

December 3, 2009

Mr. Frank Hagar
Northgate Environmental
1100 Quail Street
Suite 102
Newport Beach, CA 92660

Re: Tronox LLC Henderson #2027.001
Service Request #R0905636

Dear Mr. Hagar:

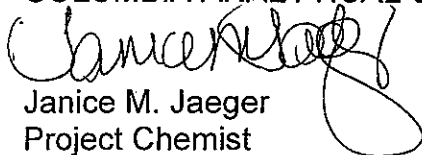
Enclosed is the analytical data report for the above referenced facility. A total of seven samples were received by our laboratory on October 3-8, 2009.

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.

cc: Ms. Cindy Arnold
Northgate Environmental
2501 Geigel Avenue
Orlando, FL 32806

This report contains a total of 90 pages.

CASE NARRATIVE

COMPANY: Northgate Environmental
Tronox LLC Henderson Project #2027.001
SERVICE REQUEST #: R0905636

Northgate samples were collected on 10/02-07/09 and received at CAS on 10/03-08/09 in good condition. Columbia Analytical Services' (CAS) reporting limit has been expressed as the Method Reporting Limit (MRL) rather than the Practical Quantitation Limit (PQL). At the client's request, all results have been reported to the Method Detection Limit (MDL) where an MDL is performed on that parameter. The MDL reported for the Alkalinity Carbonate, Alkalinity Carbonate and Alkalinity Hydroxide is the Alkalinity MDL. The software used for the 1030E calculations is Rockware AqQA. All data has been checked and verified.

INORGANICS

Four 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 except Total Suspended Solids (TSS). PB100209-A2 is possibly biased low for TSS. All outlying QC has been flagged with an "***".

Due to a laboratory error, Nitrate for M-76009B was analyzed outside the recommended holding time of 48 hours.

The Laboratory blanks associated with these analyses were free of contamination except the 10/19/09 blank had low level hits for Alkalinity and Bicarbonate alkalinity, the 10/05/09 blank had a low level hit for Nitrate, the 10/10/09 blank had a low level hit for TOC and the 10/08/09 blank had a low level hit for Sulfate. All affected data has been flagged with a "B".

All samples were analyzed within holding time except as mentioned above.

No other analytical or QC problems were encountered.

VOLATILE ORGANICS

Seven 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 Tronox limits.

Site specific QC was performed on M-76B. All MS recoveries were within limits except Naphthalene and Styrene and all MSD recoveries were within limits except Styrene. All Reference spike recoveries were within Tronox limits except Dichloromethane on the 10/12/09 LCS. All LCS outliers were within 60-140%. All RPD's were within limits except Naphthalene. All outlying QC has been flagged with an "***".

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

All samples were analyzed within required holding times.

No other analytical or QC problems were encountered.

SEMIVOLATILE ORGANICS

Four 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 Tronox limits.

Site specific QC was not requested for these samples. All Blank spike/Blank spike duplicate recoveries were within Tronox limits except Pyridine and 1,4-Dioxane were outside limits on the 10/05/09 and 10/09/09 LCS/LCSD's. The outliers were within 10-150%. All RPD's were within limits except Pyridine on the 08/11/09 LCS/LCSD. All outlying QC has been flagged with an "**".

The Laboratory Blanks associated with these analyses were free of contamination except the 10/05/09 and 10/09/09 blanks had a low level hit for Bis(2-ethylhexyl)phthalate. 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

Four 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 except PB100209-A2 and has been flagged with an "**". The sample was re-extracted outside the recommended holding time of 14 days and reanalyzed and the surrogate was within limits. Both sets of data have been reported.

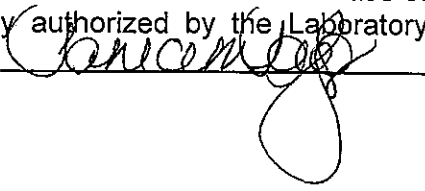
Site specific QC was not requested for these samples. All Blank spike/Blank spike duplicate recoveries were within limits. All RPD's were within limits.

Various compounds for MC-94B have been flagged with an "E" as being outside the calibration range of the instrument. The sample was reanalyzed 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 except as mentioned above.

No other analytical or QC problems were encountered.

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. 

CAS ASP/CLP Batching Form/Login Sheet

Client Proj #: 2027.001	Batch Complete: Yes	Date Revised:
Submission: R0905636	Diskette Requested: Yes	Date Due: 10/30/09
Client: Northgate Environmental	Date: 10/12/09	Protocol: STD METHODS
Client Rep: JJAEGER	Custody Seal: Present/Absent:	Shipping No.:
Project: Tronox LLC Henderson	Chain of Custody: Present/Absent:	SDG #: PB100209-A2

CAS Job #	Client/EPA ID	Matrix	Requested Parameters	Date Sampled	Date Received	pH (Solids)	% Solids	Remarks
R0905636-001	PB100209-A2	Water	SM 2320 B, 350.1, 9056, 9012A, SM 2540 C, SM 5540 C, 9060, 120.1, 6010B LL, 300.1, 314.0, 8081A, 8270C, 8260B, 218.6, 365.1, 7470A, 6020, 9040B, SM 2540 D, 353.2	10/2/09	10/3/09			
R0905636-001.R01	PB100209-A2	Water	8081A	10/2/09	10/3/09			
R0905636-002	M-76B	Water	SM 2320 B, 350.1, 9012A, 9056, SM 2540 C, SM 5540 C, 9060, 300.1, 314.0, 8081A, 8270C, 8260B, 218.6, 120.1, 9040B, SM 1030 E, 365.1, 7470A, 6020, 6010B LL, SM 2540 D, 353.2	10/2/09	10/3/09			
R0905636-003	M-76009B	Water	SM 2320 B, 353.2, 9056, SM 2540 D, 365.1, 7470A, 6020, 6010B LL, 300.1, 314.0, 8081A, SM 1030 E, 8270C, 8260B, 218.6, 120.1, 9040B, 9060, SM 5540 C, SM 2540 C, 9012A, 350.1	10/2/09	10/3/09			
R0905636-004	TB100209-GW1	Water	8260B	10/2/09	10/3/09			
R0905636-005	TB100209-GW2	Water	8260B	10/2/09	10/3/09			
R0905636-006	MC-94B	Water	SM 2320 B, 350.1, 9056, 9012A, 353.2, SM 2540 C, SM 5540 D, SM 5540 C, 9060, 9040B, 120.1, 218.6, 8260B, 8270C, 8081A, 314.0, 300.1, 6010B LL, 6020, 7470A, 365.1, SM 1030 E	10/7/09	10/8/09			
R0905636-007	TB100709-GW1	Water	8260B	10/7/09	10/8/09			

000001

Folder Comments:

REPORT QUALIFIERS

- U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
- J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).
- B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
- E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
- E Organics- Concentration has exceeded the calibration range for that specific analysis.
- D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
- * Indicates that a quality control parameter has exceeded laboratory limits.
- # Spike was diluted out.
- + Correlation coefficient for MSA is <0.995.
- N Inorganics- Matrix spike recovery was outside laboratory limits.
- N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
- S Concentration has been determined using Method of Standard Additions (MSA).
- W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
- P Pesticide/Aroclors: Concentration >40% (25% for CLP) difference between the two GC columns.
- C Confirmed by GC/MS
- Q DoD reports: indicates a pesticide/Aroclor is not confirmed ($\geq 100\%$ Difference between two GC columns).
- X See Case Narrative for discussion.



CAS/Rochester Lab ID # for State Certifications¹

NELAP Accredited	Nevada ID # NY-00032
Delaware Accredited	New Jersey ID # NY004
Connecticut ID # PH0556	New York ID # 10145
Florida ID # E87674	New Hampshire ID # 294100 A/B
Illinois ID #200047	Pennsylvania ID# 68-786
Maine ID #NY0032	Rhode Island ID # 158
Nebraska Accredited	West Virginia ID # 292
Navy Facilities Engineering Service Center Approved	

¹ Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to the certifications section at www.caslab.com.

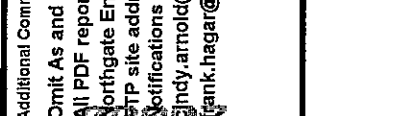
Required Ship to Lab:		Required Project Information:		Required Invoice Information:		TAT: Standard 30 day		Rush		Mark One				
Lab Name: COLUMBIA ANALYTICAL SERVICES, INC.		Site ID #: TRONOX LLC, HENDERSON		Send Invoice to: Susan Crowley Tronox LLC		If Rush, Date due								
Address: 1 Mustang Street, Suite 250 Rochester, NY 14609		Project #: 2027.001		Address: PO Box 55 City/State: Henderson, NV 89009		Phone #: (949)260-9293		Special EPA Stage		Mark one				
Lab PM: Janice Jaeger		City: Henderson State: NV		Reimbursement project? <input checked="" type="checkbox"/> Non-reimbursement project?		Mark one		QC level Required: Standard		EPA Stage 4				
Phone/Fax: (565)288-5380		Site PM Name: Derrick Willis		Send EDD to: frank.hagar@ngem.com		Mark one		NJ Reduced Deliverable Package?						
Lab PM email: jjaeger@caslab.com		Phone/Fax: 949-375-7004		CC Hardcopy report to: PDF Electronic Version Only				MA MCP Cert? <input type="checkbox"/>		CT RCP Cert? <input type="checkbox"/>				
Applicable Lab Quota #:		Site PM Email: derrick.willis@ngem.com		CC Hardcopy report to: see additional comments below				Lab Project ID (lab use)						
ITEM #	SAMPLE ID	Character per box. (A-Z, 0-9 / -)	SAMPLES IDS MUST BE UNIQUE	Valid Matrix Codes	MATRIX	MATRIX TYPE	G-RAB TYPE	SAMPLE DATE	SAMPLE TIME	# OF CONTAINERS	FIELD FILTERED? (Y/N)	Preservatives	Requested Analyses	Comments/Lab Sample I.D.
1	PB100209-A2			W WATER WB WASTE WATER G GROUND WATER S SURFACIAL WATER F FRESHWATER SOIL A AMBIENT AIR C CIGARETTE E EVIDENCE	WG	G		10/2/2009	11:11	3	N	X H2SO4 X HCl X NaOH X Na2S2O3 X Methand Other	EPA 213.8 Hex Chrom EPA 8058 Chlorate EPA 314.0 Perchlorate EPA 80108/820 EPA 8081 COP EPA 8270C SVOC EPA 8060 TOC EPA 8208 VOC	3 x 40 ml VOAs 2 x 40 ml VOAs 2 x 1 L Amber Glass 2 x 1 L Amber Glass 500 ml Plastic 250 ml Plastic 250 ml Amber Glass 125 ml Plastic
2	PB100209-A2				WG	G		10/2/2009	11:11	2	N			
3	PB100209-A2				WG	G		10/2/2009	11:11	2	N			
4	PB100209-A2				WG	G		10/2/2009	11:11	2	N			
5	PB100209-A2				WG	G		10/2/2009	11:11	1	N			
6	PB100209-A2				WG	G		10/2/2009	11:11	1	N			
7	PB100209-A2				WG	G		10/2/2009	11:11	1	N			
8	PB100209-A2				WG	G		10/2/2009	11:11	1	Y			
9														
10														
11														
12														

Additional Comments/Special Instructions:
Omit As and Se from Metals 6010/6020
All PDF reports and EDDs will be uploaded to:
Northgate Environmental Management, Inc.
FTP site address provided to labs
Notifications provided to:
Sindy.arnold@ngem.com
frank.hagar@ngem.com

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE RECEIPT CONDITIONS
Dana R. Brown, NGEM	2-Oct	15:05	Darren Qualls, GES	10/2/2009	15:05	Y/N Y/N Y/N
Darren Qualls, GES	2-Oct	16:30		10-3-09	11:30	Y/N Y/N Y/N
						Y/N Y/N Y/N
						Y/N Y/N Y/N
						Y/N Y/N Y/N

SHIPPING METHOD: (mark as appropriate)
UPS COURIER (FEDEX)
US MAIL

SAMPLER NAME AND SIGNATURE
Dana Brown
DATE SIGNED: 10/2/2009
TIME: 15:05



CHAIN-OF-CUSTODY / Analytical Request Document
 The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed and accurate.

COC No. 2027.001.00945
 Page: 2 of 2
 Cooler # _____ of _____
 Collection Area: II

Required Ship to Lab:
 Lab Name: COLUMBIA ANALYTICAL SERVICES, INC.
 Address: 1 Mustard Street, Suite 250
 Rochester, NY 14609
 Lab P/M: Janice Jaeger
 Phone/Fax: (685)288-6380
 Lab P/M email: jjaeger@casilab.com

Required Project Information:
 Site ID #: TRONOX LLC, HENDERSON
 Project #: 2027.001
 Site Address: 560 W. Lake Mead Drive
 City: Henderson State: NV
 Site P/M Name: Derrick Willis
 Phone/Fax: 949-375-7004
 Site P/M Email: derrick.willis@ngem.com

Required Invoice Information:
 Send Invoice to: Susan Crowley
 Address: PO Box 65
 City/State: Henderson, NV 89009
 Phone #: (949)260-9293

TAT: Standard 30 day Rush
 If Rush, Date due _____

QC level Required: Standard Special EPA Stage Mark One 4
 NJ Reduced Deliverable Packages? Mark one
 MA MCP Cert? CT RCP Cert? Mark One
 Lab Project ID (lab use) _____

ITEM #	SAMPLE ID	Valid Matrix Codes	Matrix	G-RAB OR COMP	MATRIX CODE	SAMPLE DATE	SAMPLE TIME	# OF CONTAINERS	FIELD FILTERED? (Y/N)	Preservatives									Other	Comments/Lab Sample I.D.
										Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methand	SM 5510C	SM 5510C		
1	PB100209-A2	One	DRINKING WATER	G	WG	10/2/2009	11:11	1	N			X						250 ml Plastic		
2	PB100209-A2	Character per box. (A-Z, 0-9 /, -)	GROUNDWATER	G	WG	10/2/2009	11:11	1	N				X					250 ml Plastic		
3	PB100209-A2	Samples IDs MUST BE UNIQUE	WASTE WATER	G	WG	10/2/2009	11:11	1	N	X								250 ml Plastic		
4	PB100209-A2		WASTEWATER	G	WG	10/2/2009	11:11	1	N	X								500 ml Plastic		
5	PB100209-A2		WASTEWATER	G	WG	10/2/2009	11:11	1	N	X								250 ml Plastic		
6	PB100209-A2		WASTEWATER	G	WG	10/2/2009	11:11	1	N	X								125 ml Plastic		
7	PB100209-A2		WASTEWATER	G	WG	10/2/2009	11:11	1	N	X								1 L Plastic		

Additional Comments/Special Instructions:
 Omit As and Se from Metals 6010/6020
 All PDF reports and EDDs will be uploaded to:
 Northgate Environmental Management, Inc.
 FTP site address provided to labs
 Notifications provided to:
 Gindy.arnold@ngem.com
 frank.hagar@ngem.com

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	Temp in 00	Samples on Ice?	Sample Intact?	Trip Blank?
Dana R. Brown, NGEM - <i>[Signature]</i>	10-2-09	15:05	Darren Qualls, GES - <i>[Signature]</i>	10-2-09	15:05				
Darren Qualls, GES - <i>[Signature]</i>	10-3-09	10:20							

Shipping Method: (mark as appropriate)
 UPS COURIER FEDEX USPS MAIL

Signature of Sampler: *[Signature]*
 Date Signed: 10/2/2009
 Time: 15:05



1100 Quail Street, Suite 102, Newport Beach, CA 92660
(949) 260-9293

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed and accurate.

COC No. 2027.001.00940
Page: 1 of 2
Cooler # _____ of _____
Collection Area: II

Required Ship to Lab:		Required Project Information:		Required Invoice Information:		TAT: Standard 30 day		Rush		Mark One	
Lab Name: COLUMBIA ANALYTICAL SERVICES, INC.		Site ID #: TRONOX LLC, HENDERSON		Send Invoice to: Susan Crowley Tronox LLC				<input checked="" type="checkbox"/>			
Address: 1 Mustard Street, Suite 250		Project #: 2027.001		Address: PO Box 55							
Rochester, NY 14609		Site Address: 560 W. Lake Mead Drive		City/State: Henderson, NV 89009		Phone #: (949)260-3293					
Lab PM: Janice Jaeger		City: Henderson		State: NV		Reimbursement project? <input checked="" type="checkbox"/>		Non-reimbursement project? <input type="checkbox"/>		Mark one	
Phone/Fax: (585)268-5380		Site PM Name: Derrick Willis		Send EDD to: frank.hagat@ngem.com		Frank Hagat Northgate Environmental Management, Inc		QC level Required: Standard		Special EPA Stage 4	
Lab PM email: jjaeger@casilab.com		Phone/Fax: 949-375-7004		CC Hardcopy report to: pdf		Electronic Version Only		NJ Reduced Deliverable Package? <input type="checkbox"/>		Mark One	
Applicable Lab Quote #:		Site PM Email: derrick.willis@ngem.com		CC Hardcopy report to: see additional comments below				MA MCP Cert? <input type="checkbox"/>		CT RCP Cert? <input type="checkbox"/>	
		Valid Matrix Codes						Lab Project ID (lab use)			
ITEM #	SAMPLE ID	Character per box. (A-Z, 0-9 / ,) Samples IDs MUST BE UNIQUE	MATRIX	MATRIX CODE	SAMPLE TYPE	G-GRAB C-COMP	FIELD FILTERED? (Y/N)	Preservatives	Requested	Analyses	Comments/Lab Sample I.D.
1	M-76B		ONE	WG	G		N	Unpreserved	EPA 8210C SVOC		3 x 40 ml VOAs
2	M-76B		WG	WG	G		N	H2SO4	EPA 8210C SVOC		2 x 40 ml VOAs
3	M-76B		WG	WG	G		N	HCl	EPA 8210C SVOC		2 x 1 L Amber Glass
4	M-76B		WG	WG	G		N	HNO3	EPA 8210C SVOC		2 x 1 L Amber Glass
5	M-76B		WG	WG	G		N	NaOH	EPA 8210C SVOC		500 ml Plastic
6	M-76B		WG	WG	G		N	Methanol	EPA 8210C SVOC		250 ml Plastic
7	M-76B		WG	WG	G		N	Na2S2O3	EPA 8210C SVOC		250 ml Amber Glass
8	M-76B		WG	WG	G		N	Other	EPA 8210C SVOC		125 ml Plastic
9											
10											
11											
12											

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE RECEIPT CONDITIONS
Dana R. Brown, NGEM	2-Oct	15:05	Darren Qualls, GES	10/2/2009	15:05	Y/N Y/N Y/N Y/N
Darren Qualls, GES	2-Oct	10:30		10-5-09	10:30	Y/N Y/N Y/N Y/N
						Y/N Y/N Y/N Y/N
						Y/N Y/N Y/N Y/N

SHIPPING METHOD (mark as appropriate)	SAMPLER NAME AND SIGNATURE	
UPS COURIER (FEDEX)	PRINT Name of SAMPLER: Dana R. Brown	SIGNATURE of SAMPLER:
US MAIL	DATE Signed: 10/2/2009	Time: 15:05

Additional Comments/Special Instructions:
Omit As and Se from Metals 6010/6020
All PDF reports and EDDs will be uploaded to:
Northgate Environmental Management, Inc.
FTP site address provided to labs
Notifications provided to:
Lindy.arnold@ngem.com
frank.hagat@ngem.com

10905636



1100 Quail Street, Suite 102, Newport Beach, CA 92660
(949) 260-9293

CHAIN-OF-CUSTODY / Analytical Request Document

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COC No. 2027.001.00940
Page: 2 of 2
Cooler # _____ of _____
Collection Area: II

Required Ship to Lab:		Required Project Information:		Required Invoice Information:		TAT: Standard 30 day		Rush		Mark One															
Lab Name: COLUMBIA ANALYTICAL SERVICES, INC.		Site ID #: TRONOX LLC, HENDERSON		Send Invoice to: Susan Crowley Tronox LLC		Address: PO Box 55																			
Address: 1 Mustard Street, Suite 250		Project #: 2027.001		City/State: Henderson, NV		Phone #: (949)260-9293		QC level Required: Standard		Special EPA Stage 4															
Rochester, NY 14609		Site Address: 560 W. Lake Mead Drive		Reimbursement project? <input checked="" type="checkbox"/>		Non-reimbursement project? <input type="checkbox"/>		NJ Reduced Deliverable Package?		Mark One															
Lab PM: Janice Jaeger		City: Henderson		State: NV		Send EDD to: frank.hagar@ngem.com		MA MCP Cert?		Mark One															
Phone/Fax: (505)288-5380		Site PM Name: Derrick Willis		Phone/Fax: 949-375-7004		CC Hardcopy report to: PDF Electronic Version Only		CT RCP Cert?		Mark One															
Lab PM email: jjaeger@cas/lab.com		Site PM Email: derrick.willis@ngem.com		CC Hardcopy report to: (see additional comments below)				Lab Project ID (lab use)																	
Applicable Lab Quote #:																									
#	ITEM	SAMPLE ID	Character per box. (A-Z, 0-9 / ,)	Samples IDs MUST BE UNIQUE	Valid Matrix Codes	MATRIX	One	MATRIX	SAMPLE TYPE	G-GRAB C-COMP	FIELD FILTERED? (Y/N)	# OF CONTAINERS	SAMPLE TIME	SAMPLE DATE	DATE	TIME	ACCEPTED BY / AFFILIATION	RELINQUISHED BY / AFFILIATION	DATE	TIME	Sample Receipt Conditions	Temp in 00	Samples on Ice?	Sample Intact?	Trip Blank
1	M-76B				WG	G		WG	G		N	1	11:55	10/2/2009	10/2/2009	15:05	Darren Qualls, GES	Dana R. Brown, NGENM	2-Oct	15:05	Y/N	Y/N	Y/N	Y/N	
2	M-76B				WG	G		WG	G		N	1	11:55	10/2/2009	10/2/2009	15:05	Darren Qualls, GES	Dana R. Brown, NGENM	2-Oct	15:05	Y/N	Y/N	Y/N	Y/N	
3	M-76B				WG	G		WG	G		N	1	11:55	10/2/2009	10/2/2009	15:05	Darren Qualls, GES	Dana R. Brown, NGENM	2-Oct	15:05	Y/N	Y/N	Y/N	Y/N	
4	M-76B				WG	G		WG	G		N	1	11:55	10/2/2009	10/2/2009	15:05	Darren Qualls, GES	Dana R. Brown, NGENM	2-Oct	15:05	Y/N	Y/N	Y/N	Y/N	
5	M-76B				WG	G		WG	G		N	1	11:55	10/2/2009	10/2/2009	15:05	Darren Qualls, GES	Dana R. Brown, NGENM	2-Oct	15:05	Y/N	Y/N	Y/N	Y/N	
6	M-76B				WG	G		WG	G		N	1	11:55	10/2/2009	10/2/2009	15:05	Darren Qualls, GES	Dana R. Brown, NGENM	2-Oct	15:05	Y/N	Y/N	Y/N	Y/N	
7	M-76B				WG	G		WG	G		N	1	11:55	10/2/2009	10/2/2009	15:05	Darren Qualls, GES	Dana R. Brown, NGENM	2-Oct	15:05	Y/N	Y/N	Y/N	Y/N	
8																									
9																									
10																									
11																									
12																									

Additional Comments/Special Instructions:
Omit As and Se from Metals 6010/6020
All PDF reports and EDDs will be uploaded to:
Northgate Environmental Management, Inc.
FTP site address provided to labs
Notifications provided to:
Cindy.arnold@ngem.com
frank.hagar@ngem.com

10-2-09
DQS

10905636



1100 Quail Street, Suite 102, Newport Beach, CA 92660 (949) 260-9293

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed and accurate.

COC No. 2027.001.00940 Page: 1 of 2 Cooler # _____ Collection Area: II

Required Project Information: TRONOX LLC, HENDERSON; Required Invoice Information: Susan Crowley, Tronox LLC; Lab Name: COLUMBIA ANALYTICAL SERVICES, INC.; Site Address: 860 W. Lake Mead Drive; Site PM Name: Derrick Willis; Phone/Fax: 949-376-7004; Site PM Email: derrick.willis@ngem.com; Matrix Codes: WATER, WASTE WATER, FREE PRODUCT, SOIL, etc.; Sample ID: M-76009B; Sample Date: 10/2/2009; Sample Time: 11:55; Requested Analyses: EPA 8208 VOC, EPA 8210 TOC, EPA 8217C SVOC, EPA 8218 Hex Chlorn, EPA 945 Chloride, EPA 914.0 Perchlorate, EPA 8071 OCP, EPA 8210 TOC, EPA 8217C SVOC, EPA 8218 Hex Chlorn; Shipping Method: UPS COURIER FEDEX; Sampler Name: Dana R. Brown; Date Signed: 10/2/2009; Time: 15:05

029 10-2-09

Additional Comments/Special Instructions: Omit As and Se from Metals 6010/6020 All PDF reports and EDDs will be uploaded to: Northgate Environmental Management, Inc. FTP site address provided to labs Notifications provided to: cindy.arnold@ngem.com frank.hagar@ngem.com

80905636



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(949) 260-9293

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed and accurate.

COC No. 2027.001.00940
Page: 2 of 2
Cooler # _____ of _____
Collection Area: II

Required Ship to Lab:				Required Project Information:				Required Invoice Information:													
Lab Name: COLUMBIA ANALYTICAL SERVICES, INC.		Site ID #: TRONOX LLC, HENDERSON		Send Invoice to: Susan Crowley		TAT: Standard 30 day		Rush		Mark One											
Address: 1 Mustard Street, Suite 250		Project #: 2027.001		Address: PO Box 55		If Rush, Date due															
Rochester, NY 14609		Site Address: 560 W. Lake Mead Drive		City/State: Henderson, NV 89009		Phone #: (949)260-9293		QC level Required: Standard		Special EPA Stage: 4											
Lab PM: Janice Jaeger		City: Henderson		State: NV		Reimbursement project? <input checked="" type="checkbox"/>		Non-reimbursement project? <input type="checkbox"/>		Mark one											
Phone/Fax: (689)288-5380		Site PM Name: Derrick Willis		Frank Hagar Northgate Environmental Management, Inc		Send EDD to: frank.hagar@ngem.com		NJ Reduced Deliverable Package?		Mark One											
Lab PM email: jjaeger@caslab.com		Phone/Fax: 949-375-7004		CC Hardcopy report to: PDF Electronic Version Only		CC Hardcopy report to: see additional comments below		MA MCP Cert? <input type="checkbox"/>		CT RCP Cert? <input type="checkbox"/>											
Applicable Lab Quote #:		Site PM Email: derrick.willis@ngem.com						Lab Project ID (lab use)													
ITEM #	SAMPLE ID	One	MATRIX	Valid Matrix Codes	MATRIX CODE	SAMPLE TYPE	FIELD FILTERED? (Y/N)	# OF CONTAINERS	SAMPLE TIME	DATE	ACCEPTED BY / AFFILIATION	DATE	TIME	Sample Receipt Conditions	Temp in OC	Samples On Ice?	Sample Intact?	Trip Blank			
1	M-76009B		W	W	WG	G		1	11:55	10/2/2009									250 ml Plastic		
2	M-76009B		W	W	WG	G		1	11:55	10/2/2009									250 ml Plastic		
3	M-76009B		W	W	WG	G		1	11:55	10/2/2009									250 ml Plastic		
4	M-76009B		W	W	WG	G		1	11:55	10/2/2009									500 ml Plastic		
5	M-76009B		W	W	WG	G		1	11:55	10/2/2009									250 ml Plastic		
6	M-76009B		W	W	WG	G		1	11:55	10/2/2009									125 ml Plastic		
7	M-76009B		W	W	WG	G		1	11:55	10/2/2009									1 L Plastic		
8																					
9																					
10																					
11																					
12																					
Additional Comments/Special Instructions:												RELIQUISHED BY / AFFILIATION		DATE		TIME					
Omit As and Se from Metals 6010/6020												Dana R. Brown, NGENM		2-Oct		15:05		Darren Qualls, GES			
All PDF reports and EDDs will be uploaded to:												Darren Qualls, GES		2-Oct 1630		11:30					
Northgate Environmental Management, Inc.																					
FTP site address provided to labs																					
Notifications provided to:																					
cindy.arnold@ngem.com																					
frank.hagar@ngem.com																					
SHIPPING METHOD (mark as appropriate)				SAMPLER NAME AND SIGNATURE																	
UPS COURIER		FEDEX		PRINT Name of SAMPLER:		Dana R. Brown		DATE Signed		10/2/2009		Time:		15:05							
US MAIL				SIGNATURE of SAMPLER:																	

ROS 05636

Cooler Receipt And Preservation Check Form

Project/Client Northgate Waters Submission Number RC9-5636

Cooler received on 10-3-09 by: MS 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: 2° 4° 4° 3° 4° 4°
- Is the temperature within 0° - 6° C?: Yes Yes Yes Yes Yes Yes
- If No, Explain Below: No No No No No NO

Date/Time Temperatures Taken: 10-3-09 @ 10:30

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: MS 10/5/09

Cooler Breakdown: Date: 10/5/09 by: msc

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	YES NO		Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
		YES	NO						
≥12	NaOH	✓		WCE5220C	10/13				
≤2	HNO ₃								
≤2	H ₂ SO ₄	✓		WCE52266	5/10				
Residual Chlorine (-)	For TCN and Phenol	✓		If present, contact PM to add ascorbic acid					
	Na ₂ S ₂ O ₃	-	-						
	Zn Aceta	-	-						
	HCl	*	*	G45AD1	5/10				

Yes = All samples OK
No = Samples were preserved at lab as listed
PM OK to Adjust: _____

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

Bottle lot numbers: 038484, 091409-21K, 091409-11K, 9-121-001
Other Comments: _____

PC Secondary Review: MS 10/12/09

*significant air bubbles are greater than 5-6 mm

Required Ship to Lab:				Required Project Information:				Required Invoice Information:								
Lab Name: COLUMBIA ANALYTICAL SERVICES, INC.		Site ID #: TRONOX LLC, HENDERSON		Send Invoice to: Susan Crowley Tronox LLC		TAT: Standard 30 day		Rush		Mark One						
Address: 1 Mustard Street, Suite 250 Rochester, NY 14609		Project #: 2027.001		Address: PO Box 55 Henderson, NV 89009		Phone #: (949)260-9293		QC level Required: Standard		Special EPA Stage Mark one						
Lab P/W: Janice Jaeger		City: Henderson		State: NV		Reimbursement project? <input checked="" type="checkbox"/>		Non-reimbursement project? <input type="checkbox"/>		Mark one						
Phone/Fax: (505)288-5380		Site PM Name: Derrick Willis		Phone/Fax: 949-375-7004		Send EDD to: frank.hagar@ngem.com		MA MCP Cert? <input type="checkbox"/>		ICT RCP Cert? <input type="checkbox"/>						
Lab PM email: jjaeger@caslab.com		Site PM Email: derrick.willis@ngem.com		CC Hardcopy report to: PDF Electronic Version Only		CC Hardcopy report to: see additional comments below		Lab Project ID (lab use)								
ITEM #	SAMPLE ID	Character per box. (A-Z, 0-9 /, -)	Samples IDs MUST BE UNIQUE	Valid Matrix Codes		MATRIX CODE	SAMPLE TYPE	FIELD FILTERED? (Y/N)	PRESERVATIVES						Comments/Lab Sample I.D.	
				WATER	SLURRY				UNPRESERVED	H2SO4	HNO3	HCl	NaOH	Na2S2O3		Methanol
1	MC-94B			WG	G	10/7/2009	10:45	1								250 ml Plastic
2	MC-94B			WG	G	10/7/2009	10:45	1								250 ml Plastic
3	MC-94B			WG	G	10/7/2009	10:45	1								250 ml Plastic
4	MC-94B			WG	G	10/7/2009	10:45	1								500 ml Plastic
5	MC-94B			WG	G	10/7/2009	10:45	1								250 ml Plastic
6	MC-94B			WG	G	10/7/2009	10:45	1								125 ml Plastic
7	MC-94B			WG	G	10/7/2009	10:45	1								1 L Plastic
8	TB100709-GW1			WG	G	10/7/2009	10:40	1								2 x 40 ml VOAs
9																
10																
11																
12																

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE RECEIPT CONDITIONS
Dana R. Brown, NGEM	7-Oct	12:45	Darren Qualls, GES	10/7/2009	12:45	Y/N Y/N Y/N
Darren Qualls, GES	7-Oct	16:30	Matth Com CAJ	10/18/09	10:00	Y/N Y/N Y/N
SHIPPING METHOD (mark as appropriate)						
UPS COURIER	PEDEX		SAMPLER NAME AND SIGNATURE			
US MAIL	SIGNATURE OF SAMPLER:		DATE SIGNED			
	Dana R. Brown		10/7/2009			
	Dana R. Brown		Time: 12:45			

Additional Comments/Special Instructions:
Omit As and Se from Metals 6010/6020
All PDF reports and EDDs will be uploaded to:
Northgate Environmental Management, Inc.
FTP site address provided to labs
Notifications provided to:
cindy.arnold@ngem.com
frank.hagar@ngem.com



Required Ship to Lab:		Required Project Information:		Required Invoice Information:		TAT: Standard 30 day <input checked="" type="checkbox"/> Rush		Mark One	
Lab Name: COLUMBIA ANALYTICAL SERVICES, INC.		Site ID #: TRONOX LLC - HENDERSON		Send Invoice to: Susan Crowley Ironox LLC					
Address: 1 Mustard Street, Suite 250 Rochester, NY 14609		Project #: 2027.001		Address: PO Box 55 Henderson, NV 89009		Phone #: (949)260-9293			
Lab P.M.: Janice Jaeger		City: Henderson State: NV		Reimbursement project? <input checked="" type="checkbox"/> Non-reimbursement project?				EPA Stage <u>4</u>	
Phone/Fax: (565)288-5380		Site PM Name: Derrick Willis		Send EDD to: frank.hagar@ngem.com		Send EDD to: frank.hagar@ngem.com		Special: EPA 314.0 Packaging EPA 9001 DCP EPA 9270 SVOC EPA 9020 TOC EPA 8200 VOC	
Lab PM email: jjaeger@caslab.com		Phone/Fax: 949-376-7004		CC Hardcopy report to: PDF Electronic Version Only		CC Hardcopy report to: see additional comments below		MA MCP Cert? <input type="checkbox"/> CT RCP Cert? <input type="checkbox"/>	
Applicable Lab Quote #:		Site PM Email: derrick.willis@ngem.com						Lab Project ID (lab use)	
ITEM #	SAMPLE ID	Matrix	Sample Type	Sample Date	Sample Time	# of Containers	Field Filtered? (Y/N)	Requested Analytes	Comments/Lab Sample I.D.
1	MC-94B	WG	G	10/7/2009	10:45	3	N		3 x 40 ml VOAs
2	MC-94B	WG	G	10/7/2009	10:45	2	N		2 x 40 ml VOAs
3	MC-94B	WG	G	10/7/2009	10:45	2	N		2 x 1 L Amber Glass
4	MC-94B	WG	G	10/7/2009	10:45	2	N		2 x 1 L Amber Glass
5	MC-94B	WG	G	10/7/2009	10:45	1	N		500 ml Plastic
6	MC-94B	WG	G	10/7/2009	10:45	1	N		250 ml Plastic
7	MC-94B	WG	G	10/7/2009	10:45	1	N		250 ml Amber Glass
8	MC-94B	WG	G	10/7/2009	10:45	1	Y		125 ml Plastic
9									
10									
11									
12									
Additional Comments/Special Instructions:		REQUISITIONED BY / AFFILIATION		DATE		TIME		ACCEPTED BY / AFFILIATION	
Omit As and Se from Metals 6010/6020		Dana R. Brown, NGEM		7-Oct		12:45		Darren Qualls, GES	
All PDF reports and EDDs will be uploaded to: Northgate Environmental Management, Inc.		Dana R. Brown		7-Oct		1630		Matt Co CA	
FTP site address provided to labs									
Notifications provided to: cindy.arnold@ngem.com frank.hagar@ngem.com									
SHIPPING METHOD (mark as appropriate)		SAMPLER NAME AND SIGNATURE		DATE SIGNED		TIME		TEMP IN COOLERS	
UPS COURIER		Dana R. Brown		10/7/2009		12:45		Y/N Y/N Y/N Y/N Y/N Y/N Y/N Y/N Y/N Y/N	
US MAIL								Sample Intact? Y/N Y/N Y/N Y/N Y/N Y/N Y/N Y/N Y/N Y/N	



Cooler Receipt And Preservation Check Form

Project/Client Henderson Soil + water Submission Number 20905636

Cooler received on 10/8/09 by: MWC 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: 2° 3° 4° 2° 3° 2°
- Is the temperature within 0° - 6° C?: Yes Yes Yes Yes Yes Yes
- If No, Explain Below: No No No No No

Date/Time Temperatures Taken: 10/8/09 1605

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: JMS 10/8/09

Cooler Breakdown: Date: 10/8/09 by: MRP

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	YES NO		Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
		YES	NO						
≥12	NaOH	✓		W685220C	10/13				
≤2	HNO ₃	✓		W68529695	5/105				
≤2	H ₂ SO ₄	✓							
Residual Chlorine (-)	For TCN and Phenol			If present, contact PM to add ascorbic acid					
	Na ₂ S ₂ O ₃	-	-						
	Zn Aceta	-	-						
	HCl	*	*						

Yes = All samples OK

No = Samples were preserved at lab as listed

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

PM OK to Adjust: _____

Bottle lot numbers: _____
Other Comments: _____

PC Secondary Review: JMS 10/12/09 *significant air bubbles are greater than 5.6 mm

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
 Project: Tronox LLC Henderson/2027.001
 Sample Matrix: Water
 Sample Name: PB100209-A2
 Lab Code: R0905636-001

Service Request: R0905636
 Date Collected: 10/ 2/09 1111
 Date Received: 10/ 3/09
 Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	0.18	U	1.0	0.18	1	NA	10/12/09 22:24		174383	
1,1,1-Trichloroethane (TCA)	0.32	U	1.0	0.32	1	NA	10/12/09 22:24		174383	
1,1,2,2-Tetrachloroethane	0.090	U	1.0	0.090	1	NA	10/12/09 22:24		174383	
1,1,2-Trichloroethane	0.20	U	1.0	0.20	1	NA	10/12/09 22:24		174383	
1,1-Dichloroethane (1,1-DCA)	0.14	U	1.0	0.14	1	NA	10/12/09 22:24		174383	
1,1-Dichloroethene (1,1-DCE)	0.37	U	1.0	0.37	1	NA	10/12/09 22:24		174383	
1,1-Dichloropropene	0.21	U	2.0	0.21	1	NA	10/12/09 22:24		174383	
1,2,3-Trichlorobenzene	0.25	U	2.0	0.25	1	NA	10/12/09 22:24		174383	
1,2,3-Trichloropropane	0.30	U	2.0	0.30	1	NA	10/12/09 22:24		174383	
1,2,4-Trichlorobenzene	0.19	U	2.0	0.19	1	NA	10/12/09 22:24		174383	
1,2,4-Trimethylbenzene	0.36	U	2.0	0.36	1	NA	10/12/09 22:24		174383	
1,2-Dibromo-3-chloropropane (DBCP)	0.43	U	5.0	0.43	1	NA	10/12/09 22:24		174383	
1,2-Dibromoethane	0.18	U	1.0	0.18	1	NA	10/12/09 22:24		174383	
1,2-Dichlorobenzene	0.40	U	2.0	0.40	1	NA	10/12/09 22:24		174383	
1,2-Dichloroethane	0.14	U	1.0	0.14	1	NA	10/12/09 22:24		174383	
1,2-Dichloropropane	0.15	U	1.0	0.15	1	NA	10/12/09 22:24		174383	
1,3,5-Trimethylbenzene	0.36	U	2.0	0.36	1	NA	10/12/09 22:24		174383	
1,3-Dichlorobenzene	0.36	U	2.0	0.36	1	NA	10/12/09 22:24		174383	
1,3-Dichloropropane	0.12	U	2.0	0.12	1	NA	10/12/09 22:24		174383	
1,4-Dichlorobenzene	0.34	U	2.0	0.34	1	NA	10/12/09 22:24		174383	
2,2-Dichloropropane	0.20	U	2.0	0.20	1	NA	10/12/09 22:24		174383	
2-Butanone (MEK)	1.0	U	10	1.0	1	NA	10/12/09 22:24		174383	
2-Chlorotoluene	0.38	U	5.0	0.38	1	NA	10/12/09 22:24		174383	
2-Hexanone	0.40	U	10	0.40	1	NA	10/12/09 22:24		174383	
2-Methyl-2-propanol	3.0	U	100	3.0	1	NA	10/12/09 22:24		174383	
4-Chlorotoluene	0.37	U	5.0	0.37	1	NA	10/12/09 22:24		174383	
4-Isopropyltoluene	0.22	U	2.0	0.22	1	NA	10/12/09 22:24		174383	
4-Methyl-2-pentanone	0.34	U	10	0.34	1	NA	10/12/09 22:24		174383	
Acetone	10	J	20	1.6	1	NA	10/12/09 22:24		174383	
Benzene	0.18	U	1.0	0.18	1	NA	10/12/09 22:24		174383	
Bromobenzene	0.33	U	2.0	0.33	1	NA	10/12/09 22:24		174383	
Bromochloromethane	0.18	U	2.0	0.18	1	NA	10/12/09 22:24		174383	
Bromodichloromethane	0.17	U	1.0	0.17	1	NA	10/12/09 22:24		174383	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
 Project: Tronox LLC Henderson/2027.001
 Sample Matrix: Water
 Sample Name: PB100209-A2
 Lab Code: R0905636-001

Service Request: R0905636
 Date Collected: 10/ 2/09 1111
 Date Received: 10/ 3/09
 Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Bromoform	0.20	U	1.0	0.20	1	NA	10/12/09 22:24		174383	
Bromomethane	0.40	U	2.0	0.40	1	NA	10/12/09 22:24		174383	
Carbon Tetrachloride	0.36	U	1.0	0.36	1	NA	10/12/09 22:24		174383	
Chlorobenzene	0.26	U	1.0	0.26	1	NA	10/12/09 22:24		174383	
Chloroethane	0.21	U	2.0	0.21	1	NA	10/12/09 22:24		174383	
Chloroform	0.16	U	1.0	0.16	1	NA	10/12/09 22:24		174383	
Chloromethane	0.18	U	2.0	0.18	1	NA	10/12/09 22:24		174383	
Dibromochloromethane	0.11	U	1.0	0.11	1	NA	10/12/09 22:24		174383	
Dibromomethane	0.18	U	1.0	0.18	1	NA	10/12/09 22:24		174383	
Dichlorodifluoromethane (CFC 12)	0.18	U	1.0	0.18	1	NA	10/12/09 22:24		174383	
Dichloromethane	0.42	J	2.0	0.13	1	NA	10/12/09 22:24		174383	
Diisopropyl Ether	0.090	U	1.0	0.090	1	NA	10/12/09 22:24		174383	
Ethyl tert-Butyl Ether	0.12	U	1.0	0.12	1	NA	10/12/09 22:24		174383	
Ethylbenzene	0.42	U	1.0	0.42	1	NA	10/12/09 22:24		174383	
Hexachlorobutadiene	0.27	U	5.0	0.27	1	NA	10/12/09 22:24		174383	
Isopropylbenzene (Cumene)	0.34	U	2.0	0.34	1	NA	10/12/09 22:24		174383	
Methyl tert-Butyl Ether	0.13	U	1.0	0.13	1	NA	10/12/09 22:24		174383	
Naphthalene	0.31	U	2.0	0.31	1	NA	10/12/09 22:24		174383	
Styrene	0.36	U	1.0	0.36	1	NA	10/12/09 22:24		174383	
Tetrachloroethene (PCE)	0.42	U	1.0	0.42	1	NA	10/12/09 22:24		174383	
Toluene	0.26	J	1.0	0.21	1	NA	10/12/09 22:24		174383	
Trichloroethene (TCE)	0.13	U	1.0	0.13	1	NA	10/12/09 22:24		174383	
Trichlorofluoromethane (CFC 11)	0.15	U	1.0	0.15	1	NA	10/12/09 22:24		174383	
Vinyl Chloride	0.22	U	1.0	0.22	1	NA	10/12/09 22:24		174383	
cis-1,2-Dichloroethene	0.14	U	1.0	0.14	1	NA	10/12/09 22:24		174383	
cis-1,3-Dichloropropene	0.14	U	1.0	0.14	1	NA	10/12/09 22:24		174383	
m,p-Xylenes	0.81	U	2.0	0.81	1	NA	10/12/09 22:24		174383	
n-Butylbenzene	0.20	U	5.0	0.20	1	NA	10/12/09 22:24		174383	
n-Propylbenzene	0.32	U	2.0	0.32	1	NA	10/12/09 22:24		174383	
o-Xylene	0.40	U	1.0	0.40	1	NA	10/12/09 22:24		174383	
sec-Butylbenzene	0.23	U	2.0	0.23	1	NA	10/12/09 22:24		174383	
tert-Amyl Methyl Ether	0.13	U	1.0	0.13	1	NA	10/12/09 22:24		174383	
tert-Butylbenzene	0.28	U	2.0	0.28	1	NA	10/12/09 22:24		174383	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: PB100209-A2
Lab Code: R0905636-001

Service Request: R0905636
Date Collected: 10/ 2/09 1111
Date Received: 10/ 3/09
Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
trans-1,2-Dichloroethene	0.16	U	1.0	0.16	1	NA	10/12/09 22:24		174383	
trans-1,3-Dichloropropene	0.17	U	1.0	0.17	1	NA	10/12/09 22:24		174383	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
4-Bromofluorobenzene	104	70-130	10/12/09 22:24		
Dibromofluoromethane	108	70-130	10/12/09 22:24		
Toluene-d8	105	70-130	10/12/09 22:24		

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
 Project: Tronox LLC Henderson/2027.001
 Sample Matrix: Water
 Sample Name: M-76B
 Lab Code: R0905636-002

Service Request: R0905636
 Date Collected: 10/ 2/09 1155
 Date Received: 10/ 3/09
 Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	0.18	U	1.0	0.18	1	NA	10/13/09 15:34		174548	
1,1,1-Trichloroethane (TCA)	0.32	U	1.0	0.32	1	NA	10/13/09 15:34		174548	
1,1,2,2-Tetrachloroethane	0.090	U	1.0	0.090	1	NA	10/13/09 15:34		174548	
1,1,2-Trichloroethane	0.20	U	1.0	0.20	1	NA	10/13/09 15:34		174548	
1,1-Dichloroethane (1,1-DCA)	0.14	U	1.0	0.14	1	NA	10/13/09 15:34		174548	
1,1-Dichloroethene (1,1-DCE)	0.45	J	1.0	0.37	1	NA	10/13/09 15:34		174548	
1,1-Dichloropropene	0.21	U	2.0	0.21	1	NA	10/13/09 15:34		174548	
1,2,3-Trichlorobenzene	0.25	U	2.0	0.25	1	NA	10/13/09 15:34		174548	
1,2,3-Trichloropropane	0.30	U	2.0	0.30	1	NA	10/13/09 15:34		174548	
1,2,4-Trichlorobenzene	0.19	U	2.0	0.19	1	NA	10/13/09 15:34		174548	
1,2,4-Trimethylbenzene	0.36	U	2.0	0.36	1	NA	10/13/09 15:34		174548	
1,2-Dibromo-3-chloropropane (DBCP)	0.43	U	5.0	0.43	1	NA	10/13/09 15:34		174548	
1,2-Dibromoethane	0.18	U	1.0	0.18	1	NA	10/13/09 15:34		174548	
1,2-Dichlorobenzene	0.40	U	2.0	0.40	1	NA	10/13/09 15:34		174548	
1,2-Dichloroethane	0.14	U	1.0	0.14	1	NA	10/13/09 15:34		174548	
1,2-Dichloropropane	0.15	U	1.0	0.15	1	NA	10/13/09 15:34		174548	
1,3,5-Trimethylbenzene	0.36	U	2.0	0.36	1	NA	10/13/09 15:34		174548	
1,3-Dichlorobenzene	0.36	U	2.0	0.36	1	NA	10/13/09 15:34		174548	
1,3-Dichloropropane	0.12	U	2.0	0.12	1	NA	10/13/09 15:34		174548	
1,4-Dichlorobenzene	0.34	U	2.0	0.34	1	NA	10/13/09 15:34		174548	
2,2-Dichloropropane	0.20	U	2.0	0.20	1	NA	10/13/09 15:34		174548	
2-Butanone (MEK)	1.0	U	10	1.0	1	NA	10/13/09 15:34		174548	
2-Chlorotoluene	0.38	U	5.0	0.38	1	NA	10/13/09 15:34		174548	
2-Hexanone	0.40	U	10	0.40	1	NA	10/13/09 15:34		174548	
2-Methyl-2-propanol	3.0	U	100	3.0	1	NA	10/13/09 15:34		174548	
4-Chlorotoluene	0.37	U	5.0	0.37	1	NA	10/13/09 15:34		174548	
4-Isopropyltoluene	0.22	U	2.0	0.22	1	NA	10/13/09 15:34		174548	
4-Methyl-2-pentanone	0.34	U	10	0.34	1	NA	10/13/09 15:34		174548	
Acetone	6.3	J	20	1.6	1	NA	10/13/09 15:34		174548	
Benzene	0.18	U	1.0	0.18	1	NA	10/13/09 15:34		174548	
Bromobenzene	0.33	U	2.0	0.33	1	NA	10/13/09 15:34		174548	
Bromochloromethane	0.18	U	2.0	0.18	1	NA	10/13/09 15:34		174548	
Bromodichloromethane	0.17	U	1.0	0.17	1	NA	10/13/09 15:34		174548	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
 Project: Tronox LLC Henderson/2027.001
 Sample Matrix: Water
 Sample Name: M-76B
 Lab Code: R0905636-002

Service Request: R0905636
 Date Collected: 10/ 2/09 1155
 Date Received: 10/ 3/09
 Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis	
								Lot	Lot Note
Bromoform	0.20	U	1.0	0.20	1	NA	10/13/09 15:34		174548
Bromomethane	0.40	U	2.0	0.40	1	NA	10/13/09 15:34		174548
Carbon Tetrachloride	0.36	U	1.0	0.36	1	NA	10/13/09 15:34		174548
Chlorobenzene	0.26	U	1.0	0.26	1	NA	10/13/09 15:34		174548
Chloroethane	0.21	U	2.0	0.21	1	NA	10/13/09 15:34		174548
Chloroform	120		1.0	0.16	1	NA	10/13/09 15:34		174548
Chloromethane	0.18	U	2.0	0.18	1	NA	10/13/09 15:34		174548
Dibromochloromethane	0.11	U	1.0	0.11	1	NA	10/13/09 15:34		174548
Dibromomethane	0.18	U	1.0	0.18	1	NA	10/13/09 15:34		174548
Dichlorodifluoromethane (CFC 12)	0.18	U	1.0	0.18	1	NA	10/13/09 15:34		174548
Dichloromethane	0.13	U	2.0	0.13	1	NA	10/13/09 15:34		174548
Diisopropyl Ether	0.090	U	1.0	0.090	1	NA	10/13/09 15:34		174548
Ethyl tert-Butyl Ether	0.12	U	1.0	0.12	1	NA	10/13/09 15:34		174548
Ethylbenzene	0.42	U	1.0	0.42	1	NA	10/13/09 15:34		174548
Hexachlorobutadiene	0.27	U	5.0	0.27	1	NA	10/13/09 15:34		174548
Isopropylbenzene (Cumene)	0.34	U	2.0	0.34	1	NA	10/13/09 15:34		174548
Methyl tert-Butyl Ether	0.13	U	1.0	0.13	1	NA	10/13/09 15:34		174548
Naphthalene	0.31	U	2.0	0.31	1	NA	10/13/09 15:34		174548
Styrene	0.36	U	1.0	0.36	1	NA	10/13/09 15:34		174548
Tetrachloroethene (PCE)	0.42	U	1.0	0.42	1	NA	10/13/09 15:34		174548
Toluene	0.21	U	1.0	0.21	1	NA	10/13/09 15:34		174548
Trichloroethene (TCE)	0.13	U	1.0	0.13	1	NA	10/13/09 15:34		174548
Trichlorofluoromethane (CFC 11)	0.15	U	1.0	0.15	1	NA	10/13/09 15:34		174548
Vinyl Chloride	0.22	U	1.0	0.22	1	NA	10/13/09 15:34		174548
cis-1,2-Dichloroethene	0.14	U	1.0	0.14	1	NA	10/13/09 15:34		174548
cis-1,3-Dichloropropene	0.14	U	1.0	0.14	1	NA	10/13/09 15:34		174548
m,p-Xylenes	0.81	U	2.0	0.81	1	NA	10/13/09 15:34		174548
n-Butylbenzene	0.20	U	5.0	0.20	1	NA	10/13/09 15:34		174548
n-Propylbenzene	0.32	U	2.0	0.32	1	NA	10/13/09 15:34		174548
o-Xylene	0.40	U	1.0	0.40	1	NA	10/13/09 15:34		174548
sec-Butylbenzene	0.23	U	2.0	0.23	1	NA	10/13/09 15:34		174548
tert-Amyl Methyl Ether	0.13	U	1.0	0.13	1	NA	10/13/09 15:34		174548
tert-Butylbenzene	0.28	U	2.0	0.28	1	NA	10/13/09 15:34		174548

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: M-76B
Lab Code: R0905636-002

Service Request: R0905636
Date Collected: 10/ 2/09 1155
Date Received: 10/ 3/09
Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
trans-1,2-Dichloroethene	0.16	U	1.0	0.16	1	NA	10/13/09 15:34		174548	
trans-1,3-Dichloropropene	0.17	U	1.0	0.17	1	NA	10/13/09 15:34		174548	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
4-Bromofluorobenzene	106	70-130	10/13/09 15:34		
Dibromofluoromethane	110	70-130	10/13/09 15:34		
Toluene-d8	105	70-130	10/13/09 15:34		

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: M-76009B
Lab Code: R0905636-003

Service Request: R0905636
Date Collected: 10/ 2/09 1155
Date Received: 10/ 3/09
Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	0.18	U	1.0	0.18	1	NA	10/13/09 16:05		174548	
1,1,1-Trichloroethane (TCA)	0.32	U	1.0	0.32	1	NA	10/13/09 16:05		174548	
1,1,2,2-Tetrachloroethane	0.090	U	1.0	0.090	1	NA	10/13/09 16:05		174548	
1,1,2-Trichloroethane	0.20	U	1.0	0.20	1	NA	10/13/09 16:05		174548	
1,1-Dichloroethane (1,1-DCA)	0.14	U	1.0	0.14	1	NA	10/13/09 16:05		174548	
1,1-Dichloroethene (1,1-DCE)	0.44	J	1.0	0.37	1	NA	10/13/09 16:05		174548	
1,1-Dichloropropene	0.21	U	2.0	0.21	1	NA	10/13/09 16:05		174548	
1,2,3-Trichlorobenzene	0.25	U	2.0	0.25	1	NA	10/13/09 16:05		174548	
1,2,3-Trichloropropane	0.30	U	2.0	0.30	1	NA	10/13/09 16:05		174548	
1,2,4-Trichlorobenzene	0.19	U	2.0	0.19	1	NA	10/13/09 16:05		174548	
1,2,4-Trimethylbenzene	0.36	U	2.0	0.36	1	NA	10/13/09 16:05		174548	
1,2-Dibromo-3-chloropropane (DBCP)	0.43	U	5.0	0.43	1	NA	10/13/09 16:05		174548	
1,2-Dibromoethane	0.18	U	1.0	0.18	1	NA	10/13/09 16:05		174548	
1,2-Dichlorobenzene	0.40	U	2.0	0.40	1	NA	10/13/09 16:05		174548	
1,2-Dichloroethane	0.14	U	1.0	0.14	1	NA	10/13/09 16:05		174548	
1,2-Dichloropropane	0.15	U	1.0	0.15	1	NA	10/13/09 16:05		174548	
1,3,5-Trimethylbenzene	0.36	U	2.0	0.36	1	NA	10/13/09 16:05		174548	
1,3-Dichlorobenzene	0.36	U	2.0	0.36	1	NA	10/13/09 16:05		174548	
1,3-Dichloropropane	0.12	U	2.0	0.12	1	NA	10/13/09 16:05		174548	
1,4-Dichlorobenzene	0.34	U	2.0	0.34	1	NA	10/13/09 16:05		174548	
2,2-Dichloropropane	0.20	U	2.0	0.20	1	NA	10/13/09 16:05		174548	
2-Butanone (MEK)	1.0	U	10	1.0	1	NA	10/13/09 16:05		174548	
2-Chlorotoluene	0.38	U	5.0	0.38	1	NA	10/13/09 16:05		174548	
2-Hexanone	0.40	U	10	0.40	1	NA	10/13/09 16:05		174548	
2-Methyl-2-propanol	3.0	U	100	3.0	1	NA	10/13/09 16:05		174548	
4-Chlorotoluene	0.37	U	5.0	0.37	1	NA	10/13/09 16:05		174548	
4-Isopropyltoluene	0.22	U	2.0	0.22	1	NA	10/13/09 16:05		174548	
4-Methyl-2-pentanone	0.34	U	10	0.34	1	NA	10/13/09 16:05		174548	
Acetone	3.9	J	20	1.6	1	NA	10/13/09 16:05		174548	
Benzene	0.18	U	1.0	0.18	1	NA	10/13/09 16:05		174548	
Bromobenzene	0.33	U	2.0	0.33	1	NA	10/13/09 16:05		174548	
Bromochloromethane	0.18	U	2.0	0.18	1	NA	10/13/09 16:05		174548	
Bromodichloromethane	0.17	U	1.0	0.17	1	NA	10/13/09 16:05		174548	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: M-76009B
Lab Code: R0905636-003

Service Request: R0905636
Date Collected: 10/ 2/09 1155
Date Received: 10/ 3/09

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Bromoform	0.30	J	1.0	0.20	1	NA	10/13/09 16:05		174548	
Bromomethane	0.40	U	2.0	0.40	1	NA	10/13/09 16:05		174548	
Carbon Tetrachloride	0.58	J	1.0	0.36	1	NA	10/13/09 16:05		174548	
Chlorobenzene	0.26	U	1.0	0.26	1	NA	10/13/09 16:05		174548	
Chloroethane	0.21	U	2.0	0.21	1	NA	10/13/09 16:05		174548	
Chloroform	120		1.0	0.16	1	NA	10/13/09 16:05		174548	
Chloromethane	0.18	U	2.0	0.18	1	NA	10/13/09 16:05		174548	
Dibromochloromethane	0.11	U	1.0	0.11	1	NA	10/13/09 16:05		174548	
Dibromomethane	0.18	U	1.0	0.18	1	NA	10/13/09 16:05		174548	
Dichlorodifluoromethane (CFC 12)	0.18	U	1.0	0.18	1	NA	10/13/09 16:05		174548	
Dichloromethane	0.13	U	2.0	0.13	1	NA	10/13/09 16:05		174548	
Diisopropyl Ether	0.090	U	1.0	0.090	1	NA	10/13/09 16:05		174548	
Ethyl tert-Butyl Ether	0.12	U	1.0	0.12	1	NA	10/13/09 16:05		174548	
Ethylbenzene	0.42	U	1.0	0.42	1	NA	10/13/09 16:05		174548	
Hexachlorobutadiene	0.27	U	5.0	0.27	1	NA	10/13/09 16:05		174548	
Isopropylbenzene (Cumene)	0.34	U	2.0	0.34	1	NA	10/13/09 16:05		174548	
Methyl tert-Butyl Ether	0.13	U	1.0	0.13	1	NA	10/13/09 16:05		174548	
Naphthalene	0.31	U	2.0	0.31	1	NA	10/13/09 16:05		174548	
Styrene	0.36	U	1.0	0.36	1	NA	10/13/09 16:05		174548	
Tetrachloroethene (PCE)	0.42	U	1.0	0.42	1	NA	10/13/09 16:05		174548	
Toluene	0.21	U	1.0	0.21	1	NA	10/13/09 16:05		174548	
Trichloroethene (TCE)	0.13	U	1.0	0.13	1	NA	10/13/09 16:05		174548	
Trichlorofluoromethane (CFC 11)	0.15	U	1.0	0.15	1	NA	10/13/09 16:05		174548	
Vinyl Chloride	0.22	U	1.0	0.22	1	NA	10/13/09 16:05		174548	
cis-1,2-Dichloroethene	0.14	U	1.0	0.14	1	NA	10/13/09 16:05		174548	
cis-1,3-Dichloropropene	0.14	U	1.0	0.14	1	NA	10/13/09 16:05		174548	
m,p-Xylenes	0.81	U	2.0	0.81	1	NA	10/13/09 16:05		174548	
n-Butylbenzene	0.20	U	5.0	0.20	1	NA	10/13/09 16:05		174548	
n-Propylbenzene	0.32	U	2.0	0.32	1	NA	10/13/09 16:05		174548	
o-Xylene	0.40	U	1.0	0.40	1	NA	10/13/09 16:05		174548	
sec-Butylbenzene	0.23	U	2.0	0.23	1	NA	10/13/09 16:05		174548	
tert-Amyl Methyl Ether	0.13	U	1.0	0.13	1	NA	10/13/09 16:05		174548	
tert-Butylbenzene	0.28	U	2.0	0.28	1	NA	10/13/09 16:05		174548	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: M-76009B
Lab Code: R0905636-003

Service Request: R0905636
Date Collected: 10/ 2/09 1155
Date Received: 10/ 3/09
Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
trans-1,2-Dichloroethene	0.16	U	1.0	0.16	1	NA	10/13/09 16:05		174548	
trans-1,3-Dichloropropene	0.17	U	1.0	0.17	1	NA	10/13/09 16:05		174548	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
4-Bromofluorobenzene	106	70-130	10/13/09 16:05		
Dibromofluoromethane	110	70-130	10/13/09 16:05		
Toluene-d8	108	70-130	10/13/09 16:05		

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: TB100209-GW1
Lab Code: R0905636-004

Service Request: R0905636
Date Collected: 10/ 2/09
Date Received: 10/ 3/09
Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	0.18	U	1.0	0.18	1	NA	10/12/09 20:51		174383	
1,1,1-Trichloroethane (TCA)	0.32	U	1.0	0.32	1	NA	10/12/09 20:51		174383	
1,1,2,2-Tetrachloroethane	0.090	U	1.0	0.090	1	NA	10/12/09 20:51		174383	
1,1,2-Trichloroethane	0.20	U	1.0	0.20	1	NA	10/12/09 20:51		174383	
1,1-Dichloroethane (1,1-DCA)	0.14	U	1.0	0.14	1	NA	10/12/09 20:51		174383	
1,1-Dichloroethene (1,1-DCE)	0.37	U	1.0	0.37	1	NA	10/12/09 20:51		174383	
1,1-Dichloropropene	0.21	U	2.0	0.21	1	NA	10/12/09 20:51		174383	
1,2,3-Trichlorobenzene	0.25	U	2.0	0.25	1	NA	10/12/09 20:51		174383	
1,2,3-Trichloropropane	0.30	U	2.0	0.30	1	NA	10/12/09 20:51		174383	
1,2,4-Trichlorobenzene	0.19	U	2.0	0.19	1	NA	10/12/09 20:51		174383	
1,2,4-Trimethylbenzene	0.36	U	2.0	0.36	1	NA	10/12/09 20:51		174383	
1,2-Dibromo-3-chloropropane (DBCP)	0.43	U	5.0	0.43	1	NA	10/12/09 20:51		174383	
1,2-Dibromoethane	0.18	U	1.0	0.18	1	NA	10/12/09 20:51		174383	
1,2-Dichlorobenzene	0.40	U	2.0	0.40	1	NA	10/12/09 20:51		174383	
1,2-Dichloroethane	0.14	U	1.0	0.14	1	NA	10/12/09 20:51		174383	
1,2-Dichloropropane	0.15	U	1.0	0.15	1	NA	10/12/09 20:51		174383	
1,3,5-Trimethylbenzene	0.36	U	2.0	0.36	1	NA	10/12/09 20:51		174383	
1,3-Dichlorobenzene	0.36	U	2.0	0.36	1	NA	10/12/09 20:51		174383	
1,3-Dichloropropane	0.12	U	2.0	0.12	1	NA	10/12/09 20:51		174383	
1,4-Dichlorobenzene	0.34	U	2.0	0.34	1	NA	10/12/09 20:51		174383	
2,2-Dichloropropane	0.20	U	2.0	0.20	1	NA	10/12/09 20:51		174383	
2-Butanone (MEK)	1.0	U	10	1.0	1	NA	10/12/09 20:51		174383	
2-Chlorotoluene	0.38	U	5.0	0.38	1	NA	10/12/09 20:51		174383	
2-Hexanone	0.40	U	10	0.40	1	NA	10/12/09 20:51		174383	
2-Methyl-2-propanol	3.0	U	100	3.0	1	NA	10/12/09 20:51		174383	
4-Chlorotoluene	0.37	U	5.0	0.37	1	NA	10/12/09 20:51		174383	
4-Isopropyltoluene	0.22	U	2.0	0.22	1	NA	10/12/09 20:51		174383	
4-Methyl-2-pentanone	0.34	U	10	0.34	1	NA	10/12/09 20:51		174383	
Acetone	3.6	J	20	1.6	1	NA	10/12/09 20:51		174383	
Benzene	0.18	U	1.0	0.18	1	NA	10/12/09 20:51		174383	
Bromobenzene	0.33	U	2.0	0.33	1	NA	10/12/09 20:51		174383	
Bromochloromethane	0.18	U	2.0	0.18	1	NA	10/12/09 20:51		174383	
Bromodichloromethane	0.17	U	1.0	0.17	1	NA	10/12/09 20:51		174383	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: TB100209-GW1
Lab Code: R0905636-004

Service Request: R0905636
Date Collected: 10/ 2/09
Date Received: 10/ 3/09
Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Bromoform	0.20	U	1.0	0.20	1	NA	10/12/09 20:51		174383	
Bromomethane	0.40	U	2.0	0.40	1	NA	10/12/09 20:51		174383	
Carbon Tetrachloride	0.36	U	1.0	0.36	1	NA	10/12/09 20:51		174383	
Chlorobenzene	0.26	U	1.0	0.26	1	NA	10/12/09 20:51		174383	
Chloroethane	0.21	U	2.0	0.21	1	NA	10/12/09 20:51		174383	
Chloroform	0.16	U	1.0	0.16	1	NA	10/12/09 20:51		174383	
Chloromethane	0.20	J	2.0	0.18	1	NA	10/12/09 20:51		174383	
Dibromochloromethane	0.11	U	1.0	0.11	1	NA	10/12/09 20:51		174383	
Dibromomethane	0.18	U	1.0	0.18	1	NA	10/12/09 20:51		174383	
Dichlorodifluoromethane (CFC 12)	0.18	U	1.0	0.18	1	NA	10/12/09 20:51		174383	
Dichloromethane	0.13	U	2.0	0.13	1	NA	10/12/09 20:51		174383	
Diisopropyl Ether	0.090	U	1.0	0.090	1	NA	10/12/09 20:51		174383	
Ethyl tert-Butyl Ether	0.12	U	1.0	0.12	1	NA	10/12/09 20:51		174383	
Ethylbenzene	0.42	U	1.0	0.42	1	NA	10/12/09 20:51		174383	
Hexachlorobutadiene	0.27	U	5.0	0.27	1	NA	10/12/09 20:51		174383	
Isopropylbenzene (Cumene)	0.34	U	2.0	0.34	1	NA	10/12/09 20:51		174383	
Methyl tert-Butyl Ether	0.13	U	1.0	0.13	1	NA	10/12/09 20:51		174383	
Naphthalene	0.31	U	2.0	0.31	1	NA	10/12/09 20:51		174383	
Styrene	0.36	U	1.0	0.36	1	NA	10/12/09 20:51		174383	
Tetrachloroethene (PCE)	0.42	U	1.0	0.42	1	NA	10/12/09 20:51		174383	
Toluene	0.21	U	1.0	0.21	1	NA	10/12/09 20:51		174383	
Trichloroethene (TCE)	0.13	U	1.0	0.13	1	NA	10/12/09 20:51		174383	
Trichlorofluoromethane (CFC 11)	0.15	U	1.0	0.15	1	NA	10/12/09 20:51		174383	
Vinyl Chloride	0.22	U	1.0	0.22	1	NA	10/12/09 20:51		174383	
cis-1,2-Dichloroethene	0.14	U	1.0	0.14	1	NA	10/12/09 20:51		174383	
cis-1,3-Dichloropropene	0.14	U	1.0	0.14	1	NA	10/12/09 20:51		174383	
m,p-Xylenes	0.81	U	2.0	0.81	1	NA	10/12/09 20:51		174383	
n-Butylbenzene	0.20	U	5.0	0.20	1	NA	10/12/09 20:51		174383	
n-Propylbenzene	0.32	U	2.0	0.32	1	NA	10/12/09 20:51		174383	
o-Xylene	0.40	U	1.0	0.40	1	NA	10/12/09 20:51		174383	
sec-Butylbenzene	0.23	U	2.0	0.23	1	NA	10/12/09 20:51		174383	
tert-Amyl Methyl Ether	0.13	U	1.0	0.13	1	NA	10/12/09 20:51		174383	
tert-Butylbenzene	0.28	U	2.0	0.28	1	NA	10/12/09 20:51		174383	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: TB100209-GW1
Lab Code: R0905636-004

Service Request: R0905636
Date Collected: 10/ 2/09
Date Received: 10/ 3/09
Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
trans-1,2-Dichloroethene	0.16	U	1.0	0.16	1	NA	10/12/09 20:51		174383	
trans-1,3-Dichloropropene	0.17	U	1.0	0.17	1	NA	10/12/09 20:51		174383	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
4-Bromofluorobenzene	103	70-130	10/12/09 20:51		
Dibromofluoromethane	109	70-130	10/12/09 20:51		
Toluene-d8	105	70-130	10/12/09 20:51		

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: TB100209-GW2
Lab Code: R0905636-005

Service Request: R0905636
Date Collected: 10/ 2/09
Date Received: 10/ 3/09
Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	0.18	U	1.0	0.18	1	NA	10/12/09 21:22		174383	
1,1,1-Trichloroethane (TCA)	0.32	U	1.0	0.32	1	NA	10/12/09 21:22		174383	
1,1,2,2-Tetrachloroethane	0.090	U	1.0	0.090	1	NA	10/12/09 21:22		174383	
1,1,2-Trichloroethane	0.20	U	1.0	0.20	1	NA	10/12/09 21:22		174383	
1,1-Dichloroethane (1,1-DCA)	0.14	U	1.0	0.14	1	NA	10/12/09 21:22		174383	
1,1-Dichloroethene (1,1-DCE)	0.37	U	1.0	0.37	1	NA	10/12/09 21:22		174383	
1,1-Dichloropropene	0.21	U	2.0	0.21	1	NA	10/12/09 21:22		174383	
1,2,3-Trichlorobenzene	0.25	U	2.0	0.25	1	NA	10/12/09 21:22		174383	
1,2,3-Trichloropropane	0.30	U	2.0	0.30	1	NA	10/12/09 21:22		174383	
1,2,4-Trichlorobenzene	0.19	U	2.0	0.19	1	NA	10/12/09 21:22		174383	
1,2,4-Trimethylbenzene	0.36	U	2.0	0.36	1	NA	10/12/09 21:22		174383	
1,2-Dibromo-3-chloropropane (DBCP)	0.43	U	5.0	0.43	1	NA	10/12/09 21:22		174383	
1,2-Dibromoethane	0.18	U	1.0	0.18	1	NA	10/12/09 21:22		174383	
1,2-Dichlorobenzene	0.40	U	2.0	0.40	1	NA	10/12/09 21:22		174383	
1,2-Dichloroethane	0.14	U	1.0	0.14	1	NA	10/12/09 21:22		174383	
1,2-Dichloropropane	0.15	U	1.0	0.15	1	NA	10/12/09 21:22		174383	
1,3,5-Trimethylbenzene	0.36	U	2.0	0.36	1	NA	10/12/09 21:22		174383	
1,3-Dichlorobenzene	0.36	U	2.0	0.36	1	NA	10/12/09 21:22		174383	
1,3-Dichloropropane	0.12	U	2.0	0.12	1	NA	10/12/09 21:22		174383	
1,4-Dichlorobenzene	0.34	U	2.0	0.34	1	NA	10/12/09 21:22		174383	
2,2-Dichloropropane	0.20	U	2.0	0.20	1	NA	10/12/09 21:22		174383	
2-Butanone (MEK)	1.0	U	10	1.0	1	NA	10/12/09 21:22		174383	
2-Chlorotoluene	0.38	U	5.0	0.38	1	NA	10/12/09 21:22		174383	
2-Hexanone	0.40	U	10	0.40	1	NA	10/12/09 21:22		174383	
2-Methyl-2-propanol	3.0	U	100	3.0	1	NA	10/12/09 21:22		174383	
4-Chlorotoluene	0.37	U	5.0	0.37	1	NA	10/12/09 21:22		174383	
4-Isopropyltoluene	0.22	U	2.0	0.22	1	NA	10/12/09 21:22		174383	
4-Methyl-2-pentanone	0.34	U	10	0.34	1	NA	10/12/09 21:22		174383	
Acetone	1.8	J	20	1.6	1	NA	10/12/09 21:22		174383	
Benzene	0.18	U	1.0	0.18	1	NA	10/12/09 21:22		174383	
Bromobenzene	0.33	U	2.0	0.33	1	NA	10/12/09 21:22		174383	
Bromochloromethane	0.18	U	2.0	0.18	1	NA	10/12/09 21:22		174383	
Bromodichloromethane	0.17	U	1.0	0.17	1	NA	10/12/09 21:22		174383	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: TB100209-GW2
Lab Code: R0905636-005

Service Request: R0905636
Date Collected: 10/ 2/09
Date Received: 10/ 3/09
Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Bromoform	0.20	U	1.0	0.20	1	NA	10/12/09 21:22		174383	
Bromomethane	0.40	U	2.0	0.40	1	NA	10/12/09 21:22		174383	
Carbon Tetrachloride	0.36	U	1.0	0.36	1	NA	10/12/09 21:22		174383	
Chlorobenzene	0.26	U	1.0	0.26	1	NA	10/12/09 21:22		174383	
Chloroethane	0.21	U	2.0	0.21	1	NA	10/12/09 21:22		174383	
Chloroform	0.16	U	1.0	0.16	1	NA	10/12/09 21:22		174383	
Chloromethane	0.18	U	2.0	0.18	1	NA	10/12/09 21:22		174383	
Dibromochloromethane	0.11	U	1.0	0.11	1	NA	10/12/09 21:22		174383	
Dibromomethane	0.18	U	1.0	0.18	1	NA	10/12/09 21:22		174383	
Dichlorodifluoromethane (CFC 12)	0.18	U	1.0	0.18	1	NA	10/12/09 21:22		174383	
Dichloromethane	0.13	U	2.0	0.13	1	NA	10/12/09 21:22		174383	
Diisopropyl Ether	0.090	U	1.0	0.090	1	NA	10/12/09 21:22		174383	
Ethyl tert-Butyl Ether	0.12	U	1.0	0.12	1	NA	10/12/09 21:22		174383	
Ethylbenzene	0.42	U	1.0	0.42	1	NA	10/12/09 21:22		174383	
Hexachlorobutadiene	0.27	U	5.0	0.27	1	NA	10/12/09 21:22		174383	
Isopropylbenzene (Cumene)	0.34	U	2.0	0.34	1	NA	10/12/09 21:22		174383	
Methyl tert-Butyl Ether	0.13	U	1.0	0.13	1	NA	10/12/09 21:22		174383	
Naphthalene	0.31	U	2.0	0.31	1	NA	10/12/09 21:22		174383	
Styrene	0.36	U	1.0	0.36	1	NA	10/12/09 21:22		174383	
Tetrachloroethene (PCE)	0.42	U	1.0	0.42	1	NA	10/12/09 21:22		174383	
Toluene	0.21	U	1.0	0.21	1	NA	10/12/09 21:22		174383	
Trichloroethene (TCE)	0.13	U	1.0	0.13	1	NA	10/12/09 21:22		174383	
Trichlorofluoromethane (CFC 11)	0.15	U	1.0	0.15	1	NA	10/12/09 21:22		174383	
Vinyl Chloride	0.22	U	1.0	0.22	1	NA	10/12/09 21:22		174383	
cis-1,2-Dichloroethene	0.14	U	1.0	0.14	1	NA	10/12/09 21:22		174383	
cis-1,3-Dichloropropene	0.14	U	1.0	0.14	1	NA	10/12/09 21:22		174383	
m,p-Xylenes	0.81	U	2.0	0.81	1	NA	10/12/09 21:22		174383	
n-Butylbenzene	0.20	U	5.0	0.20	1	NA	10/12/09 21:22		174383	
n-Propylbenzene	0.32	U	2.0	0.32	1	NA	10/12/09 21:22		174383	
o-Xylene	0.40	U	1.0	0.40	1	NA	10/12/09 21:22		174383	
sec-Butylbenzene	0.23	U	2.0	0.23	1	NA	10/12/09 21:22		174383	
tert-Amyl Methyl Ether	0.13	U	1.0	0.13	1	NA	10/12/09 21:22		174383	
tert-Butylbenzene	0.28	U	2.0	0.28	1	NA	10/12/09 21:22		174383	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: TB100209-GW2
Lab Code: R0905636-005

Service Request: R0905636
Date Collected: 10/ 2/09
Date Received: 10/ 3/09
Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis		
								Lot	Lot	Note
trans-1,2-Dichloroethene	0.16	U	1.0	0.16	1	NA	10/12/09 21:22		174383	
trans-1,3-Dichloropropene	0.17	U	1.0	0.17	1	NA	10/12/09 21:22		174383	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
4-Bromofluorobenzene	103	70-130	10/12/09 21:22		
Dibromofluoromethane	108	70-130	10/12/09 21:22		
Toluene-d8	106	70-130	10/12/09 21:22		

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
 Project: Tronox LLC Henderson/2027.001
 Sample Matrix: Water
 Sample Name: MC-94B
 Lab Code: R0905636-006

