Vol/Dil	Retention	Used	File
1	0.02154	0.3699	1e-05	1	9.513	Yes	s7172116.chw
2	0.2898	4.991	0.1	1	9.513	Yes	s7172130.chw
3	0.4107	7.11	0.2	1	9.513	Yes	s7172144.chw
4	1.098	18.3	0.5	1	9.513	Yes	s7172158.chw
5	2.367	38.7	1	1	9.513	Yes	s7172212.chw
6	5.053	82.55	2	1	9.513	Yes	s7172226.chw
7	13.34	220	5	1	9.513	Yes	s7172240.chw
8	22.07	364.3	8	1	9.513	Yes	s7172255.chw
9	27.16	450.4	10	1	9.513	Yes	s7172309.chw

Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14609

Method 300.0/9056

Report date: 7/22/2008 15:56:54  
 Printed by: User  
 Ident: ICV  
 Analysis from: 7/17/2008 23:23:16  
 File: s7172323.chw

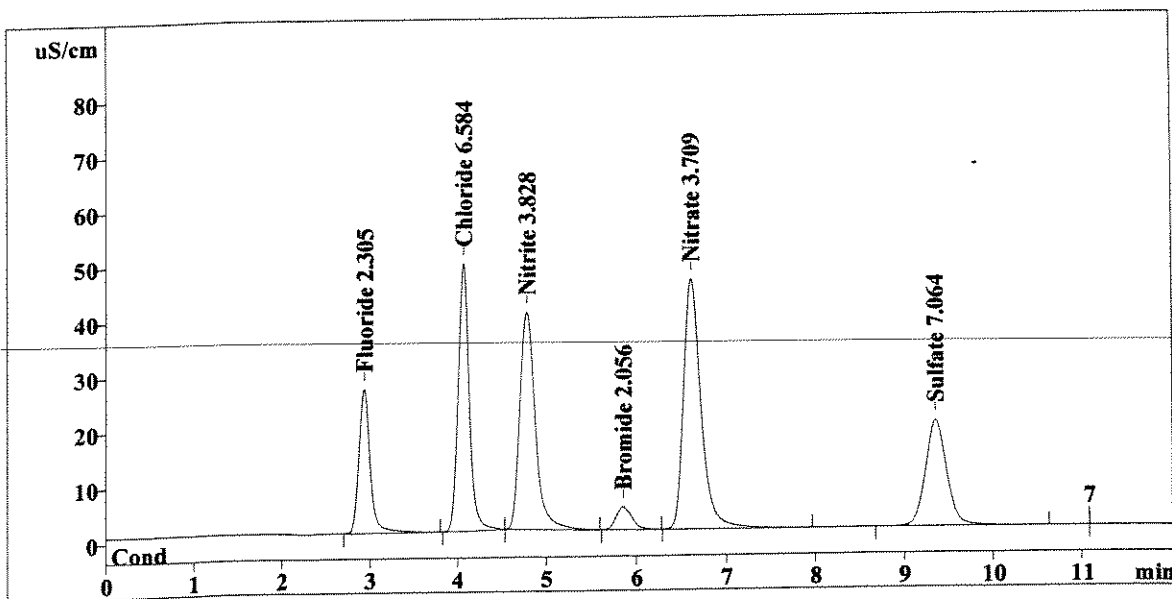
Last save: 7/22/2008 15:55:53

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38464  
 SAMPLE:  
 Vial number: 134  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/17/2008 20:55:39

ELUENT: 3.2 mM Na<sub>2</sub>CO<sub>3</sub> / 1.0 mM NaHCO<sub>3</sub>

Flow: 0.70 mL/min  
 Temperature: 20.0°C  
 Pressure: 5.8 MPa



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.92	233.932	2.305	Fluoride
2	4.06	420.952	6.584	Chloride
3	4.77	476.801	3.828	Nitrite
4	5.85	50.393	2.056	Bromide
5	6.61	602.671	3.709	Nitrate
6	9.35	317.477	7.064	Sulfate
6		12.00	2102.226	25.546

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CV  
 7/22/08

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Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14609

Method 300.0/9056

Report date: 7/22/2008 15:57:00  
 Printed by: User  
 Ident: ICB  
 Analysis from: 7/17/2008 23:37:22  
 File: s7172337.chw

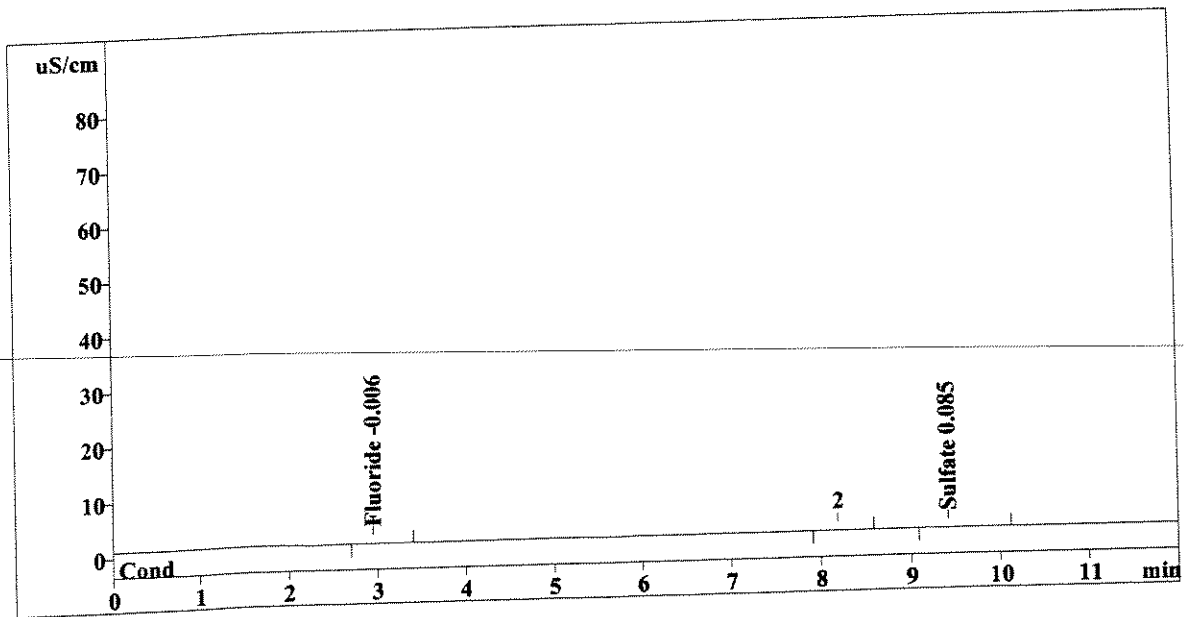
Last save: 7/22/2008 15:55:54

Last save: 7/17/2008 20:55:39

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38465  
 SAMPLE:  
 Vial number: 135  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

ELUENT: 3.2 mM Na<sub>2</sub>CO<sub>3</sub> / 1.0 mM NaHCO<sub>3</sub>

Flow: 0.70 mL/min  
 Temperature: 20.0°C  
 Pressure: 5.8 MPa



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.95	0.208	-0.006	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	0.00	0.000	0.000	Nitrate
6	9.40	0.451	0.085	Sulfate
6	12.00	0.659	0.091	

*OK*  
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*7/22/08*

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Ion Chromatography Analytical Report  
 Columbia Analytical Services  
 Rochester, NY 14609

Method 300.0/9056

Report date: 7/22/2008 15:57:04  
 Printed by: User  
 Ident: LCS  
 Analysis from: 7/17/2008 23:51:28  
 File: s7172351.chw

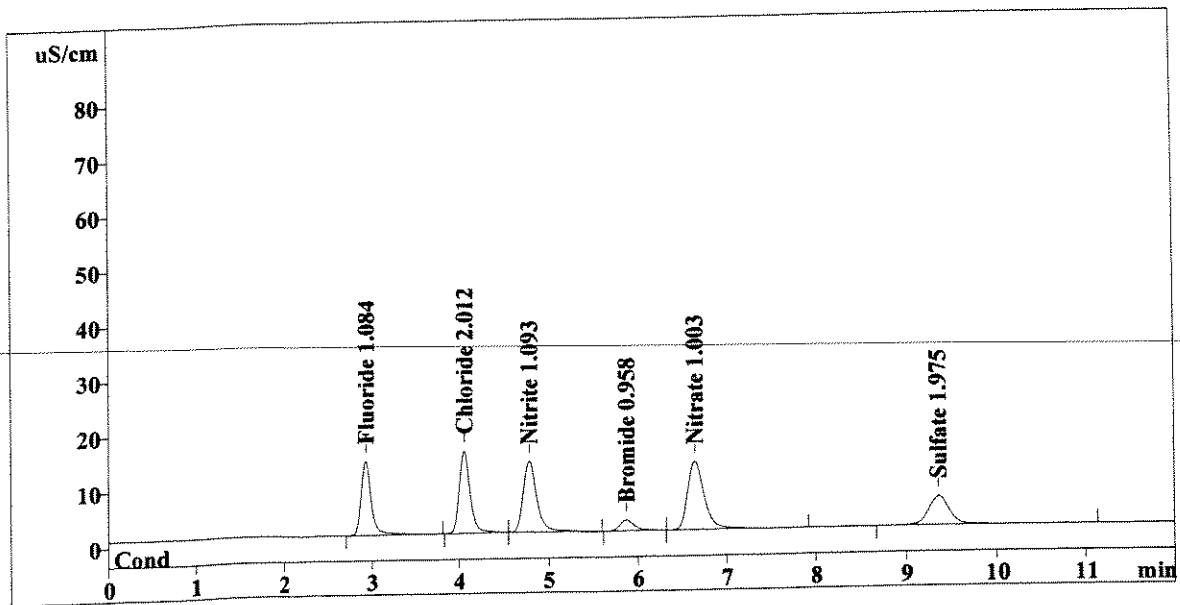
Last save: 7/22/2008 15:55:54

Method: 07-17-08CAL.mtw  
 Run operator: User  
 Analysis number: 38466  
 SAMPLE:  
 Vial number: 136  
 Volume: 1.0 µL  
 Dilution: 1.00  
 Amount: 1.0000

Last save: 7/17/2008 20:55:39

ELUENT: 3.2 mM Na<sub>2</sub>CO<sub>3</sub> / 1.0 mM NaHCO<sub>3</sub>

Flow: 0.70 mL/min  
 Temperature: 20.0°C  
 Pressure: 5.8 MPa



Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	2.92	110.479	1.084	Fluoride
2	4.06	125.580	2.012	Chloride
3	4.78	135.253	1.093	Nitrite
4	5.87	22.722	0.958	Bromide
5	6.64	158.641	1.003	Nitrate
6	9.36	86.277	1.975	Sulfate
<hr/>				
6	12.00	638.951	8.126	

OK  
 ↓

CV  
 7/22/08

This report has been created by IC Net  
 METROHM LTD

**Ion Chromatography Cover Sheet**

Instrument: Metrohm IC 861  
 Column: Metrosep A Supp 5, 4mm, 12/31/2007

Curve Date: 07/17/2008 Loop size: 50 uL Loop

Analyst: C. Woods Analysis Date: 7-17-08

Is copy of LCS attached to run? YES / NO

**Standards Prep Dates & Log ID's:**

<i>Std Type</i>	<i>Prep Date</i>	<i>Log ID</i>	<i>Std Type</i>	<i>Prep Date</i>	<i>Log ID</i>
Calibration Intermediate	07/14/08	WC90011A	Working Calibration Stds	07/14/08	WC90011H
LCS / MS Intermediate	07/14/08	WC90011A	Working LCS/MS Standard	07/14/08	WC90051A
ICV Intermediate	06/23/08	WC90100A	Working ICV Standard	DAILY	WC90100H
CCV Intermediate	06/23/08	WC90100A	Working CCV Standard	DAILY	WC90100H

**Comments:**

- CALIBRATION EXPIRES 12/10/2008
- CALIBRATION INVALID FOR FLUORIDE (ICV FAIL HIGH)
- CHLORIDE LINEAR RANGE ONLY GOES UP TO 8.0 PPM



**CALIBRATION INTERMEDIATE STOCK PREP**  
(used for Calibration and LCS / MS)

Analyte	1000ppm Stock ID	Conc. mg/L	mLs Stock	Final Vol. mL	Final Conc. mg/L	Analyst	Date Prepped	Lot ID	Exp. Date	Final Calibration Intermediate Stock ID
F	WC850FF	1000	10	200	50	CMW	7/14/08	A	12/10/08	WC90011A
Cl	WC85106C	1000	20		100			B		
NO2	WC72001J	1000	10		50			C		
Br	WC85160D	1000	10		50			D		
NO3	WC72002K	1000	10		50			E	7/14/08	
OPO4		1000	10		50			F		
SO4	WC72001Y	1000	20		100			G		

**WORKING CALIBRATION STANDARDS PREP**

(Stocks delivered using Volumetric glassware and brought to volume with DI. Expire after 7 days.)

Std #	Calibration Intermediate Stock ID	mLs Intermediate Stock	Final Vol. mLs	Final Std Conc.							Analyst	Date Prepped	Lot ID	Exp. Date	Final Log ID	
				F	Cl	NO2	Br	NO3	OPO4	SO4						
9		10.0	100	5.0	10.0	5.0	5.0	5.0	5.0	5.0	10.0	CMW	7/14/08	H	7/21/08	WC90011H
8		8.0		4.0	8.0	4.0	4.0	4.0	4.0	4.0	8.0			I		
7		2.0	5.0	2.5	5.0	2.5	2.5	2.5	2.5	2.5	5.0			J		
6		2.0		1.0	2.0	1.0	1.0	1.0	1.0	1.0	2.0			K		
5		1.0		0.5	1.0	0.50	0.50	0.50	0.50	0.50	1.0			L		
4		0.5		0.25	0.50	0.25	0.25	0.25	0.25	0.25	0.50			M		
3		0.2		0.10	0.20	0.10	0.10	0.10	0.10	0.10	0.20			N		
2		0.1		0.05	0.10	0.05	0.05	0.05	0.05	0.05	0.10			O		
1		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			P		

ICV / CCV INTERMEDIATE STOCK PREP

Analyte	ICV / CCV Stock ID	Conc. mg/L	mLs Stock	Final Vol. mL	Final Conc. mg/L	Analyst	Date Prepped	Lot ID	Exp. Date	Final ICV / CCV Intermediate Stock ID
F	WC9057C	1000	4.0	1000	4.0	TC	6/23/08	A	9/25/08	WC90100A
Cl	WC85106D	650	20.0		13.0			B		
NO2	WC72007F	180	40.0		7.2			C		
Br	WC85067D	1000	4.0		4.0			D		
NO3	WC72007N	180	40.0		7.2			E		
OPO4	—	180	40.0		7.2			F		
SO4	WC72006Y	3200	4.0		12.8			G		

WORKING ICV / CCV PREP  
(A 1:2 dilution of the Reference Intermediate Stock is done daily)

Analyte	ICV / CCV Intermediate Stock ID	Conc. mg/L	mLs Stock	Final Vol. mL	Final Conc. mg/L	Analyst	Date Prepped	Lot ID	Final Working ICV / CCV ID
F	WC90100A	4.0	5.0	20.0	1.0	TC	DAILY	H	WC90100H
Cl		13.0			3.25				
NO2		7.2			3.6				
Br		4.0			2.0				
NO3		7.2			3.6				
OPO4		7.2			3.6				
SO4		12.8			6.4				

81226

**WORKING LCS PREP**

(Stocks delivered using Volumetric glassware and brought to volume with DI. LCS expires after 7 days.)

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

Analyte	Calibration Intermediate Stock ID	Intermediate Stock Conc (mg/L)	mLs Intermediate Stock	Final Vol. mLs	Final Conc. (mg/L)	Analyst	Date Prepped	Lot ID	Exp. Date	Final Log ID
F	WC90051A	50	2.0	100	1.0	CMW	7/14/08	A	7/24/08	WC90051A
Cl		100			2.0			B		
NO2		50			1.0			C		
Br		50			1.0			D		
NO3		50			1.0			E		
OPO4		50			1.0			F		
SO4		100			2.0			G		
								H		
								I		
								J		
								K		
								L		
								M		
								N		
								O		
								P		
								Q		
								R		

Run #: 163206  
 Analyte: MBAS SM5540C SURFACTANTS  
 Printed: 07/02/08 09:03

R44666  
 R44768  
 R44650  
 3 copies

TYPE	SUBMISSION	ORDER #	MATRIX	REPORTED	DILUTION	PQL	% RECOVERY	% RSD	DATE	QC	PKG #
				RESULT					ANALYZED		
BLK5		1114221	SOIL/SEDIME	0.311	10.0	0.200			07/01/2008		
ESMP	R2844666	1113245	SOIL/SEDIME	0.3110	10.0	0.200			07/01/2008		ASPB
ESMP	R2844666	1113249	SOIL/SEDIME	0.3110	10.0	0.200			07/01/2008		ASPB
ESMP	R2844666	1113250	SOIL/SEDIME	0.3110	10.0	0.200			07/01/2008	QC	ASPB
LDUP		1114219	SOIL/SEDIME	0.311	10.0	0.200			07/01/2008		
SPK1		1114220	SOIL/SEDIME	17.8	10.0	0.200	87.3		07/01/2008		
ESMP	R2844666	1113254	SOIL/SEDIME	0.3110	10.0	0.200			07/01/2008		ASPB
ESMP	R2844666	1113255	SOIL/SEDIME	0.3110	10.0	0.200			07/01/2008		ASPB
ESMP	R2844666	1113256	SOIL/SEDIME	0.3110	10.0	0.200			07/01/2008		ASPB
ESMP	R2844666	1113257	SOIL/SEDIME	0.8100	10.0	0.200			07/01/2008		ASPB
ESMP	R2844666	1113258	SOIL/SEDIME	0.3110	10.0	0.200			07/01/2008		ASPB
ESMP	R2844666	1113259	SOIL/SEDIME	0.3110	10.0	0.200			07/01/2008		ASPB
ESMP	R2844666	1113262	SOIL/SEDIME	0.3110	10.0	0.200			07/01/2008		ASPB
ESMP	R2844768	1113695	WATER	0.0780	1.0	0.0200			07/01/2008		ASPB
ESMP	R2844768	1113696	WATER	0.714	5.0	0.0200			07/01/2008		ASPB
ESMP	R2844768	1113697	WATER	0.163	1.0	0.0200			07/01/2008		ASPB
ESMP	R2844768	1113698	WATER	0.208	1.0	0.0200			07/01/2008		ASPB
ESMP	R2844768	1113699	WATER	0.180	1.0	0.0200			07/01/2008		ASPB
ESMP	R2844650	1112811	WATER	0.412	5.0	0.0200			07/01/2008		ASPB
ESMP	R2844650	1112871	WATER	0.415	4.0	0.0200			07/01/2008		ASPB
BLK2		1114222	WATER	0.00310	1.0	0.0200			07/01/2008		
SPKB		1114223	WATER	0.0211	1.0	0.0200	105.5		07/01/2008		
SPKB		1114224	WATER	0.392	1.0	0.0200	98.1		07/01/2008		

Records printed: 23

Reviewed & Approved

By: CH

Date: 7/2/08



Analyte: Surfactants (MBAs)  
 Method: EPA 425.1 / SM20 5540C

Analyst: DCB  
 Pipette: \_\_\_\_\_

Date: 7/1/08  
 Time: 8:45

Calibration:

Std	Conc.	Absorb.	Result	% Rec
1	0.00	0.000	0.00311	
2	0.02	0.021	0.02407	120.3%
3	0.04	0.038	0.04103	102.6%
4	0.06	0.056	0.05900	98.3%
5	0.08	0.076	0.07896	98.7%
6	0.10	0.092	0.09492	94.9%
7	0.15	0.140	0.14282	95.2%
8	0.20	0.195	0.19771	98.9%
9	0.25	0.251	0.25359	101.4%
10	0.30	0.305	0.30748	102.5%
11	0.40	0.395	0.39730	99.3%

Curve Date: 6/16/08  
 C.C = 0.999428  
 y-int. = -0.003118  
 Slope: 1.002064

Submission #	Order #	Sample Vol. (mLs)	Absorbance @ 652 nm	MBAs mg/L	Dilution	Final Result mg/L
29	R-44650	1112811	0.100	0.1029	4.0	0.4116
30		1112871	0.080	0.0829	5.0	0.4147
31		CCV	0.300	0.3025	1.0	0.3025
32		CCB/PB	0.000	0.0031	1.0	0.0031
33						
34						
35						
36						
37						
38						
39						
40						
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42						
43						
44						
45						
46						
47						
48						
49						
50						
51						
52						
53						
54						
55						
56						

*OK 7/2/08*

MBAs, mg/L = Conc. (mg/L) x Dil'n x 500 mL

Columbia Analytical Services  
 1 Mustard Street, Rochester, NY 14609

General Chemistry Analytical Run Cover Sheet

Analyst: DCB

Date: 7/1/08

Analysis: MBAS (Surfactants)

Instrument: Milton Roy Spec 21

Quality Control:

Curve Date: 06/16/08

	Same as Log Book #	Same as Log Book Date	Stocks Prep. Log#, Date	Stock Sol (mls)	Stock Sol (mg/L)	Final Vol (mls)	True Value (mg/L)
a) Standards Prep:	WC85166A	6/20/08	WC85110C,2/13/08				
b) I/CCV Prep:	WC85166B	6/20/08	WC85046E, 10/1/07	150	1	500	0.3
c) LCS-LL Prep:	WC85166C	6/20/08	WC85110C,2/13/08	10	1	500	0.02
c) LCS-HL Prep:	WC85166D	6/20/08	WC85110C,2/13/08	200	1	500	0.4

Instrument log filled in?  (Y)  (N)

Packages:

Copy and attach Standards Preparation.

Comments:

R-44666 soils diluted 50ml → 500mls at extraction  
 1112811 diluted 125mls → 500mls at extraction  
 1112871 diluted 100mls → 500mls at extraction  
 1113690 diluted 1/5 at spec

matrix spike is 100ml of 1ppm LAS Reference Std giving a spk of 0.2

## Surfactants - Curve analyzed on 6/16/08

CMW  
6/20/08

### (A) Standards

#	mLs 1ppm Std	mLs DI	Conc. (ppm)
1	0	500	0.00
2	10	490	0.02
3	20	480	0.04
4	30	470	0.06
5	40	460	0.08
6	50	450	0.10
7	75	425	0.15
8	100	400	0.20
9	<del>150</del> 125	375	0.25
10	150	350	0.30
11	200	300	0.40

### (B) I/CCV

- Add 150 mLs of 1ppm LAS reference to sep. funnel + add 350 mLs DI. Analyze. Prepare fresh each run. True Value = 3.0 ppm.

### (C) LCS - Low Level

- Add 10 mLs of 1ppm LAS Standard to sep. funnel + add 490 mLs DI. Analyze. Prepare fresh each run. True Value = 0.02 ppm.

### (D) LCS - high level

- Add 200 mLs of 1ppm LAS Standard to sep. funnel + add 300 mLs DI. Analyze. Prepare fresh each run. True Value = 0.40 ppm.

For this cal., the following solutions were used:

1ppm Standard: WC85160A

1ppm Reference: WC85160B



9/28/07  
 TC (A) LCS/MS for AVS  
 To 10.0 g Ottawa Sand or Sample add  
 - 1 mLs sulfide <sup>working std. w/ 500 mg S</sup>  
 - 2 mLs sulfide <sup>working std. w/ 500 mg S</sup> for MS  
 for LCS

(B) CCV for AVS  
 use the 4 mL cal. std. from WC85045D.

(C) COB for AVS  
 use the 0.00 Cal. Std. from WC85045D.

10/11/07  
 GN (D) TKN DIGEST REAGENT  
 - same as WC85040F. Exp. 1 month 11/1/07

10/1/07  
 (E) Received from VWR  
 (1) x 120 mL Linear Alkylbenzene Sulfonate (LAS)  
 Cat. no. 4350-4 RICCA Lot # 2709220  
 CAS no 7664-93-9 Store @ 4°C exp 9/08

10/1/07  
 RP (F) TSS Reference  
 0.2270g Kevlin (WC69285G) brought to  
 1000g w/ DI. Stored @ 4°C in plastic bottle.  
 TV = 227 mg/L exp. 10/1/08

10/1/07  
 BB Received from VWR.  
 (G) (2) x 125g Ascorbic Acid, Cat # 0938-05, JT Baker  
 Lot # E22615, CAS # 50-81-7. Store w RT.  
 Expires 10/1/10  
 (H) (1) x 125g Potassium Iodide, Cat # PX1505-3,  
 EMD Lot # 46285714, CAS # 7681-11-0. Store w RT.  
 Expires 10/1/10.  
 (I) (1) x 500 mL Phenol liquidified, Cat # PX0511-1,  
 EMD Lot # 46318, CAS # 108-95-2. Store in  
 flammable cabinet. Expires 10/1/10  
 (J) (1) x 500 mL Calcium Standard, 1 mL = 1 mg CaCO<sub>3</sub>.  
 Cat # VW3395-2, VWR Lot # 7064. Store @ 4°C.  
 Expires 3/31/08  
 (K) (1) x 500g Sodium Acetate Trihydrate, Cat # 7610,  
 EMD Lot # 1106B043, CAS # 6131-90-4. Store @ R.T.  
 Expires 10/1/10

10/1/07  
 AB Received  
 (A) (1)  
 BDH  
 fla

Received  
 (B) (1) x  
 Fisher  
 Expu

Received  
 (C) (3) x  
 Cat #  
 Same  
 Expu

10/2/07  
 NM (D) Post-  
 To a  
 (WCSSC  
 thorough  
 to vial  
 amber g

(E) Hypoch  
 -same

(F) 0.8 M  
 -same

10/2/07  
 exp (H) Alkalinity 6  
 100 mL  
 with DI

10/2/07  
 AB (I) FAS TO  
 Same a

(J) 0.005M  
 same a

2/13/08  
BB

Received from VWR

- (A) (1) x 4L Sulfuric acid, 0.02000N, Cat# VW3299-4  
VWR Lot# 7312, CAS# 7664-93-9. Store @ R.T.  
Expires 11/30/08
- (B) (1) x 1 L Silica Standard, 10 mg/L, Cat# VW3618-1,  
VWR Lot# 7338, CAS# 6834-92-0. Store @ R.T.  
Expires 8/5/08
- (C) (1) x 120mL Linear Alkylbenzene Sulfonate (LAS)  
Standard, 1000 mg/L. Cat# 4350-4, RICEA Lot#  
1710411, CAS#s 68411-30-3, 7664-93-9. Store @ 4°C.  
Expires 10/2008.

KR  
2/14/08

TSS Reference

0.2153g Naolin (WC692356) brought to 1000g w/ DI.  
Store at 4°C in a plastic bottle.  
TV = 215 mg/L exp: 02/14/2009

2/14/08  
NM

(E) Sodium Phenolate - NH<sub>3</sub>

-same as WC85088 F. Exp. 1 year, 2/14/09.

(F) 0.8M NaOH - TKN

-same as WC85090 I. Exp. 3/14/08.

(G) Buffer - TKN

-same as WC85088 E. Exp. 1 month, 3/14/08

(H) Color Reagent - TKN

To a tared 1 liter amber glass jar add:

- 75.0g Sodium Salicylate (WC85078 B)
- 0.50g Sodium Nitroprusside (WC85102 D)
- 454g UPDI.

Stir until dissolved. Store @ RT. Exp. 1 month, 3/14/08.

(I) Color Reagent - NH<sub>3</sub>

-same as WC85105 C. Exp. 1 year, 2/14/09.

(J) Buffer - NH<sub>3</sub>

-same as WC85094 B. Exp. 1 year, 2/14/09

2/14/08 (A) TKN 1

TC ~~To a 2~~  
To a 2  
- 268g  
- 14.6g  
to ~500  
Slowly  
Dissolve  
to vol.

2/14/08 (B) Rec'd 1  
RP (1) x 100 p  
CAS # 65  
Rec'd  
exp. 1

KR  
2/14/08 (C) TSS Ref  
0.3003  
with T

2/15/08 (D) Post-T  
NM TO a

(WC85111  
Pour off 10  
mix there

(E) Hypochl  
15.0 mL  
Prepare 1

2/19/08 (F) NH<sub>3</sub> (NM  
-same as

(G) Hypochl  
-same a

Run #: 163460

Analyte: ALK SM2320B ALKALINITY, TOTAL

Printed: 07/10/08 15:19

TYPE	SUBMISSION	ORDER #	MATRIX	REPORTED	DILUTION	PQL	% RECOVERY	% RSD	DATE	QC	PKG #
				RESULT					ANALYZED		
CHK1		1116482	WATER	48.4	1.0	2.00	96.8		07/07/2008		
BLK1		1116483	WATER	0.100	1.0	2.00			07/07/2008		
SPKB		1116484	WATER	19.2	1.0	2.00	96.0		07/07/2008		
ESMP	R2844768	1113695	WATER	128	1.0	2.00			07/07/2008		ASPB
ESMP	R2844768	1113696	WATER	80.0	1.0	2.00			07/07/2008		ASPB
ESMP	R2844768	1113697	WATER	120	1.0	2.00			07/07/2008		ASPB
ESMP	R2844768	1113698	WATER	107	1.0	2.00			07/07/2008		ASPB
ESMP	R2844768	1113699	WATER	<del>100</del> 104 <i>certified</i>	1.0	2.00			07/07/2008		ASPB
BLK5		1116485	SOIL/SEDIME	<del>100</del> 100 <i>200u certified</i>	1.0	200			07/07/2008		
ESMP	R2844797	1114366	SOIL/SEDIME	364	1.0	200			07/07/2008		ASPB
ESMP	R2844797	1114376	SOIL/SEDIME	2440	1.0	200			07/07/2008		ASPB
ESMP	R2844797	1114379	SOIL/SEDIME	400	1.0	200			07/07/2008		ASPB
ESMP	R2844797	1114380	SOIL/SEDIME	141	1.0	200			07/07/2008	QC	ASPB
LDUP		1116486	SOIL/SEDIME	138	1.0	200		2.15	07/07/2008		
SPK1		1116487	SOIL/SEDIME	230	1.0	200			07/07/2008		
ESMP	R2844797	1114382	SOIL/SEDIME	505	1.0	200			07/07/2008		ASPB
ESMP	R2844803	1114419	WATER	153	1.0	2.00			07/07/2008		ASPB
ESMP	R2844803	1114420	WATER	152	1.0	2.00			07/07/2008		ASPB
ESMP	R2844803	1114421	WATER	168	1.0	2.00			07/07/2008	QC	ASPB
LDUP		1116488	WATER	168	1.0	2.00		0.24	07/07/2008		
SPK1		1116489	WATER	246	1.0	2.00	97.5		07/07/2008		
ESMP	R2844803	1114756	WATER	120	1.0	2.00			07/07/2008		ASPB
ESMP	R2844803	1114758	WATER	2.00	1.0	2.00			07/07/2008		ASPB

Records printed: 23

Run #: 163458

Analyte: BICARB

SM2320B ALKALINITY, BICARBONATE

Printed: 07/10/08 15:09

TYPE	SUBMISSION	ORDER #	MATRIX	REPORTED	DILUTION	PQL	% RECOVERY	% RSD	DATE	QC	PKG #
				RESULT					ANALYZED		
CHK1		1116469	WATER	48.4	1.0	2.00	96.8		07/07/2008		
BLK1		1116470	WATER	0.100	1.0	2.00			07/07/2008		
<del>SPK1</del>		<del>1116471</del>	<del>WATER</del>	<del>19.2</del>	<del>1.0</del>	<del>2.00</del>	<del>96.0</del>		<del>07/07/2008</del>		
ESMP	R2844768	1113695	WATER	128	1.0	2.00			07/07/2008		ASPB
ESMP	R2844768	1113696	WATER	80.0	1.0	2.00			07/07/2008		ASPB
ESMP	R2844768	1113697	WATER	120	1.0	2.00			07/07/2008		ASPB
ESMP	R2844768	1113698	WATER	107	1.0	2.00			07/07/2008		ASPB
ESMP	R2844768	1113699	WATER	200 <i>104 CE 7/15/08</i>	1.0	2.00			07/07/2008		ASPB
BLK5		1116472	SOIL/SEDIME	1.00 <i>200u CE 7/15/08</i>	1.0	200			07/07/2008		ASPB
ESMP	R2844797	1114366	SOIL/SEDIME	287	1.0	200			07/07/2008		ASPB
ESMP	R2844797	1114376	SOIL/SEDIME	676	1.0	200			07/07/2008		ASPB
ESMP	R2844797	1114379	SOIL/SEDIME	340	1.0	200			07/07/2008		ASPB
ESMP	R2844797	1114380	SOIL/SEDIME	139	1.0	200			07/07/2008	QC	ASPB
LDUP		1116473	SOIL/SEDIME	134	1.0	200		3.66	07/07/2008		
<del>SPK1</del>		<del>1116474</del>	<del>SOIL/SEDIME</del>	<del>150</del>	<del>1.0</del>	<del>200</del>	<del>150.0</del>		<del>07/07/2008</del>		
ESMP	R2844797	1114382	SOIL/SEDIME	400	1.0	200			07/07/2008		ASPB
ESMP	R2844803	1114419	WATER	153	1.0	2.00			07/07/2008		ASPB
ESMP	R2844803	1114420	WATER	152	1.0	2.00			07/07/2008		ASPB
ESMP	R2844803	1114421	WATER	168	1.0	2.00			07/07/2008	QC	ASPB
LDUP		1116475	WATER	168	1.0	2.00		0.24	07/07/2008		
<del>SPK1</del>		<del>1116476</del>	<del>WATER</del>	<del>246</del>	<del>1.0</del>	<del>2.00</del>	<del>97.5</del>		<del>07/07/2008</del>		
ESMP	R2844803	1114756	WATER	120	1.0	2.00			07/07/2008		ASPB
ESMP	R2844803	1114758	WATER	2.00 U	1.0	2.00			07/07/2008		ASPB