Service Request: R0905636
 Date Collected: 10/ 7/09 1045
 Date Received: 10/ 8/09
 Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	0.18	U	1.0	0.18	1	NA	10/13/09 16:36		174548	
1,1,1-Trichloroethane (TCA)	0.32	U	1.0	0.32	1	NA	10/13/09 16:36		174548	
1,1,2,2-Tetrachloroethane	0.090	U	1.0	0.090	1	NA	10/13/09 16:36		174548	
1,1,2-Trichloroethane	0.20	U	1.0	0.20	1	NA	10/13/09 16:36		174548	
1,1-Dichloroethane (1,1-DCA)	0.82	J	1.0	0.14	1	NA	10/13/09 16:36		174548	
1,1-Dichloroethene (1,1-DCE)	0.37	U	1.0	0.37	1	NA	10/13/09 16:36		174548	
1,1-Dichloropropene	0.21	U	2.0	0.21	1	NA	10/13/09 16:36		174548	
1,2,3-Trichlorobenzene	0.25	U	2.0	0.25	1	NA	10/13/09 16:36		174548	
1,2,3-Trichloropropane	0.30	U	2.0	0.30	1	NA	10/13/09 16:36		174548	
1,2,4-Trichlorobenzene	0.19	U	2.0	0.19	1	NA	10/13/09 16:36		174548	
1,2,4-Trimethylbenzene	0.36	U	2.0	0.36	1	NA	10/13/09 16:36		174548	
1,2-Dibromo-3-chloropropane (DBCP)	0.43	U	5.0	0.43	1	NA	10/13/09 16:36		174548	
1,2-Dibromoethane	0.18	U	1.0	0.18	1	NA	10/13/09 16:36		174548	
1,2-Dichlorobenzene	0.40	U	2.0	0.40	1	NA	10/13/09 16:36		174548	
1,2-Dichloroethane	0.50	J	1.0	0.14	1	NA	10/13/09 16:36		174548	
1,2-Dichloropropane	0.15	U	1.0	0.15	1	NA	10/13/09 16:36		174548	
1,3,5-Trimethylbenzene	0.36	U	2.0	0.36	1	NA	10/13/09 16:36		174548	
1,3-Dichlorobenzene	0.36	U	2.0	0.36	1	NA	10/13/09 16:36		174548	
1,3-Dichloropropane	0.12	U	2.0	0.12	1	NA	10/13/09 16:36		174548	
1,4-Dichlorobenzene	0.34	U	2.0	0.34	1	NA	10/13/09 16:36		174548	
2,2-Dichloropropane	0.20	U	2.0	0.20	1	NA	10/13/09 16:36		174548	
2-Butanone (MEK)	1.0	U	10	1.0	1	NA	10/13/09 16:36		174548	
2-Chlorotoluene	0.38	U	5.0	0.38	1	NA	10/13/09 16:36		174548	
2-Hexanone	0.40	U	10	0.40	1	NA	10/13/09 16:36		174548	
2-Methyl-2-propanol	3.0	U	100	3.0	1	NA	10/13/09 16:36		174548	
4-Chlorotoluene	0.37	U	5.0	0.37	1	NA	10/13/09 16:36		174548	
4-Isopropyltoluene	0.22	U	2.0	0.22	1	NA	10/13/09 16:36		174548	
4-Methyl-2-pentanone	0.34	U	10	0.34	1	NA	10/13/09 16:36		174548	
Acetone	1.6	U	20	1.6	1	NA	10/13/09 16:36		174548	
Benzene	0.18	U	1.0	0.18	1	NA	10/13/09 16:36		174548	
Bromobenzene	0.33	U	2.0	0.33	1	NA	10/13/09 16:36		174548	
Bromochloromethane	0.18	U	2.0	0.18	1	NA	10/13/09 16:36		174548	
Bromodichloromethane	0.17	U	1.0	0.17	1	NA	10/13/09 16:36		174548	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
 Project: Tronox LLC Henderson/2027.001
 Sample Matrix: Water
 Sample Name: MC-94B
 Lab Code: R0905636-006

Service Request: R0905636
 Date Collected: 10/ 7/09 1045
 Date Received: 10/ 8/09
 Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis	
								Lot	Lot Note
Bromoform	0.35	J	1.0	0.20	1	NA	10/13/09 16:36		174548
Bromomethane	0.40	U	2.0	0.40	1	NA	10/13/09 16:36		174548
Carbon Tetrachloride	0.36	U	1.0	0.36	1	NA	10/13/09 16:36		174548
Chlorobenzene	0.26	U	1.0	0.26	1	NA	10/13/09 16:36		174548
Chloroethane	0.44	J	2.0	0.21	1	NA	10/13/09 16:36		174548
Chloroform	5.4		1.0	0.16	1	NA	10/13/09 16:36		174548
Chloromethane	0.18	U	2.0	0.18	1	NA	10/13/09 16:36		174548
Dibromochloromethane	0.11	U	1.0	0.11	1	NA	10/13/09 16:36		174548
Dibromomethane	0.18	U	1.0	0.18	1	NA	10/13/09 16:36		174548
Dichlorodifluoromethane (CFC 12)	0.18	U	1.0	0.18	1	NA	10/13/09 16:36		174548
Dichloromethane	0.26	J	2.0	0.13	1	NA	10/13/09 16:36		174548
Diisopropyl Ether	0.090	U	1.0	0.090	1	NA	10/13/09 16:36		174548
Ethyl tert-Butyl Ether	0.12	U	1.0	0.12	1	NA	10/13/09 16:36		174548
Ethylbenzene	0.42	U	1.0	0.42	1	NA	10/13/09 16:36		174548
Hexachlorobutadiene	0.27	U	5.0	0.27	1	NA	10/13/09 16:36		174548
Isopropylbenzene (Cumene)	0.34	U	2.0	0.34	1	NA	10/13/09 16:36		174548
Methyl tert-Butyl Ether	0.13	U	1.0	0.13	1	NA	10/13/09 16:36		174548
Naphthalene	0.31	U	2.0	0.31	1	NA	10/13/09 16:36		174548
Styrene	0.36	U	1.0	0.36	1	NA	10/13/09 16:36		174548
Tetrachloroethene (PCE)	1.3		1.0	0.42	1	NA	10/13/09 16:36		174548
Toluene	0.21	U	1.0	0.21	1	NA	10/13/09 16:36		174548
Trichloroethene (TCE)	0.27	J	1.0	0.13	1	NA	10/13/09 16:36		174548
Trichlorofluoromethane (CFC 11)	0.15	U	1.0	0.15	1	NA	10/13/09 16:36		174548
Vinyl Chloride	0.22	U	1.0	0.22	1	NA	10/13/09 16:36		174548
cis-1,2-Dichloroethene	0.14	U	1.0	0.14	1	NA	10/13/09 16:36		174548
cis-1,3-Dichloropropene	0.14	U	1.0	0.14	1	NA	10/13/09 16:36		174548
m,p-Xylenes	0.81	U	2.0	0.81	1	NA	10/13/09 16:36		174548
n-Butylbenzene	0.20	U	5.0	0.20	1	NA	10/13/09 16:36		174548
n-Propylbenzene	0.32	U	2.0	0.32	1	NA	10/13/09 16:36		174548
o-Xylene	0.40	U	1.0	0.40	1	NA	10/13/09 16:36		174548
sec-Butylbenzene	0.23	U	2.0	0.23	1	NA	10/13/09 16:36		174548
tert-Amyl Methyl Ether	0.13	U	1.0	0.13	1	NA	10/13/09 16:36		174548
tert-Butylbenzene	0.28	U	2.0	0.28	1	NA	10/13/09 16:36		174548

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: MC-94B
Lab Code: R0905636-006

Service Request: R0905636
Date Collected: 10/ 7/09 1045
Date Received: 10/ 8/09
Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
trans-1,2-Dichloroethene	0.16	U	1.0	0.16	1	NA	10/13/09 16:36		174548	
trans-1,3-Dichloropropene	0.17	U	1.0	0.17	1	NA	10/13/09 16:36		174548	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
4-Bromofluorobenzene	107	70-130	10/13/09 16:36		
Dibromofluoromethane	109	70-130	10/13/09 16:36		
Toluene-d8	107	70-130	10/13/09 16:36		

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: TB100709-GW1
Lab Code: R0905636-007

Service Request: R0905636
Date Collected: 10/ 7/09 1040
Date Received: 10/ 8/09
Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	0.18	U	1.0	0.18	1	NA	10/12/09 21:53		174383	
1,1,1-Trichloroethane (TCA)	0.32	U	1.0	0.32	1	NA	10/12/09 21:53		174383	
1,1,2,2-Tetrachloroethane	0.090	U	1.0	0.090	1	NA	10/12/09 21:53		174383	
1,1,2-Trichloroethane	0.20	U	1.0	0.20	1	NA	10/12/09 21:53		174383	
1,1-Dichloroethane (1,1-DCA)	0.14	U	1.0	0.14	1	NA	10/12/09 21:53		174383	
1,1-Dichloroethene (1,1-DCE)	0.37	U	1.0	0.37	1	NA	10/12/09 21:53		174383	
1,1-Dichloropropene	0.21	U	2.0	0.21	1	NA	10/12/09 21:53		174383	
1,2,3-Trichlorobenzene	0.25	U	2.0	0.25	1	NA	10/12/09 21:53		174383	
1,2,3-Trichloropropane	0.30	U	2.0	0.30	1	NA	10/12/09 21:53		174383	
1,2,4-Trichlorobenzene	0.19	U	2.0	0.19	1	NA	10/12/09 21:53		174383	
1,2,4-Trimethylbenzene	0.36	U	2.0	0.36	1	NA	10/12/09 21:53		174383	
1,2-Dibromo-3-chloropropane (DBCP)	0.43	U	5.0	0.43	1	NA	10/12/09 21:53		174383	
1,2-Dibromoethane	0.18	U	1.0	0.18	1	NA	10/12/09 21:53		174383	
1,2-Dichlorobenzene	0.40	U	2.0	0.40	1	NA	10/12/09 21:53		174383	
1,2-Dichloroethane	0.14	U	1.0	0.14	1	NA	10/12/09 21:53		174383	
1,2-Dichloropropane	0.15	U	1.0	0.15	1	NA	10/12/09 21:53		174383	
1,3,5-Trimethylbenzene	0.36	U	2.0	0.36	1	NA	10/12/09 21:53		174383	
1,3-Dichlorobenzene	0.36	U	2.0	0.36	1	NA	10/12/09 21:53		174383	
1,3-Dichloropropane	0.12	U	2.0	0.12	1	NA	10/12/09 21:53		174383	
1,4-Dichlorobenzene	0.34	U	2.0	0.34	1	NA	10/12/09 21:53		174383	
2,2-Dichloropropane	0.20	U	2.0	0.20	1	NA	10/12/09 21:53		174383	
2-Butanone (MEK)	1.0	U	10	1.0	1	NA	10/12/09 21:53		174383	
2-Chlorotoluene	0.38	U	5.0	0.38	1	NA	10/12/09 21:53		174383	
2-Hexanone	0.40	U	10	0.40	1	NA	10/12/09 21:53		174383	
2-Methyl-2-propanol	3.0	U	100	3.0	1	NA	10/12/09 21:53		174383	
4-Chlorotoluene	0.37	U	5.0	0.37	1	NA	10/12/09 21:53		174383	
4-Isopropyltoluene	0.22	U	2.0	0.22	1	NA	10/12/09 21:53		174383	
4-Methyl-2-pentanone	0.34	U	10	0.34	1	NA	10/12/09 21:53		174383	
Acetone	1.6	U	20	1.6	1	NA	10/12/09 21:53		174383	
Benzene	0.18	U	1.0	0.18	1	NA	10/12/09 21:53		174383	
Bromobenzene	0.33	U	2.0	0.33	1	NA	10/12/09 21:53		174383	
Bromochloromethane	0.18	U	2.0	0.18	1	NA	10/12/09 21:53		174383	
Bromodichloromethane	0.17	U	1.0	0.17	1	NA	10/12/09 21:53		174383	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: TB100709-GW1
Lab Code: R0905636-007

Service Request: R0905636
Date Collected: 10/ 7/09 1040
Date Received: 10/ 8/09
Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Bromoform	0.20	U	1.0	0.20	1	NA	10/12/09 21:53		174383	
Bromomethane	0.40	U	2.0	0.40	1	NA	10/12/09 21:53		174383	
Carbon Tetrachloride	0.36	U	1.0	0.36	1	NA	10/12/09 21:53		174383	
Chlorobenzene	0.26	U	1.0	0.26	1	NA	10/12/09 21:53		174383	
Chloroethane	0.21	U	2.0	0.21	1	NA	10/12/09 21:53		174383	
Chloroform	0.16	U	1.0	0.16	1	NA	10/12/09 21:53		174383	
Chloromethane	0.18	U	2.0	0.18	1	NA	10/12/09 21:53		174383	
Dibromochloromethane	0.11	U	1.0	0.11	1	NA	10/12/09 21:53		174383	
Dibromomethane	0.18	U	1.0	0.18	1	NA	10/12/09 21:53		174383	
Dichlorodifluoromethane (CFC 12)	0.18	U	1.0	0.18	1	NA	10/12/09 21:53		174383	
Dichloromethane	0.13	U	2.0	0.13	1	NA	10/12/09 21:53		174383	
Diisopropyl Ether	0.090	U	1.0	0.090	1	NA	10/12/09 21:53		174383	
Ethyl tert-Butyl Ether	0.12	U	1.0	0.12	1	NA	10/12/09 21:53		174383	
Ethylbenzene	0.42	U	1.0	0.42	1	NA	10/12/09 21:53		174383	
Hexachlorobutadiene	0.27	U	5.0	0.27	1	NA	10/12/09 21:53		174383	
Isopropylbenzene (Cumene)	0.34	U	2.0	0.34	1	NA	10/12/09 21:53		174383	
Methyl tert-Butyl Ether	0.13	U	1.0	0.13	1	NA	10/12/09 21:53		174383	
Naphthalene	0.31	U	2.0	0.31	1	NA	10/12/09 21:53		174383	
Styrene	0.36	U	1.0	0.36	1	NA	10/12/09 21:53		174383	
Tetrachloroethene (PCE)	0.42	U	1.0	0.42	1	NA	10/12/09 21:53		174383	
Toluene	0.21	U	1.0	0.21	1	NA	10/12/09 21:53		174383	
Trichloroethene (TCE)	0.13	U	1.0	0.13	1	NA	10/12/09 21:53		174383	
Trichlorofluoromethane (CFC 11)	0.15	U	1.0	0.15	1	NA	10/12/09 21:53		174383	
Vinyl Chloride	0.22	U	1.0	0.22	1	NA	10/12/09 21:53		174383	
cis-1,2-Dichloroethene	0.14	U	1.0	0.14	1	NA	10/12/09 21:53		174383	
cis-1,3-Dichloropropene	0.14	U	1.0	0.14	1	NA	10/12/09 21:53		174383	
m,p-Xylenes	0.81	U	2.0	0.81	1	NA	10/12/09 21:53		174383	
n-Butylbenzene	0.20	U	5.0	0.20	1	NA	10/12/09 21:53		174383	
n-Propylbenzene	0.32	U	2.0	0.32	1	NA	10/12/09 21:53		174383	
o-Xylene	0.40	U	1.0	0.40	1	NA	10/12/09 21:53		174383	
sec-Butylbenzene	0.23	U	2.0	0.23	1	NA	10/12/09 21:53		174383	
tert-Amyl Methyl Ether	0.13	U	1.0	0.13	1	NA	10/12/09 21:53		174383	
tert-Butylbenzene	0.28	U	2.0	0.28	1	NA	10/12/09 21:53		174383	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: TB100709-GW1
Lab Code: R0905636-007

Service Request: R0905636
Date Collected: 10/ 7/09 1040
Date Received: 10/ 8/09
Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
trans-1,2-Dichloroethene	0.16	U	1.0	0.16	1	NA	10/12/09 21:53		174383	
trans-1,3-Dichloropropene	0.17	U	1.0	0.17	1	NA	10/12/09 21:53		174383	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
4-Bromofluorobenzene	103	70-130	10/12/09 21:53		
Dibromofluoromethane	108	70-130	10/12/09 21:53		
Toluene-d8	107	70-130	10/12/09 21:53		

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
 Project: Tronox LLC Henderson/2027.001
 Sample Matrix: Water
 Sample Name: Method Blank
 Lab Code: RQ0909815-01

Service Request: R0905636
 Date Collected: NA
 Date Received: NA
 Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	0.18	U	1.0	0.18	1	NA	10/12/09 14:10		174383	
1,1,1-Trichloroethane (TCA)	0.32	U	1.0	0.32	1	NA	10/12/09 14:10		174383	
1,1,2,2-Tetrachloroethane	0.090	U	1.0	0.090	1	NA	10/12/09 14:10		174383	
1,1,2-Trichloroethane	0.20	U	1.0	0.20	1	NA	10/12/09 14:10		174383	
1,1-Dichloroethane (1,1-DCA)	0.14	U	1.0	0.14	1	NA	10/12/09 14:10		174383	
1,1-Dichloroethene (1,1-DCE)	0.37	U	1.0	0.37	1	NA	10/12/09 14:10		174383	
1,1-Dichloropropene	0.21	U	2.0	0.21	1	NA	10/12/09 14:10		174383	
1,2,3-Trichlorobenzene	0.25	U	2.0	0.25	1	NA	10/12/09 14:10		174383	
1,2,3-Trichloropropane	0.30	U	2.0	0.30	1	NA	10/12/09 14:10		174383	
1,2,4-Trichlorobenzene	0.19	U	2.0	0.19	1	NA	10/12/09 14:10		174383	
1,2,4-Trimethylbenzene	0.36	U	2.0	0.36	1	NA	10/12/09 14:10		174383	
1,2-Dibromo-3-chloropropane (DBCP)	0.43	U	5.0	0.43	1	NA	10/12/09 14:10		174383	
1,2-Dibromoethane	0.18	U	1.0	0.18	1	NA	10/12/09 14:10		174383	
1,2-Dichlorobenzene	0.40	U	2.0	0.40	1	NA	10/12/09 14:10		174383	
1,2-Dichloroethane	0.14	U	1.0	0.14	1	NA	10/12/09 14:10		174383	
1,2-Dichloropropane	0.15	U	1.0	0.15	1	NA	10/12/09 14:10		174383	
1,3,5-Trimethylbenzene	0.36	U	2.0	0.36	1	NA	10/12/09 14:10		174383	
1,3-Dichlorobenzene	0.36	U	2.0	0.36	1	NA	10/12/09 14:10		174383	
1,3-Dichloropropane	0.12	U	2.0	0.12	1	NA	10/12/09 14:10		174383	
1,4-Dichlorobenzene	0.34	U	2.0	0.34	1	NA	10/12/09 14:10		174383	
2,2-Dichloropropane	0.20	U	2.0	0.20	1	NA	10/12/09 14:10		174383	
2-Butanone (MEK)	1.0	U	10	1.0	1	NA	10/12/09 14:10		174383	
2-Chlorotoluene	0.38	U	5.0	0.38	1	NA	10/12/09 14:10		174383	
2-Hexanone	0.40	U	10	0.40	1	NA	10/12/09 14:10		174383	
2-Methyl-2-propanol	3.0	U	100	3.0	1	NA	10/12/09 14:10		174383	
4-Chlorotoluene	0.37	U	5.0	0.37	1	NA	10/12/09 14:10		174383	
4-Isopropyltoluene	0.22	U	2.0	0.22	1	NA	10/12/09 14:10		174383	
4-Methyl-2-pentanone	0.34	U	10	0.34	1	NA	10/12/09 14:10		174383	
Acetone	1.6	U	20	1.6	1	NA	10/12/09 14:10		174383	
Benzene	0.18	U	1.0	0.18	1	NA	10/12/09 14:10		174383	
Bromobenzene	0.33	U	2.0	0.33	1	NA	10/12/09 14:10		174383	
Bromochloromethane	0.18	U	2.0	0.18	1	NA	10/12/09 14:10		174383	
Bromodichloromethane	0.17	U	1.0	0.17	1	NA	10/12/09 14:10		174383	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
 Project: Tronox LLC Henderson/2027.001
 Sample Matrix: Water
 Sample Name: Method Blank
 Lab Code: RQ0909815-01

Service Request: R0905636
 Date Collected: NA
 Date Received: NA
 Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Bromoform	0.20	U	1.0	0.20	1	NA	10/12/09 14:10		174383	
Bromomethane	0.40	U	2.0	0.40	1	NA	10/12/09 14:10		174383	
Carbon Tetrachloride	0.36	U	1.0	0.36	1	NA	10/12/09 14:10		174383	
Chlorobenzene	0.26	U	1.0	0.26	1	NA	10/12/09 14:10		174383	
Chloroethane	0.21	U	2.0	0.21	1	NA	10/12/09 14:10		174383	
Chloroform	0.16	U	1.0	0.16	1	NA	10/12/09 14:10		174383	
Chloromethane	0.18	U	2.0	0.18	1	NA	10/12/09 14:10		174383	
Dibromochloromethane	0.11	U	1.0	0.11	1	NA	10/12/09 14:10		174383	
Dibromomethane	0.18	U	1.0	0.18	1	NA	10/12/09 14:10		174383	
Dichlorodifluoromethane (CFC 12)	0.18	U	1.0	0.18	1	NA	10/12/09 14:10		174383	
Dichloromethane	0.13	U	2.0	0.13	1	NA	10/12/09 14:10		174383	
Diisopropyl Ether	0.090	U	1.0	0.090	1	NA	10/12/09 14:10		174383	
Ethyl tert-Butyl Ether	0.12	U	1.0	0.12	1	NA	10/12/09 14:10		174383	
Ethylbenzene	0.42	U	1.0	0.42	1	NA	10/12/09 14:10		174383	
Hexachlorobutadiene	0.27	U	5.0	0.27	1	NA	10/12/09 14:10		174383	
Isopropylbenzene (Cumene)	0.34	U	2.0	0.34	1	NA	10/12/09 14:10		174383	
Methyl tert-Butyl Ether	0.13	U	1.0	0.13	1	NA	10/12/09 14:10		174383	
Naphthalene	0.31	U	2.0	0.31	1	NA	10/12/09 14:10		174383	
Styrene	0.36	U	1.0	0.36	1	NA	10/12/09 14:10		174383	
Tetrachloroethene (PCE)	0.42	U	1.0	0.42	1	NA	10/12/09 14:10		174383	
Toluene	0.21	U	1.0	0.21	1	NA	10/12/09 14:10		174383	
Trichloroethene (TCE)	0.19	U	1.0	0.19	1	NA	10/12/09 14:10		174383	
Trichlorofluoromethane (CFC 11)	0.16	U	1.0	0.16	1	NA	10/12/09 14:10		174383	
Vinyl Chloride	0.22	U	1.0	0.22	1	NA	10/12/09 14:10		174383	
cis-1,2-Dichloroethene	0.14	U	1.0	0.14	1	NA	10/12/09 14:10		174383	
cis-1,3-Dichloropropene	0.14	U	1.0	0.14	1	NA	10/12/09 14:10		174383	
m,p-Xylenes	0.81	U	2.0	0.81	1	NA	10/12/09 14:10		174383	
n-Butylbenzene	0.20	U	5.0	0.20	1	NA	10/12/09 14:10		174383	
n-Propylbenzene	0.32	U	2.0	0.32	1	NA	10/12/09 14:10		174383	
o-Xylene	0.40	U	1.0	0.40	1	NA	10/12/09 14:10		174383	
sec-Butylbenzene	0.23	U	2.0	0.23	1	NA	10/12/09 14:10		174383	
tert-Amyl Methyl Ether	0.13	U	1.0	0.13	1	NA	10/12/09 14:10		174383	
tert-Butylbenzene	0.28	U	2.0	0.28	1	NA	10/12/09 14:10		174383	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ0909815-01

Service Request: R0905636
Date Collected: NA
Date Received: NA
Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis	
								Lot	Lot
trans-1,2-Dichloroethene	0.16	U	1.0	0.16	1	NA	10/12/09 14:10		174383
trans-1,3-Dichloropropene	0.17	U	1.0	0.17	1	NA	10/12/09 14:10		174383

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
Dibromofluoromethane	106	70-130	10/12/09 14:10		
Toluene-d8	105	70-130	10/12/09 14:10		

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ0909884-01

Service Request: R0905636
Date Collected: NA
Date Received: NA
Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis	
								Lot	Lot Note
1,1,1,2-Tetrachloroethane	0.18	U	1.0	0.18	1	NA	10/13/09 15:03	174548	
1,1,1-Trichloroethane (TCA)	0.32	U	1.0	0.32	1	NA	10/13/09 15:03	174548	
1,1,2,2-Tetrachloroethane	0.090	U	1.0	0.090	1	NA	10/13/09 15:03	174548	
1,1,2-Trichloroethane	0.20	U	1.0	0.20	1	NA	10/13/09 15:03	174548	
1,1-Dichloroethane (1,1-DCA)	0.14	U	1.0	0.14	1	NA	10/13/09 15:03	174548	
1,1-Dichloroethene (1,1-DCE)	0.37	U	1.0	0.37	1	NA	10/13/09 15:03	174548	
1,1-Dichloropropene	0.21	U	2.0	0.21	1	NA	10/13/09 15:03	174548	
1,2,3-Trichlorobenzene	0.25	U	2.0	0.25	1	NA	10/13/09 15:03	174548	
1,2,3-Trichloropropane	0.30	U	2.0	0.30	1	NA	10/13/09 15:03	174548	
1,2,4-Trichlorobenzene	0.19	U	2.0	0.19	1	NA	10/13/09 15:03	174548	
1,2,4-Trimethylbenzene	0.36	U	2.0	0.36	1	NA	10/13/09 15:03	174548	
1,2-Dibromo-3-chloropropane (DBCP)	0.43	U	5.0	0.43	1	NA	10/13/09 15:03	174548	
1,2-Dibromoethane	0.18	U	1.0	0.18	1	NA	10/13/09 15:03	174548	
1,2-Dichlorobenzene	0.40	U	2.0	0.40	1	NA	10/13/09 15:03	174548	
1,2-Dichloroethane	0.14	U	1.0	0.14	1	NA	10/13/09 15:03	174548	
1,2-Dichloropropane	0.15	U	1.0	0.15	1	NA	10/13/09 15:03	174548	
1,3,5-Trimethylbenzene	0.36	U	2.0	0.36	1	NA	10/13/09 15:03	174548	
1,3-Dichlorobenzene	0.36	U	2.0	0.36	1	NA	10/13/09 15:03	174548	
1,3-Dichloropropane	0.12	U	2.0	0.12	1	NA	10/13/09 15:03	174548	
1,4-Dichlorobenzene	0.34	U	2.0	0.34	1	NA	10/13/09 15:03	174548	
2,2-Dichloropropane	0.20	U	2.0	0.20	1	NA	10/13/09 15:03	174548	
2-Butanone (MEK)	1.0	U	10	1.0	1	NA	10/13/09 15:03	174548	
2-Chlorotoluene	0.38	U	5.0	0.38	1	NA	10/13/09 15:03	174548	
2-Hexanone	0.40	U	10	0.40	1	NA	10/13/09 15:03	174548	
2-Methyl-2-propanol	3.0	U	100	3.0	1	NA	10/13/09 15:03	174548	
4-Chlorotoluene	0.37	U	5.0	0.37	1	NA	10/13/09 15:03	174548	
4-Isopropyltoluene	0.22	U	2.0	0.22	1	NA	10/13/09 15:03	174548	
4-Methyl-2-pentanone	0.34	U	10	0.34	1	NA	10/13/09 15:03	174548	
Acetone	1.6	U	20	1.6	1	NA	10/13/09 15:03	174548	
Benzene	0.18	U	1.0	0.18	1	NA	10/13/09 15:03	174548	
Bromobenzene	0.33	U	2.0	0.33	1	NA	10/13/09 15:03	174548	
Bromochloromethane	0.18	U	2.0	0.18	1	NA	10/13/09 15:03	174548	
Bromodichloromethane	0.17	U	1.0	0.17	1	NA	10/13/09 15:03	174548	

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
 Project: Tronox LLC Henderson/2027.001
 Sample Matrix: Water
 Sample Name: Method Blank
 Lab Code: RQ0909884-01

Service Request: R0905636
 Date Collected: NA
 Date Received: NA
 Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis		Note
								Lot	Lot	
Bromoform	0.20	U	1.0	0.20	1	NA	10/13/09 15:03		174548	
Bromomethane	0.40	U	2.0	0.40	1	NA	10/13/09 15:03		174548	
Carbon Tetrachloride	0.36	U	1.0	0.36	1	NA	10/13/09 15:03		174548	
Chlorobenzene	0.26	U	1.0	0.26	1	NA	10/13/09 15:03		174548	
Chloroethane	0.21	U	2.0	0.21	1	NA	10/13/09 15:03		174548	
Chloroform	0.16	U	1.0	0.16	1	NA	10/13/09 15:03		174548	
Chloromethane	0.18	U	2.0	0.18	1	NA	10/13/09 15:03		174548	
Dibromochloromethane	0.11	U	1.0	0.11	1	NA	10/13/09 15:03		174548	
Dibromomethane	0.18	U	1.0	0.18	1	NA	10/13/09 15:03		174548	
Dichlorodifluoromethane (CFC 12)	0.18	U	1.0	0.18	1	NA	10/13/09 15:03		174548	
Dichloromethane	0.13	U	2.0	0.13	1	NA	10/13/09 15:03		174548	
Diisopropyl Ether	0.090	U	1.0	0.090	1	NA	10/13/09 15:03		174548	
Ethyl tert-Butyl Ether	0.12	U	1.0	0.12	1	NA	10/13/09 15:03		174548	
Ethylbenzene	0.42	U	1.0	0.42	1	NA	10/13/09 15:03		174548	
Hexachlorobutadiene	0.27	U	5.0	0.27	1	NA	10/13/09 15:03		174548	
Isopropylbenzene (Cumene)	0.34	U	2.0	0.34	1	NA	10/13/09 15:03		174548	
Methyl tert-Butyl Ether	0.13	U	1.0	0.13	1	NA	10/13/09 15:03		174548	
Naphthalene	0.31	U	2.0	0.31	1	NA	10/13/09 15:03		174548	
Styrene	0.36	U	1.0	0.36	1	NA	10/13/09 15:03		174548	
Tetrachloroethene (PCE)	0.42	U	1.0	0.42	1	NA	10/13/09 15:03		174548	
Toluene	0.21	U	1.0	0.21	1	NA	10/13/09 15:03		174548	
Trichloroethene (TCE)	0.19	U	1.0	0.19	1	NA	10/13/09 15:03		174548	
Trichlorofluoromethane (CFC 11)	0.16	U	1.0	0.16	1	NA	10/13/09 15:03		174548	
Vinyl Chloride	0.22	U	1.0	0.22	1	NA	10/13/09 15:03		174548	
cis-1,2-Dichloroethene	0.14	U	1.0	0.14	1	NA	10/13/09 15:03		174548	
cis-1,3-Dichloropropene	0.14	U	1.0	0.14	1	NA	10/13/09 15:03		174548	
m,p-Xylenes	0.81	U	2.0	0.81	1	NA	10/13/09 15:03		174548	
n-Butylbenzene	0.20	U	5.0	0.20	1	NA	10/13/09 15:03		174548	
n-Propylbenzene	0.32	U	2.0	0.32	1	NA	10/13/09 15:03		174548	
o-Xylene	0.40	U	1.0	0.40	1	NA	10/13/09 15:03		174548	
sec-Butylbenzene	0.23	U	2.0	0.23	1	NA	10/13/09 15:03		174548	
tert-Amyl Methyl Ether	0.13	U	1.0	0.13	1	NA	10/13/09 15:03		174548	
tert-Butylbenzene	0.28	U	2.0	0.28	1	NA	10/13/09 15:03		174548	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ0909884-01

Service Request: R0905636
Date Collected: NA
Date Received: NA
Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis	
								Lot	Lot Note
trans-1,2-Dichloroethene	0.16	U	1.0	0.16	1	NA	10/13/09 15:03		174548
trans-1,3-Dichloropropene	0.17	U	1.0	0.17	1	NA	10/13/09 15:03		174548

Surrogate Name	%Rec	Control Limits	Date Analyzed		Q	Note
4-Bromofluorobenzene	105	70-130	10/13/09	15:03		
Dibromofluoromethane	108	70-130	10/13/09	15:03		
Toluene-d8	104	70-130	10/13/09	15:03		

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water

Service Request: R0905636
Date Collected: 10/2/09
Date Received: 10/3/09
Date Analyzed: 10/13/09

Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: M-76B
Lab Code: R0905636-002

Units: µg/L
Basis: NA

Analytical Method: 8260B

Analyte Name	Sample Result	Matrix Spike RQ0909884-03			Duplicate Matrix Spike RQ0909884-04			% Rec Limits	RPD	RPD Limit
		Result	Amount	% Rec	Result	Amount	% Rec			
1,1,1,2-Tetrachloroethane	ND	53.5	50.0	107	52.3	50.0	105	70 - 130	2	30
1,1,1-Trichloroethane (TCA)	ND	53.4	50.0	107	52.1	50.0	104	70 - 130	3	30
1,1,2,2-Tetrachloroethane	ND	41.7	50.0	83	40.6	50.0	81	70 - 130	3	30
1,1,2-Trichloroethane	ND	45.6	50.0	91	46.3	50.0	93	70 - 130	1	30
1,1-Dichloroethane (1,1-DCA)	ND	46.2	50.0	92	45.3	50.0	91	70 - 130	2	30
1,1-Dichloroethene (1,1-DCE)	0.45	56.1	50.0	111	53.6	50.0	106	70 - 130	4	30
1,1-Dichloropropene	ND	49.2	50.0	98	48.5	50.0	97	70 - 130	2	30
1,2,3-Trichlorobenzene	ND	39.4	50.0	79	39.4	50.0	79	70 - 130	0	30
1,2,3-Trichloropropane	ND	42.5	50.0	85	43.9	50.0	88	70 - 130	3	30
1,2,4-Trichlorobenzene	ND	42.4	50.0	85	41.7	50.0	83	70 - 130	2	30
1,2,4-Trimethylbenzene	ND	40.9	50.0	82	43.0	50.0	86	70 - 130	5	30
1,2-Dibromo-3-chloropropane (DBC)	ND	40.6	50.0	81	41.0	50.0	82	50 - 150	1	30
1,2-Dibromoethane	ND	43.6	50.0	87	43.8	50.0	88	70 - 130	0	30
1,2-Dichlorobenzene	ND	44.7	50.0	89	43.4	50.0	87	70 - 130	3	30
1,2-Dichloroethane	ND	47.3	50.0	95	47.1	50.0	94	70 - 130	0	30
1,2-Dichloropropane	ND	47.5	50.0	95	47.4	50.0	95	70 - 130	0	30
1,3,5-Trimethylbenzene	ND	42.9	50.0	86	43.8	50.0	88	70 - 130	2	30
1,3-Dichlorobenzene	ND	45.7	50.0	91	44.4	50.0	89	70 - 130	3	30
1,3-Dichloropropane	ND	44.8	50.0	90	43.7	50.0	87	70 - 130	3	30
1,4-Dichlorobenzene	ND	44.3	50.0	89	43.3	50.0	87	70 - 130	2	30
2,2-Dichloropropane	ND	57.4	50.0	115	55.8	50.0	112	70 - 130	3	30
2-Butanone (MEK)	ND	39.2	50.0	78	39.1	50.0	78	50 - 150	0	30
2-Chlorotoluene	ND	44.1	50.0	88	42.9	50.0	86	70 - 130	3	30
2-Hexanone	ND	42.8	50.0	86	43.5	50.0	87	70 - 130	2	30
2-Methyl-2-propanol	ND	670	1000	67	784	1000	78	50 - 150	16	30
4-Chlorotoluene	ND	45.2	50.0	90	43.4	50.0	87	70 - 130	4	30
4-Isopropyltoluene	ND	44.0	50.0	88	42.6	50.0	85	70 - 130	3	30
4-Methyl-2-pentanone	ND	44.7	50.0	89	46.4	50.0	93	70 - 130	4	30
Acetone	6.3	46.8	50.0	81	46.9	50.0	81	50 - 150	0	30
Benzene	ND	46.3	50.0	93	45.6	50.0	91	70 - 130	2	30
Bromobenzene	ND	46.2	50.0	92	44.8	50.0	90	70 - 130	3	30
Bromochloromethane	ND	47.1	50.0	94	46.3	50.0	93	70 - 130	2	30
Bromodichloromethane	ND	48.9	50.0	98	48.8	50.0	98	70 - 130	0	30
Bromoform	ND	48.7	50.0	97	47.2	50.0	94	70 - 130	3	30

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Northgate Environmental
 Project: Tronox LLC Henderson/2027.001
 Sample Matrix: Water

Service Request: R0905636
 Date Collected: 10/2/09
 Date Received: 10/3/09
 Date Analyzed: 10/13/09

Matrix Spike Summary
 Volatile Organic Compounds by GC/MS

Sample Name: M-76B
 Lab Code: R0905636-002

Units: µg/L
 Basis: NA

Analytical Method: 8260B

Analyte Name	Sample Result	Matrix Spike RQ0909884-03			Duplicate Matrix Spike RQ0909884-04			% Rec Limits	RPD	RPD Limit
		Result	Amount	% Rec	Result	Amount	% Rec			
Bromomethane	ND	58.7	50.0	117	55.3	50.0	111	50 - 150	6	30
Carbon Tetrachloride	ND	55.3	50.0	111	53.9	50.0	108	70 - 130	2	30
Chlorobenzene	ND	47.4	50.0	95	45.8	50.0	92	70 - 130	3	30
Chloroethane	ND	48.7	50.0	97	48.1	50.0	96	70 - 130	1	30
Chloroform	120	169	50.0	91	164	50.0	81	70 - 130	3	30
Chloromethane	ND	50.5	50.0	101	47.3	50.0	95	70 - 130	6	30
Dibromochloromethane	ND	49.7	50.0	99	47.7	50.0	95	70 - 130	4	30
Dibromomethane	ND	46.3	50.0	93	46.1	50.0	92	70 - 130	0	30
Dichlorodifluoromethane (CFC 12)	ND	43.0	50.0	86	41.0	50.0	82	70 - 130	5	30
Dichloromethane	ND	36.9	50.0	74	44.0	50.0	88	70 - 130	18	30
Diisopropyl Ether	ND	46.0	50.0	92	46.3	50.0	93	70 - 130	1	30
Ethyl tert-Butyl Ether	ND	46.7	50.0	93	47.5	50.0	95	70 - 130	2	30
Ethylbenzene	ND	47.8	50.0	96	45.7	50.0	91	70 - 130	5	30
Hexachlorobutadiene	ND	36.6	50.0	73	35.5	50.0	71	70 - 130	3	30
Isopropylbenzene (Cumene)	ND	48.5	50.0	97	46.1	50.0	92	70 - 130	5	30
Methyl tert-Butyl Ether	ND	44.6	50.0	89	45.9	50.0	92	70 - 130	3	30
Naphthalene	ND	21.8	50.0	44 *	40.2	50.0	80	50 - 150	59 *	30
Styrene	ND	21.8	50.0	44 *	25.1	50.0	50 *	70 - 130	14	30
Tetrachloroethene (PCE)	ND	49.2	50.0	98	46.9	50.0	94	70 - 130	5	30
Toluene	ND	48.5	50.0	97	47.3	50.0	95	70 - 130	2	30
Trichloroethene (TCE)	ND	47.8	50.0	96	46.5	50.0	93	70 - 130	3	30
Trichlorofluoromethane (CFC 11)	ND	56.0	50.0	112	53.6	50.0	107	70 - 130	4	30
Vinyl Chloride	ND	54.3	50.0	109	51.7	50.0	103	70 - 130	5	30
cis-1,2-Dichloroethene	ND	46.5	50.0	93	45.5	50.0	91	70 - 130	2	30
cis-1,3-Dichloropropene	ND	48.7	50.0	97	49.3	50.0	99	70 - 130	1	30
m,p-Xylenes	ND	94.4	100	94	93.5	100	93	70 - 130	1	30
n-Butylbenzene	ND	41.4	50.0	83	39.4	50.0	79	70 - 130	5	30
n-Propylbenzene	ND	43.8	50.0	88	42.3	50.0	85	70 - 130	4	30
o-Xylene	ND	47.6	50.0	95	47.0	50.0	94	70 - 130	1	30
sec-Butylbenzene	ND	42.3	50.0	85	40.6	50.0	81	70 - 130	4	30
tert-Amyl Methyl Ether	ND	43.7	50.0	87	44.4	50.0	89	70 - 130	2	30
tert-Butylbenzene	ND	45.2	50.0	90	43.2	50.0	86	70 - 130	5	30
trans-1,2-Dichloroethene	ND	47.0	50.0	94	45.6	50.0	91	70 - 130	3	30
trans-1,3-Dichloropropene	ND	50.5	50.0	101	51.0	50.0	102	70 - 130	1	30

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water

Service Request: R0905636
Date Analyzed: 10/12/09

**Lab Control Sample Summary
 Volatile Organic Compounds by GC/MS**

Analytical Method: 8260B

Units: µg/L

Basis: NA

Analysis Lot: 174383

Analyte Name	Lab Control Sample RQ0909815-02			% Rec Limits
	Result	Expected	% Rec	
1,1,1,2-Tetrachloroethane	22.4	20.0	112	75 - 125
1,1,1-Trichloroethane (TCA)	22.5	20.0	112	75 - 125
1,1,2,2-Tetrachloroethane	17.3	20.0	87	75 - 125
1,1,2-Trichloroethane	19.6	20.0	98	75 - 125
1,1-Dichloroethane (1,1-DCA)	19.5	20.0	97	75 - 125
1,1-Dichloroethene (1,1-DCE)	24.4	20.0	122	75 - 125
1,1-Dichloropropene	20.4	20.0	102	75 - 125
1,2,3-Trichlorobenzene	19.3	20.0	97	75 - 125
1,2,3-Trichloropropane	18.5	20.0	92	75 - 125
1,2,4-Trichlorobenzene	20.0	20.0	100	75 - 125
1,2,4-Trimethylbenzene	20.1	20.0	100	75 - 125
1,2-Dibromo-3-chloropropane (DBCP)	16.5	20.0	83	75 - 125
1,2-Dibromoethane	18.5	20.0	92	75 - 125
1,2-Dichlorobenzene	20.0	20.0	100	75 - 125
1,2-Dichloroethane	20.1	20.0	101	75 - 125
1,2-Dichloropropane	20.1	20.0	100	75 - 125
1,3,5-Trimethylbenzene	20.6	20.0	103	75 - 125
1,3-Dichlorobenzene	20.3	20.0	101	75 - 125
1,3-Dichloropropane	19.0	20.0	95	75 - 125
1,4-Dichlorobenzene	19.8	20.0	99	75 - 125
2,2-Dichloropropane	24.4	20.0	122	75 - 125
2-Butanone (MEK)	16.8	20.0	84	75 - 125
2-Chlorotoluene	19.4	20.0	97	75 - 125
2-Hexanone	16.9	20.0	84	75 - 125
2-Methyl-2-propanol	335	400	84	75 - 125
4-Chlorotoluene	20.0	20.0	100	75 - 125
4-Isopropyltoluene	20.7	20.0	103	75 - 125
4-Methyl-2-pentanone	18.4	20.0	92	75 - 125
Acetone	20.6	20.0	103	75 - 125
Benzene	19.5	20.0	98	75 - 125
Bromobenzene	20.3	20.0	102	75 - 125
Bromochloromethane	19.7	20.0	99	75 - 125
Bromodichloromethane	20.6	20.0	103	75 - 125
Bromoform	20.8	20.0	104	75 - 125
Bromomethane	23.9	20.0	119	75 - 125
Carbon Tetrachloride	23.8	20.0	119	75 - 125

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water

Service Request: R0905636
Date Analyzed: 10/12/09

**Lab Control Sample Summary
 Volatile Organic Compounds by GC/MS**

Analytical Method: 8260B

Units: µg/L
Basis: NA

Analysis Lot: 174383

Analyte Name	Lab Control Sample RQ0909815-02			% Rec Limits
	Result	Expected	% Rec	
Chlorobenzene	20.6	20.0	103	75 - 125
Chloroethane	21.8	20.0	109	75 - 125
Chloroform	20.4	20.0	102	75 - 125
Chloromethane	21.4	20.0	107	75 - 125
Dibromochloromethane	20.9	20.0	105	75 - 125
Dibromomethane	19.8	20.0	99	75 - 125
Dichlorodifluoromethane (CFC 12)	18.1	20.0	91	75 - 125
Dichloromethane	14.8	20.0	74 *	75 - 125
Diisopropyl Ether	19.7	20.0	99	75 - 125
Ethyl tert-Butyl Ether	20.1	20.0	100	75 - 125
Ethylbenzene	20.3	20.0	102	75 - 125
Hexachlorobutadiene	21.1	20.0	105	75 - 125
Isopropylbenzene (Cumene)	21.0	20.0	105	75 - 125
Methyl tert-Butyl Ether	18.9	20.0	95	75 - 125
Naphthalene	17.6	20.0	88	75 - 125
Styrene	20.8	20.0	104	75 - 125
Tetrachloroethene (PCE)	21.6	20.0	108	75 - 125
Toluene	20.6	20.0	103	75 - 125
Trichloroethene (TCE)	20.2	20.0	101	75 - 125
Trichlorofluoromethane (CFC 11)	24.0	20.0	120	75 - 125
Vinyl Chloride	22.7	20.0	113	75 - 125
cis-1,2-Dichloroethene	19.8	20.0	99	75 - 125
cis-1,3-Dichloropropene	20.5	20.0	102	75 - 125
m,p-Xylenes	42.9	40.0	107	75 - 125
n-Butylbenzene	20.3	20.0	101	75 - 125
n-Propylbenzene	19.3	20.0	97	75 - 125
o-Xylene	20.8	20.0	104	75 - 125
sec-Butylbenzene	19.9	20.0	99	75 - 125
tert-Amyl Methyl Ether	18.5	20.0	92	75 - 125
tert-Butylbenzene	20.2	20.0	101	75 - 125
trans-1,2-Dichloroethene	20.4	20.0	102	75 - 125
trans-1,3-Dichloropropene	21.1	20.0	106	75 - 125

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water

Service Request: R0905636
Date Analyzed: 10/13/09

**Lab Control Sample Summary
 Volatile Organic Compounds by GC/MS**

Analytical Method: 8260B

Units: µg/L

Basis: NA

Analysis Lot: 174548

Analyte Name	Lab Control Sample RQ0909884-02			% Rec Limits
	Result	Expected	% Rec	
1,1,1,2-Tetrachloroethane	23.6	20.0	118	75 - 125
1,1,1-Trichloroethane (TCA)	23.6	20.0	118	75 - 125
1,1,2,2-Tetrachloroethane	19.2	20.0	96	75 - 125
1,1,2-Trichloroethane	20.9	20.0	105	75 - 125
1,1-Dichloroethane (1,1-DCA)	20.5	20.0	102	75 - 125
1,1-Dichloroethene (1,1-DCE)	24.8	20.0	124	75 - 125
1,1-Dichloropropene	21.3	20.0	106	75 - 125
1,2,3-Trichlorobenzene	18.8	20.0	94	75 - 125
1,2,3-Trichloropropane	20.4	20.0	102	75 - 125
1,2,4-Trichlorobenzene	19.1	20.0	96	75 - 125
1,2,4-Trimethylbenzene	20.1	20.0	100	75 - 125
1,2-Dibromo-3-chloropropane (DBCP)	17.4	20.0	87	75 - 125
1,2-Dibromoethane	19.8	20.0	99	75 - 125
1,2-Dichlorobenzene	20.5	20.0	102	75 - 125
1,2-Dichloroethane	21.1	20.0	106	75 - 125
1,2-Dichloropropane	20.6	20.0	103	75 - 125
1,3,5-Trimethylbenzene	20.8	20.0	104	75 - 125
1,3-Dichlorobenzene	20.3	20.0	101	75 - 125
1,3-Dichloropropane	20.1	20.0	100	75 - 125
1,4-Dichlorobenzene	20.0	20.0	100	75 - 125
2,2-Dichloropropane	24.3	20.0	122	75 - 125
2-Butanone (MEK)	18.2	20.0	91	75 - 125
2-Chlorotoluene	19.4	20.0	97	75 - 125
2-Hexanone	18.6	20.0	93	75 - 125
2-Methyl-2-propanol	416	400	104	75 - 125
4-Chlorotoluene	20.0	20.0	100	75 - 125
4-Isopropyltoluene	19.9	20.0	100	75 - 125
4-Methyl-2-pentanone	19.4	20.0	97	75 - 125
Acetone	23.1	20.0	115	75 - 125
Benzene	20.5	20.0	102	75 - 125
Bromobenzene	21.0	20.0	105	75 - 125
Bromochloromethane	21.9	20.0	109	75 - 125
Bromodichloromethane	21.7	20.0	108	75 - 125
Bromoform	21.9	20.0	109	75 - 125
Bromomethane	24.0	20.0	120	75 - 125
Carbon Tetrachloride	23.7	20.0	119	75 - 125

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Northgate Environmental
 Project: Tronox LLC Henderson/2027.001
 Sample Matrix: Water

Service Request: R0905636
 Date Analyzed: 10/13/09

Lab Control Sample Summary
 Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Units: µg/L
 Basis: NA

Analysis Lot: 174548

Analyte Name	Lab Control Sample RQ0909884-02			% Rec Limits
	Result	Expected	% Rec	
Chlorobenzene	21.2	20.0	106	75 - 125
Chloroethane	22.4	20.0	112	75 - 125
Chloroform	21.4	20.0	107	75 - 125
Chloromethane	22.1	20.0	110	75 - 125
Dibromochloromethane	22.1	20.0	111	75 - 125
Dibromomethane	19.9	20.0	99	75 - 125
Dichlorodifluoromethane (CFC 12)	19.2	20.0	96	75 - 125
Dichloromethane	15.7	20.0	79	75 - 125
Diisopropyl Ether	21.3	20.0	107	75 - 125
Ethyl tert-Butyl Ether	21.9	20.0	109	75 - 125
Ethylbenzene	20.8	20.0	104	75 - 125
Hexachlorobutadiene	17.4	20.0	87	75 - 125
Isopropylbenzene (Cumene)	21.4	20.0	107	75 - 125
Methyl tert-Butyl Ether	20.5	20.0	103	75 - 125
Naphthalene	18.3	20.0	91	75 - 125
Styrene	21.2	20.0	106	75 - 125
Tetrachloroethene (PCE)	21.9	20.0	110	75 - 125
Toluene	21.4	20.0	107	75 - 125
Trichloroethene (TCE)	21.1	20.0	105	75 - 125
Trichlorofluoromethane (CFC 11)	24.3	20.0	121	75 - 125
Vinyl Chloride	23.6	20.0	118	75 - 125
cis-1,2-Dichloroethene	21.2	20.0	106	75 - 125
cis-1,3-Dichloropropene	21.6	20.0	108	75 - 125
m,p-Xylenes	43.5	40.0	109	75 - 125
n-Butylbenzene	18.7	20.0	94	75 - 125
n-Propylbenzene	19.5	20.0	97	75 - 125
o-Xylene	21.4	20.0	107	75 - 125
sec-Butylbenzene	18.9	20.0	95	75 - 125
tert-Amyl Methyl Ether	20.1	20.0	101	75 - 125
tert-Butylbenzene	19.9	20.0	99	75 - 125
trans-1,2-Dichloroethene	21.8	20.0	109	75 - 125
trans-1,3-Dichloropropene	22.7	20.0	113	75 - 125

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: PB100209-A2
Lab Code: R0905636-001

Service Request: R0905636
Date Collected: 10/ 2/09 1111
Date Received: 10/ 3/09
Units: µg/L
Basis: NA

Low Level Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis	
								Lot	Lot Note
2-Methylnaphthalene	0.048	U	0.19	0.048	1	10/ 5/09	10/6/09 23:08	97551	173710
Acenaphthene	0.053	U	0.19	0.053	1	10/ 5/09	10/6/09 23:08	97551	173710
Acenaphthylene	0.076	U	0.19	0.076	1	10/ 5/09	10/6/09 23:08	97551	173710
Anthracene	0.041	U	0.19	0.041	1	10/ 5/09	10/6/09 23:08	97551	173710
Benz(a)anthracene	0.041	U	0.19	0.041	1	10/ 5/09	10/6/09 23:08	97551	173710
Benzo(a)pyrene	0.042	U	0.19	0.042	1	10/ 5/09	10/6/09 23:08	97551	173710
Benzo(b)fluoranthene	0.027	U	0.19	0.027	1	10/ 5/09	10/6/09 23:08	97551	173710
Benzo(g,h,i)perylene	0.030	U	0.19	0.030	1	10/ 5/09	10/6/09 23:08	97551	173710
Benzo(k)fluoranthene	0.029	U	0.19	0.029	1	10/ 5/09	10/6/09 23:08	97551	173710
Bis(2-ethylhexyl) Phthalate	0.37	BJ	4.7	0.23	1	10/ 5/09	10/6/09 23:08	97551	173710
Butyl Benzyl Phthalate	0.22	J	4.7	0.11	1	10/ 5/09	10/6/09 23:08	97551	173710
Chrysene	0.029	U	0.19	0.029	1	10/ 5/09	10/6/09 23:08	97551	173710
Di-n-butyl Phthalate	0.76	U	4.7	0.76	1	10/ 5/09	10/6/09 23:08	97551	173710
Di-n-octyl Phthalate	0.041	U	4.7	0.041	1	10/ 5/09	10/6/09 23:08	97551	173710
Dibenz(a,h)anthracene	0.046	U	0.19	0.046	1	10/ 5/09	10/6/09 23:08	97551	173710
Diethyl Phthalate	0.20	U	4.7	0.20	1	10/ 5/09	10/6/09 23:08	97551	173710
Dimethyl Phthalate	0.044	U	4.7	0.044	1	10/ 5/09	10/6/09 23:08	97551	173710
Fluoranthene	0.040	U	0.19	0.040	1	10/ 5/09	10/6/09 23:08	97551	173710
Fluorene	0.055	U	0.19	0.055	1	10/ 5/09	10/6/09 23:08	97551	173710
Hexachlorobenzene	0.035	U	0.19	0.035	1	10/ 5/09	10/6/09 23:08	97551	173710
Indeno(1,2,3-cd)pyrene	0.049	U	0.19	0.049	1	10/ 5/09	10/6/09 23:08	97551	173710
Naphthalene	0.14	U	0.19	0.14	1	10/ 5/09	10/6/09 23:08	97551	173710
Nitrobenzene	0.046	U	0.19	0.046	1	10/ 5/09	10/6/09 23:08	97551	173710
Phenanthrene	0.062	U	0.19	0.062	1	10/ 5/09	10/6/09 23:08	97551	173710
Pyrene	0.029	U	0.19	0.029	1	10/ 5/09	10/6/09 23:08	97551	173710
Pyridine	0.89	U	1.9	0.89	1	10/ 5/09	10/6/09 23:08	97551	173710
1,4-Dioxane	0.13	U	1.9	0.13	1	10/ 5/09	10/6/09 23:08	97551	173710
Octachlorostyrene	0.13	U	0.19	0.13	1	10/ 5/09	10/6/09 23:08	97551	173710

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: PB100209-A2
Lab Code: R0905636-001

Service Request: R0905636
Date Collected: 10/ 2/09 1111
Date Received: 10/ 3/09
Units: Percent
Basis: NA

Low Level Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
2-Fluorobiphenyl	75	45-135	10/6/09 23:08		
Nitrobenzene-d5	99	45-135	10/6/09 23:08		
Terphenyl-d14	99	45-135	10/6/09 23:08		

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: M-76B
Lab Code: R0905636-002

Service Request: R0905636
Date Collected: 10/ 2/09 1155
Date Received: 10/ 3/09
Units: µg/L
Basis: NA

Low Level Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
2-Methylnaphthalene	0.048	U	0.19	0.048	1	10/ 5/09	10/6/09 23:47	97551	173710	
Acenaphthene	0.053	U	0.19	0.053	1	10/ 5/09	10/6/09 23:47	97551	173710	
Acenaphthylene	0.076	U	0.19	0.076	1	10/ 5/09	10/6/09 23:47	97551	173710	
Anthracene	0.041	U	0.19	0.041	1	10/ 5/09	10/6/09 23:47	97551	173710	
Benz(a)anthracene	0.041	U	0.19	0.041	1	10/ 5/09	10/6/09 23:47	97551	173710	
Benzo(a)pyrene	0.042	U	0.19	0.042	1	10/ 5/09	10/6/09 23:47	97551	173710	
Benzo(b)fluoranthene	0.027	U	0.19	0.027	1	10/ 5/09	10/6/09 23:47	97551	173710	
Benzo(g,h,i)perylene	0.030	U	0.19	0.030	1	10/ 5/09	10/6/09 23:47	97551	173710	
Benzo(k)fluoranthene	0.029	U	0.19	0.029	1	10/ 5/09	10/6/09 23:47	97551	173710	
Bis(2-ethylhexyl) Phthalate	0.45	BJ	4.7	0.23	1	10/ 5/09	10/6/09 23:47	97551	173710	
Butyl Benzyl Phthalate	0.11	U	4.7	0.11	1	10/ 5/09	10/6/09 23:47	97551	173710	
Chrysene	0.029	U	0.19	0.029	1	10/ 5/09	10/6/09 23:47	97551	173710	
Di-n-butyl Phthalate	0.76	U	4.7	0.76	1	10/ 5/09	10/6/09 23:47	97551	173710	
Di-n-octyl Phthalate	0.041	U	4.7	0.041	1	10/ 5/09	10/6/09 23:47	97551	173710	
Dibenz(a,h)anthracene	0.046	U	0.19	0.046	1	10/ 5/09	10/6/09 23:47	97551	173710	
Diethyl Phthalate	0.20	U	4.7	0.20	1	10/ 5/09	10/6/09 23:47	97551	173710	
Dimethyl Phthalate	0.044	U	4.7	0.044	1	10/ 5/09	10/6/09 23:47	97551	173710	
Fluoranthene	0.040	U	0.19	0.040	1	10/ 5/09	10/6/09 23:47	97551	173710	
Fluorene	0.055	U	0.19	0.055	1	10/ 5/09	10/6/09 23:47	97551	173710	
Hexachlorobenzene	0.035	U	0.19	0.035	1	10/ 5/09	10/6/09 23:47	97551	173710	
Indeno(1,2,3-cd)pyrene	0.049	U	0.19	0.049	1	10/ 5/09	10/6/09 23:47	97551	173710	
Naphthalene	0.14	U	0.19	0.14	1	10/ 5/09	10/6/09 23:47	97551	173710	
Nitrobenzene	0.046	U	0.19	0.046	1	10/ 5/09	10/6/09 23:47	97551	173710	
Phenanthrene	0.062	U	0.19	0.062	1	10/ 5/09	10/6/09 23:47	97551	173710	
Pyrene	0.029	U	0.19	0.029	1	10/ 5/09	10/6/09 23:47	97551	173710	
Pyridine	0.89	U	1.9	0.89	1	10/ 5/09	10/6/09 23:47	97551	173710	
1,4-Dioxane	0.13	U	1.9	0.13	1	10/ 5/09	10/6/09 23:47	97551	173710	
Octachlorostyrene	0.13	U	0.19	0.13	1	10/ 5/09	10/6/09 23:47	97551	173710	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: M-76B
Lab Code: R0905636-002

Service Request: R0905636
Date Collected: 10/ 2/09 1155
Date Received: 10/ 3/09
Units: Percent
Basis: NA

Low Level Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
2-Fluorobiphenyl	81	45-135	10/6/09 23:47		
Nitrobenzene-d5	96	45-135	10/6/09 23:47		
Terphenyl-d14	106	45-135	10/6/09 23:47		

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: M-76009B
Lab Code: R0905636-003

Service Request: R0905636
Date Collected: 10/ 2/09 1155
Date Received: 10/ 3/09
Units: µg/L
Basis: NA

Low Level Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
2-Methylnaphthalene	0.048	U	0.19	0.048	1	10/ 5/09	10/14/09 11:31	97551	174916	
Acenaphthene	0.053	U	0.19	0.053	1	10/ 5/09	10/14/09 11:31	97551	174916	
Acenaphthylene	0.076	U	0.19	0.076	1	10/ 5/09	10/14/09 11:31	97551	174916	
Anthracene	0.041	U	0.19	0.041	1	10/ 5/09	10/14/09 11:31	97551	174916	
Benz(a)anthracene	0.041	U	0.19	0.041	1	10/ 5/09	10/14/09 11:31	97551	174916	
Benzo(a)pyrene	0.042	U	0.19	0.042	1	10/ 5/09	10/14/09 11:31	97551	174916	
Benzo(b)fluoranthene	0.027	U	0.19	0.027	1	10/ 5/09	10/14/09 11:31	97551	174916	
Benzo(g,h,i)perylene	0.030	U	0.19	0.030	1	10/ 5/09	10/14/09 11:31	97551	174916	
Benzo(k)fluoranthene	0.029	U	0.19	0.029	1	10/ 5/09	10/14/09 11:31	97551	174916	
Bis(2-ethylhexyl) Phthalate	0.23	U	4.7	0.23	1	10/ 5/09	10/14/09 11:31	97551	174916	
Butyl Benzyl Phthalate	0.19	J	4.7	0.11	1	10/ 5/09	10/14/09 11:31	97551	174916	
Chrysene	0.029	U	0.19	0.029	1	10/ 5/09	10/14/09 11:31	97551	174916	
Di-n-butyl Phthalate	1.2	J	4.7	0.76	1	10/ 5/09	10/14/09 11:31	97551	174916	
Di-n-octyl Phthalate	0.041	U	4.7	0.041	1	10/ 5/09	10/14/09 11:31	97551	174916	
Dibenz(a,h)anthracene	0.046	U	0.19	0.046	1	10/ 5/09	10/14/09 11:31	97551	174916	
Diethyl Phthalate	0.27	J	4.7	0.20	1	10/ 5/09	10/14/09 11:31	97551	174916	
Dimethyl Phthalate	0.044	U	4.7	0.044	1	10/ 5/09	10/14/09 11:31	97551	174916	
Fluoranthene	0.040	U	0.19	0.040	1	10/ 5/09	10/14/09 11:31	97551	174916	
Fluorene	0.055	U	0.19	0.055	1	10/ 5/09	10/14/09 11:31	97551	174916	
Hexachlorobenzene	0.035	U	0.19	0.035	1	10/ 5/09	10/14/09 11:31	97551	174916	
Indeno(1,2,3-cd)pyrene	0.049	U	0.19	0.049	1	10/ 5/09	10/14/09 11:31	97551	174916	
Naphthalene	0.14	U	0.19	0.14	1	10/ 5/09	10/14/09 11:31	97551	174916	
Nitrobenzene	0.046	U	0.19	0.046	1	10/ 5/09	10/14/09 11:31	97551	174916	
Phenanthrene	0.062	U	0.19	0.062	1	10/ 5/09	10/14/09 11:31	97551	174916	
Pyrene	0.029	U	0.19	0.029	1	10/ 5/09	10/14/09 11:31	97551	174916	
Pyridine	0.89	U	1.9	0.89	1	10/ 5/09	10/14/09 11:31	97551	174916	
1,4-Dioxane	0.24	J	1.9	0.13	1	10/ 5/09	10/14/09 11:31	97551	174916	
Octachlorostyrene	0.13	U	0.19	0.13	1	10/ 5/09	10/14/09 11:31	97551	174916	

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: M-76009B
Lab Code: R0905636-003

Service Request: R0905636
Date Collected: 10/ 2/09 1155
Date Received: 10/ 3/09
Units: Percent
Basis: NA

Low Level Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
2-Fluorobiphenyl	87	45-135	10/14/09 11:31		
Nitrobenzene-d5	89	45-135	10/14/09 11:31		
Terphenyl-d14	100	45-135	10/14/09 11:31		

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: MC-94B
Lab Code: R0905636-006

Service Request: R0905636
Date Collected: 10/ 7/09 1045
Date Received: 10/ 8/09
Units: µg/L
Basis: NA

Low Level Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
2-Methylnaphthalene	0.048	U	0.19	0.048	1	10/ 9/09	10/13/09 18:54	97951	174762	
Acenaphthene	0.053	U	0.19	0.053	1	10/ 9/09	10/13/09 18:54	97951	174762	
Acenaphthylene	0.076	U	0.19	0.076	1	10/ 9/09	10/13/09 18:54	97951	174762	
Anthracene	0.041	U	0.19	0.041	1	10/ 9/09	10/13/09 18:54	97951	174762	
Benz(a)anthracene	0.041	U	0.19	0.041	1	10/ 9/09	10/13/09 18:54	97951	174762	
Benzo(a)pyrene	0.042	U	0.19	0.042	1	10/ 9/09	10/13/09 18:54	97951	174762	
Benzo(b)fluoranthene	0.027	U	0.19	0.027	1	10/ 9/09	10/13/09 18:54	97951	174762	
Benzo(g,h,i)perylene	0.030	U	0.19	0.030	1	10/ 9/09	10/13/09 18:54	97951	174762	
Benzo(k)fluoranthene	0.029	U	0.19	0.029	1	10/ 9/09	10/13/09 18:54	97951	174762	
Bis(2-ethylhexyl) Phthalate	0.23	U	4.7	0.23	1	10/ 9/09	10/13/09 18:54	97951	174762	
Butyl Benzyl Phthalate	0.11	U	4.7	0.11	1	10/ 9/09	10/13/09 18:54	97951	174762	
Chrysene	0.029	U	0.19	0.029	1	10/ 9/09	10/13/09 18:54	97951	174762	
Di-n-butyl Phthalate	0.76	U	4.7	0.76	1	10/ 9/09	10/13/09 18:54	97951	174762	
Di-n-octyl Phthalate	0.041	U	4.7	0.041	1	10/ 9/09	10/13/09 18:54	97951	174762	
Dibenz(a,h)anthracene	0.046	U	0.19	0.046	1	10/ 9/09	10/13/09 18:54	97951	174762	
Diethyl Phthalate	0.20	U	4.7	0.20	1	10/ 9/09	10/13/09 18:54	97951	174762	
Dimethyl Phthalate	0.044	U	4.7	0.044	1	10/ 9/09	10/13/09 18:54	97951	174762	
Fluoranthene	0.040	U	0.19	0.040	1	10/ 9/09	10/13/09 18:54	97951	174762	
Fluorene	0.055	U	0.19	0.055	1	10/ 9/09	10/13/09 18:54	97951	174762	
Hexachlorobenzene	0.035	U	0.19	0.035	1	10/ 9/09	10/13/09 18:54	97951	174762	
Indeno(1,2,3-cd)pyrene	0.049	U	0.19	0.049	1	10/ 9/09	10/13/09 18:54	97951	174762	
Naphthalene	0.15	J	0.19	0.14	1	10/ 9/09	10/13/09 18:54	97951	174762	
Nitrobenzene	0.046	U	0.19	0.046	1	10/ 9/09	10/13/09 18:54	97951	174762	
Phenanthrene	0.062	U	0.19	0.062	1	10/ 9/09	10/13/09 18:54	97951	174762	
Pyrene	0.029	U	0.19	0.029	1	10/ 9/09	10/13/09 18:54	97951	174762	
Pyridine	0.89	U	1.9	0.89	1	10/ 9/09	10/13/09 18:54	97951	174762	
1,4-Dioxane	0.84	J	1.9	0.13	1	10/ 9/09	10/13/09 18:54	97951	174762	
Octachlorostyrene	0.13	U	0.19	0.13	1	10/ 9/09	10/13/09 18:54	97951	174762	

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: MC-94B
Lab Code: R0905636-006

Service Request: R0905636
Date Collected: 10/ 7/09 1045
Date Received: 10/ 8/09
Units: Percent
Basis: NA

Low Level Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
2-Fluorobiphenyl	75	45-135	10/13/09 18:54		
Nitrobenzene-d5	90	45-135	10/13/09 18:54		
Terphenyl-d14	102	45-135	10/13/09 18:54		

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
 Project: Tronox LLC Henderson/2027.001
 Sample Matrix: Water
 Sample Name: Method Blank
 Lab Code: RQ0909469-01

Service Request: R0905636
 Date Collected: NA
 Date Received: NA
 Units: µg/L
 Basis: NA

Low Level Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
 Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
2-Methylnaphthalene	0.048	U	0.20	0.048	1	10/ 5/09	10/6/09 15:02	97551	173710	
Acenaphthene	0.053	U	0.20	0.053	1	10/ 5/09	10/6/09 15:02	97551	173710	
Acenaphthylene	0.076	U	0.20	0.076	1	10/ 5/09	10/6/09 15:02	97551	173710	
Anthracene	0.041	U	0.20	0.041	1	10/ 5/09	10/6/09 15:02	97551	173710	
Benz(a)anthracene	0.041	U	0.20	0.041	1	10/ 5/09	10/6/09 15:02	97551	173710	
Benzo(a)pyrene	0.042	U	0.20	0.042	1	10/ 5/09	10/6/09 15:02	97551	173710	
Benzo(b)fluoranthene	0.027	U	0.20	0.027	1	10/ 5/09	10/6/09 15:02	97551	173710	
Benzo(g,h,i)perylene	0.030	U	0.20	0.030	1	10/ 5/09	10/6/09 15:02	97551	173710	
Benzo(k)fluoranthene	0.029	U	0.20	0.029	1	10/ 5/09	10/6/09 15:02	97551	173710	
Bis(2-ethylhexyl) Phthalate	0.25	J	5.0	0.23	1	10/ 5/09	10/6/09 15:02	97551	173710	
Butyl Benzyl Phthalate	0.11	U	5.0	0.11	1	10/ 5/09	10/6/09 15:02	97551	173710	
Chrysene	0.029	U	0.20	0.029	1	10/ 5/09	10/6/09 15:02	97551	173710	
Di-n-butyl Phthalate	0.76	U	5.0	0.76	1	10/ 5/09	10/6/09 15:02	97551	173710	
Di-n-octyl Phthalate	0.041	U	5.0	0.041	1	10/ 5/09	10/6/09 15:02	97551	173710	
Dibenz(a,h)anthracene	0.046	U	0.20	0.046	1	10/ 5/09	10/6/09 15:02	97551	173710	
Diethyl Phthalate	0.20	U	5.0	0.20	1	10/ 5/09	10/6/09 15:02	97551	173710	
Dimethyl Phthalate	0.044	U	5.0	0.044	1	10/ 5/09	10/6/09 15:02	97551	173710	
Fluoranthene	0.040	U	0.20	0.040	1	10/ 5/09	10/6/09 15:02	97551	173710	
Fluorene	0.055	U	0.20	0.055	1	10/ 5/09	10/6/09 15:02	97551	173710	
Hexachlorobenzene	0.035	U	0.20	0.035	1	10/ 5/09	10/6/09 15:02	97551	173710	
Indeno(1,2,3-cd)pyrene	0.049	U	0.20	0.049	1	10/ 5/09	10/6/09 15:02	97551	173710	
Naphthalene	0.14	U	0.20	0.14	1	10/ 5/09	10/6/09 15:02	97551	173710	
Nitrobenzene	0.046	U	0.20	0.046	1	10/ 5/09	10/6/09 15:02	97551	173710	
Phenanthrene	0.062	U	0.20	0.062	1	10/ 5/09	10/6/09 15:02	97551	173710	
Pyrene	0.029	U	0.20	0.029	1	10/ 5/09	10/6/09 15:02	97551	173710	
Pyridine	0.89	U	2.0	0.89	1	10/ 5/09	10/6/09 15:02	97551	173710	
1,4-Dioxane	0.13	U	2.0	0.13	1	10/ 5/09	10/6/09 15:02	97551	173710	
Octachlorostyrene	0.13	U	0.20	0.13	1	10/ 5/09	10/6/09 15:02	97551	173710	

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ0909469-01

Service Request: R0905636
Date Collected: NA
Date Received: NA
Units: Percent
Basis: NA

Low Level Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
2-Fluorobiphenyl	67	45-135	10/6/09 15:02		
Nitrobenzene-d5	90	45-135	10/6/09 15:02		
Terphenyl-d14	106	45-135	10/6/09 15:02		

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
 Project: Tronox LLC Henderson/2027.001
 Sample Matrix: Water
 Sample Name: Method Blank
 Lab Code: RQ0909469-01

Service Request: R0905636
 Date Collected: NA
 Date Received: NA
 Units: µg/L
 Basis: NA

Low Level Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
 Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
2-Methylnaphthalene	0.048	U	0.20	0.048	1	10/ 5/09	10/14/09 10:46	97551	174916	
Acenaphthene	0.053	U	0.20	0.053	1	10/ 5/09	10/14/09 10:46	97551	174916	
Acenaphthylene	0.076	U	0.20	0.076	1	10/ 5/09	10/14/09 10:46	97551	174916	
Anthracene	0.041	U	0.20	0.041	1	10/ 5/09	10/14/09 10:46	97551	174916	
Benz(a)anthracene	0.041	U	0.20	0.041	1	10/ 5/09	10/14/09 10:46	97551	174916	
Benzo(a)pyrene	0.042	U	0.20	0.042	1	10/ 5/09	10/14/09 10:46	97551	174916	
Benzo(b)fluoranthene	0.027	U	0.20	0.027	1	10/ 5/09	10/14/09 10:46	97551	174916	
Benzo(g,h,i)perylene	0.030	U	0.20	0.030	1	10/ 5/09	10/14/09 10:46	97551	174916	
Benzo(k)fluoranthene	0.029	U	0.20	0.029	1	10/ 5/09	10/14/09 10:46	97551	174916	
Bis(2-ethylhexyl) Phthalate	0.23	U	5.0	0.23	1	10/ 5/09	10/14/09 10:46	97551	174916	
Butyl Benzyl Phthalate	0.11	U	5.0	0.11	1	10/ 5/09	10/14/09 10:46	97551	174916	
Chrysene	0.029	U	0.20	0.029	1	10/ 5/09	10/14/09 10:46	97551	174916	
Di-n-butyl Phthalate	0.76	U	5.0	0.76	1	10/ 5/09	10/14/09 10:46	97551	174916	
Di-n-octyl Phthalate	0.041	U	5.0	0.041	1	10/ 5/09	10/14/09 10:46	97551	174916	
Dibenz(a,h)anthracene	0.046	U	0.20	0.046	1	10/ 5/09	10/14/09 10:46	97551	174916	
Diethyl Phthalate	0.20	U	5.0	0.20	1	10/ 5/09	10/14/09 10:46	97551	174916	
Dimethyl Phthalate	0.044	U	5.0	0.044	1	10/ 5/09	10/14/09 10:46	97551	174916	
Fluoranthene	0.040	U	0.20	0.040	1	10/ 5/09	10/14/09 10:46	97551	174916	
Fluorene	0.055	U	0.20	0.055	1	10/ 5/09	10/14/09 10:46	97551	174916	
Hexachlorobenzene	0.035	U	0.20	0.035	1	10/ 5/09	10/14/09 10:46	97551	174916	
Indeno(1,2,3-cd)pyrene	0.049	U	0.20	0.049	1	10/ 5/09	10/14/09 10:46	97551	174916	
Naphthalene	0.14	U	0.20	0.14	1	10/ 5/09	10/14/09 10:46	97551	174916	
Nitrobenzene	0.046	U	0.20	0.046	1	10/ 5/09	10/14/09 10:46	97551	174916	
Phenanthrene	0.062	U	0.20	0.062	1	10/ 5/09	10/14/09 10:46	97551	174916	
Pyrene	0.029	U	0.20	0.029	1	10/ 5/09	10/14/09 10:46	97551	174916	
Pyridine	0.89	U	2.0	0.89	1	10/ 5/09	10/14/09 10:46	97551	174916	
1,4-Dioxane	0.13	U	2.0	0.13	1	10/ 5/09	10/14/09 10:46	97551	174916	
Octachlorostyrene	0.13	U	0.20	0.13	1	10/ 5/09	10/14/09 10:46	97551	174916	

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ0909469-01

Service Request: R0905636
Date Collected: NA
Date Received: NA
Units: Percent
Basis: NA

Low Level Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
2-Fluorobiphenyl	82	45-135	10/14/09 10:46		
Nitrobenzene-d5	88	45-135	10/14/09 10:46		
Terphenyl-d14	99	45-135	10/14/09 10:46		

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ0909715-01

Service Request: R0905636
Date Collected: NA
Date Received: NA
Units: µg/L
Basis: NA

Low Level Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis		Note
								Lot	Lot	
2-Methylnaphthalene	0.048	U	0.20	0.048	1	10/ 9/09	10/13/09 00:21	97951	174480	
Acenaphthene	0.053	U	0.20	0.053	1	10/ 9/09	10/13/09 00:21	97951	174480	
Acenaphthylene	0.076	U	0.20	0.076	1	10/ 9/09	10/13/09 00:21	97951	174480	
Anthracene	0.041	U	0.20	0.041	1	10/ 9/09	10/13/09 00:21	97951	174480	
Benz(a)anthracene	0.041	U	0.20	0.041	1	10/ 9/09	10/13/09 00:21	97951	174480	
Benzo(a)pyrene	0.042	U	0.20	0.042	1	10/ 9/09	10/13/09 00:21	97951	174480	
Benzo(b)fluoranthene	0.027	U	0.20	0.027	1	10/ 9/09	10/13/09 00:21	97951	174480	
Benzo(g,h,i)perylene	0.030	U	0.20	0.030	1	10/ 9/09	10/13/09 00:21	97951	174480	
Benzo(k)fluoranthene	0.029	U	0.20	0.029	1	10/ 9/09	10/13/09 00:21	97951	174480	
Bis(2-ethylhexyl) Phthalate	1.4	J	5.0	0.23	1	10/ 9/09	10/13/09 00:21	97951	174480	
Butyl Benzyl Phthalate	0.11	U	5.0	0.11	1	10/ 9/09	10/13/09 00:21	97951	174480	
Chrysene	0.029	U	0.20	0.029	1	10/ 9/09	10/13/09 00:21	97951	174480	
Di-n-butyl Phthalate	0.76	U	5.0	0.76	1	10/ 9/09	10/13/09 00:21	97951	174480	
Di-n-octyl Phthalate	0.041	U	5.0	0.041	1	10/ 9/09	10/13/09 00:21	97951	174480	
Dibenz(a,h)anthracene	0.046	U	0.20	0.046	1	10/ 9/09	10/13/09 00:21	97951	174480	
Diethyl Phthalate	0.20	U	5.0	0.20	1	10/ 9/09	10/13/09 00:21	97951	174480	
Dimethyl Phthalate	0.044	U	5.0	0.044	1	10/ 9/09	10/13/09 00:21	97951	174480	
Fluoranthene	0.040	U	0.20	0.040	1	10/ 9/09	10/13/09 00:21	97951	174480	
Fluorene	0.055	U	0.20	0.055	1	10/ 9/09	10/13/09 00:21	97951	174480	
Hexachlorobenzene	0.035	U	0.20	0.035	1	10/ 9/09	10/13/09 00:21	97951	174480	
Indeno(1,2,3-cd)pyrene	0.049	U	0.20	0.049	1	10/ 9/09	10/13/09 00:21	97951	174480	
Naphthalene	0.14	U	0.20	0.14	1	10/ 9/09	10/13/09 00:21	97951	174480	
Nitrobenzene	0.046	U	0.20	0.046	1	10/ 9/09	10/13/09 00:21	97951	174480	
Phenanthrene	0.062	U	0.20	0.062	1	10/ 9/09	10/13/09 00:21	97951	174480	
Pyrene	0.029	U	0.20	0.029	1	10/ 9/09	10/13/09 00:21	97951	174480	
Pyridine	0.89	U	2.0	0.89	1	10/ 9/09	10/13/09 00:21	97951	174480	
1,4-Dioxane	0.13	U	2.0	0.13	1	10/ 9/09	10/13/09 00:21	97951	174480	
Octachlorostyrene	0.13	U	0.20	0.13	1	10/ 9/09	10/13/09 00:21	97951	174480	

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ0909715-01

Service Request: R0905636
Date Collected: NA
Date Received: NA
Units: Percent
Basis: NA

Low Level Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
2-Fluorobiphenyl	73	45-135	10/13/09 00:21		
Nitrobenzene-d5	74	45-135	10/13/09 00:21		
Terphenyl-d14	100	45-135	10/13/09 00:21		

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water

Service Request: R0905636
Date Analyzed: 10/ 6/09

Lab Control Sample Summary
Low Level Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Units: µg/L
Basis: NA

Extraction Lot: 97551

Analyte Name	Lab Control Sample RQ0909469-02			Duplicate Lab Control Sample RQ0909469-03			% Rec Limits	RPD	RPD Limit
	Result	Expected	% Rec	Result	Expected	% Rec			
2-Methylnaphthalene	3.33	4.00	83	3.10	4.00	78	50 - 120	7	30
Acenaphthene	3.37	4.00	84	3.38	4.00	85	50 - 120	0	30
Acenaphthylene	3.34	4.00	84	3.40	4.00	85	50 - 120	2	30
Anthracene	3.73	4.00	93	3.55	4.00	89	50 - 120	5	30
Benz(a)anthracene	3.84	4.00	96	3.87	4.00	97	50 - 120	1	30
Benzo(a)pyrene	3.32	4.00	83	3.30	4.00	83	50 - 120	1	30
Benzo(b)fluoranthene	3.70	4.00	93	3.79	4.00	95	50 - 120	2	30
Benzo(g,h,i)perylene	3.83	4.00	96	3.69	4.00	92	50 - 120	4	30
Benzo(k)fluoranthene	3.77	4.00	94	3.53	4.00	88	50 - 120	7	30
Bis(2-ethylhexyl) Phthalate	4.16	4.00	104	4.17	4.00	104	50 - 120	0	30
Butyl Benzyl Phthalate	3.70	4.00	93	3.71	4.00	93	50 - 120	0	30
Chrysene	3.63	4.00	91	3.61	4.00	90	50 - 120	1	30
Di-n-butyl Phthalate	4.01	4.00	100	3.55	4.00	89	50 - 120	12	30
Di-n-octyl Phthalate	3.80	4.00	95	3.69	4.00	92	50 - 120	3	30
Dibenz(a,h)anthracene	3.93	4.00	98	3.80	4.00	95	50 - 120	3	30
Diethyl Phthalate	3.26	4.00	82	3.22	4.00	81	50 - 120	1	30
Dimethyl Phthalate	3.10	4.00	78	3.05	4.00	76	50 - 120	2	30
Fluoranthene	3.45	4.00	86	3.17	4.00	79	50 - 120	8	30
Fluorene	3.72	4.00	93	3.77	4.00	94	50 - 120	1	30
Hexachlorobenzene	3.38	4.00	85	3.00	4.00	75	50 - 120	12	30
Indeno(1,2,3-cd)pyrene	3.81	4.00	95	3.78	4.00	95	50 - 120	1	30
Naphthalene	3.08	4.00	77	2.99	4.00	75	50 - 120	3	30
Nitrobenzene	3.33	4.00	83	3.27	4.00	82	50 - 120	2	30
Phenanthrene	3.53	4.00	88	3.23	4.00	81	50 - 120	9	30
Pyrene	3.66	4.00	92	3.60	4.00	90	50 - 120	2	30
Pyridine	0.820	4.00	21 *	0.940	4.00	24 *	50 - 120	14	30
1,4-Dioxane	1.63	5.00	33 *	1.64	5.00	33 *	50 - 120	1	30
Octachlorostyrene	2.84	4.00	71	2.71	4.00	68	50 - 120	5	30

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water

Service Request: R0905636
Date Analyzed: 10/13/09

Lab Control Sample Summary
Low Level Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Units: µg/L
Basis: NA

Extraction Lot: 97951

Analyte Name	Lab Control Sample RQ0909715-02			Duplicate Lab Control Sample RQ0909715-03			% Rec Limits	RPD	RPD Limit
	Result	Expected	% Rec	Result	Expected	% Rec			
2-Methylnaphthalene	3.48	4.00	87	3.43	4.00	86	50 - 120	1	30
Acenaphthene	3.48	4.00	87	3.47	4.00	87	50 - 120	0	30
Acenaphthylene	3.52	4.00	88	3.48	4.00	87	50 - 120	1	30
Anthracene	3.64	4.00	91	3.76	4.00	94	50 - 120	3	30
Benzo(a)anthracene	3.91	4.00	98	3.95	4.00	99	50 - 120	1	30
Benzo(a)pyrene	3.08	4.00	77	3.40	4.00	85	50 - 120	10	30
Benzo(b)fluoranthene	3.37	4.00	84	3.78	4.00	95	50 - 120	11	30
Benzo(g,h,i)perylene	3.68	4.00	92	3.93	4.00	98	50 - 120	7	30
Benzo(k)fluoranthene	3.32	4.00	83	3.68	4.00	92	50 - 120	10	30
Bis(2-ethylhexyl) Phthalate	4.03	4.00	101	4.06	4.00	102	50 - 120	1	30
Butyl Benzyl Phthalate	3.55	4.00	89	3.55	4.00	89	50 - 120	0	30
Chrysene	3.64	4.00	91	3.75	4.00	94	50 - 120	3	30
Di-n-butyl Phthalate	3.61	4.00	90	3.69	4.00	92	50 - 120	2	30
Di-n-octyl Phthalate	3.32	4.00	83	3.66	4.00	92	50 - 120	10	30
Dibenz(a,h)anthracene	3.69	4.00	92	4.07	4.00	102	50 - 120	10	30
Diethyl Phthalate	3.40	4.00	85	3.28	4.00	82	50 - 120	4	30
Dimethyl Phthalate	3.36	4.00	84	3.41	4.00	85	50 - 120	1	30
Fluoranthene	3.33	4.00	83	3.57	4.00	89	50 - 120	7	30
Fluorene	3.88	4.00	97	3.72	4.00	93	50 - 120	4	30
Hexachlorobenzene	3.50	4.00	88	3.64	4.00	91	50 - 120	4	30
Indeno(1,2,3-cd)pyrene	3.74	4.00	94	3.92	4.00	98	50 - 120	5	30
Naphthalene	3.16	4.00	79	3.14	4.00	79	50 - 120	1	30
Nitrobenzene	3.17	4.00	79	3.21	4.00	80	50 - 120	1	30
Phenanthrene	3.37	4.00	84	3.55	4.00	89	50 - 120	5	30
Pyrene	3.58	4.00	90	3.66	4.00	92	50 - 120	2	30
Pyridine	0.700	4.00	18 *	0.650	4.00	16 *	50 - 120	7	30
1,4-Dioxane	1.84	5.00	37 *	1.80	5.00	36 *	50 - 120	2	30
Octachlorostyrene	2.50	4.00	63	2.88	4.00	72	50 - 120	14	30

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: PB100209-A2
Lab Code: R0905636-001

Service Request: R0905636
Date Collected: 10/ 2/09 1111
Date Received: 10/ 3/09
Units: µg/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analytical Method: 8081A
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis	
								Lot	Lot Note
4,4'-DDD	0.050	U	0.094	0.050	1	10/ 6/09	10/8/09 13:19	97635	174100
4,4'-DDE	0.050	U	0.094	0.050	1	10/ 6/09	10/8/09 13:19	97635	174100
4,4'-DDT	0.050	U	0.094	0.050	1	10/ 6/09	10/8/09 13:19	97635	174100
Aldrin	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 13:19	97635	174100
Chlordane	0.13	U	0.24	0.13	1	10/ 6/09	10/8/09 13:19	97635	174100
Dieldrin	0.050	U	0.094	0.050	1	10/ 6/09	10/8/09 13:19	97635	174100
Endosulfan I	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 13:19	97635	174100
Endosulfan II	0.050	U	0.094	0.050	1	10/ 6/09	10/8/09 13:19	97635	174100
Endosulfan Sulfate	0.050	U	0.094	0.050	1	10/ 6/09	10/8/09 13:19	97635	174100
Endrin	0.050	U	0.094	0.050	1	10/ 6/09	10/8/09 13:19	97635	174100
Endrin Aldehyde	0.050	U	0.094	0.050	1	10/ 6/09	10/8/09 13:19	97635	174100
Endrin Ketone	0.050	U	0.094	0.050	1	10/ 6/09	10/8/09 13:19	97635	174100
Heptachlor	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 13:19	97635	174100
Heptachlor Epoxide	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 13:19	97635	174100
Hexachlorobenzene	0.028	U	0.047	0.028	1	10/ 6/09	10/8/09 13:19	97635	174100
Methoxychlor	0.25	U	0.47	0.25	1	10/ 6/09	10/8/09 13:19	97635	174100
Toxaphene	0.50	U	0.94	0.50	1	10/ 6/09	10/8/09 13:19	97635	174100
alpha-BHC	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 13:19	97635	174100
alpha-Chlordane	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 13:19	97635	174100
beta-BHC	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 13:19	97635	174100
delta-BHC	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 13:19	97635	174100
gamma-BHC (Lindane)	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 13:19	97635	174100
gamma-Chlordane	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 13:19	97635	174100

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
Decachlorobiphenyl	39	*	40-140	10/8/09 13:19	
Tetrachloro-m-xylene	74		40-140	10/8/09 13:19	

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: PB100209-A2
Lab Code: R0905636-001
Run Type: Reanalysis

Service Request: R0905636
Date Collected: 10/ 2/09 1111
Date Received: 10/ 3/09
Units: µg/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analytical Method: 8081A
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
4,4'-DDD	0.050	U	0.094	0.050	1	10/13/09	10/28/09 05:06	98167	176909	
4,4'-DDE	0.050	U	0.094	0.050	1	10/13/09	10/28/09 05:06	98167	176909	
4,4'-DDT	0.050	U	0.094	0.050	1	10/13/09	10/28/09 05:06	98167	176909	
Aldrin	0.025	U	0.047	0.025	1	10/13/09	10/28/09 05:06	98167	176909	
Chlordane	0.13	U	0.24	0.13	1	10/13/09	10/28/09 05:06	98167	176909	
Dieldrin	0.050	U	0.094	0.050	1	10/13/09	10/28/09 05:06	98167	176909	
Endosulfan I	0.025	U	0.047	0.025	1	10/13/09	10/28/09 05:06	98167	176909	
Endosulfan II	0.050	U	0.094	0.050	1	10/13/09	10/28/09 05:06	98167	176909	
Endosulfan Sulfate	0.050	U	0.094	0.050	1	10/13/09	10/28/09 05:06	98167	176909	
Endrin	0.050	U	0.094	0.050	1	10/13/09	10/28/09 05:06	98167	176909	
Endrin Aldehyde	0.050	U	0.094	0.050	1	10/13/09	10/28/09 05:06	98167	176909	
Endrin Ketone	0.050	U	0.094	0.050	1	10/13/09	10/28/09 05:06	98167	176909	
Heptachlor	0.025	U	0.047	0.025	1	10/13/09	10/28/09 05:06	98167	176909	
Heptachlor Epoxide	0.025	U	0.047	0.025	1	10/13/09	10/28/09 05:06	98167	176909	
Hexachlorobenzene	0.028	U	0.047	0.028	1	10/13/09	10/28/09 05:06	98167	176909	
Methoxychlor	0.25	U	0.47	0.25	1	10/13/09	10/28/09 05:06	98167	176909	
Toxaphene	0.50	U	0.94	0.50	1	10/13/09	10/28/09 05:06	98167	176909	
alpha-BHC	0.025	U	0.047	0.025	1	10/13/09	10/28/09 05:06	98167	176909	
alpha-Chlordane	0.025	U	0.047	0.025	1	10/13/09	10/28/09 05:06	98167	176909	
beta-BHC	0.025	U	0.047	0.025	1	10/13/09	10/28/09 05:06	98167	176909	
delta-BHC	0.025	U	0.047	0.025	1	10/13/09	10/28/09 05:06	98167	176909	
gamma-BHC (Lindane)	0.025	U	0.047	0.025	1	10/13/09	10/28/09 05:06	98167	176909	
gamma-Chlordane	0.025	U	0.047	0.025	1	10/13/09	10/28/09 05:06	98167	176909	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
Decachlorobiphenyl	47	40-140	10/28/09 05:06		
Tetrachloro-m-xylene	98	40-140	10/28/09 05:06		

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: M-76B
Lab Code: R0905636-002

Service Request: R0905636
Date Collected: 10/ 2/09 1155
Date Received: 10/ 3/09
Units: µg/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analytical Method: 8081A
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
4,4'-DDD	0.050	U	0.094	0.050	1	10/ 6/09	10/8/09 13:54	97635	174100	
4,4'-DDE	0.050	U	0.094	0.050	1	10/ 6/09	10/8/09 13:54	97635	174100	
4,4'-DDT	0.050	U	0.094	0.050	1	10/ 6/09	10/8/09 13:54	97635	174100	
Aldrin	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 13:54	97635	174100	
Chlordane	0.13	U	0.24	0.13	1	10/ 6/09	10/8/09 13:54	97635	174100	
Dieldrin	0.050	U	0.094	0.050	1	10/ 6/09	10/8/09 13:54	97635	174100	
Endosulfan I	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 13:54	97635	174100	
Endosulfan II	0.050	U	0.094	0.050	1	10/ 6/09	10/8/09 13:54	97635	174100	
Endosulfan Sulfate	0.050	U	0.094	0.050	1	10/ 6/09	10/8/09 13:54	97635	174100	
Endrin	0.050	U	0.094	0.050	1	10/ 6/09	10/8/09 13:54	97635	174100	
Endrin Aldehyde	0.050	U	0.094	0.050	1	10/ 6/09	10/8/09 13:54	97635	174100	
Endrin Ketone	0.050	U	0.094	0.050	1	10/ 6/09	10/8/09 13:54	97635	174100	
Heptachlor	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 13:54	97635	174100	
Heptachlor Epoxide	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 13:54	97635	174100	
Hexachlorobenzene	0.033	U	0.047	0.033	1	10/ 6/09	10/8/09 13:54	97635	174100	
Methoxychlor	0.25	U	0.47	0.25	1	10/ 6/09	10/8/09 13:54	97635	174100	
Toxaphene	0.50	U	0.94	0.50	1	10/ 6/09	10/8/09 13:54	97635	174100	
alpha-BHC	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 13:54	97635	174100	
alpha-Chlordane	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 13:54	97635	174100	
beta-BHC	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 13:54	97635	174100	
delta-BHC	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 13:54	97635	174100	
gamma-BHC (Lindane)	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 13:54	97635	174100	
gamma-Chlordane	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 13:54	97635	174100	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
Decachlorobiphenyl	84	40-140	10/8/09 13:54		
Tetrachloro-m-xylene	84	40-140	10/8/09 13:54		

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: M-76009B
Lab Code: R0905636-003

Service Request: R0905636
Date Collected: 10/ 2/09 1155
Date Received: 10/ 3/09
Units: µg/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analytical Method: 8081A
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
4,4'-DDD	0.050	U	0.094	0.050	1	10/ 6/09	10/8/09 14:30	97635	174100	
4,4'-DDE	0.050	U	0.094	0.050	1	10/ 6/09	10/8/09 14:30	97635	174100	
4,4'-DDT	0.050	U	0.094	0.050	1	10/ 6/09	10/8/09 14:30	97635	174100	
Aldrin	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 14:30	97635	174100	
Chlordane	0.13	U	0.24	0.13	1	10/ 6/09	10/8/09 14:30	97635	174100	
Dieldrin	0.050	U	0.094	0.050	1	10/ 6/09	10/8/09 14:30	97635	174100	
Endosulfan I	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 14:30	97635	174100	
Endosulfan II	0.050	U	0.094	0.050	1	10/ 6/09	10/8/09 14:30	97635	174100	
Endosulfan Sulfate	0.050	U	0.094	0.050	1	10/ 6/09	10/8/09 14:30	97635	174100	
Endrin	0.050	U	0.094	0.050	1	10/ 6/09	10/8/09 14:30	97635	174100	
Endrin Aldehyde	0.050	U	0.094	0.050	1	10/ 6/09	10/8/09 14:30	97635	174100	
Endrin Ketone	0.050	U	0.094	0.050	1	10/ 6/09	10/8/09 14:30	97635	174100	
Heptachlor	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 14:30	97635	174100	
Heptachlor Epoxide	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 14:30	97635	174100	
Hexachlorobenzene	0.028	U	0.047	0.028	1	10/ 6/09	10/8/09 14:30	97635	174100	
Methoxychlor	0.25	U	0.47	0.25	1	10/ 6/09	10/8/09 14:30	97635	174100	
Toxaphene	0.50	U	0.94	0.50	1	10/ 6/09	10/8/09 14:30	97635	174100	
alpha-BHC	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 14:30	97635	174100	
alpha-Chlordane	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 14:30	97635	174100	
beta-BHC	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 14:30	97635	174100	
delta-BHC	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 14:30	97635	174100	
gamma-BHC (Lindane)	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 14:30	97635	174100	
gamma-Chlordane	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 14:30	97635	174100	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
Decachlorobiphenyl	87	40-140	10/8/09 14:30		
Tetrachloro-m-xylene	84	40-140	10/8/09 14:30		

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: MC-94B
Lab Code: R0905636-006

Service Request: R0905636
Date Collected: 10/ 7/09 1045
Date Received: 10/ 8/09
Units: µg/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analytical Method: 8081A
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
4,4'-DDD	0.050	U	0.094	0.050	1	10/13/09	10/28/09 05:41	98167	176909	
4,4'-DDE	0.050	U	0.094	0.050	1	10/13/09	10/28/09 05:41	98167	176909	
4,4'-DDT	0.050	U	0.094	0.050	1	10/13/09	10/28/09 05:41	98167	176909	
Aldrin	0.025	U	0.047	0.025	1	10/13/09	10/28/09 05:41	98167	176909	
Chlordane	0.13	U	0.24	0.13	1	10/13/09	10/28/09 05:41	98167	176909	
Dieldrin	0.050	U	0.094	0.050	1	10/13/09	10/28/09 05:41	98167	176909	
Endosulfan I	0.025	U	0.047	0.025	1	10/13/09	10/28/09 05:41	98167	176909	
Endosulfan II	0.050	U	0.094	0.050	1	10/13/09	10/28/09 05:41	98167	176909	
Endosulfan Sulfate	0.050	U	0.094	0.050	1	10/13/09	10/28/09 05:41	98167	176909	
Endrin	0.050	U	0.094	0.050	1	10/13/09	10/28/09 05:41	98167	176909	
Endrin Aldehyde	0.050	U	0.094	0.050	1	10/13/09	10/28/09 05:41	98167	176909	
Endrin Ketone	0.050	U	0.094	0.050	1	10/13/09	10/28/09 05:41	98167	176909	
Heptachlor	0.025	U	0.047	0.025	1	10/13/09	10/28/09 05:41	98167	176909	
Heptachlor Epoxide	0.025	U	0.047	0.025	1	10/13/09	10/28/09 05:41	98167	176909	
Hexachlorobenzene	0.028	U	0.047	0.028	1	10/13/09	10/28/09 05:41	98167	176909	
Methoxychlor	0.25	U	0.47	0.25	1	10/13/09	10/28/09 05:41	98167	176909	
Toxaphene	0.50	U	0.94	0.50	1	10/13/09	10/28/09 05:41	98167	176909	
alpha-BHC	0.33		0.047	0.025	1	10/13/09	10/28/09 05:41	98167	176909	
alpha-Chlordane	0.025	U	0.047	0.025	1	10/13/09	10/28/09 05:41	98167	176909	
beta-BHC	1.1	E	0.047	0.025	1	10/13/09	10/28/09 05:41	98167	176909	
delta-BHC	0.41		0.047	0.025	1	10/13/09	10/28/09 05:41	98167	176909	
gamma-BHC (Lindane)	0.034	J	0.047	0.025	1	10/13/09	10/28/09 05:41	98167	176909	
gamma-Chlordane	0.025	U	0.047	0.025	1	10/13/09	10/28/09 05:41	98167	176909	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
Decachlorobiphenyl	113	40-140	10/28/09 05:41		
Tetrachloro-m-xylene	88	40-140	10/28/09 05:41		

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: MC-94B
Lab Code: R0905636-006
Run Type: Dilution

Service Request: R0905636
Date Collected: 10/ 7/09 1045
Date Received: 10/ 8/09

Units: µg/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analytical Method: 8081A
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis		
								Lot	Lot	Note
4,4'-DDD	0.10	U	0.19	0.10	2	10/13/09	10/29/09 15:24	98167	177168	
4,4'-DDE	0.10	U	0.19	0.10	2	10/13/09	10/29/09 15:24	98167	177168	
4,4'-DDT	0.10	U	0.19	0.10	2	10/13/09	10/29/09 15:24	98167	177168	
Aldrin	0.050	U	0.094	0.050	2	10/13/09	10/29/09 15:24	98167	177168	
Chlordane	0.25	U	0.47	0.25	2	10/13/09	10/29/09 15:24	98167	177168	
Dieldrin	0.10	U	0.19	0.10	2	10/13/09	10/29/09 15:24	98167	177168	
Endosulfan I	0.050	U	0.094	0.050	2	10/13/09	10/29/09 15:24	98167	177168	
Endosulfan II	0.10	U	0.19	0.10	2	10/13/09	10/29/09 15:24	98167	177168	
Endosulfan Sulfate	0.10	U	0.19	0.10	2	10/13/09	10/29/09 15:24	98167	177168	
Endrin	0.10	U	0.19	0.10	2	10/13/09	10/29/09 15:24	98167	177168	
Endrin Aldehyde	0.10	U	0.19	0.10	2	10/13/09	10/29/09 15:24	98167	177168	
Endrin Ketone	0.10	U	0.19	0.10	2	10/13/09	10/29/09 15:24	98167	177168	
Heptachlor	0.050	U	0.094	0.050	2	10/13/09	10/29/09 15:24	98167	177168	
Heptachlor Epoxide	0.050	U	0.094	0.050	2	10/13/09	10/29/09 15:24	98167	177168	
Hexachlorobenzene	0.055	U	0.094	0.055	2	10/13/09	10/29/09 15:24	98167	177168	
Methoxychlor	0.50	U	0.94	0.50	2	10/13/09	10/29/09 15:24	98167	177168	
Toxaphene	1.0	U	1.9	1.0	2	10/13/09	10/29/09 15:24	98167	177168	
alpha-BHC	0.25	D	0.094	0.050	2	10/13/09	10/29/09 15:24	98167	177168	
alpha-Chlordane	0.050	U	0.094	0.050	2	10/13/09	10/29/09 15:24	98167	177168	
beta-BHC	0.87	D	0.094	0.050	2	10/13/09	10/29/09 15:24	98167	177168	
delta-BHC	0.32	D	0.094	0.050	2	10/13/09	10/29/09 15:24	98167	177168	
gamma-BHC (Lindane)	0.050	U	0.094	0.050	2	10/13/09	10/29/09 15:24	98167	177168	
gamma-Chlordane	0.050	U	0.094	0.050	2	10/13/09	10/29/09 15:24	98167	177168	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
Decachlorobiphenyl	90	40-140	10/29/09 15:24		
Tetrachloro-m-xylene	69	40-140	10/29/09 15:24		

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
 Project: Tronox LLC Henderson/2027.001
 Sample Matrix: Water
 Sample Name: Method Blank
 Lab Code: RQ0909548-01

Service Request: R0905636
 Date Collected: NA
 Date Received: NA
 Units: µg/L
 Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analytical Method: 8081A
 Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
4,4'-DDD	0.050	U	0.10	0.050	1	10/ 6/09	10/8/09 09:07	97635	174100	
4,4'-DDE	0.050	U	0.10	0.050	1	10/ 6/09	10/8/09 09:07	97635	174100	
4,4'-DDT	0.050	U	0.10	0.050	1	10/ 6/09	10/8/09 09:07	97635	174100	
Aldrin	0.025	U	0.050	0.025	1	10/ 6/09	10/8/09 09:07	97635	174100	
Chlordane	0.13	U	0.25	0.13	1	10/ 6/09	10/8/09 09:07	97635	174100	
Dieldrin	0.050	U	0.10	0.050	1	10/ 6/09	10/8/09 09:07	97635	174100	
Endosulfan I	0.025	U	0.050	0.025	1	10/ 6/09	10/8/09 09:07	97635	174100	
Endosulfan II	0.050	U	0.10	0.050	1	10/ 6/09	10/8/09 09:07	97635	174100	
Endosulfan Sulfate	0.050	U	0.10	0.050	1	10/ 6/09	10/8/09 09:07	97635	174100	
Endrin	0.050	U	0.10	0.050	1	10/ 6/09	10/8/09 09:07	97635	174100	
Endrin Aldehyde	0.050	U	0.10	0.050	1	10/ 6/09	10/8/09 09:07	97635	174100	
Endrin Ketone	0.050	U	0.10	0.050	1	10/ 6/09	10/8/09 09:07	97635	174100	
Heptachlor	0.025	U	0.050	0.025	1	10/ 6/09	10/8/09 09:07	97635	174100	
Heptachlor Epoxide	0.025	U	0.050	0.025	1	10/ 6/09	10/8/09 09:07	97635	174100	
Hexachlorobenzene	0.028	U	0.050	0.028	1	10/ 6/09	10/8/09 09:07	97635	174100	
Methoxychlor	0.25	U	0.50	0.25	1	10/ 6/09	10/8/09 09:07	97635	174100	
Toxaphene	0.50	U	1.0	0.50	1	10/ 6/09	10/8/09 09:07	97635	174100	
alpha-BHC	0.025	U	0.050	0.025	1	10/ 6/09	10/8/09 09:07	97635	174100	
alpha-Chlordane	0.025	U	0.050	0.025	1	10/ 6/09	10/8/09 09:07	97635	174100	
beta-BHC	0.025	U	0.050	0.025	1	10/ 6/09	10/8/09 09:07	97635	174100	
delta-BHC	0.025	U	0.050	0.025	1	10/ 6/09	10/8/09 09:07	97635	174100	
gamma-BHC (Lindane)	0.025	U	0.050	0.025	1	10/ 6/09	10/8/09 09:07	97635	174100	
gamma-Chlordane	0.025	U	0.050	0.025	1	10/ 6/09	10/8/09 09:07	97635	174100	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
Decachlorobiphenyl	85	40-140	10/8/09 09:07		
Tetrachloro-m-xylene	79	40-140	10/8/09 09:07		

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ0909854-01

Service Request: R0905636
Date Collected: NA
Date Received: NA
Units: µg/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analytical Method: 8081A
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
4,4'-DDD	0.050	U	0.10	0.050	1	10/13/09	10/29/09 12:26	98167	177168	
4,4'-DDE	0.050	U	0.10	0.050	1	10/13/09	10/29/09 12:26	98167	177168	
4,4'-DDT	0.050	U	0.10	0.050	1	10/13/09	10/29/09 12:26	98167	177168	
Aldrin	0.025	U	0.050	0.025	1	10/13/09	10/29/09 12:26	98167	177168	
Chlordane	0.13	U	0.25	0.13	1	10/13/09	10/29/09 12:26	98167	177168	
Dieldrin	0.050	U	0.10	0.050	1	10/13/09	10/29/09 12:26	98167	177168	
Endosulfan I	0.025	U	0.050	0.025	1	10/13/09	10/29/09 12:26	98167	177168	
Endosulfan II	0.050	U	0.10	0.050	1	10/13/09	10/29/09 12:26	98167	177168	
Endosulfan Sulfate	0.050	U	0.10	0.050	1	10/13/09	10/29/09 12:26	98167	177168	
Endrin	0.050	U	0.10	0.050	1	10/13/09	10/29/09 12:26	98167	177168	
Endrin Aldehyde	0.050	U	0.10	0.050	1	10/13/09	10/29/09 12:26	98167	177168	
Endrin Ketone	0.050	U	0.10	0.050	1	10/13/09	10/29/09 12:26	98167	177168	
Heptachlor	0.025	U	0.050	0.025	1	10/13/09	10/29/09 12:26	98167	177168	
Heptachlor Epoxide	0.025	U	0.050	0.025	1	10/13/09	10/29/09 12:26	98167	177168	
Hexachlorobenzene	0.028	U	0.050	0.028	1	10/13/09	10/29/09 12:26	98167	177168	
Methoxychlor	0.25	U	0.50	0.25	1	10/13/09	10/29/09 12:26	98167	177168	
Toxaphene	0.50	U	1.0	0.50	1	10/13/09	10/29/09 12:26	98167	177168	
alpha-BHC	0.025	U	0.050	0.025	1	10/13/09	10/29/09 12:26	98167	177168	
alpha-Chlordane	0.025	U	0.050	0.025	1	10/13/09	10/29/09 12:26	98167	177168	
beta-BHC	0.025	U	0.050	0.025	1	10/13/09	10/29/09 12:26	98167	177168	
delta-BHC	0.025	U	0.050	0.025	1	10/13/09	10/29/09 12:26	98167	177168	
gamma-BHC (Lindane)	0.025	U	0.050	0.025	1	10/13/09	10/29/09 12:26	98167	177168	
gamma-Chlordane	0.025	U	0.050	0.025	1	10/13/09	10/29/09 12:26	98167	177168	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
Decachlorobiphenyl	91	40-140	10/29/09 12:26		
Tetrachloro-m-xylene	83	40-140	10/29/09 12:26		

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water

Service Request: R0905636
Date Analyzed: 10/ 8/09

**Lab Control Sample Summary
 Organochlorine Pesticides by Gas Chromatography**

Analytical Method: 8081A
Prep Method: EPA 3510C

Units: µg/L
Basis: NA

Extraction Lot: 97635

Analyte Name	Lab Control Sample RQ0909548-02			Duplicate Lab Control Sample RQ0909548-03			% Rec Limits	RPD	RPD Limit
	Result	Expected	% Rec	Result	Expected	% Rec			
4,4'-DDD	0.177	0.200	88	0.191	0.200	95	50 - 130	7	30
4,4'-DDE	0.171	0.200	85	0.183	0.200	92	50 - 130	7	30
4,4'-DDT	0.169	0.200	84	0.180	0.200	90	50 - 130	7	30
Aldrin	0.150	0.200	75	0.160	0.200	80	50 - 130	7	30
Dieldrin	0.184	0.200	92	0.197	0.200	99	50 - 130	7	30
Endosulfan I	0.187	0.200	93	0.206	0.200	103	50 - 130	10	30
Endosulfan II	0.173	0.200	87	0.187	0.200	93	50 - 130	8	30
Endosulfan Sulfate	0.169	0.200	84	0.181	0.200	91	50 - 130	7	30
Endrin	0.187	0.200	93	0.201	0.200	101	50 - 130	7	30
Endrin Aldehyde	0.160	0.200	80	0.165	0.200	83	50 - 130	3	30
Endrin Ketone	0.181	0.200	91	0.191	0.200	96	50 - 130	6	30
Heptachlor	0.179	0.200	89	0.184	0.200	92	50 - 130	3	30
Heptachlor Epoxide	0.176	0.200	88	0.193	0.200	97	50 - 130	9	30
Hexachlorobenzene	0.444	0.500	89	0.423	0.500	85	50 - 130	5	30
Methoxychlor	1.03	1.00	103	1.09	1.00	109	50 - 130	6	30
alpha-BHC	0.188	0.200	94	0.177	0.200	88	50 - 130	6	30
alpha-Chlordane	0.173	0.200	87	0.189	0.200	94	50 - 130	8	30
beta-BHC	0.167	0.200	83	0.183	0.200	91	50 - 130	9	30
delta-BHC	0.160	0.200	80	0.169	0.200	84	50 - 130	6	30
gamma-BHC (Lindane)	0.183	0.200	92	0.184	0.200	92	50 - 130	0	30
gamma-Chlordane	0.179	0.200	90	0.194	0.200	97	50 - 130	8	30

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water

Service Request: R0905636
Date Analyzed: 10/29/09

**Lab Control Sample Summary
 Organochlorine Pesticides by Gas Chromatography**

Analytical Method: 8081A
Prep Method: EPA 3510C

Units: µg/L
Basis: NA

Extraction Lot: 98167

Analyte Name	Lab Control Sample RQ0909854-02			Duplicate Lab Control Sample RQ0909854-03			% Rec Limits	RPD	RPD Limit
	Result	Expected	% Rec	Result	Expected	% Rec			
4,4'-DDD	0.185	0.200	93	0.195	0.200	98	50 - 130	5	30
4,4'-DDE	0.178	0.200	89	0.184	0.200	92	50 - 130	3	30
4,4'-DDT	0.180	0.200	90	0.189	0.200	94	50 - 130	5	30
Aldrin	0.153	0.200	77	0.157	0.200	79	50 - 130	3	30
Dieldrin	0.195	0.200	97	0.199	0.200	100	50 - 130	2	30
Endosulfan I	0.192	0.200	96	0.198	0.200	99	50 - 130	3	30
Endosulfan II	0.186	0.200	93	0.192	0.200	96	50 - 130	3	30
Endosulfan Sulfate	0.176	0.200	88	0.185	0.200	92	50 - 130	5	30
Endrin	0.178	0.200	89	0.188	0.200	94	50 - 130	5	30
Endrin Aldehyde	0.161	0.200	80	0.160	0.200	80	50 - 130	0	30
Endrin Ketone	0.197	0.200	98	0.208	0.200	104	50 - 130	6	30
Heptachlor	0.170	0.200	85	0.175	0.200	87	50 - 130	3	30
Heptachlor Epoxide	0.180	0.200	90	0.184	0.200	92	50 - 130	2	30
Hexachlorobenzene	0.411	0.500	82	0.422	0.500	84	50 - 130	3	30
Methoxychlor	1.07	1.00	107	1.12	1.00	112	50 - 130	5	30
alpha-BHC	0.176	0.200	88	0.182	0.200	91	50 - 130	3	30
alpha-Chlordane	0.174	0.200	87	0.180	0.200	90	50 - 130	3	30
beta-BHC	0.179	0.200	90	0.184	0.200	92	50 - 130	3	30
delta-BHC	0.156	0.200	78	0.161	0.200	80	50 - 130	3	30
gamma-BHC (Lindane)	0.178	0.200	89	0.184	0.200	92	50 - 130	3	30
gamma-Chlordane	0.177	0.200	89	0.184	0.200	92	50 - 130	4	30

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: PB100209-A2
Lab Code: R0905636-001

Service Request: R0905636
Date Collected: 10/ 2/09 1111
Date Received: 10/ 3/09

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed
Alkalinity as CaCO ₃ , Total	SM 2320 B	1.1	J	mg/L	2.0	0.3	1	NA	10/15/09 09:33
Ammonia as Nitrogen	350.1	0.025	J	mg/L	0.050	0.007	1	NA	10/27/09 13:22
Bicarbonate Alkalinity as CaCO ₃	SM 2320 B	1.1	J	mg/L	2.0	0.3	1	NA	10/15/09 09:33
Bromide	9056	0.2	U	mg/L	1.0	0.2	10	NA	10/6/09 23:48
Carbon, Total Organic (TOC)	9060	0.1	U	mg/L	1.0	0.1	1	NA	10/10/09 13:02
Carbon, Total Organic (TOC)	9060	0.1	U	mg/L	1.0	0.1	1	NA	10/10/09 13:10
Carbon, Total Organic (TOC)	9060	0.1	U	mg/L	1.0	0.1	1	NA	10/10/09 13:20
Carbon, Total Organic (TOC)	9060	0.1	U	mg/L	1.0	0.1	1	NA	10/10/09 12:54
Carbon, Total Organic (TOC), Average	9060	0.1	U	mg/L	1.0	0.1	1	NA	10/10/09 12:54
Carbonate Alkalinity as CaCO ₃	SM 2320 B	0.3	U	mg/L	2.0	0.3	1	NA	10/15/09 09:33
Chloride	9056	0.9	J	mg/L	2.0	0.5	10	NA	10/8/09 12:47
Chromium, Hexavalent, Dissolved	218.6	0.004	U	mg/L	0.010	0.004	1	NA	10/6/09 12:13
Conductivity	120.1	1.84		µMHOS/cm	0.050		1	NA	10/3/09 12:00
Cyanide, Total	9012A	0.005	U	mg/L	0.010	0.005	1	10/12/09	10/13/09 11:42
Hydroxide Alkalinity as CaCO ₃	SM 2320 B	0.3	U	mg/L	2.0	0.3	1	NA	10/15/09 09:33
Nitrate as Nitrogen	9056	0.04	U	mg/L	0.50	0.04	10	NA	10/3/09 12:17
Nitrite as Nitrogen	353.2	0.007	U	mg/L	0.010	0.007	1	NA	10/3/09 15:35
pH	9040B	6.49		pH Units			1	NA	10/3/09 12:00
Phosphorus, Total	365.1	0.007	J	mg/L	0.050	0.005	1	10/21/09	10/22/09 11:20
Solids, Total Dissolved	SM 2540 C	6	U	mg/L	10	6	1	NA	10/6/09 11:10
Solids, Total Suspended (TSS)	SM 2540 D	1.0	U	mg/L	1.0		1	NA	10/7/09 15:05
Sulfate	9056	0.5	U	mg/L	2.0	0.5	10	NA	10/6/09 23:48
Surfactants	SM 5540 C	0.005	U	mg/L	0.020	0.005	1	NA	10/3/09 08:40

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: M-76B
Lab Code: R0905636-002

Service Request: R0905636
Date Collected: 10/ 2/09 11:55
Date Received: 10/ 3/09

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed
Alkalinity as CaCO ₃ , Total	SM 2320 B	111	mg/L	2.0	0.3	1	NA	10/15/09 09:33
Ammonia as Nitrogen	350.1	0.037 J	mg/L	0.050	0.007	1	NA	10/27/09 13:23
Anion-Cation Balance Difference	SM 1030 E	5.817 J	Percent			1	NA	12/2/09
Bicarbonate Alkalinity as CaCO ₃	SM 2320 B	111	mg/L	2.0	0.3	1	NA	10/15/09 09:33
Bromide	9056	1.5	mg/L	1.0	0.2	10	NA	10/7/09 00:48
Calculated TDS/EC Ratio	SM 1030 E	0.661	NONE			1	NA	12/2/09
Carbon, Total Organic (TOC)	9060	0.6 BJ	mg/L	1.0	0.1	1	NA	10/10/09 13:29
Carbon, Total Organic (TOC)	9060	0.7 BJ	mg/L	1.0	0.1	1	NA	10/10/09 13:37
Carbon, Total Organic (TOC)	9060	0.7 BJ	mg/L	1.0	0.1	1	NA	10/10/09 13:45
Carbon, Total Organic (TOC)	9060	0.7 BJ	mg/L	1.0	0.1	1	NA	10/10/09 13:54
Carbon, Total Organic (TOC), Average	9060	0.7 BJ	mg/L	1.0	0.1	1	NA	10/10/09 13:54
Carbonate Alkalinity as CaCO ₃	SM 2320 B	0.3 U	mg/L	2.0	0.3	1	NA	10/15/09 09:33
Chloride	9056	1160	mg/L	40	9	200	NA	10/8/09 13:01
Chromium, Hexavalent, Dissolved	218.6	2.56	mg/L	0.10	0.04	10	NA	10/6/09 12:24
Conductivity	120.1	6280	µMHOS/cm	0.050		1	NA	10/3/09 12:00
Conductivity Ratio	SM 1030 E	1.395	NONE			1	NA	12/2/09
Cyanide, Total	9012A	0.022 U	mg/L	0.050	0.022	5	10/12/09	10/13/09 13:12
Hydroxide Alkalinity as CaCO ₃	SM 2320 B	0.3 U	mg/L	2.0	0.3	1	NA	10/15/09 09:33
Measured TDS/EC Ratio	SM 1030 E	0.697	NONE			1	NA	12/2/09
Nitrate as Nitrogen	9056	8.85	mg/L	0.50	0.04	10	NA	10/3/09 11:34
Nitrite as Nitrogen	353.2	0.022	mg/L	0.010	0.007	1	NA	10/3/09 15:33
pH	9040B	7.68	pH Units			1	NA	10/3/09 12:00
Phosphorus, Total	365.1	0.014 J	mg/L	0.050	0.005	1	10/21/09	10/22/09 11:21
Solids, Total Dissolved	SM 2540 C	4380	mg/L	40	22	1	NA	10/6/09 11:10
Solids, Total Suspended (TSS)	SM 2540 D	2.1	mg/L	1.0		1	NA	10/7/09 15:05
Sulfate	9056	758	mg/L	40	9	200	NA	10/8/09 13:01
Surfactants	SM 5540 C	0.149	mg/L	0.020	0.005	1	NA	10/3/09 08:40
TDS Ratio	SM 1030 E	1.055	NONE			1	NA	12/2/09

Comments:

M-76B

Water Type	Na-Cl		
Dissolved Solids	4378.6 mg/kg	4380 mg/L	Measured
Density	1.0003 g/cm ³		Calculated
Conductivity	6280 µmho/cm		Measured
Hardness (as CaCO₃)			
Total	790.21 mg/kg	790.47 mg/L	Calculated
Carbonate	182.02	182.08	
Non-Carbonate	608.19	608.39	

Primary Tests

Anion-Cation Balance

Anions	58.7	
Cations	65.9	
% Difference	5.817	Not within ± 5%

Measured TDS = Calculated TDS

Measured	4378.577	
Calculated	4152.114	
Ratio	1.055	OK

Measured EC = Calculated EC

Measured	6280.000	
Calculated	4500.836	
Ratio	1.395	Not within range 0.9 to 1.1

Secondary Tests

Measured EC and Ion Sums:

Anions	0.934164	Within preferred range (0.9-1.1)
Cations	1.049567	Within preferred range (0.9-1.1)

Calculated TDS to EC ratio 0.661 OK

Measured TDS to EC ratio 0.697 OK

Organic Mass Balance

DOC ≥ Sum of Organics

DOC unavailable

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: M-76009B
Lab Code: R0905636-003

Service Request: R0905636
Date Collected: 10/ 2/09 1155
Date Received: 10/ 3/09

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed
Alkalinity as CaCO3, Total	SM 2320 B	113	mg/L	2.0	0.3	1	NA	10/15/09 09:33
Ammonia as Nitrogen	350.1	0.331	mg/L	0.050	0.007	1	NA	10/27/09 13:24
Anion-Cation Balance Difference	SM 1030 E	4.258	Percent			1	NA	12/2/09
Bicarbonate Alkalinity as CaCO3	SM 2320 B	113	mg/L	2.0	0.3	1	NA	10/15/09 09:33
Bromide	9056	1.5	mg/L	1.0	0.2	10	NA	10/7/09 01:03
Calculated TDS/EC Ratio	SM 1030 E	0.706	NONE			1	NA	12/2/09
Carbon, Total Organic (TOC)	9060	0.9 BJ	mg/L	1.0	0.1	1	NA	10/10/09 14:03
Carbon, Total Organic (TOC)	9060	1.2 B	mg/L	1.0	0.1	1	NA	10/10/09 14:11
Carbon, Total Organic (TOC)	9060	0.9 BJ	mg/L	1.0	0.1	1	NA	10/10/09 14:19
Carbon, Total Organic (TOC)	9060	0.8 BJ	mg/L	1.0	0.1	1	NA	10/10/09 14:29
Carbon, Total Organic (TOC), Average	9060	0.9 BJ	mg/L	1.0	0.1	1	NA	10/10/09 14:29
Carbonate Alkalinity as CaCO3	SM 2320 B	0.3 U	mg/L	2.0	0.3	1	NA	10/15/09 09:33
Chloride	9056	1260	mg/L	40	9	200	NA	10/8/09 13:15
Chromium, Hexavalent, Dissolved	218.6	2.63	mg/L	0.10	0.04	10	NA	10/6/09 12:34
Conductivity	120.1	6270	µMHOS/cm	0.050		1	NA	10/3/09 12:00
Conductivity Ratio	SM 1030 E	1.314	NONE			1	NA	12/2/09
Cyanide, Total	9012A	0.022 U	mg/L	0.050	0.022	5	10/12/09	10/13/09 13:12
Hydroxide Alkalinity as CaCO3	SM 2320 B	0.3 U	mg/L	2.0	0.3	1	NA	10/15/09 09:33
Measured TDS/EC Ratio	SM 1030 E	0.673	NONE			1	NA	12/2/09
Nitrate as Nitrogen	9056	7.86	mg/L	0.50	0.04	10	NA	10/5/09 15:13
Nitrite as Nitrogen	353.2	0.021	mg/L	0.010	0.007	1	NA	10/3/09 15:35
pH	9040B	7.74	pH Units			1	NA	10/3/09 12:00
Phosphorus, Total	365.1	0.015 J	mg/L	0.050	0.005	1	10/21/09	10/22/09 11:23
Solids, Total Dissolved	SM 2540 C	4220	mg/L	50	28	1	NA	10/6/09 11:10
Solids, Total Suspended (TSS)	SM 2540 D	2.3	mg/L	1.0		1	NA	10/7/09 15:05
Sulfate	9056	843	mg/L	40	9	200	NA	10/8/09 13:15
Surfactants	SM 5540 C	0.286	mg/L	0.020	0.005	1	NA	10/3/09 08:40
TDS Ratio	SM 1030 E	0.953 J	NONE			1	NA	12/2/09

Comments:

M-76009B

Water Type	Na-Cl		
Dissolved Solids	4219.1 mg/kg	4220 mg/L	Measured
Density	1.0002 g/cm ³		Calculated
Conductivity	6270 µmho/cm		Measured
Hardness (as CaCO₃)			
Total	772.52 mg/kg	772.68 mg/L	Calculated
Carbonate	185.32	185.36	
Non-Carbonate	587.2	587.32	

Primary Tests

Anion-Cation Balance

Anions	63.4	
Cations	69.1	
% Difference	4.258	OK

Measured TDS = Calculated TDS

Measured	4219.133	
Calculated	4425.866	
Ratio	0.953	Not within range 1.0 to 1.2

Measured EC = Calculated EC

Measured	6270.000	
Calculated	4770.110	
Ratio	1.314	Not within range 0.9 to 1.1

Secondary Tests

Measured EC and Ion Sums:

Anions	1.011427	Within preferred range (0.9-1.1)
Cations	1.101400	Not within preferred range (0.9-1.1)
Calculated TDS to EC ratio	0.706	Not within preferred range (0.55-0.7)
Measured TDS to EC ratio	0.673	OK

Organic Mass Balance

DOC ≥ Sum of Organics

DOC unavailable

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: MC-94B
Lab Code: R0905636-006

Service Request: R0905636
Date Collected: 10/ 7/09 1045
Date Received: 10/ 8/09

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed
Alkalinity as CaCO ₃ , Total	SM 2320 B	260	mg/L	2.0	0.3	1	NA	10/19/09 14:25
Ammonia as Nitrogen	350.1	2.09	mg/L	0.10	0.02	2	NA	10/27/09 14:20
Anion-Cation Balance Difference	SM 1030 E	0.483	Percent			1	NA	12/2/09
Bicarbonate Alkalinity as CaCO ₃	SM 2320 B	260	mg/L	2.0	0.3	1	NA	10/19/09 14:25
Bromide	9056	1.4	mg/L	1.0	0.2	10	NA	10/8/09 12:13
Calculated TDS/EC Ratio	SM 1030 E	0.672	NONE			1	NA	12/2/09
Carbon, Total Organic (TOC)	9060	1.6 B	mg/L	1.0	0.1	1	NA	10/10/09 14:37
Carbon, Total Organic (TOC)	9060	2.5 B	mg/L	1.0	0.1	1	NA	10/10/09 14:46
Carbon, Total Organic (TOC)	9060	1.9 B	mg/L	1.0	0.1	1	NA	10/10/09 14:54
Carbon, Total Organic (TOC)	9060	1.7 B	mg/L	1.0	0.1	1	NA	10/10/09 15:03
Carbon, Total Organic (TOC), Average	9060	1.9	mg/L	1.0	0.1	1	NA	10/10/09 15:03
Carbonate Alkalinity as CaCO ₃	SM 2320 B	0.3 U	mg/L	2.0	0.3	1	NA	10/19/09 14:25
Chloride	9056	4390	mg/L	200	50	1000	NA	10/30/09 05:15
Chromium, Hexavalent, Dissolved	218.6	0.011	mg/L	0.010	0.004	1	NA	10/26/09 17:13
Conductivity	120.1	14400	µMHOS/cm	0.050		1	NA	10/8/09 19:35
Conductivity Ratio	SM 1030 E	1.345	NONE			1	NA	12/2/09
Cyanide, Total	9012A	0.005 U	mg/L	0.010	0.005	1	10/12/09	10/13/09 11:42
Hydroxide Alkalinity as CaCO ₃	SM 2320 B	0.3 U	mg/L	2.0	0.3	1	NA	10/19/09 14:25
Measured TDS/EC Ratio	SM 1030 E	0.622	NONE			1	NA	12/2/09
Nitrate as Nitrogen	9056	0.84	mg/L	0.50	0.04	10	NA	10/8/09 12:13
Nitrite as Nitrogen	353.2	0.065	mg/L	0.010	0.007	1	NA	10/9/09 12:02
pH	9040B	7.23	pH Units			1	NA	10/8/09 19:35
Phosphorus, Total	365.1	0.360	mg/L	0.050	0.005	1	10/21/09	10/22/09 11:24
Solids, Total Dissolved	SM 2540 C	8990	mg/L	83	46	1	NA	10/12/09 10:30
Solids, Total Suspended (TSS)	SM 2540 D	1.0 U	mg/L	1.0		1	NA	10/9/09 15:00
Sulfate	9056	1580	mg/L	80	18	400	NA	10/30/09 05:29
Surfactants	SM 5540 C	0.197	mg/L	0.020	0.005	1	NA	10/8/09 09:09
TDS Ratio	SM 1030 E	0.926 J	NONE			1	NA	12/2/09

Comments:

MC-94B

Water Type	Na-Cl		
Dissolved Solids	8956.4 mg/kg	8990 mg/L	Measured
Density	1.0038 g/cm ³		Calculated
Conductivity	14400 µmho/cm		Measured
Hardness (as CaCO₃)			
Total	1901.1 mg/kg	1908.3 mg/L	Calculated
Carbonate	424.89	426.49	
Non-Carbonate	1476.2	1481.8	

Primary Tests

Anion-Cation Balance

Anions	161	
Cations	163	
% Difference	0.483	OK

Measured TDS = Calculated TDS

Measured	8956.359	
Calculated	9675.329	
Ratio	0.926	Not within range 1.0 to 1.2

Measured EC = Calculated EC

Measured	14400.000	
Calculated	10709.895	
Ratio	1.345	Not within range 0.9 to 1.1

Secondary Tests

Measured EC and Ion Sums:

Anions	1.119560	Not within preferred range (0.9-1.1)
Cations	1.130428	Not within preferred range (0.9-1.1)

Calculated TDS to EC ratio 0.672 OK

Measured TDS to EC ratio 0.622 OK

Organic Mass Balance

DOC ≥ Sum of Organics

DOC unavailable

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: R0905636-MB1

Service Request: R0905636
Date Collected: NA
Date Received: NA

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed
Alkalinity as CaCO ₃ , Total	SM 2320 B	0.3	U	mg/L	2.0	0.3	1	NA	10/15/09 09:33
Ammonia as Nitrogen	350.1	0.007	U	mg/L	0.050	0.007	1	NA	10/27/09 11:41
Bicarbonate Alkalinity as CaCO ₃	SM 2320 B	0.3	U	mg/L	2.0	0.3	1	NA	10/15/09 09:33
Bromide	9056	0.02	U	mg/L	0.10	0.02	1	NA	10/6/09 18:22
Carbon, Total Organic (TOC)	9060	0.4	J	mg/L	1.0	0.1	1	NA	10/10/09 04:52
Carbon, Total Organic (TOC)	9060	0.1	U	mg/L	1.0	0.1	1	NA	10/10/09 05:01
Carbon, Total Organic (TOC)	9060	0.1	U	mg/L	1.0	0.1	1	NA	10/10/09 05:09
Carbon, Total Organic (TOC)	9060	0.1	U	mg/L	1.0	0.1	1	NA	10/10/09 05:18
Carbon, Total Organic (TOC), Average	9060	0.2	J	mg/L	1.0	0.1	1	NA	10/10/09 05:18
Carbonate Alkalinity as CaCO ₃	SM 2320 B	0.3	U	mg/L	2.0	0.3	1	NA	10/15/09 09:33
Chloride	9056	0.05	U	mg/L	0.20	0.05	1	NA	10/8/09 09:09
Chromium, Hexavalent, Dissolved	218.6	0.004	U	mg/L	0.010	0.004	1	NA	10/6/09 10:17
Cyanide, Total	9012A	0.005	U	mg/L	0.010	0.005	1	10/12/09	10/13/09 11:35
Hydroxide Alkalinity as CaCO ₃	SM 2320 B	0.3	U	mg/L	2.0	0.3	1	NA	10/15/09 09:33
Nitrate as Nitrogen	9056	0.004	U	mg/L	0.050	0.004	1	NA	10/3/09 10:16
Nitrite as Nitrogen	353.2	0.007	U	mg/L	0.010	0.007	1	NA	10/3/09 15:30
Phosphorus, Total	365.1	0.005	U	mg/L	0.050	0.005	1	10/21/09	10/22/09 10:54
Solids, Total Dissolved	SM 2540 C	6	U	mg/L	10	6	1	NA	10/6/09 11:10
Solids, Total Suspended (TSS)	SM 2540 D	1.0	U	mg/L	1.0		1	NA	10/7/09 15:05
Sulfate	9056	0.05	U	mg/L	0.20	0.05	1	NA	10/6/09 18:22
Surfactants	SM 5540 C	0.005	U	mg/L	0.020	0.005	1	NA	10/3/09 08:40

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: R0905636-MB2

Service Request: R0905636
Date Collected: NA
Date Received: NA

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed
Alkalinity as CaCO ₃ , Total	SM 2320 B	1.9	J	mg/L	2.0	0.3	1	NA	10/19/09 14:25
Bicarbonate Alkalinity as CaCO ₃	SM 2320 B	1.9	J	mg/L	2.0	0.3	1	NA	10/19/09 14:25
Bromide	9056	0.02	U	mg/L	0.10	0.02	1	NA	10/7/09 00:18
Carbonate Alkalinity as CaCO ₃	SM 2320 B	0.3	U	mg/L	2.0	0.3	1	NA	10/19/09 14:25
Chloride	9056	0.05	U	mg/L	0.20	0.05	1	NA	10/30/09 01:44
Chromium, Hexavalent, Dissolved	218.6	0.004	U	mg/L	0.010	0.004	1	NA	10/26/09 16:38
Hydroxide Alkalinity as CaCO ₃	SM 2320 B	0.3	U	mg/L	2.0	0.3	1	NA	10/19/09 14:25
Nitrate as Nitrogen	9056	0.069		mg/L	0.050	0.004	1	NA	10/5/09 12:03
Nitrite as Nitrogen	353.2	0.007	U	mg/L	0.010	0.007	1	NA	10/9/09 11:42
Solids, Total Dissolved	SM 2540 C	6	U	mg/L	10	6	1	NA	10/12/09 10:30
Solids, Total Suspended (TSS)	SM 2540 D	1.0	U	mg/L	1.0		1	NA	10/7/09 15:05
Sulfate	9056	0.13	J	mg/L	0.20	0.05	1	NA	10/8/09 09:09
Surfactants	SM 5540 C	0.005	U	mg/L	0.020	0.005	1	NA	10/8/09 09:09

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: R0905636-MB3

Service Request: R0905636
Date Collected: NA
Date Received: NA

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed
Bromide	9056	0.02	U	mg/L	0.10	0.02	1	NA	10/8/09 10:23
Nitrate as Nitrogen	9056	0.004	U	mg/L	0.050	0.004	1	NA	10/8/09 10:23
Solids, Total Dissolved	SM 2540 C	6	U	mg/L	10	6	1	NA	10/12/09 10:30
Solids, Total Suspended (TSS)	SM 2540 D	1.0	U	mg/L	1.0		1	NA	10/9/09 15:00
Sulfate	9056	0.05	U	mg/L	0.20	0.05	1	NA	10/30/09 01:44

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water

Service Request: R0905636
Date Analyzed: 10/ 3/09 -
 10/27/09

**Lab Control Sample Summary
 General Chemistry Parameters**

Units: mg/L
Basis: NA

Analyte Name	Method	Lab Control Sample			% Rec	Limits
		Result	Expected	% Rec		
Ammonia as Nitrogen	350.1	0.499	0.500	100	90 - 110	
Bromide	9056	0.995	1.00	100	90 - 110	
Carbon, Total Organic (TOC)	9060	10.2	10.0	102	86 - 117	
Carbon, Total Organic (TOC)	9060	10.4	10.0	104	86 - 117	
Carbon, Total Organic (TOC)	9060	10.2	10.0	102	86 - 117	
Carbon, Total Organic (TOC)	9060	9.98	10.0	100	86 - 117	
Chloride	9056	1.93	2.00	96	90 - 110	
Chromium, Hexavalent, Dissolved	218.6	0.190	0.200	95	90 - 110	
Cyanide, Total	9012A	0.106	0.100	106	85 - 115	
Nitrite as Nitrogen	353.2	0.247	0.250	99	90 - 110	
Phosphorus, Total	365.1	0.774	0.800	97	90 - 110	
Solids, Total Dissolved	SM 2540 C	905	915	99	80 - 120	
Solids, Total Suspended (TSS)	SM 2540 D	164	213	77 *	80 - 120	
Sulfate	9056	1.98	2.00	99	90 - 110	
Surfactants	SM 5540 C	0.0217	0.020	109	64 - 142	
Alkalinity as CaCO ₃ , Total	SM 2320 B	18.5	20.0	92	90 - 108	
Carbon, Total Organic (TOC), Average	9060	10.2	10.0	102	86 - 117	
Nitrate as Nitrogen	9056	0.971	1.00	97	90 - 110	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water

Service Request: R0905636
Date Analyzed: 10/ 3/09 -
 10/30/09

**Lab Control Sample Summary
 General Chemistry Parameters**

Units: mg/L
Basis: NA

Analyte Name	Method	Lab Control Sample			% Rec Limits
		Result	Expected	% Rec	
Bromide	9056	0.990	1.00	99	90 - 110
Chloride	9056	1.94	2.00	97	90 - 110
Chromium, Hexavalent, Dissolved	218.6	0.188	0.200	94	90 - 110
Cyanide, Total	9012A	0.431	0.400	108	85 - 115
Nitrite as Nitrogen	353.2	0.246	0.250	98	90 - 110
Solids, Total Dissolved	SM 2540 C	889	915	97	80 - 120
Solids, Total Suspended (TSS)	SM 2540 D	202	213	95	80 - 120
Sulfate	9056	1.87	2.00	93	90 - 110
Surfactants	SM 5540 C	0.354	0.350	101	64 - 142
Alkalinity as CaCO ₃ , Total	SM 2320 B	19.1	20.0	95	90 - 108
Nitrate as Nitrogen	9056	0.966	1.00	97	90 - 110

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water

Service Request: R0905636
Date Analyzed: 10/ 8/09 -
10/30/09

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

Analyte Name	Method	Lab Control Sample			% Rec Limits
		Result	Expected	% Rec	
Bromide	9056	0.985	1.00	99	90 - 110
Chromium, Hexavalent, Dissolved	218.6	0.191	0.200	96	90 - 110
Solids, Total Dissolved	SM 2540 C	889	915	97	80 - 120
Solids, Total Suspended (TSS)	SM 2540 D	208	213	98	80 - 120
Sulfate	9056	1.82	2.00	91	90 - 110
Surfactants	SM 5540 C	0.0208	0.020	104	64 - 142
Nitrate as Nitrogen	9056	0.948	1.00	95	90 - 110

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water

Service Request: R0905636
Date Analyzed: 10/ 8/09

Lab Control Sample Summary
Anionic Surfactants as MBAS 20th Ed.

Units: mg/L

Basis: NA

Analyte Name	Method	Lab Control Sample			% Rec Limits
		Result	Expected	% Rec	
Surfactants	SM 5540 C	0.335	0.350	96	64 - 142

Comments:

Name	Unit	M-76B	M-76009B	MC-94B
Sample ID	text	M-76B	M-76009B	MC-94B
LIMs ID	text	R0905636-002	R0905636-003	R0905636-006
Calcium	µg/L	150000	147000	314000
Magnesium	µg/L	101000	98500.0	273000
Potassium	µg/L	20600.0	21400.0	24300.0
Sodium	µg/L	1.14E6	1.22E6	2.85E6
Chlorate	µg/L	583000	595000	14300.0
Perchlorate	µg/L	121000	121000	4870
Bicarbonate	mg/L	111	113	260
Carbonate	mg/L	ND	ND	ND
Chloride	mg/L	1160	1260	4390
Conductivity	µmho/cm	6280	6270	14400.0
Fluoride	mg/L			
Hydroxide	mg/L	ND	ND	ND
Nitrate	mg/L	8.85	7.86	0.84
Phosphorus	mg/L	0.014	0.015	0.36
Dissolved Solids	mg/L	4380	4220	8990
Sulfate	mg/L	758	843	1580

December 3, 2009

Mr. Frank Hagar
Northgate Environmental
1100 Quail Street
Suite 102
Newport Beach, CA 92660

Re: Tronox LLC Henderson #2027.001
Service Request #R0905636

Dear Mr. Hagar:

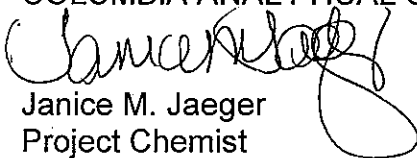
Enclosed is the analytical data report for the above referenced facility. A total of seven samples were received by our laboratory on October 3-8, 2009.

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.

cc: Ms. Cindy Arnold
Northgate Environmental
2501 Geigel Avenue
Orlando, FL 32806

This report contains a total of 1911 pages.

SDG NARRATIVE

CASE NARRATIVE

COMPANY: Northgate Environmental
Tronox LLC Henderson Project #2027.001
SERVICE REQUEST #: R0905636

Northgate samples were collected on 10/02-07/09 and received at CAS on 10/03-08/09 in good condition. Columbia Analytical Services' (CAS) reporting limit has been expressed as the Method Reporting Limit (MRL) rather than the Practical Quantitation Limit (PQL). At the client's request, all results have been reported to the Method Detection Limit (MDL) where an MDL is performed on that parameter. The MDL reported for the Alkalinity Carbonate, Alkalinity Carbonate and Alkalinity Hydroxide is the Alkalinity MDL. The software used for the 1030E calculations is Rockware AqQA. All data has been checked and verified.

INORGANICS

Four 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 except Total Suspended Solids (TSS). PB100209-A2 is possibly biased low for TSS. All outlying QC has been flagged with an "***".

Due to a laboratory error, Nitrate for M-76009B was analyzed outside the recommended holding time of 48 hours.

The Laboratory blanks associated with these analyses were free of contamination except the 10/19/09 blank had low level hits for Alkalinity and Bicarbonate alkalinity, the 10/05/09 blank had a low level hit for Nitrate, the 10/10/09 blank had a low level hit for TOC and the 10/08/09 blank had a low level hit for Sulfate. All affected data has been flagged with a "B".

All samples were analyzed within holding time except as mentioned above.

No other analytical or QC problems were encountered.

VOLATILE ORGANICS

Seven 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 Tronox limits.

Site specific QC was performed on M-76B. All MS recoveries were within limits except Naphthalene and Styrene and all MSD recoveries were within limits except Styrene. All Reference spike recoveries were within Tronox limits except Dichloromethane on the 10/12/09 LCS. All LCS outliers were within 60-140%. All RPD's were within limits except Naphthalene. All outlying QC has been flagged with an "***".

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

All samples were analyzed within required holding times.

No other analytical or QC problems were encountered.

SEMIVOLATILE ORGANICS

Four 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 Tronox limits.

Site specific QC was not requested for these samples. All Blank spike/Blank spike duplicate recoveries were within Tronox limits except Pyridine and 1,4-Dioxane were outside limits on the 10/05/09 and 10/09/09 LCS/LCSD's. The outliers were within 10-150%. All RPD's were within limits except Pyridine on the 08/11/09 LCS/LCSD. All outlying QC has been flagged with an "**".

The Laboratory Blanks associated with these analyses were free of contamination except the 10/05/09 and 10/09/09 blanks had a low level hit for Bis(2-ethylhexyl)phthalate. 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

Four 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 except PB100209-A2 and has been flagged with an "**". The sample was re-extracted outside the recommended holding time of 14 days and reanalyzed and the surrogate was within limits. Both sets of data have been reported.

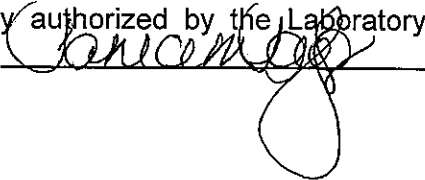
Site specific QC was not requested for these samples. All Blank spike/Blank spike duplicate recoveries were within limits. All RPD's were within limits.

Various compounds for MC-94B have been flagged with an "E" as being outside the calibration range of the instrument. The sample was reanalyzed 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 except as mentioned above.

No other analytical or QC problems were encountered.

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. 

CAS ASP/CLP Batching Form/Login Sheet

Client Proj #: 2027.001 Submission: R0905636 Client: Northgate Environmental Client Rep: JJAEGGER Project: Tronox LLC Henderson	Batch Complete: Yes Diskette Requested: Yes Date: 10/12/09 Custody Seal: Present/Absent: Chain of Custody: Present/Absent:
Date Revised: Date Due: 10/30/09 Protocol: STD METHODS Shipping No.: SDG #: PB100209-A2	

CAS Job #	Client/EPA ID	Matrix	Requested Parameters	Date Sampled	Date Received	pH (Solids)	% Solids	Remarks Sample Condition
R0905636-001	PB100209-A2	Water	SM 2320 B, 350.1, 9056, 9012A, SM 2540 C, SM 5540 C, 9060, 120.1, 6010B LL, 300.1, 314.0, 8081A, 8270C, 8260B, 218.6, 365.1, 7470A, 6020, 9040B, SM 2540 D, 353.2	10/2/09	10/3/09			
R0905636-001.R01	PB100209-A2	Water	8081A	10/2/09	10/3/09			
R0905636-002	M-76B	Water	SM 2320 B, 350.1, 9012A, 9056, SM 2540 C, SM 5540 C, 9060, 300.1, 314.0, 8081A, 8270C, 8260B, 218.6, 120.1, 9040B, SM 1030 E, 365.1, 7470A, 6020, 6010B LL, SM 2540 D, 353.2	10/2/09	10/3/09			
R0905636-003	M-76009B	Water	SM 2320 B, 353.2, 9056, SM 2540 D, 365.1, 7470A, 6020, 6010B LL, 300.1, 314.0, 8081A, SM 1030 E, 8270C, 8260B, 218.6, 120.1, 9040B, 9060, SM 5540 C, SM 2540 C, 9012A, 350.1	10/2/09	10/3/09			
R0905636-004	TB100209-GW1	Water	8260B	10/2/09	10/3/09			
R0905636-005	TB100209-GW2	Water	8260B	10/2/09	10/3/09			
R0905636-006	MC-94B	Water	SM 2320 B, 350.1, 9056, 9012A, 353.2, SM 2540 C, SM 2540 D, SM 5540 C, 9060, 9040B, 120.1, 218.6, 8260B, 8270C, 8081A, 314.0, 300.1, 6010B LL, 6020, 7470A, 365.1, SM 1030 E	10/7/09	10/8/09			
R0905636-007	TB100709-GW1	Water	8260B	10/7/09	10/8/09			

Folder Comments:

REPORT QUALIFIERS

- U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
- J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).
- B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
- E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
- E Organics- Concentration has exceeded the calibration range for that specific analysis.
- D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
- * Indicates that a quality control parameter has exceeded laboratory limits.
- # Spike was diluted out.
- + Correlation coefficient for MSA is <0.995.
- N Inorganics- Matrix spike recovery was outside laboratory limits.
- N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
- S Concentration has been determined using Method of Standard Additions (MSA).
- W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
- P Pesticide/Aroclors: Concentration >40% (25% for CLP) difference between the two GC columns.
- C Confirmed by GC/MS
- Q DoD reports: indicates a pesticide/Aroclor is not confirmed ($\geq 100\%$ Difference between two GC columns).
- X See Case Narrative for discussion.



CAS/Rochester Lab ID # for State Certifications¹

NELAP Accredited	Nevada ID # NY-00032
Delaware Accredited	New Jersey ID # NY004
Connecticut ID # PH0556	New York ID # 10145
Florida ID # E87674	New Hampshire ID # 294100 A/B
Illinois ID #200047	Pennsylvania ID# 68-786
Maine ID #NY0032	Rhode Island ID # 158
Nebraska Accredited	West Virginia ID # 292
Navy Facilities Engineering Service Center Approved	

¹ Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to the certifications section at www.caslab.com.

CHAINS OF CUSTODY
INTERNAL CHAINS

Required Ship to Lab: Lab Name: COLUMBIA ANALYTICAL SERVICES, INC. Address: 1 Mustard Street, Suite 250 Rochester, NY 14609 Lab PM: Janice Jaeger Phone/Fax: (565)288-5380 Lab PM email: jjaeger@caslab.com Applicable Lab Quote #: _____		Required Project Information: Site ID #: TRONOX LLC: HENDERSON Project #: 2027.001 Site Address: 560 W. Lake Mead Drive City: Henderson State: NV Lab PM: Derrick Willis Phone/Fax: 949-375-7004 Site PM Email: derrick.willis@ngem.com		Required Invoice Information: Send Invoice to: Susan Crowley Address: PO Box 55 City/State: Henderson, NV 89009 Phone #: (949)260-9293 Reimbursement project? <input checked="" type="checkbox"/> Non-reimbursement project? <input type="checkbox"/> Mark one Send EDD to: frank.hagar@ngem.com CC Hardcopy report to: PDF Electronic Version Only CC Hardcopy report to: see additional comments below		TAT: Standard 30 day <input checked="" type="checkbox"/> Rush <input type="checkbox"/> If Rush, Date due: _____ QC level Required: Standard <input type="checkbox"/> Special <input type="checkbox"/> EPA Stage <input type="checkbox"/> Mark one NJ Reduced Deliverable Package? <input type="checkbox"/> MA MCP Cert? <input type="checkbox"/> CT RCP Cert? <input type="checkbox"/> Mark one Lab Project ID (lab use): _____					
ITEM #	SAMPLE ID	Character per box. (A-Z, 0-9 / -)	SAMPLE TYPE	MATRIX CODE	SAMPLE DATE	SAMPLE TIME	#OF CONTAINERS	FIELD FILTERED? (Y/N)	Preservatives	Requested Analyses	Comments/Lab Sample I.D.
1	PB100209-A2		G	WG	10/2/2009	11:11	3	N	Unpreserved	EPA 8200 VOC EPA 8210 SVOC EPA 8081 OCP EPA 6010/6020 EPA 314.0 Pesticides EPA 9058 Chloride EPA 219.6 Hex Chrom	3 x 40 ml VOAs
2	PB100209-A2		G	WG	10/2/2009	11:11	2	N	H2SO4		2 x 40 ml VOAs
3	PB100209-A2		G	WG	10/2/2009	11:11	2	N	HNO3		2 x 1 L Amber Glass
4	PB100209-A2		G	WG	10/2/2009	11:11	2	N	NaOH		2 x 1 L Amber Glass
5	PB100209-A2		G	WG	10/2/2009	11:11	1	N	Metanol		500 ml Plastic
6	PB100209-A2		G	WG	10/2/2009	11:11	1	N	Na2SO3		250 ml Plastic
7	PB100209-A2		G	WG	10/2/2009	11:11	1	N	HCl		250 ml Amber Glass
8	PB100209-A2		G	WG	10/2/2009	11:11	1	Y	Other		125 ml Plastic
9											
10											
11											
12											

Additional Comments/Special Instructions:
 Omit As and Se from Metals 6010/6020
 All PDF reports and EDDs will be uploaded to:
 Northgate Environmental Management, Inc.
 FTP site address provided to labs
 Notifications provided to:
 cindy.arnold@ngem.com
 frank.hagar@ngem.com

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE RECEIPT CONDITIONS
Dana R. Brown, NGEM	2-Oct	15:05	Darren Qualls, GES	10/2/2009	15:05	Y/N Y/N Y/N
Darren Qualls, GES	2-Oct	16:30		10-3-09	10:30	Y/N Y/N Y/N
						Y/N Y/N Y/N
						Y/N Y/N Y/N
						Temp in OC
						on Ice?
						Sample intact?
						Trip Blank

SHIPPING METHOD (mark as appropriate)
 UPS COURIER (FEDEX)
 US MAIL
 SIGNATURE OF SAMPLER: Dana Brown
 DATE SIGNED: 10/2/2009
 TIME: 15:05



R0905636
 Northgate Environmental
 Tronox LLC Henderson



1100 Quail Street, Suite 102, Newport Beach, CA 92660
(949) 260-9233

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed and accurate.

COC No. 2027.001.00945
Page: 2 of 2
Cooler # _____ of _____
Collection Area: II

Required Ship to Lab:		Required Project Information:		Required Invoice Information:		TAT: Standard 30 day		Rush		Mark One							
Lab Name:	COLUMBIA ANALYTICAL SERVICES, INC.	Site ID #:	TRONOX LLC HENDERSON	Send Invoice to:	Susan Crowley	City/State:	Henderson, NV 89009	Phone #:	(949) 260-9293	QC level Required:	Standard	Special	EPA Stage	Mark One			
Address:	1 Mustard Street, Suite 250	Project #:	2027.001	Address:	PO Box 55	Reimbursement project?	X	Non-reimbursement project?		MA MCP Cert?		CT RCP Cert?		Mark One			
City:	Henderson	State:	NV	City/State:	Henderson, NV 89009	Send EDD to:	frank.hagar@ngem.com	CC Hardcopy report to:	PDF Electronic Version Only	Lab Project ID (lab use)							
Lab PM:	Janice Jaeger	Site PM Name:	Derrick Willis	Site PM Email:	derrick.willis@ngem.com	See additional comments below											
Phone/Fax:	(565) 288-5380	Phone/Fax:	949-375-7004	Applicable Lab Quote #:													
ITEM #	SAMPLE ID	Character per box. (A-Z, 0-9 / -)	SAMPLE TYPE	SAMPLE DATE	SAMPLE TIME	#OF CONTAINERS	FIELD FILTERED? (Y/N)	Preservatives	Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Comments/Lab Sample I.D.
1	PB100209-A2		WG	10/2/2009	11:11	1	N	X									250 ml Plastic
2	PB100209-A2		WG	10/2/2009	11:11	1	N	X									250 ml Plastic
3	PB100209-A2		WG	10/2/2009	11:11	1	N	X									250 ml Plastic
4	PB100209-A2		WG	10/2/2009	11:11	1	N	X									500 ml Plastic
5	PB100209-A2		WG	10/2/2009	11:11	1	N	X									250 ml Plastic
6	PB100209-A2		WG	10/2/2009	11:11	1	N	X									125 ml Plastic
7	PB100209-A2		WG	10/2/2009	11:11	1	N	X									1 L Plastic
8																	
9																	
10																	
11																	
12																	

Additional Comments/Special Instructions:
Omit As and Se from Metals 6010/6020
All PDF reports and EDDs will be uploaded to:
Northgate Environmental Management, Inc.
FTP site address provided to labs
Notifications provided to:
cindy.arnold@ngem.com
frank.hagar@ngem.com

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE RECEIPT CONDITIONS
Dana R. Brown, NGEM	2-Oct	15:05	Darren Qualls, GES	10/2/2009	15:05	Y/N Y/N Y/N
Darren Qualls, GES	2-Oct	15:05	Dana R. Brown	10-3-09	15:05	Y/N Y/N Y/N
						Y/N Y/N Y/N
						Y/N Y/N Y/N

SHIPPING METHOD: (mark as appropriate)
UPS COURIER
US MAIL

PRINT Name of SAMPLER: Dana R. Brown
SIGNATURE of SAMPLER: *[Signature]*
DATE SIGNED: 10/2/2009
Time: 15:05

R0905636
Northgate Environmental
Tronox LLC Henderson



1100 Quail Street, Suite 102, Newport Beach, CA 92660
(949) 260-9233

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COC No. 2027.001.00940
Page: 1 of 2
Cooler # _____ of _____
Collection Area: JJ

Required Ship to Lab:
Lab Name: COLUMBIA ANALYTICAL SERVICES, INC.
Address: 1 Mustard Street, Suite 250
Rochester, NY 14609
Lab P.M.: Janice Jaeger
Phone/Fax: (585) 288-5380

Required Project Information:
Site ID #: TRONOX LLC, HENDERSON
Project #: 2027.001
Site Address: 560 W. Lake Mead Drive
City: Henderson State: NV

Required Invoice Information:
Send Invoice to: Susan Crowley, Tronox LLC
Address: PO Box 55
City/State: Henderson, NV 89009 Phone #: (949) 260-9233
Reimbursement project? Non-reimbursement project? Mark one

Site PM Name: Derrick Willis
Phone/Fax: 949-375-7004
Site PM Email: derrick.willis@ngem.com

Applicable Lab Quote #:
TAT: Standard 30 day Rush Mark One
If Rush, Date due _____
QC level Required: Standard _____ Special EPA Stage _____
NJ Reduced Deliverable Package? MA MCP Cert? CT RCP Cert? Mark One

ITEM #	SAMPLE ID Character per box. (A-Z, 0-9 / -) Samples IDs MUST BE UNIQUE	Matrix	Matrix Code	Sample Type	Sample Date	Sample Time	# of Containers	Field Filtered? (Y/N)	Preservatives										Other	Comments/Lab Sample I.D.
									Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol					
1	M-76B	Matrix	WG	G	10/2/2009	11:55	3	N		X							X	EPA 8230B VOC		
2	M-76B	Matrix	WG	G	10/2/2009	11:55	2	N		X							X	EPA 8210C SVOC		
3	M-76B	Matrix	WG	G	10/2/2009	11:55	2	N	X									EPA 8010B/6020		
4	M-76B	Matrix	WG	G	10/2/2009	11:55	2	N	X									EPA 8010B/6020		
5	M-76B	Matrix	WG	G	10/2/2009	11:55	1	N	X									EPA 8210C SVOC		
6	M-76B	Matrix	WG	G	10/2/2009	11:55	1	N	X									EPA 8210C SVOC		
7	M-76B	Matrix	WG	G	10/2/2009	11:55	1	N										EPA 8210C SVOC		
8	M-76B	Matrix	WG	G	10/2/2009	11:55	1	N										EPA 8210C SVOC		
9																				
10																				
11																				
12																				

Additional Comments/Special Instructions:
Omit As and Se from Metals 6010/6020
All PDF reports and EDDs will be uploaded to:
Northgate Environmental Management, Inc.
FTP site address provided to labs
Notifications provided to:
cindy.arnold@ngem.com
frank.hagar@ngem.com

REQUISITIONED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE RECEIPT CONDITIONS
Dana R. Brown, NGEM	10/2/2009	15:05	Darren Qualls, GEM	10/2/2009	15:05	Temp in Cooler? _____ Samples on Ice? _____ Sample Intact? _____ Trip Blank? _____
Darren Qualls, GEM	10/2/2009	10:30				

SHIPPING METHOD: (mark as appropriate)
UPS COURIER FEDEX (PRINT Name of SAMPLER)
US MAIL (SIGNATURE of SAMPLER)
Signature: Dana R. Brown
Date Signed: 10/2/2009 Time: 15:05

A0925636



1100 Quail Street, Suite 102, Newport Beach, CA 92660
(949) 260-9293

CHAIN-OF-CUSTODY / Analytical Request Document

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COC No. 2027.001.00940
Page: 2 of 2
Cooler # _____ of _____
Collection Area: **II**

Required Ship to Lab:
Lab Name: COLUMBIA ANALYTICAL SERVICES, INC.
Address: 1 Mustard Street, Suite 280
Rochester, NY 14609
Lab P.M.: Janice Jaeger
Phone/Fax: (565)268-5380
Lab P.M email: jjaeger@caslab.com
Applicable Lab Quote #: _____

Required Project Information:
Site ID #: TRONOX LLC, HENDERSON
Project #: 2027.001
Site Address: 560 W. Lake Mead Drive
City: Henderson State: NV
Site P.M Name: Derrick Willis
Phone/Fax: 949-375-7004
Site P.M Email: derrick.willis@ngem.com

Required Invoice Information:
Send invoice to: Susan Crowley
Address: PO Box 55
City/State: Henderson, NV 89009
Phone #: (949)260-9293
Reimbursement project? Non-reimbursement project? Mark one

TAT: Standard 30 day Rush
If Rush, Date due _____

QC level Required: Standard
Special EPA Stage Mark one 4
NJ Reduced Deliverable Package?