Records printed: 23

Run #: 163459

Analyte: CARBONATE SM2320B ALKALINITY, CARBONATE

Printed: 07/10/08 15:11

TYPE	SUBMISSION	ORDER #	MATRIX	REPORTED		DILUTION	PQL	% RECOVERY	% RSD	DATE	QC	PKG #
				RESULT						ANALYZED		
CHK1		1116477	WATER	48.4		1.0	2.00	96.8		7/7/08		
BLK1		1116478	WATER	0.100		1.0	2.00					
<del>SPKE</del>		<del>1116479</del>	<del>WATER</del>	<del>19.2</del>		<del>1.0</del>	<del>2.00</del>	<del>96.0</del>				
ESMP	R2844768	1113695	WATER	2.00	U	1.0	2.00					ASPB
ESMP	R2844768	1113696	WATER	2.00	U	1.0	2.00					ASPB
ESMP	R2844768	1113697	WATER	2.00	U	1.0	2.00					ASPB
ESMP	R2844768	1113698	WATER	2.00	U	1.0	2.00					ASPB
ESMP	R2844768	1113699	WATER	2.00	U	1.0	2.00					ASPB
BLK5		1116490	SOIL/SEDIME	200	U	1.0	200					
ESMP	R2844797	1114366	SOIL/SEDIME	76.0		1.0	200					ASPB
ESMP	R2844797	1114376	SOIL/SEDIME	1760		1.0	200					ASPB
ESMP	R2844797	1114379	SOIL/SEDIME	60.0		1.0	200					ASPB
ESMP	R2844797	1114380	SOIL/SEDIME	2.00		1.0	200				QC	ASPB
LDUP		1116480	SOIL/SEDIME	4.00		1.0	200		66.67			
ESMP	R2844797	1114382	SOIL/SEDIME	105		1.0	200					ASPB
ESMP	R2844803	1114419	WATER	2.00	U	1.0	2.00					ASPB
ESMP	R2844803	1114420	WATER	2.00	U	1.0	2.00					ASPB
ESMP	R2844803	1114421	WATER	2.00	U	1.0	2.00				QC	ASPB
LDUP		1116481	WATER	2.00	U	1.0	2.00					
ESMP	R2844803	1114756	WATER	2.00	U	1.0	2.00					ASPB
ESMP	R2844803	1114758	WATER	2.00	U	1.0	2.00					ASPB

Records printed: 21

ANALYTE: G:\STARLIMS\ASBAR.RP1

Page 1

01297

Analyte: **Alkalinity** Regular Level X Analyst: KLR Date: 7/7/08  
 Method: **310.1 / SM20 2320 B** High Level \_\_\_\_\_ Pipette: HANS Time: 8:25

Table 403.1 Alkalinity Relationships

Result of titration	Hydroxide Alkalinity as CaCO3	Carbonate Alkalinity as CaCO3	Bicarbonate Concentration as CaCO3
P = 0	0.0	0.0	T
P < 1/2T	0.0	2P	T - 2P
P = 1/2T	0.0	2P	0
P > 1/2T	2P - T	2(T - P)	0
P = T	T	0.0	0

P = Phenolphthalein Alkalinity

T = Total Alkalinity

Phenolphthalein alkalinity = the quantity measured by titration to pH 8.3

Alkalinity, mg CaCO3 /L = (A<sub>(mL acid used)</sub> × N<sub>(H2SO4)</sub> × 50,000) / mL sampl\* Soils - 1g of sample diluted to 100mLs in DI

pH meter cal:

4.0	<u>4</u>
7.0	<u>6.98</u>
10.0	<u>10</u>

Buffer Lot #:

<u>BDB2674H</u>
<u>BDB2680E</u>
<u>BDB2680F</u>

Reagents: Concentration

H2SO4: 0.020 N

Log #

WC85110A 2/13/08

Reg Level Reference: 50 mg/L

WC85169I

High Level Reference: 5000 mg/L

WC85157H

LCS/MS Solution: 1000 mg/L

WC85143D

Submission #	Order #	Sample Vol (mL)	pH Initial	Titrant Volume Initial (mL)	Vol to pH 4.5	Vol to pH 8.3	Phen. Alk.	OH- Alk.	Carb Alk.	Bicarb Alk.	Total Alk.	Vol. Spk 1000ppm (mL)	*Soil (X)
1	TV = 50	ICV	25.0	9.48	0.00	1.21					48.4		
2		ICB	100.0	5.25	0.00	0.01					0.1		
3	TV = 20	LCS	100.0	9.97	0.00	1.92					19.2	2.0	
4	44768	R-1113695	25.0	7.71	0.00	3.19	0.00	0.0	0.0	127.6	127.6		
5		R-1113696	25.0	7.29	0.00	2.00	0.00	0.0	0.0	80.0	80.0		
6		R-1113697	25.0	7.63	0.00	3.00	0.00	0.0	0.0	120.0	120.0		
7		R-1113698	25.0	7.63	0.00	2.68	0.00	0.0	0.0	107.2	107.2		
8		R-1113699	25.0	7.66	0.00	2.61	0.00	0.0	0.0	100.4	100.4	104.4	
9		MB	100.0	5.64	0.00	0.10	0.00	0.0	0.0	1.0	1.0		
10	44797	R-1114366	55.0	9.65	0.00	2.00	0.21	3.8	0.0	7.6	28.7	36.4	
11		R-1114376	25.0	10.21	0.00	6.09	2.20	88.0	0.0	176.0	67.6	243.6	
12		R-1114379	50.0	9.14	0.00	2.00	0.15	3.0	0.0	6.0	34.0	40.0	
13		R-1114380	100.0	8.49	0.00	1.41	0.01	0.1	0.0	0.2	13.9	14.1	LL
14	DUP	R-1114380	100.0	8.65	0.00	1.38	0.02	0.2	0.0	0.4	13.4	13.8	LL: app
15	SPK TV = 10	R-1114380	100.0	9.15	0.00	2.30	0.40	4.0	0.0	8.0	15.0	23.0	LL: app
16		R-1114382	40.0	9.15	0.00	2.02	0.21	5.3	0.0	10.5	40.0	50.5	GR
16	TV = 50	CCV	25.0	9.54	0.00	1.28					51.2		
17		CCB	100.0	5.42	0.00	0.05					0.5		
18	44803	R-1114419	25.0	7.37	0.00	3.82	0.00	0.0	0.0	0.0	152.8	152.8	
19		R-1114420	25.0	7.40	0.00	3.81	0.00	0.0	0.0	0.0	152.4	152.4	
20		R-1114421	25.0	7.19	0.00	4.19	0.00	0.0	0.0	0.0	167.6	167.6	
21	DUP	R-1114421	25.0	7.18	0.00	4.21	0.00	0.0	0.0	0.0	168.4	168.4	
22	SPK TV = 80	R-1114421	25.0	8.19	0.00	6.15	0.00	0.0	0.0	0.0	246.0	246.0	2.0
23		R-1114756	25.0	7.30	0.00	3.00	0.00	0.0	0.0	0.0	120.0	120.0	
24		R-1114758	100.0	5.71	0.00	LL	0.00	0.0	0.0	0.0	0.0		
25	44305	R-1106642	25.0	7.97	0.00	6.02					240.8		
26		R-1106643	10.0	7.65	0.00	5.02					502.0		
27		R-1106644	15.0	7.62	0.00	5.75					383.3		
28		R-1106645	15.0	7.30	0.00	10.00					666.7		
29		R-1106646	10.0	7.25	0.00	8.02					802.0		
30	TV = 50	CCV	25.0	8.83	0.00	1.20					48.0		
31		CCB	100.0	5.05	0.00	0.02					0.2		
32	TV = 20	LCS	100.0	9.76	0.00	2.02					20.2	2.0	
33	44305	R-1106647	15.0	6.74	0.00	4.39					292.7		

Analyte: **Alkalinity** Regular Level     X      
 Method: **310.1 / SM20 2320 B** High Level           

Analyst:     KLR     Date:     7/7/08      
 Pipette:     HANS     Time:     8:25    

Table 403.1 Alkalinity Relationships

Result of titration	Hydroxide Alkalinity as CaCO3	Carbonate Alkalinity as CaCO3	Bicarbonate Concentration as CaCO3
P = 0	0.0	0.0	T
P < 1/2T	0.0	2P	T - 2P
P = 1/2T	0.0	2P	0
P > 1/2T	2P - T	2(T - P)	0
P = T	T	0.0	0

P = Phenolphthalein Alkalinity

T = Total Alkalinity

Phenolphthalein alkalinity = the quantity measured by titration to pH 8.3

Alkalinity, mg CaCO3 /L = (A<sub>(mL acid used)</sub> × N<sub>(H2SO4)</sub> × 50,000) / mL sampl \* Soils - 1g of sample diluted to 100mLs in DI

pH meter cal:

4.0	4
7.0	6.98
10.0	10

Buffer Lot #:

BDB2674H
BDB2680E
BDB2680F

Reagents: Concentration  
 H2SO4: 0.020 N  
 Reg Level Reference: 50 mg/L  
 High Level Reference: 5000 mg/L  
 LCS/MS Solution: 1000 mg/L

Log #      Date

WC85110A	2/13/08
WC85169I	
WC85157H	
WC85143D	

Submission #	Order #	Sample Vol (mL)	pH Initial	Titrant Volume Initial (mL)	Vol to pH 4.5	Vol to pH 8.3	Phen. Alk.	OH-Alk.	Carb Alk.	Bicarb Alk.	Total Alk.	Vol. Spk 1000ppm (mL)	*Soil (X)
34	R-1106648	20.0	7.44	0.00	2.42						121.0		
35	R-1106649	15.0	7.71	0.00	5.98						398.7		
36	R-1106650	15.0	7.20	0.00	10.00						666.7		
37	44621 R-1111897	25.0	7.98	0.00	2.30						92.0		
38	R-1111898	50.0	7.37	0.00	2.10						42.0		
39	R-1111899	25.0	7.80	0.00	2.90						116.0		
40	R-1111900	100.0	5.38	2.90	LL						-29.0	low level	
41	R-1111983	25.0	8.14	0.00	2.75						110.0		
42	DUP R-1111983	25.0	8.13	0.00	2.79						111.6		
43	SPK TV = 40 R-1111983	25.0	9.17	0.00	3.70						148.0	1.0	
44	R-1111984	25.0	7.69	0.00	2.39						95.6		
45	TV = 50 CCV	25.0	9.38	0.00	1.25						50.0		
46	CCB	100.0	5.38	0.00	0.05						0.5		
47	44621 R-1111985	25.0	7.85	0.00	3.40						136.0		
48	R-1111986	100.0	5.39	0.00	LL						0.0	low level	
49	R-1111987	100.0	7.05	0.00	LL						0.0	low level	
50	R-1112968	45.0	7.50	0.00	2.22						49.3		
51	R-1112969	25.0	7.82	0.00	2.31						92.4		
52	44734 R-1113042	10.0	7.66	0.00	3.55						355.0		
53	R-1113043	10.0	6.77	0.00	6.00						600.0		
54	R-1113044	50.0	6.57	0.00	2.18						43.6		
55	R-1113045	10.0	7.70	0.00	3.35						335.0		
56	R-1113046	10.0	7.35	0.00	2.95						295.0		
57	DUP R-1113046	10.0	7.50	0.00	2.90						290.0		
58	SPK TV = 100 R-1113046	10.0	7.95	0.00	3.90						390.0	1.0	
59	TV = 50 CCV	25.0	9.26	0.00	1.28						51.2		
60	CCB	100.0	5.35	0.00	0.08						0.8		
61													
62													
63													
64													
65													
66													
67													

Analyte: Alkalinity Low Level  
 Method: 310.1 / SM20 2320 B

Analyst: KLR Date: 7/7/18  
 Pipette: HANS Time: \_\_\_\_\_

pH meter cal:		Buffer Lot #:
4.0	4	BDB2674H
7.0	6.98	BDB2680E
10.0	10	BDB2680F

Reagent: H2SO4: 0.02 N Concentration WC85110A Log # 2/13/08 Date

Alkalinity, mg CaCO3 /L =  $\frac{(2B-C) \times N \times 50.000}{\text{mL sample}}$

where:  
 B = mL standard acid used  
 C = total ml titrant to reach 0.3 pH units lower

Submission #	Order #	Sample Vol (mL)	pH Initial	Titrant Volume Initial (mL)	Vol.@pH 4.5		Vol.@pH -0.3		Total Alkalinity (mg/L)	
					Vol.(B)	pH	Vol.(C)	pH		
1	44797	R-1114380	100.0	8.49	0.00	1.41	4.5	1.9	4.2	9.20
2	DUP	R-1114380	100.0	8.65	0.00	1.38	4.45	1.8	4.16	9.60
3	44803	R-1114758	100.0	5.71	0.00	0.2	4.49	0.4	4.2	0.00
4	44621	R-1111900	100.0	5.38	2.90	0.2	4.45	0.38	4.19	0.20
5		R-1111986	100.0	5.39	0.00	0.19	4.45	0.31	4.2	0.70
6		R-1111987	100.0	7.05	0.00	1.4	4.49	1.59	4.18	12.10
7										
8										
9										
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*Handwritten:* KLR 7/10/18

*Handwritten:* 250/25 ↓





3/08 Received from VWR

BB (A) (1) x 4L Sulfuric Acid, 0.0200N, Cat# VW3299-4  
VWR Lot# 7312, CAS# 7664-93-9. Store @ R.T.  
Expires 11/30/08

(B) (1) x 1 L Silica Standard, 10 mg/L, Cat# VW3618-1  
VWR Lot# 7338, CAS# 6834-92-0. Store @ R.T.  
Expires 8/5/08

(C) (1) x 120mL Linear Alkylbenzene Sulfonate (LAS)  
Standard, 1000 mg/L. Cat# 4350-4, RICEA Lot#  
1710411, CAS#s 68411-30-3, 7664-93-9. Store @ 4°C.  
Expires 10/2008.

2/11/08 (D) TSS Reference

0.2153g Naolin (WC69285G) brought to 1000g w/ DI.  
Store at 4°C in a plastic bottle.  
TV=215mg/L exp: 02/11/2009

1/14/08 (E) Sodium Phenolate - NH<sub>3</sub>

NM - same as WC85088 F. Exp. 1 year, 2/14/09.

(F) 0.8M NaOH - TKN

- same as WC85090 I. Exp. 3/14/08.

(G) Buffer - TKN

- same as WC85088 E. Exp. 1 month, 3/14/08

(H) Color Reagent - TKN

To a tared 1 liter amber glass jar add:  
- 75.0g Sodium Salicylate (WC85098B)  
- 0.50g Sodium Nitroprusside (WC85102D)  
- 454g DI.  
Stir until dissolved. Store @ RT. Exp. 1 month, 3/14/08.

(I) Color Reagent - NH<sub>3</sub>

- same as WC85105 C. Exp. 1 year, 2/14/09.

(J) Buffer - NH<sub>3</sub>

- same as WC85044 B. Exp. 1 year, 2/14/09

2/14/08 (A) TKN DI

TC To ~700  
TO a 2 l  
- 268g  
- 14.6g  
to ~500  
Slowly  
Dissolve  
to vol.

2/14/08 (B) Rec'd for

RF (1) x 100 pill  
CAS # 65-  
Rec'd  
exp. c

2/14/08 (C) TSS Ref

0.3003g  
with T

2/15/08 (D) Post-I

NM TO a  
(WC85111)  
Pour off 10  
mix there

(E) Hypochl

15.0 mL  
Prepare

2/19/08 (F) NH<sub>3</sub>

NM - same as

(G) Hypochl

- same as

bill  
4/24/08

(A) TSS Reference

0.2118g kaolin (WC85169285G) brought to 1000g of DI store @ 4°C in a plastic bottle.  
TV = 212 mg/L exp: 4/24/09

4/24/08

(B) Buffer - TKN

NIN

- same as WC85088 E. Exp. 1 month, 5/24/08



(C) Sodium Phenolate - NH3

- same as WC85131D. Exp. 1 year, 4/24/09.

4/28/08  
BIB

(D) Alkalinity LPS/MS Soln. 1666 mg/L

Lucidex 1.6589g, Na2CO3 (WC16232D), previously dried @ 104°C for 2 hours, in ~800 mL DI. Diluting to 1 L volumetrically w/DI. Store in plastic @ 4°C. Expires 10/28/08

4/28/08  
BIB

Received from CPI

(E) (3) x 100 COD Digestion Solution Vials, 0-150 ppm.

Cat # 4380-150-300, CPI Lot # 71127A, CAS# 10294-26-5, 7783-35-9, 7664-93-9,

Store in a cool, dark place. Expires 11/2011

Received from VWR

(F) (10) x 8 mL Aquadur Stated Std, 0.1% Cat #

1.88051.0010, EMD Lot # HC 784277, CAS # 167-98-2.

Store in flammable cabinet. Expires 11/30/2012.

4/20/08  
TC

(G) TKN Digest Reagent (3753)

To a 2 liter vol. flask add ~500 mL WPI and  
- 268g K2SO4 (WC851091H)  
- 14.6g CuSO4 (WC85040A)

Slowly add 268g conc. ammoniac H2SO4 (WC85132D)  
Dissolve. Allow to cool, then bring to vol. w/ WPI  
Exp 1 month, 5/28/08.

4/27/08  
NIN

(H) Hypochlorite - TKN

- same as WC85111E. Prepare fresh each run.

6/24/08 (A) Ascorbic Acid - TPO4  
 Nm - same as WC85164I. Exp. 1 wk, 7/1/08

200mLs

(equals 400mLs)

6/24/08 (B) TSS Reference  
 EW 0.2121g Kaolin (WC69285G) brought to 1000g w/DI.  
 Store in Plastic Bottle @ 40C  
 TV = 212 mg/L Exp: 6/24/09 (4409)

6/24/08 Received from VWR  
 BB (C) (1) x 125g Potassium Hydrogen Phthalate,  
 Cat # PX1476-3, EMD Lot # 47183801, CAS #  
 877-24-7. Store @ R.T. Expires 6/24/13.

6/25/08 Received from Honeywell  
 CMW (D) (4) x 4L Chloroform, CAT# 048-4, Honeywell  
 Lot # CW014. CAS# 67-66-3. Store @ RT.  
 Expires 5 years from receipt, 6/25/2013.  
 (E) (4) x 4L Chloroform, CAT# 048-4, Honeywell  
 Lot # CW310. CAS# 67-66-3. Store @ RT.  
 Expires 5 years from receipt, 6/25/2013.

6/25/08 (F) Buffer - TOTN  
 Nm - same as WC85146A. Exp. 1 year, 6/25/09.

↓ (G) Color Reagent - TOTN  
 - same as WC85123A. Exp. 1 month, 7/25/08.

6/25/08 Received from VWR  
 BB (H) (2) x 100g Ammonium Persulfate, ultrapure,  
 Cat # 4030-04, JT Baker Lot # G22476, CAS  
 # 7727-54-0. Store @ 40C. Expires 5/31/2010

6/25/08 (I) Alkalinity Reference Sol'n 50mg/L  
 CMW 10.0 ml 5000 mg/L Alk Ref. Stock (WC85157H) to 1 L vol. with DI.  
 Store in plastic at 4C exp 6 months 12/2/08

Run #: 163296

Analyte: TOTAL CN 9012.TOT TOTAL CYANIDE BY SW-846 9012A

Printed: 07/03/08 15:35

R44650  
R44768  
R44797  
R44538  
40000

TYPE	SUBMISSION	ORDER #	MATRIX	REPORTED	DILUTION	PQL	% RECOVERY	% RSD	DATE	QC	PKG #
				RESULT					ANALYZED		
CHK1		1114909	WATER	0.699	1.0	0.0100	99.9		07/03/2008		
BLK1		1114910	WATER	0.0100	U	1.0	0.0100		07/03/2008		
BLK2		1114911	WATER	0.0100	U	1.0	0.0100		07/03/2008		
SPKE		1114912	WATER	0.0973		1.0	0.0100	97.3	07/03/2008		
SPKE		1114913	WATER	0.402		1.0	0.0100	100.4	07/03/2008		
ESMP	R2844650	1113427	WATER	0.0100	U	1.0	0.0100		07/03/2008		ASPB
ESMP	R2844650	1113428	WATER	0.0151		1.0	0.0100		07/03/2008		ASPB
ESMP	R2844650	1113429	WATER	0.0100	U	1.0	0.0100		07/03/2008		ASPB
ESMP	R2844650	1113430	WATER	0.0256		1.0	0.0100		07/03/2008		ASPB
ESMP	R2844768	1113695	WATER	0.0100	U	1.0	0.0100		07/03/2008		ASPB
ESMP	R2844768	1113696	WATER	0.0100	U	1.0	0.0100		07/03/2008		ASPB
ESMP	R2844768	1113697	WATER	0.0100	U	1.0	0.0100		07/03/2008		ASPB
ESMP	R2844768	1113698	WATER	0.0100	U	1.0	0.0100		07/03/2008		ASPB
ESMP	R2844768	1113699	WATER	0.0100	U	1.0	0.0100		07/03/2008		ASPB
LDUP		1114914	WATER	0.0100	U	1.0	0.0100		07/03/2008		
SPK1		1114915	WATER	0.0788		1.0	0.0100	78.8	07/03/2008		
ESMP	R2844797	1114366	SOIL/SEDIME	1.00	U	1.0	1.00		07/03/2008		ASPB
ESMP	R2844797	1114376	SOIL/SEDIME	1.00	U	1.0	1.00		07/03/2008		ASPB
ESMP	R2844797	1114379	SOIL/SEDIME	1.00	U	1.0	1.00		07/03/2008		ASPB
ESMP	R2844797	1114380	SOIL/SEDIME	1.00	U	1.0	1.00		07/03/2008	QC	ASPB
LDUP		1114916	SOIL/SEDIME	1.00	U	1.0	1.00		07/03/2008		
SPK1		1114917	SOIL/SEDIME	3.96		1.0	1.00	81.6	07/03/2008		
SPKS		1114918	SOIL/SEDIME	4.45		1.0	1.00	89.0	07/03/2008		
SPKS		1114919	SOIL/SEDIME	19.0		1.0	1.00	94.9	07/03/2008		
ESMP	R2844797	1114382	SOIL/SEDIME	1.00	U	1.0	1.00		07/03/2008		ASPB
ESMP	R2844538	1111264	WATER	0.0200	U	2.0	0.0100		07/03/2008	RUN	ASPB
ADLES		1115427	SOIL/SED	1.00	U						

Records printed: 26

Reviewed & Approved

By: CH

Date: 7/8/08

### Midi-Cyanide Distillation Sheet

Analyst: GNITA

Date: 7/2/07

Chiller Temp: 7°C

Midi Block #1 Temp: 12°C

Midi Block #2 Temp: 12°C

Stock ppm: 978, 432

Date Std'n: 11/8/07

10 ppm Spike Solution:

Date made: 6/30/07

mL used: 1.022

Pipette ID: TY

Still #	QC type	Subm. #	Order #	Dist. Vol.	Final Vol.	Method	pH	H2S +/-	Comments
1	Prep Blk	water		50	50	335.4/9012	N/A	N/A	
2	LCS-LL	water		50	50	335.4/9012	N/A	N/A	+0.2µs of 10ppm
3	LCS-HL	water		50	50	335.4/9012	N/A	N/A	+2.0µs of 10ppm
4		R44650	1113426	50	50	9012	≥12	-	
5			426 DUP	50	50	9012	≥12	-	
6			426 SPK	50	50	9012	≥12	-	+0.2µs of 10ppm
7			1113427	50	50	9012	≥12	-	
8			1113428	50	50	9012	≥12	-	
9			1113429	50	50	9012	≥12	-	
10			1113430	50	50	9012	≥12	-	
11		R44768	1113695	50	50	9012	≥12	-	
12			1113696	50	50	9012	8	-	
13			1113697	50	50	9012	≥12	-	
14			1113698	50	50	9012	≥12	-	
15			1113699	50	50	9012	≥12	-	
16			699 DUP	50	50	9012	≥12	-	
17			699 SPK	50	50	9012	≥12	-	+0.2µs of 10ppm
18			1111264	25	50	9012	≥12	-	
19			1111264	10	50	9012	≥12	-	
20					50				

## Midi-Cyanide Distillation Sheet

Analyst: GN

Date: 7/2/07

Chiller Temp: 9°C

Midi Block #1 Temp: 12°C

Midi Block #2 Temp: 12°C

Stock ppm: \_\_\_\_\_

Date Std'n: \_\_\_\_\_

10 ppm Spike Solution: \_\_\_\_\_

Date made: \_\_\_\_\_

mL used: \_\_\_\_\_

Pipette ID: \_\_\_\_\_

Still #	QC type	Subm. #	Order #	Dist. Vol.	Final Vol.	Method	pH	H2S +/-	Comments
1		R44804	1114423	50	50	9012	7.12	-	
2		R44803	1114421	50	50	9012	7.12	-	
3			421 DUP	50	50	9012	7.12	-	
4			421 SPK	50	50	9012	7.12	-	+ 0.525 of 10ppm
5			1114420	50	50	9012	7.12	-	
6			1114419	50	50	9012	7.12	-	
7	Prep Blk	soil		1.00	50	9012	N/A	-	
8	LCS-LL	soil		1.00	50	9012	N/A	-	+ 0.525 of 10ppm
9	LCS-HL	soil		1.00	50	9012	N/A	-	+ 2.025 of 10ppm
10		R44797	1114380	1.05	50	9012	N/A	-	
11			380 DUP	1.09	50	9012	N/A	-	
12			380 SPK	1.03	50	9012	N/A	-	+ 0.525 of 10ppm
13			1114366	1.07	50	9012	N/A	-	
14			1114376	1.01	50	9012	N/A	-	
15			1114379	1.10	50	9012	N/A	-	
16			1114382	1.13	50	9012	N/A	-	
17					50				
18					50				
19					50				
20					50				

Columbia Analytical Services  
 Rochester, NY 14607  
 Aquakem 200  
 Analyst: *GNITA*

03.07.2008      11:24

Test      Total CN      *365.1*

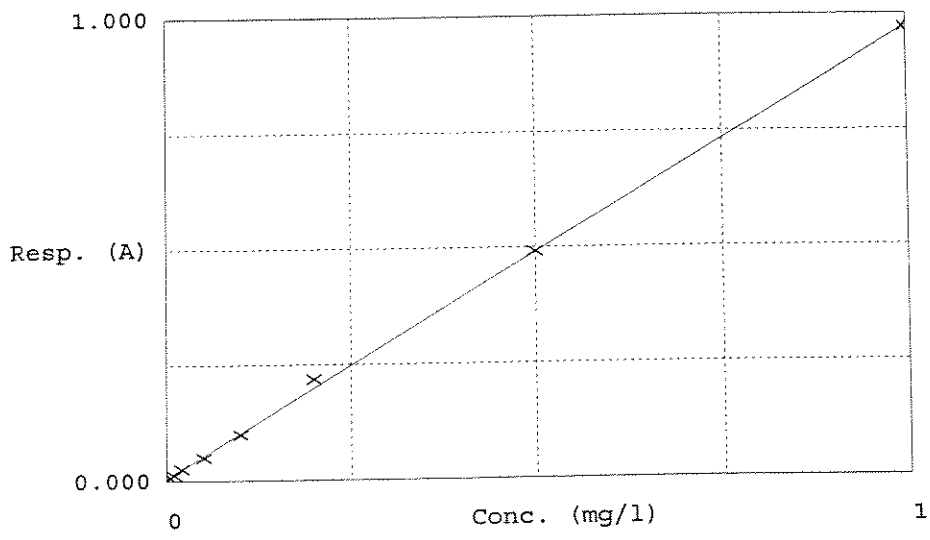
*Pipets used: Worchel Wozan  
 spidersmaer*

Accepted      03.07.2008      11:24

Factor      1.03346  
 Bias      0.00632

Coeff. of det.      0.999468

Errors



	Calibrator	Response	Calc. con.	Conc.	Errors
1	CN-0	0.00290	-0.00353	0.00000	
2	CN-0.01	0.01211	0.00599	0.01000	
3	CN-0.02	0.02542	0.01974	0.02000	
4	CN-0.05	0.04993	0.04507	0.05000	
5	CN-0.1	0.09949	0.09629	0.10000	
6	CN-0.2	0.21870	0.21949	0.20000	
7	CN-0.5	0.49050	0.50039	0.50000	
8	CN-1	0.97062	0.99657	1.00000	
9	1 ICV-TCN(contr	0.68293	0.69925	0.70000	
10	2 ICB-TCN(contr	0.00335	-0.00307	0.00000	



Columbia Analytical Services  
 Rochester, NY 14607  
 Aquakem 200  
 Analyst: GNT/TF

Date : 2008-07-03  
 Time : 13.36

Test Unit                      365.1                      Total CN mg/l

Sample ID:	Resp.	Result	Man.dilut Dilut	Date and Time
1 ICV-TCN	0.683	0.69925		2008-07-03 11.16
2 ICB-TCN	0.003	-0.00307		2008-07-03 11.16
3 CCV-TCN	0.679	0.69547		2008-07-03 11.55
4 CCB-TCN	0.006	-0.00061		2008-07-03 11.55
PB	0.004	-0.00217		2008-07-03 11.55
LCS-LL	0.100	0.09728		2008-07-03 11.55
LCS-HL	0.395	0.40169		2008-07-03 11.55
1113426	-0.411	-0.43091	} Redistill @ dil	2008-07-03 11.55
426 DUP	-0.422	-0.44247		2008-07-03 11.55
426 SPK	-0.045	-0.05334		2008-07-03 11.55
1113427	0.005	-0.00139		2008-07-03 11.55
1113428	0.021	0.01514		2008-07-03 11.55
1113429	0.005	-0.00166		2008-07-03 11.55
1113430	0.031	0.02559		2008-07-03 12.02
3 CCV-TCN	0.681	0.69751		2008-07-03 12.02
4 CCB-TCN	0.006	-0.00041		2008-07-03 12.02
1113695	0.005	-0.00143		2008-07-03 12.02
1113696	0.005	-0.00120		2008-07-03 12.02
111697 1113697	0.005	-0.00180		2008-07-03 12.02
1113698	0.004	-0.00280		2008-07-03 12.02
1113699	0.004	-0.00243		2008-07-03 12.02
699 DUP	0.003	-0.00302		2008-07-03 12.02
699 SPK	0.083	0.07883		2008-07-03 12.02
1111264 (1)	0.013	0.00695	*2 = 0.0139 (see distillation sheet)	2008-07-03 12.02
1111264 (2)	0.004	-0.00204		2008-07-03 12.10
1114423	0.005	-0.00133		2008-07-03 12.10
3 CCV-TCN	0.683	0.69911		2008-07-03 12.10
4 CCB-TCN	0.006	-0.00074		2008-07-03 12.10
1114421	-0.549	-0.57429	} Redistill @ dil	2008-07-03 12.10
421 DUP	-0.553	-0.57824		2008-07-03 12.10
421 SPK	-0.273	-0.28868		2008-07-03 12.10
1114420	-0.502	-0.52525		2008-07-03 12.10
1114419	-0.494	-0.51744		2008-07-03 12.10
PB soil	0.004	-0.00241		2008-07-03 12.10
LCS -LL soil	0.087	RPT		-
LCS-HL soil	0.374	0.37973	*50 = 18.98650	2008-07-03 12.17
1114380	0.004	-0.00199		2008-07-03 12.17
380 DUP	0.006	-0.00068		2008-07-03 12.17
3 CCV-TCN	0.683	0.69952		2008-07-03 12.17
4 CCB-TCN	0.005	-0.00115		2008-07-03 12.17
380 SPK	0.085	0.08153	*48.54 = 3.9577	2008-07-03 12.17
1114366	0.003	-0.00347		2008-07-03 12.17
1114376	0.005	-0.00174		2008-07-03 12.17
1114379	0.005	-0.00184		2008-07-03 12.17
1114382	0.005	-0.00107		2008-07-03 12.17
3 CCV-TCN	0.729	0.74732		2008-07-03 12.20
4 CCB-TCN	0.004	-0.00200		2008-07-03 12.20
LCS -LL soil	0.092	0.08901	*50 = 4.45050	2008-07-03 12.24
3 CCV-TCN	0.731	0.74918		2008-07-03 12.28
4 CCB-TCN	0.004	-0.00243		2008-07-03 12.28
3 CCV-TCN	0.672	0.68793		2008-07-03 13.16

2/7/08

Columbia Analytical Services  
 Rochester, NY 14607  
 Aquakem 200  
 Analyst: GN

Date :    2008-07-03  
 Time :    13.36

Test Unit	365	Total CN mg/l			
Sample ID:	Resp.	Result	Man.dilut	Dilut	Date and Time
4 CCB-TCN	0.004	-0.00210			2008-07-03 13.16
1113426 RPT1/40	0.028	0.02217			2008-07-03 13.16
1113426 RPT1/100	0.018	0.01199			2008-07-03 13.16
1114421 RPT1/40	0.025	0.01957			2008-07-03 13.16
1114421 RPT1/100	0.023	0.01741			2008-07-03 13.16
1114420 RPT1/40	0.022	0.01658			2008-07-03 13.16
1114420 RPT1/100	0.025	0.01935			2008-07-03 13.16
1114419 RPT1/40	0.027	0.02104			2008-07-03 13.16
1114419 RPT1/100	0.010	0.00379			2008-07-03 13.16
3 CCV-TCN	0.724	0.74220			2008-07-03 13.19
4 CCB-TCN	0.004	-0.00219			2008-07-03 13.19