MA MCP Cert? CT RCP Cert?

Lab Project ID (lab use) _____

ITEM #	SAMPLE ID Character per box. (A-Z, 0-9 / ,) Samples IDs MUST BE UNIQUE	Valid Matrix Codes MATRIX UP SURFACE WATER GW SURFACE WATER WF WASTE WATER LF LIQUID SL SOLID SLURRY WWT WASTEWATER OIL OIL OTHER AE ASBESTOS SW SWIFT RSL RSL	MATRIX CODE	SAMPLE TYPE	G-RAB COMP	SAMPLE DATE	SAMPLE TIME	# OF CONTAINERS	FIELD FILTERED? (Y/N)	Preservatives					Other	Comments/Lab Sample I.D.	
										H2SO4	HNO3	HCl	NaOH	Na2S2O3			Methand
1	M-76B		WG	G		10/2/2009	11:55	1	N		X					EPA 8012 & Cyanide	250 ml Plastic
2	M-76B		WG	G		10/2/2009	11:55	1	N	X						EPA 8040C Pb	250 ml Plastic
3	M-76B		WG	G		10/2/2009	11:55	1	N	X						EPA 8040C Pb	250 ml Plastic
4	M-76B		WG	G		10/2/2009	11:55	1	N	X						EPA 8012 & Cyanide	500 ml Plastic
5	M-76B		WG	G		10/2/2009	11:55	1	N	X						EPA 8012 & Cyanide	250 ml Plastic
6	M-76B		WG	G		10/2/2009	11:55	1	N	X						EPA 8012 & Cyanide	250 ml Plastic
7	M-76B		WG	G		10/2/2009	11:55	1	N	X						EPA 8012 & Cyanide	1 L Plastic

Additional Comments/Special Instructions:
Omit As and Se from Metals 6010/6020
All PDF reports and EDDs will be uploaded to:
Northgate Environmental Management, Inc.
FTP site address provided to labs
Notifications provided to:
cindy.arnold@ngem.com
frank.hagar@ngem.com

RELINQUISHED BY / AFFILIATION: Dana R. Brown, NGEM 2-Oct 15:05
ACCEPTED BY / AFFILIATION: Darren Qualls, GES 10-3-09 10:20

SHIPPING METHOD (mark as appropriate):
UPS COURIER (FEDEX) PRINT NAME of SAMPLER: Dana R. Brown
SIGNATURE of SAMPLER: [Signature]
DATE SIGNED: 10/2/2009
TIME: 15:05

Temp in 00 _____
Samples on Ice?
Sample Intact?
Trip Blank?

20905636



1100 Quail Street, Suite 102, Newport Beach, CA 92660
(949) 260-9293

CHAIN-OF-CUSTODY / Analytical Request Document

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COC No. 2027.001.00940
Page: 1 of 2
Cooler # _____ of _____
Collection Area: **II**

Required Ship to Lab:		Required Project Information:		Required Invoice Information:		TAT: Standard 30 day		Rush		Mark One	
Lab Name: COLUMBIA ANALYTICAL SERVICES, INC.		Site ID #: TRONOX LLC, HENDERSON		Send Invoice to: Susan Crowley Tronox LLC				<input checked="" type="checkbox"/>			
Address: 1 Mustard Street, Suite 250		Project #: 2027.001		Address: PO Box 55							
Rochester, NY 14609		City/State: Henderson NV		City/State: Henderson, NV 89009		Phone #: (949)260-9293		QC level Required: Standard		Special EPA Stage Mark one 4	
Lab PM: Janice Jaeger		City: Henderson		State: NV		Reimbursement project? <input checked="" type="checkbox"/>		Non-reimbursement project? <input type="checkbox"/>		Mark one	
Phone/Fax: (565)288-5380		Site PM Name: Derrick Willis		Send EDD to: frank.hagar@ngem.com		Frank Hagar Northgate Environmental Management, Inc		MA MCP Cert? <input type="checkbox"/>		CT RCP Cert? <input type="checkbox"/>	
Lab PM email: jjaeger@cslab.com		Phone/Fax: 949-375-7004		CC Hardcopy report to: PDF Electronic Version Only		CC Hardcopy report to: see additional comments below		Lab Project ID (lab use)			
Applicable Lab Quote #:		Site PM Email: derrick.willis@ngem.com									
ITEM #	SAMPLE ID	Character per box. (A-Z, 0-9 / ,)	SAMPLE TYPE	MATRIX CODE	SAMPLE DATE	SAMPLE TIME	# OF CONTAINERS	FIELD FILTERED? (Y/N)	Preservatives	Requested Analytes	Comments/Lab Sample I.D.
1	M-76009B		G	WG	10/2/2009	11:55	3	N	Unpreserved	EPA 8208 VOC	3 x 40 ml VOAs
2	M-76009B		G	WG	10/2/2009	11:55	2	N	H2SO4	EPA 8208 VOC	2 x 40 ml VOAs
3	M-76009B		G	WG	10/2/2009	11:55	2	N	HNO3	EPA 8208 VOC	2 x 1 L Amber Glass
4	M-76009B		G	WG	10/2/2009	11:55	2	N	HCl	EPA 8208 VOC	2 x 1 L Amber Glass
5	M-76009B		G	WG	10/2/2009	11:55	1	N	NaOH	EPA 8208 VOC	500 ml Plastic
6	M-76009B		G	WG	10/2/2009	11:55	1	N	Methanol	EPA 8208 VOC	250 ml Plastic
7	M-76009B		G	WG	10/2/2009	11:55	1	N	Me2S03	EPA 8208 VOC	250 ml Amber Glass
8	M-76009B		G	WG	10/2/2009	11:55	1	N	Other	EPA 8208 VOC	125 ml Plastic
9											
10											
11											
12											

Additional Comments/Special Instructions:
Omit As and Se from Metals 6010/6020
All PDF reports and EDDs will be uploaded to:
Northgate Environmental Management, Inc.
FTP site address provided to labs
Notifications provided to:
cindy.armold@ngem.com
frank.hagar@ngem.com

REQUISITIONED BY / AFFILIATION: Dana R. Brown, NGEM
DATE: 2-Oct
ACCEPTED BY / AFFILIATION: Darren Qualls, GES
DATE: 2-Oct
TIME: 15:05

SHIPPING METHOD (mark as appropriate):
UPS COURIER (FEDEX)
US MAIL
SAMPLER NAME AND SIGNATURE: Dana R. Brown
DATE SIGNED: 10/2/2009
TIME: 15:05

90905636

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed and accurate.

Required Ship to Lab:				Required Project Information:				Required Invoice Information:										
Lab Name: COLUMBIA ANALYTICAL SERVICES, INC.		Site ID #: TRONOX LLC, HENDERSON		Send Invoice to: Susan Crowley		Susan Crowley		TAT: Standard 30 day		Rush		Mark One						
Address: 1 Mustard Street, Suite 250 Rochester, NY 14609		Project #: 2027.001		Address: PO Box 55		Tronox LLC		If Rush, Date due										
Lab PM: Janice Jaeger		City: Henderson		State: NV		City/State: Henderson, NV 89009		Phone #: (949)260-9293		QC level Required: Standard		Special EPA Stage Mark one 4						
Phone/Fax: (505)288-5380		Site PM Name: Derrick Willis		Reimbursement project? <input checked="" type="checkbox"/>		Non-reimbursement project? <input type="checkbox"/>		Mark one		NJ Reduced Deliverable Package?								
Lab PM email: jjaeger@caslab.com		Phone/Fax: 949-376-7004		Send EDD to: Frank Hagar Northgate Environmental Management, Inc		Frank Hagar Northgate Environmental Management, Inc		IMA MCP Cert? <input type="checkbox"/>		CT RCP Cert? <input type="checkbox"/>		Mark One						
Applicable Lab Quote #:		Site PM Email: derrick.willis@ngem.com		CC Hardcopy report to: PDF Electronic Version Only		PDF Electronic Version Only		Lab Project ID (lab use)										
ITEM #	SAMPLE ID	Character per box. (A-Z, 0-9 / ,) Samples IDs MUST BE UNIQUE	MATRIX CODE	SAMPLE TYPE	G-RAB O-COMP	SAMPLE DATE	SAMPLE TIME	# OF CONTAINERS	FIELD FILTERED? (Y/N)	Preservatives							Comments/Lab Sample I.D.	
										Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol		Other
1	M-76009B		WG	G	G	10/2/2009	11:55	1	N									250 ml Plastic
2	M-76009B		WG	G	G	10/2/2009	11:55	1	N									250 ml Plastic
3	M-76009B		WG	G	G	10/2/2009	11:55	1	N									250 ml Plastic
4	M-76009B		WG	G	G	10/2/2009	11:55	1	N									500 ml Plastic
5	M-76009B		WG	G	G	10/2/2009	11:55	1	N									250 ml Plastic
6	M-76009B		WG	G	G	10/2/2009	11:55	1	N									125 ml Plastic
7	M-76009B		WG	G	G	10/2/2009	11:55	1	N									1 L Plastic
8																		
9																		
10																		
11																		
12																		

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE RECEIPT CONDITIONS
Dana R. Brown, NGEM	2-Oct	15:05	Darren Qualls, GES	10/2/2009	15:05	Y/N Y/N Y/N
Darren Qualls, GES	2-Oct	16:30	Dana R. Brown, CAS	10-3-09	11:20	Y/N Y/N Y/N
						Y/N Y/N Y/N
						Y/N Y/N Y/N
						Y/N Y/N Y/N
						Y/N Y/N Y/N
						Y/N Y/N Y/N

SHIPPING METHOD: (mark as appropriate)		SIGNATURE OF SAMPLER:		DATE SIGNED	
UPS COURIER	<input checked="" type="checkbox"/>	Dana R. Brown		10/2/2009	Time: 15:05
US MAIL	<input type="checkbox"/>				

Additional Comments/Special Instructions:
Omit As and Se from Metals 6010/6020
All PDF reports and EDDs will be uploaded to:
Northgate Environmental Management, Inc.
FTP site address provided to labs
Notifications provided to:
cindy.arnold@ngem.com
frank.hagar@ngem.com

RO905636

Cooler Receipt And Preservation Check Form

Project/Client Northgate Waters Submission Number R09-5636

Cooler received on 10-3-09 by: MS 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 3^a 4^e 4^e
 7. Temperature of cooler(s) upon receipt: 2^o 4⁻ 4⁻ 3^a 4^e 4^e
- Is the temperature within 0° - 6° C?: Yes Yes Yes Yes Yes Yes
 No No No No No No

If No, Explain Below

Date/Time Temperatures Taken: 10-3-09 @ 10:30

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: MS 10/5/09

Cooler Breakdown: Date: 10/5/09 by: msc

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	YES NO		Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
		YES	NO						
≥12	NaOH	✓		W 685220C	10/13				
≤2	HNO ₃								
≤2	H ₂ SO ₄	✓		W 6852986	5/10				
Residual Chlorine (-)	For TCN and Phenol	✓		If present, contact PM to add ascorbic acid					
	Na ₂ S ₂ O ₃	-	-						
	Zn Aceta	-	-						
	HCl	*	*	645AD1	5/10				

Yes = All samples OK

No = Samples were preserved at lab as listed

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

PM OK to Adjust: _____

Bottle lot numbers: 038484, 091409-2KK, 091409-11K, 9-121-001

Other Comments: _____

PC Secondary Review: MS 10/12/09

*significant air bubbles are greater than 5-6 mm



1100 Quail Street, Suite 102, Newport Beach, CA 92660
(949) 260-9293

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed and accurate.

COC No. 2027.001.00938
Page: 2 of 2
Cooler # _____ of _____
Collection Area: J

Required Ship to Lab:		Required Project Information:		Required Invoice Information:		TAT: Standard 30 day		Rush	Mark One						
Lab Name: COLUMBIA ANALYTICAL SERVICES, INC.		Site ID #: TRONOX LLC, HENDERSON		Send Invoice to: Susan Crowley Tronox LLC				X							
Address: 1 Mustard Street, Suite 250 Rochester, NY 14609		Project #: 2027.001		Address: PO Box 65 Henderson, NV 89009		Phone #: (949)260-9293									
Lab PM: Janice Jaeger		City: Henderson		State: NV		Reimbursement project? <input checked="" type="checkbox"/>		Mark one							
Phone/Fax: (585)288-4380		Site PM Name: Derrick Willis		Send EDD to: frank.hagar@ngem.com		CC Hardcopy report to: PDF Electronic Version Only		QC level Required: Standard	Special EPA Stage Mark one 4						
Lab PM email: jjaeger@caslab.com		Phone/Fax: 949-375-7004		Site PM Email: derrick.willis@ngem.com		CC Hardcopy report to: see additional comments below		NJ Reduced Deliverable Packages?							
Applicable Lab Quote #:		Valid Matrix Codes		Matrix Code		Sample Type		MA MCP Cert?	CT RCP Cert?						
		MATRIX WP WASTE WATER UP WATER SO SOLID WASTE FW WASTE WATER SW WASTE WATER AW WASTE WATER AE ASBESTOS AM AMBIENT AIR SOIL SOIL		W WASTE WATER WP WASTE WATER UP WATER SO SOLID WASTE FW WASTE WATER SW WASTE WATER AW WASTE WATER AE ASBESTOS AM AMBIENT AIR SOIL SOIL		G GRAB COMP M MATRIX S SAMPLE		UNPRESERVED H2SO4 HNO3 HCl NaOH Na2S2O3 Methanol Other		QC level Required: Standard	Special EPA Stage Mark one 4				
ITEM #	SAMPLE ID	Character per box. (A-Z, 0-9 / ,)	SAMPLE ID	Character per box. (A-Z, 0-9 / ,)	SAMPLE DATE	SAMPLE TIME	# OF CONTAINERS	FIELD FILTERED? (Y/N)	Preservatives	Comments/Lab Sample I.D.					
1	MC-94B		WG	10/7/2009	10:45	1	N	X		250 ml Plastic					
2	MC-94B		WG	10/7/2009	10:45	1	N	X		250 ml Plastic					
3	MC-94B		WG	10/7/2009	10:45	1	N	X		250 ml Plastic					
4	MC-94B		WG	10/7/2009	10:45	1	N	X		500 ml Plastic					
5	MC-94B		WG	10/7/2009	10:45	1	N	X		250 ml Plastic					
6	MC-94B		WG	10/7/2009	10:45	1	N	X		125 ml Plastic					
7	MC-94B		WG	10/7/2009	10:45	1	N	X		1 L Plastic					
8	TB100709-GW1		WG	10/7/2009	10:40	1	N	X		2 x 40 ml VOAs					
9															
10															
11															
12															
Additional Comments/Special Instructions:		RELINQUISHED BY / AFFILIATION		DATE		TIME		ACCEPTED BY / AFFILIATION		DATE		TIME		SAMPLE RECEIPT CONDITIONS	
Omit As and Se from Metals 6010/6020		Dana R. Brown, NGEM		7-Oct		12:45		Darren Qualls, GES		10/7/2009		12:45		Y/N Y/N Y/N Y/N Y/N Y/N	
All PDF reports and EDDs will be uploaded to:		Darren Qualls, GES		7-Oct		16:30		Matt Com CA		10/16/09		10:00		Y/N Y/N Y/N Y/N Y/N Y/N	
Northgate Environmental Management, Inc.														Temp in OC	
FTP site address provided to labs														Samples on Ice?	
Notifications provided to:														Sample Intact?	
cindy.arnold@ngem.com														Temp in OC	
frank.hagar@ngem.com														Trip Blank?	
SHIPPING METHOD (mark as appropriate)		UPS COURIER		PEDEX		US MAIL		SAMPLER NAME AND SIGNATURE		Dana R. Brown		10/7/2009		Time: 12:45	
PRINT Name of SAMPLER:		SIGNATURE of SAMPLER:		DATE Signed											

55010



R0905636
Northgate Environmental
Tronox LLC Henderson



1100 Quail Street, Suite 102, Newport Beach, CA 92660
 (949) 260-9293

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed and accurate.

COC No. 2027,001,00938
 Page: 1 of 2
 Cooler # _____ of _____
 Collection Area: J

Required Ship to Lab:		Required Project Information:		Required Invoice Information:		TAT: Standard 30 day		Rush		Mark One														
Lab Name: COLUMBIA ANALYTICAL SERVICES, INC.		Site ID #: TRONOX LLC, HENDERSON		Send Invoice to: Susan Crowley Trenox LLC																				
Address: 1 Mustard Street, Suite 250 Rochester, NY 14609		Project #: 2027,001		Address: PO Box 55 Henderson, NV 89009		Phone #: (949)260-9293		QC level Required: Standard		Special EPA Stage: 4														
Lab PM: Janice Jaeger		City: Henderson		State: NV		Reimbursement project? <input checked="" type="checkbox"/>		Mark one																
Phone/Fax: (565)288-5380		Site PM Name: Derrick Willis		Send EDD to: frank.hagar@ngem.com		CC Hardcopy report to: PDF Electronic Version Only		MA MCP Cert? <input type="checkbox"/>		CT RCP Cert? <input type="checkbox"/>														
Lab PM email: jjaeger@caslab.com		Phone/Fax: 949-375-7004		CC Hardcopy report to: see additional comments below				Lab Project ID (lab use)																
Applicable Lab Quote #:		Site PM Email: derrick.willis@ngem.com																						
ITEM #	SAMPLE ID	Character per box. (A-Z, 0-9 / , ')	Samples IDs MUST BE UNIQUE	Valid Matrix Codes	MATRIX	MATRIX CODE	SAMPLE TYPE	G-RAB C-OMP	SAMPLE DATE	SAMPLE TIME	# OF CONTAINERS	FIELD FILTERED? (Y/N)	Preservatives						Requested Analyses	Comments/Lab Sample I.D.				
													Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3			Methanol	Other	EPA 8200 VOC	EPA 8060 TOC
1	MC-94B				WG	WG	G		10/7/2009	10:45	3	N	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3 x 40 ml VOAs	
2	MC-94B				WG	WG	G		10/7/2009	10:45	2	N	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2 x 40 ml VOAs	
3	MC-94B				WG	WG	G		10/7/2009	10:45	2	N	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2 x 1 L Amber Glass	
4	MC-94B				WG	WG	G		10/7/2009	10:45	2	N	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2 x 1 L Amber Glass	
5	MC-94B				WG	WG	G		10/7/2009	10:45	1	N	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	500 ml Plastic	
6	MC-94B				WG	WG	G		10/7/2009	10:45	1	N	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	250 ml Plastic	
7	MC-94B				WG	WG	G		10/7/2009	10:45	1	N	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	250 ml Amber Glass	
8	MC-94B				WG	WG	G		10/7/2009	10:45	1	Y	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	125 ml Plastic	
9																								
10																								
11																								
12																								

Additional Comments/Special Instructions:
 Omit As and Se from Metals 6010/6020
 All PDF reports and EDDs will be uploaded to:
 Northgate Environmental Management, Inc.
 FTP site address provided to labs
 Notifications provided to:
 cindy.arnold@ngem.com
 frank.hagar@ngem.com

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	Sample Receipt Conditions
Dana R. Brown, NGEM	7-Oct	12:45	Darren Qualls, GES	10/7/2009	12:45	Y/N Y/N Y/N
Darren Qualls, GES	7-Oct	1630	Matt Co CA	10/16/09	1630	Y/N Y/N Y/N
						Y/N Y/N Y/N
						Y/N Y/N Y/N
						Y/N Y/N Y/N

SHIPPING METHOD (mark as appropriate) SAMPLER NAME AND SIGNATURE
 UPS COURIER / FEDEX (PRINT Name of SAMPLER): Dana R. Brown
 US MAIL SIGNATURE OF SAMPLER: Dana R. Brown DATE SIGNED: 10/7/2009 TIME: 12:45



R0905636
 Northgate Environmental
 Trenox, LLC Henderson

Cooler Receipt And Preservation Check Form

Project/Client Lunderson Soil + water Submission Number 20905636

Cooler received on 10/8/09 by: MW 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: 2° 3° 4° 2° 3° 2°
- Is the temperature within 0° - 6° C?: Yes Yes Yes Yes Yes Yes
- If No, Explain Below: No No No No No

Date/Time Temperatures Taken: 10/8/09 1605

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: JMS 10/8/09

Cooler Breakdown: Date: 10/8/09 by: MRP

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	NO						
≥12	NaOH	✓		WC85220C	10/13				
≤2	HNO ₃	✓		WC8529695	5/105				
≤2	H ₂ SO ₄	✓							
Residual Chlorine (-)	For TCN and Phenol			If present, contact PM to add ascorbic acid					
	Na ₂ S ₂ O ₃	-	-			*Not to be tested before analysis – pH tested and recorded by VOAs or GenChem on a separate worksheet			
	Zn Aceta	-	-						
	HCl	*	*						

Yes = All samples OK

No = Samples were preserved at lab as listed

PM OK to Adjust: _____

Bottle lot numbers: _____
Other Comments: _____

PC Secondary Review: JMS 10/12/09 *significant air bubbles are greater than 5-6 mm

Columbia Analytical Services, Inc.

Chain of Custody Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001

Service Request: R0905636

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
R0905636-001.01	120.1, 9040B	10/5/09	1011	SMO / MCARRERA	
		10/5/09	1209	R-002 / GESMERIAN	
R0905636-001.02	8260B	10/5/09	1011	SMO / MCARRERA	
		10/5/09	1210	R-001 / GESMERIAN	
		10/12/09	1610	In Lab / KRUEST	
		10/12/09	1703	R-001-S12 / KRUEST	
R0905636-001.03		10/5/09	1011	SMO / MCARRERA	
		10/5/09	1210	R-001 / GESMERIAN	
R0905636-001.04		10/5/09	1011	SMO / MCARRERA	
		10/5/09	1210	R-001 / GESMERIAN	
R0905636-001.05	8081A	10/5/09	1011	SMO / MCARRERA	
		10/5/09	1210	R-003-EXT / GESMERIAN	
		10/6/09	1333	In Lab / DMURPHY	
R0905636-001.06		10/5/09	1011	SMO / MCARRERA	
		10/5/09	1210	R-003-EXT / GESMERIAN	
		10/5/09	1339	In Lab / DMURPHY	
R0905636-001.07		10/5/09	1011	SMO / MCARRERA	
		10/5/09	1210	R-003-EXT / GESMERIAN	
		10/13/09	1017	In Lab / DMURPHY	
R0905636-001.08	8270C	10/5/09	1011	SMO / MCARRERA	
		10/5/09	1210	R-003-EXT / GESMERIAN	
R0905636-001.09	300.1	10/5/09	1011	SMO / MCARRERA	
		10/5/09	1209	R-002 / GESMERIAN	
		10/12/09	1525	SUBBED / MPETERS	
		10/13/09	1510	K-Delilah-15 / LKENNEDY	

Columbia Analytical Services, Inc.

Chain of Custody Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001

Service Request: R0905636

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
		10/19/09	0838	Custodian / KSMITH	
		10/19/09	0838	In Lab / ECROMWELL	
		10/20/09	1647	K-Delilah-15 / KSMITH	
		10/21/09	0833	Custodian / KSMITH	
		10/21/09	0833	In Lab / ECROMWELL	
		10/21/09	1629	K-Delilah-15 / SDAVIS	
<hr/>					
R0905636-001.10	SM 5540 C				
		10/5/09	1011	SMO / MCARRERA	
		10/5/09	1358	R-Dumpster / DWARD	
<hr/>					
R0905636-001.11	SM 2540 D				
		10/5/09	1011	SMO / MCARRERA	
		10/5/09	1209	R-002 / GESMERIAN	
		10/7/09	1111	In Lab / EWOLFE	
		10/7/09	1729	R-Dumpster / EWOLFE	
<hr/>					
R0905636-001.12	350.1, 365.1				
		10/5/09	1011	SMO / MCARRERA	
		10/5/09	1209	R-002 / GESMERIAN	
		10/21/09	0727	In Lab / SROBINSON	
		10/21/09	1830	R-002 / SROBINSON	
		10/21/09	1832	R-004 / SROBINSON	
		10/27/09	1001	In Lab / NMEAD	
		10/27/09	1544	R-004 / NMEAD	
<hr/>					
R0905636-001.13	9012A				
		10/5/09	1011	SMO / MCARRERA	
		10/5/09	1209	R-002 / GESMERIAN	
		10/12/09	0646	In Lab / HLOVEJOY	
		10/12/09	1201	R-002 / HLOVEJOY	
<hr/>					
R0905636-001.14	353.2, 9056, SM 2540 C				
		10/5/09	1011	SMO / MCARRERA	
		10/5/09	1209	R-002 / GESMERIAN	
		10/6/09	1011	In Lab / EWOLFE	
		10/6/09	1654	R-002 / EWOLFE	
		10/8/09	0951	In Lab / RPAWL	
		10/8/09	1322	R-002 / RPAWL	
<hr/>					
R0905636-001.16	314.0				
		10/5/09	1011	SMO / MCARRERA	

Columbia Analytical Services, Inc.

Chain of Custody Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001

Service Request: R0905636

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
		10/5/09	1209	R-002 / GESMERIAN	
		10/12/09	1525	SUBBED / MPETERS	
		10/13/09	1510	K-Delilah-15 / LKENNEDY	
		10/23/09	0940	Custodian / KSMITH	
		10/23/09	0940	In Lab / ECROMWELL	
		10/23/09	1500	K-Delilah-15 / KSMITH	
<hr/>					
R0905636-001.17	SM 2320 B				
		10/5/09	1011	SMO / MCARRERA	
		10/5/09	1209	R-002 / GESMERIAN	
		10/15/09	0839	In Lab / KREYNOLDS	
		10/15/09	1554	R-002 / KREYNOLDS	
<hr/>					
R0905636-001.19	6010B LL, 6020, 7470A				
		10/5/09	1011	SMO / MCARRERA	
		10/5/09	1209	R-002 / GESMERIAN	
		10/12/09	1525	SUBBED / MPETERS	
		10/13/09	1510	K-Delilah-15 / LKENNEDY	
		10/19/09	1741	Custodian / SDAVIS	
		10/20/09	0810	In Lab / MSMITH	
		10/20/09	1159	K-Delilah-15 / SDAVIS	
		10/22/09	0915	Custodian / KSMITH	
		10/22/09	0915	In Lab / LJORDING	
		10/22/09	1553	K-Delilah-15 / SDAVIS	
		10/26/09	1320	Custodian / SDAVIS	
		10/26/09	1320	In Lab / BSHELDON	
		10/26/09	1642	K-Delilah-15 / SDAVIS	
		10/27/09	0949	In Lab / EJOHNSTONBAUGH	
		10/27/09	1505	K-Delilah-15 / SDAVIS	
		11/9/09	1323	In Lab / BSHELDON	
		11/9/09	1519	K-Delilah-15 / SDAVIS	
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R0905636-001.20	9060				
		10/5/09	1011	SMO / MCARRERA	
		10/5/09	1209	R-002 / GESMERIAN	
		10/9/09	1455	In Lab / CSCHRADER	
		10/12/09	0943	R-Dumpster / CSCHRADER	
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R0905636-001.21					
		10/5/09	1011	SMO / MCARRERA	
		10/5/09	1209	R-002 / GESMERIAN	
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R0905636-001.23	218.6				

Columbia Analytical Services, Inc.

Chain of Custody Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001

Service Request: R0905636

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
		10/5/09	1011	SMO / MCARRERA	
		10/5/09	1209	R-002 / GESMERIAN	
		10/6/09	1202	In Lab / CWOODS	
		10/6/09	1618	R-002 / CWOODS	
R0905636-002.01	120.1, 9040B				
		10/5/09	1011	SMO / MCARRERA	
		10/5/09	1209	R-002 / GESMERIAN	
R0905636-002.02	8260B				
		10/5/09	1011	SMO / MCARRERA	
		10/5/09	1210	R-001 / GESMERIAN	
		10/12/09	1703	R-001-S12 / KRUEST	
		10/13/09	1434	In Lab / KRUEST	
		10/13/09	1736	R-001-S12 / KRUEST	
R0905636-002.03					
		10/5/09	1011	SMO / MCARRERA	
		10/5/09	1210	R-001 / GESMERIAN	
R0905636-002.04					
		10/5/09	1011	SMO / MCARRERA	
		10/5/09	1210	R-001 / GESMERIAN	
R0905636-002.05					
		10/5/09	1011	SMO / MCARRERA	
		10/5/09	1210	R-003-EXT / GESMERIAN	
R0905636-002.06	8081A				
		10/5/09	1011	SMO / MCARRERA	
		10/5/09	1210	R-003-EXT / GESMERIAN	
		10/6/09	1333	In Lab / DMURPHY	
R0905636-002.07	8270C				
		10/5/09	1011	SMO / MCARRERA	
		10/5/09	1210	R-003-EXT / GESMERIAN	
		10/5/09	1340	In Lab / DMURPHY	
R0905636-002.08					
		10/5/09	1011	SMO / MCARRERA	
		10/5/09	1209	R-003-EXT / GESMERIAN	
R0905636-002.09	300.1				

Columbia Analytical Services, Inc.

Chain of Custody Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001

Service Request: R0905636

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
		10/5/09	1011	SMO / MCARRERA	
		10/5/09	1209	R-002 / GESMERIAN	
		10/12/09	1525	SUBBED / MPETERS	
		10/13/09	1510	K-Delilah-15 / LKENNEDY	
		10/19/09	0838	Custodian / KSMITH	
		10/19/09	0838	In Lab / ECROMWELL	
		10/20/09	1647	K-Delilah-15 / KSMITH	
		10/21/09	0833	Custodian / KSMITH	
		10/21/09	0833	In Lab / ECROMWELL	
		10/21/09	1629	K-Delilah-15 / SDAVIS	
<hr/>					
R0905636-002.10					
	SM 5540 C				
		10/5/09	1011	SMO / MCARRERA	
		10/5/09	1358	R-Dumpster / DWARD	
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R0905636-002.11					
	SM 2540 D				
		10/5/09	1011	SMO / MCARRERA	
		10/5/09	1209	R-002 / GESMERIAN	
		10/7/09	1111	In Lab / EWOLFE	
		10/7/09	1729	R-Dumpster / EWOLFE	
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R0905636-002.12					
	350.1, 365.1				
		10/5/09	1011	SMO / MCARRERA	
		10/5/09	1209	R-002 / GESMERIAN	
		10/21/09	0727	In Lab / SROBINSON	
		10/21/09	1830	R-002 / SROBINSON	
		10/21/09	1832	R-004 / SROBINSON	
		10/27/09	1001	In Lab / NMEAD	
		10/27/09	1544	R-004 / NMEAD	
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R0905636-002.13					
	9012A				
		10/5/09	1011	SMO / MCARRERA	
		10/5/09	1209	R-002 / GESMERIAN	
		10/12/09	0646	In Lab / HLOVEJOY	
		10/12/09	1201	R-002 / HLOVEJOY	
<hr/>					
R0905636-002.14					
	353.2, 9056, SM 2540 C				
		10/5/09	1011	SMO / MCARRERA	
		10/5/09	1209	R-002 / GESMERIAN	
		10/6/09	1011	In Lab / EWOLFE	
		10/6/09	1654	R-002 / EWOLFE	
		10/8/09	0951	In Lab / RPAWL	
		10/8/09	1322	R-002 / RPAWL	

Columbia Analytical Services, Inc.

Chain of Custody Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001

Service Request: R0905636

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
R0905636-002.16	314.0	10/5/09	1011	SMO / MCARRERA	
		10/5/09	1209	R-002 / GESMERIAN	
		10/12/09	1525	SUBBED / MPETERS	
		10/13/09	1510	K-Delilah-15 / LKENNEDY	
		10/23/09	0940	Custodian / KSMITH	
		10/23/09	0940	In Lab / ECROMWELL	
		10/23/09	1500	K-Delilah-15 / KSMITH	
R0905636-002.17	SM 2320 B	10/5/09	1011	SMO / MCARRERA	
		10/5/09	1209	R-002 / GESMERIAN	
		10/15/09	0839	In Lab / KREYNOLDS	
		10/15/09	1554	R-002 / KREYNOLDS	
R0905636-002.19	6010B LL, 6020, 7470A	10/5/09	1011	SMO / MCARRERA	
		10/5/09	1209	R-002 / GESMERIAN	
		10/12/09	1525	SUBBED / MPETERS	
		10/13/09	1510	K-Delilah-15 / LKENNEDY	
		10/19/09	1741	Custodian / SDAVIS	
		10/20/09	0810	In Lab / MSMITH	
		10/20/09	1159	K-Delilah-15 / SDAVIS	
		10/22/09	0915	Custodian / KSMITH	
		10/22/09	0915	In Lab / LJORDING	
		10/22/09	1553	K-Delilah-15 / SDAVIS	
		10/26/09	1320	Custodian / SDAVIS	
		10/26/09	1320	In Lab / BSHELDON	
		10/26/09	1642	K-Delilah-15 / SDAVIS	
		10/27/09	0949	In Lab / EJOHNSTONBAUGH	
		10/27/09	1505	K-Delilah-15 / SDAVIS	
		11/9/09	1323	In Lab / BSHELDON	
		11/9/09	1519	K-Delilah-15 / SDAVIS	
R0905636-002.20	9060	10/5/09	1011	SMO / MCARRERA	
		10/5/09	1209	R-002 / GESMERIAN	
		10/9/09	1455	In Lab / CSCHRADER	
		10/12/09	0943	R-Dumpster / CSCHRADER	
R0905636-002.21		10/5/09	1011	SMO / MCARRERA	

Columbia Analytical Services, Inc.

Chain of Custody Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001

Service Request: R0905636

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
R0905636-002.23	218.6	10/5/09	1209	R-002 / GESMERIAN	
		10/5/09	1011	SMO / MCARRERA	
		10/5/09	1209	R-002 / GESMERIAN	
		10/6/09	1202	In Lab / CWOODS	
		10/6/09	1618	R-002 / CWOODS	
R0905636-003.01	120.1, 9040B	10/5/09	1011	SMO / MCARRERA	
		10/5/09	1209	R-002 / GESMERIAN	
R0905636-003.02	8260B	10/5/09	1011	SMO / MCARRERA	
		10/5/09	1210	R-001 / GESMERIAN	
		10/12/09	1703	R-001-S12 / KRUEST	
		10/13/09	1434	In Lab / KRUEST	
		10/13/09	1736	R-001-S12 / KRUEST	
R0905636-003.03		10/5/09	1011	SMO / MCARRERA	
		10/5/09	1210	R-001 / GESMERIAN	
R0905636-003.04		10/5/09	1011	SMO / MCARRERA	
		10/5/09	1210	R-001 / GESMERIAN	
R0905636-003.05		10/5/09	1011	SMO / MCARRERA	
		10/5/09	1209	R-003-EXT / GESMERIAN	
R0905636-003.06	8081A	10/5/09	1011	SMO / MCARRERA	
		10/5/09	1209	R-003-EXT / GESMERIAN	
		10/6/09	1333	In Lab / DMURPHY	
R0905636-003.07	8270C	10/5/09	1011	SMO / MCARRERA	
		10/5/09	1209	R-003-EXT / GESMERIAN	
		10/5/09	1339	In Lab / DMURPHY	
R0905636-003.08		10/5/09	1011	SMO / MCARRERA	

Columbia Analytical Services, Inc.

Chain of Custody Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001

Service Request: R0905636

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
		10/5/09	1209	R-003-EXT / GESMERIAN	
R0905636-003.09	300.1	10/5/09	1011	SMO / MCARRERA	
		10/5/09	1209	R-002 / GESMERIAN	
		10/12/09	1525	SUBBED / MPETERS	
		10/13/09	1510	K-Delilah-15 / LKENNEDY	
		10/19/09	0838	Custodian / KSMITH	
		10/19/09	0838	In Lab / ECROMWELL	
		10/20/09	1647	K-Delilah-15 / KSMITH	
		10/21/09	0833	Custodian / KSMITH	
		10/21/09	0833	In Lab / ECROMWELL	
		10/21/09	1629	K-Delilah-15 / SDAVIS	
R0905636-003.10	SM 5540 C	10/5/09	1011	SMO / MCARRERA	
		10/5/09	1358	R-Dumpster / DWARD	
R0905636-003.11	SM 2540 D	10/5/09	1011	SMO / MCARRERA	
		10/5/09	1209	R-002 / GESMERIAN	
		10/7/09	1111	In Lab / EWOLFE	
		10/7/09	1729	R-Dumpster / EWOLFE	
R0905636-003.12	350.1, 365.1	10/5/09	1011	SMO / MCARRERA	
		10/5/09	1209	R-002 / GESMERIAN	
		10/15/09	0839	In Lab / KREYNOLDS	
		10/21/09	0727	In Lab / SROBINSON	
		10/21/09	1830	R-002 / SROBINSON	
		10/21/09	1832	R-004 / SROBINSON	
		10/27/09	1001	In Lab / NMEAD	
		10/27/09	1544	R-004 / NMEAD	
R0905636-003.13	9012A	10/5/09	1011	SMO / MCARRERA	
		10/5/09	1209	R-002 / GESMERIAN	
		10/12/09	0646	In Lab / HLOVEJOY	
		10/12/09	1201	R-002 / HLOVEJOY	
R0905636-003.14	353.2, 9056, SM 2540 C	10/5/09	1011	SMO / MCARRERA	

Columbia Analytical Services, Inc.

Chain of Custody Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001

Service Request: R0905636

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
		10/5/09	1209	R-002 / GESMERIAN	
		10/6/09	1011	In Lab / EWOLFE	
		10/6/09	1654	R-002 / EWOLFE	
		10/8/09	0951	In Lab / RPAWL	
		10/8/09	1322	R-002 / RPAWL	
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R0905636-003.16					
	314.0				
		10/5/09	1011	SMO / MCARRERA	
		10/5/09	1209	R-002 / GESMERIAN	
		10/12/09	1525	SUBBED / MPETERS	
		10/13/09	1510	K-Delilah-15 / LKENNEDY	
		10/23/09	0940	Custodian / KSMITH	
		10/23/09	0940	In Lab / ECROMWELL	
		10/23/09	1500	K-Delilah-15 / KSMITH	
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R0905636-003.17					
	SM 2320 B				
		10/5/09	1011	SMO / MCARRERA	
		10/5/09	1209	R-002 / GESMERIAN	
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R0905636-003.19					
	6010B LL, 6020, 7470A				
		10/5/09	1011	SMO / MCARRERA	
		10/5/09	1209	R-002 / GESMERIAN	
		10/12/09	1525	SUBBED / MPETERS	
		10/13/09	1510	K-Delilah-15 / LKENNEDY	
		10/19/09	1741	Custodian / SDAVIS	
		10/20/09	0810	In Lab / MSMITH	
		10/20/09	1159	K-Delilah-15 / SDAVIS	
		10/22/09	0915	Custodian / KSMITH	
		10/22/09	0915	In Lab / LJORDING	
		10/22/09	1553	K-Delilah-15 / SDAVIS	
		10/26/09	1320	Custodian / SDAVIS	
		10/26/09	1320	In Lab / BSHELDON	
		10/26/09	1642	K-Delilah-15 / SDAVIS	
		10/27/09	0948	In Lab / EJOHNSTONBAUGH	
		10/27/09	1505	K-Delilah-15 / SDAVIS	
		11/9/09	1323	In Lab / BSHELDON	
		11/9/09	1519	K-Delilah-15 / SDAVIS	
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R0905636-003.20					
	9060				
		10/5/09	1011	SMO / MCARRERA	
		10/5/09	1209	R-002 / GESMERIAN	
		10/9/09	1455	In Lab / CSCHRADER	
		10/12/09	0943	R-Dumpster / CSCHRADER	

Columbia Analytical Services, Inc.

Chain of Custody Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001

Service Request: R0905636

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
R0905636-003.21		10/5/09	1011	SMO / MCARRERA	
		10/5/09	1209	R-002 / GESMERIAN	
R0905636-003.23	218.6	10/5/09	1011	SMO / MCARRERA	
		10/5/09	1209	R-002 / GESMERIAN	
		10/6/09	1202	In Lab / CWOODS	
		10/6/09	1618	R-002 / CWOODS	
R0905636-004.01	8260B	10/5/09	1153	SMO / AHENTSCHKE	
		10/5/09	1210	R-001 / GESMERIAN	
		10/12/09	1610	In Lab / KRUEST	
		10/12/09	1702	R-001-S12 / KRUEST	
R0905636-004.02		10/5/09	1153	SMO / AHENTSCHKE	
		10/5/09	1210	R-001 / GESMERIAN	
R0905636-005.01	8260B	10/5/09	1153	SMO / AHENTSCHKE	
		10/5/09	1210	R-001 / GESMERIAN	
		10/12/09	1610	In Lab / KRUEST	
		10/12/09	1702	R-001-S12 / KRUEST	
R0905636-005.02		10/5/09	1153	SMO / AHENTSCHKE	
		10/5/09	1210	R-001 / GESMERIAN	
R0905636-006.01	120.1, 9040B	10/8/09	1130	SMO / MPETERS	
		10/8/09	1311	R-002 / RJONES	
R0905636-006.02	8260B	10/8/09	1130	SMO / MPETERS	
		10/8/09	1312	R-001 / RJONES	
		10/12/09	1703	R-001-S12 / KRUEST	
		10/13/09	1434	In Lab / KRUEST	
		10/13/09	1736	R-001-S12 / KRUEST	
R0905636-006.03		10/8/09	1130	SMO / MPETERS	

Columbia Analytical Services, Inc.

Chain of Custody Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001

Service Request: R0905636

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
		10/8/09	1312	R-001 / RJONES	
R0905636-006.04		10/8/09	1130	SMO / MPETERS	
		10/8/09	1312	R-001 / RJONES	
R0905636-006.05		10/8/09	1130	SMO / MPETERS	
		10/8/09	1312	R-003-EXT / RJONES	
R0905636-006.06	8081A	10/8/09	1130	SMO / MPETERS	
		10/8/09	1312	R-003-EXT / RJONES	
R0905636-006.07		10/8/09	1130	SMO / MPETERS	
		10/8/09	1312	R-003-EXT / RJONES	
		10/13/09	1018	In Lab / DMURPHY	
R0905636-006.08	8270C	10/8/09	1130	SMO / MPETERS	
		10/8/09	1312	R-003-EXT / RJONES	
		10/9/09	0852	In Lab / DMURPHY	
R0905636-006.09	300.1	10/8/09	1130	SMO / MPETERS	
		10/8/09	1311	R-002 / RJONES	
		10/12/09	1525	SUBBED / MPETERS	
		10/13/09	1510	K-Delilah-15 / LKENNEDY	
		10/19/09	0838	Custodian / KSMITH	
		10/19/09	0838	In Lab / ECROMWELL	
		10/20/09	1647	K-Delilah-15 / KSMITH	
		10/21/09	0833	Custodian / KSMITH	
		10/21/09	0833	In Lab / ECROMWELL	
		10/21/09	1629	K-Delilah-15 / SDAVIS	
R0905636-006.10	SM 5540 C	10/8/09	1130	SMO / MPETERS	
		10/8/09	1627	R-Dumpster / DWARD	
R0905636-006.11	SM 2540 D	10/8/09	1130	SMO / MPETERS	
		10/8/09	1312	R-002 / RJONES	

Columbia Analytical Services, Inc.

Chain of Custody Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001

Service Request: R0905636

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
		10/9/09	0859	In Lab / EWOLFE	
		10/9/09	1719	R-Dumpster / EWOLFE	
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R0905636-006.12	350.1, 365.1				
		10/8/09	1130	SMO / MPETERS	
		10/8/09	1312	R-002 / RJONES	
		10/21/09	0909	In Lab / SROBINSON	
		10/21/09	1832	R-004 / SROBINSON	
		10/27/09	1001	In Lab / NMEAD	
		10/27/09	1544	R-004 / NMEAD	
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R0905636-006.13	9012A				
		10/8/09	1130	SMO / MPETERS	
		10/12/09	0646	In Lab / HLOVEJOY	
		10/12/09	1201	R-002 / HLOVEJOY	
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R0905636-006.14	353.2, 9056, SM 2540 C				
		10/8/09	1130	SMO / MPETERS	
		10/9/09	2146	R-002 / HLOVEJOY	
		10/12/09	0933	In Lab / EWOLFE	
		10/12/09	1610	R-002 / EWOLFE	
		10/29/09	1705	In Lab / RPAWL	
		10/29/09	1836	R-002 / RPAWL	
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R0905636-006.16	314.0				
		10/8/09	1130	SMO / MPETERS	
		10/8/09	1312	R-002 / RJONES	
		10/12/09	1525	SUBBED / MPETERS	
		10/13/09	1510	K-Delilah-15 / LKENNEDY	
		10/23/09	0940	Custodian / KSMITH	
		10/23/09	0940	In Lab / ECROMWELL	
		10/23/09	1500	K-Delilah-15 / KSMITH	
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R0905636-006.17	SM 2320 B				
		10/8/09	1130	SMO / MPETERS	
		10/8/09	1312	R-002 / RJONES	
		10/19/09	1349	In Lab / BBOWE	
		10/19/09	1919	R-004 / BBOWE	
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R0905636-006.19	6010B LL, 6020, 7470A				
		10/8/09	1130	SMO / MPETERS	
		10/8/09	1312	R-002 / RJONES	

Columbia Analytical Services, Inc.

Chain of Custody Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001

Service Request: R0905636

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
		10/12/09	1525	SUBBED / MPETERS	
		10/13/09	1510	K-Delilah-15 / LKENNEDY	
		10/19/09	1741	Custodian / SDAVIS	
		10/20/09	0810	In Lab / MSMITH	
		10/20/09	1159	K-Delilah-15 / SDAVIS	
		10/22/09	0915	Custodian / KSMITH	
		10/22/09	0915	In Lab / LJORDING	
		10/22/09	1553	K-Delilah-15 / SDAVIS	
		10/26/09	1320	Custodian / SDAVIS	
		10/26/09	1320	In Lab / BSHELDON	
		10/26/09	1642	K-Delilah-15 / SDAVIS	
		10/27/09	0948	In Lab / EJOHNSTONBAUGH	
		10/27/09	1505	K-Delilah-15 / SDAVIS	
		11/9/09	1323	In Lab / BSHELDON	
		11/9/09	1519	K-Delilah-15 / SDAVIS	
<hr/>					
R0905636-006.20					
	9060				
		10/8/09	1130	SMO / MPETERS	
		10/8/09	1312	R-002 / RJONES	
		10/9/09	1455	In Lab / CSCHRADER	
		10/12/09	0943	R-Dumpster / CSCHRADER	
<hr/>					
R0905636-006.21					
		10/8/09	1130	SMO / MPETERS	
		10/8/09	1312	R-002 / RJONES	
<hr/>					
R0905636-006.23					
	218.6				
		10/8/09	1130	SMO / MPETERS	
		10/8/09	1312	R-002 / RJONES	
<hr/>					
R0905636-007.01					
	8260B				
		10/8/09	1130	SMO / MPETERS	
		10/8/09	1312	R-001 / RJONES	
		10/12/09	1610	In Lab / KRUEST	
		10/12/09	1702	R-001-S12 / KRUEST	
<hr/>					
R0905636-007.02					
		10/8/09	1130	SMO / MPETERS	
		10/8/09	1312	R-001 / RJONES	
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VOLATILE ORGANICS

QC SUMMARY

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water

Service Request: R0905636
Date Collected: 10/2/09
Date Received: 10/3/09
Date Analyzed: 10/13/09

**Matrix Spike Summary
 Volatile Organic Compounds by GC/MS**

Sample Name: M-76B
Lab Code: R0905636-002

Units: µg/L
Basis: NA

Analytical Method: 8260B

Analyte Name	Sample Result	Matrix Spike RQ0909884-03			Duplicate Matrix Spike RQ0909884-04			% Rec Limits	RPD	RPD Limit
		Result	Amount	% Rec	Result	Amount	% Rec			
1,1,1,2-Tetrachloroethane	ND	53.5	50.0	107	52.3	50.0	105	70 - 130	2	30
1,1,1-Trichloroethane (TCA)	ND	53.4	50.0	107	52.1	50.0	104	70 - 130	3	30
1,1,2,2-Tetrachloroethane	ND	41.7	50.0	83	40.6	50.0	81	70 - 130	3	30
1,1,2-Trichloroethane	ND	45.6	50.0	91	46.3	50.0	93	70 - 130	1	30
1,1-Dichloroethane (1,1-DCA)	ND	46.2	50.0	92	45.3	50.0	91	70 - 130	2	30
1,1-Dichloroethene (1,1-DCE)	0.45	56.1	50.0	111	53.6	50.0	106	70 - 130	4	30
1,1-Dichloropropene	ND	49.2	50.0	98	48.5	50.0	97	70 - 130	2	30
1,2,3-Trichlorobenzene	ND	39.4	50.0	79	39.4	50.0	79	70 - 130	0	30
1,2,3-Trichloropropane	ND	42.5	50.0	85	43.9	50.0	88	70 - 130	3	30
1,2,4-Trichlorobenzene	ND	42.4	50.0	85	41.7	50.0	83	70 - 130	2	30
1,2,4-Trimethylbenzene	ND	40.9	50.0	82	43.0	50.0	86	70 - 130	5	30
1,2-Dibromo-3-chloropropane (DBC)	ND	40.6	50.0	81	41.0	50.0	82	50 - 150	1	30
1,2-Dibromoethane	ND	43.6	50.0	87	43.8	50.0	88	70 - 130	0	30
1,2-Dichlorobenzene	ND	44.7	50.0	89	43.4	50.0	87	70 - 130	3	30
1,2-Dichloroethane	ND	47.3	50.0	95	47.1	50.0	94	70 - 130	0	30
1,2-Dichloropropane	ND	47.5	50.0	95	47.4	50.0	95	70 - 130	0	30
1,3,5-Trimethylbenzene	ND	42.9	50.0	86	43.8	50.0	88	70 - 130	2	30
1,3-Dichlorobenzene	ND	45.7	50.0	91	44.4	50.0	89	70 - 130	3	30
1,3-Dichloropropane	ND	44.8	50.0	90	43.7	50.0	87	70 - 130	3	30
1,4-Dichlorobenzene	ND	44.3	50.0	89	43.3	50.0	87	70 - 130	2	30
2,2-Dichloropropane	ND	57.4	50.0	115	55.8	50.0	112	70 - 130	3	30
2-Butanone (MEK)	ND	39.2	50.0	78	39.1	50.0	78	50 - 150	0	30
2-Chlorotoluene	ND	44.1	50.0	88	42.9	50.0	86	70 - 130	3	30
2-Hexanone	ND	42.8	50.0	86	43.5	50.0	87	70 - 130	2	30
2-Methyl-2-propanol	ND	670	1000	67	784	1000	78	50 - 150	16	30
4-Chlorotoluene	ND	45.2	50.0	90	43.4	50.0	87	70 - 130	4	30
4-Isopropyltoluene	ND	44.0	50.0	88	42.6	50.0	85	70 - 130	3	30
4-Methyl-2-pentanone	ND	44.7	50.0	89	46.4	50.0	93	70 - 130	4	30
Acetone	6.3	46.8	50.0	81	46.9	50.0	81	50 - 150	0	30
Benzene	ND	46.3	50.0	93	45.6	50.0	91	70 - 130	2	30
Bromobenzene	ND	46.2	50.0	92	44.8	50.0	90	70 - 130	3	30
Bromochloromethane	ND	47.1	50.0	94	46.3	50.0	93	70 - 130	2	30
Bromodichloromethane	ND	48.9	50.0	98	48.8	50.0	98	70 - 130	0	30
Bromoform	ND	48.7	50.0	97	47.2	50.0	94	70 - 130	3	30

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Northgate Environmental
 Project: Tronox LLC Henderson/2027.001
 Sample Matrix: Water

Service Request: R0905636
 Date Collected: 10/2/09
 Date Received: 10/3/09
 Date Analyzed: 10/13/09

Matrix Spike Summary
 Volatile Organic Compounds by GC/MS

Sample Name: M-76B
 Lab Code: R0905636-002

Units: µg/L
 Basis: NA

Analytical Method: 8260B

Analyte Name	Sample Result	Matrix Spike RQ0909884-03			Duplicate Matrix Spike RQ0909884-04			% Rec Limits	RPD	RPD Limit
		Result	Amount	% Rec	Result	Amount	% Rec			
Bromomethane	ND	58.7	50.0	117	55.3	50.0	111	50 - 150	6	30
Carbon Tetrachloride	ND	55.3	50.0	111	53.9	50.0	108	70 - 130	2	30
Chlorobenzene	ND	47.4	50.0	95	45.8	50.0	92	70 - 130	3	30
Chloroethane	ND	48.7	50.0	97	48.1	50.0	96	70 - 130	1	30
Chloroform	120	169	50.0	91	164	50.0	81	70 - 130	3	30
Chloromethane	ND	50.5	50.0	101	47.3	50.0	95	70 - 130	6	30
Dibromochloromethane	ND	49.7	50.0	99	47.7	50.0	95	70 - 130	4	30
Dibromomethane	ND	46.3	50.0	93	46.1	50.0	92	70 - 130	0	30
Dichlorodifluoromethane (CFC 12)	ND	43.0	50.0	86	41.0	50.0	82	70 - 130	5	30
Dichloromethane	ND	36.9	50.0	74	44.0	50.0	88	70 - 130	18	30
Diisopropyl Ether	ND	46.0	50.0	92	46.3	50.0	93	70 - 130	1	30
Ethyl tert-Butyl Ether	ND	46.7	50.0	93	47.5	50.0	95	70 - 130	2	30
Ethylbenzene	ND	47.8	50.0	96	45.7	50.0	91	70 - 130	5	30
Hexachlorobutadiene	ND	36.6	50.0	73	35.5	50.0	71	70 - 130	3	30
Isopropylbenzene (Cumene)	ND	48.5	50.0	97	46.1	50.0	92	70 - 130	5	30
Methyl tert-Butyl Ether	ND	44.6	50.0	89	45.9	50.0	92	70 - 130	3	30
Naphthalene	ND	21.8	50.0	44 *	40.2	50.0	80	50 - 150	59 *	30
Styrene	ND	21.8	50.0	44 *	25.1	50.0	50 *	70 - 130	14	30
Tetrachloroethene (PCE)	ND	49.2	50.0	98	46.9	50.0	94	70 - 130	5	30
Toluene	ND	48.5	50.0	97	47.3	50.0	95	70 - 130	2	30
Trichloroethene (TCE)	ND	47.8	50.0	96	46.5	50.0	93	70 - 130	3	30
Trichlorofluoromethane (CFC 11)	ND	56.0	50.0	112	53.6	50.0	107	70 - 130	4	30
Vinyl Chloride	ND	54.3	50.0	109	51.7	50.0	103	70 - 130	5	30
cis-1,2-Dichloroethene	ND	46.5	50.0	93	45.5	50.0	91	70 - 130	2	30
cis-1,3-Dichloropropene	ND	48.7	50.0	97	49.3	50.0	99	70 - 130	1	30
m,p-Xylenes	ND	94.4	100	94	93.5	100	93	70 - 130	1	30
n-Butylbenzene	ND	41.4	50.0	83	39.4	50.0	79	70 - 130	5	30
n-Propylbenzene	ND	43.8	50.0	88	42.3	50.0	85	70 - 130	4	30
o-Xylene	ND	47.6	50.0	95	47.0	50.0	94	70 - 130	1	30
sec-Butylbenzene	ND	42.3	50.0	85	40.6	50.0	81	70 - 130	4	30
tert-Amyl Methyl Ether	ND	43.7	50.0	87	44.4	50.0	89	70 - 130	2	30
tert-Butylbenzene	ND	45.2	50.0	90	43.2	50.0	86	70 - 130	5	30
trans-1,2-Dichloroethene	ND	47.0	50.0	94	45.6	50.0	91	70 - 130	3	30
trans-1,3-Dichloropropene	ND	50.5	50.0	101	51.0	50.0	102	70 - 130	1	30

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water

Service Request: R0905636
Date Analyzed: 10/12/09

**Lab Control Sample Summary
 Volatile Organic Compounds by GC/MS**

Analytical Method: 8260B

Units: µg/L

Basis: NA

Analysis Lot: 174383

Analyte Name	Lab Control Sample RQ0909815-02			% Rec Limits
	Result	Expected	% Rec	
1,1,1,2-Tetrachloroethane	22.4	20.0	112	75 - 125
1,1,1-Trichloroethane (TCA)	22.5	20.0	112	75 - 125
1,1,2,2-Tetrachloroethane	17.3	20.0	87	75 - 125
1,1,2-Trichloroethane	19.6	20.0	98	75 - 125
1,1-Dichloroethane (1,1-DCA)	19.5	20.0	97	75 - 125
1,1-Dichloroethene (1,1-DCE)	24.4	20.0	122	75 - 125
1,1-Dichloropropene	20.4	20.0	102	75 - 125
1,2,3-Trichlorobenzene	19.3	20.0	97	75 - 125
1,2,3-Trichloropropane	18.5	20.0	92	75 - 125
1,2,4-Trichlorobenzene	20.0	20.0	100	75 - 125
1,2,4-Trimethylbenzene	20.1	20.0	100	75 - 125
1,2-Dibromo-3-chloropropane (DBCP)	16.5	20.0	83	75 - 125
1,2-Dibromoethane	18.5	20.0	92	75 - 125
1,2-Dichlorobenzene	20.0	20.0	100	75 - 125
1,2-Dichloroethane	20.1	20.0	101	75 - 125
1,2-Dichloropropane	20.1	20.0	100	75 - 125
1,3,5-Trimethylbenzene	20.6	20.0	103	75 - 125
1,3-Dichlorobenzene	20.3	20.0	101	75 - 125
1,3-Dichloropropane	19.0	20.0	95	75 - 125
1,4-Dichlorobenzene	19.8	20.0	99	75 - 125
2,2-Dichloropropane	24.4	20.0	122	75 - 125
2-Butanone (MEK)	16.8	20.0	84	75 - 125
2-Chlorotoluene	19.4	20.0	97	75 - 125
2-Hexanone	16.9	20.0	84	75 - 125
2-Methyl-2-propanol	335	400	84	75 - 125
4-Chlorotoluene	20.0	20.0	100	75 - 125
4-Isopropyltoluene	20.7	20.0	103	75 - 125
4-Methyl-2-pentanone	18.4	20.0	92	75 - 125
Acetone	20.6	20.0	103	75 - 125
Benzene	19.5	20.0	98	75 - 125
Bromobenzene	20.3	20.0	102	75 - 125
Bromochloromethane	19.7	20.0	99	75 - 125
Bromodichloromethane	20.6	20.0	103	75 - 125
Bromoform	20.8	20.0	104	75 - 125
Bromomethane	23.9	20.0	119	75 - 125
Carbon Tetrachloride	23.8	20.0	119	75 - 125

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water

Service Request: R0905636
Date Analyzed: 10/12/09

**Lab Control Sample Summary
 Volatile Organic Compounds by GC/MS**

Analytical Method: 8260B

Units: µg/L
Basis: NA

Analysis Lot: 174383

**Lab Control Sample
 RQ0909815-02**

Analyte Name	Result	Expected	% Rec	% Rec Limits
Chlorobenzene	20.6	20.0	103	75 - 125
Chloroethane	21.8	20.0	109	75 - 125
Chloroform	20.4	20.0	102	75 - 125
Chloromethane	21.4	20.0	107	75 - 125
Dibromochloromethane	20.9	20.0	105	75 - 125
Dibromomethane	19.8	20.0	99	75 - 125
Dichlorodifluoromethane (CFC 12)	18.1	20.0	91	75 - 125
Dichloromethane	14.8	20.0	74	* 75 - 125
Diisopropyl Ether	19.7	20.0	99	75 - 125
Ethyl tert-Butyl Ether	20.1	20.0	100	75 - 125
Ethylbenzene	20.3	20.0	102	75 - 125
Hexachlorobutadiene	21.1	20.0	105	75 - 125
Isopropylbenzene (Cumene)	21.0	20.0	105	75 - 125
Methyl tert-Butyl Ether	18.9	20.0	95	75 - 125
Naphthalene	17.6	20.0	88	75 - 125
Styrene	20.8	20.0	104	75 - 125
Tetrachloroethene (PCE)	21.6	20.0	108	75 - 125
Toluene	20.6	20.0	103	75 - 125
Trichloroethene (TCE)	20.2	20.0	101	75 - 125
Trichlorofluoromethane (CFC 11)	24.0	20.0	120	75 - 125
Vinyl Chloride	22.7	20.0	113	75 - 125
cis-1,2-Dichloroethene	19.8	20.0	99	75 - 125
cis-1,3-Dichloropropene	20.5	20.0	102	75 - 125
m,p-Xylenes	42.9	40.0	107	75 - 125
n-Butylbenzene	20.3	20.0	101	75 - 125
n-Propylbenzene	19.3	20.0	97	75 - 125
o-Xylene	20.8	20.0	104	75 - 125
sec-Butylbenzene	19.9	20.0	99	75 - 125
tert-Amyl Methyl Ether	18.5	20.0	92	75 - 125
tert-Butylbenzene	20.2	20.0	101	75 - 125
trans-1,2-Dichloroethene	20.4	20.0	102	75 - 125
trans-1,3-Dichloropropene	21.1	20.0	106	75 - 125

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water

Service Request: R0905636
Date Analyzed: 10/13/09

**Lab Control Sample Summary
 Volatile Organic Compounds by GC/MS**

Analytical Method: 8260B

Units: µg/L

Basis: NA

Analysis Lot: 174548

Analyte Name	Lab Control Sample RQ0909884-02			% Rec Limits
	Result	Expected	% Rec	
1,1,1,2-Tetrachloroethane	23.6	20.0	118	75 - 125
1,1,1-Trichloroethane (TCA)	23.6	20.0	118	75 - 125
1,1,2,2-Tetrachloroethane	19.2	20.0	96	75 - 125
1,1,2-Trichloroethane	20.9	20.0	105	75 - 125
1,1-Dichloroethane (1,1-DCA)	20.5	20.0	102	75 - 125
1,1-Dichloroethene (1,1-DCE)	24.8	20.0	124	75 - 125
1,1-Dichloropropene	21.3	20.0	106	75 - 125
1,2,3-Trichlorobenzene	18.8	20.0	94	75 - 125
1,2,3-Trichloropropane	20.4	20.0	102	75 - 125
1,2,4-Trichlorobenzene	19.1	20.0	96	75 - 125
1,2,4-Trimethylbenzene	20.1	20.0	100	75 - 125
1,2-Dibromo-3-chloropropane (DBCP)	17.4	20.0	87	75 - 125
1,2-Dibromoethane	19.8	20.0	99	75 - 125
1,2-Dichlorobenzene	20.5	20.0	102	75 - 125
1,2-Dichloroethane	21.1	20.0	106	75 - 125
1,2-Dichloropropane	20.6	20.0	103	75 - 125
1,3,5-Trimethylbenzene	20.8	20.0	104	75 - 125
1,3-Dichlorobenzene	20.3	20.0	101	75 - 125
1,3-Dichloropropane	20.1	20.0	100	75 - 125
1,4-Dichlorobenzene	20.0	20.0	100	75 - 125
2,2-Dichloropropane	24.3	20.0	122	75 - 125
2-Butanone (MEK)	18.2	20.0	91	75 - 125
2-Chlorotoluene	19.4	20.0	97	75 - 125
2-Hexanone	18.6	20.0	93	75 - 125
2-Methyl-2-propanol	416	400	104	75 - 125
4-Chlorotoluene	20.0	20.0	100	75 - 125
4-Isopropyltoluene	19.9	20.0	100	75 - 125
4-Methyl-2-pentanone	19.4	20.0	97	75 - 125
Acetone	23.1	20.0	115	75 - 125
Benzene	20.5	20.0	102	75 - 125
Bromobenzene	21.0	20.0	105	75 - 125
Bromochloromethane	21.9	20.0	109	75 - 125
Bromodichloromethane	21.7	20.0	108	75 - 125
Bromoform	21.9	20.0	109	75 - 125
Bromomethane	24.0	20.0	120	75 - 125
Carbon Tetrachloride	23.7	20.0	119	75 - 125

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water

Service Request: R0905636
Date Analyzed: 10/13/09

**Lab Control Sample Summary
 Volatile Organic Compounds by GC/MS**

Analytical Method: 8260B

Units: µg/L
Basis: NA

Analysis Lot: 174548

Analyte Name	Lab Control Sample RQ0909884-02			% Rec Limits
	Result	Expected	% Rec	
Chlorobenzene	21.2	20.0	106	75 - 125
Chloroethane	22.4	20.0	112	75 - 125
Chloroform	21.4	20.0	107	75 - 125
Chloromethane	22.1	20.0	110	75 - 125
Dibromochloromethane	22.1	20.0	111	75 - 125
Dibromomethane	19.9	20.0	99	75 - 125
Dichlorodifluoromethane (CFC 12)	19.2	20.0	96	75 - 125
Dichloromethane	15.7	20.0	79	75 - 125
Diisopropyl Ether	21.3	20.0	107	75 - 125
Ethyl tert-Butyl Ether	21.9	20.0	109	75 - 125
Ethylbenzene	20.8	20.0	104	75 - 125
Hexachlorobutadiene	17.4	20.0	87	75 - 125
Isopropylbenzene (Cumene)	21.4	20.0	107	75 - 125
Methyl tert-Butyl Ether	20.5	20.0	103	75 - 125
Naphthalene	18.3	20.0	91	75 - 125
Styrene	21.2	20.0	106	75 - 125
Tetrachloroethene (PCE)	21.9	20.0	110	75 - 125
Toluene	21.4	20.0	107	75 - 125
Trichloroethene (TCE)	21.1	20.0	105	75 - 125
Trichlorofluoromethane (CFC 11)	24.3	20.0	121	75 - 125
Vinyl Chloride	23.6	20.0	118	75 - 125
cis-1,2-Dichloroethene	21.2	20.0	106	75 - 125
cis-1,3-Dichloropropene	21.6	20.0	108	75 - 125
m,p-Xylenes	43.5	40.0	109	75 - 125
n-Butylbenzene	18.7	20.0	94	75 - 125
n-Propylbenzene	19.5	20.0	97	75 - 125
o-Xylene	21.4	20.0	107	75 - 125
sec-Butylbenzene	18.9	20.0	95	75 - 125
tert-Amyl Methyl Ether	20.1	20.0	101	75 - 125
tert-Butylbenzene	19.9	20.0	99	75 - 125
trans-1,2-Dichloroethene	21.8	20.0	109	75 - 125
trans-1,3-Dichloropropene	22.7	20.0	113	75 - 125

Comments: _____

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

MBLK-1

Lab Name: CASROCH Contract: Northgate
 Lab Code: 10145 Case No.: R9-5636 SAS No.: _____ SDG No.: PB100209
 Lab File ID: X4884.D Lab Sample ID: RQ0909815-01
 Date Analyzed: 10/12/09 Time Analyzed: 14:10
 GC Column: DB624 ID: 0.2 (mm) Heated Purge: (Y/N) N
 Instrument ID: MS#12

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LCS-1	RQ0909815-02	X4882.D	12:46
02	TB100209-GW1	R0905636-004 1.0	X4897.D	20:51
03	TB100209-GW2	R0905636-005 1.0	X4898.D	21:22
04	TB100709-GW1	R0905636-007 1.0	X4899.D	21:53
05	PB100209-A2	R0905636-001 1.0	X4900.D	22:24

COMMENTS:

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

MBLK-2

Lab Name: CASROCH Contract: Northgate
 Lab Code: 10145 Case No.: R9-5636 SAS No.: _____ SDG No.: PB100209
 Lab File ID: X4912.D Lab Sample ID: RQ0909884-01
 Date Analyzed: 10/13/09 Time Analyzed: 15:03
 GC Column: DB624 ID: 0.2 (mm) Heated Purge: (Y/N) N
 Instrument ID: MS#12

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LCS-2	RQ0909884-02	X4910.D	14:01
02	M-76B	R0905636-002 1.0	X4913.D	15:34
03	M-76009B	R0905636-003 1.0	X4914.D	16:05
04	MC-94B	R0905636-006 1.0	X4915.D	16:36
05	PB100209-A2 MS	RQ0909884-03	X4916.D	17:08
06	PB100209-A2 MD	RQ0909884-04	X4917.D	17:39

COMMENTS:

5A
 VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
 BROMOFLUOROBENZENE (BFB)

Lab Name: CASROCH Contract: Northgate
 Lab Code: 10145 Case No.: R9-5636 SAS No.: _____ SDG No.: PB100209
 Lab File ID: X4226.D BFB Injection Date: 09/15/09
 Instrument ID: MS#12 BFB Injection Time: 14:41
 GC Column: DB624 ID: 0.20 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	32.3
75	30.0 - 60.0% of mass 95	48.2
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.3
173	Less than 2.0% of mass 174	0.3 (0.5)1
174	50.0 - 120.0% of mass 95	61.9
175	5.0 - 9.0% of mass 174	4.2 (6.8)1
176	95.0 - 101.0% of mass 174	59.4 (95.9)1
177	5.0 - 9.0% of mass 176	3.9 (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:

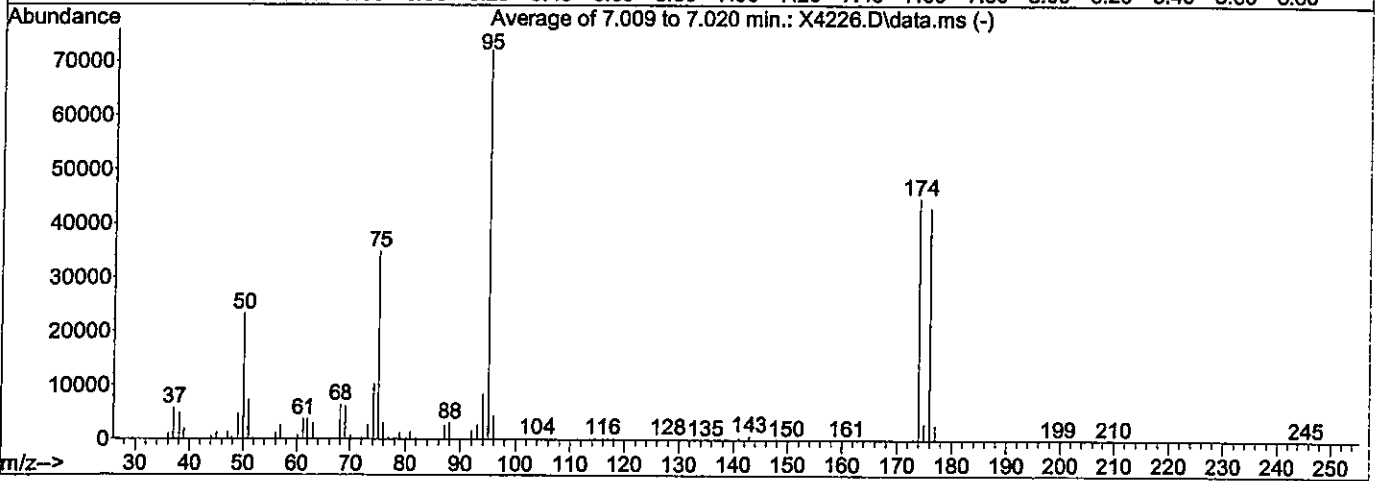
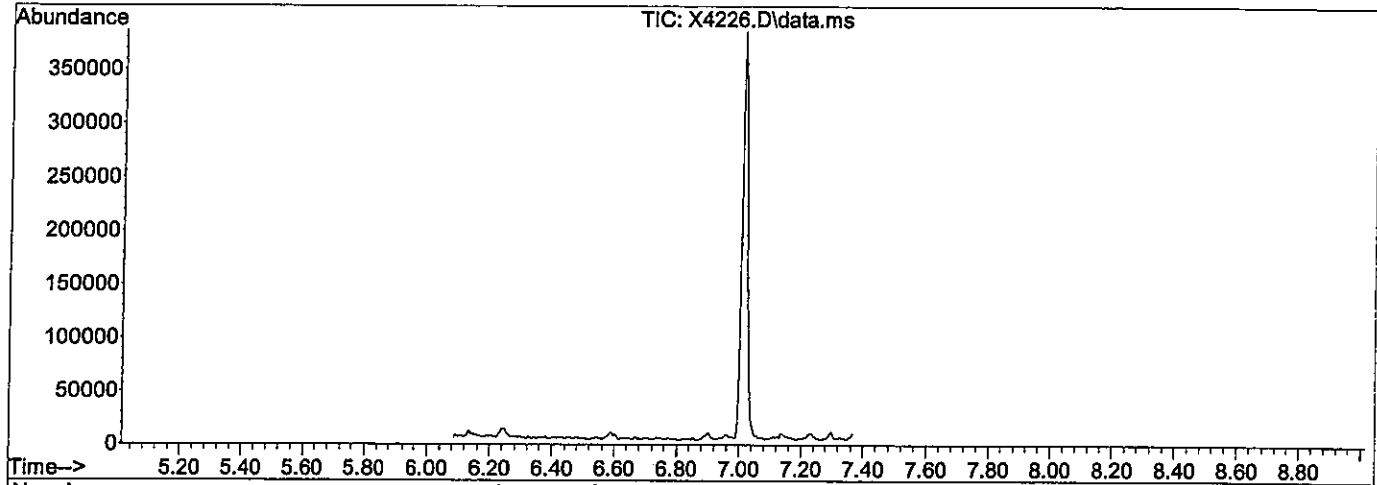
	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	0.5	0.5PPB	X4228.D	09/15/09	15:49
02	1.0	1.0PPB	X4229.D	09/15/09	16:20
03	2.0	2.0PPB	X4230.D	09/15/09	16:51
04	5.0	5.0PPB	X4231.D	09/15/09	17:22
05	20	20PPB	X4232.D	09/15/09	17:53
06	50	50PPB	X4233.D	09/15/09	18:24
07	100	100PPB	X4234.D	09/15/09	18:54
08	200	200PPB	X4235.D	09/15/09	19:25

Data Path : J:\ACQUDATA\MSVOA12\DATA\091509\Snapshot\
 Data File : X4226.D
 Acq On : 15 Sep 2009 2:41 pm
 Operator : K.Ruest
 Sample : TUNE
 Misc :
 ALS Vial : 27 Sample Multiplier: 1

KR 9/15/09

Integration File: CPD4.P

Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Title : MS#12 - 8260B WATERS 10mL Purge
 Last Update : Tue Aug 04 11:25:11 2009



AutoFind: Scans 177, 178, 179; Background Corrected with Scan 171

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	32.3	23320	PASS
75	95	30	60	48.2	34827	PASS
95	95	100	100	100.0	72293	PASS
96	95	5	9	6.3	4539	PASS
173	174	0.00	2	0.5	217	PASS
174	95	50	120	61.9	44773	PASS
175	174	5	9	6.8	3036	PASS
176	174	95	101	95.9	42925	PASS
177	176	5	9	6.6	2819	PASS

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CASROCH Contract: Northgate
 Lab Code: 10145 Case No.: R9-5636 SAS No.: _____ SDG No.: PB100209
 Lab File ID: X4880.D BFB Injection Date: 10/12/09
 Instrument ID: MS#12 BFB Injection Time: 11:35
 GC Column: DB624 ID: 0.20 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	33.4
75	30.0 - 60.0% of mass 95	49.1
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.4 (0.6)1
174	50.0 - 120.0% of mass 95	68.0
175	5.0 - 9.0% of mass 174	4.9 (7.2)1
176	95.0 - 101.0% of mass 174	66.3 (97.5)1
177	5.0 - 9.0% of mass 176	4.5 (6.8)2