Columbia Analytical Services  
Rochester, NY 14607  
AquaKem 200  
Analyst: *CN*

03.07.2008 13:28

Test: Total CN

Sample Id	Result	Dil. 1 +	Response	Errors
1 ICV-TCN	0.69925	0.0	0.683	
2 ICB-TCN	-0.00307	0.0	0.003	
3 CCV-TCN	0.69547	0.0	0.679	
4 CCB-TCN	-0.00061	0.0	0.006	
PB	-0.00217	0.0	0.004	
LCS-LL	0.09728	0.0	0.100	
LCS-HL	0.40169	0.0	0.395	
1113426	-0.43091	0.0	-0.411	
426 DUP	-0.44247	0.0	-0.422	
426 SPK	-0.05334	0.0	-0.045	
1113427	-0.00139	0.0	0.005	
1113428	0.01514	0.0	0.021	
1113429	-0.00166	0.0	0.005	
1113430	0.02559	0.0	0.031	
3 CCV-TCN	0.69751	0.0	0.681	
4 CCB-TCN	-0.00041	0.0	0.006	
1113695	-0.00143	0.0	0.005	
1113696	-0.00120	0.0	0.005	
111697	-0.00180	0.0	0.005	
1113698	-0.00280	0.0	0.004	
1113699	-0.00243	0.0	0.004	
699 DUP	-0.00302	0.0	0.003	
699 SPK	0.07883	0.0	0.083	
1111264 (1)	0.00695	0.0	0.013	
1111264 (2)	-0.00204	0.0	0.004	
1114423	-0.00133	0.0	0.005	
3 CCV-TCN	0.69911	0.0	0.683	
4 CCB-TCN	-0.00074	0.0	0.006	
1114421	-0.57429	0.0	-0.549	
421 DUP	-0.57824	0.0	-0.553	
421 SPK	-0.28868	0.0	-0.273	
1114420	-0.52525	0.0	-0.502	
1114419	-0.51744	0.0	-0.494	
PB soil	-0.00241	0.0	0.004	
LCS-LL soil	0.08308	0.0	0.087	
LCS-HL soil	0.37973	0.0	0.374	
1114380	-0.00199	0.0	0.004	
380 DUP	-0.00068	0.0	0.006	
3 CCV-TCN	0.69952	0.0	0.683	
4 CCB-TCN	-0.00115	0.0	0.005	
380 SPK	0.08153	0.0	0.085	
1114366	-0.00347	0.0	0.003	
1114376	-0.00174	0.0	0.005	
1114379	-0.00184	0.0	0.005	
1114382	-0.00107	0.0	0.005	
3 CCV-TCN	0.74732	0.0	0.729	
4 CCB-TCN	-0.00200	0.0	0.004	
LCS-LL soil	0.08901	0.0	0.092	
3 CCV-TCN	0.74918	0.0	0.731	
4 CCB-TCN	-0.00243	0.0	0.004	
3 CCV-TCN	0.68793	0.0	0.672	
4 CCB-TCN	-0.00210	0.0	0.004	
1113426 RPT1/40	0.02217	0.0	0.028	
1113426 RPT1/100	0.01199	0.0	0.018	
1114421 RPT1/40	0.01957	0.0	0.025	



Analyst: GNITA

Distillation Date: 7/2/07

Analysis:      Total Cyanide      Instrument: AquaKem 200

Analyzer Date: 7/03/07

**Quality Control:**

	Same as Log #, Date	Stock Sol (mLs)	Stock Sol (mg/L)	Final Vol mLs	True Value (mg/L)
a) Stds. Prep. :	WC85134D, 4/3/08				
10 ppm Working Stock:	WC85134B, 4/3/08	1.022	978.432	100	10.0
b) I/CCV (Ref.) Prep.:	WC85134E, 4/3/08	0.7	10	10	0.700
10 ppm Working Stock:	WC85134C, 4/3/08	1.002	998.4	100	10.0
c) LCS (water) Prep:	WC69160D, 8/02/04	2.0	10	50	0.4
LCS (water) Prep:	WC69160C, 8/02/04	0.5	10	50mls	0.1
LCS (soil) Prep. :	WC69160D, 8/02/04	2.0	10	~1 g.	~ 20 (see bench sheet)
LCS (soil) Prep:	WC69160C, 8/02/04	0.5	10	~1 g.	~ 5 (see bench sheet)
d) Mtx Spk (water) Prep:	WC69160E, 8/02/04	0.5	10	50	0.1
Mtx Spk (soil) Prep:	WC69160E, 8/02/04	0.5	10	~1 g.	~5 (see bench sheet)

Method Reference: 335.2 EPA 600; 9010A,9012 EPA SW-846; 335.2 CLP-M NYSASP

Instrument log filled in? **(Y)** (N)

**Stock Prep:**

1000 mg/L TCN Std. Stock prepared 7/20/07, WC85007E, standardized 1/18/08, WC87007A  
1000 mg/L TCN Ref. Stock prepared 7/20/07, WC85007F, standardized 1/18/08, WC87007B

10 mg/L Std. And Ref. working stocks are prepared weekly using the above stock solutions, diluting to volume with 0.25N NaOH

0.25N NaOH, fresh daily: 26.14 mL 50% w/w NaOH WC85011C diluted to 2 L with DI

Reagents, Distillation:	Log Book #	Comments
Sulfamic Acid	WC 85 171 B	
Sulfuric Acid, 1:1	WC 85 153 E	
Magnesium Chloride	WC 85 170 A	
Calcium Hypochlorite	N/A	
Ascorbic Acid	N/A	
Acetate Buffer	N/A	
Zinc Acetate	N/A	
Acetic Acid	N/A	
Cadmium Carbonate	WC76081J	
Anti-foam	N/A	

Reagents, Autoanalyzer:		
Buffer	WC 85 058 C	
Pyridine Barbituric Acid	WC 76 296 J	

Chloramine-T, fresh daily: 2.00 g Chloramine-T WC76197G diluted to 200 mL with DI

4/13/08

(A) 0.25 N NaOH

26.14 mls conc. NaOH (WC85011C) → 2 Liters w/ DI.  
Fresh per run.

(B) 10 ppm TCN Std. Stock

1.022 mls of the 978.432 ppm TCN Std. Stock (WC85007E)  
→ 100 mls w/ 0.25 N NaOH (WC85134A)

(C) 10 ppm TCN Ref. Stock

1.002 mls of the 998.4 ppm TCN Ref. Stock (WC85007F)  
→ 100 mls w/ 0.25 N NaOH (WC85134A)

(D) TCN Calibration Stds. Fresh per run

conc.	mls 10 ppm TCN Std. Stock (WC85134B)	mls 0.25 N NaOH
1.00	1.0	9.0
0.50	0.50	9.50
0.20	0.20	9.80
0.10	1/10 dilution of 1.00 ppm Std	
0.05	1/10 dilution of 0.50 ppm Std	
0.02	1/10 dilution of 0.20 ppm Std	
0.01	1/10 dilution of 0.10 ppm Std	
0.00	0.00	10.0

(E) 10V / CCV TV=0.70 Fresh per run

0.70 mls 10 ppm TCN Ref. Stock (WC85134C) + 9.30 mls  
0.25 N NaOH (WC85134A)

(F)

8/2/04 TCN Distillation

cmw

Ⓐ 0.25N NaOH

• 40.0 mLs NaOH (WC69074F, EM Lot # 3321) →  
2 Liters w/ DI. Make fresh each run.

Ⓑ TCN 10ppm working stock (for LCS/ms/standards)

• 1.020 mL TCN Std. Stock #1 (WC69154D), Standardization  
WC71016A → 100 mL w/ 0.25 NaOH (WC69160A),  
Prepare fresh weekly. Store in amber glass @ 4°C.

Ⓒ TCN Low Level LCS:

Add 0.50 mL 10ppm working Standard Stock (WC69160B)  
to 50 mL DI. TV = 0.100 ppm. For soils, add 1.0g  
Ottawa sand to 50.0 mL DI and 0.50 mL 10ppm  
Standard working stock (WC69160B). TV = 5.0 ppm.

Ⓓ TCN High Level LCS:

Add 2.0 mL 10 ppm Standard working stock (WC69160B)  
to 50 mL DI. TV = 0.400 ppm. For soils, add 1.0g  
Ottawa sand to 50 mL DI and 2.0 mL 10 ppm  
Standard working stock (WC69160B). TV = 20.0 ppm.

Ⓔ TCN matrix Spike

Add 0.50 mLs 10ppm Standard Working Stock (WC69160B)  
to 50.0 mL sample. TV = 0.100 ppm. For Soils, 1.0g sample  
to 50.0 mL DI and 0.50 mL 10ppm Standard working  
stock (WC69160B). TV = 50 ppm

Ⓕ TCN 10ppm Reference Working Stock

Add 1.002 mL TCN Ref. Stock #2 (WC69154E) Standardization  
WC71016B → 100 mLs w/ 0.25N NaOH (WC69160A) Prep fresh  
weekly. Store in amber glass @ 4°C.

cmw 8/2/04

8/2/04

cmw

Ⓐ TC

Conc

0

0

0

0

0.1

0.0

0.0

0.0

0

Ⓑ CC

• Add

to 9,

10 sci

8/3/04 Ⓒ TDS

CB

0.9120g

DI H<sub>2</sub>O

bottle

8/3/04

GN

Ⓓ Ph. H

Same

8/3/04

cmw

Ⓔ 10%

Same

8/3/04

cmw

Ⓕ Phend

• Same

8/3/04

JJT

Ⓖ Rec'd Fe

- Sam

8/4/04

DK

Ⓗ Total S

400.00

DI 1

also

7/20/07 Received from VWB

BB

- (A) 3 x 500g Sodium Persulfate, Cat # VU35-07, JT Baker Lot # E03617, CAS # 7775-27-1. Store @ RT. Expires 7/20/10
- (B) (1) x 100mL Ferric Indicator, Cat # H119-01, Mallinckrodt Lot # E22433, CAS # 7720-76-7, 66-71-7. Store @ R.T. Expires 7/20/10

76265C).

POI.

8/19/07

diluted  
a. push

mand + cl. Residual  
(WC76286E) 0.1N  
pires 2 weeks 8/3/07.

Received from Fisher

- (C) (1) x 1 L. Aquastar Comp-5, Cat # AX1698A-6, EMD Lot # 46340, CAS #s 109-86-4, 288-32-4, 7553-56-2, 7446-09-5. Store in flammable cabinet. Expires 7/20/10
- (D) (1) x 500mL Silver Nitrate, 0.0192N, Cat # <sup>LC22630-1</sup> ~~7158-18~~ 7124, Lab Chem Lot # 7158-18, CAS # 7761-88-8. Store @ 4°C. Expires 6/13/08

7/20/07

BB

(E) 1000ppm TAN Stock #1: Standard Stock

To a tared 500mL volumetric flask, add:

1.26g KCN (WC76005C)

1.00g KOH (WC76005D)

~ 400 mL DI

Dissolve and bring to volume w/DI. Standardize and store @ 4°C in amber glass. Expires 7/20/08.

nd

in 1L w/DI

mand

(WC76285F) to

un and standardize

(F) 1000ppm TAN Stock #2: Reference Stock

To a tared 500mL volumetric flask, add:

1.26g KCN (WC76007B)

1.00g KOH (WC76005D)

~ 400mL DI

Dissolve and bring to volume w/DI. Standardize and store @ 4°C in amber glass. Expires 7/20/08

m 100-mL

7/20/07

BB

(G) Rhodamine Indicator Soln

Dissolve 0.020g 5-(4-DMAB) Rhodamine (WC76015E) in 100mL Acetone (WC76060F). Store in glass @ R.T. Expires 7/20/08

atn.

Store @ 4°C.

# K98135D.11

pires 7/1/08



A

R44650  
R44768  
R44803  
R44770 UCOPW  
2 runs

Run #: 163395

Analyte: TDS

SM2540C TOTAL DISSOLVED SOLIDS (TDS)

Printed: 07/08/08 12:11

TYPE	SUBMISSION	ORDER #	MATRIX	REPORTED	DILUTION	PQL	% RECOVERY	% RSD	DATE	QC	PKG #
				RESULT					ANALYZED		
BLKS		1115302	WATER	1.00	1.0	10.0			07/03/2008		
SPKB		1115303	WATER	909	1.0	10.0	99.5		07/03/2008		
ESMP	R2844650	1113426	WATER	8100	1.0	10.0			07/03/2008		ASPB
ESMP	R2844650	1113427	WATER	6570	1.0	10.0			07/03/2008		ASPB
ESMP	R2844650	1113428	WATER	6980	1.0	10.0			07/03/2008		ASPB
ESMP	R2844650	1113429	WATER	3010	1.0	10.0			07/03/2008		ASPB
ESMP	R2844650	1113430	WATER	5510	1.0	10.0			07/03/2008		ASPB
ESMP	R2843635	1096177	WATER	3240	1.0	10.0			07/03/2008		1
ESMP	R2843635	1096178	WATER	666	1.0	10.0			07/03/2008		1
ESMP	R2844768	1113695	WATER	1010	1.0	10.0			07/03/2008		ASPB
ESMP	R2844768	1113696	WATER	12100	1.0	10.0			07/03/2008		ASPB
LDUP		1115304	WATER	11700	1.0	10.0		3.46	07/03/2008		
ESMP	R2844768	1113697	WATER	1380	1.0	10.0			07/03/2008		ASPB
ESMP	R2844768	1113698	WATER	3210	1.0	10.0			07/03/2008		ASPB
ESMP	R2844768	1113699	WATER	3110	1.0	10.0			07/03/2008		ASPB
ESMP	R2844508	1109492	WATER	796	1.0	10.0			07/03/2008		1
ESMP	R2844508	1109493	WATER	682	1.0	10.0			07/03/2008		1
ESMP	R2844508	1109495	WATER	229	1.0	10.0			07/03/2008		1
ESMP	R2844508	1109498	WATER	244	1.0	10.0			07/03/2008		1
ESMP	R2844803	1114419	WATER	9520	1.0	10.0			07/03/2008		ASPB
ESMP	R2844803	1114420	WATER	9410	1.0	10.0			07/03/2008		ASPB
ESMP	R2844803	1114421	WATER	10800	1.0	10.0			07/03/2008	QC	ASPB
LDUP		1115305	WATER	10800	1.0	10.0		0.28	07/03/2008		

Records printed: 23

Reviewed & Approved

By: B. Beale

Date: 7/11/08

DATE PRINTED: 07/08/08

SOLIDS / GREASE & OIL REPORT

RUN #: 163395 ANALYSIS DATE: 07/03/08 ASSIGNED TO :  
TEMPLATE: SM2540C TOTAL DISS SOLIDS (TDS)

TEST :

TUP#	ORDER #	SUBMISSION	CONTROL					VOL (ml)	(mg/L)	FLASK/	LS	LS
			TYPE	GROSS(g)	TARE(g)	DIFF(g)	DISH ID			JOB#	LOC#	
1	1115302	R28 0	MBLK	(89.3250-	89.3249)=	0.0001	*1E6 /100	=1.00	OX			
2	1115303	R28 0	LCS	(84.2696-	84.2214)=	0.0482	*1E6 /53	= 909	LL			
3	1113426	R2844650	ESMP	(89.0678-	89.0006)=	0.0672	*1E6 /8.3	= 8100	67			
4	1113427	R2844650	ESMP	(72.0239-	71.9661)=	0.0578	*1E6 /8.8	= 6570	NM			
5	1113428	R2844650	ESMP	(85.7819-	85.6911)=	0.0908	*1E6 /13	= 6980	GY			
6	1113429	R2844650	ESMP	(82.3014-	82.2366)=	0.0648	*1E6 /21.5	= 3010	F9			
7	1113430	R2844650	ESMP	(89.1842-	89.1071)=	0.0771	*1E6 /14	= 5510	ED			
8	1096177	R2843635	ESMP	(89.3740-	89.2769)=	0.0971	*1E6 /30	= 3240	E16			
9	1096178	R2843635	ESMP	(88.9197-	88.8604)=	0.0593	*1E6 /89	= 666	WET			
10	1113695	R2844768	ESMP	(84.7932-	84.7162)=	0.0770	*1E6 /76	= 1010	50			
11	1113696	R2844768	ESMP	(82.1967-	82.1228)=	0.0739	*1E6 /6.1	= 12100	OO			
12	1115304	R28 0	DUPE	(83.2950-	83.2237)=	0.0713	*1E6 /6.1	= 11700	43			
13	1113697	R2844768	ESMP	(86.7629-	86.6733)=	0.0896	*1E6 /65	= 1380	A2			
14	1113698	R2844768	ESMP	(86.6373-	86.5683)=	0.0690	*1E6 /21.5	= 3210	45			
15	1113699	R2844768	ESMP	(79.5747-	79.5094)=	0.0653	*1E6 /21	= 3110	CV			
16	1109492	R2844508	ESMP	(86.4294-	86.3677)=	0.0617	*1E6 /77.5	= 796	FE			
17	1109493	R2844508	ESMP	(85.9909-	85.9377)=	0.0532	*1E6 /78	= 682	80			
18	1109495	R2844508	ESMP	(83.2951-	83.2722)=	0.0229	*1E6 /100	= 229	T4			
19	1109498	R2844508	ESMP	(81.5327-	81.5083)=	0.0244	*1E6 /100	= 244	CO			
20	1114419	R2844803	ESMP	(86.3967-	86.3329)=	0.0638	*1E6 /6.7	= 9520	A4			
21	1114420	R2844803	ESMP	(85.2313-	85.1372)=	0.0941	*1E6 /10	= 9410	G			
22	1114421	R2844803	ESMP	(88.0287-	87.9205)=	0.1082	*1E6 /10	= 10800	51			
23	1115305	R28 0	DUPE	(80.6893-	80.5810)=	0.1083	*1E6 /10	= 10800	HOT			

Analyte: Total Suspended Solids (TSS)  
 Method: 160.2 / SM20 2540D  
 Analyte: Total Dissolved Solids (TDS)  
 Method: 160.1 / SM20 2540C  
 Analyte: Total Solids (TS)  
 Method 160.3 / SM20 2540B

Analyst: E. WOLFE  
 Pipet: DISPOSABLE

Date: 7/3/08  
 Time: 10:30

TS \_\_\_\_\_ TDS X TSS \_\_\_\_\_

LCS Lot: WC85172E <sup>WC85173G</sup> ~~WC85173G~~ <sup>40</sup> ~~40~~ <sup>7/8/08</sup> TV: 914 Balance ID: AE240  
 Filter Lot: WC85172E Oven ID: 1 \*Lower tare weight used unless marked: \_\_\_\_\_

Submission #	Order #	Dish ID	Sample Vol. (mLs)	Used all	Raw Data			Total Solids (mg/L)	
					Gross (A) 1:	Gross (A) 2:	Gross (A) 3:		
1	MB	OX	100		Gross (A) 1:	89.3250	Gross (A) 3:	1.00	
					Gross (A) 2:	89.3250			
					B)	89.3249	A-B=		0.0001
2	LCS	LL	53		Gross (A) 1:	84.2696	Gross (A) 3:	909.43	
					Gross (A) 2:	84.2696			
					B)	84.2214	A-B=		0.0482
3	44650	R-1113426	67	8.3		Gross (A) 1:	89.0681	Gross (A) 3:	8096.39
						Gross (A) 2:	89.0678		
						B)	89.0006	A-B=	
4	R-1113427	NM	8.8			Gross (A) 1:	72.0241	Gross (A) 3:	6568.18
						Gross (A) 2:	72.0239		
						B)	71.9661	A-B=	
5	R-1113428	GY	13			Gross (A) 1:	85.7819	Gross (A) 3:	6984.62
						Gross (A) 2:	85.7828		
						B)	85.6911	A-B=	
6	R-1113429	F9	21.5			Gross (A) 1:	82.3015	Gross (A) 3:	3013.95
						Gross (A) 2:	82.3014		
						B)	82.2366	A-B=	
7	R-1113430	ED	14			Gross (A) 1:	89.1845	Gross (A) 3:	5507.14
						Gross (A) 2:	89.1842		
						B)	89.1071	A-B=	
8	<del>43635</del> R-1096177	LA	58			Gross (A) 1:	88.4285	Gross (A) 3:	3839.66
						Gross (A) 2:	88.4269		
						B)	88.2042	A-B=	
9	R-1096178	WET	89			Gross (A) 1:	88.9197	Gross (A) 3:	666.29
						Gross (A) 2:	88.9199		
						B)	88.8604	A-B=	
10	44768	R-1113695	50	76		Gross (A) 1:	84.7935	Gross (A) 3:	1013.16
						Gross (A) 2:	84.7932		
						B)	84.7162	A-B=	
11	R-1113696	OO	6.1			Gross (A) 1:	82.1967	Gross (A) 3:	12114.75
						Gross (A) 2:	82.1982		
						B)	82.1228	A-B=	
12	R-1113696 DUP	43	6.1			Gross (A) 1:	83.2950	Gross (A) 3:	11688.52
						Gross (A) 2:	83.2989		
						B)	83.2237	A-B=	
13	R-1113697	A2	65			Gross (A) 1:	86.7630	Gross (A) 3:	1378.46
						Gross (A) 2:	86.7629		
						B)	86.6733	A-B=	

TS, TDS, TSS mg/L = (A-B)\*1,000,000 Sample Vol. (mls)

Where: A = wgt (g) of dried residue + dish  
 B = wgt (g) of tared dish

Analyte: Total Suspended Solids (TSS)

Analyst: E. WOLFE

Date: 7/3/08

Method: 160.2 / SM20 2540D

Pipet: DISPOSABLE

Time: 10:30

Analyte: Total Dissolved Solids (TDS)

TS \_\_\_\_\_ TDS X TSS \_\_\_\_\_

Method: 160.1 / SM20 2540C

Analyte: Total Solids (TS)

LCS Lot: WC8517367 WC173G TV: 914 Balance ID: AE240

Method 160.3 / SM20 2540B

Filter Lot: WC85172E Oven ID: 1 \*Lower tare weight used unless marked: \_\_\_\_\_

Submission #	Order #	Dish ID	Sample Vol. (mLs)	Used all	Raw Data			Total Solids (mg/L)		
					Gross (A) 1:	Gross (A) 2:	Gross (A) 3:			
14	R-1113698	45	21.5		Gross (A) 1:	86.6374	Gross (A) 3:	3209.30		
					Gross (A) 2:	86.6373				
					B)	86.5683	A-B=		0.0690	
15	R-1113699	CV	21		Gross (A) 1:	79.5747	Gross (A) 3:	3109.52		
					Gross (A) 2:	79.5747				
					B)	79.5094	A-B=		0.0653	
16	44508	R-1109492	FE	77.5		Gross (A) 1:	86.4294	Gross (A) 3:	796.13	
						Gross (A) 2:	86.4295			
						B)	86.3677	A-B=		0.0617
17	R-1109493	80	78			Gross (A) 1:	85.9909	Gross (A) 3:	682.05	
						Gross (A) 2:	85.9909			
						B)	85.9377	A-B=		0.0532
18	R-1109495	T4	100			Gross (A) 1:	83.2951	Gross (A) 3:	229.00	
						Gross (A) 2:	83.2953			
						B)	83.2722	A-B=		0.0229
19	R-1109498	CO	100			Gross (A) 1:	81.5327	Gross (A) 3:	244.00	
						Gross (A) 2:	81.5328			
						B)	81.5083	A-B=		0.0244
20	44803	R-1114419	A4	6.7			Gross (A) 1:	86.3968	Gross (A) 3:	9522.39
							Gross (A) 2:	86.3967		
							B)	86.3329	A-B=	
21	R-1114420	G	10				Gross (A) 1:	85.2313	Gross (A) 3:	9410.00
							Gross (A) 2:	85.2315		
							B)	85.1372	A-B=	
22	R-1114421	51	10				Gross (A) 1:	88.0287	Gross (A) 3:	10820.00
							Gross (A) 2:	88.0288		
							B)	87.9205	A-B=	
23	R-1114421 DUP	HOT	10				Gross (A) 1:	80.6893	Gross (A) 3:	10830.00
							Gross (A) 2:	80.6904		
							B)	80.5810	A-B=	
24	44233	R-1105694	F16	92			Gross (A) 1:	84.4257	Gross (A) 3:	701.09
							Gross (A) 2:	84.4257		
							B)	84.3612	A-B=	
25	MB	V9	100				Gross (A) 1:	81.6282	Gross (A) 3:	0.00
							Gross (A) 2:	81.6282		
							B)	81.6282	A-B=	
26	LCS	FG	53				Gross (A) 1:	81.8898	Gross (A) 3:	909.43
							Gross (A) 2:	81.8898		
							B)	81.8416	A-B=	

TS, TDS, TSS mg/L = (A-B)\*1,000,000 Sample Vol. (mls)

Where: A = wgt (g) of dried residue + dish

B = wgt (g) of tared dish

Analyte: Total Suspended Solids (TSS)

Method: 160.2 / SM20 2540D

Analyte: Total Dissolved Solids (TDS)

Method: 160.1 / SM20 2540C

Analyte: Total Solids (TS)

Method 160.3 / SM20 2540B

Analyst: E. WOLFE

Pipet: DISPOSABLE

Date: 7/3/08

Time: 10:30

TS \_\_\_\_\_ TDS X TSS \_\_\_\_\_

LCS Lot: WC851736 TV: 914 Balance ID: AE240  
WC173G EW 7/8/08

Filter Lot: WC85172E Oven ID: 1 \*Lower tare weight used unless marked: \_\_\_\_\_

Submission #	Order #	Dish ID	Sample Vol. (mLs)	Used all	Raw Data			Total Solids (mg/L)
					Gross (A) 1:	Gross (A) 2:	Gross (A) 3:	
27	44233	R-1105695	XC	76	Gross (A) 1:	83.2758	Gross (A) 3:	546.05
					Gross (A) 2:	83.2758		
					B)	83.2343	A-B=	
28	R-1105696	WS	43		Gross (A) 1:	83.6187	Gross (A) 3:	2130.23
					Gross (A) 2:	83.6191		
					B)	83.5271	A-B=	
29	R-1105697	X5	44.5		Gross (A) 1:	87.9640	Gross (A) 3:	2157.30
					Gross (A) 2:	87.9646		
					B)	87.8680	A-B=	
30	R-1105698	CN	40		Gross (A) 1:	90.3939	Gross (A) 3:	2602.50
					Gross (A) 2:	90.3939		
					B)	90.2898	A-B=	
31	R-1105699	IR	48		Gross (A) 1:	88.4565	Gross (A) 3:	1027.08
					Gross (A) 2:	88.4567		
					B)	88.4072	A-B=	
32	R-1105700	YU	83.5		Gross (A) 1:	85.1012	Gross (A) 3:	719.76
					Gross (A) 2:	85.1006		
					B)	85.0405	A-B=	
33	R-1105701	81	59		Gross (A) 1:	86.8420	Gross (A) 3:	1222.03
					Gross (A) 2:	86.8420		
					B)	86.7699	A-B=	
34	R-1105702	ID	34		Gross (A) 1:	90.1041	Gross (A) 3:	5017.65
					Gross (A) 2:	90.1041		
					B)	89.9335	A-B=	
35	R-1105703	QO	49		Gross (A) 1:	80.6586	Gross (A) 3:	1204.08
					Gross (A) 2:	80.6587		
					B)	80.5996	A-B=	
36	R-1105704	DW	33		Gross (A) 1:	84.2341	Gross (A) 3:	1645.45
					Gross (A) 2:	84.2341		
					B)	84.1798	A-B=	
37	44770	R-1113733	A	100	Gross (A) 1:	85.1632	Gross (A) 3:	170.00
					Gross (A) 2:	85.1633		
					B)	85.1462	A-B=	
38	R-1113734	74	100		Gross (A) 1:	85.3584	Gross (A) 3:	300.00
					Gross (A) 2:	85.3585		
					B)	85.3284	A-B=	
39	R-1113735	53	100		Gross (A) 1:	87.5028	Gross (A) 3:	294.00
					Gross (A) 2:	87.5028		
					B)	87.4734	A-B=	

TS, TDS, TSS mg/L = (A-B)\*1,000,000 Sample Vol. (mls)

Where: A = wgt (g) of dried residue + dish

B = wgt (g) of tared dish

Analyte: Total Suspended Solids (TSS)  
 Method: 160.2 / SM20 2540D  
 Analyte: Total Dissolved Solids (TDS)  
 Method: 160.1 / SM20 2540C  
 Analyte: Total Solids (TS)  
 Method 160.3 / SM20 2540B

Analyst: E. WOLFE  
 Pipet: DISPOSABLE

Date: 7/3/08  
 Time: 10:30

TS \_\_\_\_\_ TDS X TSS \_\_\_\_\_

LCS Lot: WC851736 TV: 914 Balance ID: AE240  
~~WC473G~~ WC715J08  
 Filter Lot: WC85172E Oven ID: 1 \*Lower tare weight used unless marked: \_\_\_\_\_

Submission #	Order #	Dish ID	Sample Vol. (mLs)	Used all	Raw Data			Total Solids (mg/L)
					Gross (A) 1:	Gross (A) 2:	Gross (A) 3:	
40	R-1113735 DUP	VAN	100		Gross (A) 1:	79.2416	Gross (A) 3:	298.00
					Gross (A) 2:	79.2416		
					B)	79.2118	A-B=	
41	R-1113736	TY	100		Gross (A) 1:	80.1904	Gross (A) 3:	145.00
					Gross (A) 2:	80.1904		
					B)	80.1759	A-B=	
42	44508 R-1109500	AS	67.5		Gross (A) 1:	80.4494	Gross (A) 3:	909.63
					Gross (A) 2:	80.4494		
					B)	80.3880	A-B=	
43	R-1109500 DUP	P1	70		Gross (A) 1:	81.0893	Gross (A) 3:	915.71
					Gross (A) 2:	81.0892		
					B)	81.0251	A-B=	
44	44770 R-1114342	13	100		Gross (A) 1:	80.8654	Gross (A) 3:	219.00
					Gross (A) 2:	80.8655		
					B)	80.8435	A-B=	
45	R-1114343	Z2	100		Gross (A) 1:	85.0922	Gross (A) 3:	200.00
					Gross (A) 2:	85.0923		
					B)	85.0722	A-B=	
46	R-1114344	DF	100		Gross (A) 1:	78.2860	Gross (A) 3:	337.00
					Gross (A) 2:	78.2857		
					B)	78.2520	A-B=	
47	R-1114345	ANT	100		Gross (A) 1:	82.7324	Gross (A) 3:	227.00
					Gross (A) 2:	82.7325		
					B)	82.7097	A-B=	
48	R-1114346	54	100		Gross (A) 1:	87.7208	Gross (A) 3:	162.00
					Gross (A) 2:	87.7208		
					B)	87.7046	A-B=	
49	MB	A5	100		Gross (A) 1:	85.6256	Gross (A) 3:	-2.00
					Gross (A) 2:	85.6259		
					B)	85.6258	A-B=	
50	LCS	T5	59		Gross (A) 1:	82.5104	Gross (A) 3:	918.64
					Gross (A) 2:	82.5105		
					B)	82.4562	A-B=	
51	R-1114347	75	100		Gross (A) 1:	86.2914	Gross (A) 3:	58.00
					Gross (A) 2:	86.2918		
					B)	86.2856	A-B=	
52	R-1114348	UI	100		Gross (A) 1:	87.6894	Gross (A) 3:	102.00
					Gross (A) 2:	87.6896		
					B)	87.6792	A-B=	

TS, TDS, TSS mg/L = (A-B)\*1,000,000 Sample Vol. (mls)  
 Where: A = wgt (g) of dried residue + dish  
 B = wgt (g) of tared dish

Analyte: Total Suspended Solids (TSS)

Analyst: E. WOLFE

Date: 7/3/08

Method: 160.2 / SM20 2540D

Pipet: DISPOSABLE

Time: 10:30

Analyte: Total Dissolved Solids (TDS)

TS \_\_\_\_\_ TDS X TSS \_\_\_\_\_

Method: 160.1 / SM20 2540C

Analyte: Total Solids (TS)

Method 160.3 / SM20 2540B

LCS Lot: WC85173E TV: 914 Balance ID: AE240

Filter Lot: WC85172E Oven ID: 1 \*Lower tare weight used unless marked: \_\_\_\_\_

Submission #	Order #	Dish ID	Sample Vol. (mLs)	Used all	Raw Data			Total Solids (mg/L)
					Gross (A) 1:	Gross (A) 2:	Gross (A) 3:	
53	R-1114349	62	100		Gross (A) 1:	90.0724	Gross (A) 3:	108.00
					Gross (A) 2:	90.0725		
					B)	90.0616	A-B=	
54	43635	R-1096177	E16	30	Gross (A) 1:	89.3743	Gross (A) 3:	3236.67
					Gross (A) 2:	89.3740		
					B)	89.2769	A-B=	
55	<del>44233</del>	R-1105702	ZX	10	Gross (A) 1:	81.8915	Gross (A) 3:	4450.00
					Gross (A) 2:	81.8915		
					B)	81.8470	A-B=	

*not used  
7/16/08*

*Reported result: 5020.  
% RSD is 12.0%. Report  
this as dup. AB 7/16/08*

TS, TDS, TSS mg/L = (A-B)\*1,000,000 Sample Vol. (mls)  
Where: A = wgt (g) of dried residue + dish  
B = wgt (g) of tared dish





Columbia Analytical Services  
1 Mustard St., Rochester, NY 14609-0859

General Chemistry Analytical Run Cover Sheet

Analyst: EW Date: 7/3/08

Analysis: Total Dissolved Solids Instrument:  Mettler AE 240 Analytical Balance  
 Mettler AG 204 Analytical Balance

Quality Control:

	Log Book #	Log Book Date	Stock Sol (m/Ls)	Stock Sol (mg/L)	Final Vol (mLs)	True Value (mg/L)
a) Standards Prep.:						
b) I/CCV Preparation:						
c) LCS Preparation:	WC85173G	7/3/08				914
d) Matrix Spike Prep.:						

Instrument log filled in?  (Y)  (N)

Packages: Copy and attach LCS Preparation

Comments:

The weight loss between successive gross dry weights should not exceed 4% or 1.0 mg, whichever is less.

For calculations, used:  lower  higher tare weight

As a rule, the lower of the successive dry weights is used to calculate the result.

7/31/08, Prepared x2.

When discolored.

0.5125g) and 200 ml UPDI  
UPDI. store at 4°C.

2 min, Whatman  
in stream

100 ml, Whatman  
as above. Exp: N/A  
Cat # EX0531-1,  
store @ R.T.

1 g/L, Cat # VW3475-1,  
17-7, 7732-1V-5.

135-07, J.T. Baker  
R.T. Exp. 7/2/13  
1945-14, EMD  
185. Store @ R.T.

1. Thionylchloride,  
1, CAS# 10049-21-5.

Cat # SX082118  
8, 7132-18-5

Cat # MX0045-4,  
store @ R.T.

7/2/08 (A) Color Reagent for Phenols  
AB Same as WC85009R except Brij added was 1.0 mL. Exp 7/16/08  
(B) 10% Phosphoric Acid  
Same as WC85092D. Expires 7/2/09

7/3/08 (C) MBAS Wash Solution  
DCB In a tared 2L Volumetric flask add 13.7 H<sub>2</sub>SO<sub>4</sub> (M1780071A)  
and 100g Sodium Phosphate mono basic monohydrate (WC76204E)  
Bring up to volume with DI. store at RT exp 7/3/09

7/3/08 (D) Color Reagent - MBAS  
DCB To a volumetric flask add  
1) 60mls Methylene Blue Stock (WC85015D)  
2) 100g Sodium Phosphate mono basic monohydrate  
3) 13.7mls Conc H<sub>2</sub>SO<sub>4</sub> (M1780071A)  
bring to volume with DI expires 1yr 7/3/09

7/3/08 (E) NH<sub>3</sub> Carrier / Diluent  
Nim - same as WC85170C. Prepared solution x3.

(F) Hypochlorite - NH<sub>3</sub>  
- same as WC85142F. Prepare fresh each run.

7/3/08 (G) TDS Reference  
EW 0.9140g NaCl (WC76259E) diluted volumetrically  
to 1 liter w/ DI. store in plastic bottle @ 4°C.  
Expires 7/3/09 TV = 914 mg/L

7/3/08 (H) Eriochrome Black-T - Hardness Indicator  
Nim Add 50.0g NaCl (WC85109J) and .25g Eriochrome  
Black T (WC09284E) to a tared B-cup cap + shake  
well to mix. Store at r.t. exp. 5/31/10

Chlorine Residual

7/3/08 (I) FAS Titrant  
RP 0.553g Ferrous Ammonium sulfate Hexahydrate (WC76254E)  
dissolved in UPDI w/ 0.5 ml 1/4 H<sub>2</sub>SO<sub>4</sub> (WC85027B) and brought  
to volume in 500 mL vol. flask.  
store at room temp in Amber glass. Exp. 1 month 8/3/08

Run #: 164235

Analyte: TOC 9060. TOC (QUAD) -REG LEVEL

Printed: 07/24/08 10:06

TYPE	SUBMISSION	ORDER #	MATRIX	REPORTED	DILUTION	POL	% RECOVERY	% RSD	DATE	QC	PKG #
				RESULT					ANALYZED		
ESMP	R2844763	~ 1113445	WATER	0.0610	1.0	1.00			07/19/08	RUN	ASPB
ESMP	R2844763	- 1113445	WATER	0.0640	1.0	1.00			07/19/08	RUN	ASPB
ESMP	R2844763	- 1113445	WATER	0.0690	1.0	1.00			07/19/08	RUN	ASPB
ESMP	R2844763	- 1113445	WATER	0.0990	1.0	1.00			07/19/08	RUN	ASPB
CHK5		~ 1120277	WATER	19.2	1.0	1.00	96.1		7/19/08		
CHK5		~ 1120277	WATER	19.8	1.0	1.00	99.0		7/19/08		
CHK5		~ 1120277	WATER	20.3	1.0	1.00	101.6		7/19/08		
CHK5		~ 1120277	WATER	20.1	1.0	1.00	100.7		7/19/08		
BLK4		~ 1120278	WATER	-0.192	1.0	1.00			7/19/08		
BLK4		- 1120278	WATER	-0.203	1.0	1.00			7/19/08		
BLK4		- 1120278	WATER	-0.220	1.0	1.00			7/19/08		
BLK4		- 1120278	WATER	-0.223	1.0	1.00			7/19/08		
SPKB		- 1120279	WATER	9.29	1.0	1.00	92.9		7/19/08		
SPKB		- 1120279	WATER	10.2	1.0	1.00	102.0		7/19/08		
SPKB		- 1120279	WATER	10.0	1.0	1.00	100.3		7/19/08		
SPKB		- 1120279	WATER	10.2	1.0	1.00	101.6		7/19/08		
ESMP	R2844768	~ 1113695	WATER	1.40	1.0	1.00			07/19/08		ASPB
ESMP	R2844768	- 1113695	WATER	1.55	1.0	1.00			07/19/08		ASPB
ESMP	R2844768	- 1113695	WATER	1.59	1.0	1.00			07/19/08		ASPB
ESMP	R2844768	- 1113695	WATER	1.63	1.0	1.00			07/19/08		ASPB
ESMP	R2844768	- 1113696	WATER	1.72	1.0	1.00			07/19/08		ASPB
ESMP	R2844768	- 1113696	WATER	2.01	1.0	1.00			07/19/08		ASPB
ESMP	R2844768	- 1113696	WATER	2.05	1.0	1.00			07/19/08		ASPB
ESMP	R2844768	- 1113696	WATER	2.10	1.0	1.00			07/19/08		ASPB
ESMP	R2844768	- 1113697	WATER	1.48	1.0	1.00			07/19/08		ASPB
ESMP	R2844768	- 1113697	WATER	1.66	1.0	1.00			07/19/08		ASPB
ESMP	R2844768	- 1113697	WATER	1.74	1.0	1.00			07/19/08		ASPB
ESMP	R2844768	- 1113697	WATER	1.73	1.0	1.00			07/19/08		ASPB
LDUP		~ 1120280	WATER	1.53	1.0	1.00		3.45	7/19/08		
LDUP		- 1120280	WATER	1.69	1.0	1.00		1.85	7/19/08		
LDUP		- 1120280	WATER	1.73	1.0	1.00		0.81	7/19/08		
LDUP		- 1120280	WATER	1.62	1.0	1.00		6.38	7/19/08		
SPK1		- 1120281	WATER	10.4	1.0	1.00	89.7		7/19/08		
SPK1		- 1120281	WATER	13.1	1.0	1.00	114.1		7/19/08		
SPK1		- 1120281	WATER	13.1	1.0	1.00	113.7		7/19/08		
SPK1		- 1120281	WATER	13.2	1.0	1.00	114.8		7/19/08		
ESMP	R2844768	- 1113698	WATER	1.01	1.0	1.00			07/19/08		ASPB
ESMP	R2844768	- 1113698	WATER	1.10	1.0	1.00			07/19/08		ASPB
ESMP	R2844768	- 1113698	WATER	1.19	1.0	1.00			07/19/08		ASPB
ESMP	R2844768	- 1113698	WATER	1.16	1.0	1.00			07/19/08		ASPB
ESMP	R2844768	- 1113699	WATER	0.892	1.0	1.00			07/19/08		ASPB
ESMP	R2844768	- 1113699	WATER	1.03	1.0	1.00			07/19/08		ASPB
ESMP	R2844768	- 1113699	WATER	1.09	1.0	1.00			07/19/08		ASPB
ESMP	R2844768	- 1113699	WATER	1.08	1.0	1.00			07/19/08		ASPB

Records printed: 44

ANALYTE:G:\STARLIMS\ASBAR.RP1

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\*\* SEQUENCE \*\*  
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071808 Fri Jul 18 16:47:03 2008

Pos/ Vial	Sample Name	Method	Run Type	# Rep	Vol (mL)	# Blk	Dil Fact	Ovr Rng	Remarks
1	CCV	toc1	Chk. 5	2	1.000	0	1.00	No	
2	CCB	toc1	Chk. 5	2	1.000	0	1.00	No	
3	LCS	toc1	Chk. 5	2	1.000	0	1.00	No	
4	1113150 R-44746	toc1	Sample	2	1.000	0	1.00	No	
5	1113151	toc1	Sample	2	1.000	0	1.00	No	
6	1113285	toc1	Sample	2	1.000	0	1.00	No	
7	1113733 R-44770	toc1	Sample	2	1.000	0	1.00	No	
8	1113734	toc1	Sample	2	1.000	0	1.00	No	
9	1113735	toc1	Sample	2	1.000	0	1.00	No	
10	1113736	toc1	Sample	2	1.000	0	1.00	No	
11	1114063 R-44779	toc1	Sample	2	1.000	0	1.00	No	10
12	1114063 DUP	toc1	Sample	2	1.000	0	1.00	No	10
13	1114063 SPK	toc1	Sample	2	1.000	0	1.00	No	10
14	1105475	toc1	Sample	2	1.000	0	1.00	No	4
15	1114342 R-44770	toc1	Sample	2	1.000	0	1.00	No	
16	CCV	toc1	Chk. 5	2	1.000	0	1.00	No	
17	CCB	toc1	Chk. 5	2	1.000	0	1.00	No	
18	1114343	toc1	Sample	2	1.000	0	1.00	No	
19	1114344	toc1	Sample	2	1.000	0	1.00	No	
20	1114345	toc1	Sample	2	1.000	0	1.00	No	
21	1114346	toc1	Sample	2	1.000	0	1.00	No	
22	1114347	toc1	Sample	2	1.000	0	1.00	No	
23	1114348	toc1	Sample	2	1.000	0	1.00	No	
24	1114349	toc1	Sample	2	1.000	0	1.00	No	
25	1114691	toc1	Sample	2	1.000	0	1.00	No	
26	1114691 DUP	toc1	Sample	2	1.000	0	1.00	No	
27	1114691 SPK	toc1	Sample	2	1.000	0	1.00	No	
28	1114692	toc1	Sample	2	1.000	0	1.00	No	
29	1114693	toc1	Sample	2	1.000	0	1.00	No	
30	CCV	toc1	Chk. 5	4	1.000	0	1.00	No	
31	CCB	toc1	Chk. 5	4	1.000	0	1.00	No	
32	LCS	toc1	Chk. 5	4	1.000	0	1.00	No	
33	1114694	toc1	Sample	2	1.000	0	1.00	No	
34	1114696	toc1	Sample	2	1.000	0	1.00	No	
35	1114696 DUP	toc1	Sample	2	1.000	0	1.00	No	
36	1114696 SPK	toc1	Sample	2	1.000	0	1.00	No	
37	1114697	toc1	Sample	2	1.000	0	1.00	No	
38	1114698	toc1	Sample	2	1.000	0	1.00	No	
39	1113445 R-44763	toc1	Sample	4	1.000	0	1.00	No	
40	1113695 R-44768	toc1	Sample	4	1.000	0	1.00	No	
41	1113696	toc1	Sample	4	1.000	0	1.00	No	
42	1113697	toc1	Sample	4	1.000	0	1.00	No	
43	1113697 DUP	toc1	Sample	4	1.000	0	1.00	No	
44	1113697 SPK	toc1	Sample	4	1.000	0	1.00	No	

Analysts: CS  
CW  
Prets: TOC/TOX  
WAYNE

\*\*\*\*\*  
\*\* SEQUENCE \*\*  
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071808 Fri Jul 18 16:47:03 2008

Pos/ Vial	Sample Name	Method	Run Type	# Rep	Vol (mL)	# Blk	Dil Fact	Ovr Rng	Remarks
45	1113698	tocl	Sample	4	1.000	0	1.00	No	
46	1113699	tocl	Sample	4	1.000	0	1.00	No	
47	CCV	tocl	Chk. 5	4	1.000	0	1.00	No	
48	CCB	tocl	Chk. 5	4	1.000	0	1.00	No	

Columbia Analytical Svcs.  
 1 Mustard Street  
 Rochester, NY. 14609  
 585-288-5380

OI Analytical Model 1010

TOC by EPA 415.1 / 9060 /  
 SM20 5310 C

Sample Information:

Sample #: 1  
 Sample Name: CCV  
 Run Type: CHK STD 5  
 Analysis Mode: TOC  
 Total Reps: 2  
 Date: 18Jul2008  
 Dilution Factor: 1.00  
 Comments:

Operator Name: Unknown  
 Sample Volume (ml): 1.025  
 Loop Volume (ml): 1.025  
 Loop Size (ml): 1.000  
 Sample Intro: AUTOSAMPLER  
 Remote Start: OFF  
 File Name: 0718001.rft

Method Name: toc1  
 Sequence Name: 071808  
 Calibration Name: 051208r1  
 PAM Mode: OFF  
 PAM Volume (ul): 0  
 PAM Purge (min:sec): 0:30

Sample Results:

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	17:37	18972	20.109	19.618
2	17:47	19737	20.936	20.426
Avg.		19355	20.522	20.022
Std. Dev		540.94		
RSD (%)		2.79		

OK  
 CS  
 7/21/08

01270

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 Rochester, NY, 14609  
 585-288-5380

**Sample Information:**

Sample #: 2  
 Sample Name: CCB  
 Run Type: CHK STD 5  
 Analysis Mode: TOC  
 Total Reps: 2  
 Date: 18Jul2008  
 Dilution Factor: 1.00  
 Comments:

Operator Name: Unknown  
 Sample Volume (ml): 1.025  
 Loop Volume (ml): 1.025  
 Loop Size (ml): 1.000  
 Sample Intro: AUTOSAMPLER  
 Remote Start: OFF  
 File Name: 0718002.rft

Method Name: toc1  
 Sequence Name: 071808  
 Calibration Name: 051208rl  
 PAM Mode: OFF  
 PAM Volume (ul): 0  
 PAM Purge (min:sec): 0:30

**Sample Results:**

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	17:56	272	-0.127	-0.124
2	18:06	268	-0.131	-0.128
Avg.		270	-0.129	-0.126
Std. Dev		2.83		
RSD (%)		1.05		

OK  
 CS  
 7/21/08

Columbia Analytical Svcs.  
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Rochester, NY. 14609  
585-288-5380

**Sample Information:**

Sample #: 3  
Sample Name: LCS  
Run Type: CHK STD 5  
Analysis Mode: TOC  
Total Reps: 2  
Date: 18Jul2008  
Dilution Factor: 1.00  
Comments:

Operator Name: Unknown  
Sample Volume (ml): 1.025  
Loop Volume (ml): 1.025  
Loop Size (ml): 1.000  
Sample Intro: AUTOSAMPLER  
Remote Start: OFF  
File Name: 0718003.rtl

Method Name: toc1  
Sequence Name: 071808  
Calibration Name: 051208rl  
PAM Mode: OFF  
PAM Volume (ul): 0  
PAM Purge (min:sec): 0:30

**Sample Results:**

Rep #	Time	TOC Area (cnfs)	TOC Mass (ugC)	TOC Conc (ppm)
1	18:16	9568	9.932	9.690
2	18:25	10252	10.673	10.412
Avg.		9910	10.303	10.051
Std. Dev		483.66		
RSD (%)		4.88		

OK  
CS  
7/21/08

\*\*\* = modified \*\* = unused



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Sample Information:

Sample #: 4  
 Sample Name: 1113150 R-44746  
 Run Type: SAMPLE  
 Analysis Mode: TOC  
 Total Reps: 2  
 Date: 18Jul2008  
 Dilution Factor: 1.00  
 Comments:

Operator Name: Unknown  
 Sample Volume (ml): 1.025  
 Loop Volume (ml): 1.025  
 Loop Size (ml): 1.000  
 Sample Intro: AUTOSAMPLER  
 Remote Start: OFF  
 File Name: 0718004.rft

Method Name: toc1  
 Sequence Name: 071808  
 Calibration Name: 051208rl  
 PAM Mode: OFF  
 PAM Volume (ul): 0  
 PAM Purge (min:sec): 0:30

Sample Results:

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	18:35	3377	3.445	3.361
2	18:44	3685	3.779	3.687
		Avg.	3.612	3.524
		Std. Dev	217.79	
		RSD (%)	6.17	

OK  
 CS  
 7/21/08

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**Sample Information:**

Sample #: 5  
 Sample Name: 1113151  
 Run Type: SAMPLE  
 Analysis Mode: TOC  
 Total Reps: 2  
 Date: 18Jul2008  
 Dilution Factor: 1.00  
 Comments:

Operator Name: Unknown  
 Sample Volume (ml): 1.025  
 Loop Volume (ml): 1.025  
 Loop Size (ml): 1.000  
 Sample Intro: AUTOSAMPLER  
 Remote Start: OFF  
 File Name: 0718005.rit

Method Name: toc1  
 Sequence Name: 071808  
 Calibration Name: 051208rl  
 PAM Mode: OFF  
 PAM Volume (ul): 0  
 PAM Purge (min:sec): 0:30

**Sample Results:**

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	18:54	5017	5.220	5.093
2	19:04	5074	5.282	5.153
Avg.		5046	5.251	5.123
Std. Dev		40.31		
RSD (%)		0.80		

OK  
 CS  
 7/21/08

"" = modified "-" = unused

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TOC by EPA 415.1 / 9060  
 OI Analytical Model 1010

Sample Information:

Sample #: 6  
 Sample Name: 1113285  
 Run Type: SAMPLE  
 Analysis Mode: TOC  
 Total Reps: 2  
 Date: 18Jul2008  
 Dilution Factor: 1.00  
 Comments:

Operator Name: Unknown  
 Sample Volume (ml): 1.025  
 Loop Volume (ml): 1.025  
 Loop Size (ml): 1.000  
 Sample Intro: AUTOSAMPLER  
 Remote Start: OFF  
 File Name: 0718006.ft

Method Name: toc1  
 Sequence Name: 071808  
 Calibration Name: 051208rl  
 PAM Mode: OFF  
 PAM Volume (ul): 0  
 PAM Purge (min:sec): 0:30

Sample Results:

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	19:14	3946	4.061	3.962
2	19:23	4572	4.739	4.623
Avg.		4259	4.400	4.293
Std. Dev		442.65		
RSD (%)		10.39		

OK  
 CS  
 7/21/08

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TOC by EPA 415.1 / 9060  
 OI Analytical Model 1010

**Sample Information:**

Sample #: 7  
 Sample Name: 1113733 R-44770  
 Run Type: SAMPLE  
 Analysis Mode: TOC  
 Total Reps: 2  
 Date: 18Jul2008  
 Dilution Factor: 1.00  
 Comments:

Operator Name: Unknown  
 Sample Volume (ml): 1.025  
 Loop Volume (ml): 1.025  
 Loop Size (ml): 1.000  
 Sample Intro: AUTOSAMPLER  
 Remote Start: OFF  
 File Name: 0718007.rft

Method Name: toc1  
 Sequence Name: 071808  
 Calibration Name: 051208rl  
 PAM Mode: OFF  
 PAM Volume (ul): 0  
 PAM Purge (min:sec): 0:30

**Sample Results:**

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	19:33	3921	4.034	3.936
2	19:42	4127	4.257	4.153
Avg.		4024	4.146	4.044
Std. Dev		145.66		
RSD (%)		3.62		

OK  
 CS  
 7/21/08

Columbia Analytical Svcs.  
 1 Mustard Street  
 Rochester, NY. 14609  
 585-288-5380

**Sample Information:**

Sample #: 8  
 Sample Name: 1113734  
 Run Type: SAMPLE  
 Analysis Mode: TOC  
 Total Reps: 2  
 Date: 18.Jul.2008  
 Dilution Factor: 1.00  
 Comments:

Operator Name: Unknown  
 Sample Volume (ml): 1.025  
 Loop Volume (ml): 1.025  
 Loop Size (ml): 1.000  
 Sample Intro: AUTOSAMPLER  
 Remote Start: OFF  
 File Name: 0718008.rft

Method Name: toc1  
 Sequence Name: 071808  
 Calibration Name: 051208r1  
 PAM Mode: OFF  
 PAM Volume (ul): 0  
 PAM Purge (min:sec): 0:30

**Sample Results:**

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	19:52	1280	1.176	1.148
2	20:01	1313	1.212	1.182
Avg.		1297	1.194	1.165
Std. Dev		23.33		
RSD (%)		1.80		

OK  
 CS  
 7/21/08

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 1 Mustard Street  
 Rochester, NY. 14609  
 585-288-5380

TOC by EPA 415.1 / 9060  
 OI Analytical Model 1010

**Sample Information:**

Sample #: 9  
 Sample Name: 1113735  
 Run Type: SAMPLE  
 Analysis Mode: TOC  
 Total Reps: 2  
 Date: 18Jul2008  
 Dilution Factor: 1.00  
 Comments:

Operator Name: Unknown  
 Sample Volume (ml): 1.025  
 Loop Volume (ml): 1.025  
 Loop Size (ml): 1.000  
 Sample Intro: AUTOSAMPLER  
 Remote Start: OFF  
 File Name: 0718009.rft

Method Name: toc1  
 Sequence Name: 071808  
 Calibration Name: 051208rl  
 PAM Mode: OFF  
 PAM Volume (ul): 0  
 PAM Purge (min.sec): 0:30

**Sample Results:**

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	20:11	2884	2.912	2.841
2	20:21	3141	3.190	3.112
Avg.		3013	3.051	2.977
Std. Dev		181.73		
RSD (%)		6.03		

OK  
 CS  
 7/21/08

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TOC by EPA 415.1 / 9060  
 OI Analytical Model 1010

**Sample Information:**

Sample #: 10  
 Sample Name: 1113736  
 Run Type: SAMPLE  
 Analysis Mode: TOC  
 Total Reps: 2  
 Date: 18Jul2008  
 Dilution Factor: 1.00  
 Comments:

Operator Name: Unknown  
 Sample Volume (ml): 1.025  
 Loop Volume (ml): 1.025  
 Loop Size (ml): 1.000  
 Sample Intro: AUTOSAMPLER  
 Remote Start: OFF  
 File Name: 0718010.rft

Method Name: toc1  
 Sequence Name: 071808  
 Calibration Name: 051208rl  
 PAM Mode: OFF  
 PAM Volume (ul): 0  
 PAM Purge (min:sec): 0:30

**Sample Results:**

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	20:31	4414	4.568	4.456
2	20:40	4966	5.165	5.039
Avg.		4690	4.866	4.748
Std. Dev		390.32		
RSD (%)		8.32		

OK  
 CS  
 7/21/08

01279

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585-288-5380

Sample Information:

Sample #: 11  
Sample Name: 1114063 R-44779  
Run Type: SAMPLE  
Analysis Mode: TOC  
Total Reps: 2  
Date: 18Jul2008  
Dilution Factor: 1.00  
Comments: 10

Operator Name: Unknown  
Sample Volume (ml): 1.025  
Loop Volume (ml): 1.025  
Loop Size (ml): 1.000  
Sample Intro: AUTOSAMPLER  
Remote Start: OFF  
File Name: 0718011.rft

Method Name: toc1  
Sequence Name: 071808  
Calibration Name: 051208rl  
PAM Mode: OFF  
PAM Volume (ul): 0  
PAM Purge (min:sec): 0:30

Sample Results:

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	20:50	3288	3.349	3.267
2	20:59	3412	3.483	3.398
Avg.		3350	3.416	3.333
Std. Dev		87.68		
RSD (%)		2.62		

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X10



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**Sample Information:**

Sample #: 12  
 Sample Name: 1114063 DUP  
 Run Type: SAMPLE  
 Analysis Mode: TOC  
 Total Reps: 2  
 Date: 18.Jul.2008  
 Dilution Factor: 1.00  
 Comments: 10

Operator Name: Unknown  
 Sample Volume (ml): 1.025  
 Loop Volume (ml): 1.025  
 Loop Size (ml): 1.000  
 Sample Intro: AUTOSAMPLER  
 Remote Start: OFF  
 File Name: 0718012.rft

Method Name: toc1  
 Sequence Name: 071808  
 Calibration Name: 051208rl  
 PAM Mode: OFF  
 PAM Volume (ul): 0  
 PAM Purge (min:sec): 0:30

**Sample Results:**

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	21:09	2999	3.036	2.962
2	21:18	3469	3.545	3.458
Avg.		3234	3.291	3.210
Std. Dev		332.34		
RSD (%)		10.28		

x10

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01281

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Sample Information:

Sample #: 13  
Sample Name: 1114063 SPK  
Run Type: SAMPLE  
Analysis Mode: TOC  
Total Reps: 2  
Date: 18Jul2008  
Dilution Factor: 1.00  
Comments: 10

Operator Name: Unknown  
Sample Volume (ml): 1.025  
Loop Volume (ml): 1.025  
Loop Size (ml): 1.000  
Sample Intro: AUTOSAMPLER  
Remote Start: OFF  
File Name: 0718013.rft

Method Name: toc1  
Sequence Name: 071808  
Calibration Name: 051208r1  
PAM Mode: OFF  
PAM Volume (ul): 0  
PAM Purge (min:sec): 0:30

Sample Results:

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	21:28	11205	11.916	11.625
2	21:38	13175	14.048	13.705
Avg.		12190	12.982	12.665
Std. Dev		1393.00		
RSD (%)		11.43		

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**Sample Information:**

Sample #: 14  
 Sample Name: 1105475  
 Run Type: SAMPLE  
 Analysis Mode: TOC  
 Total Reps: 2  
 Date: 18Jul2008  
 Dilution Factor: 1.00  
 Comments: 4

Operator Name: Unknown  
 Sample Volume (ml): 1.025  
 Loop Volume (ml): 1.025  
 Loop Size (ml): 1.000  
 Sample Intro: AUTOSAMPLER  
 Remote Start: OFF  
 File Name: 0718014.rit

Method Name: toc1  
 Sequence Name: 071808  
 Calibration Name: 051208rl  
 PAM Mode: OFF  
 PAM Volume (ul): 0  
 PAM Purge (min:sec): 0:30

**Sample Results:**

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	21:47	10588	11.248	10.974
2	21:57	11445	12.176	11.879
Avg.		11017	11.712	11.426
Std. Dev		605.99		
RSD (%)		5.50		

XW

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01200

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**Sample Information:**

Sample #: 15  
Sample Name: 1114342 R-44770  
Run Type: SAMPLE  
Analysis Mode: TOC  
Total Reps: 2  
Date: 18Jul2008  
Dilution Factor: 1.00  
Comments:

Operator Name: Unknown  
Sample Volume (ml): 1.025  
Loop Volume (ml): 1.025  
Loop Size (ml): 1.000  
Sample Intro: AUTOSAMPLER  
Remote Start: OFF  
File Name: 0718015.rft

Method Name: toc1  
Sequence Name: 071808  
Calibration Name: 051208rl  
PAM Mode: OFF  
PAM Volume (ul): 0  
PAM Purge (min:sec): 0:30

**Sample Results:**

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	22:07	3545	3.627	3.539
2	22:16	3408	3.479	3.394
Avg.		3477	3.553	3.466
Std. Dev		96.87		
RSD (%)		2.79		

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**Sample Information:**

Sample #: 16  
 Sample Name: CCV  
 Run Type: CHK STD 5  
 Analysis Mode: TOC  
 Total Reps: 2  
 Date: 18Jul2008  
 Dilution Factor: 1.00  
 Comments:

Operator Name: Unknown  
 Sample Volume (ml): 1.025  
 Loop Volume (ml): 1.025  
 Loop Size (ml): 1.000  
 Sample Intro: AUTOSAMPLER  
 Remote Start: OFF  
 File Name: 0718016.rft

Method Name: toc1  
 Sequence Name: 071808  
 Calibration Name: 051208rl  
 PAM Mode: OFF  
 PAM Volume (ul): 0  
 PAM Purge (min:sec): 0:30

**Sample Results:**

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	22:26	17019	17.995	17.556
2	22:35	19476	20.654	20.150
Avg.		18248	19.325	18.853
Std. Dev		1737.36		
RSD (%)		9.52		

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**Sample Information:**

Sample #: 17  
 Sample Name: CCB  
 Run Type: CHK STD 5  
 Analysis Mode: TOC  
 Total Reps: 2  
 Date: 18.Jul2008  
 Dilution Factor: 1.00  
 Comments:

Operator Name: Unknown  
 Sample Volume (ml): 1.025  
 Loop Volume (ml): 1.025  
 Loop Size (ml): 1.000  
 Sample Intro: AUTOSAMPLER  
 Remote Start: OFF  
 File Name: 0718017.rft

Method Name: toc1  
 Sequence Name: 071808  
 Calibration Name: 051208r1  
 PAM Mode: OFF  
 PAM Volume (ul): 0  
 PAM Purge (min:sec): 0:30

**Sample Results:**

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	22:45	228	-0.174	-0.170
2	22:54	231	-0.171	-0.167
Avg.		230	-0.173	-0.168
Std. Dev		2.12		
RSD (%)		0.92		

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**Sample Information:**

Sample #: 18  
 Sample Name: 1114343  
 Run Type: SAMPLE  
 Analysis Mode: TOC  
 Total Reps: 2  
 Date: 18Jul2008  
 Dilution Factor: 1.00  
 Comments:

Operator Name: Unknown  
 Sample Volume (ml): 1.025  
 Loop Volume (ml): 1.025  
 Loop Size (ml): 1.000  
 Sample Intro: AUTOSAMPLER  
 Remote Start: OFF  
 File Name: 0718018.rft

Method Name: toc1  
 Sequence Name: 071808  
 Calibration Name: 051208rl  
 PAM Mode: OFF  
 PAM Volume (ul): 0  
 PAM Purge (min:sec): 0:30

**Sample Results:**

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	23:04	3798	3.901	3.806
2	23:14	4325	4.471	4.362
Avg.		4062	4.186	4.084
Std. Dev		372.65		
RSD (%)		9.18		

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Sample Information:

Sample #: 19  
 Sample Name: 1114344  
 Run Type: SAMPLE  
 Analysis Mode: TOC  
 Total Reps: 2  
 Date: 18Jul2008  
 Dilution Factor: 1.00  
 Comments:

Operator Name: Unknown  
 Sample Volume (ml): 1.025  
 Loop Volume (ml): 1.025  
 Loop Size (ml): 1.000  
 Sample Intro: AUTOSAMPLER  
 Remote Start: OFF  
 File Name: 0718019.rft

Method Name: toc1  
 Sequence Name: 071808  
 Calibration Name: 051208r1  
 PAM Mode: OFF  
 PAM Volume (ul): 0  
 PAM Purge (min:sec): 0:30

Sample Results:

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	23:24	4085	4.212	4.109
2	23:33	4567	4.733	4.618
Avg.		4326	4.472	4.363
Std. Dev		340.83		
RSD (%)		7.88		

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01208



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**Sample Information:**

Sample #: 20  
 Sample Name: 1114345  
 Run Type: SAMPLE  
 Analysis Mode: TOC  
 Total Reps: 2  
 Date: 18Jul2008  
 Dilution Factor: 1.00  
 Comments:

Operator Name: Unknown  
 Sample Volume (ml): 1.025  
 Loop Volume (ml): 1.025  
 Loop Size (ml): 1.000  
 Sample Intro: AUTOSAMPLER  
 Remote Start: OFF  
 File Name: 0718020.rft

Method Name: toc1  
 Sequence Name: 071808  
 Calibration Name: 051208r1  
 PAM Mode: OFF  
 PAM Volume (ul): 0  
 PAM Purge (min:sec): 0:30

**Sample Results:**

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	23:43	3872	3.981	3.884
2	23:52	4277	4.419	4.312
Avg.		4075	4.200	4.098
Std. Dev		286.38		
RSD (%)		7.03		

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01289

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**Sample Information:**

Sample #: 21  
 Sample Name: 1114346  
 Run Type: SAMPLE  
 Analysis Mode: TOC  
 Total Reps: 2  
 Date: 19Jul2008  
 Dilution Factor: 1.00  
 Comments:

Operator Name: Unknown  
 Sample Volume (ml): 1.025  
 Loop Volume (ml): 1.025  
 Loop Size (ml): 1.000  
 Sample Intro: AUTOSAMPLER  
 Remote Start: OFF  
 File Name: 0718021.rft

Method Name: toc1  
 Sequence Name: 071808  
 Calibration Name: 051208r1  
 PAM Mode: OFF  
 PAM Volume (ul): 0  
 PAM Purge (min:sec): 0:30

**Sample Results:**

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	00:02	2235	2.210	2.156
2	00:11	2385	2.372	2.314
Avg.		2310	2.291	2.235
Std. Dev		106.07		
RSD (%)		4.59		

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 8/11/17

071808

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**Sample Information:**

Sample #: 22  
 Sample Name: 1114347  
 Run Type: SAMPLE  
 Analysis Mode: TOC  
 Total Reps: 2  
 Date: 19Jul2008  
 Dilution Factor: 1.00  
 Comments:

Operator Name: Unknown  
 Sample Volume (ml): 1.025  
 Loop Volume (ml): 1.025  
 Loop Size (ml): 1.000  
 Sample Intro: AUTOSAMPLER  
 Remote Start: OFF  
 File Name: 0718022.rft

Method Name: toc1  
 Sequence Name: 071808  
 Calibration Name: 051208rt  
 PAM Mode: OFF  
 PAM Volume (ul): 0  
 PAM Purge (min:sec): 0:30

**Sample Results:**

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	00:21	1047	0.924	0.902
2	00:31	1039	0.915	0.893
Avg.		1043	0.920	0.897
Std. Dev		5.66		
RSD (%)		0.54		

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**Sample Information:**

Sample #: 23  
 Sample Name: 1114348  
 Run Type: SAMPLE  
 Analysis Mode: TOC  
 Total Reps: 2  
 Date: 19Jul2008  
 Dilution Factor: 1.00  
 Comments:

Operator Name: Unknown  
 Sample Volume (ml): 1.025  
 Loop Volume (ml): 1.025  
 Loop Size (ml): 1.000  
 Sample Intro: AUTOSAMPLER  
 Remote Start: OFF  
 File Name: 0718023.rtf

Method Name: toc1  
 Sequence Name: 071808  
 Calibration Name: 051208rl  
 PAM Mode: OFF  
 PAM Volume (ul): 0  
 PAM Purge (min:sec): 0:30

**Sample Results:**

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	00:41	1433	1.342	1.309
2	00:50	1480	1.393	1.359
Avg.		1457	1.367	1.334
Std. Dev		33.23		
RSD (%)		2.28		

OK  
 CS  
 7/12/108

91292

\*\*\* = modified '...' = unused

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**Sample Information:**

Sample #: 24  
Sample Name: 1114349  
Run Type: SAMPLE  
Analysis Mode: TOC  
Total Reps: 2  
Date: 19Jul2008  
Dilution Factor: 1.00  
Comments:

Operator Name: Unknown  
Sample Volume (ml): 1.025  
Loop Volume (ml): 1.025  
Loop Size (ml): 1.000  
Sample Intro: AUTOSAMPLER  
Remote Start: OFF  
File Name: 0718024.rft