1-Value is % mass 174

2-Value is % mass 176

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

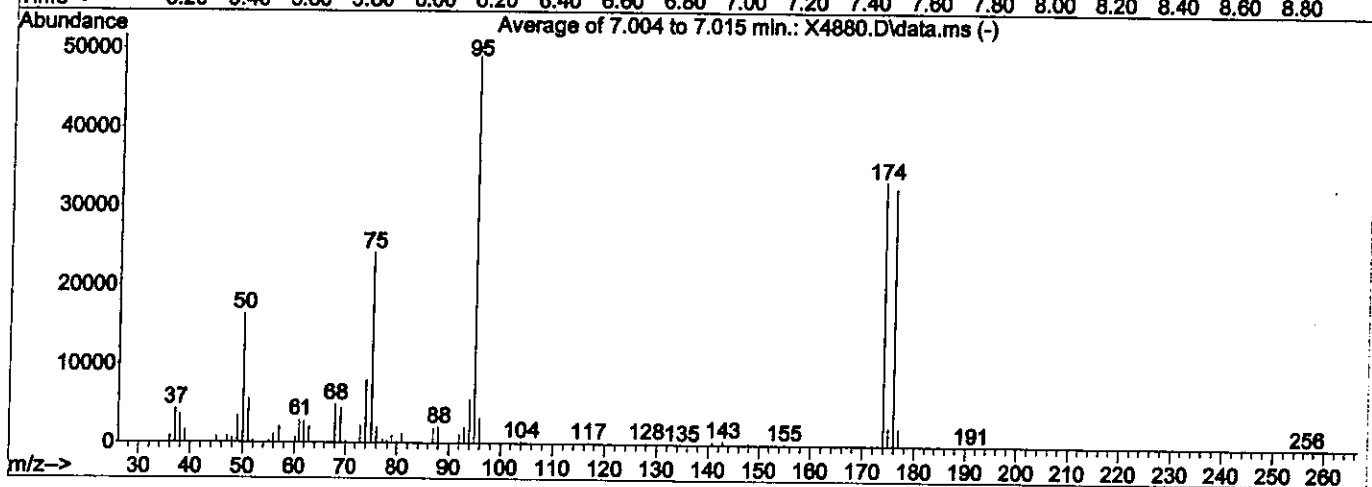
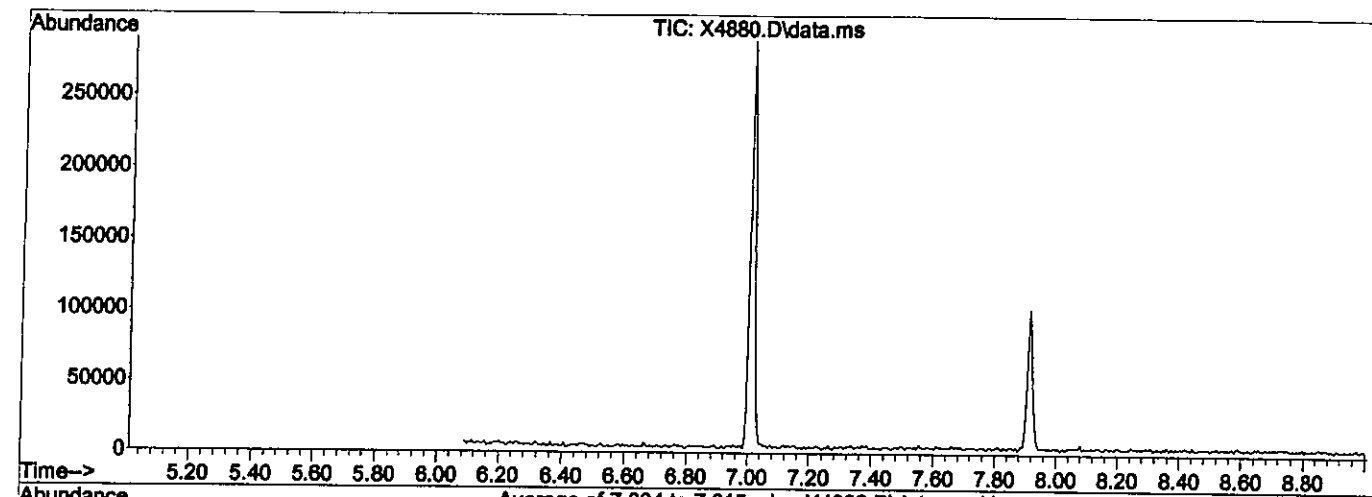
	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD-1	CCV	X4881.D	10/12/09	12:15
02	LCS-1	RQ0909815-02	X4882.D	10/12/09	12:46
03	MBLK-1	RQ0909815-01	X4884.D	10/12/09	14:10
04	TB100209-GW1	R0905636-004 1.0	X4897.D	10/12/09	20:51
05	TB100209-GW2	R0905636-005 1.0	X4898.D	10/12/09	21:22
06	TB100709-GW1	R0905636-007 1.0	X4899.D	10/12/09	21:53
07	PB100209-A2	R0905636-001 1.0	X4900.D	10/12/09	22:24

Data Path : J:\ACQUDATA\msvoa12\Data\101209\
 Data File : X4880.D
 Acq On : 12 Oct 2009 11:35 am
 Operator : K.Ruest
 Sample : TUNE
 Misc :
 ALS Vial : 27 Sample Multiplier: 1

Integration File: CPD4.P

Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Title : MS#12 - 8260B WATERS 10mL Purge
 Last Update : Fri Oct 09 14:32:15 2009

YR 10/12/09



AutoFind: Scans 176, 177, 178; Background Corrected with Scan 171

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	33.4	16411	PASS
75	95	30	60	49.1	24149	PASS
95	95	100	100	100.0	49200	PASS
96	95	5	9	6.6	3258	PASS
173	174	0.00	2	0.6	214	PASS
174	95	50	120	68.0	33448	PASS
175	174	5	9	7.2	2403	PASS
176	174	95	101	97.5	32627	PASS
177	176	5	9	6.8	2222	PASS

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CASROCH Contract: Northgate
 Lab Code: 10145 Case No.: R9-5636 SAS No.: _____ SDG No.: PB100209
 Lab File ID: X4908.D BFB Injection Date: 10/13/09
 Instrument ID: MS#12 BFB Injection Time: 13:01
 GC Column: DB624 ID: 0.20 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	34.0
75	30.0 - 60.0% of mass 95	46.8
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.4
173	Less than 2.0% of mass 174	0.4 (0.6)1
174	50.0 - 120.0% of mass 95	66.5
175	5.0 - 9.0% of mass 174	5.4 (8.2)1
176	95.0 - 101.0% of mass 174	67.1 (100.9)1
177	5.0 - 9.0% of mass 176	4.7 (7.0)2

1-Value is % mass 174

2-Value is % mass 176

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

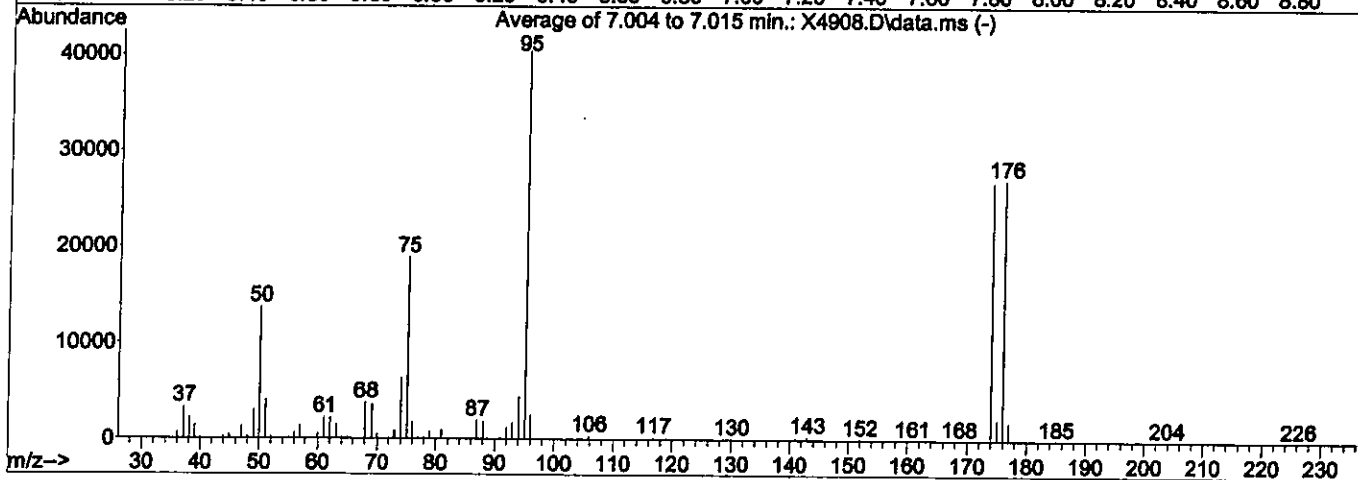
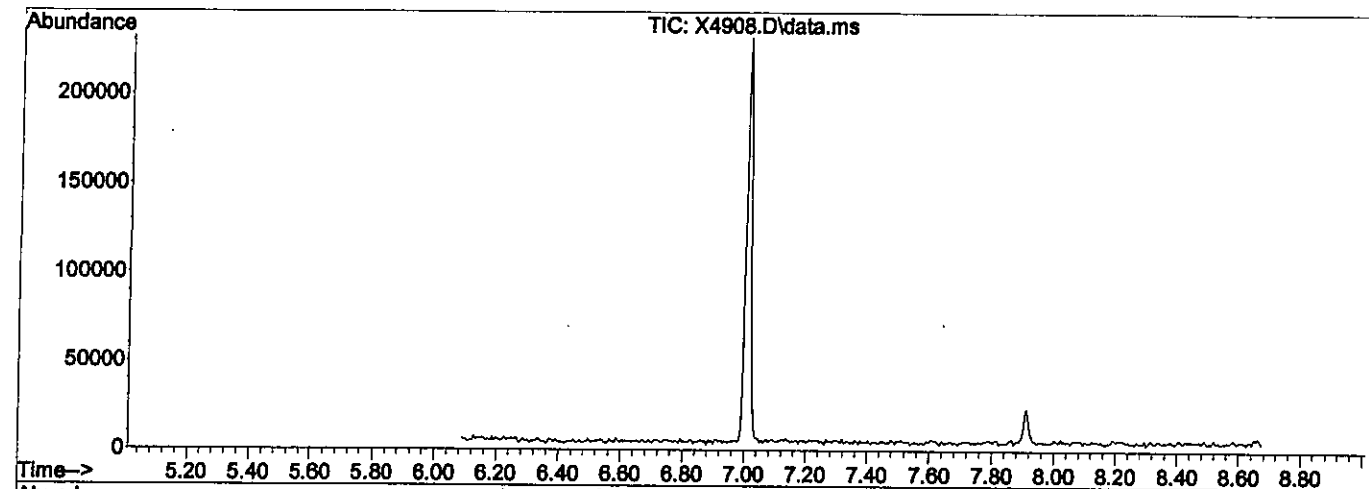
	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD-2	CCV	X4909.D	10/13/09	13:27
02	LCS-2	RQ0909884-02	X4910.D	10/13/09	14:01
03	MBLK-2	RQ0909884-01	X4912.D	10/13/09	15:03
04	M-76B	R0905636-002 1.0	X4913.D	10/13/09	15:34
05	M-76009B	R0905636-003 1.0	X4914.D	10/13/09	16:05
06	MC-94B	R0905636-006 1.0	X4915.D	10/13/09	16:36
07	PB100209-A2 MS	RQ0909884-03	X4916.D	10/13/09	17:08
08	PB100209-A2 MD	RQ0909884-04	X4917.D	10/13/09	17:39

Data Path : J:\ACQUDATA\MSVOA12\DATA\101309\Snapshot\
 Data File : X4908.D
 Acq On : 13 Oct 2009 1:01 pm
 Operator : K.Ruest
 Sample : TUNE
 Misc :
 ALS Vial : 27 Sample Multiplier: 1

Integration File: CPD4.P

Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Title : MS#12 - 8260B WATERS 10mL Purge
 Last Update : Fri Oct 09 14:32:15 2009

YR 10/13/09



AutoFind: Scans 176, 177, 178; Background Corrected with Scan 171

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	34.0	13736	PASS
75	95	30	60	46.8	18907	PASS
95	95	100	100	100.0	40411	PASS
96	95	5	9	6.4	2583	PASS
173	174	0.00	2	0.6	150	PASS
174	95	50	120	66.5	26872	PASS
175	174	5	9	8.2	2200	PASS
176	174	95	101	100.9	27104	PASS
177	176	5	9	7.0	1891	PASS

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CASROCH Contract: Northgate
 Lab Code: 10145 Case No.: R9-5636 SAS No.: _____ SDG No.: PB100209
 Lab File ID (Standard): X4881.D Date Analyzed: 10/12/09
 Instrument ID: MS#12 Time Analyzed: 12:15
 GC Column: DB624 ID: 0.20 (mm) Heated Purge (Y/N): N

		IS1		IS2		IS3	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD		762124	4.53	1259856	5.72	1120617	8.91
UPPER LIMIT		1524248	4.03	2519712	5.22	2241234	8.41
LOWER LIMIT		381062	5.03	629928	6.22	560309	9.41
EPA SAMPLE NO.							
01	LCS-1	748263	4.53	1235255	5.72	1097975	8.90
02	MBLK-1	731387	4.53	1205786	5.72	1068584	8.91
03	TB100209-GW1	687326	4.53	1145993	5.72	1035861	8.91
04	TB100209-GW2	679962	4.53	1145060	5.72	1039104	8.91
05	TB100709-GW1	676122	4.53	1141457	5.72	1034168	8.91
06	PB100209-A2	678115	4.53	1153039	5.72	1037397	8.91

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

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: CASROCH Contract: Northgate
 Lab Code: 10145 Case No.: R9-5636 SAS No.: _____ SDG No.: PB100209
 Lab File ID (Standard): X4881.D Date Analyzed: 10/12/09
 Instrument ID: MS#12 Time Analyzed: 12:15
 GC Column: DB624 ID: 0.20 (mm) Heated Purge (Y/N): N

		IS4					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD		618078	10.90				
UPPER LIMIT		1236156	10.40				
LOWER LIMIT		309039	11.40				
EPA SAMPLE NO.							
01	LCS-1	606522	10.90				
02	MBLK-1	577711	10.90				
03	TB100209-G W	560154	10.90				
04	TB100209-G W L	552218	10.91				
05	TB100709-G W	549357	10.90				
06	PB100209-A2	564385	10.90				

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

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: CASROCH Contract: Northgate
 Lab Code: 10145 Case No.: R9-5636 SAS No.: _____ SDG No.: PB100209
 Lab File ID (Standard): X4909.D Date Analyzed: 10/13/09
 Instrument ID: MS#12 Time Analyzed: 13:27
 GC Column: DB624 ID: 0.20 (mm) Heated Purge (Y/N): N

	IS1		IS2		IS3	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	715176	4.53	1182000	5.72	1068731	8.91
UPPER LIMIT	1430352	4.03	2364000	5.22	2137462	8.41
LOWER LIMIT	357588	5.03	591000	6.22	534366	9.41
EPA SAMPLE NO.						
01	LCS-2	710718	4.53	1193388	5.72	1076460 8.91
02	MBLK-2	680204	4.53	1149603	5.72	1033700 8.90
03	M-76B	687945	4.53	1134422	5.72	1028522 8.91
04	M-76009B	684923	4.53	1132810	5.72	1036532 8.91
05	MC-94B	672177	4.53	1125019	5.72	1052364 8.91
06	PB100209-A2 <i>W</i>	715438	4.53	1190616	5.72	1066484 8.91
07	PB100209-A2 <i>MD</i>	721948	4.53	1192799	5.72	1090675 8.91

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

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: CASROCH Contract: Northgate
 Lab Code: 10145 Case No.: R9-5636 SAS No.: _____ SDG No.: PB100209
 Lab File ID (Standard): X4909.D Date Analyzed: 10/13/09
 Instrument ID: MS#12 Time Analyzed: 13:27
 GC Column: DB624 ID: 0.20 (mm) Heated Purge (Y/N): N

		IS4					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD		593155	10.90				
UPPER LIMIT		1186310	10.40				
LOWER LIMIT		296578	11.40				
EPA SAMPLE NO.							
01	LCS-2	595259	10.90				
02	MBLK-2	566089	10.90				
03	M-76B	564245	10.90				
04	M-76009B	568252	10.90				
05	MC-94B	566590	10.90				
06	PB100209-A2 <i>ms</i>	589195	10.90				
07	PB100209-A2 <i>MD</i>	604295	10.90				

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

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

VOLATILE ORGANICS

SAMPLE DATA

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: PB100209-A2
Lab Code: R0905636-001

Service Request: R0905636
Date Collected: 10/ 2/09 1111
Date Received: 10/ 3/09

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis	
								Lot	Lot Note
1,1,1,2-Tetrachloroethane	0.18	U	1.0	0.18	1	NA	10/12/09 22:24	174383	
1,1,1-Trichloroethane (TCA)	0.32	U	1.0	0.32	1	NA	10/12/09 22:24	174383	
1,1,2,2-Tetrachloroethane	0.090	U	1.0	0.090	1	NA	10/12/09 22:24	174383	
1,1,2-Trichloroethane	0.20	U	1.0	0.20	1	NA	10/12/09 22:24	174383	
1,1-Dichloroethane (1,1-DCA)	0.14	U	1.0	0.14	1	NA	10/12/09 22:24	174383	
1,1-Dichloroethene (1,1-DCE)	0.37	U	1.0	0.37	1	NA	10/12/09 22:24	174383	
1,1-Dichloropropene	0.21	U	2.0	0.21	1	NA	10/12/09 22:24	174383	
1,2,3-Trichlorobenzene	0.25	U	2.0	0.25	1	NA	10/12/09 22:24	174383	
1,2,3-Trichloropropane	0.30	U	2.0	0.30	1	NA	10/12/09 22:24	174383	
1,2,4-Trichlorobenzene	0.19	U	2.0	0.19	1	NA	10/12/09 22:24	174383	
1,2,4-Trimethylbenzene	0.36	U	2.0	0.36	1	NA	10/12/09 22:24	174383	
1,2-Dibromo-3-chloropropane (DBCP)	0.43	U	5.0	0.43	1	NA	10/12/09 22:24	174383	
1,2-Dibromoethane	0.18	U	1.0	0.18	1	NA	10/12/09 22:24	174383	
1,2-Dichlorobenzene	0.40	U	2.0	0.40	1	NA	10/12/09 22:24	174383	
1,2-Dichloroethane	0.14	U	1.0	0.14	1	NA	10/12/09 22:24	174383	
1,2-Dichloropropane	0.15	U	1.0	0.15	1	NA	10/12/09 22:24	174383	
1,3,5-Trimethylbenzene	0.36	U	2.0	0.36	1	NA	10/12/09 22:24	174383	
1,3-Dichlorobenzene	0.36	U	2.0	0.36	1	NA	10/12/09 22:24	174383	
1,3-Dichloropropane	0.12	U	2.0	0.12	1	NA	10/12/09 22:24	174383	
1,4-Dichlorobenzene	0.34	U	2.0	0.34	1	NA	10/12/09 22:24	174383	
2,2-Dichloropropane	0.20	U	2.0	0.20	1	NA	10/12/09 22:24	174383	
2-Butanone (MEK)	1.0	U	10	1.0	1	NA	10/12/09 22:24	174383	
2-Chlorotoluene	0.38	U	5.0	0.38	1	NA	10/12/09 22:24	174383	
2-Hexanone	0.40	U	10	0.40	1	NA	10/12/09 22:24	174383	
2-Methyl-2-propanol	3.0	U	100	3.0	1	NA	10/12/09 22:24	174383	
4-Chlorotoluene	0.37	U	5.0	0.37	1	NA	10/12/09 22:24	174383	
4-Isopropyltoluene	0.22	U	2.0	0.22	1	NA	10/12/09 22:24	174383	
4-Methyl-2-pentanone	0.34	U	10	0.34	1	NA	10/12/09 22:24	174383	
Acetone	10	J	20	1.6	1	NA	10/12/09 22:24	174383	
Benzene	0.18	U	1.0	0.18	1	NA	10/12/09 22:24	174383	
Bromobenzene	0.33	U	2.0	0.33	1	NA	10/12/09 22:24	174383	
Bromochloromethane	0.18	U	2.0	0.18	1	NA	10/12/09 22:24	174383	
Bromodichloromethane	0.17	U	1.0	0.17	1	NA	10/12/09 22:24	174383	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: PB100209-A2
Lab Code: R0905636-001

Service Request: R0905636
Date Collected: 10/ 2/09 1111
Date Received: 10/ 3/09
Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Bromoform	0.20	U	1.0	0.20	1	NA	10/12/09 22:24		174383	
Bromomethane	0.40	U	2.0	0.40	1	NA	10/12/09 22:24		174383	
Carbon Tetrachloride	0.36	U	1.0	0.36	1	NA	10/12/09 22:24		174383	
Chlorobenzene	0.26	U	1.0	0.26	1	NA	10/12/09 22:24		174383	
Chloroethane	0.21	U	2.0	0.21	1	NA	10/12/09 22:24		174383	
Chloroform	0.16	U	1.0	0.16	1	NA	10/12/09 22:24		174383	
Chloromethane	0.18	U	2.0	0.18	1	NA	10/12/09 22:24		174383	
Dibromochloromethane	0.11	U	1.0	0.11	1	NA	10/12/09 22:24		174383	
Dibromomethane	0.18	U	1.0	0.18	1	NA	10/12/09 22:24		174383	
Dichlorodifluoromethane (CFC 12)	0.18	U	1.0	0.18	1	NA	10/12/09 22:24		174383	
Dichloromethane	0.42	J	2.0	0.13	1	NA	10/12/09 22:24		174383	
Diisopropyl Ether	0.090	U	1.0	0.090	1	NA	10/12/09 22:24		174383	
Ethyl tert-Butyl Ether	0.12	U	1.0	0.12	1	NA	10/12/09 22:24		174383	
Ethylbenzene	0.42	U	1.0	0.42	1	NA	10/12/09 22:24		174383	
Hexachlorobutadiene	0.27	U	5.0	0.27	1	NA	10/12/09 22:24		174383	
Isopropylbenzene (Cumene)	0.34	U	2.0	0.34	1	NA	10/12/09 22:24		174383	
Methyl tert-Butyl Ether	0.13	U	1.0	0.13	1	NA	10/12/09 22:24		174383	
Naphthalene	0.31	U	2.0	0.31	1	NA	10/12/09 22:24		174383	
Styrene	0.36	U	1.0	0.36	1	NA	10/12/09 22:24		174383	
Tetrachloroethene (PCE)	0.42	U	1.0	0.42	1	NA	10/12/09 22:24		174383	
Toluene	0.26	J	1.0	0.21	1	NA	10/12/09 22:24		174383	
Trichloroethene (TCE)	0.13	U	1.0	0.13	1	NA	10/12/09 22:24		174383	
Trichlorofluoromethane (CFC 11)	0.15	U	1.0	0.15	1	NA	10/12/09 22:24		174383	
Vinyl Chloride	0.22	U	1.0	0.22	1	NA	10/12/09 22:24		174383	
cis-1,2-Dichloroethene	0.14	U	1.0	0.14	1	NA	10/12/09 22:24		174383	
cis-1,3-Dichloropropene	0.14	U	1.0	0.14	1	NA	10/12/09 22:24		174383	
m,p-Xylenes	0.81	U	2.0	0.81	1	NA	10/12/09 22:24		174383	
n-Butylbenzene	0.20	U	5.0	0.20	1	NA	10/12/09 22:24		174383	
n-Propylbenzene	0.32	U	2.0	0.32	1	NA	10/12/09 22:24		174383	
o-Xylene	0.40	U	1.0	0.40	1	NA	10/12/09 22:24		174383	
sec-Butylbenzene	0.23	U	2.0	0.23	1	NA	10/12/09 22:24		174383	
tert-Amyl Methyl Ether	0.13	U	1.0	0.13	1	NA	10/12/09 22:24		174383	
tert-Butylbenzene	0.28	U	2.0	0.28	1	NA	10/12/09 22:24		174383	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: PB100209-A2
Lab Code: R0905636-001

Service Request: R0905636
Date Collected: 10/ 2/09 1111
Date Received: 10/ 3/09
Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis	
								Lot	Lot Note
trans-1,2-Dichloroethene	0.16	U	1.0	0.16	1	NA	10/12/09 22:24	174383	
trans-1,3-Dichloropropene	0.17	U	1.0	0.17	1	NA	10/12/09 22:24	174383	

Surrogate Name	%Rec	Control Limits	Date		Q	Note
			Analyzed			
4-Bromofluorobenzene	104	70-130	10/12/09	22:24		
Dibromofluoromethane	108	70-130	10/12/09	22:24		
Toluene-d8	105	70-130	10/12/09	22:24		

Comments: _____

Sample : R0905636-001|1.0 TB
 Data File: J:\ACQUDATA\MSVOA12\DATA\101209\X4900.D
 Misc : NORTH 4060 T4

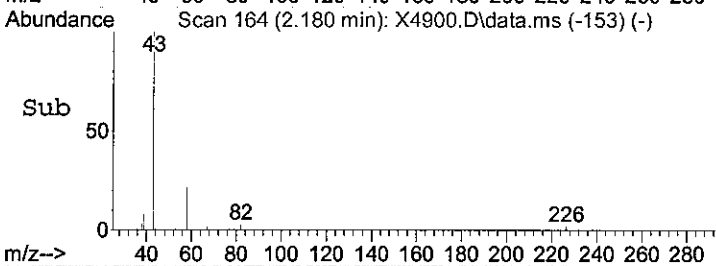
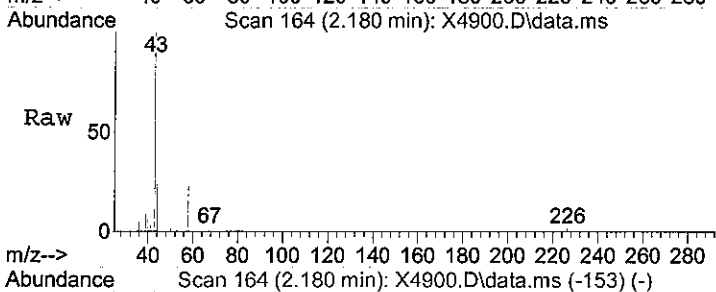
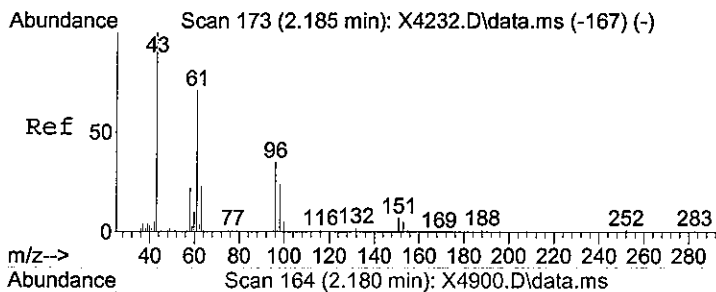
Acq On : 12 Oct 2009 10:24 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Oct 12 22:40:24 2009
 QLast Update : Fri Oct 09 14:32:15 2009
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Pentafluorobenzene	4.534	168	678115	50.00	ug/L	0.00	
44) 1,4-Difluorobenzene	5.716	114	1153039	50.00	ug/L	0.00	
71) d5-Chlorobenzene	8.911	117	1037397	50.00	ug/L	0.00	
84) 1,4-Dichlorobenzene-d4	10.904	152	564385	50.00	ug/L	0.00	
System Monitoring Compounds							
46) surr4,Dibrflmethane	4.436	113	341246	53.98	ug/L	0.00	
Spiked Amount	50.000	Range 89 - 119	Recovery =	107.96%			
49) surr1,1,2-dichloroetha...	4.979	65	505162	53.45	ug/L	0.00	
Spiked Amount	50.000	Range 80 - 120	Recovery =	106.90%			
65) SURR3,Toluene-d8	7.509	98	1409620	52.57	ug/L	0.00	
Spiked Amount	50.000	Range 87 - 121	Recovery =	105.14%			
70) SURR2,BFB	9.941	95	572241	52.13	ug/L	0.00	
Spiked Amount	50.000	Range 85 - 122	Recovery =	104.26%			
Target Compounds							
							Qvalue
12) Freon 123	1.998	83	31153	4.37	ug/L	#	27
16) Acetone	2.180	43	22865	10.35	ug/L	#	97
17) 2-Propanol	2.309	45	469	1.01	ug/L	#	1
20) Acetonitrile	2.339	40	1307	2.87	ug/L	#	6
23) Methylene Chloride	2.516	84	3282	0.42	ug/L	#	71
66) Toluene	7.576	91	8246	0.26	ug/L	#	95
87) Cyclohexanone	9.941	55	2428	4.22	ug/L	#	8

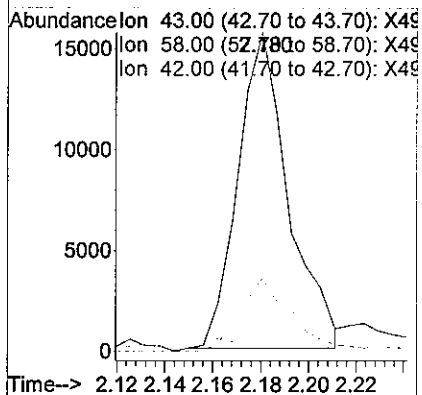
YR
 10/16/09

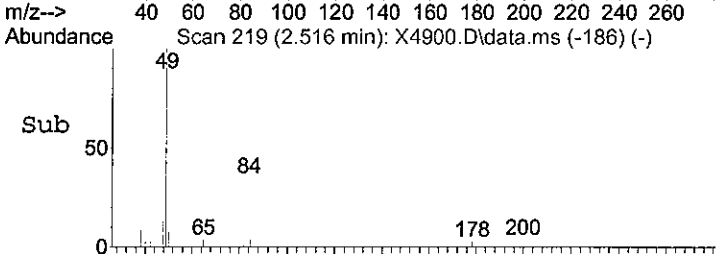
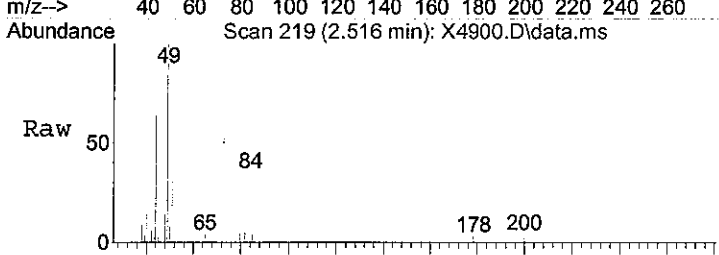
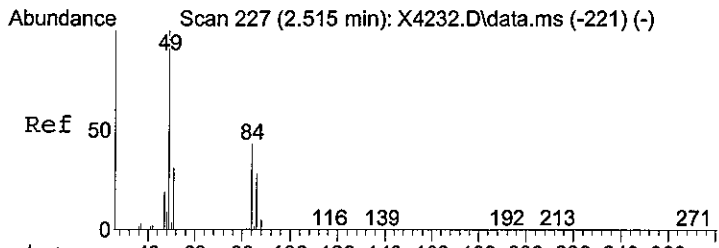
(#) = qualifier out of range (m) = manual integration (+) = signals summed



#16
 Acetone
 Concen: 10.35 ug/L
 RT: 2.180 min Scan# 164
 Delta R.T. -0.005 min
 Lab File: X4900.D
 Acq: 12 Oct 2009 10:24 pm

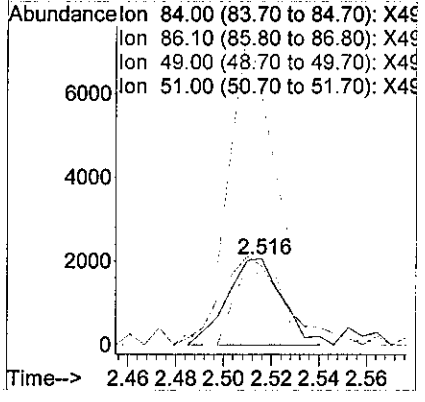
Tgt Ion	Ratio	Lower	Upper
43	100		
58	22.9	0.0	51.9
42	9.0	0.0	36.4

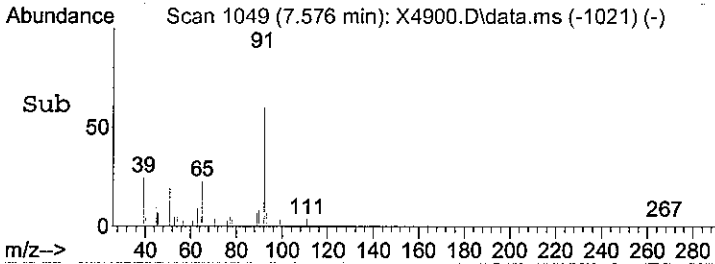
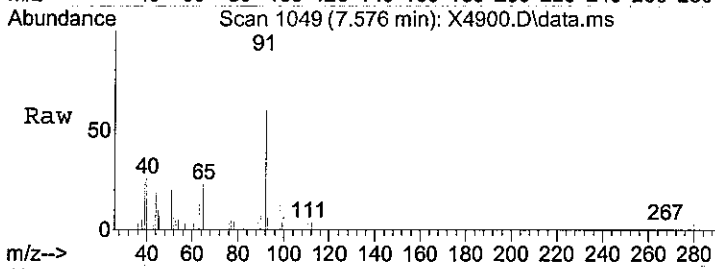
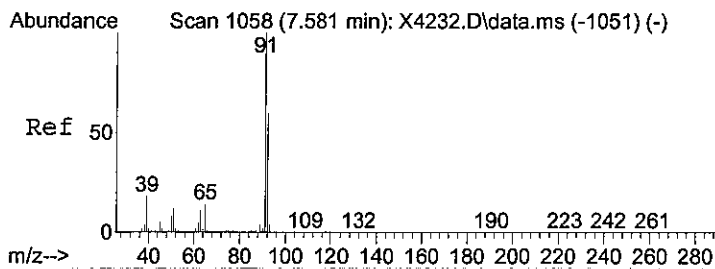




#23
 Methylene Chloride
 Concen: 0.42 ug/L
 RT: 2.516 min Scan# 219
 Delta R.T. 0.001 min
 Lab File: X4900.D
 Acq: 12 Oct 2009 10:24 pm

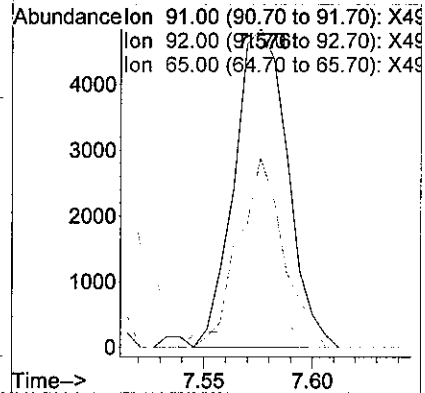
Tgt Ion	Ratio	Lower	Upper
84	100		
86	79.6	51.0	76.4#
49	286.7	184.6	276.8#
51	91.1	57.6	86.4#





#66
 Toluene
 Concen: 0.26 ug/L
 RT: 7.576 min Scan# 1049
 Delta R.T. -0.004 min
 Lab File: X4900.D
 Acq: 12 Oct 2009 10:24 pm

Tgt Ion	Ratio	Lower	Upper
91	100		
92	59.5	48.1	72.1
65	22.7	11.3	16.9#



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: M-76B
Lab Code: R0905636-002

Service Request: R0905636
Date Collected: 10/ 2/09 1155
Date Received: 10/ 3/09

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis	
								Lot	Lot Note
1,1,1,2-Tetrachloroethane	0.18	U	1.0	0.18	1	NA	10/13/09 15:34	174548	
1,1,1-Trichloroethane (TCA)	0.32	U	1.0	0.32	1	NA	10/13/09 15:34	174548	
1,1,2,2-Tetrachloroethane	0.090	U	1.0	0.090	1	NA	10/13/09 15:34	174548	
1,1,2-Trichloroethane	0.20	U	1.0	0.20	1	NA	10/13/09 15:34	174548	
1,1-Dichloroethane (1,1-DCA)	0.14	U	1.0	0.14	1	NA	10/13/09 15:34	174548	
1,1-Dichloroethene (1,1-DCE)	0.45	J	1.0	0.37	1	NA	10/13/09 15:34	174548	
1,1-Dichloropropene	0.21	U	2.0	0.21	1	NA	10/13/09 15:34	174548	
1,2,3-Trichlorobenzene	0.25	U	2.0	0.25	1	NA	10/13/09 15:34	174548	
1,2,3-Trichloropropane	0.30	U	2.0	0.30	1	NA	10/13/09 15:34	174548	
1,2,4-Trichlorobenzene	0.19	U	2.0	0.19	1	NA	10/13/09 15:34	174548	
1,2,4-Trimethylbenzene	0.36	U	2.0	0.36	1	NA	10/13/09 15:34	174548	
1,2-Dibromo-3-chloropropane (DBCP)	0.43	U	5.0	0.43	1	NA	10/13/09 15:34	174548	
1,2-Dibromoethane	0.18	U	1.0	0.18	1	NA	10/13/09 15:34	174548	
1,2-Dichlorobenzene	0.40	U	2.0	0.40	1	NA	10/13/09 15:34	174548	
1,2-Dichloroethane	0.14	U	1.0	0.14	1	NA	10/13/09 15:34	174548	
1,2-Dichloropropane	0.15	U	1.0	0.15	1	NA	10/13/09 15:34	174548	
1,3,5-Trimethylbenzene	0.36	U	2.0	0.36	1	NA	10/13/09 15:34	174548	
1,3-Dichlorobenzene	0.36	U	2.0	0.36	1	NA	10/13/09 15:34	174548	
1,3-Dichloropropane	0.12	U	2.0	0.12	1	NA	10/13/09 15:34	174548	
1,4-Dichlorobenzene	0.34	U	2.0	0.34	1	NA	10/13/09 15:34	174548	
2,2-Dichloropropane	0.20	U	2.0	0.20	1	NA	10/13/09 15:34	174548	
2-Butanone (MEK)	1.0	U	10	1.0	1	NA	10/13/09 15:34	174548	
2-Chlorotoluene	0.38	U	5.0	0.38	1	NA	10/13/09 15:34	174548	
2-Hexanone	0.40	U	10	0.40	1	NA	10/13/09 15:34	174548	
2-Methyl-2-propanol	3.0	U	100	3.0	1	NA	10/13/09 15:34	174548	
4-Chlorotoluene	0.37	U	5.0	0.37	1	NA	10/13/09 15:34	174548	
4-Isopropyltoluene	0.22	U	2.0	0.22	1	NA	10/13/09 15:34	174548	
4-Methyl-2-pentanone	0.34	U	10	0.34	1	NA	10/13/09 15:34	174548	
Acetone	6.3	J	20	1.6	1	NA	10/13/09 15:34	174548	
Benzene	0.18	U	1.0	0.18	1	NA	10/13/09 15:34	174548	
Bromobenzene	0.33	U	2.0	0.33	1	NA	10/13/09 15:34	174548	
Bromochloromethane	0.18	U	2.0	0.18	1	NA	10/13/09 15:34	174548	
Bromodichloromethane	0.17	U	1.0	0.17	1	NA	10/13/09 15:34	174548	

Comments:



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
 Project: Tronox LLC Henderson/2027.001
 Sample Matrix: Water
 Sample Name: M-76B
 Lab Code: R0905636-002

Service Request: R0905636
 Date Collected: 10/ 2/09 1155
 Date Received: 10/ 3/09
 Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis	
								Lot	Lot Note
Bromoform	0.20	U	1.0	0.20	1	NA	10/13/09 15:34	174548	
Bromomethane	0.40	U	2.0	0.40	1	NA	10/13/09 15:34	174548	
Carbon Tetrachloride	0.36	U	1.0	0.36	1	NA	10/13/09 15:34	174548	
Chlorobenzene	0.26	U	1.0	0.26	1	NA	10/13/09 15:34	174548	
Chloroethane	0.21	U	2.0	0.21	1	NA	10/13/09 15:34	174548	
Chloroform	120		1.0	0.16	1	NA	10/13/09 15:34	174548	
Chloromethane	0.18	U	2.0	0.18	1	NA	10/13/09 15:34	174548	
Dibromochloromethane	0.11	U	1.0	0.11	1	NA	10/13/09 15:34	174548	
Dibromomethane	0.18	U	1.0	0.18	1	NA	10/13/09 15:34	174548	
Dichlorodifluoromethane (CFC 12)	0.18	U	1.0	0.18	1	NA	10/13/09 15:34	174548	
Dichloromethane	0.13	U	2.0	0.13	1	NA	10/13/09 15:34	174548	
Diisopropyl Ether	0.090	U	1.0	0.090	1	NA	10/13/09 15:34	174548	
Ethyl tert-Butyl Ether	0.12	U	1.0	0.12	1	NA	10/13/09 15:34	174548	
Ethylbenzene	0.42	U	1.0	0.42	1	NA	10/13/09 15:34	174548	
Hexachlorobutadiene	0.27	U	5.0	0.27	1	NA	10/13/09 15:34	174548	
Isopropylbenzene (Cumene)	0.34	U	2.0	0.34	1	NA	10/13/09 15:34	174548	
Methyl tert-Butyl Ether	0.13	U	1.0	0.13	1	NA	10/13/09 15:34	174548	
Naphthalene	0.31	U	2.0	0.31	1	NA	10/13/09 15:34	174548	
Styrene	0.36	U	1.0	0.36	1	NA	10/13/09 15:34	174548	
Tetrachloroethene (PCE)	0.42	U	1.0	0.42	1	NA	10/13/09 15:34	174548	
Toluene	0.21	U	1.0	0.21	1	NA	10/13/09 15:34	174548	
Trichloroethene (TCE)	0.13	U	1.0	0.13	1	NA	10/13/09 15:34	174548	
Trichlorofluoromethane (CFC 11)	0.15	U	1.0	0.15	1	NA	10/13/09 15:34	174548	
Vinyl Chloride	0.22	U	1.0	0.22	1	NA	10/13/09 15:34	174548	
cis-1,2-Dichloroethene	0.14	U	1.0	0.14	1	NA	10/13/09 15:34	174548	
cis-1,3-Dichloropropene	0.14	U	1.0	0.14	1	NA	10/13/09 15:34	174548	
m,p-Xylenes	0.81	U	2.0	0.81	1	NA	10/13/09 15:34	174548	
n-Butylbenzene	0.20	U	5.0	0.20	1	NA	10/13/09 15:34	174548	
n-Propylbenzene	0.32	U	2.0	0.32	1	NA	10/13/09 15:34	174548	
o-Xylene	0.40	U	1.0	0.40	1	NA	10/13/09 15:34	174548	
sec-Butylbenzene	0.23	U	2.0	0.23	1	NA	10/13/09 15:34	174548	
tert-Amyl Methyl Ether	0.13	U	1.0	0.13	1	NA	10/13/09 15:34	174548	
tert-Butylbenzene	0.28	U	2.0	0.28	1	NA	10/13/09 15:34	174548	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: M-76B
Lab Code: R0905636-002

Service Request: R0905636
Date Collected: 10/ 2/09 1155
Date Received: 10/ 3/09
Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
trans-1,2-Dichloroethene	0.16	U	1.0	0.16	1	NA	10/13/09 15:34		174548	
trans-1,3-Dichloropropene	0.17	U	1.0	0.17	1	NA	10/13/09 15:34		174548	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
4-Bromofluorobenzene	106	70-130	10/13/09 15:34		
Dibromofluoromethane	110	70-130	10/13/09 15:34		
Toluene-d8	105	70-130	10/13/09 15:34		

Comments: _____

Sample : R0905636-002|1.0
 Data File: J:\ACQUDATA\MSVOA12\DATA\101309\X4913.D
 Misc : NORTH 4060 T4
 Acq On : 13 Oct 2009 3:34 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Oct 13 15:50:03 2009
 QLast Update : Fri Oct 09 14:32:15 2009
 Response via : Initial Calibration

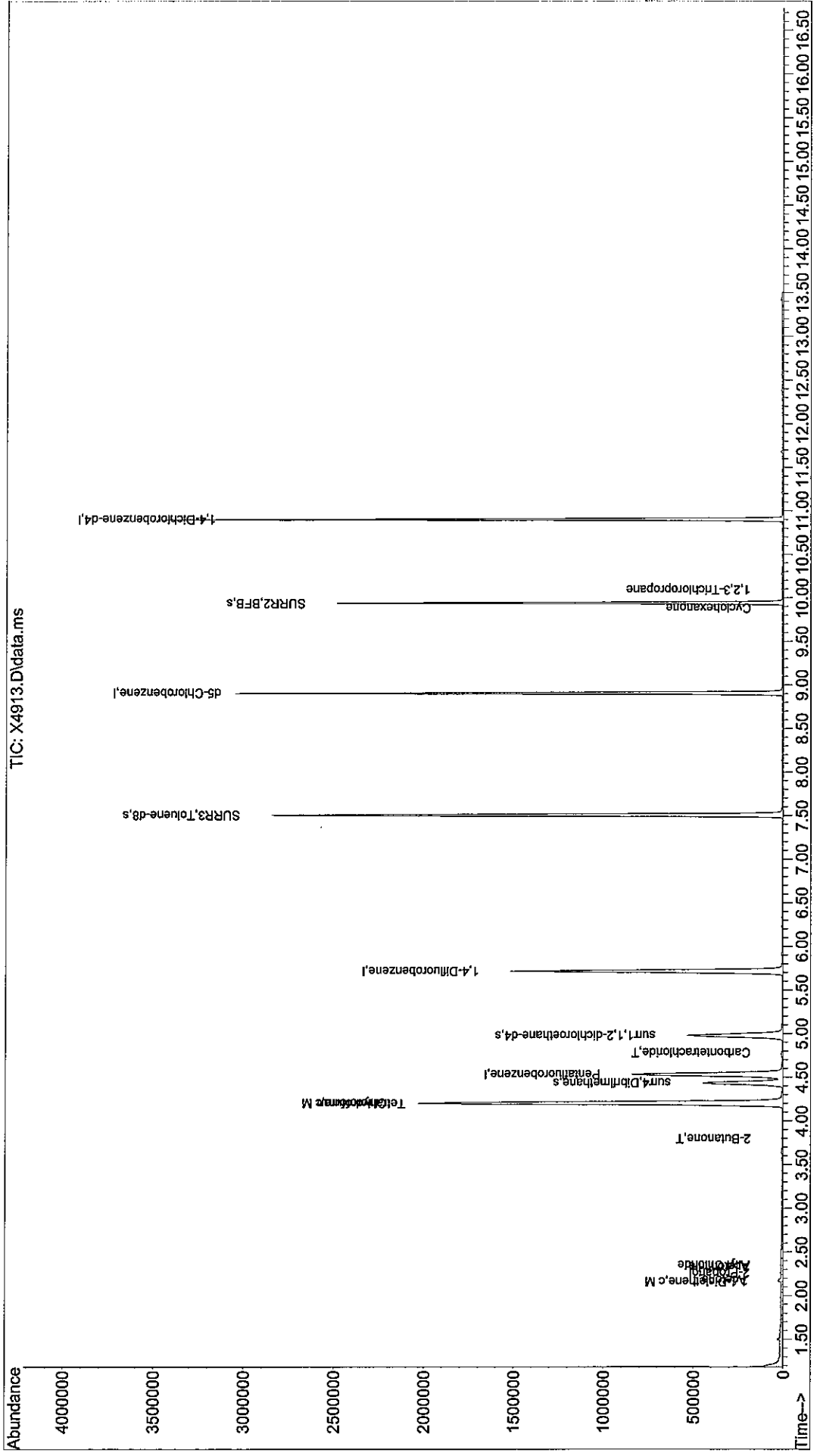
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.534	168	687945	50.00	ug/L	0.00
44) 1,4-Difluorobenzene	5.716	114	1134422	50.00	ug/L	0.00
71) d5-Chlorobenzene	8.911	117	1028522	50.00	ug/L	0.00
84) 1,4-Dichlorobenzene-d4	10.904	152	564245	50.00	ug/L	0.00
System Monitoring Compounds						
46) surr4,Dibrflmethane	4.436	113	343542	55.24	ug/L	0.00
Spiked Amount	50.000	Range	89 - 119	Recovery	=	110.48%
49) surr1,1,2-dichloroetha...	4.979	65	491968	52.91	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	105.82%
65) SURRE3,Toluene-d8	7.509	98	1383983	52.46	ug/L	0.00
Spiked Amount	50.000	Range	87 - 121	Recovery	=	104.92%
70) SURRE2,BFB	9.941	95	570348	52.82	ug/L	0.00
Spiked Amount	50.000	Range	85 - 122	Recovery	=	105.64%
Target Compounds						
14) 1,1-Diclcethene	2.162	96	1909	0.45	ug/L #	53
16) Acetone	2.180	43	14092	6.29	ug/L	97
17) 2-Propanol	2.260	45	2015	4.28	ug/L #	36
20) Acetonitrile	2.333	40	578	1.25	ug/L #	10
21) Allyl Chloride	2.351	76	1162	0.30	ug/L #	1
35) 2-Butanone	3.796	43	990	0.22	ug/L #	57
40) Tetrahydrofuran	4.198	42	7626	2.67	ug/L #	1
41) Chloroform	4.204	83	1629221	123.38	ug/L	98
47) Carbontetrachloride	4.784	121	1699	0.68	ug/L #	3
87) Cyclohexanone	9.886	55	507	0.88	ug/L	98
92) 1,2,3-Trichloropropane	10.094	110	438	0.23	ug/L #	54

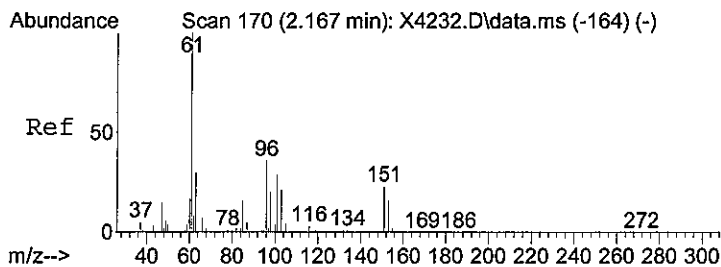
YR
10/19/09

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sample : R0905636-002|1.0
 Data File: J:\ACQDATA\MSVOA12\DATA\101309\X4913.D
 Misc : NORTH 4060 T4
 Acq On : 13 Oct 2009 3:34 pm
 Operator : K.Ruest
 InstName : MSVOA-12

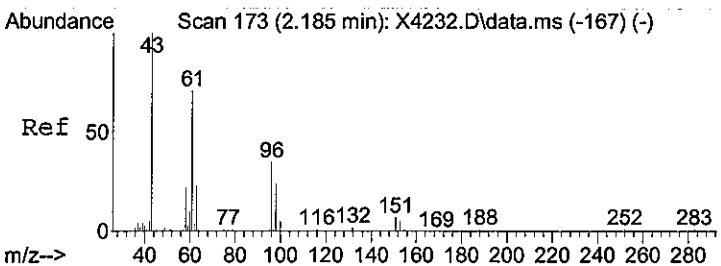
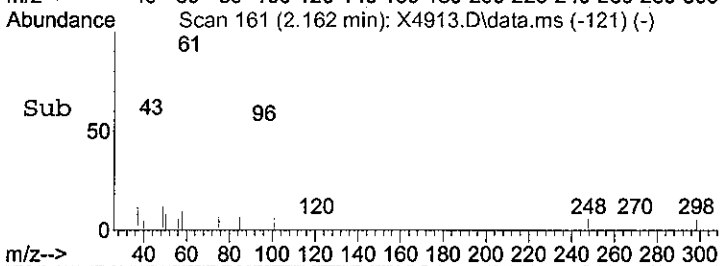
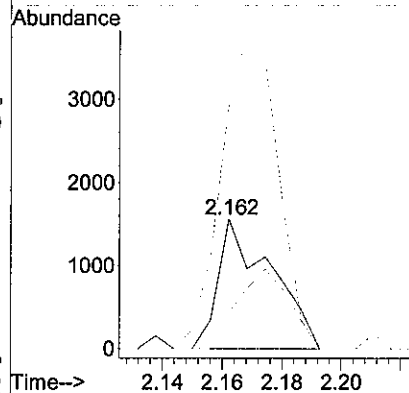
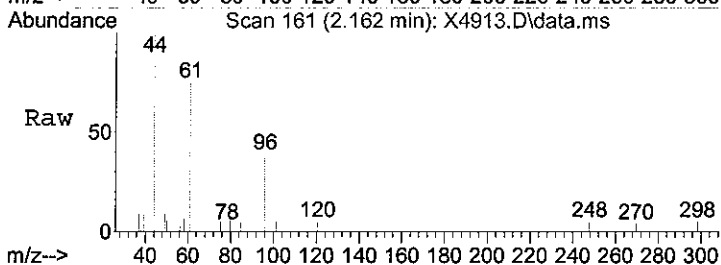
Quant Method : J:\ACQDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Oct 13 15:50:03 2009
 QLast Update : Fri Oct 09 14:32:15 2009
 Response via : Initial Calibration





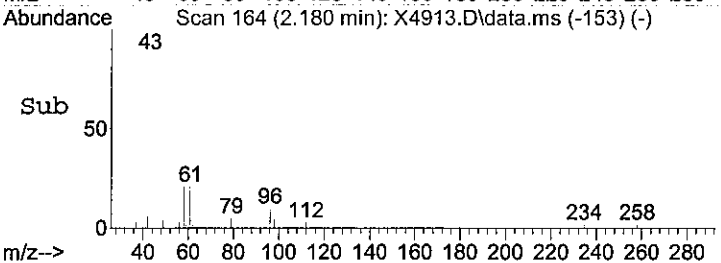
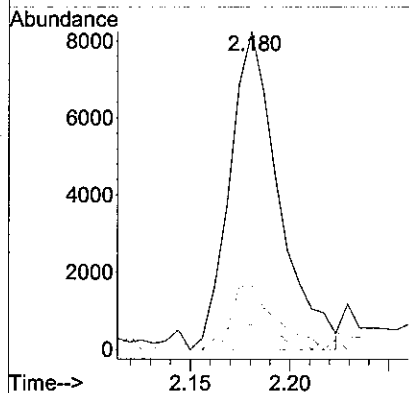
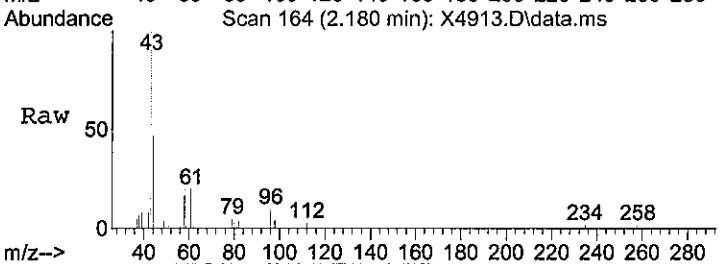
#14
 1,1-Diclcethene
 Concen: 0.45 ug/L
 RT: 2.162 min Scan# 161
 Delta R.T. -0.005 min
 Lab File: X4913.D
 Acq: 13 Oct 2009 3:34 pm

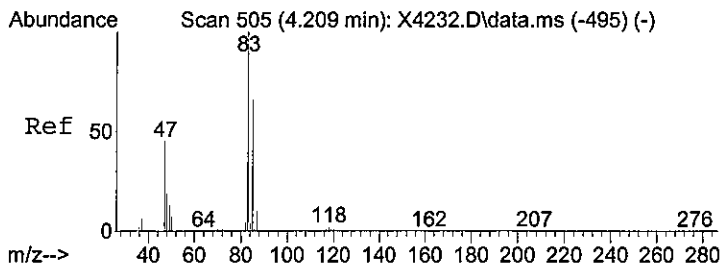
Tgt Ion	Ratio	Lower	Upper
96	100		
98	28.1	26.9	86.9
61	190.4	251.2	311.2#



#16
 Acetone
 Concen: 6.29 ug/L
 RT: 2.180 min Scan# 164
 Delta R.T. -0.005 min
 Lab File: X4913.D
 Acq: 13 Oct 2009 3:34 pm

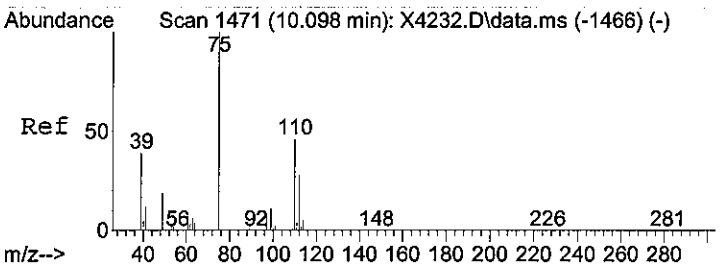
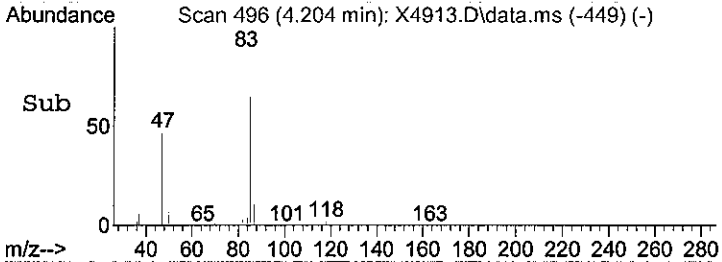
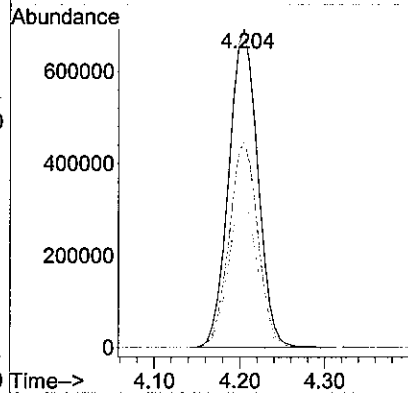
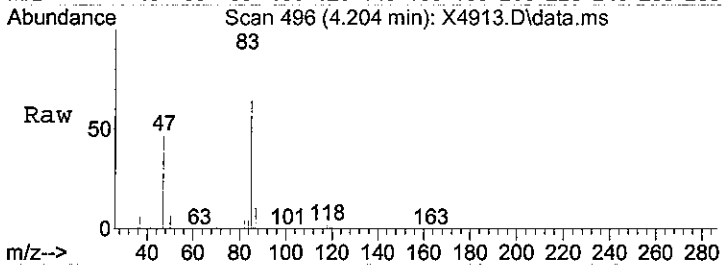
Tgt Ion	Ratio	Lower	Upper
43	100		
58	20.4	0.0	51.9
42	7.7	0.0	36.4





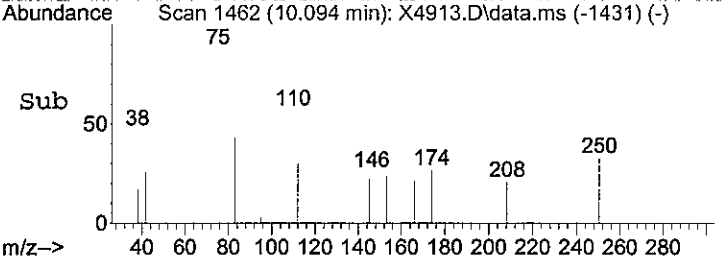
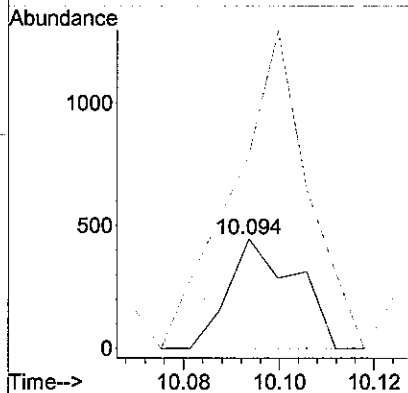
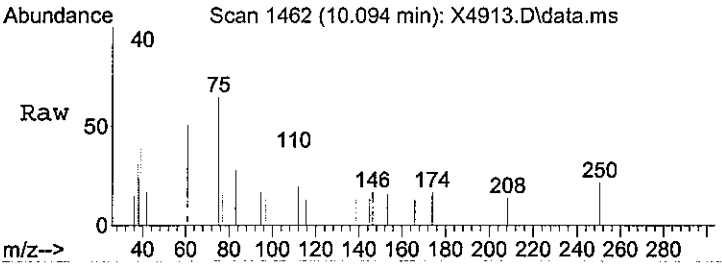
#41
 Chloroform
 Concen: 123.38 ug/L
 RT: 4.204 min Scan# 496
 Delta R.T. 0.001 min
 Lab File: X4913.D
 Acq: 13 Oct 2009 3:34 pm

Tgt Ion:	83	Resp:	1629221
Ion	Ratio	Lower	Upper
83	100		
85	64.7	52.9	79.3
47	46.5	36.6	54.8



#92
 1,2,3-Trichloropropane
 Concen: 0.23 ug/L
 RT: 10.094 min Scan# 1462
 Delta R.T. -0.005 min
 Lab File: X4913.D
 Acq: 13 Oct 2009 3:34 pm

Tgt Ion:	110	Resp:	438
Ion	Ratio	Lower	Upper
110	100		
75	176.9	221.9	332.9#
112	53.8	48.2	72.4



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
 Project: Tronox LLC Henderson/2027.001
 Sample Matrix: Water
 Sample Name: M-76009B
 Lab Code: R0905636-003

Service Request: R0905636
 Date Collected: 10/ 2/09 1155
 Date Received: 10/ 3/09

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	0.18	U	1.0	0.18	1	NA	10/13/09 16:05		174548	
1,1,1-Trichloroethane (TCA)	0.32	U	1.0	0.32	1	NA	10/13/09 16:05		174548	
1,1,2,2-Tetrachloroethane	0.090	U	1.0	0.090	1	NA	10/13/09 16:05		174548	
1,1,2-Trichloroethane	0.20	U	1.0	0.20	1	NA	10/13/09 16:05		174548	
1,1-Dichloroethane (1,1-DCA)	0.14	U	1.0	0.14	1	NA	10/13/09 16:05		174548	
1,1-Dichloroethene (1,1-DCE)	0.44	J	1.0	0.37	1	NA	10/13/09 16:05		174548	
1,1-Dichloropropene	0.21	U	2.0	0.21	1	NA	10/13/09 16:05		174548	
1,2,3-Trichlorobenzene	0.25	U	2.0	0.25	1	NA	10/13/09 16:05		174548	
1,2,3-Trichloropropane	0.30	U	2.0	0.30	1	NA	10/13/09 16:05		174548	
1,2,4-Trichlorobenzene	0.19	U	2.0	0.19	1	NA	10/13/09 16:05		174548	
1,2,4-Trimethylbenzene	0.36	U	2.0	0.36	1	NA	10/13/09 16:05		174548	
1,2-Dibromo-3-chloropropane (DBCP)	0.43	U	5.0	0.43	1	NA	10/13/09 16:05		174548	
1,2-Dibromoethane	0.18	U	1.0	0.18	1	NA	10/13/09 16:05		174548	
1,2-Dichlorobenzene	0.40	U	2.0	0.40	1	NA	10/13/09 16:05		174548	
1,2-Dichloroethane	0.14	U	1.0	0.14	1	NA	10/13/09 16:05		174548	
1,2-Dichloropropane	0.15	U	1.0	0.15	1	NA	10/13/09 16:05		174548	
1,3,5-Trimethylbenzene	0.36	U	2.0	0.36	1	NA	10/13/09 16:05		174548	
1,3-Dichlorobenzene	0.36	U	2.0	0.36	1	NA	10/13/09 16:05		174548	
1,3-Dichloropropane	0.12	U	2.0	0.12	1	NA	10/13/09 16:05		174548	
1,4-Dichlorobenzene	0.34	U	2.0	0.34	1	NA	10/13/09 16:05		174548	
2,2-Dichloropropane	0.20	U	2.0	0.20	1	NA	10/13/09 16:05		174548	
2-Butanone (MEK)	1.0	U	10	1.0	1	NA	10/13/09 16:05		174548	
2-Chlorotoluene	0.38	U	5.0	0.38	1	NA	10/13/09 16:05		174548	
2-Hexanone	0.40	U	10	0.40	1	NA	10/13/09 16:05		174548	
2-Methyl-2-propanol	3.0	U	100	3.0	1	NA	10/13/09 16:05		174548	
4-Chlorotoluene	0.37	U	5.0	0.37	1	NA	10/13/09 16:05		174548	
4-Isopropyltoluene	0.22	U	2.0	0.22	1	NA	10/13/09 16:05		174548	
4-Methyl-2-pentanone	0.34	U	10	0.34	1	NA	10/13/09 16:05		174548	
Acetone	3.9	J	20	1.6	1	NA	10/13/09 16:05		174548	
Benzene	0.18	U	1.0	0.18	1	NA	10/13/09 16:05		174548	
Bromobenzene	0.33	U	2.0	0.33	1	NA	10/13/09 16:05		174548	
Bromochloromethane	0.18	U	2.0	0.18	1	NA	10/13/09 16:05		174548	
Bromodichloromethane	0.17	U	1.0	0.17	1	NA	10/13/09 16:05		174548	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
 Project: Tronox LLC Henderson/2027.001
 Sample Matrix: Water
 Sample Name: M-76009B
 Lab Code: R0905636-003

Service Request: R0905636
 Date Collected: 10/2/09 1155
 Date Received: 10/3/09
 Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis	
								Lot	Lot Note
Bromoform	0.30	J	1.0	0.20	1	NA	10/13/09 16:05	174548	
Bromomethane	0.40	U	2.0	0.40	1	NA	10/13/09 16:05	174548	
Carbon Tetrachloride	0.58	J	1.0	0.36	1	NA	10/13/09 16:05	174548	
Chlorobenzene	0.26	U	1.0	0.26	1	NA	10/13/09 16:05	174548	
Chloroethane	0.21	U	2.0	0.21	1	NA	10/13/09 16:05	174548	
Chloroform	120		1.0	0.16	1	NA	10/13/09 16:05	174548	
Chloromethane	0.18	U	2.0	0.18	1	NA	10/13/09 16:05	174548	
Dibromochloromethane	0.11	U	1.0	0.11	1	NA	10/13/09 16:05	174548	
Dibromomethane	0.18	U	1.0	0.18	1	NA	10/13/09 16:05	174548	
Dichlorodifluoromethane (CFC 12)	0.18	U	1.0	0.18	1	NA	10/13/09 16:05	174548	
Dichloromethane	0.13	U	2.0	0.13	1	NA	10/13/09 16:05	174548	
Diisopropyl Ether	0.090	U	1.0	0.090	1	NA	10/13/09 16:05	174548	
Ethyl tert-Butyl Ether	0.12	U	1.0	0.12	1	NA	10/13/09 16:05	174548	
Ethylbenzene	0.42	U	1.0	0.42	1	NA	10/13/09 16:05	174548	
Hexachlorobutadiene	0.27	U	5.0	0.27	1	NA	10/13/09 16:05	174548	
Isopropylbenzene (Cumene)	0.34	U	2.0	0.34	1	NA	10/13/09 16:05	174548	
Methyl tert-Butyl Ether	0.13	U	1.0	0.13	1	NA	10/13/09 16:05	174548	
Naphthalene	0.31	U	2.0	0.31	1	NA	10/13/09 16:05	174548	
Styrene	0.36	U	1.0	0.36	1	NA	10/13/09 16:05	174548	
Tetrachloroethene (PCE)	0.42	U	1.0	0.42	1	NA	10/13/09 16:05	174548	
Toluene	0.21	U	1.0	0.21	1	NA	10/13/09 16:05	174548	
Trichloroethene (TCE)	0.13	U	1.0	0.13	1	NA	10/13/09 16:05	174548	
Trichlorofluoromethane (CFC 11)	0.15	U	1.0	0.15	1	NA	10/13/09 16:05	174548	
Vinyl Chloride	0.22	U	1.0	0.22	1	NA	10/13/09 16:05	174548	
cis-1,2-Dichloroethene	0.14	U	1.0	0.14	1	NA	10/13/09 16:05	174548	
cis-1,3-Dichloropropene	0.14	U	1.0	0.14	1	NA	10/13/09 16:05	174548	
m,p-Xylenes	0.81	U	2.0	0.81	1	NA	10/13/09 16:05	174548	
n-Butylbenzene	0.20	U	5.0	0.20	1	NA	10/13/09 16:05	174548	
n-Propylbenzene	0.32	U	2.0	0.32	1	NA	10/13/09 16:05	174548	
o-Xylene	0.40	U	1.0	0.40	1	NA	10/13/09 16:05	174548	
sec-Butylbenzene	0.23	U	2.0	0.23	1	NA	10/13/09 16:05	174548	
tert-Amyl Methyl Ether	0.13	U	1.0	0.13	1	NA	10/13/09 16:05	174548	
tert-Butylbenzene	0.28	U	2.0	0.28	1	NA	10/13/09 16:05	174548	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: M-76009B
Lab Code: R0905636-003

Service Request: R0905636
Date Collected: 10/ 2/09 1155
Date Received: 10/ 3/09
Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis		
								Lot	Lot	Note
trans-1,2-Dichloroethene	0.16	U	1.0	0.16	1	NA	10/13/09 16:05		174548	
trans-1,3-Dichloropropene	0.17	U	1.0	0.17	1	NA	10/13/09 16:05		174548	

Surrogate Name	%Rec	Control Limits	Date		Q	Note
			Analyzed			
4-Bromofluorobenzene	106	70-130	10/13/09	16:05		
Dibromofluoromethane	110	70-130	10/13/09	16:05		
Toluene-d8	108	70-130	10/13/09	16:05		

Comments: _____

Sample : R0905636-003|1.0
 Data File: J:\ACQUDATA\MSVOA12\DATA\101309\X4914.D
 Misc : NORTH 4060 T4
 Acq On : 13 Oct 2009 4:05 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Oct 13 16:21:16 2009
 QLast Update : Fri Oct 09 14:32:15 2009
 Response via : Initial Calibration

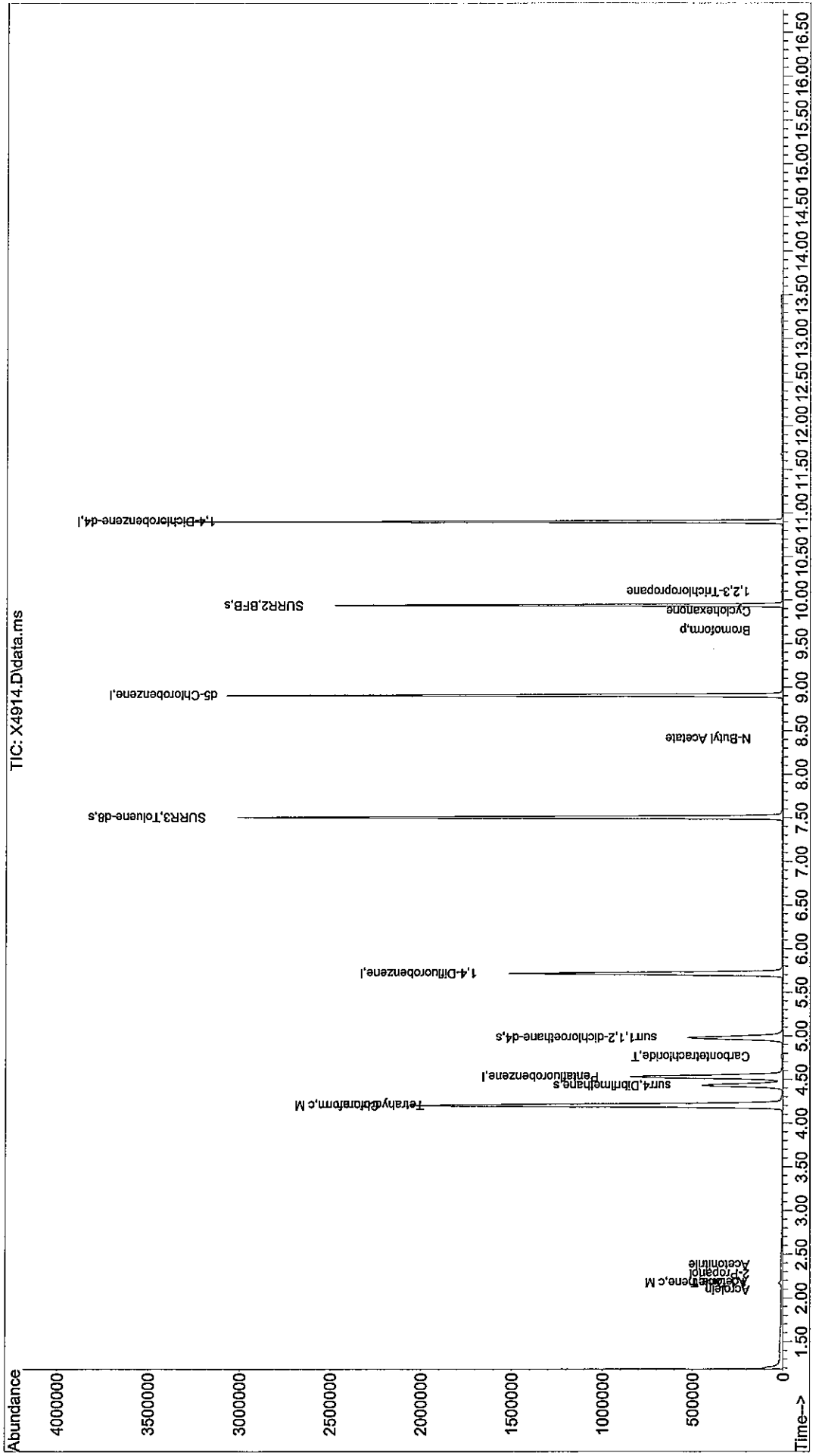
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.534	168	684923	50.00	ug/L	0.00
44) 1,4-Difluorobenzene	5.716	114	1132810	50.00	ug/L	0.00
71) d5-Chlorobenzene	8.911	117	1036532	50.00	ug/L	0.00
84) 1,4-Dichlorobenzene-d4	10.904	152	568252	50.00	ug/L	0.00
System Monitoring Compounds						
46) surr4,Dibrflmethane	4.430	113	341623	55.01	ug/L	-0.01
Spiked Amount	50.000	Range 89 - 119	Recovery	=	110.02%	
49) surr1,1,2-dichloroetha...	4.979	65	498872	53.73	ug/L	0.00
Spiked Amount	50.000	Range 80 - 120	Recovery	=	107.46%	
65) SURR3,Toluene-d8	7.509	98	1421713	53.97	ug/L	0.00
Spiked Amount	50.000	Range 87 - 121	Recovery	=	107.94%	
70) SURR2,BFB	9.941	95	570827	52.93	ug/L	0.00
Spiked Amount	50.000	Range 85 - 122	Recovery	=	105.86%	
Target Compounds						
						Qvalue
13) Acrolein	2.095	56	211	0.22	ug/L	# 13
14) 1,1-Dicethene	2.174	96	1896	0.44	ug/L	# 64
16) Acetone	2.180	43	8723	3.91	ug/L	83
17) 2-Propanol	2.278	45	158	0.34	ug/L	# 1
20) Acetonitrile	2.382	40	608	1.32	ug/L	# 1
40) Tetrahydrofuran	4.211	42	8049	2.83	ug/L	# 1
41) Chloroform	4.204	83	1633799	124.27	ug/L	98
47) Carbontetrachloride	4.765	121	1459	0.58	ug/L	# 48
76) N-Butyl Acetate	8.411	43	361	1.76	ug/L	# 29
85) Bromoform	9.655	173	879	0.30	ug/L	# 80
87) Cyclohexanone	9.874	55	485	0.84	ug/L	# 90
92) 1,2,3-Trichloropropane	10.100	110	441	0.23	ug/L	# 27

KR
 10/19/09

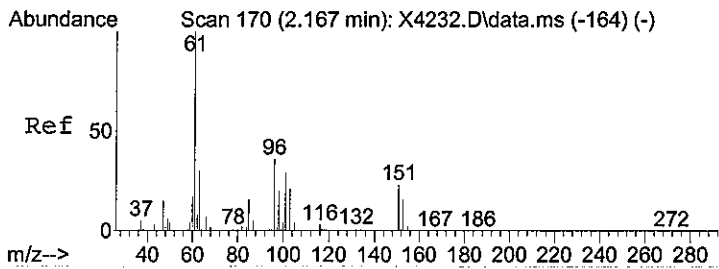
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sample : R0905636-003|1.0
 Data File: J:\ACQDATA\MSVOA12\DATA\101309\X4914.D
 Misc : NORTH 4060 T4
 Acq On : 13 Oct 2009 4:05 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Oct 13 16:21:16 2009
 QLast Update : Fri Oct 09 14:32:15 2009
 Response via : Initial Calibration

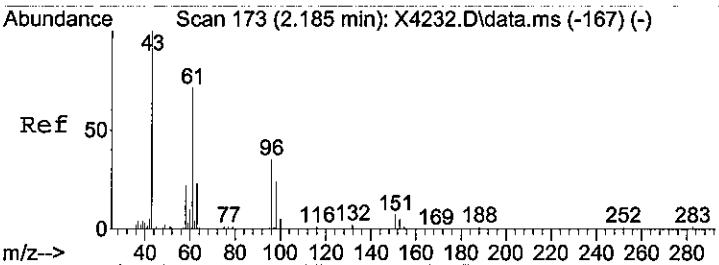
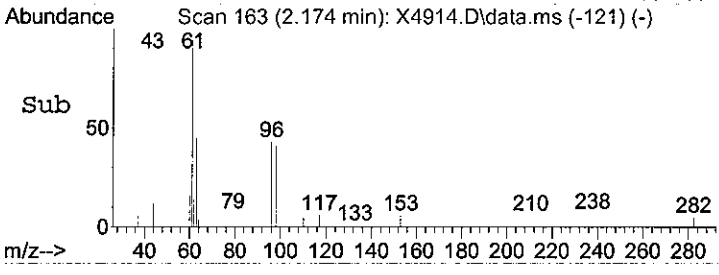
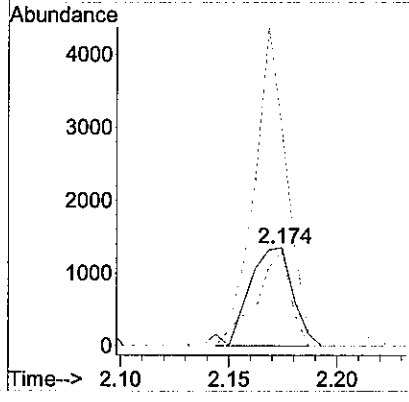
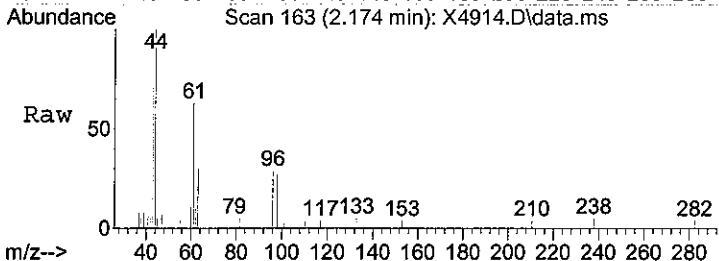


00071



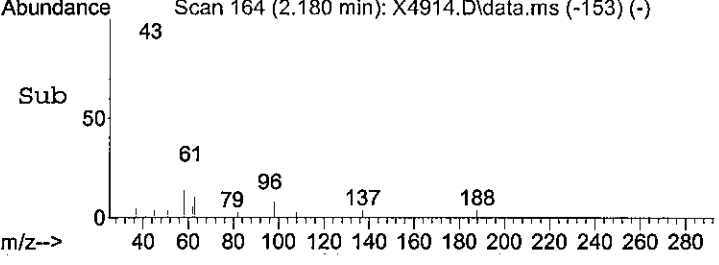
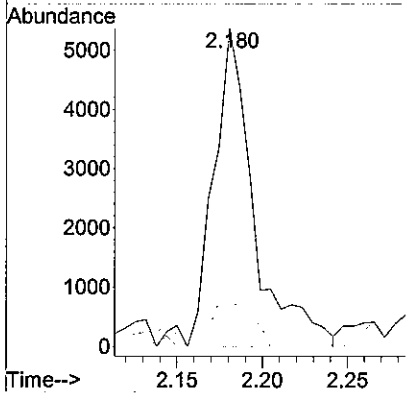
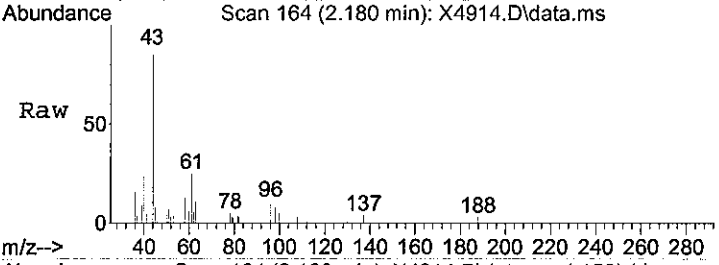
#14
 1,1-Dicylethene
 Concen: 0.44 ug/L
 RT: 2.174 min Scan# 163
 Delta R.T. 0.007 min
 Lab File: X4914.D
 Acq: 13 Oct 2009 4:05 pm