Method Name: toc1  
Sequence Name: 071808  
Calibration Name: 051208rl  
PAM Mode: OFF  
PAM Volume (ul): 0  
PAM Purge (min:sec): 0:30

**Sample Results:**

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	01:00	6455	6.776	6.611
2	01:09	6669	7.008	6.837
Avg.		6562	6.892	6.724
Std. Dev		151.32		
RSD (%)		2.31		

OK  
CS  
7/12/08

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**Sample Information:**

Sample #: 25  
Sample Name: 1114691  
Run Type: SAMPLE  
Analysis Mode: TOC  
Total Reps: 2  
Date: 19Jul2008  
Dilution Factor: 1.00  
Comments:

Operator Name: Unknown  
Sample Volume (ml): 1.025  
Loop Volume (ml): 1.025  
Loop Size (ml): 1.000  
Sample Intro: AUTOSAMPLER  
Remote Start: OFF  
File Name: 0718025.rlt

Method Name: toc1  
Sequence Name: 071808  
Calibration Name: 051208rt  
PAM Mode: OFF  
PAM Volume (ul): 0  
PAM Purge (min:sec): 0:30

**Sample Results:**

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	01:19	6806	7.156	6.981
2	01:28	7331	7.724	7.536
Avg.		7069	7.440	7.259
Std. Dev		371.23		
RSD (%)		5.25		

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**Sample Information:**

Sample #: 26  
Sample Name: 1114691 DUP  
Run Type: SAMPLE  
Analysis Mode: TOC  
Total Reps: 2  
Date: 19Jul2008  
Dilution Factor: 1.00  
Comments:

Operator Name: Unknown  
Sample Volume (ml): 1.025  
Loop Volume (ml): 1.025  
Loop Size (ml): 1.000  
Sample Intro: AUTOSAMPLER  
Remote Start: OFF  
File Name: 0718026.rft

Method Name: toc1  
Sequence Name: 071808  
Calibration Name: 051208rl  
PAM Mode: OFF  
PAM Volume (ul): 0  
PAM Purge (min:sec): 0:30

**Sample Results:**

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	01:38	6997	7.363	7.183
2	01:48	7380	7.777	7.587
Avg.		7189	7.570	7.385
Std. Dev		270.82		
RSD (%)		3.77		

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**Sample Information:**

Sample #: 27  
 Sample Name: 1114691 SPK  
 Run Type: SAMPLE  
 Analysis Mode: TOC  
 Total Reps: 2  
 Date: 19Jul2008  
 Dilution Factor: 1.00  
 Comments:

Operator Name: Unknown  
 Sample Volume (ml): 1.025  
 Loop Volume (ml): 1.025  
 Loop Size (ml): 1.000  
 Sample Intro: AUTOSAMPLER  
 Remote Start: OFF  
 File Name: 0718027.rft

Method Name: toc1  
 Sequence Name: 071808  
 Calibration Name: 051208rl  
 PAM Mode: OFF  
 PAM Volume (ul): 0  
 PAM Purge (min:sec): 0:30

**Sample Results:**

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	01:57	15584	16.655	16.248
2	02:07	18130	19.410	18.936
Avg.		16857	18.032	17.592
Std. Dev		1800.29		
RSD (%)		10.68		

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**Sample Information:**

Sample #: 28  
 Sample Name: 1114692  
 Run Type: SAMPLE  
 Analysis Mode: TOC  
 Total Reps: 2  
 Date: 19Jul2008  
 Dilution Factor: 1.00  
 Comments:

Operator Name: Unknown  
 Sample Volume (ml): 1.025  
 Loop Volume (ml): 1.025  
 Loop Size (ml): 1.000  
 Sample Intro: AUTOSAMPLER  
 Remote Start: OFF  
 File Name: 0718028.rtf

Method Name: toc1  
 Sequence Name: 071808  
 Calibration Name: 051208rl  
 PAM Mode: OFF  
 PAM Volume (ul): 0  
 PAM Purge (min.sec): 0:30

**Sample Results:**

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	02:17	6265	6.571	6.410
2	02:26	7046	7.416	7.235
Avg.		6656	6.993	6.823
Std. Dev		552.25		
RSD (%)		8.30		

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**Sample Information:**

Sample #: 29  
 Sample Name: 1114693  
 Run Type: SAMPLE  
 Analysis Mode: TOC  
 Total Reps: 2  
 Date: 19Jul2008  
 Dilution Factor: 1.00  
 Comments:

Operator Name: Unknown  
 Sample Volume (ml): 1.025  
 Loop Volume (ml): 1.025  
 Loop Size (ml): 1.000  
 Sample Intro: AUTOSAMPLER  
 Remote Start: OFF  
 File Name: 0718029.rtf

Method Name: toc1  
 Sequence Name: 071808  
 Calibration Name: 051208rl  
 PAM Mode: OFF  
 PAM Volume (ul): 0  
 PAM Purge (min:sec): 0:30

**Sample Results:**

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	02:36	3101	3.147	3.070
2	02:45	3162	3.213	3.134
Avg.		3132	3.180	3.102
Std. Dev		43.13		
RSD (%)		1.38		

OK  
 CS  
 -11/21/08

071808

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**Sample Information:**

Sample #: 30  
 Sample Name: CCV  
 Run Type: CHK STD 5  
 Analysis Mode: TOC  
 Total Reps: 4  
 Date: 19Jul2008  
 Dilution Factor: 1.00  
 Comments:

Operator Name: Unknown  
 Sample Volume (ml): 1.025  
 Loop Volume (ml): 1.000  
 Loop Size (ml): 1.000  
 Sample Intro: AUTOSAMPLER  
 Remote Start: OFF  
 File Name: 0718030.rtf

Method Name: toc1  
 Sequence Name: 071808  
 Calibration Name: 051208rl  
 PAM Mode: OFF  
 PAM Volume (ul): 0  
 PAM Purge (min:sec): 0:30

**Sample Results:**

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	02:55	18596	19.702	19.221
2	03:04	19140	20.290	19.795
3	03:14	19631	20.822	20.314
4	03:23	19464	20.641	20.138
<b>Avg.</b>		19208	20.364	19.867
<b>Std. Dev</b>		455.94		
<b>RSD (%)</b>		2.37		

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01299

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**Sample Information:**

Sample #: 31  
 Sample Name: CCB  
 Run Type: CHK STD 5  
 Analysis Mode: TOC  
 Total Reps: 4  
 Date: 19Jul2008  
 Dilution Factor: 1.00  
 Comments:

Operator Name: Unknown  
 Sample Volume (ml): 1.025  
 Loop Volume (ml): 1.025  
 Loop Size (ml): 1.000  
 Sample Intro: AUTOSAMPLER  
 Remote Start: OFF  
 File Name: 0718031.rft

Method Name: toc1  
 Sequence Name: 071808  
 Calibration Name: 051208rl  
 PAM Mode: OFF  
 PAM Volume (ul): 0  
 PAM Purge (min:sec): 0:30

**Sample Results:**

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	03:33	207	-0.197	-0.192
2	03:42	197	-0.208	-0.203
3	03:51	181	-0.225	-0.220
4	04:01	178	-0.228	-0.223
Avg.		191	-0.215	-0.209
Std. Dev		13.67		
RSD (%)		7.17		

OK  
 2.5  
 7/21/08

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TOC by EPA 415.1 / 9060  
 OI Analytical Model 1010

**Sample Information:**

Sample #: 32  
 Sample Name: LCS  
 Run Type: CHK STD 5  
 Analysis Mode: TOC  
 Total Reps: 4  
 Date: 19Jul2008  
 Dilution Factor: 1.00  
 Comments:

Operator Name: Unknown  
 Sample Volume (ml): 1.025  
 Loop Volume (ml): 1.025  
 Loop Size (ml): 1.000  
 Sample Intro: AUTOSAMPLER  
 Remote Start: OFF  
 File Name: 0718032.rtf

Method Name: toc1  
 Sequence Name: 071808  
 Calibration Name: 051208rl  
 PAM Mode: OFF  
 PAM Volume (ul): 0  
 PAM Purge (min:sec): 0:30

**Sample Results:**

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	04:11	9190	9.523	9.291
2	04:20	10046	10.450	10.195
3	04:29	9885	10.276	10.025
4	04:39	10016	10.417	10.163

Avg. 9784  
 Std. Dev 402.29  
 RSD (%) 4.11

OK  
 CS  
 7/21/08

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TOC by EPA 415.1 / 9060  
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Sample Information:

Sample #: 33  
 Sample Name: 1114694  
 Run Type: SAMPLE  
 Analysis Mode: TOC  
 Total Repts: 2  
 Date: 19Jul2008  
 Dilution Factor: 1.00  
 Comments:

Operator Name: Unknown  
 Sample Volume (ml): 1.025  
 Loop Volume (ml): 1.025  
 Loop Size (ml): 1.000  
 Sample Intro: AUTOSAMPLER  
 Remote Start: OFF  
 File Name: 0718033.rft

Method Name: toc1  
 Sequence Name: 071808  
 Calibration Name: 051208rl  
 PAM Mode: OFF  
 PAM Volume (ul): 0  
 PAM Purge (min:sec): 0:30

Sample Results:

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	04:48	4330	4.477	4.367
2	04:58	4603	4.772	4.656
Avg.		4467	4.624	4.512
Std. Dev		193.04		
RSD (%)		4.32		

OK  
 CS  
 7/21/08

51392

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TOC by EPA 415.1 / 9060  
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Sample Information:

Sample #: 34  
 Sample Name: 1114696  
 Run Type: SAMPLE  
 Analysis Mode: TOC  
 Total Reps: 2  
 Date: 19Jul2008  
 Dilution Factor: 1.00  
 Comments:

Operator Name: Unknown  
 Sample Volume (ml): 1.025  
 Loop Volume (ml): 1.025  
 Loop Size (ml): 1.000  
 Sample Intro: AUTOSAMPLER  
 Remote Start: OFF  
 File Name: 0718034.rft

Method Name: toc1  
 Sequence Name: 071808  
 Calibration Name: 051208rl  
 PAM Mode: OFF  
 PAM Volume (ul): 0  
 PAM Purge (min:sec): 0:30

Sample Results:

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	05:08	2880	2.908	2.837
2	05:17	2969	3.004	2.931
Avg.		2925	2.956	2.884
Std. Dev		62.93		
RSD (%)		2.15		

OK  
 CS  
 7/21/08

\*\*\* = modified ' ' = unused

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**Sample Information:**

Sample #: 35  
 Sample Name: 1114696 DUP  
 Run Type: SAMPLE  
 Analysis Mode: TOC  
 Total Reps: 2  
 Date: 19Jul2008  
 Dilution Factor: 1.00  
 Comments:

Operator Name: Unknown  
 Sample Volume (ml): 1.025  
 Loop Volume (ml): 1.025  
 Loop Size (ml): 1.000  
 Sample Intro: AUTOSAMPLER  
 Remote Start: OFF  
 File Name: 0718035.rlt

Method Name: toc1  
 Sequence Name: 071808  
 Calibration Name: 051208r1  
 PAM Mode: OFF  
 PAM Volume (ul): 0  
 PAM Purge (min:sec): 0:30

**Sample Results:**

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	05:27	2928	2.960	2.887
2	05:36	3027	3.067	2.992
Avg.		2978	3.013	2.940
Std. Dev		70.00		
RSD (%)		2.35		

OK  
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**Sample Information:**

Sample #: 36  
 Sample Name: 1114696 SPK  
 Run Type: SAMPLE  
 Analysis Mode: TOC  
 Total Reps: 2  
 Date: 19Jul2008  
 Dilution Factor: 1.00  
 Comments:

Operator Name: Unknown  
 Sample Volume (ml): 1.025  
 Loop Volume (ml): 1.025  
 Loop Size (ml): 1.000  
 Sample Intro: AUTOSAMPLER  
 Remote Start: OFF  
 File Name: 0718036.rif

Method Name: toc1  
 Sequence Name: 071808  
 Calibration Name: 051208rl  
 PAM Mode: OFF  
 PAM Volume (ul): 0  
 PAM Purge (min:sec): 0:30

**Sample Results:**

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	05:46	11957	12.730	12.419
2	05:55	12566	13.389	13.062
Avg.		12262	13.059	12.741
Std. Dev		430.63		
RSD (%)		3.51		

OK  
 CS  
 7/21/08

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TOC by EPA 415.1 / 9060  
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**Sample Information:**

Sample #: 37  
 Sample Name: 1114697  
 Run Type: SAMPLE  
 Analysis Mode: TOC  
 Total Reps: 2  
 Date: 19Jul2008  
 Dilution Factor: 1.00  
 Comments:

Operator Name: Unknown  
 Sample Volume (ml): 1.025  
 Loop Volume (ml): 1.025  
 Loop Size (ml): 1.000  
 Sample Intro: AUTOSAMPLER  
 Remote Start: OFF  
 File Name: 0718037.rft

Method Name: toc1  
 Sequence Name: 071808  
 Calibration Name: 051208rd  
 PAM Mode: OFF  
 PAM Volume (ul): 0  
 PAM Purge (min:sec): 0:30

**Sample Results:**

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	06:05	3982	4.100	4.000
2	06:14	4377	4.528	4.417
Avg.		4180	4.314	4.209
Std. Dev		279.31		
RSD (%)		6.68		

OK  
 CS  
 7/21/09

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TOC by EPA 415.1 / 9060  
 OI Analytical Model 1010

**Sample Information:**

Sample #: 38  
 Sample Name: 1114698  
 Run Type: SAMPLE  
 Analysis Mode: TOC  
 Total Reps: 2  
 Date: 19Jul2008  
 Dilution Factor: 1.00  
 Comments:

Operator Name: Unknown  
 Sample Volume (ml): 1.025  
 Loop Volume (ml): 1.025  
 Loop Size (ml): 1.000  
 Sample Intro: AUTOSAMPLER  
 Remote Start: OFF  
 File Name: 0718038.rft

Method Name: toc1  
 Sequence Name: 071808  
 Calibration Name: 051208rl  
 PAM Mode: OFF  
 PAM Volume (ul): 0  
 PAM Purge (min:sec): 0:30

**Sample Results:**

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	06:24	362	0.183	0.178
2	06:34	358	0.179	0.174
Avg.		360	0.181	0.176
Std. Dev		2.83		
RSD (%)		0.79		

OK  
 CS  
 7/21/08

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IOC by EPA 415.1 / 9060  
 OI Analytical Model 1010

**Sample Information:**

Sample #: 39  
 Sample Name: 1113445 R-44763  
 Run Type: SAMPLE  
 Analysis Mode: TOC  
 Total Reps: 4  
 Date: 19Jul2008  
 Dilution Factor: 1.00

Operator Name: Unknown  
 Sample Volume (ml): 1.025  
 Loop Volume (ml): 1.025  
 Loop Size (ml): 1.000  
 Sample Intro: AUTOSAMPLER  
 Remote Start: OFF  
 File Name: 0718039.rft

Method Name: toc1  
 Sequence Name: 071808  
 Calibration Name: 051208rl  
 PAM Mode: OFF  
 PAM Volume (ul): 0  
 PAM Purge (min:sec): 0:30

**Sample Results:**

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	06:44	251	0.063	0.061
2	06:53	254	0.066	0.064
3	07:02	258	0.070	0.069
4	07:12	287	0.102	0.099

Avg. 263  
 Std. Dev 16.58  
 RSD (%) 6.32

*OK 7/21/08 reporting limit  
 Sample CS below 7/21/08  
 CS*

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TOC by EPA 415.1 / 9060  
 OI Analytical Model 1010

Sample Information:

Sample #: 40  
 Sample Name: 1113695 R-44768  
 Run Type: SAMPLE  
 Analysis Mode: TOC  
 Total Reps: 4  
 Date: 19Jul2008  
 Dilution Factor: 1.00  
 Comments:

Operator Name: Unknown  
 Sample Volume (ml): 1.025  
 Loop Volume (ml): 1.025  
 Loop Size (ml): 1.000  
 Sample Intro: AUTOSAMPLER  
 Remote Start: OFF  
 File Name: 0718040.rft

Method Name: toc1  
 Sequence Name: 071808  
 Calibration Name: 051208r1  
 PAM Mode: OFF  
 PAM Volume (ul): 0  
 PAM Purge (min:sec): 0:30

Sample Results:

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	07:21	1522	1.438	1.403
2	07:31	1663	1.591	1.552
3	07:40	1701	1.632	1.592
4	07:49	1733	1.666	1.626

Avg. 1655  
 Std. Dev 93.01  
 RSD (%) 5.62

OK  
 CS  
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01380

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OI Analytical Model 1010

TOC by EPA 415.1 / 9060 /  
 SM20 5310 C

Sample Information:

Sample #: 1  
 Sample Name: 1113696  
 Run Type: SAMPLE  
 Analysis Mode: TOC  
 Total Reps: 4  
 Date: 19.Jul.2008  
 Dilution Factor: 1.00  
 Comments:

Operator Name: Unknown  
 Sample Volume (ml): 1.025  
 Loop Volume (ml): 1.025  
 Loop Size (ml): 1.000  
 Sample Intro: AUTOSAMPLER  
 Remote Start: OFF  
 File Name: 0718041.rft

Method Name: toc1  
 Sequence Name: 071808  
 Calibration Name: 051208r1  
 PAM Mode: OFF  
 PAM Volume (ul): 0  
 PAM Purge (min:sec): 0:30

Sample Results:

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	07:59	1821	1.762	1.719
2	08:09	2094	2.057	2.007
3	08:18	2134	2.100	2.049
4	08:27	2186	2.157	2.104

Avg. 2059  
 Std. Dev 162.91  
 RSD (%) 7.91

OK  
 CS  
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IOC by EPA 413.1 / 906U  
 OI Analytical Model 1010

**Sample Information:**

Sample #: 2  
 Sample Name: 1113697  
 Run Type: SAMPLE  
 Analysis Mode: TOC  
 Total Reps: 4  
 Date: 19Jul2008  
 Dilution Factor: 1.00  
 Comments:

Operator Name: Unknown  
 Sample Volume (ml): 1.025  
 Loop Volume (ml): 1.025  
 Loop Size (ml): 1.000  
 Sample Intro: AUTOSAMPLER  
 Remote Start: OFF  
 File Name: 0718042.rit

Method Name: toc1  
 Sequence Name: 071808  
 Calibration Name: 051208rl  
 PAM Mode: OFF  
 PAM Volume (ul): 0  
 PAM Purge (min:sec): 0:30

**Sample Results:**

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	08:37	1599	1.521	1.484
2	08:46	1766	1.702	1.661
3	08:56	1837	1.779	1.736
4	09:05	1830	1.771	1.728
Avg.		1758	1.693	1.652
Std. Dev		110.71		
RSD (%)		6.30		

OK  
 CS  
 7/21/08



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TOC by EPA 415.1 / 9060  
 OI Analytical Model 1010

Sample Information:

Sample #: 3  
 Sample Name: 1113697 DUP  
 Run Type: SAMPLE  
 Analysis Mode: TOC  
 Total Reps: 4  
 Date: 19Jul2008  
 Dilution Factor: 1.00  
 Comments:

Operator Name: Unknown  
 Sample Volume (ml): 1.025  
 Loop Volume (ml): 1.025  
 Loop Size (ml): 1.000  
 Sample Intro: AUTOSAMPLER  
 Remote Start: OFF  
 File Name: 0718043.rft

Method Name: toc1  
 Sequence Name: 071808  
 Calibration Name: 051208rl  
 PAM Mode: OFF  
 PAM Volume (ul): 0  
 PAM Purge (min:sec): 0:30

Sample Results:

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	09:15	1644	1.570	1.532
2	09:24	1795	1.734	1.691
3	09:34	1828	1.769	1.726
4	09:43	1730	1.663	1.623

Avg. 1749  
 Std. Dev 81.12  
 RSD (%) 4.64

OK  
 CS  
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TOC by EPA 415.1 / 9060  
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**Sample Information:**

Sample #: 4  
 Sample Name: 1113697 SPK  
 Run Type: SAMPLE  
 Analysis Mode: TOC  
 Total Reps: 4  
 Date: 19Jul2008  
 Dilution Factor: 1.00  
 Comments:

Operator Name: Unknown  
 Sample Volume (ml): 1.025  
 Loop Volume (ml): 1.025  
 Loop Size (ml): 1.000  
 Sample Intro: AUTOSAMPLER  
 Remote Start: OFF  
 File Name: 0718044.rft

Method Name: toc1  
 Sequence Name: 071808  
 Calibration Name: 051208rl  
 PAM Mode: OFF  
 PAM Volume (ul): 0  
 PAM Purge (min:sec): 0:30

**Sample Results:**

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	09:53	10095	10.715	10.454
2	10:02	12572	13.395	13.069
3	10:11	12612	13.439	13.111
4	10:21	12706	13.540	13.210
Avg.		11996	12.772	12.461
Std. Dev		1268.74		
RSD (%)		10.58		

OK  
 CS  
 7/21/08

01010

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IOC by EPA 415.1 / 9060  
 OI Analytical Model 1010

Sample Information:

Sample #: 5  
 Sample Name: 1113698  
 Run Type: SAMPLE  
 Analysis Mode: TOC  
 Total Reps: 4  
 Date: 19Jul2008  
 Dilution Factor: 1.00  
 Comments:

Operator Name: Unknown  
 Sample Volume (ml): 1.025  
 Loop Volume (ml): 1.025  
 Loop Size (ml): 1.000  
 Sample Intro: AUTOSAMPLER  
 Remote Start: OFF  
 File Name: 0718045.rit

Method Name: toc1  
 Sequence Name: 071808  
 Calibration Name: 051208rl  
 PAM Mode: OFF  
 PAM Volume (ul): 0  
 PAM Purge (min:sec): 0:30

Sample Results:

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	10:31	1152	1.038	1.012
2	10:40	1235	1.128	1.100
3	10:49	1319	1.218	1.189
4	10:59	1292	1.189	1.160

Avg. 1250  
 Std. Dev 73.83  
 RSD (%) 5.91

OK  
 CS  
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**Sample Information:**

Sample #: 6  
 Sample Name: 1113699  
 Run Type: SAMPLE  
 Analysis Mode: TOC  
 Total Reps: 4  
 Date: 19Jul2008  
 Dilution Factor: 1.00  
 Comments:

Operator Name: Unknown  
 Sample Volume (ml): 1.025  
 Loop Volume (ml): 1.025  
 Loop Size (ml): 1.000  
 Sample Intro: AUTOSAMPLER  
 Remote Start: OFF  
 File Name: 0718046.rlt

Method Name: toc1  
 Sequence Name: 071808  
 Calibration Name: 051208rl  
 PAM Mode: OFF  
 PAM Volume (ul): 0  
 PAM Purge (min:sec): 0:30

**Sample Results:**

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	11:09	1038	0.914	0.892
2	11:18	1168	1.055	1.029
3	11:27	1229	1.121	1.094
4	11:37	1219	1.110	1.083
Avg.		1164	1.050	1.025
Std. Dev		87.83		
RSD (%)		7.55		

81915

\*\*\* = modified \*\* = unused

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TOC by EPA 415.1 / 9060  
 OI Analytical Model 1010

**Sample Information:**

Sample #: 7  
 Sample Name: CCV  
 Run Type: CHK STD 5  
 Analysis Mode: TOC  
 Total Reps: 4  
 Date: 19Jul2008  
 Dilution Factor: 1.00  
 Comments:

Operator Name: Unknown  
 Sample Volume (ml): 1.025  
 Loop Volume (ml): 1.025  
 Loop Size (ml): 1.000  
 Sample Intro: AUTOSAMPLER  
 Remote Start: OFF  
 File Name: 0718047.rlt

Method Name: toc1  
 Sequence Name: 071808  
 Calibration Name: 051208rl  
 PAM Mode: OFF  
 PAM Volume (ul): 0  
 PAM Purge (min:sec): 0:30

**Sample Results:**

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	11:47	17845	18.889	18.428
2	11:56	19772	20.974	20.463
3	12:05	19898	21.111	20.596
4	12:15	19586	20.773	20.266
Avg.		19275	20.437	19.938
Std. Dev		962.07		
RSD (%)		4.99		

OK  
 CS  
 7/21/08

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**Sample Information:**

Sample #: 8  
 Sample Name: CCB  
 Run Type: CHK STD 5  
 Analysis Mode: TOC  
 Total Reps: 4  
 Date: 19Jul2008  
 Dilution Factor: 1.00  
 Comments:

Operator Name: Unknown  
 Sample Volume (ml): 1.025  
 Loop Volume (ml): 1.025  
 Loop Size (ml): 1.000  
 Sample Intro: AUTOSAMPLER  
 Remote Start: OFF  
 File Name: 0718048.rft

Method Name: toc1  
 Sequence Name: 071808  
 Calibration Name: 051208rl  
 PAM Mode: OFF  
 PAM Volume (ul): 0  
 PAM Purge (min:sec): 0:30

**Sample Results:**

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	12:25	186	-0.220	-0.214
2	12:34	204	-0.200	-0.195
3	12:43	155	-0.253	-0.247
4	12:53	181	-0.225	-0.220
Avg.		182	-0.225	-0.219
Std. Dev		20.24		
RSD (%)		11.15		

OK  
 CS  
 7/21/08

General Chemistry Analytical Run Cover Sheet

Analyst: CS, CW

Date: 7/18/08

Analysis: Total Organic Carbon, 415.1/9060  
 High Level: 1.0 to 30.0 ppm

Instrument: OI Analytical Model 1010 TOC Analyzer

Quality Control:

	Log#, Date,	Stocks Prep. Log#, Date,	Stock Sol (mLs)	Stock Sol (mg/L)	Final Vol (mLs)	True Value (mg/L)
a) Standards Prep.:	WC86006A, 05/12/08	WC86004E, 05/08/08				
b) I/CCV Preparation:	WC86006D, 05/12/08	WC86005A, 05/08/08	4.0	1000	200	20.00
c) LCS Preparation:	WC86006B, 05/12/08	WC86004E, 05/08/08	1.0	1000	100	10.00
d) Matrix Spike Prep.:	WC86006C, 05/12/08	WC86004E, 05/08/08	0.42	1000	42	10.00

Instrument log filled in? (Y) (N)

Comments:

Curve Date = 05/12/08

Note:

Dilutions greater than 1/1 are placed in the "comments" section of the Model 1010 Analyzer report.  
 The "Dilution Factor" on the Model 1010 will always read "1.00"  
 TOC results on the Model 1010 Analyzer reports do not include the dilution factor.  
 Final results on the Starlims run and final report include the dilution factor.

\*\*\*\*\*  
\*\* SEQUENCE \*\*  
\*\*\*\*\*

051208 Mon May 12 15:33:02 2008

Pos/ Vial	Sample Name	Method	Run Type	# Rep	Vol (mL)	# Blk	Dil Fact	Ovr Rng	Remarks
1	0.00 STD	tocl	Std. 1	4	1.000	0	1.00	No	
2	1.00 STD	tocl	Std. 2	4	1.000	0	1.00	No	
3	5.00 STD	tocl	Std. 3	4	1.000	0	1.00	No	
4	10.00 STD	tocl	Std. 4	4	1.000	0	1.00	No	
5	30.00 STD	tocl	Std. 5	4	1.000	0	1.00	No	
6	ICV	tocl	Chk. 5	4	1.000	0	1.00	No	
7	ICB	tocl	Chk. 5	4	1.000	0	1.00	No	

Analyst: T. Christ  
Pipets: TOC/TOX  
WAYNE

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 585-288-5380

Ol Analytical Model 1010

TOC by EPA 415.1 / 9060 /  
 SM20 5310 C

Sample Information:

Sample #: 1  
 Sample Name: 0.00 STD  
 Run Type: STD 1  
 Analysis Mode: TOC  
 Total Reps: 4  
 Date: 12May2008  
 Dilution Factor: 1.00  
 Comments:

Operator Name: Unknown  
 Sample Volume (ml): 1.025  
 Loop Volume (ml): 1.025  
 Loop Size (ml): 1.000  
 Sample Intro: AUTOSAMPLER  
 Remote Start: OFF  
 File Name: 0512001.rtf

Method Name: toc1  
 Sequence Name: 051208  
 Calibration Name: 051208r1  
 PAM Mode: OFF  
 PAM Volume (ul): 0  
 PAM Purge (min:sec): 0:30

Sample Results:

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	16:07	264	0.000	0.000
2	16:16	332	0.000	0.000
3	16:26	268	0.000	0.000
4	16:35	323	0.000	0.000
Avg.		297	0.000	0.000
Std. Dev		35.73		
RSD (%)		12.04		

*Handwritten signature and date: 5/13/08*



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TOC by EPA 415.1 / 9060  
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**Sample Information:**

Sample #: 2  
 Sample Name: 1.00 STD  
 Run Type: STD 2  
 Analysis Mode: TOC  
 Total Reps: 4  
 Date: 12May2008  
 Dilution Factor: 1.00  
 Comments:

Operator Name: Unknown  
 Sample Volume (ml): 1.025  
 Loop Volume (ml): 1.025  
 Loop Size (ml): 1.000  
 Sample Intro: AUTOSAMPLER  
 Remote Start: OFF  
 File Name: 0512002.rtl

Method Name: toc1  
 Sequence Name: 051208  
 Calibration Name: 051208rl  
 PAM Mode: OFF  
 PAM Volume (ul): 0  
 PAM Purge (min:sec): 0:30

**Sample Results:**

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	16:45	1348	1.025	1.000
2	16:54	1244	1.025	1.000
3	17:04	1404	1.025	1.000
4	17:13	1294	1.025	1.000
Avg.		1323	1.025	1.000
Std. Dev		68.96		
RSD (%)		5.21		

*OK*  
*5/13/08*

01921

\*\* = modified ' ' = unused

Columbia Analytical Svcs.  
 1 Mustard Street  
 Rochester, NY. 14609  
 585-288-5380

TOC by EPA 415.1 / 9060  
 OI Analytical Model 1010

**Sample Information:**

Sample #: 3  
 Sample Name: 5.00 STD  
 Run Type: STD 3  
 Analysis Mode: TOC  
 Total Reps: 4  
 Date: 12May2008  
 Dilution Factor: 1.00  
 Comments:

Operator Name: Unknown  
 Sample Volume (ml): 1.025  
 Loop Volume (ml): 1.025  
 Loop Size (ml): 1.000  
 Sample Intro: AUTOSAMPLER  
 Remote Start: OFF  
 File Name: 0512003.rlt

Method Name: toc1  
 Sequence Name: 051208  
 Calibration Name: 051208rl  
 PAM Mode: OFF  
 PAM Volume (ul): 0  
 PAM Purge (min:sec): 0:30

**Sample Results:**

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	17:23	5389	5.125	5.000
2	17:32	5162	5.125	5.000
3	17:41	4901	5.125	5.000
4	17:51	5181	5.125	5.000
Avg.		5158	5.125	5.000
Std. Dev		199.96		
RSD (%)		3.88		

*OK*  
*5/13/08*

COLUMBIA ANALYTICAL SVCS.  
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 Rochester, NY. 14609  
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TOC by EPA 415.1 / 9060  
 OI Analytical Model 1010

**Sample Information:**

Sample #: 4  
 Sample Name: 10.00 STD  
 Run Type: STD 4  
 Analysis Mode: TOC  
 Total Reps: 4  
 Date: 12May2008  
 Dilution Factor: 1.00  
 Comments:

Operator Name: Unknown  
 Sample Volume (ml): 1.025  
 Loop Volume (ml): 1.025  
 Loop Size (ml): 1.000  
 Sample Intro: AUTOSAMPLER  
 Remote Start: OFF  
 File Name: 0512004.rlt

Method Name: toc1  
 Sequence Name: 051208  
 Calibration Name: 051208rl  
 PAM Mode: OFF  
 PAM Volume (ul): 0  
 PAM Purge (min:sec): 0:30

**Sample Results:**

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	18:01	10030	10.250	10.000
2	18:10	9910	10.250	10.000
3	18:19	10138	10.250	10.000
4	18:29	9948	10.250	10.000
<b>Avg.</b>		10007	10.250	10.000
<b>Std. Dev</b>		100.96		
<b>RSD (%)</b>		1.01		

*OK*  
*5/13/08*

01323

\*\*\* = modified ' ' = unused

COLUMBIA ANALYTICAL SVCS.  
 1 Mustard Street  
 Rochester, NY. 14609  
 585-288-5380

TOC by EPA 415.1 / 9060  
 OI Analytical Model 1010

**Sample Information:**

Sample #: 5  
 Sample Name: 30.00 STD  
 Run Type: STD 5  
 Analysis Mode: TOC  
 Total Reps: 4  
 Date: 12May2008  
 Dilution Factor: 1.00  
 Comments:

Operator Name: Unknown  
 Sample Volume (ml): 1.025  
 Loop Volume (ml): 1.025  
 Loop Size (ml): 1.000  
 Sample Intro: AUTOSAMPLER  
 Remote Start: OFF  
 File Name: 0512005.rlt

Method Name: toc1  
 Sequence Name: 051208  
 Calibration Name: 051208rl  
 PAM Mode: OFF  
 PAM Volume (ul): 0  
 PAM Purge (min:sec): 0:30

**Sample Results:**

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	18:39	29345	30.750	30.000
2	18:48	27624	30.750	30.000
3	18:57	28819	30.750	30.000
4	19:07	29149	30.750	30.000
Avg.		28734	30.750	30.000
Std. Dev		771.33		
RSD (%)		2.68		

*Handwritten signature and date: 5/13/08*

01324

\*\*\* = modified ' ' = unused

WATWING ANALYTICAL SVCS.  
 1 Mustard Street  
 Rochester, NY. 14609  
 585-288-5380

TOC by EPA 415.1 / 9060  
 OI Analytical Model 1010

**Sample Information:**

Sample #: 6  
 Sample Name: 1098562 ICV  
 Run Type: CHK STD 5  
 Analysis Mode: TOC  
 Total Reps: 4  
 Date: 12May2008  
 Dilution Factor: 1.00  
 Comments:

Operator Name: Unknown  
 Sample Volume (ml): 1.025  
 Loop Volume (ml): 1.025  
 Loop Size (ml): 1.000  
 Sample Intro: AUTOSAMPLER  
 Remote Start: OFF  
 File Name: 0512006.rlt

Method Name: toc1  
 Sequence Name: 051208  
 Calibration Name: 051208rl  
 PAM Mode: OFF  
 PAM Volume (ul): 0  
 PAM Purge (min:sec): 0:30

**Sample Results:**

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	19:16	19725	20.923	20.413
2	19:26	19110	20.258	19.764
3	19:35	19520	20.702	20.197
4	19:44	19861	21.071	20.557
Avg.		19554	20.738	20.233
Std. Dev		327.51		
RSD (%)		1.67		

Handwritten signature and initials, possibly 'OK' and '5/12/08'.