Tgt Ion:	96	Resp:	1896
Ion Ratio	Lower	Upper	
96	100		
98	95.5	26.9	86.9#
61	219.2	251.2	311.2#

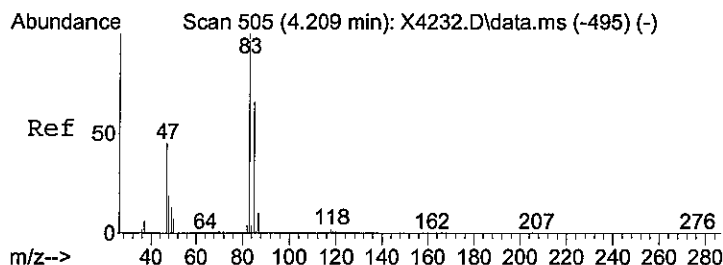


#16
 Acetone
 Concen: 3.91 ug/L
 RT: 2.180 min Scan# 164
 Delta R.T. -0.005 min
 Lab File: X4914.D
 Acq: 13 Oct 2009 4:05 pm

Tgt Ion:	43	Resp:	8723
Ion Ratio	Lower	Upper	
43	100		
58	13.2	0.0	51.9
42	10.1	0.0	36.4

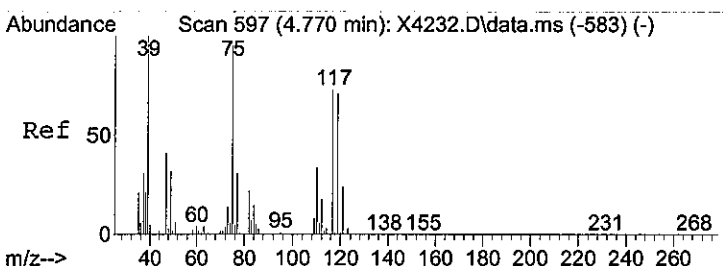
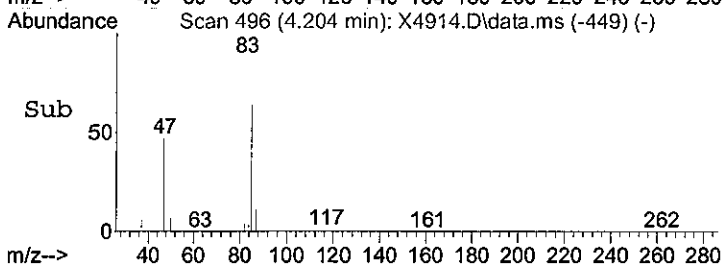
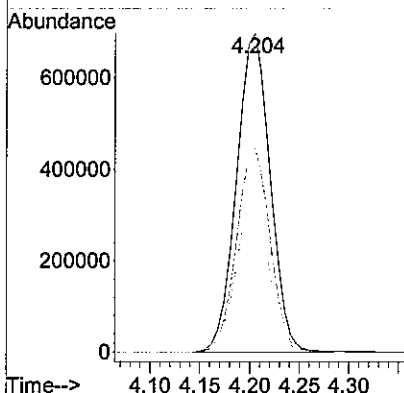
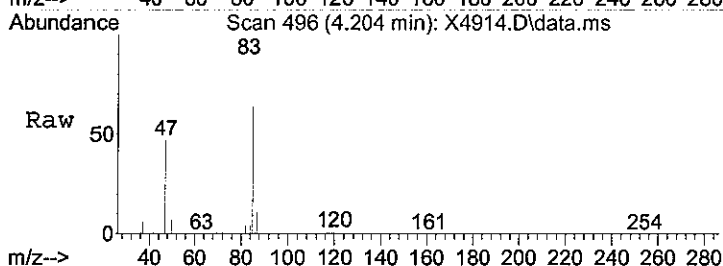


00072



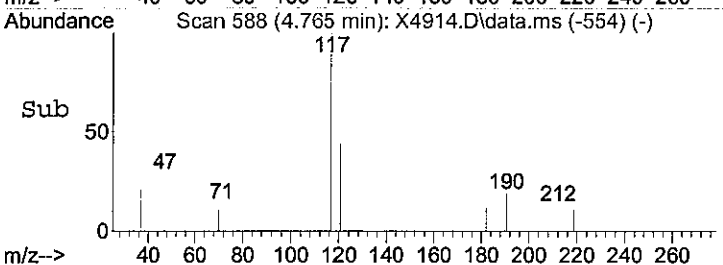
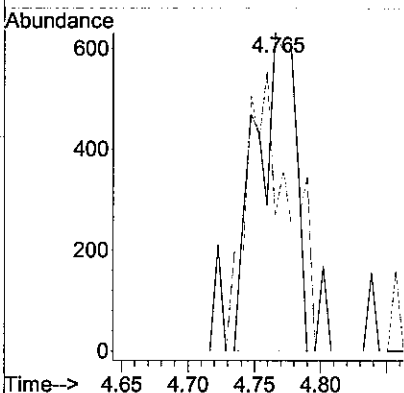
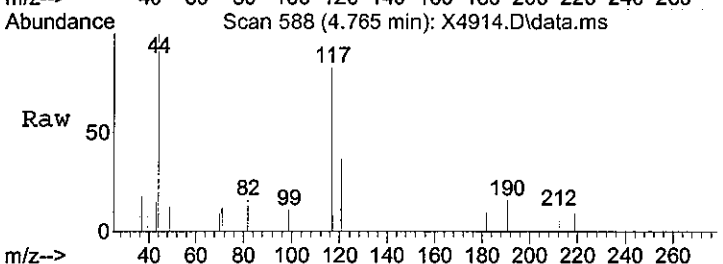
#41
 Chloroform
 Concen: 124.27 ug/L
 RT: 4.204 min Scan# 496
 Delta R.T. 0.001 min
 Lab File: X4914.D
 Acq: 13 Oct 2009 4:05 pm

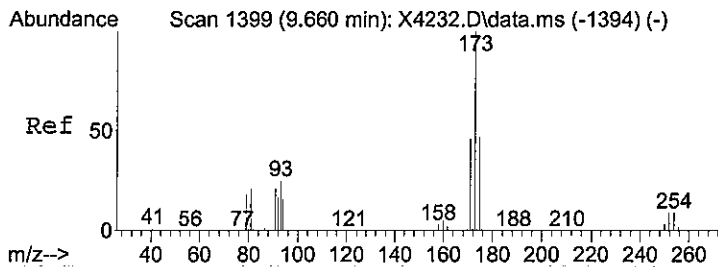
Tgt Ion:	83	Resp:	1633799
Ion	Ratio	Lower	Upper
83	100		
85	64.3	52.9	79.3
47	46.7	36.6	54.8



#47
 Carbontetrachloride
 Concen: 0.58 ug/L
 RT: 4.765 min Scan# 588
 Delta R.T. -0.005 min
 Lab File: X4914.D
 Acq: 13 Oct 2009 4:05 pm

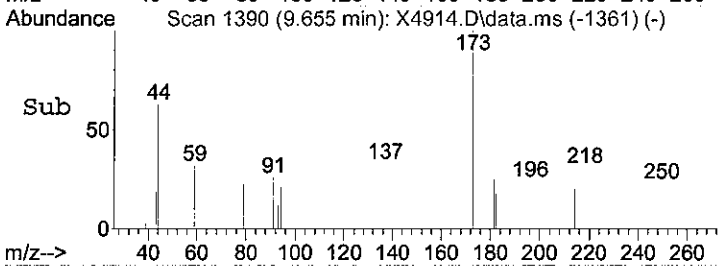
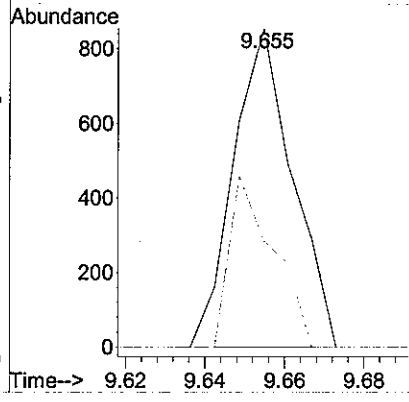
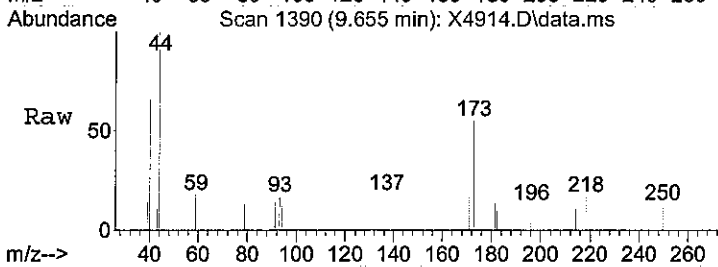
Tgt Ion:	121	Resp:	1459
Ion	Ratio	Lower	Upper
121	100		
82	42.8	74.2	111.2#





#85
 Bromoform
 Concen: 0.30 ug/L
 RT: 9.655 min Scan# 1390
 Delta R.T. -0.011 min
 Lab File: X4914.D
 Acq: 13 Oct 2009 4:05 pm

Tgt Ion	Ratio	Lower	Upper
173	100		
175	33.5	37.5	56.3#



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
 Project: Tronox LLC Henderson/2027.001
 Sample Matrix: Water
 Sample Name: TB100209-GW1
 Lab Code: R0905636-004

Service Request: R0905636
 Date Collected: 10/2/09
 Date Received: 10/3/09
 Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	0.18	U	1.0	0.18	1	NA	10/12/09 20:51		174383	
1,1,1-Trichloroethane (TCA)	0.32	U	1.0	0.32	1	NA	10/12/09 20:51		174383	
1,1,2,2-Tetrachloroethane	0.090	U	1.0	0.090	1	NA	10/12/09 20:51		174383	
1,1,2-Trichloroethane	0.20	U	1.0	0.20	1	NA	10/12/09 20:51		174383	
1,1-Dichloroethane (1,1-DCA)	0.14	U	1.0	0.14	1	NA	10/12/09 20:51		174383	
1,1-Dichloroethene (1,1-DCE)	0.37	U	1.0	0.37	1	NA	10/12/09 20:51		174383	
1,1-Dichloropropene	0.21	U	2.0	0.21	1	NA	10/12/09 20:51		174383	
1,2,3-Trichlorobenzene	0.25	U	2.0	0.25	1	NA	10/12/09 20:51		174383	
1,2,3-Trichloropropane	0.30	U	2.0	0.30	1	NA	10/12/09 20:51		174383	
1,2,4-Trichlorobenzene	0.19	U	2.0	0.19	1	NA	10/12/09 20:51		174383	
1,2,4-Trimethylbenzene	0.36	U	2.0	0.36	1	NA	10/12/09 20:51		174383	
1,2-Dibromo-3-chloropropane (DBCP)	0.43	U	5.0	0.43	1	NA	10/12/09 20:51		174383	
1,2-Dibromoethane	0.18	U	1.0	0.18	1	NA	10/12/09 20:51		174383	
1,2-Dichlorobenzene	0.40	U	2.0	0.40	1	NA	10/12/09 20:51		174383	
1,2-Dichloroethane	0.14	U	1.0	0.14	1	NA	10/12/09 20:51		174383	
1,2-Dichloropropane	0.15	U	1.0	0.15	1	NA	10/12/09 20:51		174383	
1,3,5-Trimethylbenzene	0.36	U	2.0	0.36	1	NA	10/12/09 20:51		174383	
1,3-Dichlorobenzene	0.36	U	2.0	0.36	1	NA	10/12/09 20:51		174383	
1,3-Dichloropropane	0.12	U	2.0	0.12	1	NA	10/12/09 20:51		174383	
1,4-Dichlorobenzene	0.34	U	2.0	0.34	1	NA	10/12/09 20:51		174383	
2,2-Dichloropropane	0.20	U	2.0	0.20	1	NA	10/12/09 20:51		174383	
2-Butanone (MEK)	1.0	U	10	1.0	1	NA	10/12/09 20:51		174383	
2-Chlorotoluene	0.38	U	5.0	0.38	1	NA	10/12/09 20:51		174383	
2-Hexanone	0.40	U	10	0.40	1	NA	10/12/09 20:51		174383	
2-Methyl-2-propanol	3.0	U	100	3.0	1	NA	10/12/09 20:51		174383	
4-Chlorotoluene	0.37	U	5.0	0.37	1	NA	10/12/09 20:51		174383	
4-Isopropyltoluene	0.22	U	2.0	0.22	1	NA	10/12/09 20:51		174383	
4-Methyl-2-pentanone	0.34	U	10	0.34	1	NA	10/12/09 20:51		174383	
Acetone	3.6	J	20	1.6	1	NA	10/12/09 20:51		174383	
Benzene	0.18	U	1.0	0.18	1	NA	10/12/09 20:51		174383	
Bromobenzene	0.33	U	2.0	0.33	1	NA	10/12/09 20:51		174383	
Bromochloromethane	0.18	U	2.0	0.18	1	NA	10/12/09 20:51		174383	
Bromodichloromethane	0.17	U	1.0	0.17	1	NA	10/12/09 20:51		174383	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: TB100209-GW1
Lab Code: R0905636-004

Service Request: R0905636
Date Collected: 10/ 2/09
Date Received: 10/ 3/09
Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis	
								Lot	Lot Note
Bromoform	0.20	U	1.0	0.20	1	NA	10/12/09 20:51	174383	
Bromomethane	0.40	U	2.0	0.40	1	NA	10/12/09 20:51	174383	
Carbon Tetrachloride	0.36	U	1.0	0.36	1	NA	10/12/09 20:51	174383	
Chlorobenzene	0.26	U	1.0	0.26	1	NA	10/12/09 20:51	174383	
Chloroethane	0.21	U	2.0	0.21	1	NA	10/12/09 20:51	174383	
Chloroform	0.16	U	1.0	0.16	1	NA	10/12/09 20:51	174383	
Chloromethane	0.20	J	2.0	0.18	1	NA	10/12/09 20:51	174383	
Dibromochloromethane	0.11	U	1.0	0.11	1	NA	10/12/09 20:51	174383	
Dibromomethane	0.18	U	1.0	0.18	1	NA	10/12/09 20:51	174383	
Dichlorodifluoromethane (CFC 12)	0.18	U	1.0	0.18	1	NA	10/12/09 20:51	174383	
Dichloromethane	0.13	U	2.0	0.13	1	NA	10/12/09 20:51	174383	
Diisopropyl Ether	0.090	U	1.0	0.090	1	NA	10/12/09 20:51	174383	
Ethyl tert-Butyl Ether	0.12	U	1.0	0.12	1	NA	10/12/09 20:51	174383	
Ethylbenzene	0.42	U	1.0	0.42	1	NA	10/12/09 20:51	174383	
Hexachlorobutadiene	0.27	U	5.0	0.27	1	NA	10/12/09 20:51	174383	
Isopropylbenzene (Cumene)	0.34	U	2.0	0.34	1	NA	10/12/09 20:51	174383	
Methyl tert-Butyl Ether	0.13	U	1.0	0.13	1	NA	10/12/09 20:51	174383	
Naphthalene	0.31	U	2.0	0.31	1	NA	10/12/09 20:51	174383	
Styrene	0.36	U	1.0	0.36	1	NA	10/12/09 20:51	174383	
Tetrachloroethene (PCE)	0.42	U	1.0	0.42	1	NA	10/12/09 20:51	174383	
Toluene	0.21	U	1.0	0.21	1	NA	10/12/09 20:51	174383	
Trichloroethene (TCE)	0.13	U	1.0	0.13	1	NA	10/12/09 20:51	174383	
Trichlorofluoromethane (CFC 11)	0.15	U	1.0	0.15	1	NA	10/12/09 20:51	174383	
Vinyl Chloride	0.22	U	1.0	0.22	1	NA	10/12/09 20:51	174383	
cis-1,2-Dichloroethene	0.14	U	1.0	0.14	1	NA	10/12/09 20:51	174383	
cis-1,3-Dichloropropene	0.14	U	1.0	0.14	1	NA	10/12/09 20:51	174383	
m,p-Xylenes	0.81	U	2.0	0.81	1	NA	10/12/09 20:51	174383	
n-Butylbenzene	0.20	U	5.0	0.20	1	NA	10/12/09 20:51	174383	
n-Propylbenzene	0.32	U	2.0	0.32	1	NA	10/12/09 20:51	174383	
o-Xylene	0.40	U	1.0	0.40	1	NA	10/12/09 20:51	174383	
sec-Butylbenzene	0.23	U	2.0	0.23	1	NA	10/12/09 20:51	174383	
tert-Amyl Methyl Ether	0.13	U	1.0	0.13	1	NA	10/12/09 20:51	174383	
tert-Butylbenzene	0.28	U	2.0	0.28	1	NA	10/12/09 20:51	174383	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: TB100209-GW1
Lab Code: R0905636-004

Service Request: R0905636
Date Collected: 10/ 2/09
Date Received: 10/ 3/09
Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
trans-1,2-Dichloroethene	0.16	U	1.0	0.16	1	NA	10/12/09 20:51		174383	
trans-1,3-Dichloropropene	0.17	U	1.0	0.17	1	NA	10/12/09 20:51		174383	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
4-Bromofluorobenzene	103	70-130	10/12/09 20:51		
Dibromofluoromethane	109	70-130	10/12/09 20:51		
Toluene-d8	105	70-130	10/12/09 20:51		

Comments: _____

Sample : R0905636-004|1.0 ^{TB}
 Data File: J:\ACQUDATA\MSVOA12\DATA\101209\X4897.D
 Misc : NORTH 4060 T4

Acq On : 12 Oct 2009 8:51 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Oct 12 21:07:36 2009
 QLast Update : Fri Oct 09 14:32:15 2009
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	

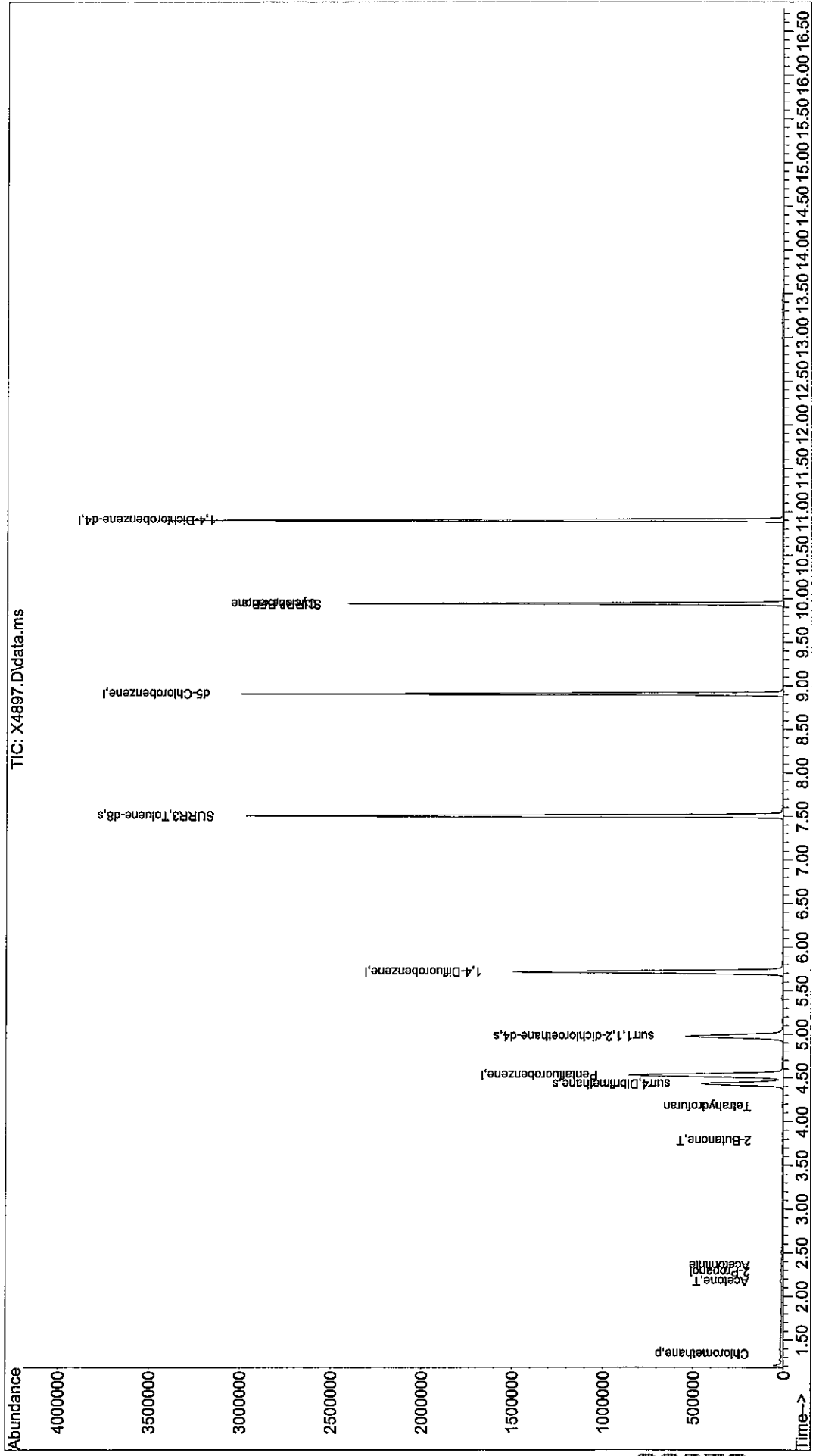
Internal Standards							
1) Pentafluorobenzene	4.534	168	687326	50.00	ug/L	0.00	
44) 1,4-Difluorobenzene	5.716	114	1145993	50.00	ug/L	0.00	
71) d5-Chlorobenzene	8.911	117	1035861	50.00	ug/L	0.00	
84) 1,4-Dichlorobenzene-d4	10.904	152	560154	50.00	ug/L	0.00	
System Monitoring Compounds							
46) surr4,Dibrflmethane	4.430	113	343893	54.74	ug/L	-0.01	
Spiked Amount	50.000	Range	89 - 119	Recovery	=	109.48%	
49) surr1,1,2-dichloroetha...	4.979	65	510490	54.35	ug/L	0.00	
Spiked Amount	50.000	Range	80 - 120	Recovery	=	108.70%	
65) SURR3,Toluene-d8	7.509	98	1402508	52.63	ug/L	0.00	
Spiked Amount	50.000	Range	87 - 121	Recovery	=	105.26%	
70) SURR2,BFB	9.941	95	562732	51.58	ug/L	0.00	
Spiked Amount	50.000	Range	85 - 122	Recovery	=	103.16%	
Target Compounds							
							Qvalue
4) Chloromethane	1.345	50	2989	0.20	ug/L		96
16) Acetone	2.174	43	8009	3.58	ug/L		95
17) 2-Propanol	2.284	45	825	1.75	ug/L #		46
20) Acetonitrile	2.357	40	733	1.59	ug/L #		1
35) 2-Butanone	3.784	43	903	0.20	ug/L #		68
40) Tetrahydrofuran	4.174	42	1988	0.70	ug/L #		52
87) Cyclohexanone	9.947	55	2891	5.06	ug/L #		8

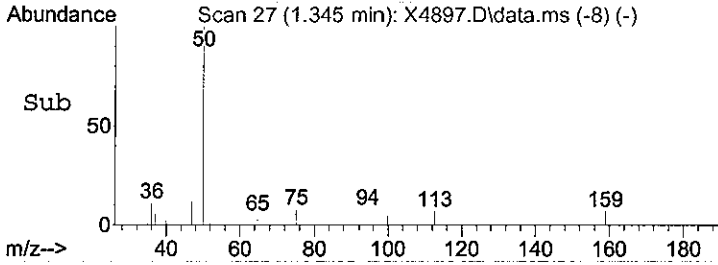
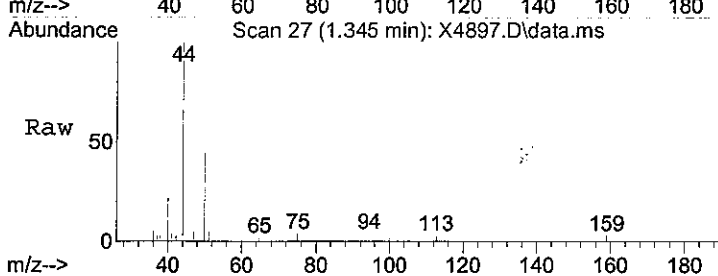
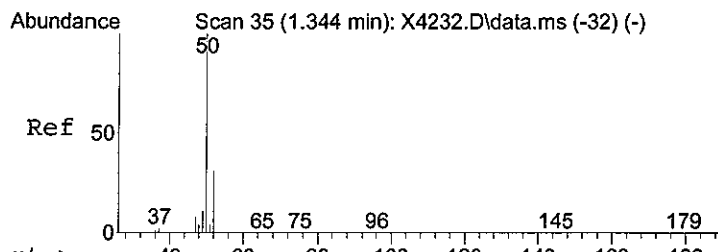
YR
 10/16/09

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sample : R0905636-004 | 1.0
 Data File: J:\ACQDATA\MSVOA12\DATA\101209\X4897.D
 Misc : NORTH 4060 T4
 Acq On : 12 Oct 2009 8:51 pm
 Operator : K.Ruest
 InstName : MSVOA-12

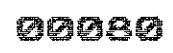
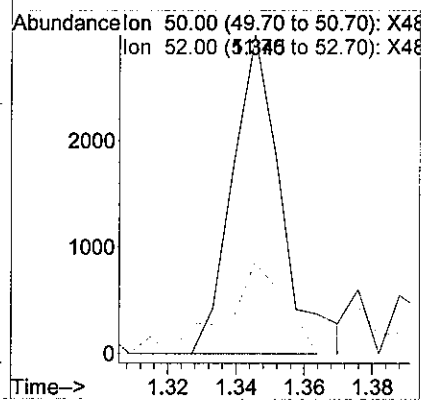
Quant Method : J:\ACQDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Oct 12 21:07:36 2009
 Quant Update : Fri Oct 09 14:32:15 2009
 Response via : Initial Calibration

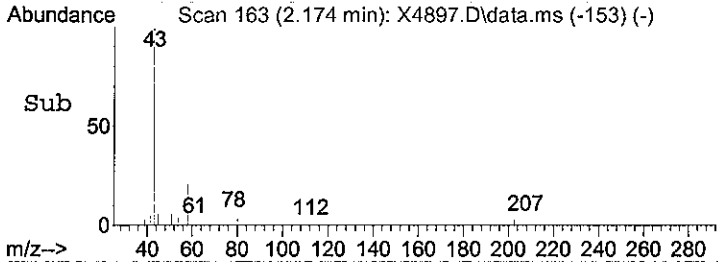
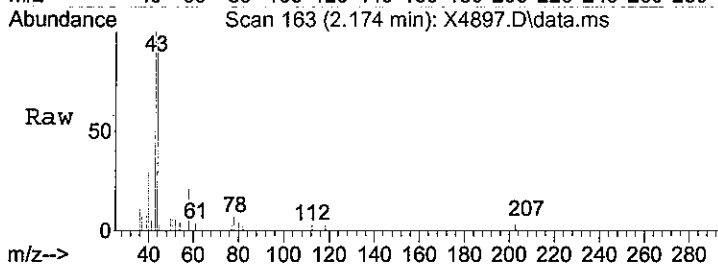
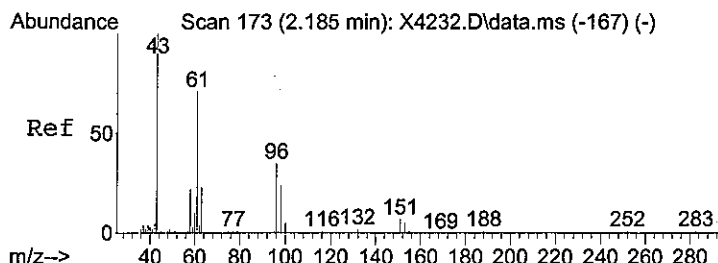




#4
 Chloromethane
 Concen: 0.20 ug/L
 RT: 1.345 min Scan# 27
 Delta R.T. 0.001 min
 Lab File: X4897.D
 Acq: 12 Oct 2009 8:51 pm

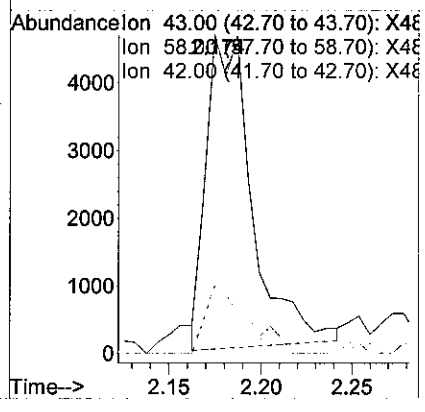
Tgt Ion	Resp	Lower	Upper
50	2989	1.2	61.2
52	28.7		





#16
 Acetone
 Concen: 3.58 ug/L
 RT: 2.174 min Scan# 163
 Delta R.T. -0.011 min
 Lab File: X4897.D
 Acq: 12 Oct 2009 8:51 pm

Tgt Ion:	43	Resp:	8009
Ion	Ratio	Lower	Upper
43	100		
58	21.2	0.0	51.9
42	12.9	0.0	36.4



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: TB100209-GW2
Lab Code: R0905636-005

Service Request: R0905636
Date Collected: 10/ 2/09
Date Received: 10/ 3/09
Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis	
								Lot	Lot Note
1,1,1,2-Tetrachloroethane	0.18	U	1.0	0.18	1	NA	10/12/09 21:22	174383	
1,1,1-Trichloroethane (TCA)	0.32	U	1.0	0.32	1	NA	10/12/09 21:22	174383	
1,1,2-Tetrachloroethane	0.090	U	1.0	0.090	1	NA	10/12/09 21:22	174383	
1,1,2-Trichloroethane	0.20	U	1.0	0.20	1	NA	10/12/09 21:22	174383	
1,1-Dichloroethane (1,1-DCA)	0.14	U	1.0	0.14	1	NA	10/12/09 21:22	174383	
1,1-Dichloroethene (1,1-DCE)	0.37	U	1.0	0.37	1	NA	10/12/09 21:22	174383	
1,1-Dichloropropene	0.21	U	2.0	0.21	1	NA	10/12/09 21:22	174383	
1,2,3-Trichlorobenzene	0.25	U	2.0	0.25	1	NA	10/12/09 21:22	174383	
1,2,3-Trichloropropane	0.30	U	2.0	0.30	1	NA	10/12/09 21:22	174383	
1,2,4-Trichlorobenzene	0.19	U	2.0	0.19	1	NA	10/12/09 21:22	174383	
1,2,4-Trimethylbenzene	0.36	U	2.0	0.36	1	NA	10/12/09 21:22	174383	
1,2-Dibromo-3-chloropropane (DBCP)	0.43	U	5.0	0.43	1	NA	10/12/09 21:22	174383	
1,2-Dibromoethane	0.18	U	1.0	0.18	1	NA	10/12/09 21:22	174383	
1,2-Dichlorobenzene	0.40	U	2.0	0.40	1	NA	10/12/09 21:22	174383	
1,2-Dichloroethane	0.14	U	1.0	0.14	1	NA	10/12/09 21:22	174383	
1,2-Dichloropropane	0.15	U	1.0	0.15	1	NA	10/12/09 21:22	174383	
1,3,5-Trimethylbenzene	0.36	U	2.0	0.36	1	NA	10/12/09 21:22	174383	
1,3-Dichlorobenzene	0.36	U	2.0	0.36	1	NA	10/12/09 21:22	174383	
1,3-Dichloropropane	0.12	U	2.0	0.12	1	NA	10/12/09 21:22	174383	
1,4-Dichlorobenzene	0.34	U	2.0	0.34	1	NA	10/12/09 21:22	174383	
2,2-Dichloropropane	0.20	U	2.0	0.20	1	NA	10/12/09 21:22	174383	
2-Butanone (MEK)	1.0	U	10	1.0	1	NA	10/12/09 21:22	174383	
2-Chlorotoluene	0.38	U	5.0	0.38	1	NA	10/12/09 21:22	174383	
2-Hexanone	0.40	U	10	0.40	1	NA	10/12/09 21:22	174383	
2-Methyl-2-propanol	3.0	U	100	3.0	1	NA	10/12/09 21:22	174383	
4-Chlorotoluene	0.37	U	5.0	0.37	1	NA	10/12/09 21:22	174383	
4-Isopropyltoluene	0.22	U	2.0	0.22	1	NA	10/12/09 21:22	174383	
4-Methyl-2-pentanone	0.34	U	10	0.34	1	NA	10/12/09 21:22	174383	
Acetone	1.8	J	20	1.6	1	NA	10/12/09 21:22	174383	
Benzene	0.18	U	1.0	0.18	1	NA	10/12/09 21:22	174383	
Bromobenzene	0.33	U	2.0	0.33	1	NA	10/12/09 21:22	174383	
Bromochloromethane	0.18	U	2.0	0.18	1	NA	10/12/09 21:22	174383	
Bromodichloromethane	0.17	U	1.0	0.17	1	NA	10/12/09 21:22	174383	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
 Project: Tronox LLC Henderson/2027.001
 Sample Matrix: Water
 Sample Name: TB100209-GW2
 Lab Code: R0905636-005

Service Request: R0905636
 Date Collected: 10/2/09
 Date Received: 10/3/09
 Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Bromoform	0.20	U	1.0	0.20	1	NA	10/12/09 21:22		174383	
Bromomethane	0.40	U	2.0	0.40	1	NA	10/12/09 21:22		174383	
Carbon Tetrachloride	0.36	U	1.0	0.36	1	NA	10/12/09 21:22		174383	
Chlorobenzene	0.26	U	1.0	0.26	1	NA	10/12/09 21:22		174383	
Chloroethane	0.21	U	2.0	0.21	1	NA	10/12/09 21:22		174383	
Chloroform	0.16	U	1.0	0.16	1	NA	10/12/09 21:22		174383	
Chloromethane	0.18	U	2.0	0.18	1	NA	10/12/09 21:22		174383	
Dibromochloromethane	0.11	U	1.0	0.11	1	NA	10/12/09 21:22		174383	
Dibromomethane	0.18	U	1.0	0.18	1	NA	10/12/09 21:22		174383	
Dichlorodifluoromethane (CFC 12)	0.18	U	1.0	0.18	1	NA	10/12/09 21:22		174383	
Dichloromethane	0.13	U	2.0	0.13	1	NA	10/12/09 21:22		174383	
Diisopropyl Ether	0.090	U	1.0	0.090	1	NA	10/12/09 21:22		174383	
Ethyl tert-Butyl Ether	0.12	U	1.0	0.12	1	NA	10/12/09 21:22		174383	
Ethylbenzene	0.42	U	1.0	0.42	1	NA	10/12/09 21:22		174383	
Hexachlorobutadiene	0.27	U	5.0	0.27	1	NA	10/12/09 21:22		174383	
Isopropylbenzene (Cumene)	0.34	U	2.0	0.34	1	NA	10/12/09 21:22		174383	
Methyl tert-Butyl Ether	0.13	U	1.0	0.13	1	NA	10/12/09 21:22		174383	
Naphthalene	0.31	U	2.0	0.31	1	NA	10/12/09 21:22		174383	
Styrene	0.36	U	1.0	0.36	1	NA	10/12/09 21:22		174383	
Tetrachloroethene (PCE)	0.42	U	1.0	0.42	1	NA	10/12/09 21:22		174383	
Toluene	0.21	U	1.0	0.21	1	NA	10/12/09 21:22		174383	
Trichloroethene (TCE)	0.13	U	1.0	0.13	1	NA	10/12/09 21:22		174383	
Trichlorofluoromethane (CFC 11)	0.15	U	1.0	0.15	1	NA	10/12/09 21:22		174383	
Vinyl Chloride	0.22	U	1.0	0.22	1	NA	10/12/09 21:22		174383	
cis-1,2-Dichloroethene	0.14	U	1.0	0.14	1	NA	10/12/09 21:22		174383	
cis-1,3-Dichloropropene	0.14	U	1.0	0.14	1	NA	10/12/09 21:22		174383	
m,p-Xylenes	0.81	U	2.0	0.81	1	NA	10/12/09 21:22		174383	
n-Butylbenzene	0.20	U	5.0	0.20	1	NA	10/12/09 21:22		174383	
n-Propylbenzene	0.32	U	2.0	0.32	1	NA	10/12/09 21:22		174383	
o-Xylene	0.40	U	1.0	0.40	1	NA	10/12/09 21:22		174383	
sec-Butylbenzene	0.23	U	2.0	0.23	1	NA	10/12/09 21:22		174383	
tert-Amyl Methyl Ether	0.13	U	1.0	0.13	1	NA	10/12/09 21:22		174383	
tert-Butylbenzene	0.28	U	2.0	0.28	1	NA	10/12/09 21:22		174383	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: TB100209-GW2
Lab Code: R0905636-005

Service Request: R0905636
Date Collected: 10/ 2/09
Date Received: 10/ 3/09
Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
trans-1,2-Dichloroethene	0.16	U	1.0	0.16	1	NA	10/12/09 21:22		174383	
trans-1,3-Dichloropropene	0.17	U	1.0	0.17	1	NA	10/12/09 21:22		174383	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
4-Bromofluorobenzene	103	70-130	10/12/09 21:22		
Dibromofluoromethane	108	70-130	10/12/09 21:22		
Toluene-d8	106	70-130	10/12/09 21:22		

Comments: _____

Sample : R0905636-005|1.0 TB
 Data File: J:\ACQUDATA\MSVOA12\DATA\101209\X4898.D
 Misc : NORTH 4060 T4

Acq On : 12 Oct 2009 9:22 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Oct 12 21:38:24 2009
 QLast Update : Fri Oct 09 14:32:15 2009
 Response via : Initial Calibration

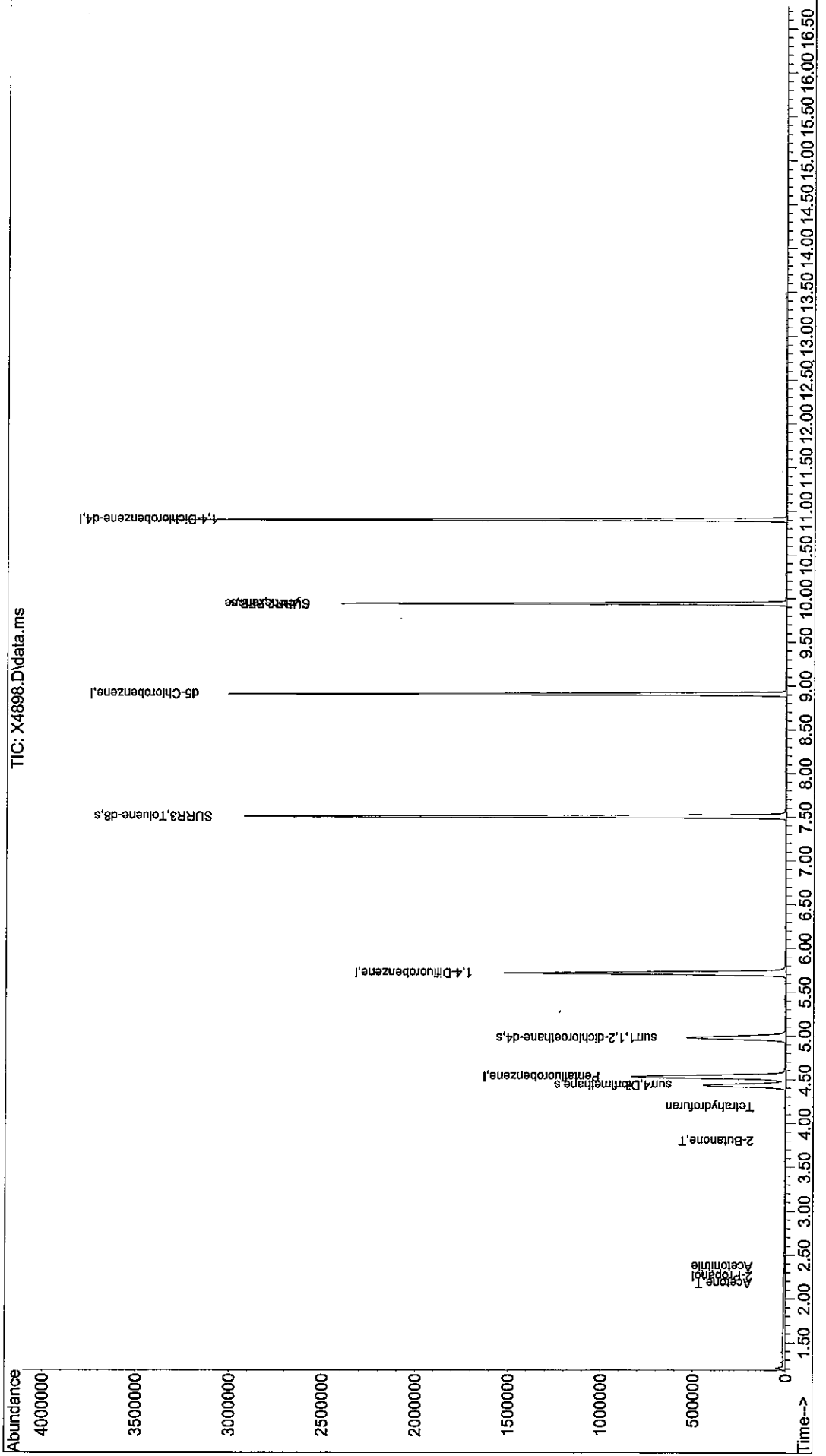
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	

Internal Standards							
1) Pentafluorobenzene	4.534	168	679962	50.00	ug/L	0.00	
44) 1,4-Difluorobenzene	5.717	114	1145060	50.00	ug/L	0.00	
71) d5-Chlorobenzene	8.911	117	1039104	50.00	ug/L	0.00	
84) 1,4-Dichlorobenzene-d4	10.905	152	552218	50.00	ug/L	0.00	
System Monitoring Compounds							
46) surr4, Dibrflmethane	4.436	113	340204	54.19	ug/L	0.00	
Spiked Amount	50.000	Range 89 - 119	Recovery =	108.38%			
49) surr1, 1,2-dichloroetha...	4.973	65	506608	53.98	ug/L	-0.01	
Spiked Amount	50.000	Range 80 - 120	Recovery =	107.96%			
65) SURR3, Toluene-d8	7.509	98	1407625	52.86	ug/L	0.00	
Spiked Amount	50.000	Range 87 - 121	Recovery =	105.72%			
70) SURR2, BFB	9.941	95	562592	51.61	ug/L	0.00	
Spiked Amount	50.000	Range 85 - 122	Recovery =	103.22%			
Target Compounds							
16) Acetone	2.181	43	3876	1.75	ug/L		Qvalue 94
17) 2-Propanol	2.260	45	285	0.61	ug/L	#	75
20) Acetonitrile	2.370	40	728	1.60	ug/L	#	1
35) 2-Butanone	3.802	43	979	0.22	ug/L	#	16
40) Tetrahydrofuran	4.192	42	1644	0.58	ug/L	#	58
87) Cyclohexanone	9.941	55	2021	3.59	ug/L	#	8

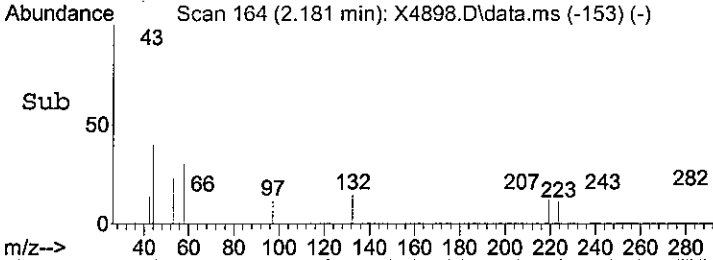
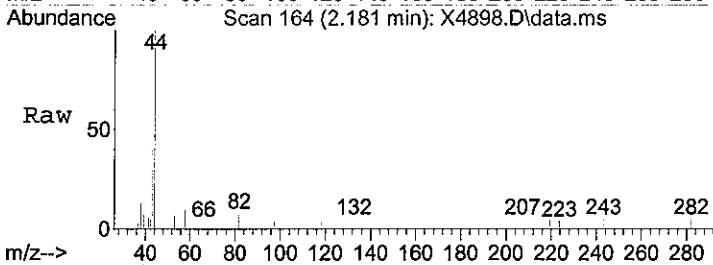
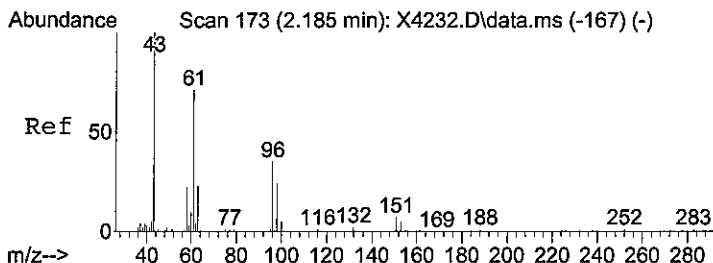
YR
10/16/09

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sample : R0905636-005|1.0
 Data File: J:\ACQDATA\MSVOA12\DATA\101209\X4898.D
 Misc : NORTH 4060 T4
 Acq On : 12 Oct 2009 9:22 pm
 Operator : K.Ruest
 InstName : MSVOA-12
 Quant Method : J:\ACQDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Oct 12 21:38:24 2009
 QLast Update : Fri Oct 09 14:32:15 2009
 Response via : Initial Calibration

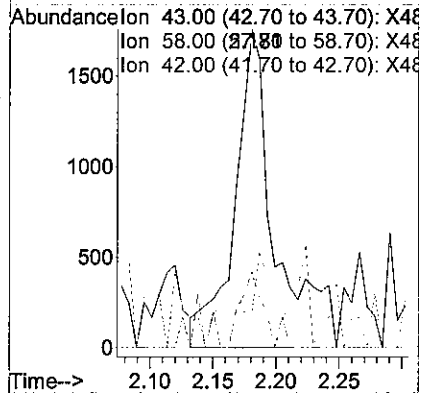


00086



#16
 Acetone
 Concen: 1.75 ug/L
 RT: 2.181 min Scan# 164
 Delta R.T. -0.005 min
 Lab File: X4898.D
 Acq: 12 Oct 2009 9:22 pm

Tgt Ion:	43	Resp:	3876
Ion	Ratio	Lower	Upper
43	100		
58	23.9	0.0	51.9
42	10.6	0.0	36.4



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: MC-94B
Lab Code: R0905636-006

Service Request: R0905636
Date Collected: 10/ 7/09 1045
Date Received: 10/ 8/09
Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis	
								Lot	Lot Note
1,1,1,2-Tetrachloroethane	0.18	U	1.0	0.18	1	NA	10/13/09 16:36	174548	
1,1,1-Trichloroethane (TCA)	0.32	U	1.0	0.32	1	NA	10/13/09 16:36	174548	
1,1,2,2-Tetrachloroethane	0.090	U	1.0	0.090	1	NA	10/13/09 16:36	174548	
1,1,2-Trichloroethane	0.20	U	1.0	0.20	1	NA	10/13/09 16:36	174548	
1,1-Dichloroethane (1,1-DCA)	0.82	J	1.0	0.14	1	NA	10/13/09 16:36	174548	
1,1-Dichloroethene (1,1-DCE)	0.37	U	1.0	0.37	1	NA	10/13/09 16:36	174548	
1,1-Dichloropropene	0.21	U	2.0	0.21	1	NA	10/13/09 16:36	174548	
1,2,3-Trichlorobenzene	0.25	U	2.0	0.25	1	NA	10/13/09 16:36	174548	
1,2,3-Trichloropropane	0.30	U	2.0	0.30	1	NA	10/13/09 16:36	174548	
1,2,4-Trichlorobenzene	0.19	U	2.0	0.19	1	NA	10/13/09 16:36	174548	
1,2,4-Trimethylbenzene	0.36	U	2.0	0.36	1	NA	10/13/09 16:36	174548	
1,2-Dibromo-3-chloropropane (DBCP)	0.43	U	5.0	0.43	1	NA	10/13/09 16:36	174548	
1,2-Dibromoethane	0.18	U	1.0	0.18	1	NA	10/13/09 16:36	174548	
1,2-Dichlorobenzene	0.40	U	2.0	0.40	1	NA	10/13/09 16:36	174548	
1,2-Dichloroethane	0.50	J	1.0	0.14	1	NA	10/13/09 16:36	174548	
1,2-Dichloropropane	0.15	U	1.0	0.15	1	NA	10/13/09 16:36	174548	
1,3,5-Trimethylbenzene	0.36	U	2.0	0.36	1	NA	10/13/09 16:36	174548	
1,3-Dichlorobenzene	0.36	U	2.0	0.36	1	NA	10/13/09 16:36	174548	
1,3-Dichloropropane	0.12	U	2.0	0.12	1	NA	10/13/09 16:36	174548	
1,4-Dichlorobenzene	0.34	U	2.0	0.34	1	NA	10/13/09 16:36	174548	
2,2-Dichloropropane	0.20	U	2.0	0.20	1	NA	10/13/09 16:36	174548	
2-Butanone (MEK)	1.0	U	10	1.0	1	NA	10/13/09 16:36	174548	
2-Chlorotoluene	0.38	U	5.0	0.38	1	NA	10/13/09 16:36	174548	
2-Hexanone	0.40	U	10	0.40	1	NA	10/13/09 16:36	174548	
2-Methyl-2-propanol	3.0	U	100	3.0	1	NA	10/13/09 16:36	174548	
4-Chlorotoluene	0.37	U	5.0	0.37	1	NA	10/13/09 16:36	174548	
4-Isopropyltoluene	0.22	U	2.0	0.22	1	NA	10/13/09 16:36	174548	
4-Methyl-2-pentanone	0.34	U	10	0.34	1	NA	10/13/09 16:36	174548	
Acetone	1.6	U	20	1.6	1	NA	10/13/09 16:36	174548	
Benzene	0.18	U	1.0	0.18	1	NA	10/13/09 16:36	174548	
Bromobenzene	0.33	U	2.0	0.33	1	NA	10/13/09 16:36	174548	
Bromochloromethane	0.18	U	2.0	0.18	1	NA	10/13/09 16:36	174548	
Bromodichloromethane	0.17	U	1.0	0.17	1	NA	10/13/09 16:36	174548	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
 Project: Tronox LLC Henderson/2027.001
 Sample Matrix: Water
 Sample Name: MC-94B
 Lab Code: R0905636-006

Service Request: R0905636
 Date Collected: 10/ 7/09 1045
 Date Received: 10/ 8/09

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis	
								Lot	Lot Note
Bromoform	0.35	J	1.0	0.20	1	NA	10/13/09 16:36	174548	
Bromomethane	0.40	U	2.0	0.40	1	NA	10/13/09 16:36	174548	
Carbon Tetrachloride	0.36	U	1.0	0.36	1	NA	10/13/09 16:36	174548	
Chlorobenzene	0.26	U	1.0	0.26	1	NA	10/13/09 16:36	174548	
Chloroethane	0.44	J	2.0	0.21	1	NA	10/13/09 16:36	174548	
Chloroform	5.4		1.0	0.16	1	NA	10/13/09 16:36	174548	
Chloromethane	0.18	U	2.0	0.18	1	NA	10/13/09 16:36	174548	
Dibromochloromethane	0.11	U	1.0	0.11	1	NA	10/13/09 16:36	174548	
Dibromomethane	0.18	U	1.0	0.18	1	NA	10/13/09 16:36	174548	
Dichlorodifluoromethane (CFC 12)	0.18	U	1.0	0.18	1	NA	10/13/09 16:36	174548	
Dichloromethane	0.26	J	2.0	0.13	1	NA	10/13/09 16:36	174548	
Diisopropyl Ether	0.090	U	1.0	0.090	1	NA	10/13/09 16:36	174548	
Ethyl tert-Butyl Ether	0.12	U	1.0	0.12	1	NA	10/13/09 16:36	174548	
Ethylbenzene	0.42	U	1.0	0.42	1	NA	10/13/09 16:36	174548	
Hexachlorobutadiene	0.27	U	5.0	0.27	1	NA	10/13/09 16:36	174548	
Isopropylbenzene (Cumene)	0.34	U	2.0	0.34	1	NA	10/13/09 16:36	174548	
Methyl tert-Butyl Ether	0.13	U	1.0	0.13	1	NA	10/13/09 16:36	174548	
Naphthalene	0.31	U	2.0	0.31	1	NA	10/13/09 16:36	174548	
Styrene	0.36	U	1.0	0.36	1	NA	10/13/09 16:36	174548	
Tetrachloroethene (PCE)	1.3		1.0	0.42	1	NA	10/13/09 16:36	174548	
Toluene	0.21	U	1.0	0.21	1	NA	10/13/09 16:36	174548	
Trichloroethene (TCE)	0.27	J	1.0	0.13	1	NA	10/13/09 16:36	174548	
Trichlorofluoromethane (CFC 11)	0.15	U	1.0	0.15	1	NA	10/13/09 16:36	174548	
Vinyl Chloride	0.22	U	1.0	0.22	1	NA	10/13/09 16:36	174548	
cis-1,2-Dichloroethene	0.14	U	1.0	0.14	1	NA	10/13/09 16:36	174548	
cis-1,3-Dichloropropene	0.14	U	1.0	0.14	1	NA	10/13/09 16:36	174548	
m,p-Xylenes	0.81	U	2.0	0.81	1	NA	10/13/09 16:36	174548	
n-Butylbenzene	0.20	U	5.0	0.20	1	NA	10/13/09 16:36	174548	
n-Propylbenzene	0.32	U	2.0	0.32	1	NA	10/13/09 16:36	174548	
o-Xylene	0.40	U	1.0	0.40	1	NA	10/13/09 16:36	174548	
sec-Butylbenzene	0.23	U	2.0	0.23	1	NA	10/13/09 16:36	174548	
tert-Amyl Methyl Ether	0.13	U	1.0	0.13	1	NA	10/13/09 16:36	174548	
tert-Butylbenzene	0.28	U	2.0	0.28	1	NA	10/13/09 16:36	174548	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: MC-94B
Lab Code: R0905636-006

Service Request: R0905636
Date Collected: 10/ 7/09 1045
Date Received: 10/ 8/09
Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis	
								Lot	Lot Note
trans-1,2-Dichloroethene	0.16	U	1.0	0.16	1	NA	10/13/09 16:36	174548	
trans-1,3-Dichloropropene	0.17	U	1.0	0.17	1	NA	10/13/09 16:36	174548	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
4-Bromofluorobenzene	107	70-130	10/13/09 16:36		
Dibromofluoromethane	109	70-130	10/13/09 16:36		
Toluene-d8	107	70-130	10/13/09 16:36		

Comments: _____

Sample : R0905636-006|1.0
 Data File: J:\ACQUDATA\MSVOA12\DATA\101309\X4915.D
 Misc : NORTH 4060 T4
 Acq On : 13 Oct 2009 4:36 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Oct 13 16:52:16 2009
 QLast Update : Fri Oct 09 14:32:15 2009
 Response via : Initial Calibration

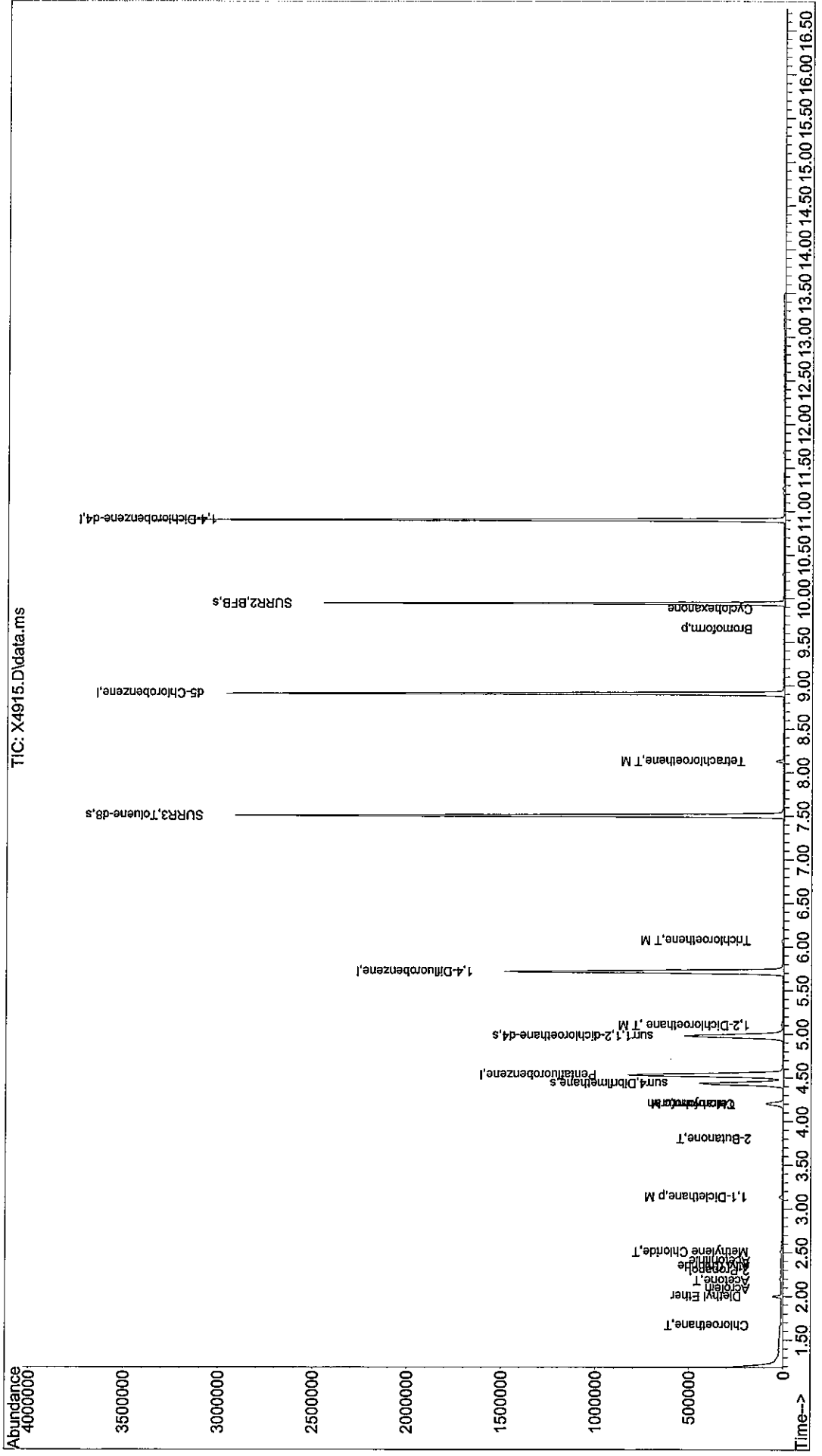
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.534	168	672177	50.00	ug/L	0.00
44) 1,4-Difluorobenzene	5.716	114	1125019	50.00	ug/L	0.00
71) d5-Chlorobenzene	8.911	117	1052364	50.00	ug/L	0.00
84) 1,4-Dichlorobenzene-d4	10.904	152	566590	50.00	ug/L	0.00
System Monitoring Compounds						
46) surr4,Dibrflmethane	4.436	113	336203	54.51	ug/L	0.00
Spiked Amount	50.000	Range 89 - 119	Recovery	=	109.02%	
49) surr1,1,2-dichloroetha...	4.979	65	503271	54.58	ug/L	0.00
Spiked Amount	50.000	Range 80 - 120	Recovery	=	109.16%	
65) SURR3,Toluene-d8	7.509	98	1405600	53.72	ug/L	0.00
Spiked Amount	50.000	Range 87 - 121	Recovery	=	107.44%	
70) SURR2,BFB	9.947	95	570363	53.26	ug/L	0.00
Spiked Amount	50.000	Range 85 - 122	Recovery	=	106.52%	
Target Compounds						
7) Chloroethane	1.668	64	2171	0.44	ug/L	98
10) Diethyl Ether	2.004	59	16802	2.78	ug/L	92
13) Acrolein	2.089	56	206	0.21	ug/L #	1
16) Acetone	2.181	43	1830	0.84	ug/L	88
17) 2-Propanol	2.296	45	215	0.47	ug/L #	1
20) Acetonitrile	2.406	40	741	1.64	ug/L #	1
21) Allyl Chloride	2.345	76	836	0.22	ug/L #	1
23) Methylene Chloride	2.510	84	2002	0.26	ug/L #	72
28) 1,1-Dicethane	3.138	63	14290	0.82	ug/L #	89
35) 2-Butanone	3.802	43	1174	0.27	ug/L #	68
40) Tetrahydrofuran	4.198	42	1719	0.62	ug/L #	57
41) Chloroform	4.198	83	69777	5.41	ug/L	99
51) 1,2-Dichloroethane	5.101	62	6268	0.50	ug/L #	73
54) Trichloroethene	6.076	130	1857	0.27	ug/L #	74
72) Tetrachloroethene	8.131	164	7298	1.28	ug/L	90
85) Bromoform	9.649	173	1049	0.35	ug/L	95
87) Cyclohexanone	9.880	55	228	0.39	ug/L #	60

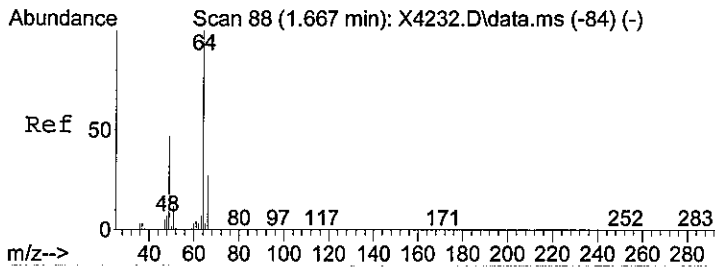
Handwritten: 10/19/09

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sample : R0905636-006|1.0
 Data File: J:\ACQDATA\MSVOA12\DATA\101309\X4915.D
 Misc : NORTH 4060 T4
 Acq On : 13 Oct 2009 4:36 pm
 Operator : K.Ruest
 InstName : MSVOA-12

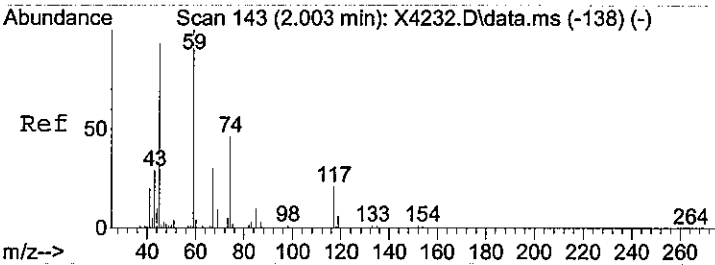
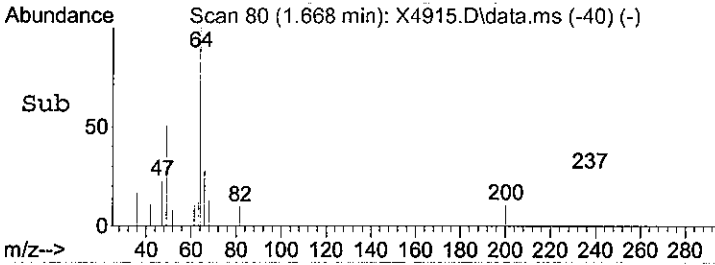
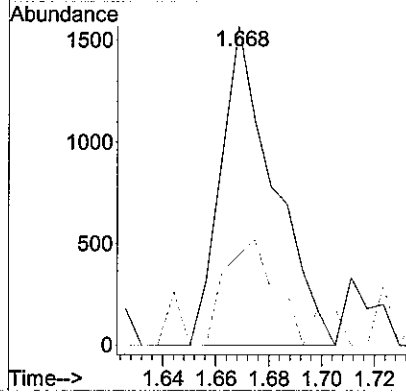
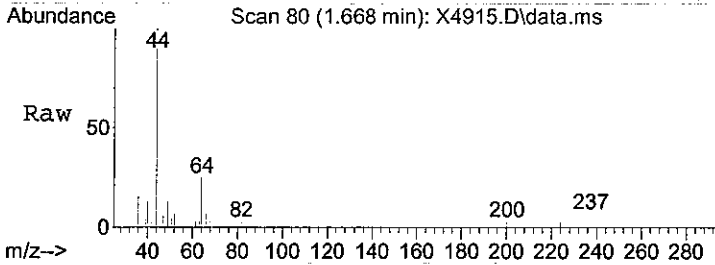
Quant Method : J:\ACQDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Oct 13 16:52:16 2009
 QLast Update : Fri Oct 09 14:32:15 2009
 Response via : Initial Calibration





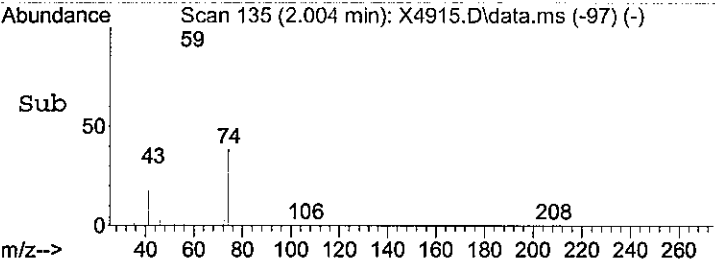
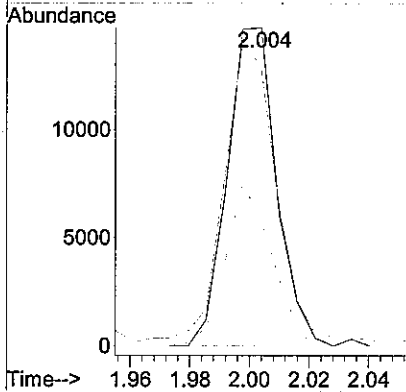
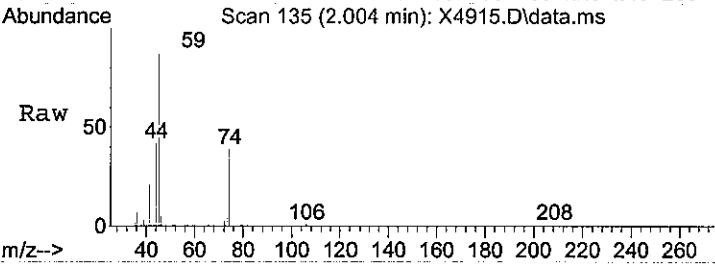
#7
 Chloroethane
 Concen: 0.44 ug/L
 RT: 1.668 min Scan# 80
 Delta R.T. -0.005 min
 Lab File: X4915.D
 Acq: 13 Oct 2009 4:36 pm

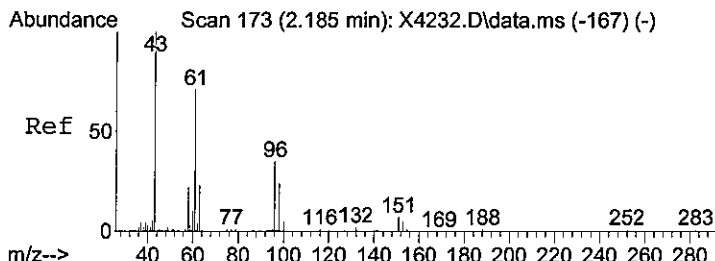
Tgt Ion	Resp	Lower	Upper
64	2171		
66	28.3	0.0	57.3



#10
 Diethyl Ether
 Concen: 2.78 ug/L
 RT: 2.004 min Scan# 135
 Delta R.T. 0.001 min
 Lab File: X4915.D
 Acq: 13 Oct 2009 4:36 pm

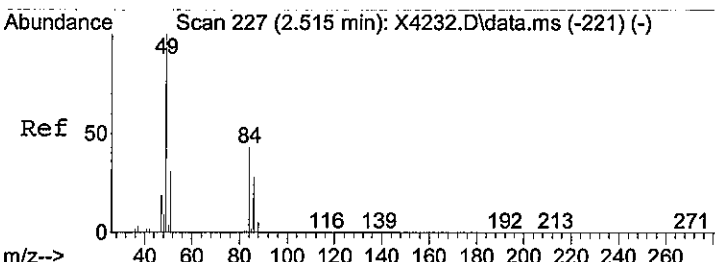
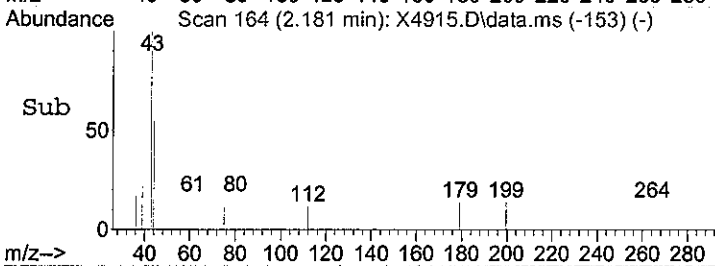
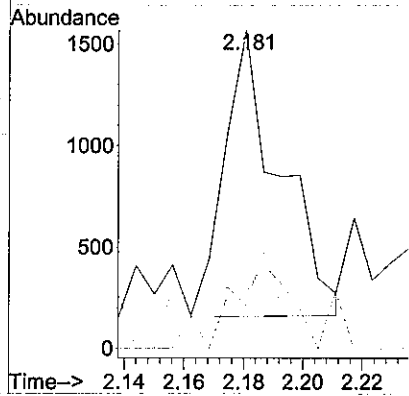
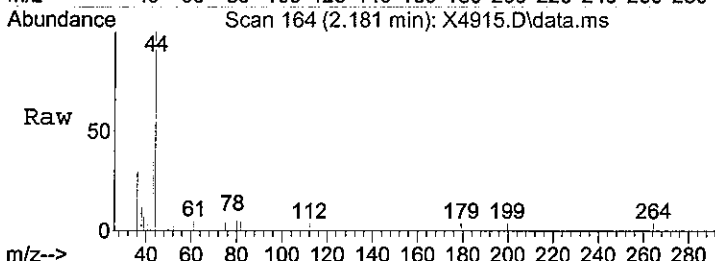
Tgt Ion	Resp	Lower	Upper
59	16802		
45	87.3	46.8	140.3
74	39.3	22.9	68.5





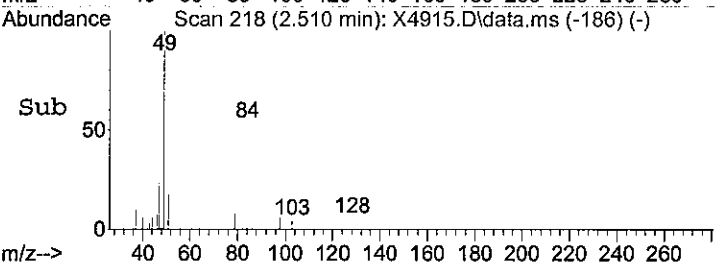
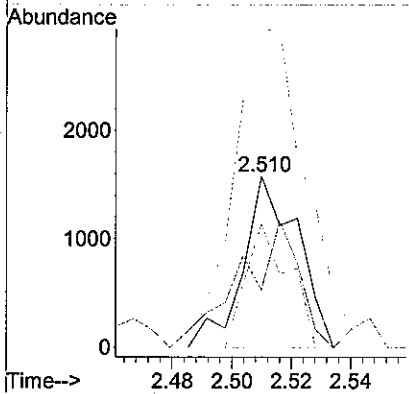
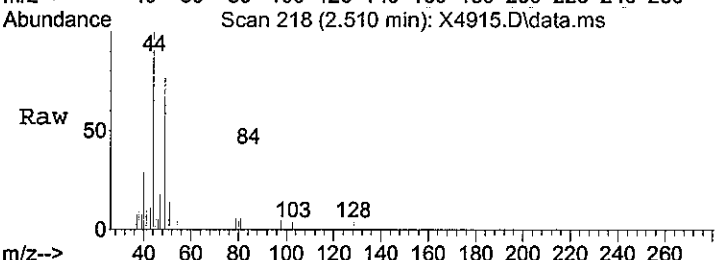
#16
 Acetone
 Concen: 0.84 ug/L
 RT: 2.181 min Scan# 164
 Delta R.T. -0.005 min
 Lab File: X4915.D
 Acq: 13 Oct 2009 4:36 pm

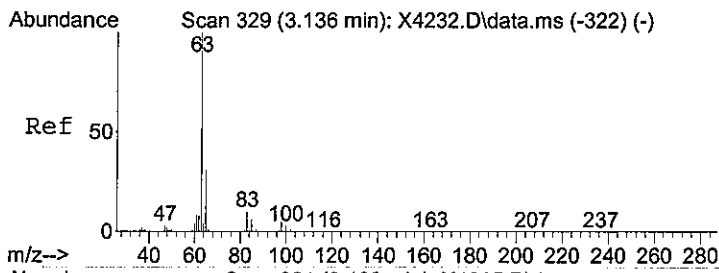
Tgt Ion:	43	58	42	Resp:	1830	Lower	Upper
Ion Ratio	100	17.1	13.5			0.0	51.9
						0.0	36.4



#23
 Methylene Chloride
 Concen: 0.26 ug/L
 RT: 2.510 min Scan# 218
 Delta R.T. -0.005 min
 Lab File: X4915.D
 Acq: 13 Oct 2009 4:36 pm

Tgt Ion:	84	86	49	51	Resp:	2002	Lower	Upper
Ion Ratio	100	72.3	185.7	33.6			51.0	76.4
							184.6	276.8
							57.6	86.4#

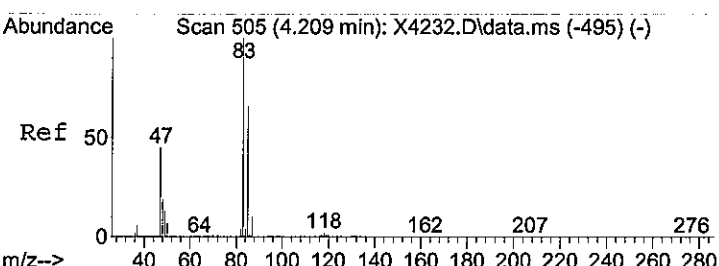
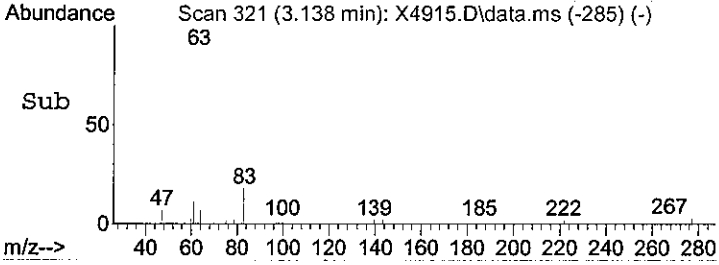
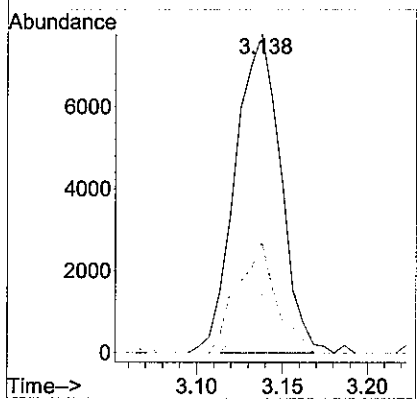
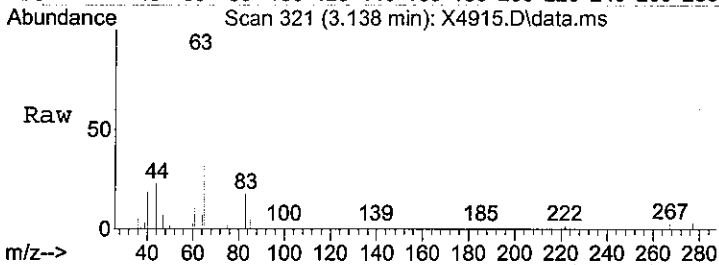




#28
 1,1-Dicylethane
 Concen: 0.82 ug/L
 RT: 3.138 min Scan# 321
 Delta R.T. -0.004 min
 Lab File: X4915.D
 Acq: 13 Oct 2009 4:36 pm

Tgt Ion: 63 Resp: 14290

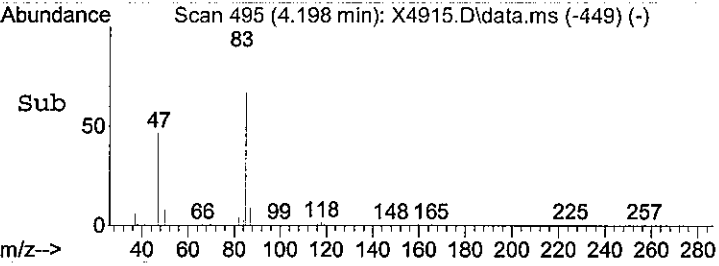
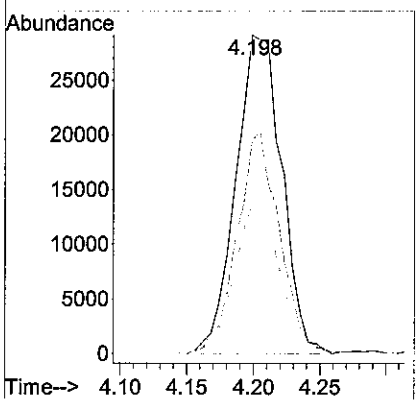
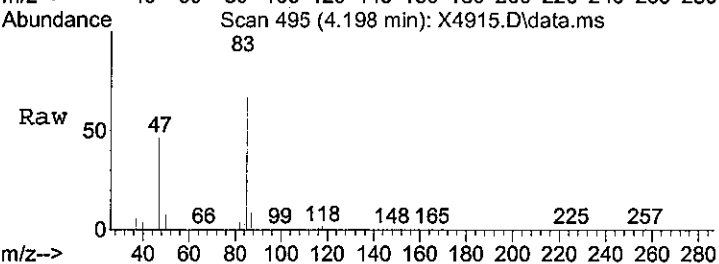
Ion	Ratio	Lower	Upper
63	100		
65	34.8	24.6	36.8
83	18.4	7.9	11.9#

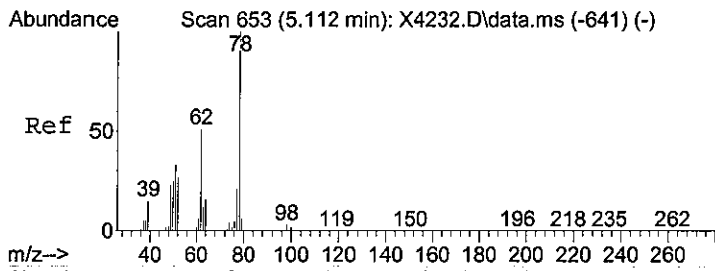


#41
 Chloroform
 Concen: 5.41 ug/L
 RT: 4.198 min Scan# 495
 Delta R.T. -0.005 min
 Lab File: X4915.D
 Acq: 13 Oct 2009 4:36 pm

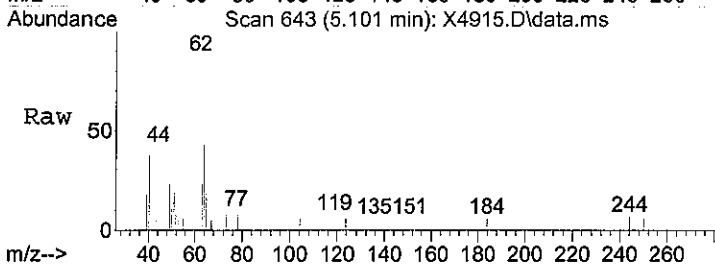
Tgt Ion: 83 Resp: 69777

Ion	Ratio	Lower	Upper
83	100		
85	66.7	52.9	79.3
47	47.0	36.6	54.8



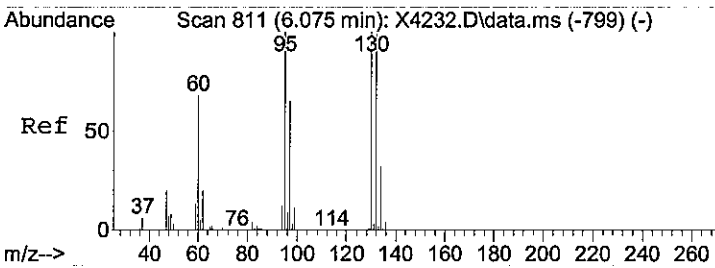
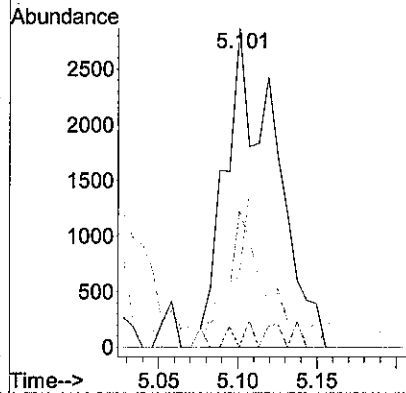
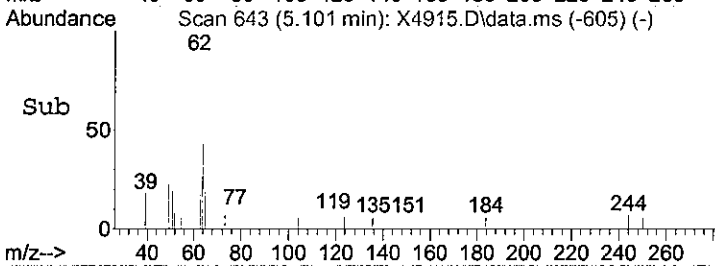


#51
 1,2-Dichloroethane
 Concen: 0.50 ug/L
 RT: 5.101 min Scan# 643
 Delta R.T. -0.017 min
 Lab File: X4915.D
 Acq: 13 Oct 2009 4:36 pm

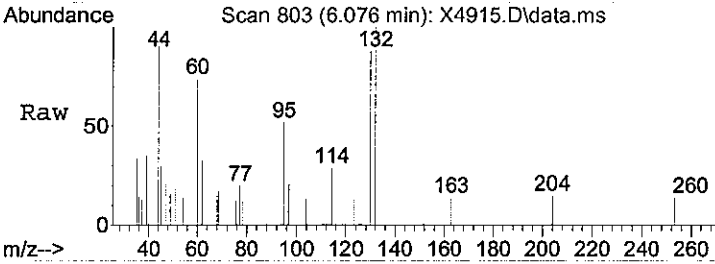


Tgt Ion: 62 Resp: 6268

Ion	Ratio	Lower	Upper
62	100		
64	42.7	26.0	39.0#
49	23.2	37.3	55.9#
98	0.0	5.1	7.7#

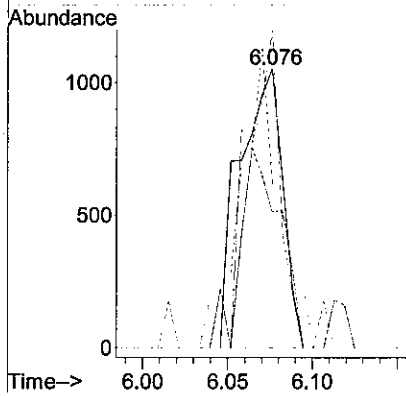
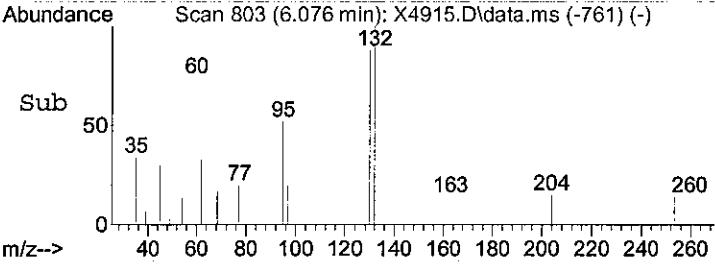


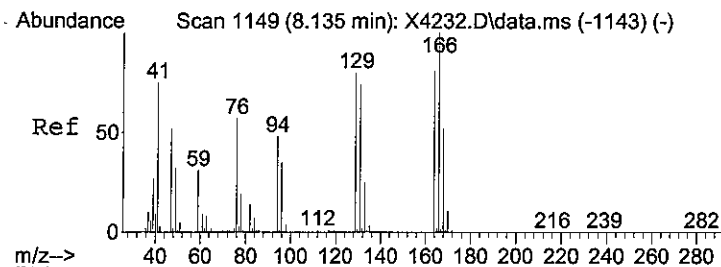
#54
 Trichloroethene
 Concen: 0.27 ug/L
 RT: 6.076 min Scan# 803
 Delta R.T. 0.007 min
 Lab File: X4915.D
 Acq: 13 Oct 2009 4:36 pm



Tgt Ion: 130 Resp: 1857

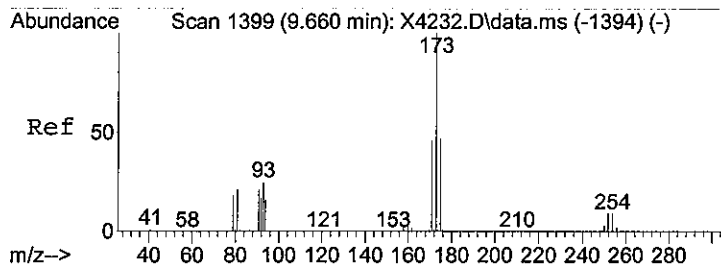
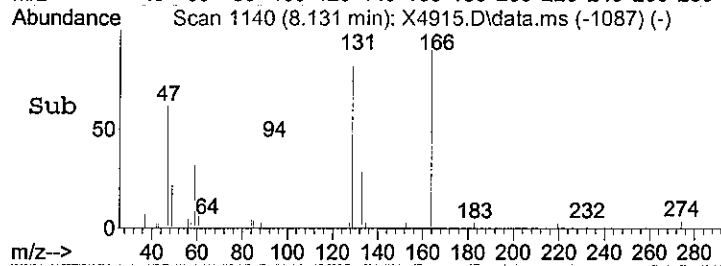
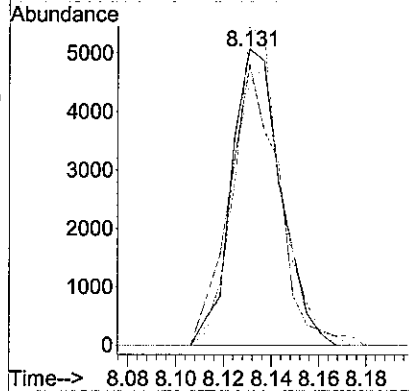
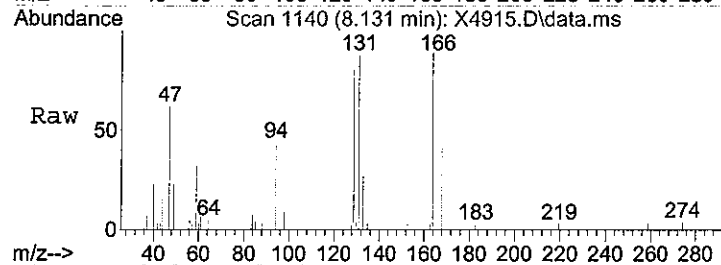
Ion	Ratio	Lower	Upper
130	100		
132	114.1	79.6	119.4
95	59.5	80.2	120.4#
97	48.7	52.2	78.4#





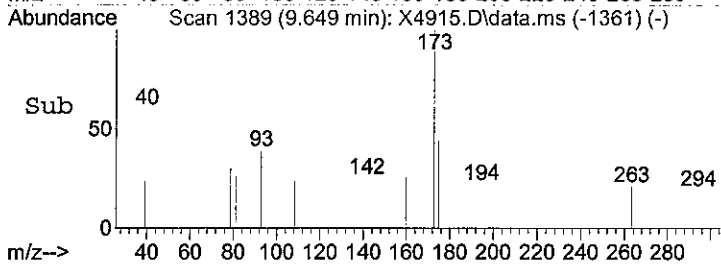
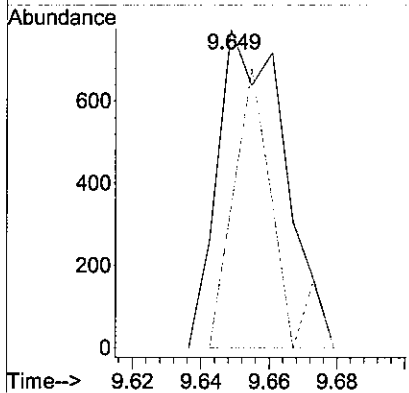
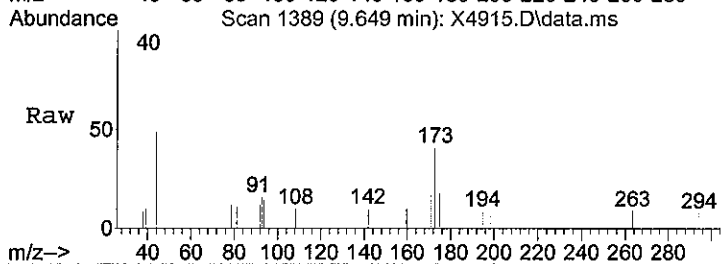
#72
 Tetrachloroethene
 Concen: 1.28 ug/L
 RT: 8.131 min Scan# 1140
 Delta R.T. -0.004 min
 Lab File: X4915.D
 Acq: 13 Oct 2009 4:36 pm

Tgt Ion	Ratio	Lower	Upper
164	100		
166	107.6	98.6	148.0
129	88.3	78.3	117.5
131	94.8	73.3	109.9



#85
 Bromoform
 Concen: 0.35 ug/L
 RT: 9.649 min Scan# 1389
 Delta R.T. -0.017 min
 Lab File: X4915.D
 Acq: 13 Oct 2009 4:36 pm

Tgt Ion	Ratio	Lower	Upper
173	100		
175	43.7	37.5	56.3



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: TB100709-GW1
Lab Code: R0905636-007

Service Request: R0905636
Date Collected: 10/ 7/09 1040
Date Received: 10/ 8/09
Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis		Note
								Lot	Lot	
1,1,1,2-Tetrachloroethane	0.18	U	1.0	0.18	1	NA	10/12/09 21:53	174383		
1,1,1-Trichloroethane (TCA)	0.32	U	1.0	0.32	1	NA	10/12/09 21:53	174383		
1,1,2,2-Tetrachloroethane	0.090	U	1.0	0.090	1	NA	10/12/09 21:53	174383		
1,1,2-Trichloroethane	0.20	U	1.0	0.20	1	NA	10/12/09 21:53	174383		
1,1-Dichloroethane (1,1-DCA)	0.14	U	1.0	0.14	1	NA	10/12/09 21:53	174383		
1,1-Dichloroethene (1,1-DCE)	0.37	U	1.0	0.37	1	NA	10/12/09 21:53	174383		
1,1-Dichloropropene	0.21	U	2.0	0.21	1	NA	10/12/09 21:53	174383		
1,2,3-Trichlorobenzene	0.25	U	2.0	0.25	1	NA	10/12/09 21:53	174383		
1,2,3-Trichloropropane	0.30	U	2.0	0.30	1	NA	10/12/09 21:53	174383		
1,2,4-Trichlorobenzene	0.19	U	2.0	0.19	1	NA	10/12/09 21:53	174383		
1,2,4-Trimethylbenzene	0.36	U	2.0	0.36	1	NA	10/12/09 21:53	174383		
1,2-Dibromo-3-chloropropane (DBCP)	0.43	U	5.0	0.43	1	NA	10/12/09 21:53	174383		
1,2-Dibromoethane	0.18	U	1.0	0.18	1	NA	10/12/09 21:53	174383		
1,2-Dichlorobenzene	0.40	U	2.0	0.40	1	NA	10/12/09 21:53	174383		
1,2-Dichloroethane	0.14	U	1.0	0.14	1	NA	10/12/09 21:53	174383		
1,2-Dichloropropane	0.15	U	1.0	0.15	1	NA	10/12/09 21:53	174383		
1,3,5-Trimethylbenzene	0.36	U	2.0	0.36	1	NA	10/12/09 21:53	174383		
1,3-Dichlorobenzene	0.36	U	2.0	0.36	1	NA	10/12/09 21:53	174383		
1,3-Dichloropropane	0.12	U	2.0	0.12	1	NA	10/12/09 21:53	174383		
1,4-Dichlorobenzene	0.34	U	2.0	0.34	1	NA	10/12/09 21:53	174383		
2,2-Dichloropropane	0.20	U	2.0	0.20	1	NA	10/12/09 21:53	174383		
2-Butanone (MEK)	1.0	U	10	1.0	1	NA	10/12/09 21:53	174383		
2-Chlorotoluene	0.38	U	5.0	0.38	1	NA	10/12/09 21:53	174383		
2-Hexanone	0.40	U	10	0.40	1	NA	10/12/09 21:53	174383		
2-Methyl-2-propanol	3.0	U	100	3.0	1	NA	10/12/09 21:53	174383		
4-Chlorotoluene	0.37	U	5.0	0.37	1	NA	10/12/09 21:53	174383		
4-Isopropyltoluene	0.22	U	2.0	0.22	1	NA	10/12/09 21:53	174383		
4-Methyl-2-pentanone	0.34	U	10	0.34	1	NA	10/12/09 21:53	174383		
Acetone	1.6	U	20	1.6	1	NA	10/12/09 21:53	174383		
Benzene	0.18	U	1.0	0.18	1	NA	10/12/09 21:53	174383		
Bromobenzene	0.33	U	2.0	0.33	1	NA	10/12/09 21:53	174383		
Bromochloromethane	0.18	U	2.0	0.18	1	NA	10/12/09 21:53	174383		
Bromodichloromethane	0.17	U	1.0	0.17	1	NA	10/12/09 21:53	174383		

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
 Project: Tronox LLC Henderson/2027.001
 Sample Matrix: Water
 Sample Name: TB100709-GW1
 Lab Code: R0905636-007

Service Request: R0905636
 Date Collected: 10/ 7/09 1040
 Date Received: 10/ 8/09

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis	
								Lot	Lot Note
Bromoform	0.20	U	1.0	0.20	1	NA	10/12/09 21:53	174383	
Bromomethane	0.40	U	2.0	0.40	1	NA	10/12/09 21:53	174383	
Carbon Tetrachloride	0.36	U	1.0	0.36	1	NA	10/12/09 21:53	174383	
Chlorobenzene	0.26	U	1.0	0.26	1	NA	10/12/09 21:53	174383	
Chloroethane	0.21	U	2.0	0.21	1	NA	10/12/09 21:53	174383	
Chloroform	0.16	U	1.0	0.16	1	NA	10/12/09 21:53	174383	
Chloromethane	0.18	U	2.0	0.18	1	NA	10/12/09 21:53	174383	
Dibromochloromethane	0.11	U	1.0	0.11	1	NA	10/12/09 21:53	174383	
Dibromomethane	0.18	U	1.0	0.18	1	NA	10/12/09 21:53	174383	
Dichlorodifluoromethane (CFC 12)	0.18	U	1.0	0.18	1	NA	10/12/09 21:53	174383	
Dichloromethane	0.13	U	2.0	0.13	1	NA	10/12/09 21:53	174383	
Diisopropyl Ether	0.090	U	1.0	0.090	1	NA	10/12/09 21:53	174383	
Ethyl tert-Butyl Ether	0.12	U	1.0	0.12	1	NA	10/12/09 21:53	174383	
Ethylbenzene	0.42	U	1.0	0.42	1	NA	10/12/09 21:53	174383	
Hexachlorobutadiene	0.27	U	5.0	0.27	1	NA	10/12/09 21:53	174383	
Isopropylbenzene (Cumene)	0.34	U	2.0	0.34	1	NA	10/12/09 21:53	174383	
Methyl tert-Butyl Ether	0.13	U	1.0	0.13	1	NA	10/12/09 21:53	174383	
Naphthalene	0.31	U	2.0	0.31	1	NA	10/12/09 21:53	174383	
Styrene	0.36	U	1.0	0.36	1	NA	10/12/09 21:53	174383	
Tetrachloroethene (PCE)	0.42	U	1.0	0.42	1	NA	10/12/09 21:53	174383	
Toluene	0.21	U	1.0	0.21	1	NA	10/12/09 21:53	174383	
Trichloroethene (TCE)	0.13	U	1.0	0.13	1	NA	10/12/09 21:53	174383	
Trichlorofluoromethane (CFC 11)	0.15	U	1.0	0.15	1	NA	10/12/09 21:53	174383	
Vinyl Chloride	0.22	U	1.0	0.22	1	NA	10/12/09 21:53	174383	
cis-1,2-Dichloroethene	0.14	U	1.0	0.14	1	NA	10/12/09 21:53	174383	
cis-1,3-Dichloropropene	0.14	U	1.0	0.14	1	NA	10/12/09 21:53	174383	
m,p-Xylenes	0.81	U	2.0	0.81	1	NA	10/12/09 21:53	174383	
n-Butylbenzene	0.20	U	5.0	0.20	1	NA	10/12/09 21:53	174383	
n-Propylbenzene	0.32	U	2.0	0.32	1	NA	10/12/09 21:53	174383	
o-Xylene	0.40	U	1.0	0.40	1	NA	10/12/09 21:53	174383	
sec-Butylbenzene	0.23	U	2.0	0.23	1	NA	10/12/09 21:53	174383	
tert-Amyl Methyl Ether	0.13	U	1.0	0.13	1	NA	10/12/09 21:53	174383	
tert-Butylbenzene	0.28	U	2.0	0.28	1	NA	10/12/09 21:53	174383	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: TB100709-GW1
Lab Code: R0905636-007

Service Request: R0905636
Date Collected: 10/ 7/09 1040
Date Received: 10/ 8/09
Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
trans-1,2-Dichloroethene	0.16	U	1.0	0.16	1	NA	10/12/09 21:53		174383	
trans-1,3-Dichloropropene	0.17	U	1.0	0.17	1	NA	10/12/09 21:53		174383	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
4-Bromofluorobenzene	103	70-130	10/12/09 21:53		
Dibromofluoromethane	108	70-130	10/12/09 21:53		
Toluene-d8	107	70-130	10/12/09 21:53		

Comments: _____

Sample : R0905636-007|1.0 TB
 Data File: J:\ACQUDATA\MSVOA12\DATA\101209\X4899.D
 Misc : NORTH 4060 T4

Acq On : 12 Oct 2009 9:53 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Oct 12 22:09:24 2009
 QLast Update : Fri Oct 09 14:32:15 2009
 Response via : Initial Calibration

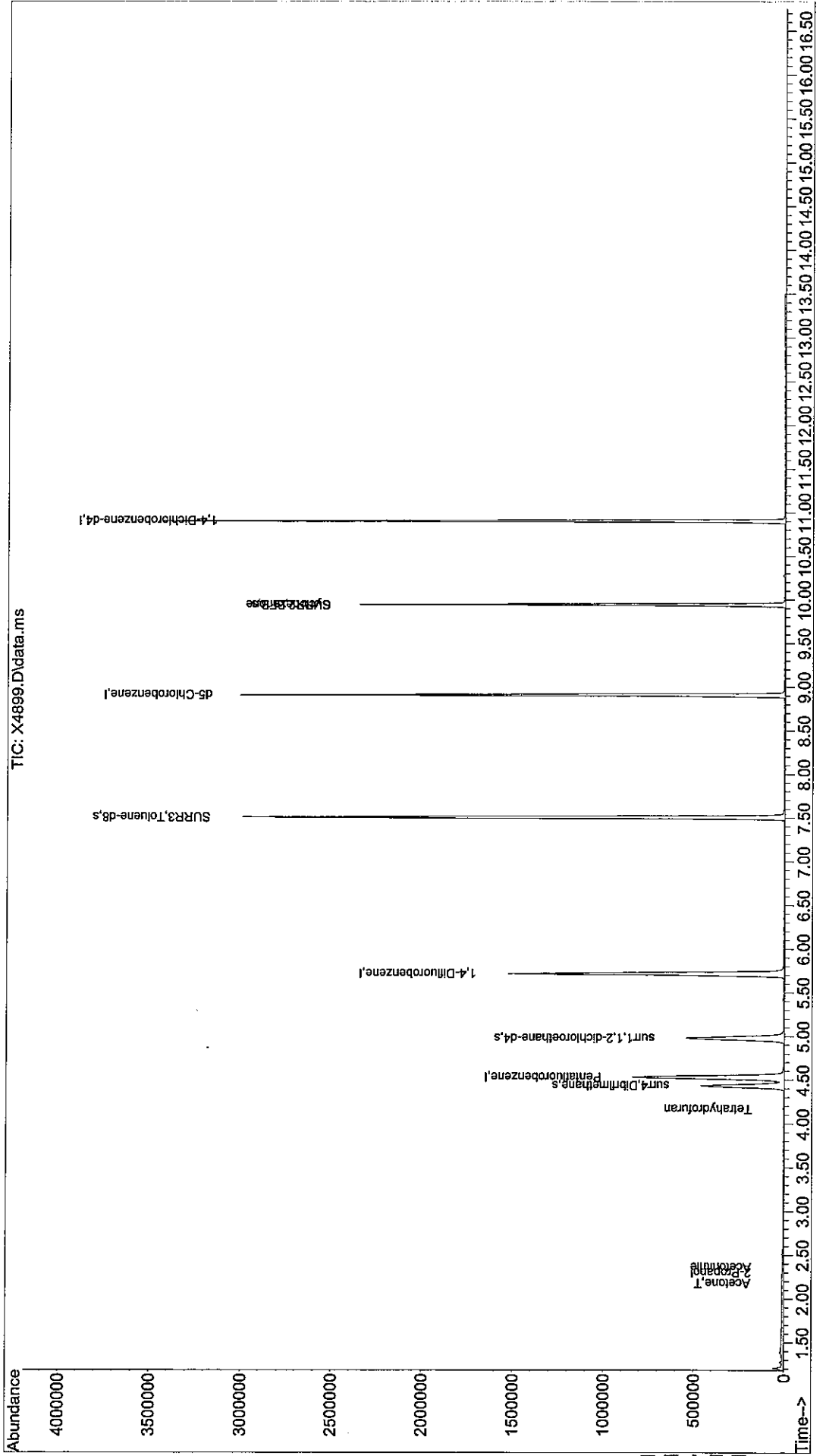
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Pentafluorobenzene	4.534	168	676122	50.00	ug/L	0.00	
44) 1,4-Difluorobenzene	5.716	114	1141457	50.00	ug/L	0.00	
71) d5-Chlorobenzene	8.911	117	1034168	50.00	ug/L	0.00	
84) 1,4-Dichlorobenzene-d4	10.904	152	549357	50.00	ug/L	0.00	
System Monitoring Compounds							
46) surr4,Dibrflmethane	4.436	113	338644	54.11	ug/L	0.00	
Spiked Amount	50.000	Range 89 - 119	Recovery =	108.22%			
49) surr1,1,2-dichloroetha...	4.979	65	504776	53.95	ug/L	0.00	
Spiked Amount	50.000	Range 80 - 120	Recovery =	107.90%			
65) SURR3,Toluene-d8	7.509	98	1423445	53.62	ug/L	0.00	
Spiked Amount	50.000	Range 87 - 121	Recovery =	107.24%			
70) SURR2,BFB	9.941	95	560519	51.59	ug/L	0.00	
Spiked Amount	50.000	Range 85 - 122	Recovery =	103.18%			
Target Compounds							
16) Acetone	2.180	43	1778	0.81	ug/L	80	
17) 2-Propanol	2.302	45	160	0.35	ug/L #	51	
20) Acetonitrile	2.363	40	542	1.20	ug/L #	1	
40) Tetrahydrofuran	4.168	42	1747	0.62	ug/L #	72	
87) Cyclohexanone	9.941	55	2056	3.67	ug/L #	8	

KR
10/16/09

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sample : R0905636-007|1.0
Data File: J:\ACQUDATA\MSVOA12\DATA\101209\X4899.D
Misc : NORTH 4060 T4
Acq On : 12 Oct 2009 9:53 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 12 22:09:24 2009
QLast Update : Fri Oct 09 14:32:15 2009
Response via : Initial Calibration



00102

VOLATILE ORGANICS
STANDARDS DATA

Initial Calibration - Summary Report

Calibration ID:	CAL1009	Instrument ID:	MSVOA-12
Method ID:	MJ170	Column Name:	MS

W091509 *YR g/ (e)*
8260 Waters *9/15/09*

Parameter Name	Type	Curve Fit	Min RF	Mean RF	Max %RSD	%RSD	Min COD	COD	MRL Check	Conc ½ Low pt.
Dichlorodifluoromethane	TRG	AverageRF		0.565	15	8.9			OK	
Chloromethane	TRG	AverageRF	0.100	1.068	15	5.3			OK	
Vinyl Chloride	TRG	AverageRF		0.648	15	6.8			OK	
Bromomethane	TRG	Linear		0.269			.99	0.9960	OK	-2.18 *
Chloroethane	TRG	AverageRF		0.369	15	9.8			OK	
Dichlorofluoromethane (CFC 21)	TRG	AverageRF		0.816	15	4.6			OK	
Trichlorofluoromethane	TRG	AverageRF		0.672	15	7.0			OK	
Diethyl Ether	TRG	AverageRF		0.450	15	5.3			OK	
1,2-Dichloro-1,1,2-trifluoroethane (CF	TRG	AverageRF		0.486	15	6.7			OK	
2,2-Dichloro-1,1,1-trifluoroethane (CF	TRG	AverageRF		0.525	15	3.8			OK	
Acrolein	TRG	AverageRF		0.071	15	9.3			OK	
1,1-Dichloroethene	MS	AverageRF		0.311	15	5.2			OK	
Trichlorotrifluoroethane	TRG	AverageRF		0.328	15	6.1			OK	
Acetone	TRG	AverageRF		0.163	15	5.0			OK	
2-Propanol	TRG	AverageRF		0.034	15	9.9			OK	
Iodomethane (Methyl Iodide)	TRG	Linear		0.341			.99	0.9999	OK	0.59 *
Carbon Disulfide	TRG	AverageRF		1.606	15	13.1			OK	
Acetonitrile	TRG	AverageRF		0.034	15	10.7			*	
Allyl Chloride	TRG	AverageRF		0.286	15	10.3			OK	
Methyl Acetate	TRG	AverageRF		0.492	15	6.4			OK	
Methylene Chloride	TRG	AverageRF		0.581	15	3.6			OK	
tert-Butyl Alcohol	TRG	Linear		0.037			.99	0.9976	OK	65.36 *
Acrylonitrile	TRG	AverageRF		0.231	15	5.4			OK	
Methyl tert-Butyl Ether	TRG	AverageRF		1.284	15	4.8			OK	
trans-1,2-Dichloroethene	TRG	AverageRF		0.538	15	5.3			OK	
1,1-Dichloroethane	TRG	AverageRF	0.100	1.297	15	3.9			OK	
Vinyl Acetate	TRG	AverageRF		0.067	15	12.2			OK	
Diisopropyl Ether	TRG	AverageRF		3.346	15	6.2			OK	
2-Chloro-1,3-butadiene	TRG	AverageRF		1.254	15	6.0			OK	
ETBE	TRG	AverageRF		2.083	15	8.0			OK	
2,2-Dichloropropane	TRG	AverageRF		0.654	15	11.8			OK	
cis-1,2-Dichloroethene	TRG	AverageRF		0.585	15	3.0			OK	
2-Butanone (MEK)	TRG	AverageRF		0.323	15	7.6			OK	
Propionitrile	TRG	AverageRF		0.080	15	9.2			OK	
Bromochloromethane	TRG	AverageRF		0.294	15	7.6			OK	
Methacrylonitrile	TRG	AverageRF		0.164	15	9.7			OK	
Tetrahydrofuran	TRG	AverageRF		0.207	15	5.8			OK	
Chloroform	TRG	AverageRF		0.960	15	5.6			OK	
1,1,1-Trichloroethane (TCA)	TRG	AverageRF		0.763	15	7.4			OK	
TAME	TRG	AverageRF		1.219	15	10.0			OK	
Cyclohexane	TRG	AverageRF		0.588	15	2.7			OK	
Dibromofluoromethane	SURR	AverageRF		0.274	15	4.0			NA	
Carbon Tetrachloride	TRG	AverageRF		0.111	15	14.2			OK	
1,1-Dichloropropene	TRG	AverageRF		0.454	15	3.7			OK	
1,2-Dichloroethane-d4	SURR	AverageRF		0.410	15	3.1			NA	
Benzene	MS	AverageRF		1.359	15	2.9			OK	
1,2-Dichloroethane (EDC)	TRG	AverageRF		0.554	15	7.2			OK	
Isobutyl Alcohol	TRG	Linear		0.013			.99	0.9974	OK	69.55 *
n-Heptane	TRG	AverageRF		0.902	15	5.3			OK	
Trichloroethene (TCE)	MS	AverageRF		0.306	15	4.4			OK	
Methylcyclohexane	TRG	AverageRF		0.727	15	4.4			OK	

Initial Calibration - Summary Report

Calibration ID: CAL1009
Method ID: MJ170

Instrument ID: MSVOA-12
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		0.413	15	3.2			OK	
Dibromomethane	TRG	AverageRF		0.156	15	4.9			OK	
1,4-Dioxane	TRG	AverageRF		0.003	15	12.9			OK	
Methyl Methacrylate	TRG	Linear		0.144			.99	0.9998	OK	0.86 *
Bromodichloromethane	TRG	AverageRF		0.410	15	4.4			OK	
2-Chloroethyl Vinyl Ether	TRG	AverageRF		0.196	15	9.1			OK	
cis-1,3-Dichloropropene	TRG	AverageRF		0.467	15	10.3			OK	
4-Methyl-2-pentanone (MIBK)	TRG	AverageRF		0.350	15	9.4			OK	
Toluene-d8	SURR	AverageRF		1.163	15	5.9			NA	
Toluene	MS	AverageRF		1.392	15	3.9			OK	
trans-1,3-Dichloropropene	TRG	AverageRF		0.386	15	12.7			OK	
Ethyl Methacrylate	TRG	Linear		0.289			.99	0.9996	OK	0.97 *
1,1,2-Trichloroethane	TRG	AverageRF		0.227	15	6.3			OK	
4-Bromofluorobenzene	SURR	AverageRF		0.476	15	3.8			NA	
Tetrachloroethene (PCE)	TRG	AverageRF		0.271	15	7.6			OK	
2-Hexanone	TRG	AverageRF		0.277	15	9.6			OK	
1,3-Dichloropropane	TRG	AverageRF		0.493	15	5.4			OK	
Dibromochloromethane	TRG	AverageRF		0.271	15	8.3			OK	
n-Butyl Acetate	TRG	Linear		0.601			.99	0.9995	OK	1.86 *
1,2-Dibromoethane (EDB)	TRG	AverageRF		0.253	15	6.9			OK	
Chlorobenzene	MS	AverageRF	0.300	0.978	15	4.2			OK	
1,1,1,2-Tetrachloroethane	TRG	AverageRF		0.294	15	10.1			OK	
Ethylbenzene	TRG	AverageRF		0.558	15	3.7			OK	
m,p-Xylenes	TRG	AverageRF		0.653	15	5.9			OK	
o-Xylene	TRG	AverageRF		0.634	15	4.8			OK	
Styrene	TRG	AverageRF		1.077	15	5.4			OK	
Bromoform	TRG	AverageRF	0.100	0.262	15	12.6			OK	
Isopropylbenzene	TRG	AverageRF		3.089	15	5.5			OK	
Cyclohexanone	TRG	AverageRF		0.051	15	7.2			OK	
trans-1,4-Dichloro-2-butene	TRG	AverageRF		0.275	15	13.7			OK	
1,1,2,2-Tetrachloroethane	TRG	AverageRF	0.300	0.581	15	4.3			OK	
Bromobenzene	TRG	AverageRF		0.731	15	3.0			OK	
1,2,3-Trichloropropane	TRG	AverageRF		0.167	15	14.7			OK	
n-Propylbenzene	TRG	AverageRF		4.187	15	4.8			OK	
2-Chlorotoluene	TRG	AverageRF		2.484	15	2.9			OK	
4-Chlorotoluene	TRG	AverageRF		2.869	15	3.3			OK	
1,3,5-Trimethylbenzene	TRG	AverageRF		2.780	15	3.7			OK	
tert-Butylbenzene	TRG	AverageRF		2.331	15	5.4			OK	
1,2,4-Trimethylbenzene	TRG	AverageRF		2.972	15	5.9			OK	
sec-Butylbenzene	TRG	AverageRF		3.728	15	4.9			OK	
4-Isopropyltoluene	TRG	AverageRF		2.965	15	5.0			OK	
1,3-Dichlorobenzene	TRG	AverageRF		1.570	15	4.1			OK	
1,4-Dichlorobenzene	TRG	AverageRF		1.633	15	3.6			OK	
n-Butylbenzene	TRG	AverageRF		2.993	15	4.5			OK	
1,2-Dichlorobenzene	TRG	AverageRF		1.443	15	6.3			OK	
1,2-Dibromo-3-chloropropane (DBCP)	TRG	AverageRF		0.113	15	10.0			OK	
1,2,4-Trichlorobenzene	TRG	AverageRF		0.982	15	6.3			OK	
Hexachlorobutadiene	TRG	AverageRF		0.446	15	5.6			OK	
Naphthalene	TRG	AverageRF		2.131	15	10.9			OK	
1,2,3-Trichlorobenzene	TRG	AverageRF		0.894	15	3.9			OK	

Initial Calibration - Summary Report

Calibration ID: CAL1009
Method ID: MJ170

Instrument ID: MSVOA-12
Column Name: MS

Initial Calibration - Summary Report

Calibration ID: CAL1009
Method ID: MJ170

Instrument ID: MSVOA-12
Column Name: MS

SPCC and CCC Evaluations

Parameter Name	Type	SPCC Criteria	SPCC Result	CCC Criteria	CCC Result
Chloromethane	SPCC	0.100	1.068		
Vinyl Chloride	CCC			30	6.8
1,1-Dichloroethene	CCC			30	5.2
1,1-Dichloroethane	SPCC	0.100	1.297		
Chloroform	CCC			30	5.6
1,2-Dichloropropane	CCC			30	3.2
Toluene	CCC			30	3.9
Chlorobenzene	SPCC	0.300	0.978		
Ethylbenzene	CCC			30	3.7
Bromoform	SPCC	0.100	0.262		
1,1,2,2-Tetrachloroethane	SPCC	0.300	0.581		

Initial Calibration - Detailed Report

Calibration ID: CAL1009
Method ID: MJ170

Instrument ID: MSVOA-12
Column Name: MS
Calibration Fit: AverageRF

W091509 500 Waters

YR9/15/09

FileID	File Location	Acquisition Date	Quantitation Date	Last Updated
8142	J:\ACQUDATA\msvoa12\Data\091509\X4228.D	09/15/2009 15:49	09/16/2009 10:18	09/16/2009 17:43
8143	J:\ACQUDATA\msvoa12\Data\091509\X4229.D	09/15/2009 16:20	09/16/2009 10:21	09/16/2009 17:43
8144	J:\ACQUDATA\msvoa12\Data\091509\X4230.D	09/15/2009 16:51	09/16/2009 11:50	09/16/2009 17:43
8145	J:\ACQUDATA\msvoa12\Data\091509\X4231.D	09/15/2009 17:22	09/16/2009 10:31	09/16/2009 17:43
8146	J:\ACQUDATA\msvoa12\Data\091509\X4232.D	09/15/2009 17:53	09/16/2009 10:34	09/16/2009 17:43
8147	J:\ACQUDATA\msvoa12\Data\091509\X4233.D	09/15/2009 18:24	09/16/2009 10:57	09/16/2009 17:43
8148	J:\ACQUDATA\msvoa12\Data\091509\X4234.D	09/15/2009 18:54	09/16/2009 10:15	09/16/2009 17:43
8149	J:\ACQUDATA\msvoa12\Data\091509\X4235.D	09/15/2009 19:25	09/16/2009 11:02	09/16/2009 17:43

Parameter Name	FileID								Mean RF	%RSD
	8142	8143	8144	8145	8146	8147	8148	8149		
Dichlorodifluoromethane	0.556	0.514	0.529	0.507	0.549	0.625	0.635	0.607	0.565	8.9
Chloromethane	1.141	1.056	1.044	0.977	1.011	1.115	1.110	1.090	1.068	5.3
Vinyl Chloride	0.696	0.602	0.605	0.602	0.624	0.699	0.689	0.667	0.648	6.8
Bromomethane	0.369	0.277	0.300	0.243	0.249	0.257	0.241	0.216	0.269	17.7#
Chloroethane	0.446	0.390	0.358	0.346	0.344	0.375	0.359	0.333	0.369	9.8
Dichlorofluoromethane (CFC 21)	0.892	0.795	0.800	0.781	0.843	0.822	0.816	0.780	0.816	4.6
Trichlorofluoromethane	0.751	0.625	0.647	0.640	0.619	0.706	0.707	0.682	0.672	7.0
Diethyl Ether	0.467	0.400	0.452	0.443	0.469	0.475	0.459	0.438	0.450	5.3
1,2-Dichloro-1,1,2-trifluoroethane (0.495	0.460	0.505	0.501	0.532	0.493	0.484	0.423	0.486	6.7
2,2-Dichloro-1,1,1-trifluoroethane (0.559	0.499	0.525	0.521	0.543	0.533	0.517	0.505	0.525	3.8
Acrolein	0.080	0.066	0.062	0.064	0.074	0.074	0.073	0.078	0.071	9.3
1,1-Dichloroethene	0.316	0.333	0.310	0.292	0.290	0.332	0.314	0.303	0.311	5.2
Trichlorotrifluoroethane	0.355	0.331	0.314	0.315	0.297	0.350	0.341	0.319	0.328	6.1
Acetone			0.175	0.154	0.167	0.167	0.158	0.157	0.163	5.0
2-Propanol		0.032	0.032	0.029	0.034	0.038	0.036	0.038	0.034	9.9
Iodomethane (Methyl Iodide)	0.255	0.223	0.259	0.299	0.423	0.430	0.416	0.421	0.341	26.4#
Carbon Disulfide	1.366	1.734	1.654	1.700	1.899	1.233	1.639	1.625	1.606	13.1
Acetonitrile				0.036	0.036	0.027	0.034	0.034	0.034	10.7
Allyl Chloride	0.271	0.235	0.301	0.278	0.300	0.262	0.317	0.320	0.286	10.3
Methyl Acetate	0.508	0.474	0.451	0.462	0.542	0.472	0.517	0.508	0.492	6.4
Methylene Chloride	0.620	0.581	0.591	0.583	0.572	0.578	0.576	0.544	0.581	3.6
tert-Butyl Alcohol	0.024	0.029	0.027	0.029	0.036	0.045	0.049	0.054	0.037	30.6#
Acrylonitrile	0.226	0.222	0.212	0.219	0.243	0.241	0.243	0.239	0.231	5.4
Methyl tert-Butyl Ether	1.234	1.192	1.229	1.275	1.349	1.338	1.355	1.299	1.284	4.8
trans-1,2-Dichloroethene	0.549	0.502	0.571	0.549	0.546	0.559	0.543	0.487	0.538	5.3
1,1-Dichloroethane	1.389	1.323	1.251	1.250	1.239	1.325	1.318	1.283	1.297	3.9
Vinyl Acetate		0.051	0.067	0.063	0.068	0.072	0.066	0.078	0.067	12.2
Diisopropyl Ether	3.150	3.095	3.209	3.231	3.692	3.478	3.489	3.422	3.346	6.2
2-Chloro-1,3-butadiene	1.160	1.239	1.204	1.196	1.400	1.299	1.242	1.289	1.254	6.0
ETBE	2.029	1.904	1.884	1.932	2.225	2.148	2.244	2.301	2.083	8.0
2,2-Dichloropropane	0.675	0.627	0.567	0.567	0.592	0.699	0.750	0.755	0.654	11.8
cis-1,2-Dichloroethene	0.604	0.579	0.580	0.589	0.581	0.604	0.592	0.549	0.585	3.0
2-Butanone (MEK)		0.356	0.335	0.329	0.343	0.313	0.289	0.297	0.323	7.6
Propionitrile	0.080	0.066	0.075	0.079	0.084	0.084	0.087	0.088	0.080	9.2
Bromochloromethane	0.340	0.280	0.304	0.270	0.299	0.299	0.287	0.275	0.294	7.6
Methacrylonitrile	0.174	0.130	0.161	0.152	0.176	0.170	0.177	0.169	0.164	9.7
Tetrahydrofuran		0.217	0.230	0.197	0.200	0.205	0.200	0.203	0.207	5.8
Chloroform	1.080	0.940	0.938	0.910	0.925	0.977	0.970	0.938	0.960	5.6

Initial Calibration - Detailed Report

Calibration ID:	CAL1009	Instrument ID:	MSVOA-12
Method ID:	MJ170	Column Name:	MS
		Calibration Fit:	AverageRF

Parameter Name	FileID								Mean RF	%RSD
	8142	8143	8144	8145	8146	8147	8148	8149		
1,1,1-Trichloroethane (TCA)	0.703	0.759	0.750	0.702	0.713	0.812	0.836	0.831	0.763	7.4
TAME	1.123	1.096	1.079	1.133	1.327	1.282	1.351	1.362	1.219	10.0
Cyclohexane	0.581	0.605	0.580	0.564	0.614	0.588	0.595	0.577	0.588	2.7
Dibromofluoromethane			0.281	0.283	0.267	0.285	0.271	0.257	0.274	4.0
Carbon Tetrachloride	0.139	0.108	0.090	0.100	0.096	0.115	0.121	0.117	0.111	14.2
1,1-Dichloropropene	0.449	0.463	0.454	0.450	0.425	0.475	0.474	0.442	0.454	3.7
1,2-Dichloroethane-d4			0.422	0.421	0.404	0.421	0.401	0.391	0.410	3.1
Benzene	1.384	1.384	1.351	1.355	1.339	1.407	1.376	1.276	1.359	2.9
1,2-Dichloroethane (EDC)	0.647	0.521	0.549	0.529	0.553	0.553	0.551	0.529	0.554	7.2
Isobutyl Alcohol	0.011	0.012	0.008	0.009	0.013	0.016	0.018	0.019	0.013	30.9#
n-Heptane	0.933	0.887	0.859	0.888	0.820	0.943	0.967	0.917	0.902	5.3
Trichloroethene (TCE)	0.323	0.307	0.325	0.309	0.289	0.308	0.305	0.288	0.306	4.4
Methylcyclohexane	0.740	0.719	0.668	0.705	0.771	0.742	0.751	0.721	0.727	4.4
1,2-Dichloropropane	0.398	0.427	0.404	0.412	0.419	0.429	0.421	0.394	0.413	3.2
Dibromomethane	0.147	0.169	0.154	0.148	0.162	0.158	0.158	0.151	0.156	4.9
1,4-Dioxane		0.002	0.002	0.003	0.003	0.003	0.003	0.003	0.003	12.9
Methyl Methacrylate	0.130	0.115	0.112	0.127	0.160	0.167	0.174	0.170	0.144	17.9#
Bromodichloromethane	0.411	0.396	0.385	0.392	0.418	0.430	0.435	0.416	0.410	4.4
2-Chloroethyl Vinyl Ether		0.170	0.188	0.176	0.218	0.207	0.203	0.206	0.196	9.1
cis-1,3-Dichloropropene	0.385	0.444	0.431	0.453	0.479	0.519	0.526	0.502	0.467	10.3
4-Methyl-2-pentanone (MIBK)		0.308	0.316	0.324	0.379	0.371	0.366	0.388	0.350	9.4
Toluene-d8			1.226	1.216	1.130	1.226	1.111	1.068	1.163	5.9
Toluene	1.449	1.404	1.431	1.388	1.332	1.428	1.413	1.290	1.392	3.9
trans-1,3-Dichloropropene	0.379	0.321	0.341	0.343	0.391	0.431	0.448	0.438	0.386	12.7
Ethyl Methacrylate	0.239	0.225	0.215	0.250	0.316	0.348	0.364	0.354	0.289	21.8#
1,1,2-Trichloroethane	0.252	0.212	0.219	0.214	0.235	0.237	0.229	0.215	0.227	6.3
4-Bromofluorobenzene			0.495	0.481	0.457	0.498	0.465	0.459	0.476	3.8
Tetrachloroethene (PCE)	0.304	0.298	0.273	0.259	0.252	0.272	0.265	0.247	0.271	7.6
2-Hexanone		0.264	0.244	0.244	0.294	0.286	0.290	0.314	0.277	9.6
1,3-Dichloropropane	0.490	0.452	0.492	0.508	0.532	0.512	0.496	0.458	0.493	5.4
Dibromochloromethane	0.276	0.226	0.266	0.252	0.284	0.288	0.291	0.286	0.271	8.3
n-Butyl Acetate	0.414	0.453	0.488	0.491	0.690	0.718	0.766	0.790	0.601	25.6#
1,2-Dibromoethane (EDB)	0.238	0.288	0.238	0.235	0.263	0.257	0.257	0.248	0.253	6.9
Chlorobenzene	0.997	1.020	1.017	0.979	0.973	0.994	0.954	0.893	0.978	4.2
1,1,1,2-Tetrachloroethane	0.247	0.265	0.296	0.276	0.300	0.319	0.331	0.320	0.294	10.1
Ethylbenzene	0.566	0.563	0.559	0.585	0.544	0.571	0.557	0.515	0.558	3.7
m,p-Xylenes	0.675	0.652	0.675	0.684	0.650	0.685	0.640	0.568	0.653	5.9
o-Xylene	0.619	0.621	0.653	0.646	0.649	0.677	0.633	0.575	0.634	4.8
Styrene	1.040	1.026	1.074	1.109	1.133	1.160	1.091	0.988	1.077	5.4
Bromoform		0.266	0.215	0.229	0.274	0.288	0.299		0.262	12.6
Isopropylbenzene	2.872	2.931	2.961	3.107	3.046	3.356	3.274	3.166	3.089	5.5
Cyclohexanone	0.049	0.050	0.045	0.051	0.057	0.055	0.051	0.049	0.051	7.2
trans-1,4-Dichloro-2-butene	0.298	0.232	0.241	0.226	0.277	0.288	0.309	0.327	0.275	13.7
1,1,2,2-Tetrachloroethane	0.593	0.546	0.597	0.578	0.621	0.594	0.567	0.553	0.581	4.3
Bromobenzene	0.718	0.712	0.736	0.716	0.752	0.767	0.739	0.705	0.731	3.0
1,2,3-Trichloropropane	0.113	0.157	0.173	0.160	0.191	0.181	0.181	0.180	0.167	14.7
n-Propylbenzene	4.229	3.919	3.981	4.261	4.063	4.505	4.399	4.135	4.187	4.8
2-Chlorotoluene	2.438	2.450	2.388	2.532	2.426	2.602	2.556	2.483	2.484	2.9
4-Chlorotoluene	2.846	2.960	2.884	2.914	2.876	2.973	2.836	2.667	2.869	3.3
1,3,5-Trimethylbenzene	2.720	2.806	2.693	2.875	2.779	2.953	2.788	2.623	2.780	3.7

Initial Calibration - Detailed Report

Calibration ID: CAL1009
Method ID: MJ170

Instrument ID: MSVOA-12
Column Name: MS
Calibration Fit: AverageRF

Parameter Name	FileID								Mean RF	%RSD
	8142	8143	8144	8145	8146	8147	8148	8149		
tert-Butylbenzene	2.266	2.211	2.165	2.328	2.288	2.536	2.472	2.383	2.331	5.4
1,2,4-Trimethylbenzene	2.654	2.928	2.844	3.078	2.968	3.228	3.120	2.958	2.972	5.9
sec-Butylbenzene	3.560	3.583	3.607	3.808	3.569	4.037	3.944	3.715	3.728	4.9
4-Isopropyltoluene	2.861	2.853	2.813	2.994	2.906	3.238	3.121	2.932	2.965	5.0
1,3-Dichlorobenzene	1.639	1.499	1.508	1.507	1.565	1.659	1.628	1.553	1.570	4.1
1,4-Dichlorobenzene	1.734	1.699	1.593	1.611	1.592	1.656	1.627	1.556	1.633	3.6
n-Butylbenzene	2.960	2.909	2.930	3.090	2.955	3.229	3.080	2.789	2.993	4.5
1,2-Dichlorobenzene	1.547	1.492	1.448	1.475	1.467	1.484	1.379	1.252	1.443	6.3
1,2-Dibromo-3-chloropropane (DBC)	0.111	0.109	0.107	0.091	0.110	0.121	0.124	0.126	0.113	10.0
1,2,4-Trichlorobenzene	1.046	0.916	0.885	0.973	1.012	1.057	1.022	0.948	0.982	6.3
Hexachlorobutadiene	0.479	0.465	0.454	0.418	0.406	0.459	0.454	0.433	0.446	5.6
Naphthalene		1.799	1.931	1.981	2.348	2.405	2.301	2.149	2.131	10.9
1,2,3-Trichlorobenzene	0.897	0.884	0.869	0.859	0.930	0.953	0.905	0.852	0.894	3.9

RSD Not Applicable. Compound being quantitated from curve. Included in Average RF summary for Average %RSD calculation.

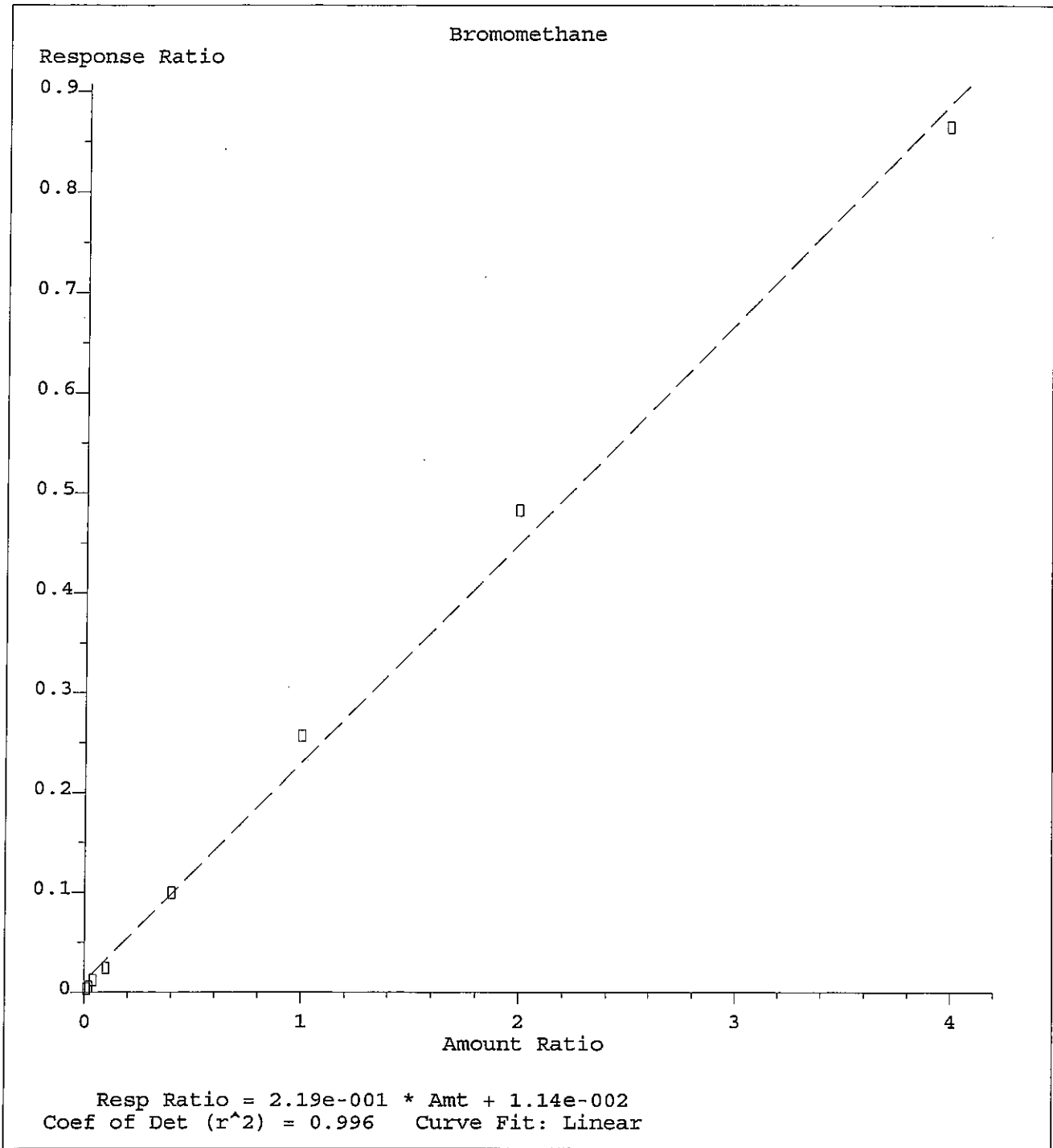
Initial Calibration - Detailed Report

Calibration ID: CAL1009
Method ID: MJ170

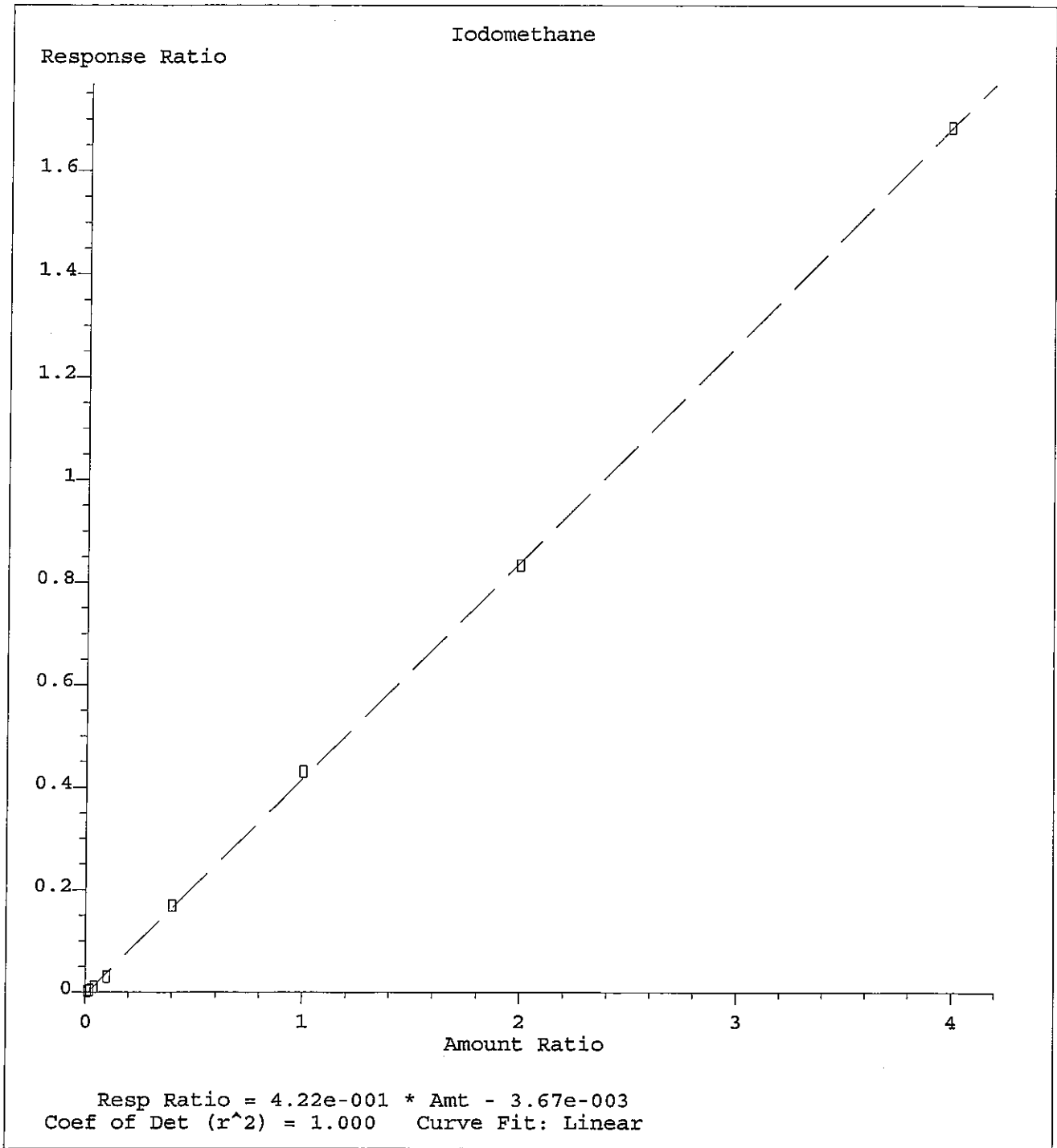
Instrument ID: MSVOA-12
Column Name: MS
Calibration Fit: Linear

FileID	File Location	Acquisition Date	Quantitation Date	Last Updated
8142	J:\ACQUDATA\msvoa12\Data\091509\X4228.D	09/15/2009 15:49	09/16/2009 10:18	09/16/2009 17:43
8143	J:\ACQUDATA\msvoa12\Data\091509\X4229.D	09/15/2009 16:20	09/16/2009 10:21	09/16/2009 17:43
8144	J:\ACQUDATA\msvoa12\Data\091509\X4230.D	09/15/2009 16:51	09/16/2009 11:50	09/16/2009 17:43
8145	J:\ACQUDATA\msvoa12\Data\091509\X4231.D	09/15/2009 17:22	09/16/2009 10:31	09/16/2009 17:43
8146	J:\ACQUDATA\msvoa12\Data\091509\X4232.D	09/15/2009 17:53	09/16/2009 10:34	09/16/2009 17:43
8147	J:\ACQUDATA\msvoa12\Data\091509\X4233.D	09/15/2009 18:24	09/16/2009 10:57	09/16/2009 17:43
8148	J:\ACQUDATA\msvoa12\Data\091509\X4234.D	09/15/2009 18:54	09/16/2009 10:15	09/16/2009 17:43
8149	J:\ACQUDATA\msvoa12\Data\091509\X4235.D	09/15/2009 19:25	09/16/2009 11:02	09/16/2009 17:43

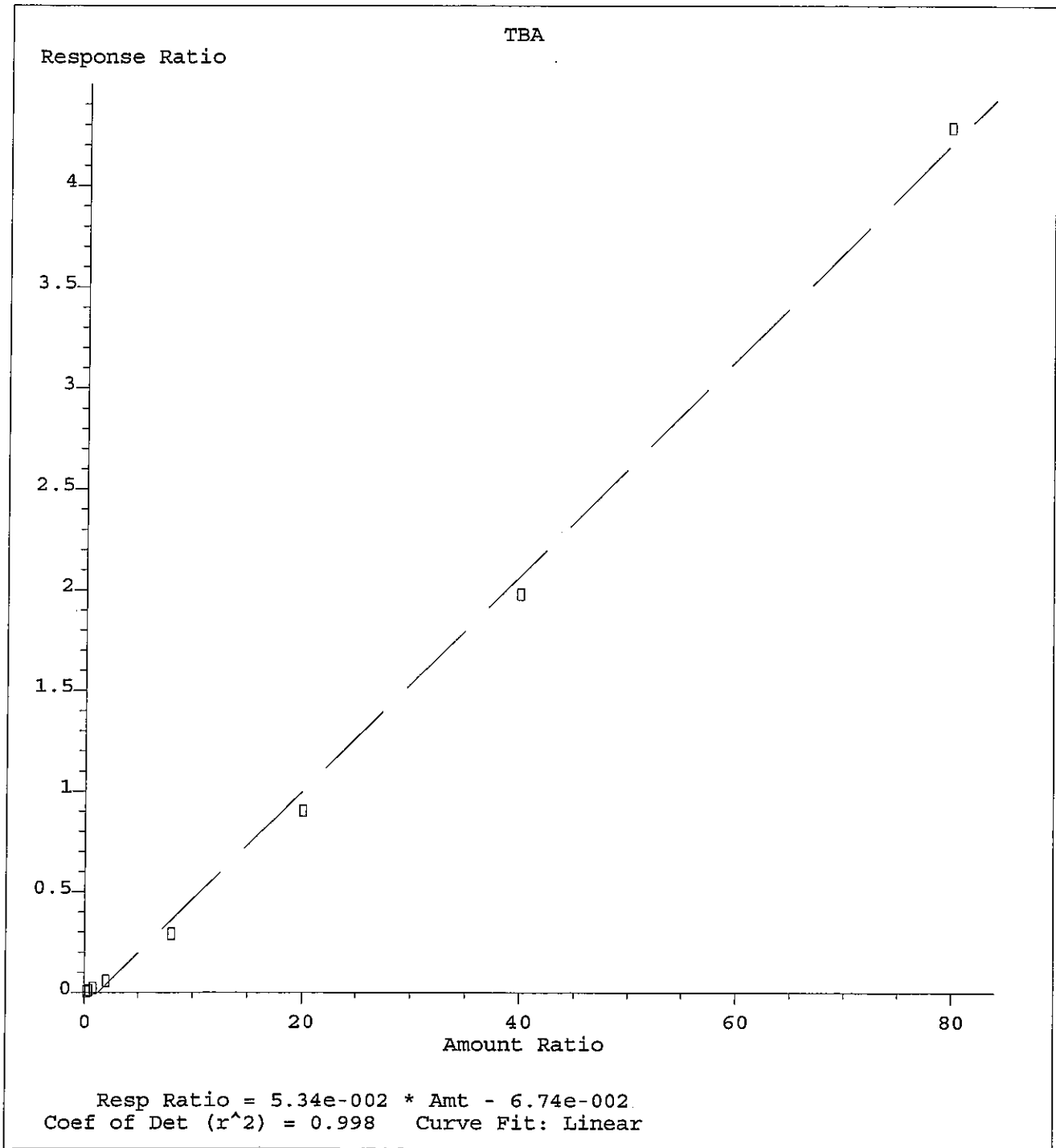
Parameter Name	CoefX2	CoefX	Y-intercept	COD	Mean RF
Bromomethane		0.219	0.011	0.9960	0.269
Iodomethane (Methyl Iodide)		0.422	-0.004	0.9999	0.341
tert-Butyl Alcohol		0.053	-0.067	0.9976	0.037
Isobutyl Alcohol		0.019	-0.026	0.9974	0.013
Methyl Methacrylate		0.172	-0.002	0.9998	0.144
Ethyl Methacrylate		0.357	-0.006	0.9996	0.289
n-Butyl Acetate		0.791	-0.027	0.9995	0.601



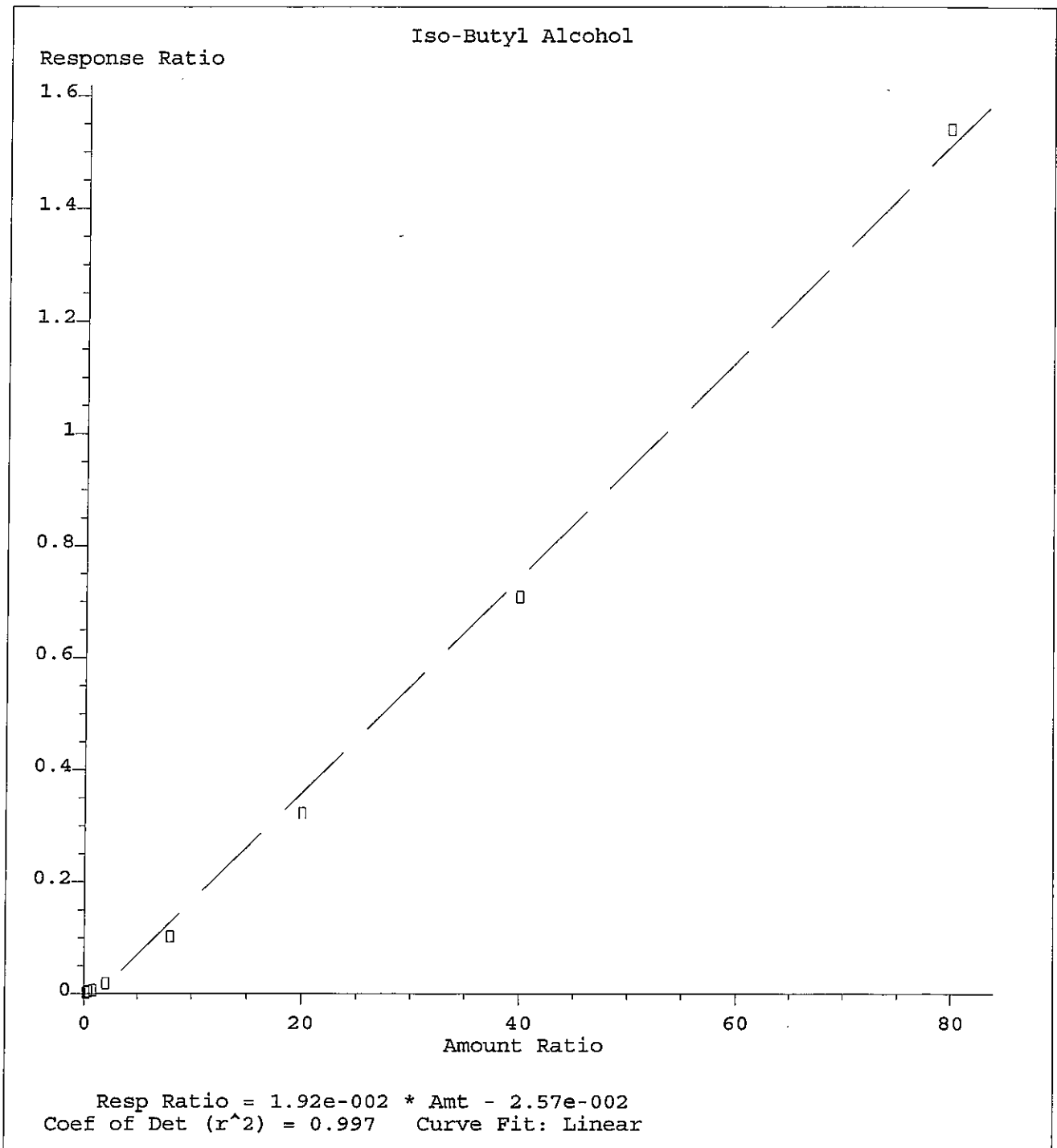
Method Name: J:\ACQUDATA\MSVOA12\METHODS\W091509.M
Calibration Table Last Updated: Wed Sep 16 11:50:37 2009



Method Name: J:\ACQUDATA\MSVOA12\METHODS\W091509.M
Calibration Table Last Updated: Wed Sep 16 11:50:37 2009.