01325

Columbia Analytical Svcs.  
 1 Mustard Street  
 Rochester, NY. 14609  
 585-288-5380

TOC by EPA 415.1 / 9060  
 OI Analytical Model 1010

**Sample Information:**

Sample #: 7  
 Sample Name: 1098563 ICB  
 Run Type: CHK STD 5  
 Analysis Mode: TOC  
 Total Reps: 4  
 Date: 12May2008  
 Dilution Factor: 1.00  
 Comments:

Operator Name: Unknown  
 Sample Volume (ml): 1.025  
 Loop Volume (ml): 1.025  
 Loop Size (ml): 1.000  
 Sample Intro: AUTOSAMPLER  
 Remote Start: OFF  
 File Name: 0512007.rft

Method Name: toc1  
 Sequence Name: 051208  
 Calibration Name: 051208r  
 PAM Mode: OFF  
 PAM Volume (ul): 0  
 PAM Purge (min:sec): 0:30

**Sample Results:**

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	19:54	258	-0.142	-0.138
2	20:04	171	-0.236	-0.230
3	20:13	192	-0.213	-0.208
4	20:22	183	-0.223	-0.218
Avg.		201	-0.204	-0.199
Std. Dev		38.96		
RSD (%)		19.38		

01926

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 Rochester, NY, 14609  
 585-288-5380

OI Analytical Model 1010

TOC by EPA 415.1 / 9060 /  
 SM20 5310 C

**Calibration Information:**

Calibration Name: 051208RL  
 Standard Type: TOC  
 Date Created: 12May2008  
 Time Created: 15:31  
 RF: 1.082  
 R^2: 0.9990  
 Mass (area cts): 389  
 Mass (ug C): -0.421

Avg TIC Blank: 4  
 Avg TOC Blank: 275  
 Avg TC Blank: 260

Std. #	Conc (ppm)	Volume (ml)	# of Reps.	Avg. Area (cnts)	RSD (%)	Rep #	Std 1	Std 2	Std 3	Std 4	Std 5
1	0.000	1.000	4	296.8	12.04	1	264	1348	5389	10030	29345
2	1.000	1.000	4	1322.5	5.21	2	332	1244	5162	9910	27624
3	5.000	1.000	4	5158.3	3.88	3	268	1404	4901	10138	28819
4	10.000	1.000	4	10006.5	1.01	4	323	1294	5181	9948	29149
5	30.000	1.000	4	28734.3	2.68						

01327

\*\*\*\*\*  
 \*\* CALIBRATION \*\*  
 \*\*\*\*\*

051208RL Mon May 12 19:07:04 2008

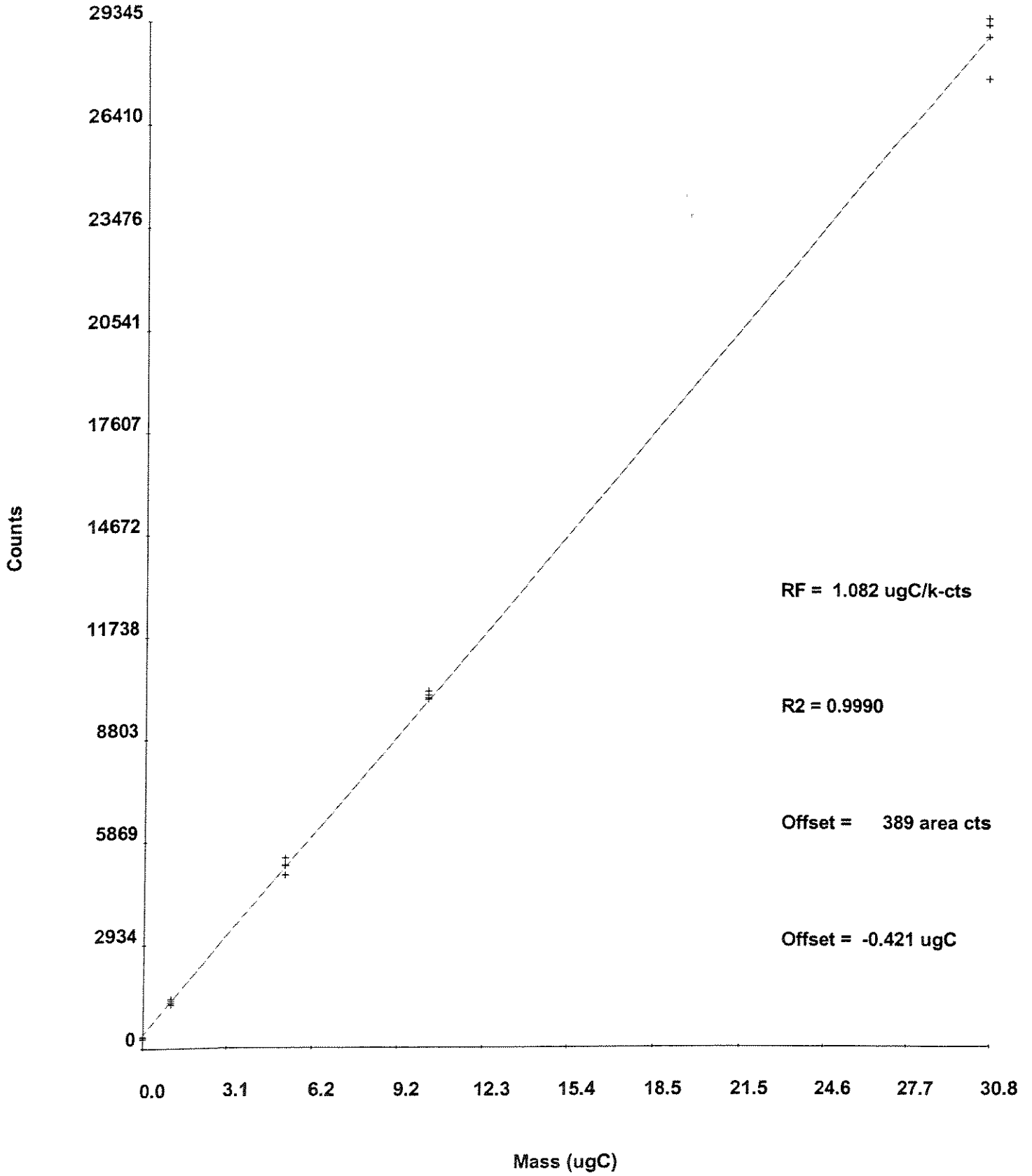
Std. #	Used	Conc. (ppm)	Volume (mL)	RF (ugC/k-cts):	1.082
1	Yes	0.000	1.000	R-Squared:	0.9990
2	Yes	1.000	1.000	Offset (cts):	389
3	Yes	5.000	1.000	Offset (ugC):	-0.421
4	Yes	10.000	1.000	Calibration Mode:	TOC
5	Yes	30.000	1.000	Allow Editing:	No

Rep	Std. 1	Std. 2	Std. 3	Std. 4	Std. 5
1	264	1348	5389	10030	29345
2	332	1244	5162	9910	27624
3	268	1404	4901	10138	28819
4	323	1294	5181	9948	29149
5	-	-	-	-	-
6	-	-	-	-	-
7	-	-	-	-	-
8	-	-	-	-	-
9	-	-	-	-	-
10	-	-	-	-	-

(\* = unused)



Calibration - 051208RL (TOC, 12May2008 19:07)



5/12/08 (A) - TOC High Level Calibration for OI Model 1010

TC

Standards - fresh per calibration

conc. mg/L mls 1000ppm (WC86004E) final vol. w/ UPDI

0.00 0.00 100

1.00 0.10 100

5.00 0.50 100

10.00 1.00 100

30.00 3.00 100

(B) TOC High Level LCS TV = 10.0 mg/L fresh per run  
1.0 mL 1000 ppm Std Stock (WC86004E) diluted  
volumetrically to 100 mls w/ UPDI.

(C) TOC High Level MS TV = 10.0 mg/L

Add 0.42 mL 1000 ppm Std. Stock (WC85004E)  
to 42 mls sample in vial.

(D) TOC High Level ICV/CCV TV = 20.0 mg/L fresh per run  
4.0 mls 1000 ppm Ref. Stock (WC86005A) diluted  
to 200 mls volumetrically w/ UPDI.

Continued on Page

Read and Understood By

Signed

Date

Signed

Date

PROJECT \_\_\_\_\_

TC 5/18/08

5/18/08 (A) TOC Reference Standard Stock (1000ppm)  
TC (3910) same as WC86004E, except using KHP (WC76085F).  
Exp 1 yr, 5/18/09.

5/12/08 TOC low Level Calibration for OI model 1010

(B) Standards - flush per calibration

5/12/08 Conc. (mg/L)	mils 1000ppm Std (WC86004E)	Final vol. w/ LPDI
0.00	0	100
0.05	10mils of 0.50 Std	↓
0.10	10mils of 1.00 Std	
0.50	0.05	
1.00	0.100	

(C) TOC low Level LCS TV=0.25ppm

Flush per run

- 0.025mils 1000ppm Std Stock (WC86004E) diluted volumetrically to 100mils w/ LPDI

(D) TOC 100ppm working Stock

4.20mils 1000ppm Std Stock (WC86004E) → 42mils in vial w/ LPDI

(E) TOC low Level mls TV=0.25ppm

Add 0.105 <sup>TC 5/12/08 100</sup> mL ~~1000~~ ppm working Stock (WC86005D) to 42mils sample in vial

(F) ICV/CCV low Level TV=0.15ppm

0.150mils 1000ppm Ref Stock (WC86005A) dilute volumetrically to 20mils and understand by w/ LPDI. flush per run

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Signed \_\_\_\_\_

Date \_\_\_\_\_

Signed \_\_\_\_\_

Date \_\_\_\_\_

4-11-08  $\Delta$ id purge solution + septum on purger.  
cmw/sd

5-2-08 Removed + cleaned combustion + sample  
cmw tubes. New combustion tube was installed.

Ⓐ TOC Calibration Standards by Lloyd Kahn

Conc (ug/g)	<u>UL 10000ppm Std. Stock (WC86001A)</u>
8000	80.0
5000	50.0
3000	30.0
1000	<u>UL 1000ppm Std. Stock (WC86001D)</u> 100.0
500	50.0
300	30.0

Ⓑ ICV/CCV - Same as WC86001E.

Ⓒ LCS - Same as WC86001F

Ⓓ Matrix Spike - Same as WC86002A

5/8/08 Ⓔ TOC Standard Stock (1000ppm)

TC (3969) 2.128g KHP (WC85076G), previously dried @ 104°C  
for 2 hours, → 1000 mls w/ UPDI. Store @  
RT in amber glass. exp. 1 yr., 5/8/09

Continued on Page \_\_\_\_\_

Read and Understood By \_\_\_\_\_

Signed \_\_\_\_\_

Date \_\_\_\_\_

Signed \_\_\_\_\_

Date \_\_\_\_\_

R44650  
 R44768  
 R44797  
 R44803  
 4 copies

TYPE	SUBMISSION	ORDER #	MATRIX	REPORTED	DILUTION	PQL	% RECOVERY	% RSD	DATE	QC	PKG #
				RESULT					ANALYZED		
CHK1		1115803	WATER	1.49	1.0	0.0500	99.4		07/09/2008		
BLK1		1115804	WATER	0.0500	U	1.0	0.0500		07/09/2008		
BLK2		1115805	WATER	0.0500	U	1.0	0.0500		07/09/2008		
SPKB		1115806	WATER	0.784		1.0	0.0500	97.9	07/09/2008		
BLK2		1115807	WATER	0.0500	U	1.0	0.0500		07/09/2008		
SPKB		1115808	WATER	0.782		1.0	0.0500	97.8	07/09/2008		
ESMP	R2844650	1112809	WATER	0.0579		1.0	0.0500		07/09/2008		ASPB
ESMP	R2844650	1112810	WATER	0.0500	U	1.0	0.0500		07/09/2008		ASPB
ESMP	R2844650	1112811	WATER	0.0500	U	1.0	0.0500		07/09/2008		ASPB
ESMP	R2844650	1112812	WATER	0.0500	U	1.0	0.0500		07/09/2008		ASPB
ESMP	R2844650	1112871	WATER	0.0500	U	1.0	0.0500		07/09/2008		ASPB
ESMP	R2844650	1112872	WATER	0.0500	U	1.0	0.0500		07/09/2008		ASPB
ESMP	R2844650	1112874	WATER	0.0500	U	1.0	0.0500		07/09/2008	QC	ASPB
LDUP		1115811	WATER	0.0500	U	1.0	0.0500		07/09/2008		
SPK1		1115812	WATER	0.798		1.0	0.0500	99.7	07/09/2008		
ESMP	R2844650	1113426	WATER	0.0500	U	1.0	0.0500		07/09/2008		ASPB
ESMP	R2844650	1113427	WATER	0.0500	U	1.0	0.0500		07/09/2008		ASPB
ESMP	R2844650	1113428	WATER	0.0500	U	1.0	0.0500		07/09/2008		ASPB
ESMP	R2844650	1113429	WATER	0.0500	U	1.0	0.0500		07/09/2008		ASPB
ESMP	R2844650	1113430	WATER	0.0500	U	1.0	0.0500		07/09/2008		ASPB
ESMP	R2844768	1113695	WATER	0.0500	U	1.0	0.0500		07/09/2008		ASPB
ESMP	R2844768	1113696	WATER	0.0500	U	1.0	0.0500		07/09/2008		ASPB
ESMP	R2844768	1113697	WATER	0.0500	U	1.0	0.0500		07/09/2008		ASPB
ESMP	R2844768	1113698	WATER	0.0500	U	1.0	0.0500		07/09/2008		ASPB
ESMP	R2844768	1113699	WATER	0.0500	U	1.0	0.0500		07/09/2008		ASPB
ESMP	R2844207	1105469	WATER	1.52		5.0	0.0500		07/09/2008	QC	2
LDUP		1115813	WATER	1.52		5.0	0.0500	0.32	07/09/2008		
SPK1		1115814	WATER	5.45		5.0	0.0500	98.2	07/09/2008		
ESMP	R2844797	1114366	SOIL/SEDIME	127		1.0	5.00		07/09/2008		ASPB
BLK2		1115809	SOIL/SEDIME	5.00	U	1.0	5.00		07/09/2008		
SPKS		1115810	SOIL/SEDIME	78.1		1.0	5.00	97.7	07/09/2008		
ESMP	R2844797	1114376	SOIL/SEDIME	60.9		1.0	5.00		07/09/2008		ASPB
ESMP	R2844797	1114379	SOIL/SEDIME	863		10.0	5.00		07/09/2008		ASPB
ESMP	R2844797	1114380	SOIL/SEDIME	816		10.0	5.00		07/09/2008	QC	ASPB
LDUP		1115817	SOIL/SEDIME	741		10.0	5.00	9.65	07/09/2008		
SPK1		1115818	SOIL/SEDIME	747		10.0	5.00	-89.7	07/09/2008		
ESMP	R2844797	1114382	SOIL/SEDIME	536		10.0	5.00		07/09/2008		ASPB
ESMP	R2844803	1114419	WATER	0.0500	U	1.0	0.0500		07/09/2008		ASPB
ESMP	R2844803	1114420	WATER	0.0500	U	1.0	0.0500		07/09/2008		ASPB
ESMP	R2844803	1114421	WATER	0.0500	U	1.0	0.0500		07/09/2008	QC	ASPB
LDUP		1115815	WATER	0.0500	U	1.0	0.0500		07/09/2008		
SPK1		1115816	WATER	0.798		1.0	0.0500	99.7	07/09/2008		
ESMP	R2844804	1114423	WATER	0.234		1.0	0.0500		07/09/2008	RUN	2

Records printed: 43

Reviewed & Approved

By: CK

Date: 7/15/08

Columbia Analytical Services  
 1 Mustard Street  
 Rochester, NY 14609

Analyte: TPO4 Digest  
 Analyst: Mary Christ  
 Pipet ID: Robin

Low Level Regular Level  
 Date: 7/3/08  
 Spk Witness: GN

#	Submission #	Order #	Sample Amt (mLs/g)	Dilution	Spk Amount	Comments
1		PB 1 RL	25	20	1	
2		LCS INORG		20	1	0.2 100 PPM
3		LCS ORG		20	1	0.2 100 PPM
4	R-44650	1112809		20	1	
5		1112810		20	1	
6		1112811		20	1	
7		1112812		20	1	
8		1112871		20	1	
9		1112872		20	1	
10		1112874		20	1	
11		874 DUP		20	1	
12		874 SPK		20	1	0.2 100 PPM
13		1113426		20	1	
14		1113427		20	1	
15		1113428		20	1	
16		1113429		20	1	
17		1113430		20	1	
18		1113695		20	1	
19		1113696		20	1	
20		1113697		20	1	
21		1113698		20	1	
22		1113699		20	1	
23	R-44207	1105469	5	4	5	
24		469 DUP	5	4	5	
25		469 SPK	5	4	5	0.2 100 PPM
26	R-44803	1114419	25	20	1	
27		1114420		20	1	
28		PB 2 RL		20	1	
29		LCS INORG		20	1	0.2 100 PPM
30		LCS ORG		20	1	0.2 100 PPM
31		1114421		20	1	
32		421 DUP		20	1	
33		421 SPK		20	1	0.2 100 PPM
34	R-44804	1114423		20	1	
35		PB 3 SOIL	0.25 → 25			
36		LCS INORG	0.25 → 25			0.2 100 PPM
37		LCS ORG	0.25 → 25			0.2 100 PPM
38	R-44797	1114366	0.25 → 25			
39		1114376	0.25 → 25			
40		1114379	0.26 → 25			
41		1114380	0.26 → 25			
42		380 DUP	0.26 → 25			
43		380 SPK	0.26 → 25			0.2 100 PPM
44		1114382	0.26 → 25			
45						
46						
47						7/3/08
48						
49						
50						

Creator: NMEAD  
 Creation Date: Jul 8, 2008 14:04:30  
 Last Modified: Jul 9, 2008 9:17:49  
 Description: QC 8000 365.1 TPO4 - RUN LOG - TPO4B 0807090A

Cup #	Sample ID	Manual Dilution	Sample Type	
1	Standard A - 2.00	1.0000	CalStd	
2	Standard B - 1.00	1.0000	CalStd	
3	Standard C - 0.50	1.0000	CalStd	
4	Standard D - 0.20	1.0000	CalStd	
5	Standard E - 0.10	1.0000	CalStd	
6	Standard F - 0.05	1.0000	CalStd	
7	Standard G - 0.02	1.0000	CalStd	
8	Standard H - 0.00	1.0000	CalStd	
1	ICV TV = 1.5	1.0000	Unknown	
2	ICB	1.0000	Unknown	
3	PB-1	1.0000	Unknown	
4	LCS-1 INORG. TV = 0.8	1.0000	Unknown	
5	LCS-1 ORG. TV = 0.8	1.0000	Unknown	
6	PB-2	1.0000	Unknown	
7	LCS-2 INORG.	1.0000	Unknown	
8	LCS-2 ORG.	1.0000	Unknown	
9	PB-SOIL	1.0000	Unknown	
10	LCS-SOIL INORG. TV = 80	1.0000	Unknown	Bad integration - pt #5 soil: 0.25g → 25ml
11	LCS-SOIL ORG. TV = 80	1.0000	Unknown	↓ ↓ ↓
12	CCV	1.0000	Unknown	
13	CCB	1.0000	Unknown	
14	CRDL - 0.10	1.0000	Unknown	
15	CRDL - 0.05	1.0000	Unknown	
16	1112809-44650	1.0000	Unknown	
17	1112810	1.0000	Unknown	
18	1112811	1.0000	Unknown	
19	1112812	1.0000	Unknown	
20	1112871	1.0000	Unknown	
21	1112872	1.0000	Unknown	
22	1112874	1.0000	Unknown	
23	874 DUP	1.0000	Unknown	
24	CCV	1.0000	Unknown	
25	CCB	1.0000	Unknown	
26	874 SPK TV = 0.80	1.0000	Unknown	
27	1113426	1.0000	Unknown	
28	1113427	1.0000	Unknown	
29	1113428	1.0000	Unknown	
30	1113429	1.0000	Unknown	
31	1113430	1.0000	Unknown	
32	1113695	1.0000	Unknown	

Cup #	Sample ID	Manual Dilution	Sample Type	
33	1113696	1.0000	Unknown	
34	1113697	1.0000	Unknown	
35	1113698	1.0000	Unknown	
36	CCV	1.0000	Unknown	
37	CCB	1.0000	Unknown	tray ends here -
38	1113699	1.0000	Unknown	next CCB has
39	1105469-44207	5.0000	Unknown	air spikes
40	469 DUP	5.0000	Unknown	
41	469 SPK TV = 4.0	5.0000	Unknown	
42	1114419-44803	1.0000	Unknown	
43	1114420	1.0000	Unknown	
44	1114421	1.0000	Unknown	
45	421 DUP	1.0000	Unknown	
46	421 SPK TV = 0.8	1.0000	Unknown	
47	1114423-44804	1.0000	Unknown	
48	CCV	1.0000	Unknown	
49	CCB	1.0000	Unknown	- air spikes - rpt tray
50	1114366S-44797	10.0000	Unknown	from # 36
51	1114376S	10.0000	Unknown	
52	1114379S	10.0000	Unknown	
53	1114380S	10.0000	Unknown	
54	380S DUP	10.0000	Unknown	
55	380S SPK TV = 76.9	10.0000	Unknown	
56	1114382S	10.0000	Unknown	
57	PB-SOIL RPT	1.0000	Unknown	
58	CCV	1.0000	Unknown	
59	CCB	1.0000	Unknown	



Creator: NMEAD  
 Creation Date: Jul 9, 2008 9:33:56  
 Last Modified: Jul 9, 2008 9:51:01  
 Description: QC 8000 365.1 TPO4 - RUN LOG - TPO4B 080709A2

Cup #	Sample ID	Manual Dilution	Sample Type	
36	CCV	1.0000	Unknown	
37	CCB	1.0000	Unknown	
38	1113699	1.0000	Unknown	
39	1105469-44207	5.0000	Unknown	
40	469 DUP	5.0000	Unknown	
41	469 SPK TV = 4.0	5.0000	Unknown	
42	1114419-44803	1.0000	Unknown	
43	1114420	1.0000	Unknown	
44	1114421	1.0000	Unknown	
45	421 DUP	1.0000	Unknown	
46	421 SPK TV = 0.8	1.0000	Unknown	
47	1114423-44804	1.0000	Unknown	
48	CCV	1.0000	Unknown	
49	CCB	1.0000	Unknown	
50	1114366S-44797	1.0000	Unknown	soil: 0.25g → 25mL
51	1114376S	1.0000	Unknown	- air spike - rpt @ # 58
52	1114379S	10.0000	Unknown	soil: 0.26g → 25mL
53	1114380S	10.0000	Unknown	0.26g →
54	380S DUP	10.0000	Unknown	0.26g →
55	380S SPK TV = 76.9	10.0000	Unknown	0.26g →
56	1114382S	10.0000	Unknown	0.26g →
57	PB-SOIL RPT	1.0000	Unknown	0.25g →
58	1114376S RPT	1.0000	Unknown	0.25g →
59	CCV	1.0000	Unknown	
60	CCB	1.0000	Unknown	- air spike - L PQL

OPERATOR: NMEAD  
 ACQ. TIME: Jul 9, 2008 8:55:50  
 DATA FILENAME: C:\OMNION\DATA\080709A1.FDT  
 TRAY FILENAME: C:\OMNION\TRAYS\0807090A.TRA

Multi-Channel Table  
 Type: Unknowns  
 Channel Range: 1 to 8 -- Cup Range: 1 to 25

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	QC 8000 365.1 Total Phosphorus (mg/L)	Man Dil Factor	Auto Dil Factor
1	ICV TV= 1.5	09 Jul 2008	08:55:53	1	1.4904	1.0	1.00
2	ICB	09 Jul 2008	08:56:36	1	0.0058	1.0	1.00
3	PB-1	09 Jul 2008	08:57:20	1	0.0058	1.0	1.00
4	LCS-1 INORG. TV= 0.8	09 Jul 2008	08:58:04	1	0.7835	1.0	1.00
5	LCS-1 ORG. TV= 0.8	09 Jul 2008	08:58:47	1	0.8305	1.0	1.00
6	PB-2	09 Jul 2008	08:59:30	1	0.0058	1.0	1.00
7	LCS-2 INORG.	09 Jul 2008	09:00:12	1	0.7820	1.0	1.00
8	LCS-2 ORG.	09 Jul 2008	09:00:55	1	0.8567	1.0	1.00
9	PB-SOIL	09 Jul 2008	09:01:37	1	0.0075	1.0	1.00
10	LCS-SOIL INORG. TV= 80	09 Jul 2008	09:02:20	1	0.7812	1.0	1.00
11	LCS-SOIL ORG. TV= 80	09 Jul 2008	09:03:02	1	0.8494	1.0	1.00
12	CCV	09 Jul 2008	09:03:45	1	1.5017	1.0	1.00
13	CCB	09 Jul 2008	09:04:26	1	0.0058	1.0	1.00
14	CRDL - 0.10	09 Jul 2008	09:05:08	1	0.1001	1.0	1.00
15	CRDL - 0.05	09 Jul 2008	09:05:49	1	0.0533	1.0	1.00
16	1112809-44650	09 Jul 2008	09:06:33	1	0.0579	1.0	1.00
17	1112810	09 Jul 2008	09:07:17	1	0.0269	1.0	1.00
18	1112811	09 Jul 2008	09:08:00	1	0.0331	1.0	1.00
19	1112812	09 Jul 2008	09:08:44	1	0.0131	1.0	1.00
20	1112871	09 Jul 2008	09:09:28	1	0.0207	1.0	1.00
21	1112872	09 Jul 2008	09:10:11	1	0.0209	1.0	1.00
22	1112874	09 Jul 2008	09:10:54	1	0.0284	1.0	1.00
23	874 DUP	09 Jul 2008	09:11:36	1	0.0267	1.0	1.00
24	CCV	09 Jul 2008	09:12:19	1	1.4757	1.0	1.00
25	CCB	09 Jul 2008	09:13:02	1	0.0058	1.0	1.00

*-Bad integration - rpt @ #57  
 = 78.12  
 = 84.94*

*all  
 59.94*

OPERATOR:  
ACQ. TIME:  
DATA FILENAME:  
TRAY FILENAME:

NMEAD  
Jul 9, 2008 8:55:50  
C:\OMNION\DATA\080709A1.FDT  
C:\OMNION\TRAYS\0807090A.TRA

Multi-Channel Table  
Type: Unknowns  
Channel Range: 1 to 8 -- Cup Range: 26 to 50

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	QC 8000 365.1 Total Phosphorus (mg/L)	Man Dil Factor	Auto Dil Factor
26	874 SPK TV= 0.80	09 Jul 2008	09:13:44	1	0.7977	1.0	1.00
27	1113426	09 Jul 2008	09:14:27	1	0.0221	1.0	1.00
28	1113427	09 Jul 2008	09:15:09	1	0.0203	1.0	1.00
29	1113428	09 Jul 2008	09:15:52	1	0.0202	1.0	1.00
30	1113429	09 Jul 2008	09:16:33	1	0.0251	1.0	1.00
31	1113430	09 Jul 2008	09:17:17	1	0.0236	1.0	1.00
32	1113695	09 Jul 2008	09:18:01	1	0.0200	1.0	1.00
33	1113696	09 Jul 2008	09:18:44	1	0.0431	1.0	1.00
34	1113697	09 Jul 2008	09:19:28	1	0.0151	1.0	1.00
35	1113698	09 Jul 2008	09:20:11	1	0.0142	1.0	1.00
36	CCV	09 Jul 2008	09:20:55	1	1.4862	1.0	1.00
37	CCB	09 Jul 2008	09:21:38	1	0.0058	1.0	1.00
38	1113699	09 Jul 2008	09:22:22	1	0.0155	1.0	1.00
39	1105469-44207	09 Jul 2008	09:23:04	1	1.5361	5.0	1.00
40	469 DUP	09 Jul 2008	09:23:47	1	1.5140	5.0	1.00
41	469 SPK TV= 4.0	09 Jul 2008	09:24:30	1	5.4911	5.0	1.00
42	1114419-44803	09 Jul 2008	09:25:12	1	0.0247	1.0	1.00
43	1114420	09 Jul 2008	09:25:55	1	0.0249	1.0	1.00
44	1114421	09 Jul 2008	09:26:37	1	0.0254	1.0	1.00
45	421 DUP	09 Jul 2008	09:27:20	1	0.0258	1.0	1.00
46	421 SPK TV= 0.8	09 Jul 2008	09:28:03	1	0.7984	1.0	1.00
47	1114423-44804	09 Jul 2008	09:28:47	1	0.2330	1.0	1.00
48	CCV	09 Jul 2008	09:29:31	1	1.4920	1.0	1.00
49	CCB	09 Jul 2008	09:30:14	1	0.0101	1.0	1.00
50	1114366S-44797	09 Jul 2008	09:30:58	1	1.2933	10.0	1.00

peak shape sine  
less than ppl - peak sh

tray ends here -  
next CCB has air

nm  
7/9/08

air spikes - re-run  
tray from # 36

OPERATOR: NMEAD  
ACQ. TIME: Jul 9, 2008 8:55:50  
DATA FILENAME: C:\OMNION\DATA\080709A1.FDT  
TRAY FILENAME: C:\OMNION\TRAYS\0807090A.TRA

Multi-Channel Table  
Type: Unknowns  
Channel Range: 1 to 8 -- Cup Range: 51 to 75

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	QC 8000 365.1 Total Phosphorus (mg/L)	Man Dil Factor	Auto Dil Factor
51	1114376S	09 Jul 2008	09:31:41	1	0.6658	10.0	1.00

*nm 7/9/08*

OPERATOR: NMEAD  
 ACQ. TIME: Jul 9, 2008 9:34:15  
 DATA FILENAME: C:\OMNION\DATA\080709A2.FDT  
 TRAY FILENAME: C:\OMNION\TRAYS\080709A2.TRA

Multi-Channel Table  
 Type: Unknowns  
 Channel Range: 1 to 8 -- Cup Range: 26 to 50

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	QC 8000 365.1 Total Phosphorus (mg/L)	Man Dil Factor	Auto Dil Factor
36	CCV	09 Jul 2008	09:34:18	1	1.5001	1.0	1.00
37	CCB	09 Jul 2008	09:35:01	1	0.0058	1.0	1.00
38	1113699	09 Jul 2008	09:35:44	1	0.0142	1.0	1.00
39	1105469-44207	09 Jul 2008	09:36:26	1	1.5250	5.0	1.00
40	469 DUP	09 Jul 2008	09:37:09	1	1.5152	5.0	1.00
41	469 SPK TV= 4.0	09 Jul 2008	09:37:51	1	5.4475	5.0	1.00
42	1114419-44803	09 Jul 2008	09:38:34	1	0.0237	1.0	1.00
43	1114420	09 Jul 2008	09:39:16	1	0.0245	1.0	1.00
44	1114421	09 Jul 2008	09:39:59	1	0.0255	1.0	1.00
45	421 DUP	09 Jul 2008	09:40:41	1	0.0256	1.0	1.00
46	421 SPK TV= 0.8	09 Jul 2008	09:41:25	1	0.7978	1.0	1.00
47	1114423-44804	09 Jul 2008	09:42:09	1	0.2340	1.0	1.00
48	CCV	09 Jul 2008	09:42:52	1	1.5039	1.0	1.00
49	CCB	09 Jul 2008	09:43:36	1	0.0058	1.0	1.00
50	1114366S-44797	09 Jul 2008	09:44:20	1	1.2729	1.0	1.00 = 127.29

} include 1/5 dil. @ digest

oil!  
25g → 50 mL

OPERATOR:  
 ACQ. TIME:  
 DATA FILENAME:  
 TRAY FILENAME:

NMEAD  
 Jul 9, 2008 9:34:15  
 C:\OMNION\DATA\080709A2.FDT  
 C:\OMNION\TRAYS\080709A2.TRA

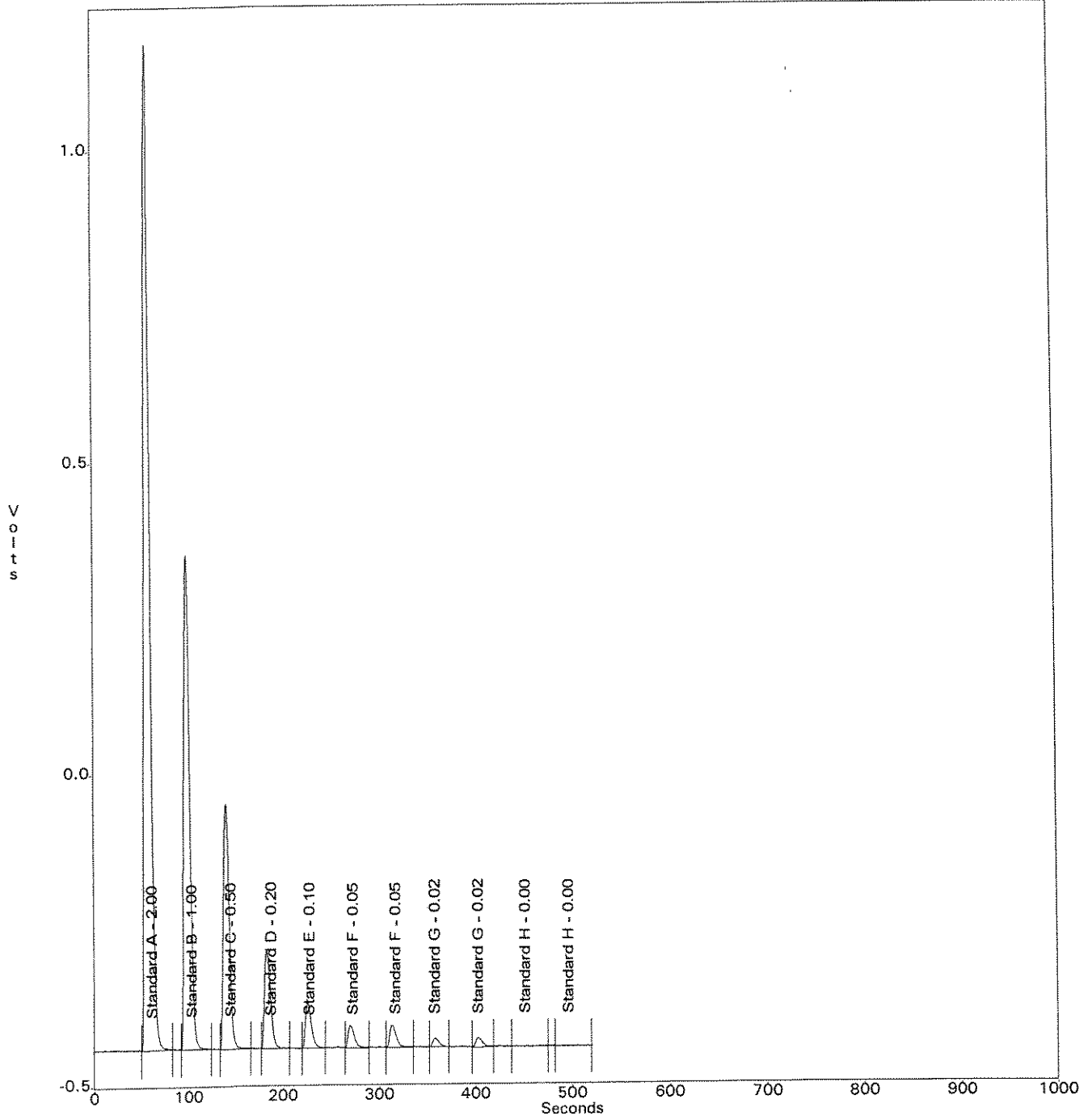
Multi-Channel Table  
 Type: Unknowns  
 Channel Range: 1 to 8 - Cup Range: 51 to 75

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	QC 8000 365.1 Total Phosphorus (mg/L)	Man Dil Factor	Auto Dil Factor	
51	1114376S	09 Jul 2008	09:45:03	1	0.6580	1.0	1.00	- air spike - rpt @ # 58
52	1114379S	09 Jul 2008	09:45:47	1	8.9795	10.0	1.00	= 863.41
53	1114380S	09 Jul 2008	09:46:30	1	8.4925	10.0	1.00	= 816.59
54	380S DUP	09 Jul 2008	09:47:13	1	7.7051	10.0	1.00	= 740.88
55	380S SPK TV= 76.9	09 Jul 2008	09:47:56	1	7.7693	10.0	1.00	= 747.05
56	1114382S	09 Jul 2008	09:48:38	1	5.5737	10.0	1.00	= 535.93
57	PB-SOIL RPT	09 Jul 2008	09:49:21	1	0.0164	1.0	1.00	= 25.00 - okay
58	1114376S RPT	09 Jul 2008	09:50:03	1	0.6086	1.0	1.00	= 60.86
59	CCV	09 Jul 2008	09:50:46	1	1.4971	1.0	1.00	
60	CCB	09 Jul 2008	09:51:28	1	0.0058	1.0	1.00	Small air - less than ppt

OPERATOR:  
ACQ. TIME:  
DATA FILENAME:  
TRAY FILENAME:

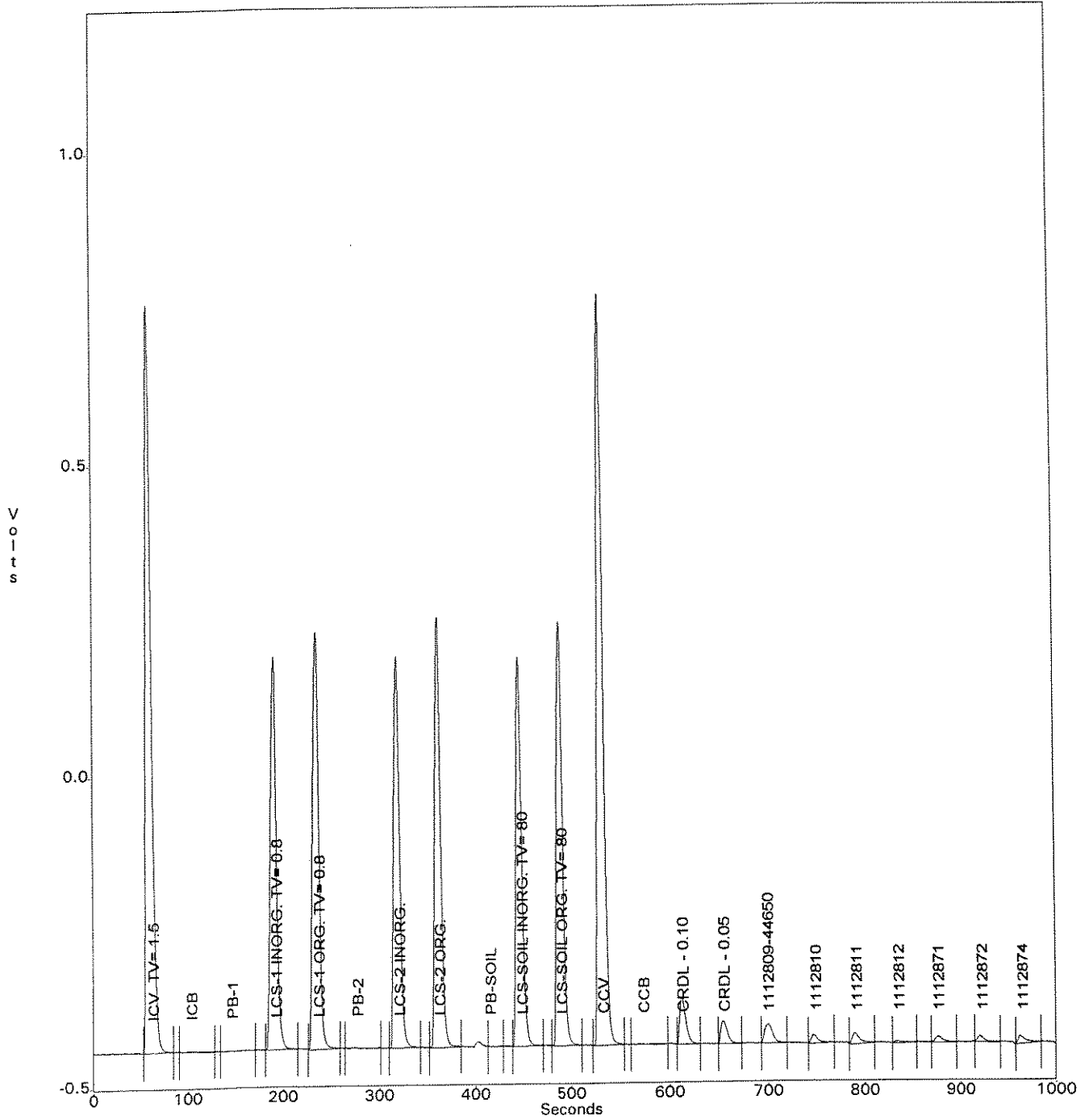
NMEAD  
Jul 9, 2008 8:43:02  
C:\OMNION\DATA\0807090A.FDT  
C:\OMNION\TRAYS\0807090A.TRA

Channel 1 - QC 8000 365.1 Total Phosphorus



OPERATOR: NMEAD  
ACQ. TIME: Jul 9, 2008 8:55:50  
DATA FILENAME: C:\OMNION\DATA\080709A1.FDT  
TRAY FILENAME: C:\OMNION\TRAYS\0807090A.TRA

Channel 1 - QC 8000 365.1 Total Phosphorus

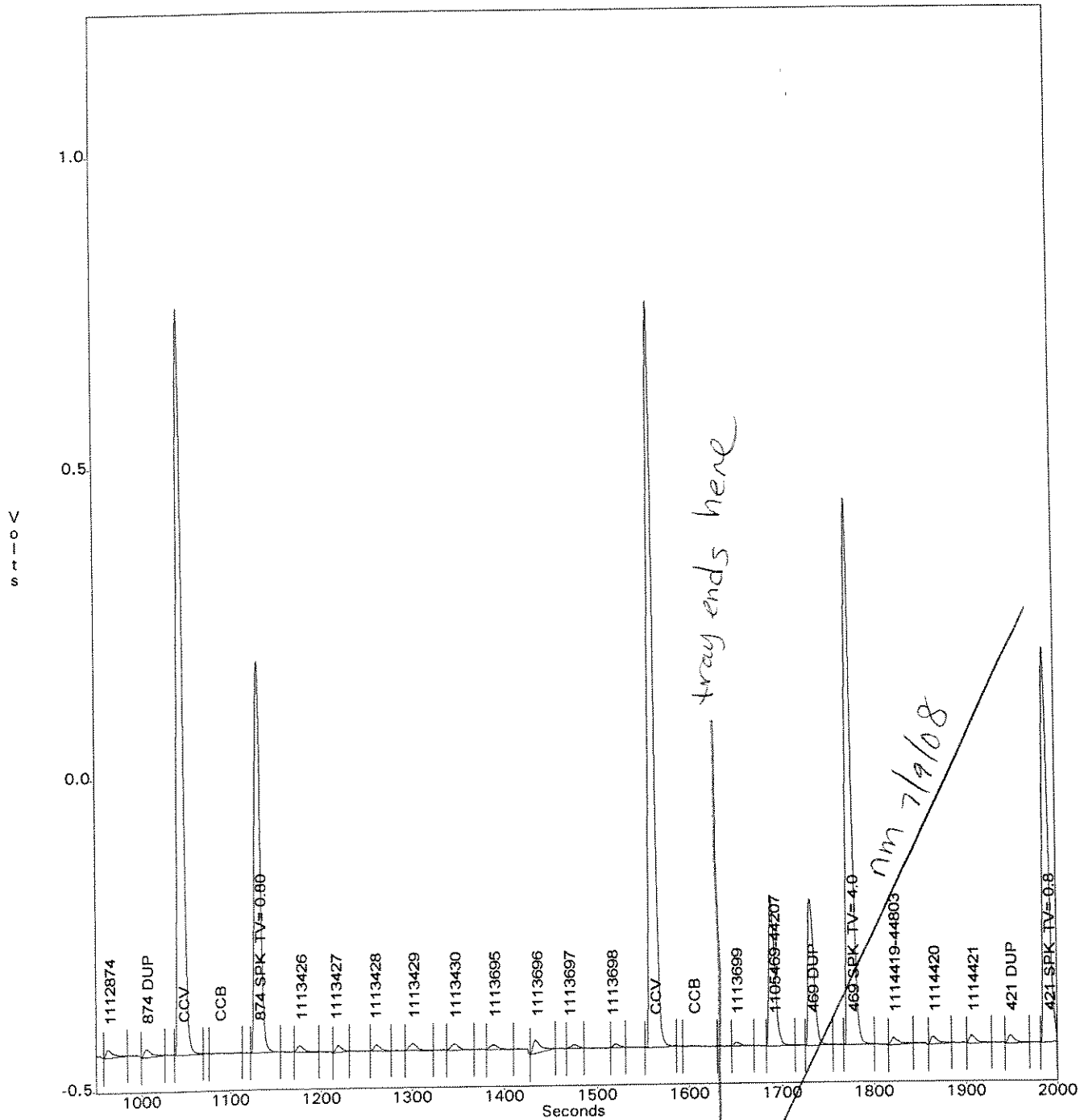




OPERATOR:  
ACQ. TIME:  
DATA FILENAME:  
TRAY FILENAME:

NMEAD  
Jul 9, 2008 8:55:50  
C:\OMNION\DATA\080709A1.FDT  
C:\OMNION\TRAYS\0807090A.TRA

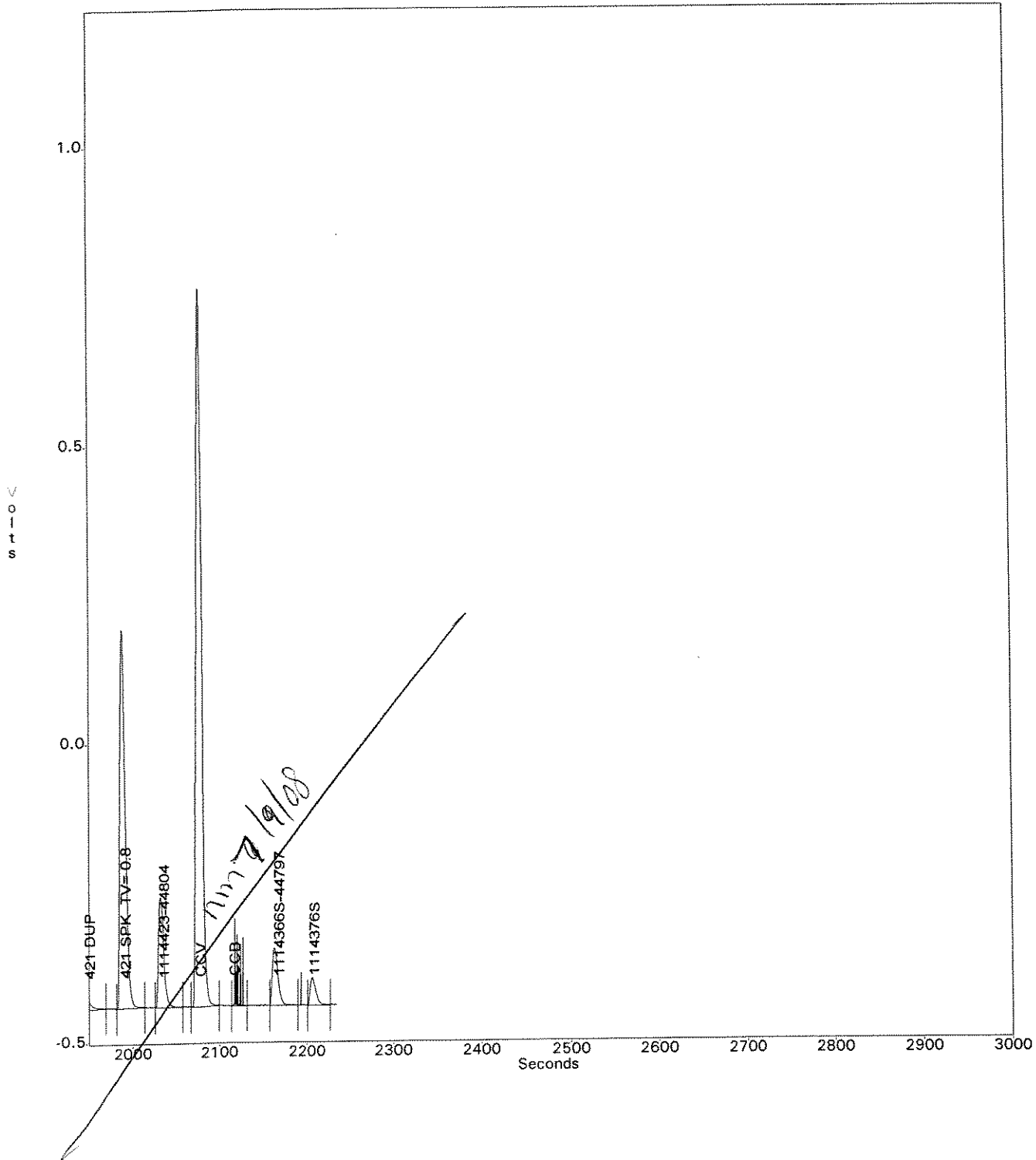
Channel 1 - QC 8000 365.1 Total Phosphorus



OPERATOR:  
ACQ. TIME:  
DATA FILENAME:  
TRAY FILENAME:

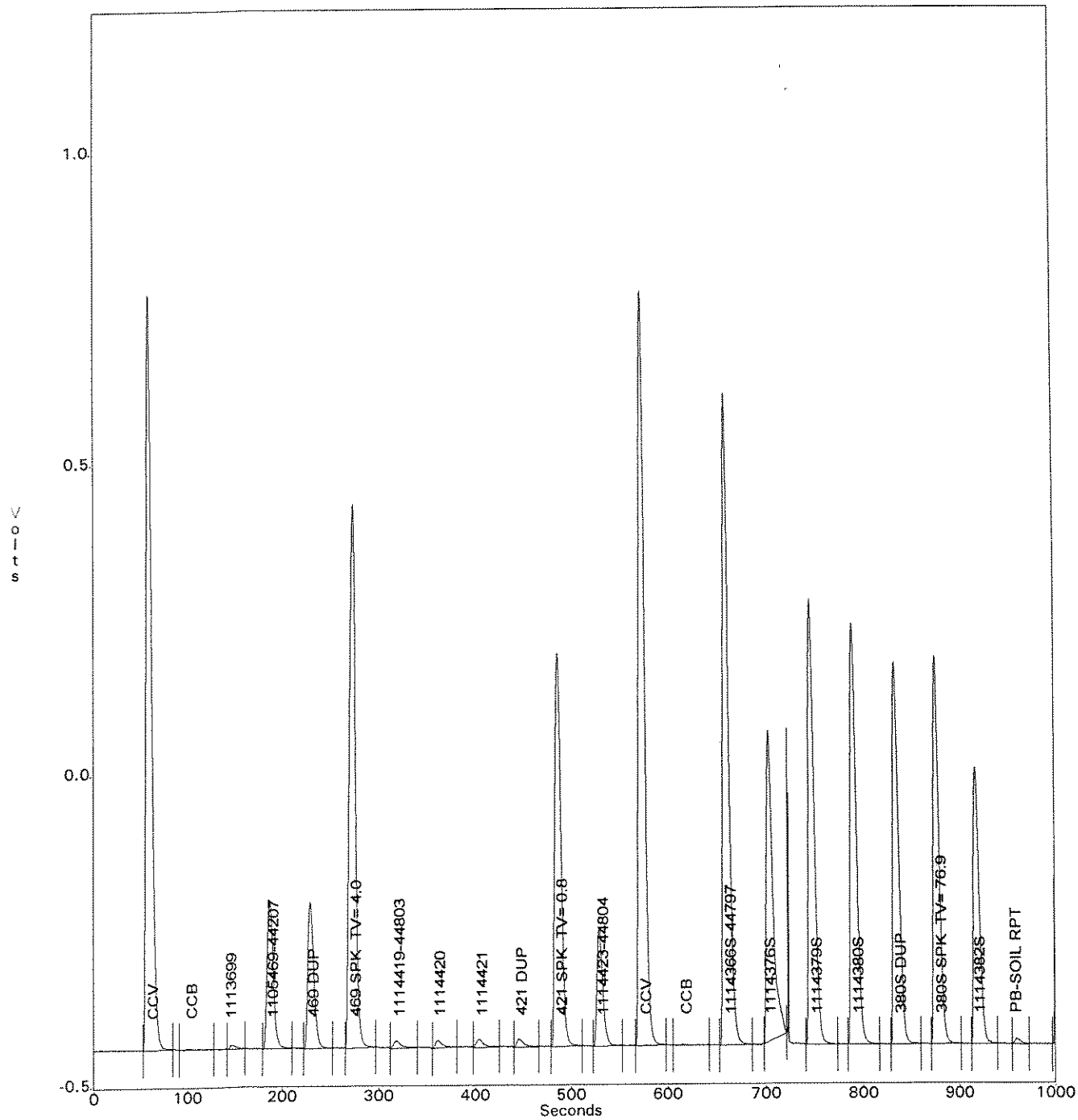
NMEAD  
Jul 9, 2008 8:55:50  
C:\OMNION\DATA\080709A1.FDT  
C:\OMNION\TRAYS\0807090A.TRA

Channel 1 - QC 8000 365.1 Total Phosphorus



OPERATOR: NMEAD  
ACQ. TIME: Jul 9, 2008 9:34:15  
DATA FILENAME: C:\OMNION\DATA\080709A2.FDT  
TRAY FILENAME: C:\OMNION\TRAYS\080709A2.TRA

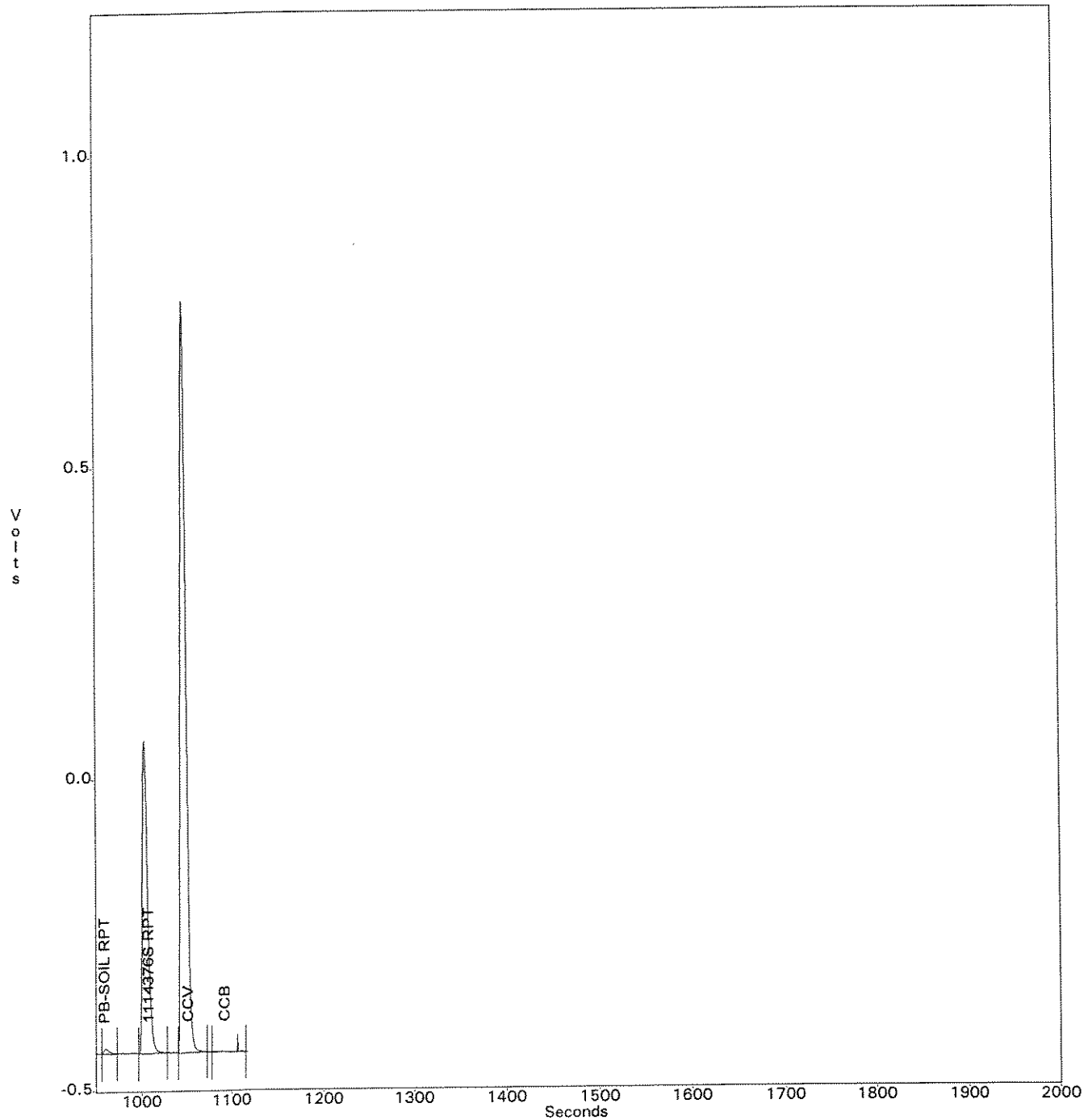
Channel 1 - QC 8000 365.1 Total Phosphorus



OPERATOR:  
ACQ. TIME:  
DATA FILENAME:  
TRAY FILENAME:

NMEAD  
Jul 9, 2008 9:34:15  
C:\OMNION\DATA\080709A2.FDT  
C:\OMNION\TRAYS\080709A2.TRA

Channel 1 - QC 8000 365.1 Total Phosphorus



OPERATOR: NMEAD  
ACQ. TIME: Jul 9, 2008 8:43:02  
DATA FILENAME: C:\OMNION\DATA\0807090A.FDT  
METHOD FILENAME: C:\OMNION\METHODS\TPO4B.MET  
TRAY FILENAME: C:\OMNION\TRAYS\0807090A.TRA

TRAY DESCRIPTION:  
Created: Jul 8, 2008 14:04:30  
Modified: Jul 9, 2008 7:48:03  
QC 8000 365.1 TPO4 - RUN LOG - TPO4B 0807090A  
DATA DESCRIPTION:  
Created: Jul 9, 2008 8:43:02  
Modified: Jul 9, 2008 8:43:02

Method - Ch. 1 (QC 8000 365.1 Total Phosphorus)

METHOD DESCRIPTION:  
Created: Feb 25, 2008 14:38:43  
Modified: Jul 2, 2008 10:24:29  
Total Phosphorus - 2.00 -- 0.05

ANALYTE DATA:  
Analyte Name: QC 8000 365.1 Total Phosphorus  
Concentration Units: mg/L  
Chemistry: Direct  
Inject to Peak Start (s): 13.0  
Peak Base Width (s): 16.961  
% Width Tolerance: 60.000  
Threshold: 6416.000  
Autodilution Trigger: Off  
QuikChem Method: 10-115-01-1-E

CALIBRATION DATA:  
Levels:  
1 : 2.000    2 : 1.000    3 : 0.500    4 : 0.200  
5 : 0.100    6 : 0.050    7 : 0.020    8 : 0.000

Calibration Rep Handling: Average  
Calibration Fit Type: 1st Order Poly  
Force Though Zero: No  
Weighting Method: None  
Concentration Scaling: None

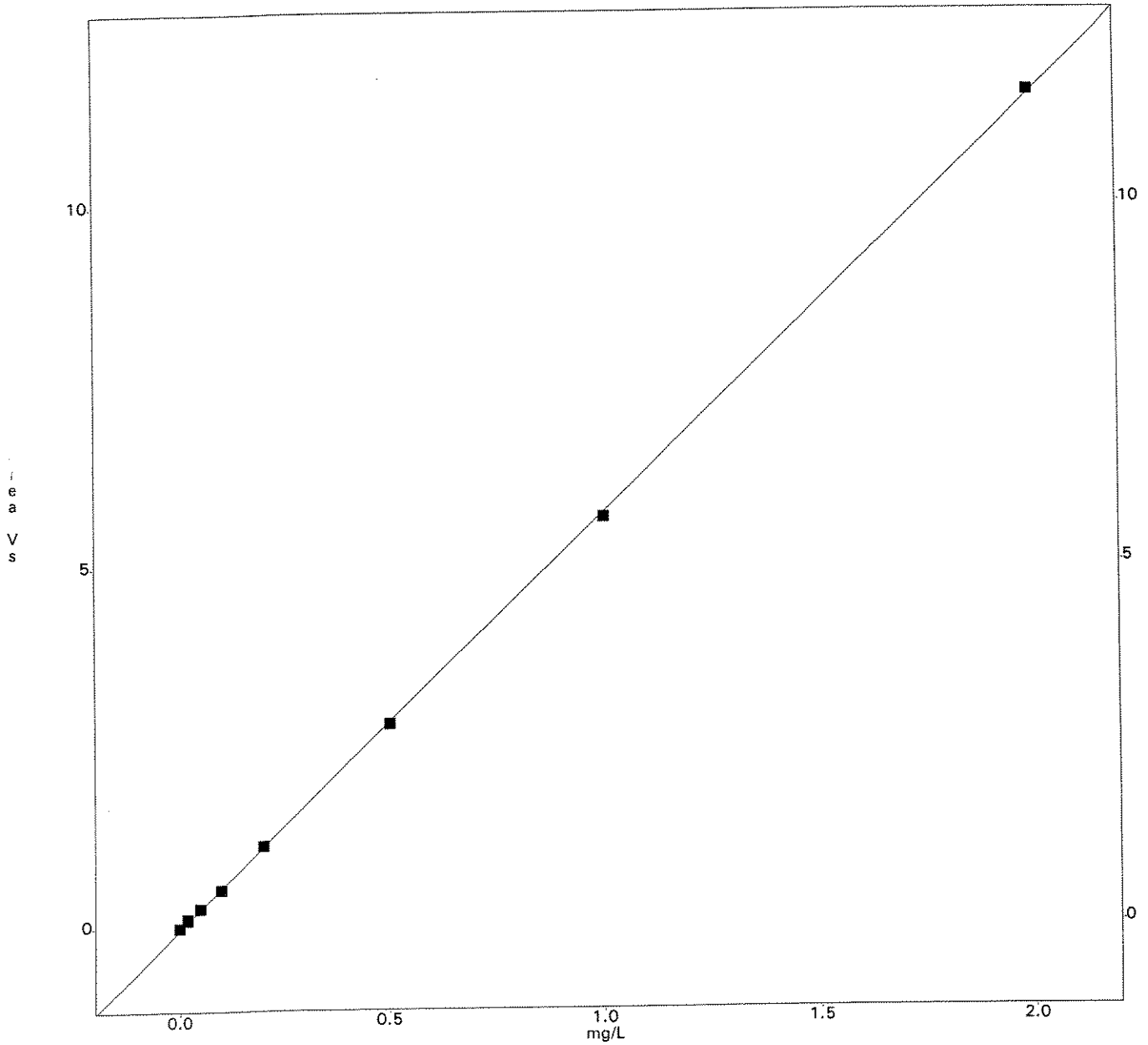
QC 8000 365.1 Total Phosphorus

Lvl	Area	mg/L	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Replic STD	Replic % RSD	Residual 1st Poly
1	11535703	2.00	11535703					0.0	0.0	-0.4
2	5652370	1.00	5652370					0.0	0.0	1.3
3	2802146	0.50	2802146					0.0	0.0	1.6
4	1128787	0.20	1128787					0.0	0.0	-0.8
5	526371	0.10	526371					0.0	0.0	2.9
6	270098	0.05	269782	270414				446.9	0.2	-5.3
7	113813	0.02	123806	103820				14132.2	12.4	-27.6
8	0	0.00	0	0				0.0	0.0	

1st Order Poly  
 Conc =  $1.736e-007$  Area +  $5.762e-003$   
 r = 0.9999

*pipette ID: TY*

Scaling: None - Weighting: None



Printed: Wednesday, July 09, 2008 - 08:51 AM



2/22/08 RP (A) 0.0250N  $\text{Na}_2\text{S}_2\text{O}_3$  - SulAdes

Dilute 50mLs 0.1N  $\text{Na}_2\text{S}_2\text{O}_3$  (WC85067D) to 200mLs volumetrically w/ DI. Store for 2 weeks at 4°C. Exp. 3/11/08

2/25/08 TC <sup>TC 2/26/08</sup> (B)  $\text{TPO}_4$  Reg. Level Calibration for GC8000

TC (B) make a  $10^4$  ppm Standard Working Stock by preparing two serial dilutions of the 1000 ppm  $\text{TPO}_4$  Standard Stock (WC720001T)

(C) Cal. Standards - fresh per run

Std	Std Conc. (mg/L)	mLs of 10ppm working Stock (WC720001T)	mLs <del>of</del> <sup>TC 2/26/08</sup> Carrier/Diluent
A	2.00	2.0	8.0
B	1.00	1.0	9.0
C	<del>0.50</del> 0.50	0.50	9.5
D	0.20	% dilution of Std A	
E	0.10	% dilution of Std B	
F	0.050	% dilution of Std C	
G	0.020	% dilution of Std D.	
H	0.000	use Carrier/Diluent only	

(D) ~~ICV/ICV~~ <sup>TC 2/25/08</sup> TV=1.50

Add

(D) make a 10ppm Reference Working Stock by preparing two serial dilutions of the 1000ppm  $\text{TPO}_4$  Reference Stock (WC850114F)

(E) <sup>TPO4</sup> ICV/CCV TV=1.50

Add 1.50 mLs of the 10ppm Reference Working Stock (WC850114F) to 8.5mLs Carrier/Diluent. Fresh per run.

(F) <sup>Inorganic/Organic</sup>  $\text{TPO}_4$  - RL LCS/MS TV=0.80 ppm

To 25 mLs sample of LIPDI add 0.20 mLs of 10ppm Standard Stock (prepared by making a % dilution of the 1000ppm Standard Stock) (WC720001T)  
 organic LCS is prepared from 100ppm Organic Standard (WC550514)



ted volumetrically  
bottle. @ 4°C

10/9/07  
NM

(A) NH<sub>3</sub> Carrier/Diluent  
- same as WC85035A. Prepared solution x 3.



(B) Hypochlorite - NH<sub>3</sub> - To a tared 1-L amber jar add  
- 350 mLs Sodium Hypochlorite (WC85047B)  
- 350 mLs UPDI  
Prepare fresh each run.

1/2 add  
cell.

10/10/07  
TC

(C) TKN Digest Reagent  
- To a 2 liter vol. flask add:  
- 208.0 g K<sub>2</sub>SO<sub>4</sub> (WC85037A)  
- 14.6 g Copper II Sulfate (WC85040A)  
to ~900 mL UPDI  
Slowly add 268 mL conc. in situ analyzed H<sub>2</sub>SO<sub>4</sub>  
(WC85024E)  
Stir until dissolved. Allow to cool. Exp. 1 month 11/10

10/10/07  
NM

(D) Buffer - NH<sub>3</sub>  
- same as WC85021D. Exp 1 year, 10/9/08.

1g  
B (WC85050E).

10/10/07  
GN

(E) NO<sub>2</sub> Color Reagent - Kowals  
- same as WC85032A. Exp 1 month 11/10/07

to, Cat# ZX0048-1,  
45-6. Stru@RT.

10/10/07  
NM

(F) Post-Digestion Matrix Match - TKN  
To a 2-L vol. flask add 800 mL TKN Digest Reagent  
(WC85051C) and bring to volume w/ UPDI. Mix  
thoroughly. Pour off 100 mL and discard. Bring back  
volume w/ UPDI. mix thoroughly. Store @ RT in  
amber glass. Exp. 11/9/07.

120, Cat# 2533-35,  
WC85017G.



(G) Hypochlorite - TKN  
- same as ~~WC85047~~ WC85049G. Prepare fresh each run.

n.  
CAS# 108-95-2.

10/10/07  
TC

(H) 100ppm Organic Phosphorous Standard - TPO4  
in a 1 liter vol. flask dissolve 0.9885g  
β-Glycero-phosphoric acid, Disodium Salt, 5-Hydrate  
(WC76143D) in DI. Bring to vol. w/ DI. Store in  
amber glass @ 4°C. Exp. 1 yr. 10/10/08.

1) brought  
- fresh

id  
2/07

or (HYPO)

Br)

dried @ 104°C for 1 hr  
11/9/08

the add:

adjust pH  
exp 1 yr. 11/9/08.

stometrically  
at 4°C.

Antititrator Solutions

11/9/08  
0100  
A) 0.100N KIO<sub>3</sub>

In a 2L vol. flask, dissolve 42.8g KIO<sub>3</sub> (WC25067E) and bring to volume with DI. Store at RT. Exp 11/9/08

B) 0.6M KI

In a 1 L vol. flask, dissolve 99.6g KI (WC25046H) and bring to volume with DI. Store at RT. Exp 11/9/08

11/9/07  
TC  
C) Sulfanilamide Color Reagent -TOTN

To a total 1 liter amber bottle add:

- 78g KI
- 15g H<sub>2</sub>O<sub>2</sub> (WC76294E)
- 0.9g <sup>NEO</sup> ~~100%~~ (WC76205H)
- 36.0g Sulfanilamide (WC76161G)

Stir until dissolved. Store at RT. exp. 1 month, 11/9/08.

11/21/07  
TC  
D) TKN Digest Reagent

In a 2 liter vol. flask dissolve:

- 26.8g K<sub>2</sub>S<sub>2</sub>O<sub>8</sub> (WC85066D)
- 14.6g CuSO<sub>4</sub> (WC85040A)
- 268 ml conc. omnitrace H<sub>2</sub>SO<sub>4</sub> (WC85-067G)

in UPPI. Stir until dissolved. Cool and bring to vol. w/ UPPI. Exp. 1 month, 11/21/07.

11/21/07  
RP  
E) TSS Reference

0.2230 g Kaolin (WC69285 G) brought to 1000g w/ DI. Stored at 4°C in a plastic bottle.

N = 223 mg/L exp. 11/12/08

11/21/07  
TC  
F) TPO<sub>4</sub> 1000 ppm Reference Stock

4.394g K<sub>2</sub>HPO<sub>4</sub> (WC85054G) previously dried for 2 hours @ 104°C. Dissolve in ~800 ml DI in a 1 liter vol. flask. Bring to vol. w/ DI. Store in amber glass @ 4°C. for 1 yr. Exp 11/12/08.

11/21/07  
G) Iodate-Iodate Titrant for Sulfites

0.4458g KIO<sub>3</sub> (WC69234F) + 4.25g KI (WC76272E) + 0.310g NaHCO<sub>3</sub> (WC76115E) diluted to 1 L in vol. flask with DI Store at 4°C. exp 11/21/08

**STANDARD STOCK PREP**  
(Fluoride and Bromide are purchased 1000ppm standards)

By: CR / CR / CR  
Date: 5/9/05 / 7/19/06 / 10/16/07

**Chloride 1000ppm Stock:** 1.648g NaCl crystals dried for 2 hrs at 104 . Dissolve in approx. 800mls DI in 1 Liter volumetric flask. Bring to volume with DI water. Store in amber jar @ room temp. for 1 year.

ID Letter	NaCl Source	Analyst	Date Prepared	Date Expires	Final Cl 1000ppm Stock ID
* A	WC69074D	BB	2/23/04	2/23/05	WC72001A
B	WC69074D	BB	2/23/05	2/23/06	WC72001B
C	WC69074D	TC	2/21/06	2/14/07	WC72001C
D	WC76105I	FN	2/5/07	2/5/08	WC72001D
E					

\* Previously WC69084A

**Nitrite 1000ppm Stock:** 6.07g KNO2 previously dried for 2 hrs at 104 . Dissolve in approx. 800mls DI in 1 Liter volumetric flask. Bring to volume with DI water. Store in amber jar @ 4 for 1 year.

ID Letter	KNO2 Source	Analyst	Date Prepared	Date Expires	Final NO2 1000ppm Stock ID
2* F	WC55288D	BB	2/27/04	2/27/05	WC72001F
G	WC69234I	BB	2/23/05	2/23/06	WC72001G
H	WC69234I	TC	2/22/06	2/22/07	WC72001H
I	WC69234I	FN	2/5/07	2/1/08	WC72001I
J	WC85099D	NIM	1/31/08	1/31/09	WC72001J

2\* Previously WC69089A

**Nitrate 1000ppm Stock:** 7.22g KNO3 crystals dried for 2 hrs at 104 . Dissolve in approx. 800mls DI in 1 Liter volumetric flask. Bring to volume with DI water. Transfer to amber jar and add 1.0ml Chloroform. Store in amber jar @ room temp. for 6 months.

ID Letter	KNO3 Source	Chloroform Source ID	Analyst	Date Prepared	Date Expires	Final NO3 1000ppm Stock ID
3* K	WC65173E	WC69078E	BB	8/10/04	2/10/05	WC72001K
L	WC65017E	WC69108E	BB	2/8/05	8/8/05	WC72001L
M	WC65017E	WC69174E	JPM	7/25/05	1/25/06	WC72001M
N	WC65017E	WC69245E	FN	1/23/06	7/23/06	WC72001N
O	WC65017E	WC69245E	FN	4/12/06	10/12/06	WC72001O

3\* Previously WC690163E

**OPO4/TPO4 1000ppm Stock:** 4.394g KH2PO4 dried for 2 hrs at 104 . Dissolve in approx. 800mls DI in 1 Liter volumetric flask. Bring to volume with DI water. Store in amber jar @ 4 for 1 year.

ID Letter	KH2PO4 Source	Analyst	Date Prepared	Date Expires	Final OPO4/TPO4 1000ppm Stock ID
4* P	WC65017D	BB	2/24/04	2/24/05	WC72001P
Q	WC65017D	BB	2/23/05	2/23/06	WC72001Q
R	WC69196E	TC	2/21/06	2/21/07	WC72001R
S	WC69245E	TC	2/23/07	2/23/08	WC72001S
T	WC85085E	RP	2/14/08	2/14/09	WC72001T

4\* Previously WC69085D

**Sulfate 1000ppm Stock:** 1.479g Na2SO4 dried overnight at 104 . Dissolve in approx. 800mls DI in 1 Liter volumetric flask. Bring to volume with DI water. Store in amber jar @ 4 for 1 year.

ID Letter	Na2SO4 Source	Analyst	Date Prepared	Date Expires	Final SO4 1000ppm Stock ID
5* U	WC65168D	BB	2/24/04	2/24/05	WC72001U
V	WC65168D	BB	2/23/05	2/23/06	WC72001V
W	WC66018A	TC	2/22/06	2/22/07	WC72001W
X	WC76015A	FN	2/5/07	2/5/08	WC72001X
Y	WC76153E	NIM	1/31/08	1/31/09	WC72001Y

5\* Previously WC69085A

Run #: 163319

Analyte: TSS SM2540D TOTAL SUSPENDED SOLIDS

Printed: 07/08/08 14:47

TYPE	SUBMISSION	ORDER #	MATRIX	REPORTED	DILUTION	PQL	% RECOVERY	% RSD	DATE	QC	PKG #
				RESULT					ANALYZED		
BLKS		1115411	WATER	-0.300	1.0	1.00			07/02/2008		
SPKB		1115412	WATER	216	1.0	1.00	101.9		07/02/2008		
ESMP	R2843635	1096177	WATER	1140	1.0	1.00			07/02/2008		1
LDUP		1115413	WATER	1110	1.0	1.00		2.84	07/02/2008		
ESMP	R2843635	1096178	WATER	37.2	1.0	1.00			07/02/2008		1
LDUP		1115422	WATER	35.5	1.0	1.00		4.60	07/02/2008		
ESMP	R2843635	1096183	WATER	13.3	1.0	1.00			07/02/2008		1
ESMP	R2844592	1110783	WATER	1.60	1.0	1.00			07/02/2008	RUN	2
ESMP	R2844598	1110814	WATER	3.40	1.0	1.00			07/02/2008	RUN	2
ESMP	R2844598	1110826	WATER	5.66	1.0	1.00			07/02/2008	RUN	2
ESMP	R2844598	1110832	WATER	1.62	1.0	1.00			07/02/2008	RUN	2
ESMP	R2844598	1110836	WATER	3.86	1.0	1.00			07/02/2008	RUN	2
ESMP	R2844768	1113695	WATER	0.900	1.0	1.00			07/02/2008		ASPB
ESMP	R2844768	1113696	WATER	4.00	1.0	1.00			07/02/2008		ASPB
ESMP	R2844768	1113697	WATER	1.00	1.0	1.00			07/02/2008		ASPB
ESMP	R2844768	1113698	WATER	-0.500	1.0	1.00			07/02/2008		ASPB
ESMP	R2844768	1113699	WATER	-0.500	1.0	1.00			07/02/2008		ASPB
ESMP	R2844776	1113781	WATER	2.60	1.0	1.00			07/02/2008	RUN	ASPB

Records printed: 18

DATE PRINTED: 07/08/08

SOLIDS / GREASE & OIL REPORT

RUN #: 163319 ANALYSIS DATE: 07/02/08 ASSIGNED TO :  
TEMPLATE: SM2540D TOTAL SUSPENDED SOLIDS (TSS)

TEST :

CONTROL										FLASK/	LS	LS
CUP#	ORDER #	SUBMISSION	TYPE	GROSS(g)	TARE(g)	DIFF(g)	VOL (ml)	(mg/L)	DISH ID	JOB#	LOC#	
1	1115411	R28 0	MBLK	(1.3616-	1.3619)=	-0.0003	*1E6 /1000	=-0.300	1			
2	1115412	R28 0	LCS	(1.3917-	1.3714)=	0.0203	*1E6 /94	= 216	02			
3	1096177	R2843635	ESMP	(1.3745-	1.3655)=	0.0090	*1E6 /7.9	= 1140	05			
4	1115413	R28 0	DUPE	(1.3643-	1.3561)=	0.0082	*1E6 /7.4	= 1110	06			
5	1096178	R2843635	ESMP	(1.3821-	1.3766)=	0.0055	*1E6 /148	=37.2	07			
6	1115422	R28 0	DUPE	(1.3715-	1.3661)=	0.0054	*1E6 /152	=35.5	20			
7	1096183	R2843635	ESMP	(1.3627-	1.3585)=	0.0042	*1E6 /315	=13.3	08			
8	1110783	R2844592	ESMP	(1.3617-	1.3601)=	0.0016	*1E6 /1000	=1.60	09			
9	1110814	R2844598	ESMP	(1.3811-	1.3777)=	0.0034	*1E6 /1000	=3.40	10			
10	1110826	R2844598	ESMP	(1.3663-	1.3607)=	0.0056	*1E6 /990	=5.66	11			
11	1110832	R2844598	ESMP	(1.3700-	1.3684)=	0.0016	*1E6 /985	=1.62	12			
12	1110836	R2844598	ESMP	(1.3733-	1.3695)=	0.0038	*1E6 /985	=3.86	13			
13	1113695	R2844768	ESMP	(1.3523-	1.3514)=	0.0009	*1E6 /1000	=0.900	14			
14	1113696	R2844768	ESMP	(1.3644-	1.3604)=	0.0040	*1E6 /1000	=4.00	15			
15	1113697	R2844768	ESMP	(1.3558-	1.3558)=	0.0000	*1E6 /1000	=0	16			
16	1113698	R2844768	ESMP	(1.3575-	1.3580)=	-0.0005	*1E6 /1000	=-0.500	17			
17	1113699	R2844768	ESMP	(1.3616-	1.3621)=	-0.0005	*1E6 /1000	=-0.500	18			
18	1113781	R2844776	ESMP	(1.3783-	1.3757)=	0.0026	*1E6 /1000	=2.60	19			

Analyte: **Total Suspended Solids (TSS)**  
 Method: **160.2 / SM20 2540D**  
 Analytes: **Volatile/Fixed Solids**  
 Method: **EPA-600 160.4/SM 2540E**

Analyst: E.WOLFE  
 Pipet: DISPOSABLE

Date: 7/2/08  
 Time: 13:30

\*Lower tare weight used unless marked: \_\_\_\_\_

LCS lot# WC85169B Filter ID: WC85154B  
 TS TV: 212 TVS TV: \_\_\_\_\_

Balance ID: AE240 Oven ID: 2  
**Thermolyne 48000 Muffle Furnace**

Volatile Solids: VS = (A - D)\*1,000,000 / Sample Vol.(mLs)  
 FVS = (D - B)\*1,000,000 / Sample Vol.(mLs)

Where: A = wgt (g) of dried residue + dish  
 B = wgt (g) of tared dish  
 C = wgt (g) of wet sample + dish  
 D = wgt (g) of residue + dish after ign. @ 550°C

Total Solids TSS = (A-B)\*1,000,000 Sample Vol. (mLs)

Sub #	Order #	Dish ID	Sample Vol. (mLs)	Used all	Before Ignition (g)	After Ignition (g)	Volatile / Fixed Solids (mg/L)	Total Solids (mg/L)	(X) if FSS
1	MB	C8	1000		C)	Dry wgt (A): 17.6841	-0.20	-0.70	
					B)	17.6844 Dry wgt (A): 17.6837			
					A-B=	-0.0007 Dry wgt (A):			
					D-B=	550 wgt (D): 17.6839			
					A-D=	-0.0002			
2	LCS	60	100		C)	Dry wgt (A): 1.3746		216.00	
					B)	1.3530 Dry wgt (A): 1.3746			
					A-B=	0.0216 Dry wgt (A):			
					D-B=	550 wgt (D):			
					A-D=	1.3746			
3	R-109179 <i>02/18/08</i> <i>1096179</i>	39	3		C)	Dry wgt (A): 1.3775		7366.67	
					B)	1.3554 Dry wgt (A): 1.3777			
					A-B=	0.0221 Dry wgt (A):			
					D-B=	550 wgt (D):			
					A-D=	1.3775			
4	R-1105702	B2	10.5		C)	Dry wgt (A): 17.8659	819.05	885.71	
					B)	17.8563 Dry wgt (A): 17.8656			
					A-B=	0.0093 Dry wgt (A):			
					D-B=	550 wgt (D): 17.8570			
					A-D=	0.0086			
5	R-1105702 DUP	B3	9		C)	Dry wgt (A): 16.2122	822.22	877.78	
					B)	16.2039 Dry wgt (A): 16.2118			
					A-B=	0.0079 Dry wgt (A):			
					D-B=	550 wgt (D): 16.2044			
					A-D=	0.0074			
6	R-1105703	C3	132		C)	Dry wgt (A): 16.3908	36.36	62.88	
					B)	16.3823 Dry wgt (A): 16.3906			
					A-B=	0.0083 Dry wgt (A):			
					D-B=	550 wgt (D): 16.3858			
					A-D=	0.0048			
7	R-1105704	C1	2.5		C)	Dry wgt (A): 17.7753	3240.00	3640.00	
					B)	17.7659 Dry wgt (A): 17.7750			
					A-B=	0.0091 Dry wgt (A):			
					D-B=	550 wgt (D): 17.7669			
					A-D=	0.0081			
8	R-1113733	36	500		C)	Dry wgt (A): 1.3729		29.80	
					B)	1.3579 Dry wgt (A): 1.3728			
					A-B=	0.0149 Dry wgt (A):			
					D-B=	550 wgt (D):			
					A-D=	1.3728			



Analyte: Total Suspended Solids (TSS)  
 Method: 160.2 / SM20 2540D  
 Analytes: Volatile/Fixed Solids  
 Method : EPA-600 160.4/SM 2540E

Analyst: E.WOLFE  
 Pipet: DISPOSABLE

Date: 7/2/08  
 Time: 13:30

\*Lower tare weight used unless marked: \_\_\_\_\_

TSS x VSS x FSS x

LCS lot# WC85169B Filter ID: WC85154B  
 TS TV: 212 TVS TV: \_\_\_\_\_

Balance ID: AE240 Oven ID: 2  
**Thermolyne 48000 Muffle Furnace**

Volatile Solids: VS = (A - D)\*1,000,000 / Sample Vol.(mLs)  
 FVS = (D - B)\*1,000,000 / Sample Vol.(mLs)

Where: A = wgt (g) of dried residue + dish  
 B = wgt (g) of tared dish  
 C = wgt (g) of wet sample + dish  
 D = wgt (g) of residue + dish after ign. @ 550°C

Total Solids TSS = (A-B)\*1,000,000 Sample Vol. (mLs)

Sub #	Order #	Dish ID	Sample Vol. (mLs)	Used all	Before Ignition (g)		After Ignition (g)		Volatile / Fixed Solids (mg/L)	Total Solids (mg/L)	(X) If FSS
					C)	B)	Dry wgt (A):				
17	R-1113864	107	430	X	C)		Dry wgt (A):	1.3861		64.88	
					B)	1.3579	Dry wgt (A):	1.3858			
					A-B=	0.0279	Dry wgt (A):				
					D-B=		550 wgt (D):				
							A-D=	1.3858			
18	R-1113865	108	460	X	C)		Dry wgt (A):	1.3780		57.61	
					B)	1.3513	Dry wgt (A):	1.3778			
					A-B=	0.0265	Dry wgt (A):				
					D-B=		550 wgt (D):				
							A-D=	1.3778			
19	R-1113866	109	460	X	C)		Dry wgt (A):	1.3930		65.43	
					B)	1.3627	Dry wgt (A):	1.3928			
					A-B=	0.0301	Dry wgt (A):				
					D-B=		550 wgt (D):				
							A-D=	1.3928			
20	R-1113867	110	335		C)		Dry wgt (A):	1.3859		99.40	
					B)	1.3525	Dry wgt (A):	1.3858			
					A-B=	0.0333	Dry wgt (A):				
					D-B=		550 wgt (D):				
							A-D=	1.3858			
21	R-1113868	111	460	X	C)		Dry wgt (A):	1.3923		41.52	
					B)	1.3729	Dry wgt (A):	1.3920			
					A-B=	0.0191	Dry wgt (A):				
					D-B=		550 wgt (D):				
							A-D=	1.3920			
22	R-1113869	112	420	X	C)		Dry wgt (A):	1.3799		32.38	
					B)	1.3660	Dry wgt (A):	1.3796			
					A-B=	0.0136	Dry wgt (A):				
					D-B=		550 wgt (D):				
							A-D=	1.3796			
23	R-1113870	113	470	X	C)		Dry wgt (A):	1.3913		77.45	
					B)	1.3547	Dry wgt (A):	1.3911			
					A-B=	0.0364	Dry wgt (A):				
					D-B=		550 wgt (D):				
							A-D=	1.3911			
24	R-1113871	114	430	X	C)		Dry wgt (A):	1.3688		26.28	
					B)	1.3574	Dry wgt (A):	1.3687			
					A-B=	0.0113	Dry wgt (A):				
					D-B=		550 wgt (D):				
							A-D=	1.3687			



Analyte: Total Suspended Solids (TSS)  
 Method: 160.2 / SM20 2540D  
 Analytes: Volatile/Fixed Solids  
 Method : EPA-600 160.4/SM 2540E

Analyst: E.WOLFE  
 Pipet: DISPOSABLE

Date: 7/2/08  
 Time: 13:30

\*Lower tare weight used unless marked: \_\_\_\_\_

TSS   x   VSS   x   FSS   x  

LCS lot# WC85169B Filter ID: WC85154B  
 TS TV: 212 TVS TV: \_\_\_\_\_

Balance ID: AE240 Oven ID: 2  
**Thermolyne 48000 Muffle Furnace**

Volatile Solids: VS = (A - D)\*1,000,000 / Sample Vol.(mLs)  
 FVS = (D - B)\*1,000,000 / Sample Vol.(mLs)

Where: A = wgt (g) of dried residue + dish  
 B = wgt (g) of tared dish  
 C = wgt (g) of wet sample + dish  
 D = wgt (g) of residue + dish after ign. @ 550°C

Total Solids TSS = (A-B)\*1,000,000 Sample Vol. (mLs)

Sub #	Order #	Dish ID	Sample Vol. (mLs)	Used all	Before Ignition (g)	After Ignition (g)	Volatile / Fixed Solids (mg/L)	Total Solids (mg/L)	(X) if FSS	
25	MB	1	1000		C)	Dry wgt (A): 1.3618		-0.30		
					B) 1.3619	Dry wgt (A): 1.3616				
					A-B= -0.0003	Dry wgt (A):				
					D-B=	550 wgt (D):				
					A-D= 1.3616					
26	LCS	2	94		C)	Dry wgt (A): 1.3919		215.96		
					B) 1.3714	Dry wgt (A): 1.3917				
					A-B= 0.0203	Dry wgt (A):				
					D-B=	550 wgt (D):				
					A-D= 1.3917					
27	44778	R-1113872	3	450	X	C)	Dry wgt (A): 1.3613		15.11	
						B) 1.3543	Dry wgt (A): 1.3611			
						A-B= 0.0068	Dry wgt (A):			
						D-B=	550 wgt (D):			
					A-D= 1.3611					
28	43635	R-1114061	4	390		C)	Dry wgt (A): 1.3749		13.59	
						B) 1.3694	Dry wgt (A): 1.3747			
						A-B= 0.0053	Dry wgt (A):			
						D-B=	550 wgt (D):			
					A-D= 1.3747					
29	43635	R-1096177	5	7.9		C)	Dry wgt (A): 1.3747		1139.24	
						B) 1.3655	Dry wgt (A): 1.3745			
						A-B= 0.0090	Dry wgt (A):			
						D-B=	550 wgt (D):			
					A-D= 1.3745					
30	R-1096177 DUP	6	7.4		C)	Dry wgt (A): 1.3644		1108.11		
					B) 1.3561	Dry wgt (A): 1.3643				
					A-B= 0.0082	Dry wgt (A):				
					D-B=	550 wgt (D):				
					A-D= 1.3643					
31	R-1096178	7	148		C)	Dry wgt (A): 1.3822		37.16		
					B) 1.3766	Dry wgt (A): 1.3821				
					A-B= 0.0055	Dry wgt (A):				
					D-B=	550 wgt (D):				
					A-D= 1.3821					
32	R-1096183	8	315		C)	Dry wgt (A): 1.3629		13.33		
					B) 1.3585	Dry wgt (A): 1.3627				
					A-B= 0.0042	Dry wgt (A):				
					D-B=	550 wgt (D):				
					A-D= 1.3627					

Analyte: Total Suspended Solids (TSS)  
 Method: 160.2 / SM20 2540D  
 Analytes: Volatile/Fixed Solids  
 Method : EPA-600 160.4/SM 2540E

Analyst: E.WOLFE  
 Pipet: DISPOSABLE

Date: 7/2/08  
 Time: 13:30

\*Lower tare weight used unless marked:     

TSS   x        VSS   x        FSS   x  

LCS lot# WC85169B Filter ID: WC85154B  
 TS TV: 212 TVS TV:           

Balance ID: AE240 Oven ID: 2  
**Thermolyne 48000 Muffle Furnace**

Volatile Solids: VS = (A - D)\*1,000,000 / Sample Vol.(mLs)  
 FVS = (D - B)\*1,000,000 / Sample Vol.(mLs)

Where: A = wgt (g) of dried residue + dish  
 B = wgt (g) of tared dish  
 C = wgt (g) of wet sample + dish  
 D = wgt (g) of residue + dish after ign. @ 550°C

Total Solids TSS = (A-B)\*1,000,000 Sample Vol. (mLs)

Sub #	Order #	Dish ID	Sample Vol. (mLs)	Used all	Before Ignition (g)		After Ignition (g)		Volatile / Fixed Solids (mg/L)	Total Solids (mg/L)	(X) if FSS
					C)	B)	Dry wgt (A):	Dry wgt (A):			
33	44592	R-1110783	9	1000		C)		Dry wgt (A):	1.3618	1.60	
						B)	1.3601	Dry wgt (A):	1.3617		
						A-B=	0.0016	Dry wgt (A):			
						D-B=		550 wgt (D):			
						A-D=	1.3617				
34	44598	R-1110814	10	1000		C)		Dry wgt (A):	1.3813	3.40	
						B)	1.3777	Dry wgt (A):	1.3811		
						A-B=	0.0034	Dry wgt (A):			
						D-B=		550 wgt (D):			
						A-D=	1.3811				
35	R-1110826	11	990	X		C)		Dry wgt (A):	1.3665	5.66	
						B)	1.3607	Dry wgt (A):	1.3663		
						A-B=	0.0056	Dry wgt (A):			
						D-B=		550 wgt (D):			
						A-D=	1.3663				
36	R-1110832	12	985	X		C)		Dry wgt (A):	1.3703	1.62	
						B)	1.3684	Dry wgt (A):	1.3700		
						A-B=	0.0016	Dry wgt (A):			
						D-B=		550 wgt (D):			
						A-D=	1.3700				
37	R-1110836	13	985	X		C)		Dry wgt (A):	1.3736	3.86	
						B)	1.3695	Dry wgt (A):	1.3733		
						A-B=	0.0038	Dry wgt (A):			
						D-B=		550 wgt (D):			
						A-D=	1.3733				
38	44768	R-1113695	14	1000		C)		Dry wgt (A):	1.3524	0.90	
						B)	1.3514	Dry wgt (A):	1.3523		
						A-B=	0.0009	Dry wgt (A):			
						D-B=		550 wgt (D):			
						A-D=	1.3523				
39	R-1113696	15	1000			C)		Dry wgt (A):	1.3648	4.00	
						B)	1.3604	Dry wgt (A):	1.3644		
						A-B=	0.0040	Dry wgt (A):			
						D-B=		550 wgt (D):			
						A-D=	1.3644				
40	R-1113697	16	1000			C)		Dry wgt (A):	1.3561	0.00	
						B)	1.3558	Dry wgt (A):	1.3558		
						A-B=	0.0000	Dry wgt (A):			
						D-B=		550 wgt (D):			
						A-D=	1.3558				

Analyte: **Total Suspended Solids (TSS)**  
 Method: **160.2 / SM20 2540D**  
 Analytes: **Volatile/Fixed Solids**  
 Method: **EPA-600 160.4/SM 2540E**

Analyst: **E.WOLFE**  
 Pipet: **DISPOSABLE**

Date: **7/2/08**  
 Time: **13:30**

\*Lower tare weight used unless marked: \_\_\_\_\_

TSS   x  

VSS   x  

FSS   x  

LCS lot# **WC85169B** Filter ID: **WC85154B**  
 TS TV: **212** TVS TV: \_\_\_\_\_

Balance ID: **AE240** Oven ID: **2**  
**Thermolyne 48000 Muffle Furnace**

Volatile Solids:

VS = (A - D)\*1,000,000 / Sample Vol.(mLs)  
 FVS = (D - B)\*1,000,000 / Sample Vol.(mLs)

Where: A = wgt (g) of dried residue + dish  
 B = wgt (g) of tared dish  
 C = wgt (g) of wet sample + dish  
 D = wgt (g) of residue + dish after ign. @ 550°C

Total Solids

TSS = (A-B)\*1,000,000 Sample Vol. (mLs)

Sub #	Order #	Dish ID	Sample Vol. (mLs)	Used all	Before Ignition (g)	After Ignition (g)	Volatile / Fixed Solids (mg/L)	Total Solids (mg/L)	(X) if FSS
41	R-1113698	17	1000		C)	Dry wgt (A): 1.3578		-0.50	
					B) 1.3580	Dry wgt (A): 1.3575			
					A-B= -0.0005	Dry wgt (A):			
					D-B=	550 wgt (D):			
						A-D= 1.3575			
42	R-1113699	18	1000		C)	Dry wgt (A): 1.3618		-0.50	
					B) 1.3621	Dry wgt (A): 1.3616			
					A-B= -0.0005	Dry wgt (A):			
					D-B=	550 wgt (D):			
						A-D= 1.3616			
43	44776 R-1113781	19	1000		C)	Dry wgt (A): 1.3785		2.60	
					B) 1.3757	Dry wgt (A): 1.3783			
					A-B= 0.0026	Dry wgt (A):			
					D-B=	550 wgt (D):			
						A-D= 1.3783			
44	43635 R-1096178 DUP	20	152		C)	Dry wgt (A): 1.3719		35.53	
					B) 1.3661	Dry wgt (A): 1.3715			
					A-B= 0.0054	Dry wgt (A):			
					D-B=	550 wgt (D):			
						A-D= 1.3715			

COLUMBIA ANALYTICAL SERVICES, INC

**Tare Weights:**

Instrument: X Mettler AE240 Analytical Balance  
       Mettler AG204 Analytical Balance

Analyst: EW  
 Date: 7/2/08

Drying Tins: X Dish 104°C:         
 Crucible 550°C: X Dish 550°C:         
 Dish 180°C:        G/O Dishes:       

	<u>Weight</u>	<u>Actual</u>
s Weights (s):	0.9999 g	1 g
	20.0002 g	20 g

ID Number	Weight	
C8	17.6845	17.6844
60	1.3530	1.3530
39	1.3555	1.3554
B2	17.8564	17.8563
B3	16.2040	16.2039
C3	16.3823	16.3823
C1	17.7661	17.7659
36	1.3579	1.3579
37	1.3641	1.3641
32	1.3629	1.3629
33	1.3653	1.3652
34	1.3575	1.3575
35	1.3538	1.3538
116	1.3684	1.3684
118	1.3548	1.3548
38	1.3687	1.3686
107	1.3579	1.3579
108	1.3513	1.3513
109	1.3628	1.3627
110	1.3526	1.3525
111	1.3730	1.3729
112	1.3660	1.3660
113	1.3548	1.3547
114	1.3575	1.3574

ID Number	Weight	
1	1.3619	1.3619
2	1.3715	1.3714
3	1.3544	1.3543
4	1.3694	1.3694
5	1.3655	1.3656
6	1.3561	1.3561
7	1.3767	1.3766
8	1.3586	1.3585
9	1.3602	1.3601
10	1.3778	1.3777
11	1.3607	1.3607
12	1.3685	1.3684
13	1.3695	1.3695
14	1.3514	1.3515
15	1.3604	1.3604
16	1.3559	1.3558
17	1.3581	1.3580
18	1.3621	1.3621
19	1.3758	1.3757
20	1.3662	1.3661
<del>EW - 7/2/08</del>		

Columbia Analytical Services  
1 Mustard St., Rochester, NY 14609-0859

General Chemistry Analytical Run Cover Sheet

Analyst: EW

Date: 7/2/08

Analysis: Total Suspended Solids

Instrument:  Mettler AE 240 Analytical Balance  
 Mettler AG 204 Analytical Balance

Quality Control:

	Log Book #	Log Book Date	Stock Sol (m/Ls)	Stock Sol (mg/L)	Final Vol (mLs)	True Value (mg/L)
a) Standards Prep.:						
b) I/CCV Preparation:						
c) LCS Preparation:	WC85169B	6/24/08				212
d) Matrix Spike Prep.:						

Instrument log filled in?  (Y)  (N)

Packages: Copy and attach LCS Preparation

Comments:

The difference between successive gross dry weights should be less than 4% of the previous weight or 0.5 mg, whichever is less.

As a rule, both the lower tare weight and the lower of the successive dry weights are used for calculation.

to 200mls  
1 volume equals 400mls)  
6/24/08 Nm (A) Ascorbic Acid - TPO4  
- same as WC85104I. Exp. 1 wk, 7/1/08

24/08 EW 6/24/08 (B) TSS Reference  
0.2121g Kaolin (WC69285G) brought to 1000g w/DI.  
Store in Plastic Bottle @ 4°C  
TV = 212 mg/L Exp: 6/24/09 (4409)

ch run. 6/24/08 AB (C) Received from VWR  
(1) x 125g Potassium Hydrogen Phthalate,  
Cat # PX1476-3, EMD Lot # 47183801, CAS #  
877-24-7. Store @ R.T. Expires 6/24/13.

cal, Cat#  
2011.  
1-0. 6/25/08 Cmw (D) Received from Honeywell  
(4) x 4L Chloroform, CAT# 048-4, Honeywell  
Lot # CW014. CAS# 67-66-3. Store @ RT.  
Expires 5 years from receipt, 6/25/2013.  
(E) (4) x 4L Chloroform, CAT# 048-4, Honeywell  
Lot # CW310. CAS# 67-66-3. Store @ RT.  
Expires 5 years from receipt, 6/25/2013.

(C)  
0  
2.3  
.0  
.0  
2.0 6/25/08 Nm (F) Buffer - TOTN  
- same as WC85146A. Exp. 1 year, 6/25/09.

(G) Color Reagent - TOTN  
- same as WC85123A. Exp. 1 month, 7/25/08.

Carbon  
arbn. 6/25/08 AB (H) Received from VWR  
(2) x 100g Ammonium Persulfate, ultrapure,  
Cat # 4030-04, JT Baker Lot # G22476, CAS  
# 7727-54-0. Store @ 4°C. Expires 5/31/2010

analyze. 6/25/08 Cw (I) Alkalinity Reference Sol'n 50mg/L  
10.0 ml 5000 mg/L Alk Ref. Stock (WC85157H) to 1 L vol. with DI.  
Store in plastic at 4°C exp to months 12/2/08