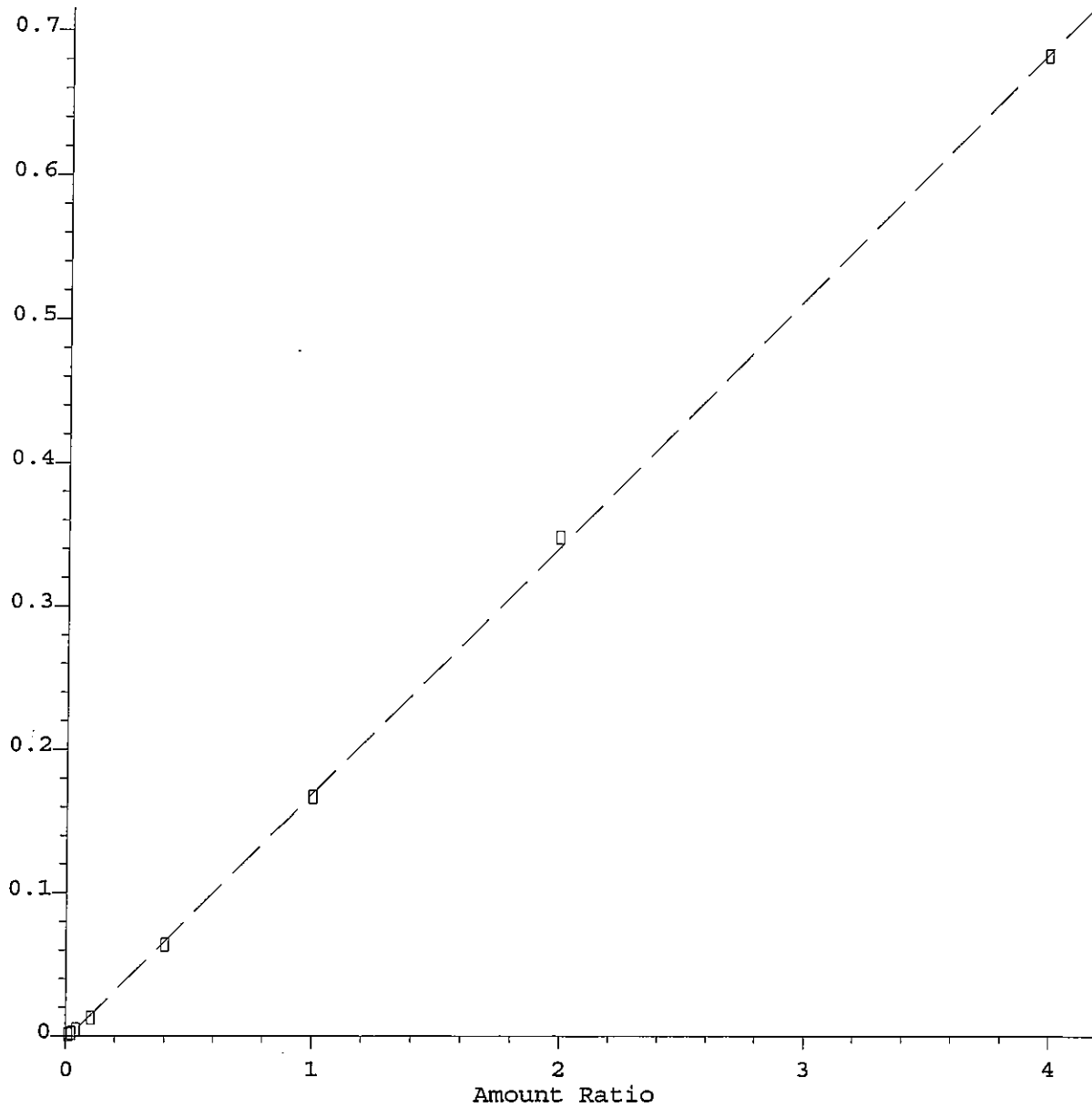
Method Name: J:\ACQUDATA\MSVOA12\METHODS\W091509.M
Calibration Table Last Updated: Wed Sep 16 11:50:37 2009



Method Name: J:\ACQUDATA\MSVOA12\METHODS\W091509.M
Calibration Table Last Updated: Wed Sep 16 11:50:37 2009

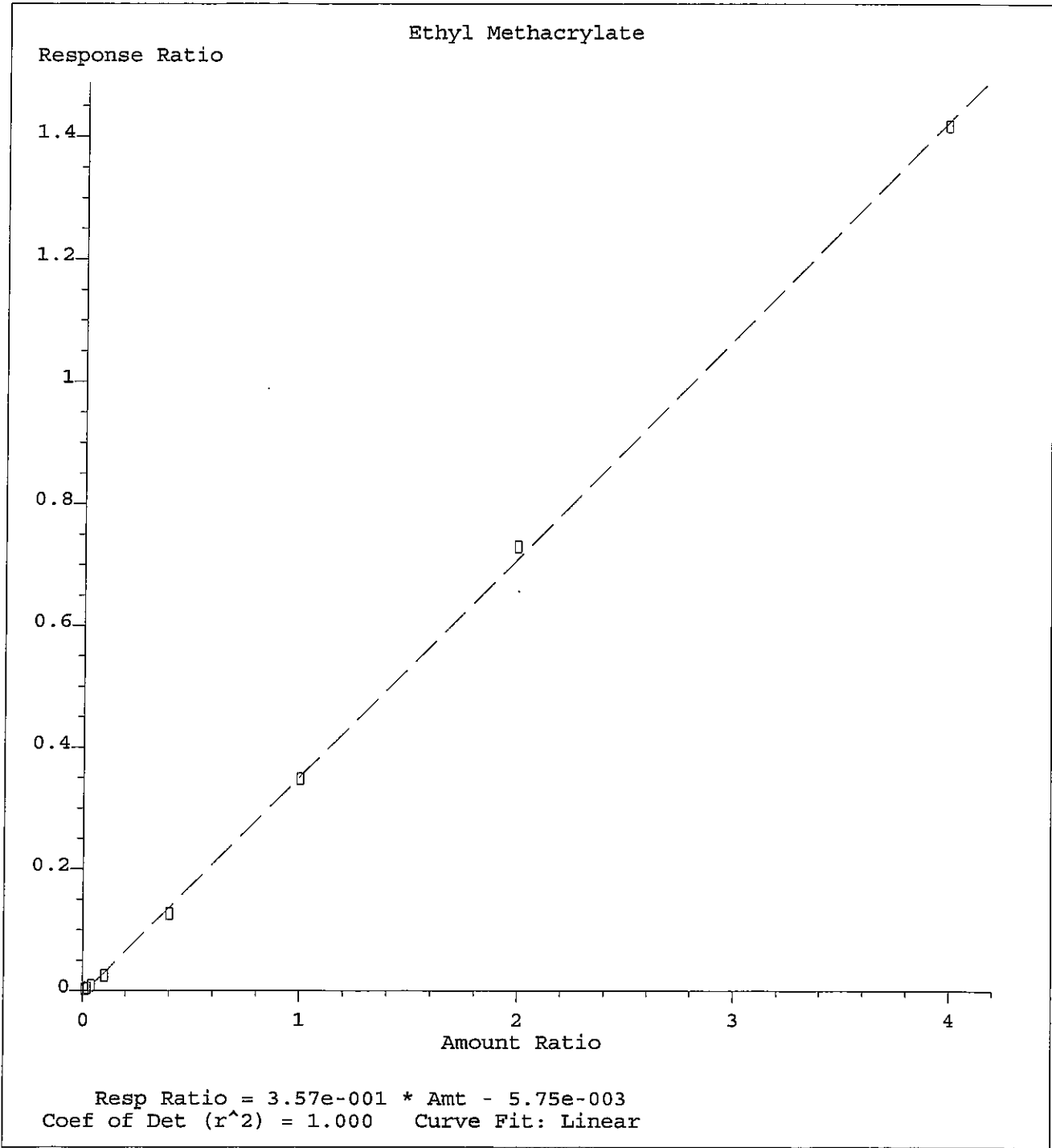
Methyl Methacrylate

Response Ratio



Resp Ratio = 1.72e-001 * Amt - 2.30e-003
Coef of Det (r^2) = 1.000 Curve Fit: Linear

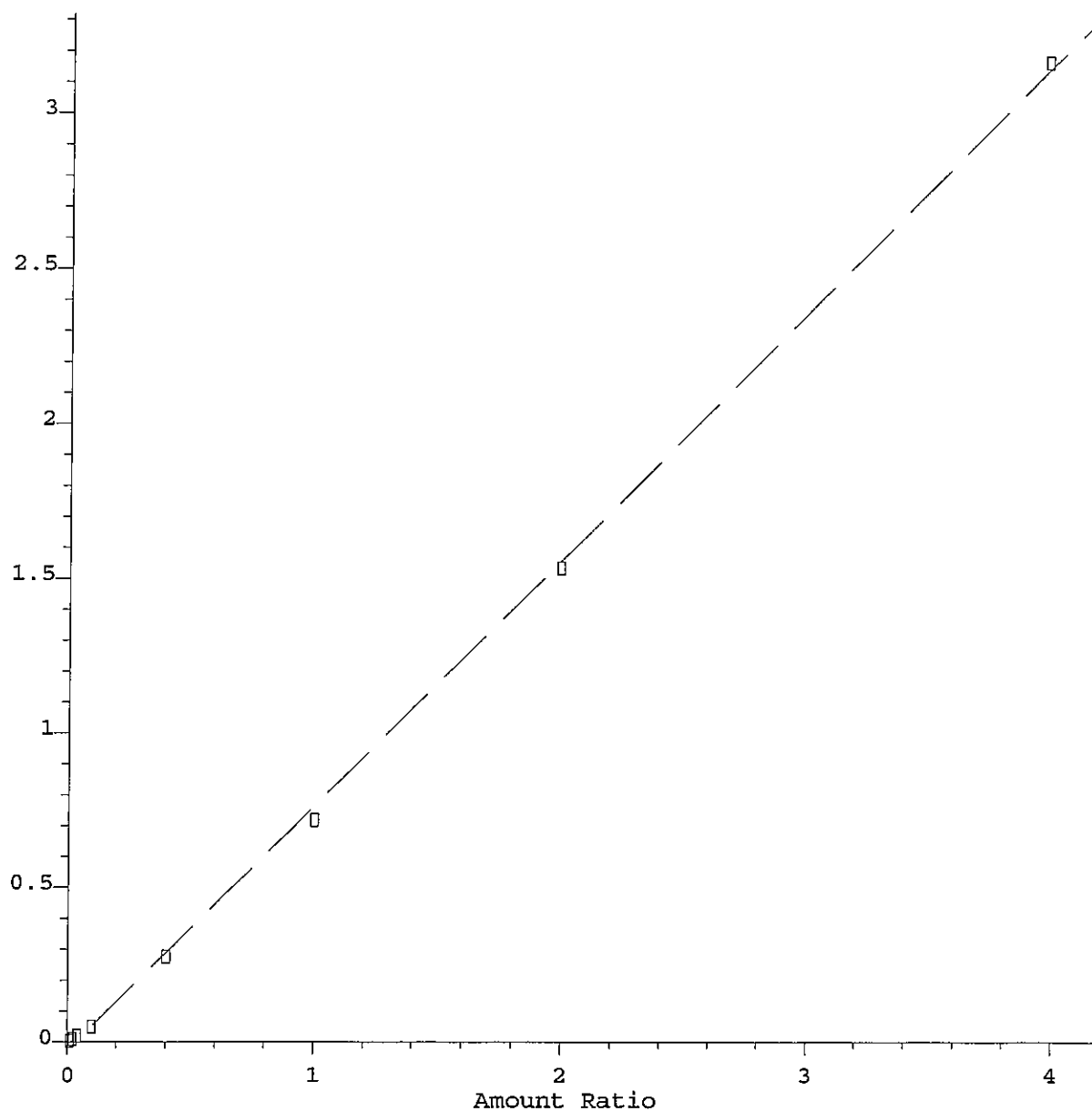
Method Name: J:\ACQUDATA\MSVOA12\METHODS\W091509.M
Calibration Table Last Updated: Wed Sep 16 11:50:37 2009



Method Name: J:\ACQUDATA\MSVOA12\METHODS\W091509.M
Calibration Table Last Updated: Wed Sep 16 11:50:37 2009

N-Butyl Acetate

Response Ratio



Resp Ratio = $7.91e-001 * Amt - 2.74e-002$
Coef of Det (r^2) = 0.999 Curve Fit: Linear

Method Name: J:\ACQUDATA\MSVOA12\METHODS\W091509.M
Calibration Table Last Updated: Wed Sep 16 11:50:37 2009

Sample : 0.5ppb
 Data File: J:\ACQUDATA\msvoa12\Data\091509\X4228.D
 Misc : 8260 WATER ICAL
 Acq On : 15 Sep 2009 3:49 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Sep 16 10:18:51 2009
 QLast Update : Wed Sep 16 09:49:13 2009
 Response via : Initial Calibration

KR 9/16/09

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.539	168	833978	50.00	ug/L	0.00
44) 1,4-Difluorobenzene	5.715	114	1426166	50.00	ug/L	0.00
71) d5-Chlorobenzene	8.910	117	1233998	50.00	ug/L	0.00
84) 1,4-Dichlorobenzene-d4	10.909	152	653720	50.00	ug/L	0.00
System Monitoring Compounds						
46) surr4,Dibrflmethane	4.441	113	398561	50.99	ug/L	0.00
Spiked Amount	50.000	Range 89 - 119	Recovery	=	101.98%	
49) surr1,1,2-dichloroetha...	4.984	65	601630	51.40	ug/L	0.00
Spiked Amount	50.000	Range 80 - 120	Recovery	=	102.80%	
65) SURR3,Toluene-d8	7.507	98	1736126	52.35	ug/L	0.00
Spiked Amount	50.000	Range 87 - 121	Recovery	=	104.70%	
70) SURR2,BFB	9.946	95	702507	51.75	ug/L	0.00
Spiked Amount	50.000	Range 85 - 122	Recovery	=	103.50%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.234	85	4640	0.49	ug/L	80
4) Chloromethane	1.344	50	9515	0.53	ug/L	100
5) Vinyl Chloride	1.411	62	5801	0.54	ug/L	94
6) Bromomethane	1.606	94	3079	Below Cal	#	67
7) Chloroethane	1.673	64	3719	0.60	ug/L	99
8) Freon 21	1.783	67	7443	0.55	ug/L	98
9) Trichlorofluoromethane	1.832	101	6261	0.56	ug/L	84
10) Diethyl Ether	2.002	59	3896	0.52	ug/L	91
11) Freon 123a	1.996	67	4126	0.49	ug/L	87
12) Freon 123	2.027	83	4666	0.53	ug/L	# 94
13) Acrolein	2.088	56	3335	2.80	ug/L	76
14) 1,1-Dicethene	2.167	96	2636	0.51	ug/L	86
15) Freon 113	2.167	101	2959	0.54	ug/L	93
16) Acetone	2.185	43	1868	0.67	ug/L	66
17) 2-Propanol	2.295	45	5961m <i>KR</i>	10.25	ug/L	
18) Iodomethane	2.289	142	2126	0.74	ug/L	93
19) Carbon Disulfide	2.350	76	11391	0.43	ug/L	# 95
21) Allyl Chloride	2.423	76	2259	0.47	ug/L	80
22) Methyl Acetate	2.429	43	4233	0.52	ug/L	# 91
23) Methylene Chloride	2.515	84	5170	0.53	ug/L	95
24) TBA	2.594	59	4058	67.64	ug/L	95
25) Acrylonitrile	2.704	53	9438	2.45	ug/L	92
26) Methyl-t-Butyl Ether	2.752	73	10291	0.48	ug/L	# 91
27) trans-1,2-Dichloroethene	2.752	96	4578	0.51	ug/L	# 90
28) 1,1-Dicethane	3.142	63	11584	0.54	ug/L	# 88
29) Vinyl Acetate	3.191	86	582	0.52	ug/L	# 1
30) DIPE	3.216	45	26270	0.47	ug/L	# 91
31) 2-Chloro-1,3-Butadiene	3.240	53	9678	0.46	ug/L	94
32) ETBE	3.624	59	16918	0.49	ug/L	96
33) 2,2-Dichloropropane	3.795	77	5631m <i>KR</i>	0.52	ug/L	
34) cis-1,2-Dichloroethene	3.789	96	5038	0.52	ug/L	# 57
35) 2-Butanone	3.801	43	3495	0.65	ug/L	# 91
37) Propionitrile	3.862	54	3329	2.48	ug/L	92
38) Bromochloromethane	4.087	130	2838	0.58	ug/L	# 83
39) Methacrylonitrile	4.069	67	1455	0.53	ug/L	# 52

Sample : 0.5ppb
 Data File: J:\ACQUDATA\msvoa12\Data\091509\X4228.D
 Misc : 8260 WATER ICAL
 Acq On : 15 Sep 2009 3:49 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Sep 16 10:18:51 2009
 QLast Update : Wed Sep 16 09:49:13 2009
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Tetrahydrofuran	4.185	42	2207	0.64	ug/L #	83
41) Chloroform	4.203	83	9010	0.56	ug/L #	81
42) 1,1,1-Trichloroethane	4.508	97	5862m <i>yl</i>	0.46	ug/L	
43) TAME	5.325	73	9368	0.46	ug/L #	74
45) Cyclohexane	4.606	41	8282	0.49	ug/L	90
47) Carbontetrachloride	4.770	121	1981	0.63	ug/L	96
48) 1,1-Dichloropropene	4.758	75	6404	0.49	ug/L #	81
50) Benzene	5.099	78	19742	0.51	ug/L	91
51) 1,2-Dichloroethane	5.118	62	9229	0.58	ug/L #	78
52) Iso-Butyl Alcohol	4.990	43	3071m <i>yl</i>	72.49	ug/L	
53) n-Heptane	5.593	43	13306	0.52	ug/L #	80
54) Trichloroethene	6.069	130	4604	0.53	ug/L #	72
55) Methylcyclohexane	6.331	55	10547	0.51	ug/L #	86
56) 1,2-Dichloropropane	6.343	63	5672	0.48	ug/L #	84
57) Dibromomethane	6.483	93	2091	0.47	ug/L #	85
59) Methyl Methacrylate	6.544	69	1849	1.05	ug/L	85
60) Bromodichloromethane	6.697	83	5856	0.50	ug/L	97
62) 2-Chloroethylvinyl Ether	7.075	63	2861	0.51	ug/L	93
63) cis-1,3-Dichloropropene	7.215	75	5491	0.41	ug/L #	94
64) 4-Methyl-2-pentanone	7.398	43	4498	0.45	ug/L #	82
66) Toluene	7.581	91	20664	0.52	ug/L	100
67) trans-1,3-Dichloropropene	7.812	75	5399	0.49	ug/L #	88
68) Ethyl Methacrylate	7.940	69	3414	1.14	ug/L	87
69) 1,1,2-Trichloroethane	7.989	97	3601	0.56	ug/L #	71
72) Tetrachloroethene	8.135	164	3751	0.56	ug/L #	81
73) 2-Hexanone	8.263	43	2941	0.43	ug/L #	93
74) 1,3-Dichloropropane	8.148	76	6052	0.50	ug/L	92
75) Dibromochloromethane	8.367	129	3402	0.51	ug/L	90
76) N-Butyl Acetate	8.410	43	5108	1.99	ug/L #	76
77) 1,2-Dibromoethane	8.465	107	2939	0.47	ug/L #	71
78) Chlorobenzene	8.940	112	12304	0.51	ug/L	88
79) 1,1,1,2-Tetrachloroethane	9.013	131	3049	0.42	ug/L #	63
80) Ethylbenzene	9.050	106	6979	0.51	ug/L	88
81) (m+p)Xylene	9.160	106	16650	1.03	ug/L	86
82) o-Xylene	9.507	106	7634	0.49	ug/L	86
83) Styrene	9.519	104	12833	0.48	ug/L	92
85) Bromoform	9.666	173	1462	0.43	ug/L #	85
86) Isopropylbenzene	9.830	105	18772	0.47	ug/L #	91
87) Cyclohexanone	9.885	55	6446	9.68	ug/L #	73
88) trans-1,4-Dichloro-2-B...	10.123	53	1945	0.54	ug/L #	68
89) 1,1,2,2-Tetrachloroethane	10.068	83	3878	0.51	ug/L #	97
90) Bromobenzene	10.068	156	4695	0.49	ug/L	93
92) 1,2,3-Trichloropropane	10.098	110	741	0.34	ug/L #	86
93) n-Propylbenzene	10.178	91	27646	0.51	ug/L	94
94) 2-Chlorotoluene	10.239	91	15936	0.49	ug/L	95
95) 4-Chlorotoluene	10.239 10.330	91	16479 16479	0.44	ug/L <i>myle</i>	95
96) 1,3,5-Trimethylbenzene	10.324	105	17782	0.49	ug/L	99
97) tert-Butylbenzene	10.592	119	14814	0.49	ug/L #	96
98) 1,2,4-Trimethylbenzene	10.629	105	17348	0.45	ug/L #	94
99) sec-Butylbenzene	10.769	105	23275	0.48	ug/L #	92
100) p-Isopropyltoluene	10.891	119	18701	0.48	ug/L	97
101) 1,3-Diclbz	10.854	146	10716	0.52	ug/L	96

Sample : 0.5ppb
 Data File: J:\ACQUDATA\msvoa12\Data\091509\X4228.D
 Misc : 8260 WATER ICAL
 Acq On : 15 Sep 2009 3:49 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Sep 16 10:18:51 2009
 QLast Update : Wed Sep 16 09:49:13 2009
 Response via : Initial Calibration

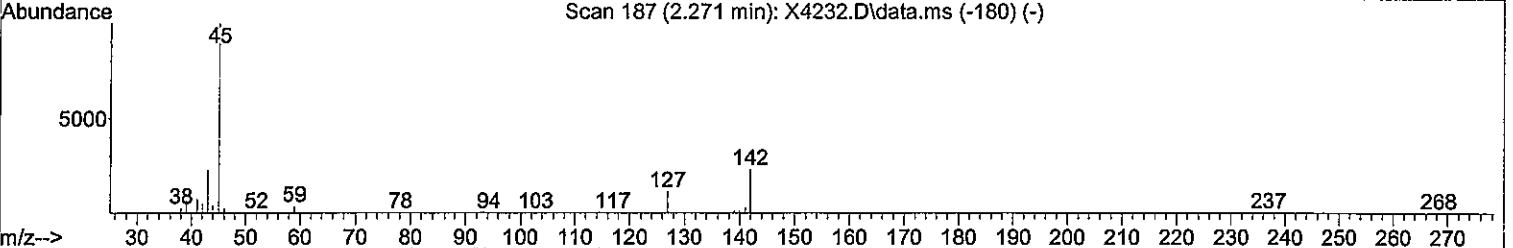
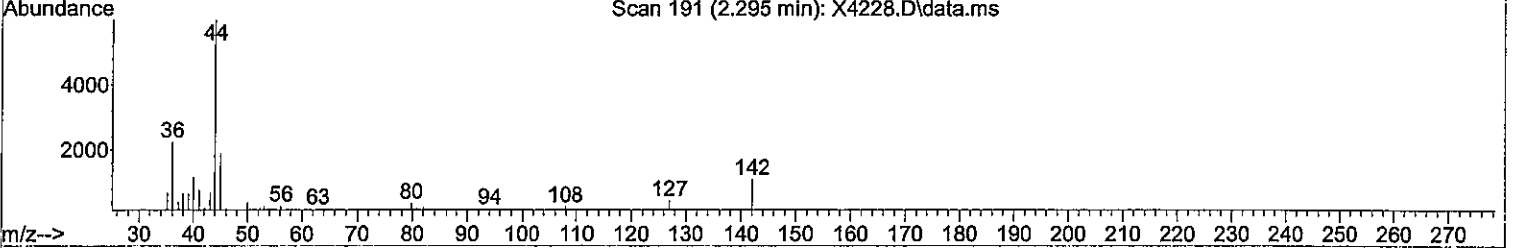
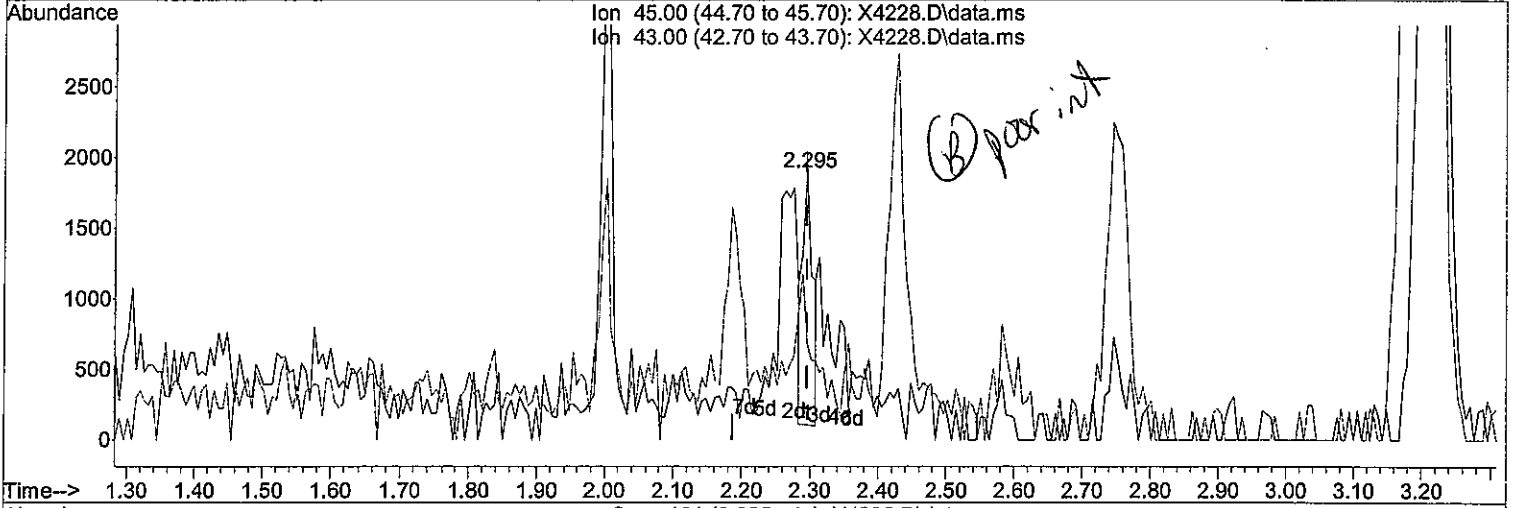
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) 1,4-Dclbenz	10.928	146	11334	0.53	ug/L #	86
104) n-Butylbenzene	11.214	91	19350	0.49	ug/L	96
105) 1,2-Dclbenz	11.220	146	10112	0.54	ug/L	91
106) 1,2-Dibromo-3-chloropr...	11.763	157	727	0.49	ug/L #	77
108) 1,2,4-Tcbenzene	12.287	180	6837	0.53	ug/L	98
109) Hexachlorobt	12.391	225	3134	0.54	ug/L #	81
110) Naphthalen	12.427	128	11715	0.42	ug/L #	94
111) 1,2,3-Tclbenzene	12.567	180	5866	0.50	ug/L #	79

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Sample : 0.5ppb
 Data File: J:\ACQUDATA\msvoa12\Data\091509\X4228.D
 Misc : 8260 WATER ICAL
 Acq On : 15 Sep 2009 3:49 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Sep 16 10:15:35 2009
 QLast Update : Wed Sep 16 09:49:13 2009
 Response via : Initial Calibration



TIC: X4228.D\data.ms

(17) 2-Propanol

2.295min (0.000) 3.20 ug/L

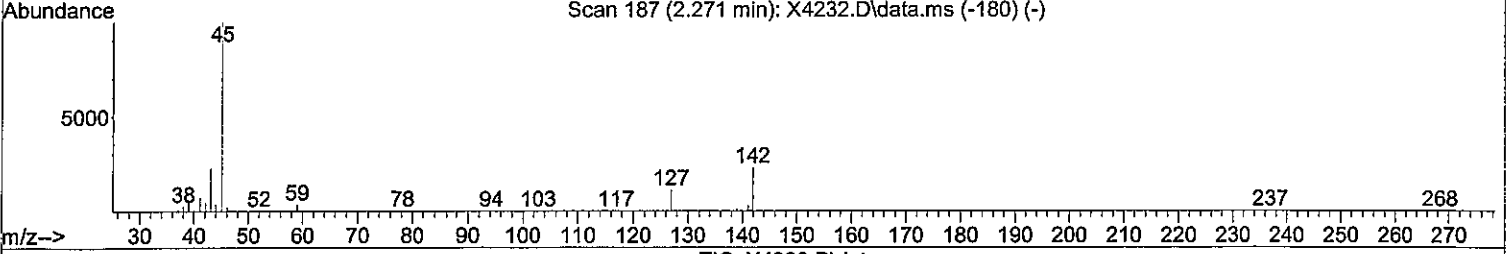
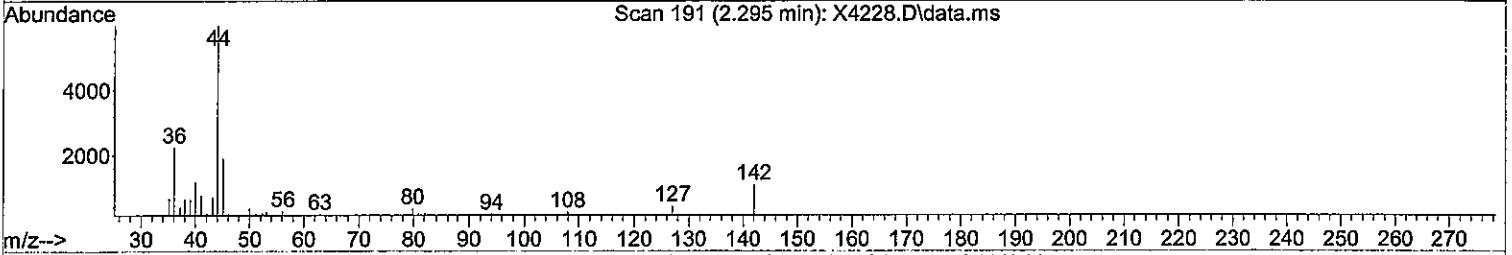
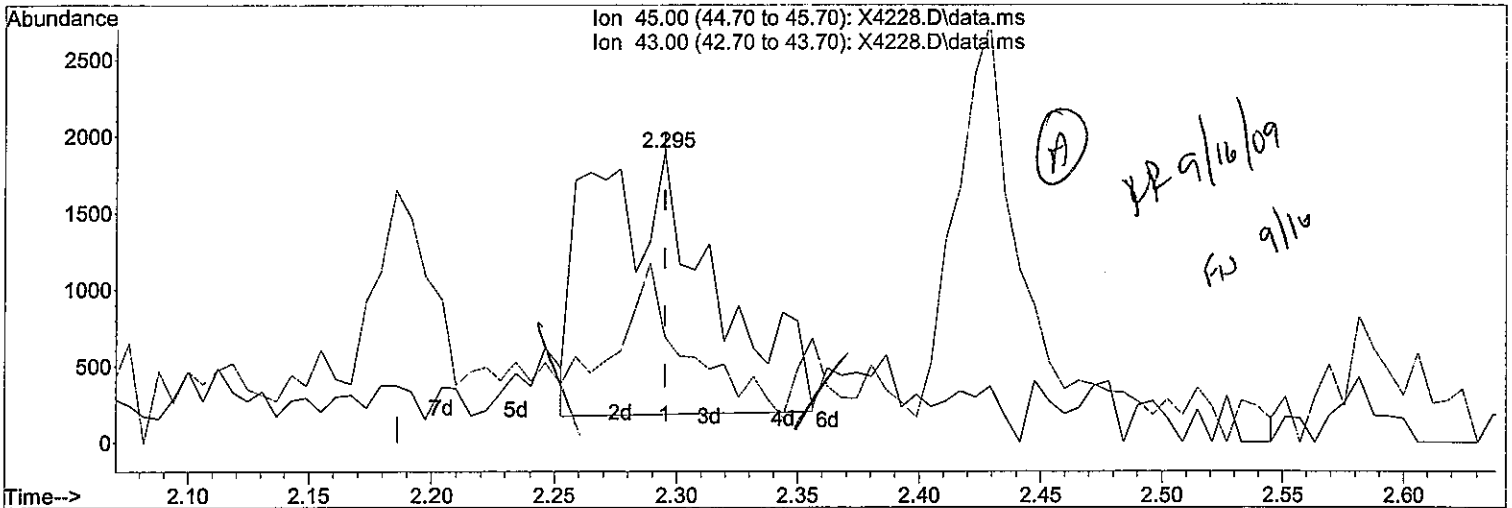
response 1860

Ion	Exp%	Act%
45.00	100	100
43.00	24.70	36.53#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 0.5ppb
 Data File: J:\ACQUDATA\msvoa12\Data\091509\X4228.D
 Misc : 8260 WATER ICAL
 Acq On : 15 Sep 2009 3:49 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Sep 16 10:15:35 2009
 QLast Update : Wed Sep 16 09:49:13 2009
 Response via : Initial Calibration



TIC: X4228.D\data.ms

(17) 2-Propanol

2.295min (0.000) 10.25 ug/L m

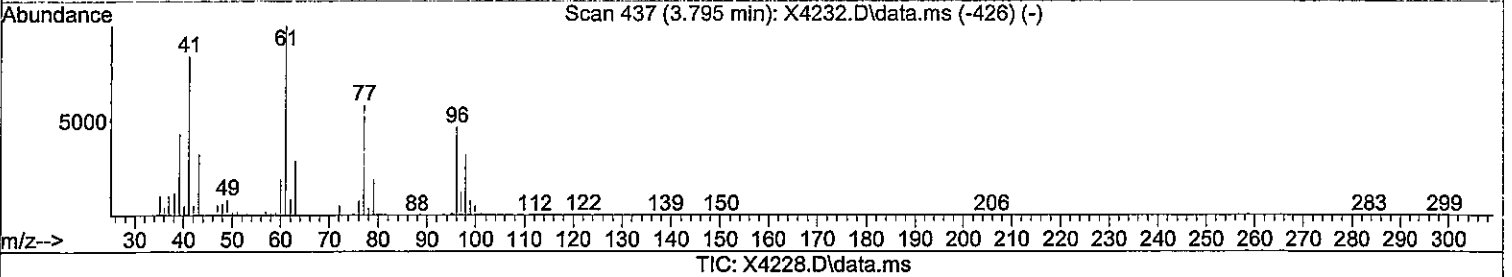
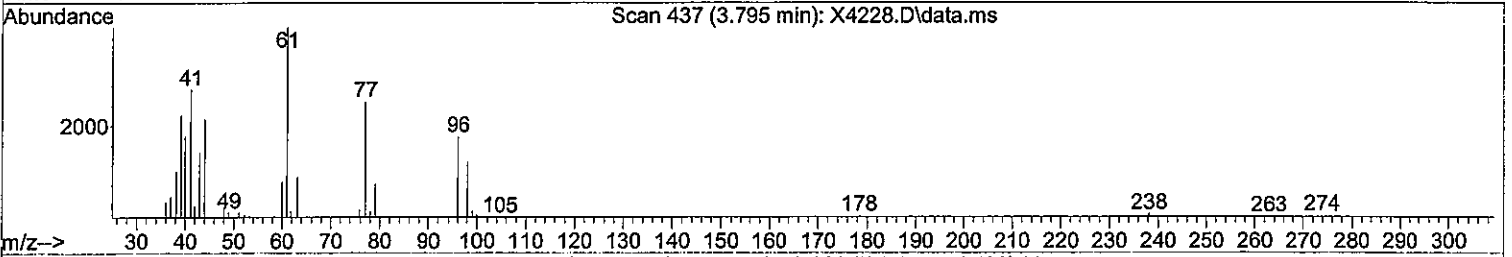
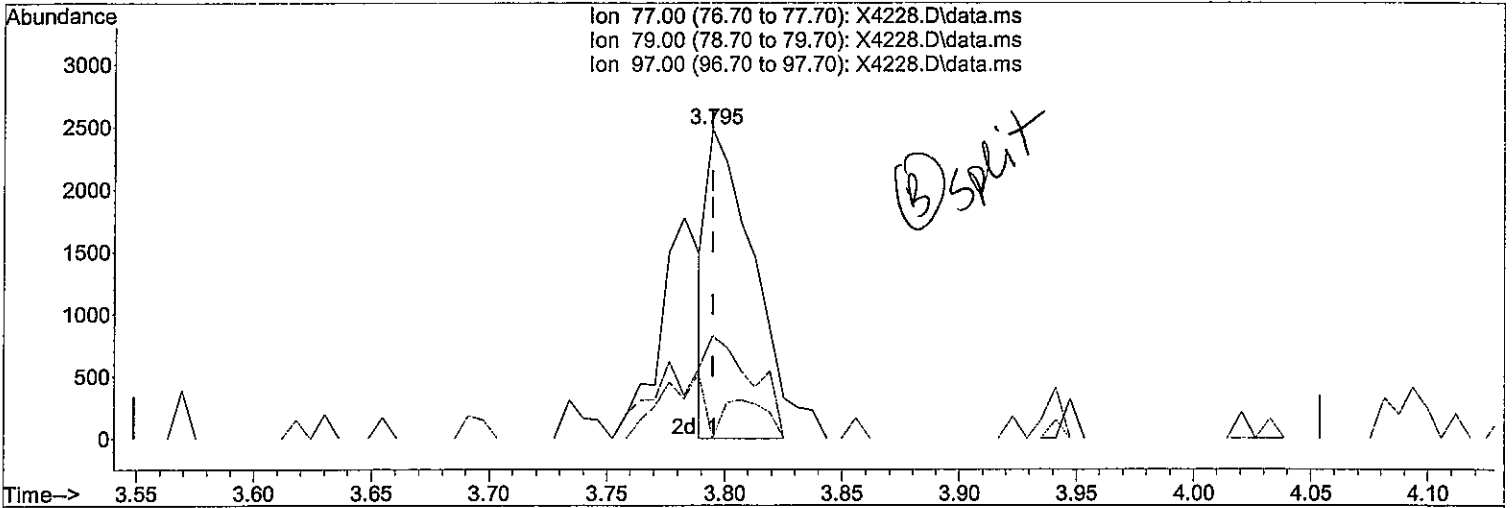
response 5961

Ion	Exp%	Act%
45.00	100	100
43.00	24.70	36.53#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 0.5ppb
 Data File: J:\ACQUDATA\msvoa12\Data\091509\X4228.D
 Misc : 8260 WATER ICAL
 Acq On : 15 Sep 2009 3:49 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Sep 16 10:15:35 2009
 QLast Update : Wed Sep 16 09:49:13 2009
 Response via : Initial Calibration



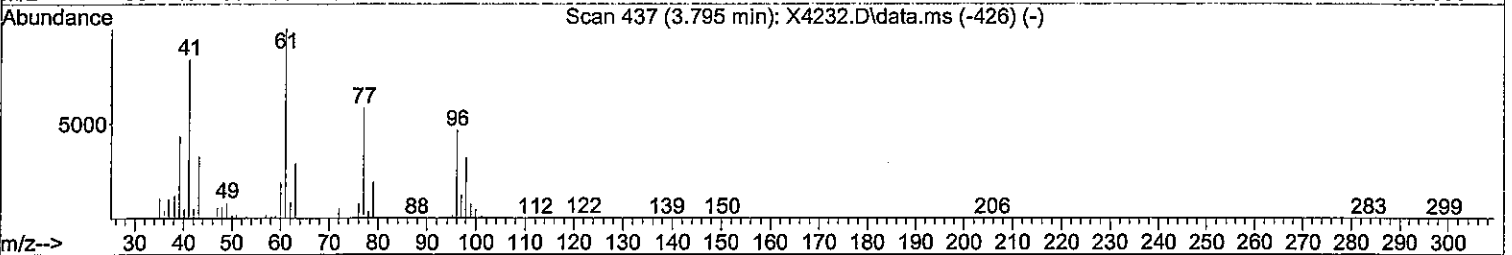
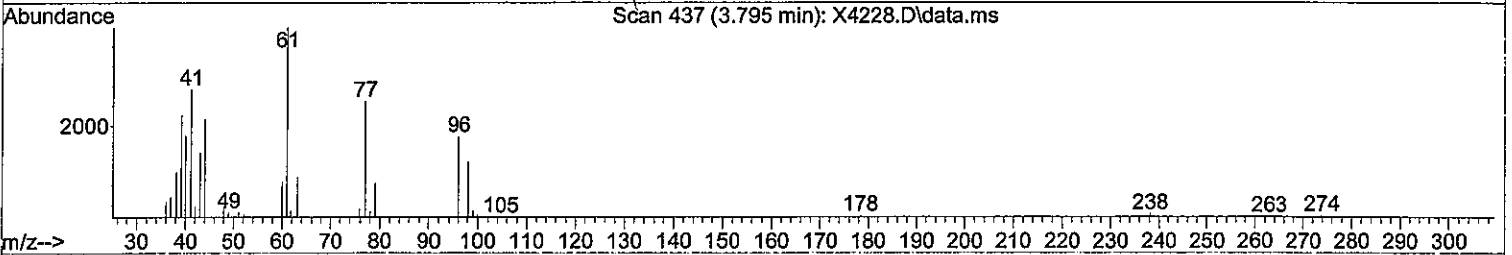
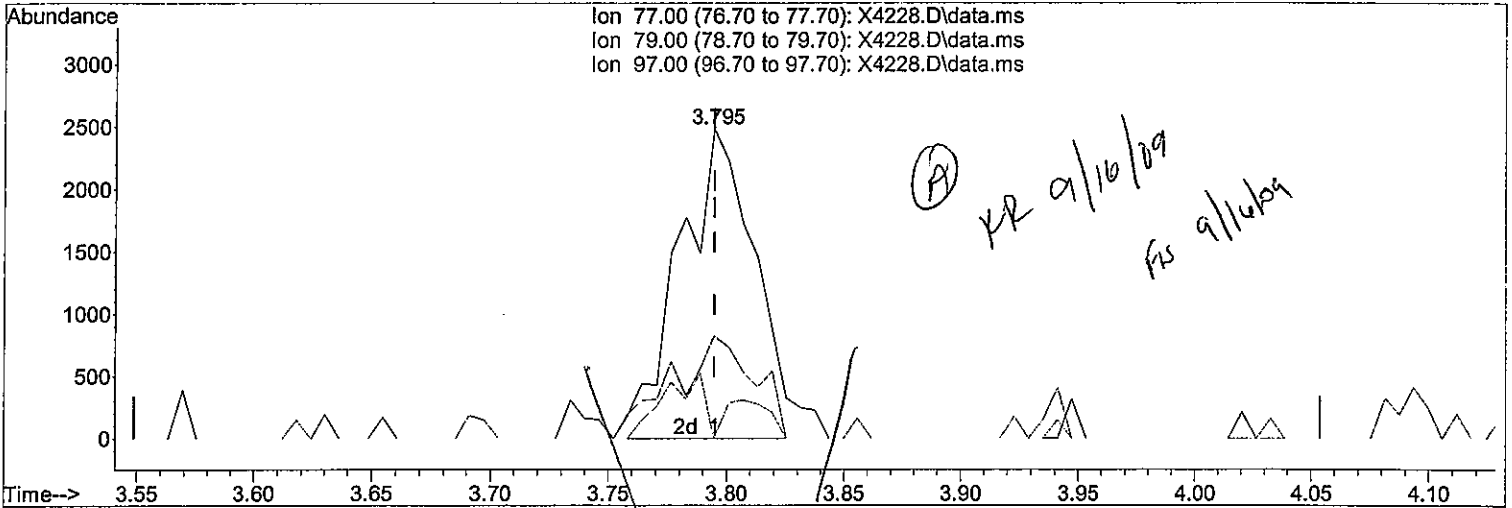
(33) 2,2-Dichloropropane
 3.795min (0.000) 0.32 ug/L
 response 3505

Ion	Exp%	Act%
77.00	100	100
79.00	32.80	33.23
97.00	21.70	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 0.5ppb
 Data File: J:\ACQUDATA\msvoa12\Data\091509\X4228.D
 Misc : 8260 WATER ICAL
 Acq On : 15 Sep 2009 3:49 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Sep 16 10:15:35 2009
 QLast Update : Wed Sep 16 09:49:13 2009
 Response via : Initial Calibration



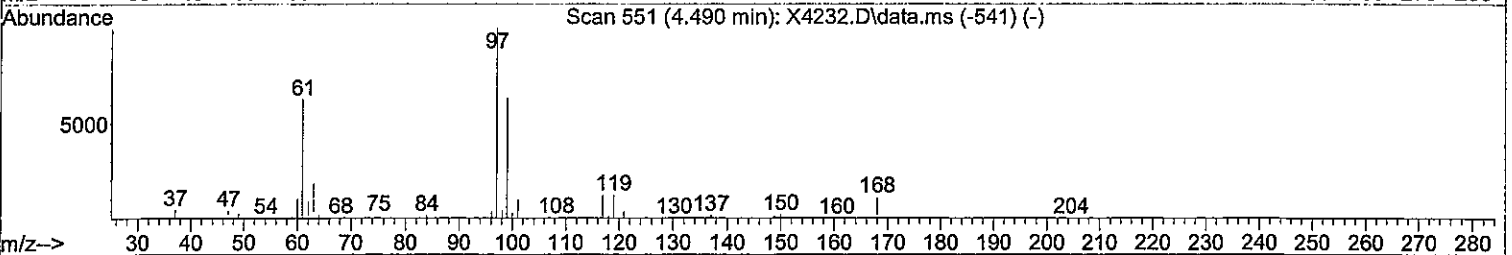
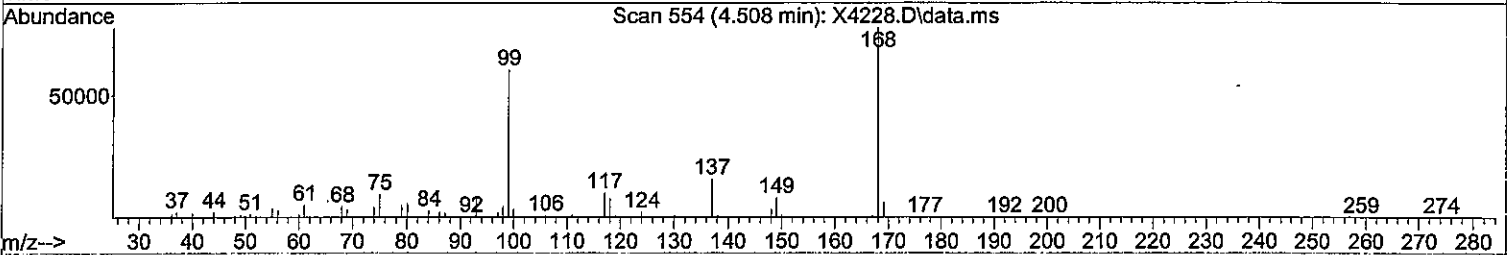
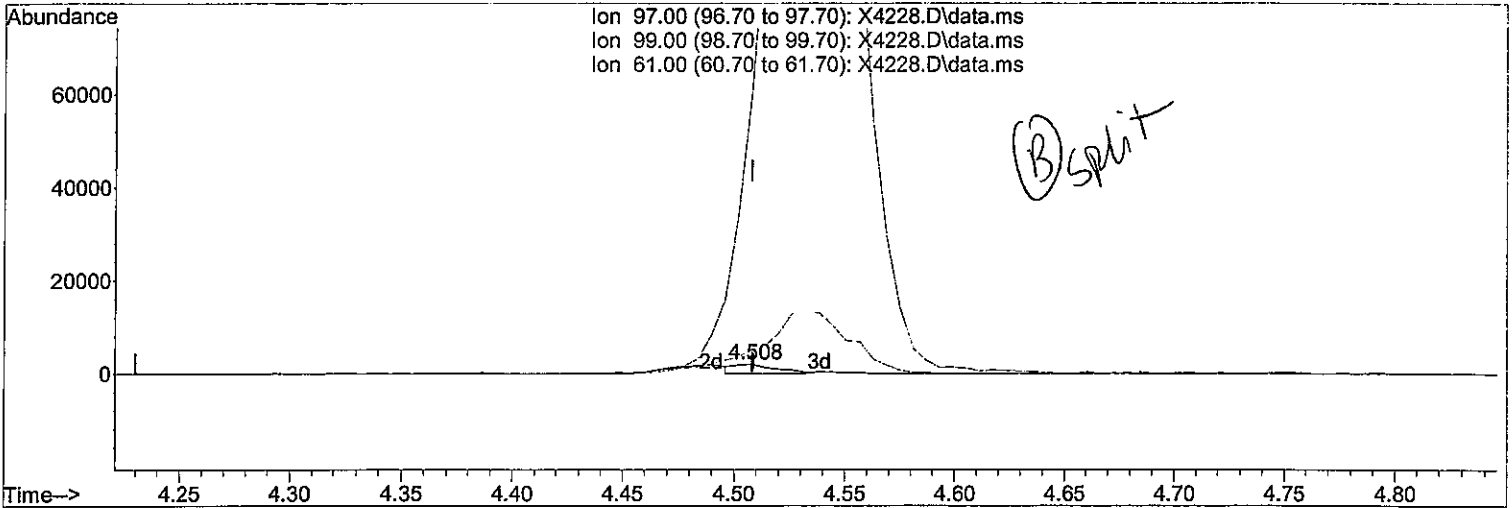
(33) 2,2-Dichloropropane
 3.795min (0.000) 0.52 ug/L m
 response 5631

Ion	Exp%	Act%
77.00	100	100
79.00	32.80	33.23
97.00	21.70	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 0.5ppb
 Data File: J:\ACQUDATA\msvoa12\Data\091509\X4228.D
 Misc : 8260 WATER ICAL
 Acq On : 15 Sep 2009 3:49 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Sep 16 10:15:35 2009
 QLast Update : Wed Sep 16 09:49:13 2009
 Response via : Initial Calibration



TIC: X4228.D\data.ms

(42) 1,1,1-Trichloroethane

4.508min (0.000) 0.20 ug/L

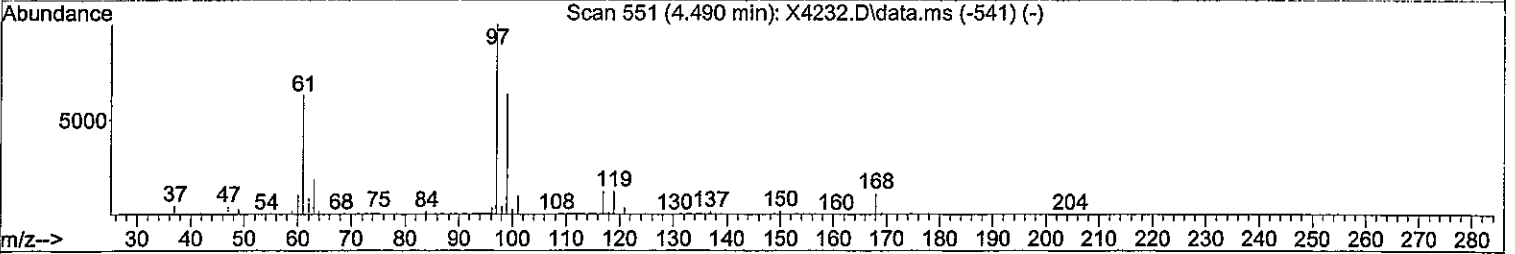
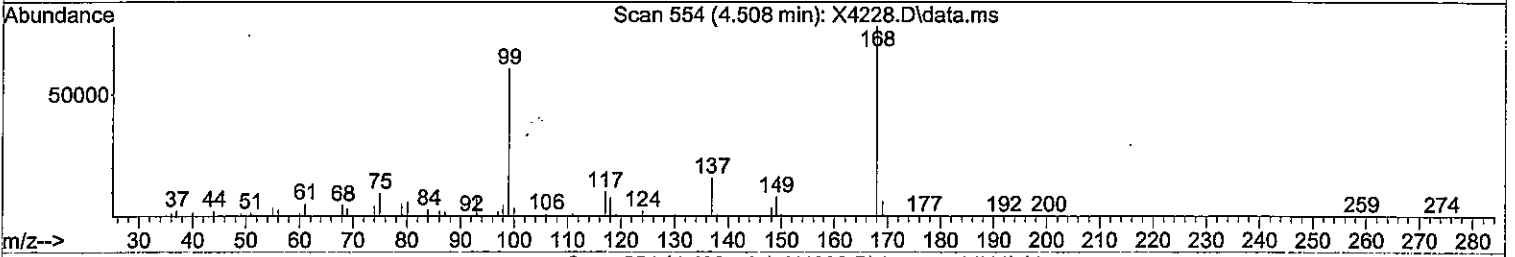
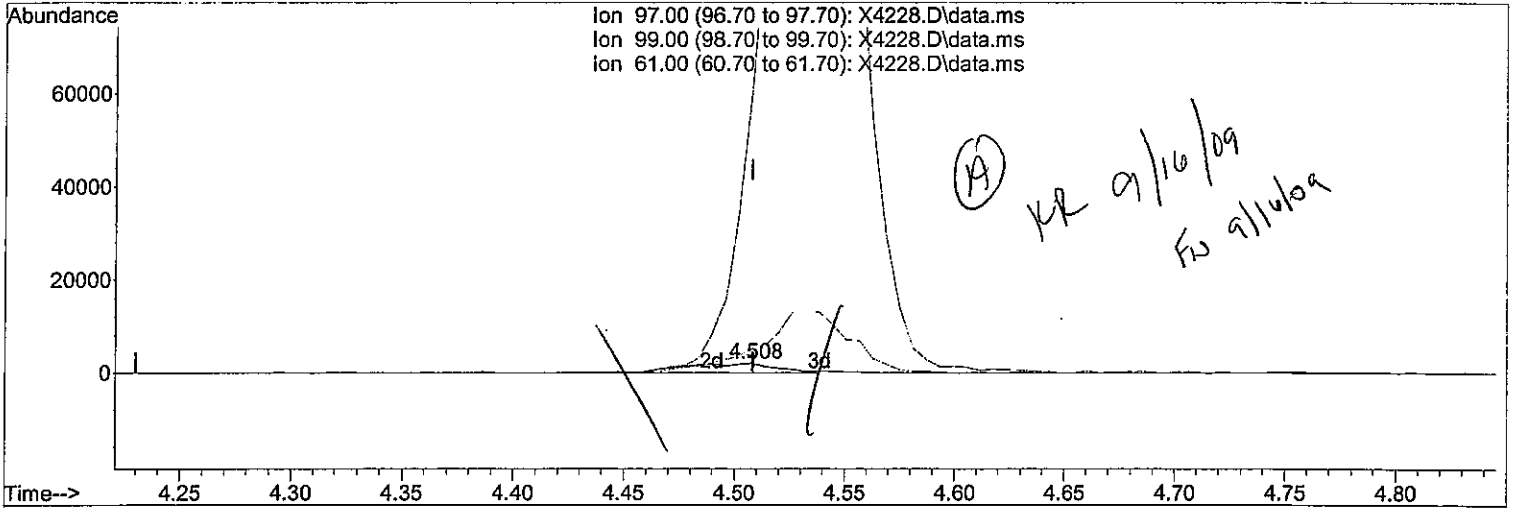
response 2566

Ion	Exp%	Act%
97.00	100	100
99.00	63.60	2952.73#
61.00	63.00	252.34#
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 0.5ppb
 Data File: J:\ACQUDATA\msvoa12\Data\091509\X4228.D
 Misc : 8260 WATER ICAL
 Acq On : 15 Sep 2009 3:49 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Sep 16 10:15:35 2009
 QLast Update : Wed Sep 16 09:49:13 2009
 Response via : Initial Calibration



TIC: X4228.D\data.ms

(42) 1,1,1-Trichloroethane

4.508min (0.000) 0.46 ug/L m

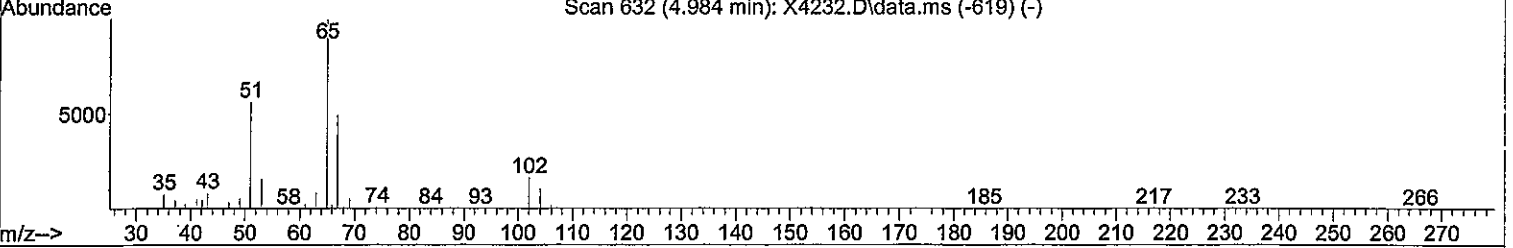
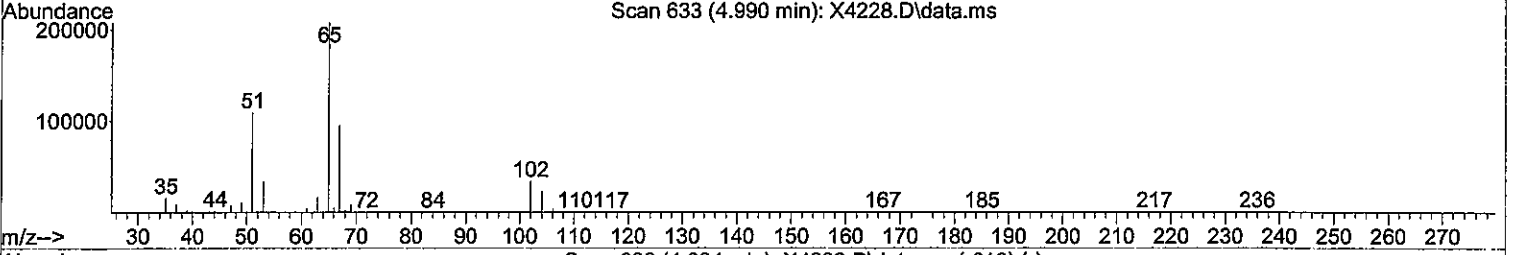
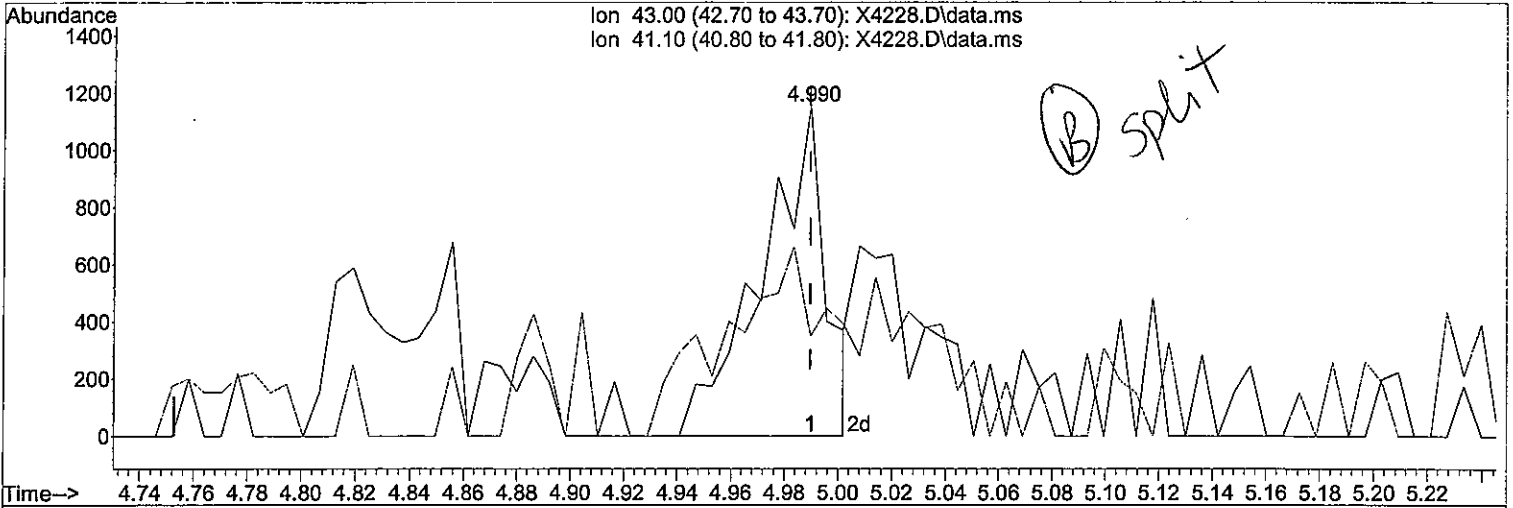
response 5862

Ion	Exp%	Act%
97.00	100	100
99.00	63.60	2952.73#
61.00	63.00	252.34#
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 0.5ppb
 Data File: J:\ACQUDATA\msvoa12\Data\091509\X4228.D
 Misc : 8260 WATER ICAL
 Acq On : 15 Sep 2009 3:49 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Sep 16 10:15:35 2009
 QLast Update : Wed Sep 16 09:49:13 2009
 Response via : Initial Calibration



(52) Iso-Butyl Alcohol

4.990min (0.000) 70.37 ug/L

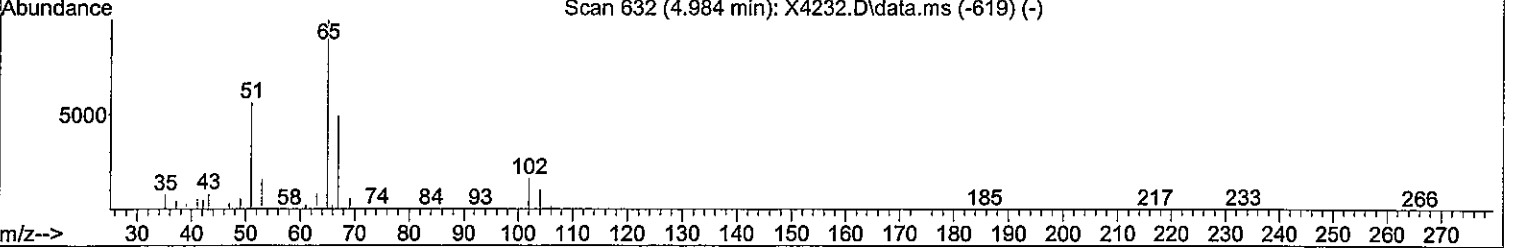
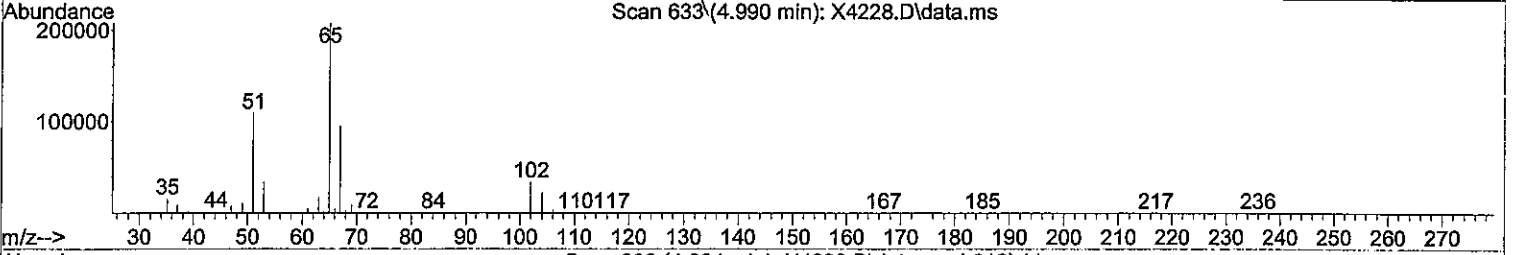
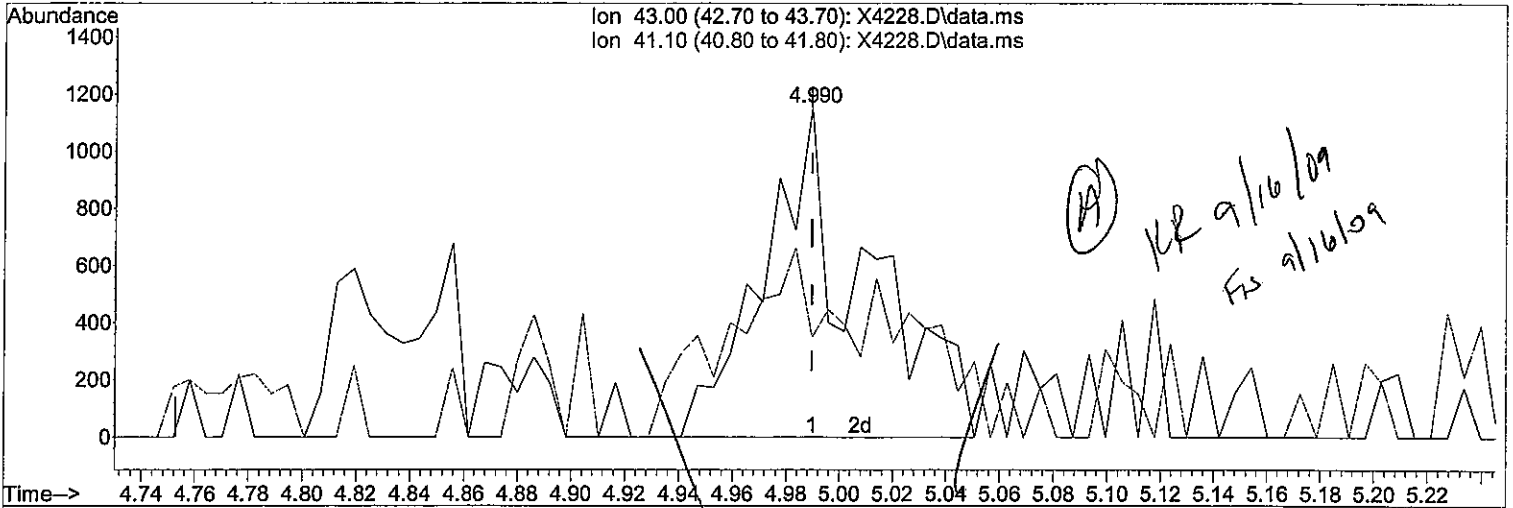
response 1908

Ion	Exp%	Act%
43.00	100	100
41.10	70.50	30.42#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 0.5ppb
 Data File: J:\ACQUDATA\msvoa12\Data\091509\X4228.D
 Misc : 8260 WATER ICAL
 Acq On : 15 Sep 2009 3:49 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Sep 16 10:15:35 2009
 QLast Update : Wed Sep 16 09:49:13 2009
 Response via : Initial Calibration



(52) Iso-Butyl Alcohol

4.990min (0.000) 72.49 ug/L m

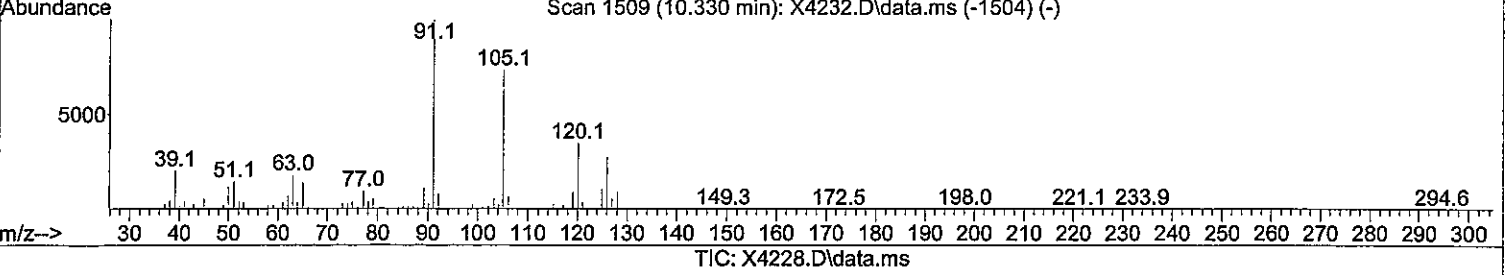
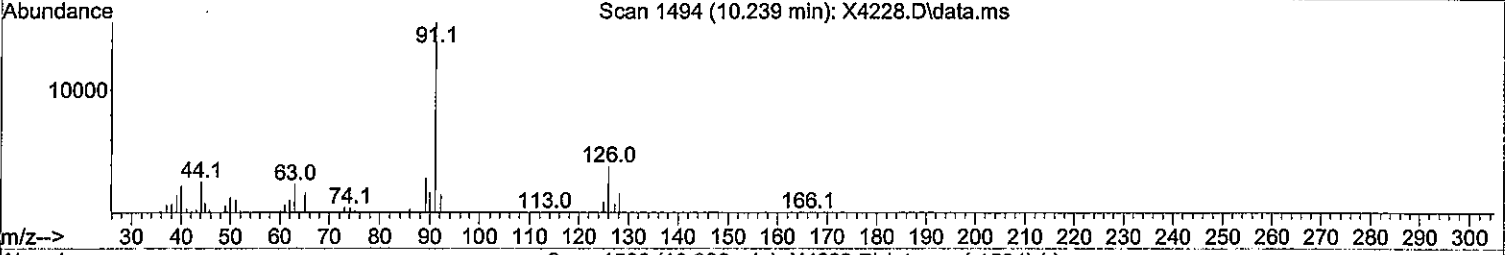
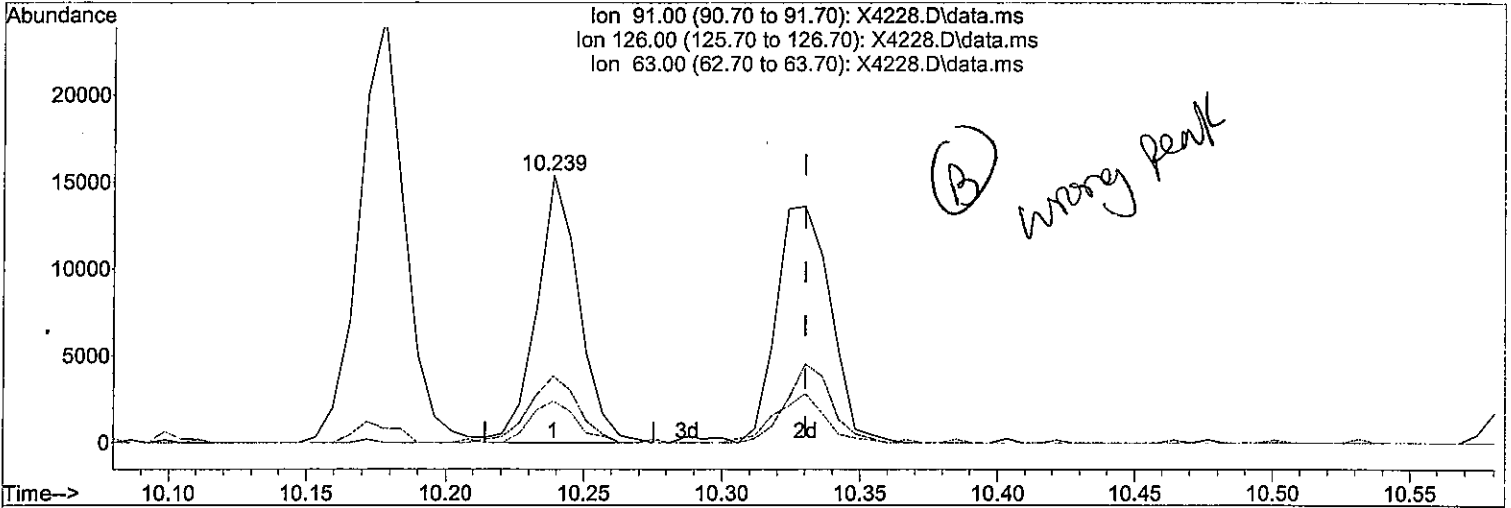
response 3071

Ion	Exp%	Act%
43.00	100	100
41.10	70.50	30.42#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 0.5ppb
 Data File : J:\ACQUDATA\msvoa12\Data\091509\X4228.D Vial: 1
 Acq On : 15 Sep 2009 3:49 pm
 Operator : K.Ruest
 InstName : MSVOA-12
 Misc : 8260 WATER ICAL

Quant Time: Sep 16 10:18:51 2009
 Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Wed Sep 16 09:49:13 2009
 Response via : Initial Calibration



(95) 4-Chlorotoluene

10.239min (-0.091) 0.44 ug/L

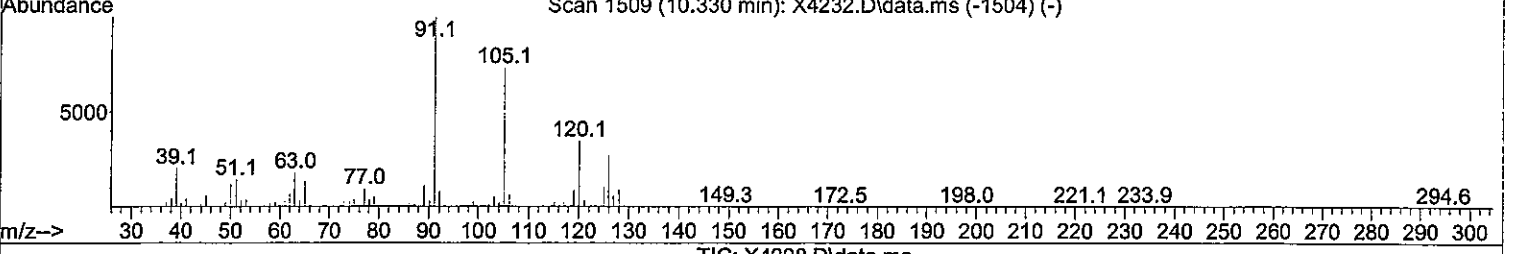
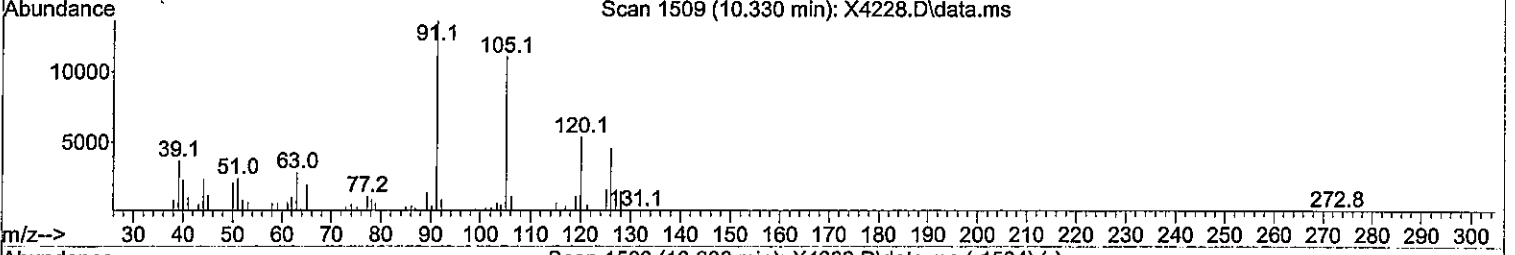
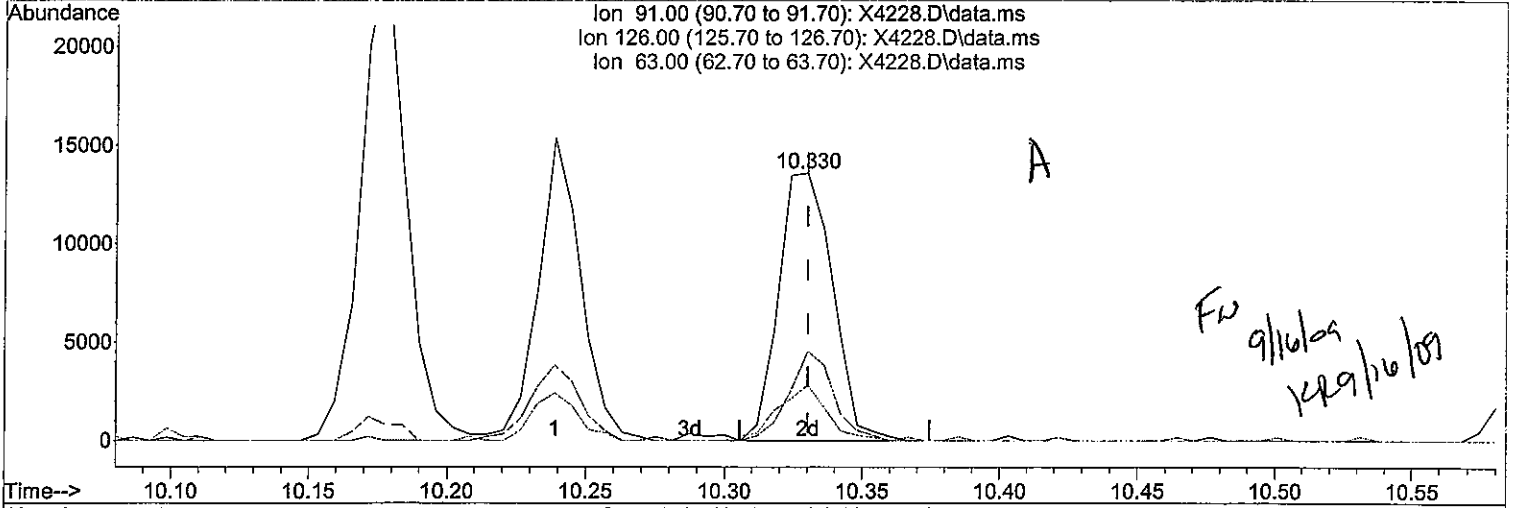
response 16479

Ion	Exp%	Act%
91.00	100	100
126.00	27.10	24.91
63.00	18.00	15.64
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 0.5ppb
 Data File : J:\ACQUDATA\msvoa12\Data\091509\X4228.D Vial: 1
 Acq On : 15 Sep 2009 3:49 pm
 Operator : K.Ruest
 InstName : MSVOA-12
 Misc : 8260 WATER ICAL

Quant Time: Sep 16 10:18:51 2009
 Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Wed Sep 16 09:49:13 2009
 Response via : Initial Calibration



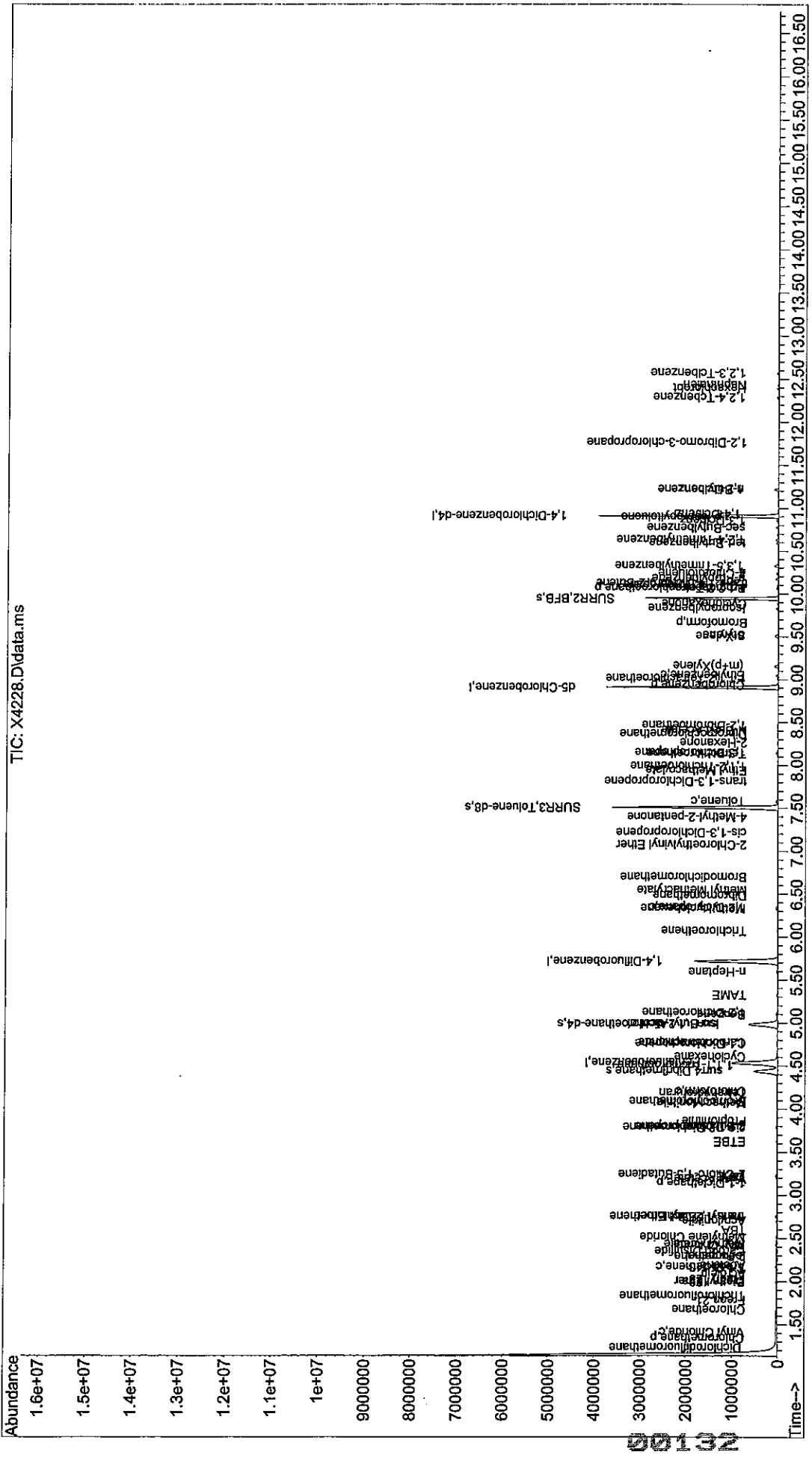
(95) 4-Chlorotoluene

10.330min (0.000) 0.50 ug/L m

response 18605

Ion	Exp%	Act%
91.00	100	100
126.00	27.10	33.39#
63.00	18.00	20.85
0.00	0.00	0.00

Sample : 0.5ppb
Data File: J:\ACQDATA\msvoa12\Data\091509\X4228.D
Misc : 8260 WATER ICAL
Acq On : 15 Sep 2009 3:49 pm
Operator : K.Ruest
InstName : MSVOA-12
Quant Method : J:\ACQDATA\MSVOA12\METHODS\W091509.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 16 10:18:51 2009
Qlast Update : Wed Sep 16 09:49:13 2009
Response via : Initial Calibration



Sample : 1.0ppb
 Data File: J:\ACQUDATA\msvoa12\Data\091509\X4229.D
 Misc : 8260 WATER ICAL
 Acq On : 15 Sep 2009 4:20 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Sep 16 10:21:45 2009
 QLast Update : Wed Sep 16 09:49:13 2009
 Response via : Initial Calibration

KR 9/16/09

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Pentafluorobenzene	4.533	168	837928	50.00	ug/L	0.00	
44) 1,4-Difluorobenzene	5.715	114	1417566	50.00	ug/L	0.00	
71) d5-Chlorobenzene	8.910	117	1227717	50.00	ug/L	0.00	
84) 1,4-Dichlorobenzene-d4	10.909	152	642773	50.00	ug/L	0.00	
System Monitoring Compounds							
46) surr4,Dibrflmethane	4.435	113	404834	52.10	ug/L	0.00	
Spiked Amount	50.000	Range 89 - 119	Recovery	=	104.20%		
49) surr1,1,2-dichloroetha...	4.978	65	593117	50.98	ug/L	0.00	
Spiked Amount	50.000	Range 80 - 120	Recovery	=	101.96%		
65) SURR3,Toluene-d8	7.508	98	1741521	52.83	ug/L	0.00	
Spiked Amount	50.000	Range 87 - 121	Recovery	=	105.66%		
70) SURR2,BFB	9.946	95	693746	51.41	ug/L	0.00	
Spiked Amount	50.000	Range 85 - 122	Recovery	=	102.82%		
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	1.241	85	8612	0.91	ug/L		87
4) Chloromethane	1.344	50	17695	0.99	ug/L		90
5) Vinyl Chloride	1.411	62	10095	0.93	ug/L		84
6) Bromomethane	1.612	94	4637	Below	Cal		94
7) Chloroethane	1.673	64	6529	1.06	ug/L		96
8) Freon 21	1.777	67	13328	0.97	ug/L		99
9) Trichlorofluoromethane	1.832	101	10482	0.93	ug/L		98
10) Diethyl Ether	2.003	59	6700	0.89	ug/L		84
11) Freon 123a	1.990	67	7706	0.91	ug/L		92
12) Freon 123	2.027	83	8362	0.95	ug/L		93
13) Acrolein	2.088	56	5523	4.62	ug/L		73
14) 1,1-Dicethene	2.173	96	5586	1.07	ug/L #		56
15) Freon 113	2.161	101	5548	1.01	ug/L		79
16) Acetone	2.179	43	3030m <i>KR</i>	1.09	ug/L		
17) 2-Propanol	2.277	45	10569	18.09	ug/L #		81
18) Iodomethane	2.283	142	3732	0.96	ug/L		83
19) Carbon Disulfide	2.344	76	29061	1.08	ug/L		97
20) Acetonitrile	2.387	40	2461	4.38	ug/L #		32
21) Allyl Chloride	2.423	76	3943	0.82	ug/L		84
22) Methyl Acetate	2.423	43	7950	0.96	ug/L #		94
23) Methylene Chloride	2.515	84	9737	1.00	ug/L		95
24) TBA	2.588	59	9791m <i>KR</i>	74.02	ug/L		
25) Acrylonitrile	2.698	53	18613	4.81	ug/L		84
26) Methyl-t-Butyl Ether	2.746	73	19979	0.93	ug/L		94
27) trans-1,2-Dichloroethene	2.752	96	8411	0.93	ug/L #		79
28) 1,1-Dicethane	3.137	63	22174	1.02	ug/L		95
29) Vinyl Acetate	3.185	86	862	0.77	ug/L		2
30) DIPE	3.210	45	51864	0.93	ug/L		96
31) 2-Chloro-1,3-Butadiene	3.240	53	20759	0.99	ug/L		98
32) ETBE	3.624	59	31911	0.91	ug/L		93
33) 2,2-Dichloropropane	3.789	77	10507	0.96	ug/L #		83
34) cis-1,2-Dichloroethene	3.789	96	9706	0.99	ug/L		87
35) 2-Butanone	3.801	43	5973	1.10	ug/L #		89
37) Propionitrile	3.850	54	5524	4.10	ug/L		97
38) Bromochloromethane	4.088	130	4690	0.95	ug/L		77

Sample : 1.0ppb
 Data File: J:\ACQUDATA\msvoa12\Data\091509\X4229.D
 Misc : 8260 WATER ICAL
 Acq On : 15 Sep 2009 4:20 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Sep 16 10:21:45 2009
 QLast Update : Wed Sep 16 09:49:13 2009
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
39) Methacrylonitrile	4.057	67	2185	0.80	ug/L	98
40) Tetrahydrofuran	4.185	42	3642	1.05	ug/L #	85
41) Chloroform	4.203	83	15755	0.98	ug/L #	87
42) 1,1,1-Trichloroethane	4.496	97	12719	0.99	ug/L #	1
43) TAME	5.331	73	18365	0.90	ug/L	97
45) Cyclohexane	4.594	41	17142	1.03	ug/L	89
47) Carbontetrachloride	4.764	121	3057	0.97	ug/L #	80
48) 1,1-Dichloropropene	4.764	75	13114	1.02	ug/L #	91
50) Benzene	5.100	78	39236	1.02	ug/L	95
51) 1,2-Dichloroethane	5.112	62	14782	0.94	ug/L #	88
52) Iso-Butyl Alcohol	4.984	43	6646m	79.09	ug/L	
53) n-Heptane	5.593	43	25135	0.98	ug/L	98
54) Trichloroethene	6.075	130	8693	1.00	ug/L #	82
55) Methylcyclohexane	6.331	55	20382	0.99	ug/L	97
56) 1,2-Diclp propane	6.349	63	12096	1.03	ug/L #	83
57) Dibromomethane	6.477	93	4805	1.09	ug/L #	83
58) 1,4-Dioxac	6.563	88	1320m	18.51	ug/L	
59) Methyl Methacrylate	6.551	69	3268	1.34	ug/L #	67
60) Bromodichloromethane	6.697	83	11236	0.97	ug/L #	87
62) 2-Chloroethylvinyl Ether	7.075	63	4829	0.87	ug/L	96
63) cis-1,3-Dichloropropene	7.215	75	12574	0.95	ug/L	97
64) 4-Methyl-2-pentanone	7.398	43	8742	0.88	ug/L #	95
66) Toluene	7.575	91	39804	1.01	ug/L	96
67) trans-1,3-Dichloropropene	7.806	75	9110	0.83	ug/L #	94
68) Ethyl Methacrylate	7.940	69	6365	1.43	ug/L	84
69) 1,1,2-Trichloroethane	7.989	97	6013	0.93	ug/L	93
72) Tetrachloroethene	8.136	164	7326	1.10	ug/L #	85
73) 2-Hexanone	8.257	43	6475	0.95	ug/L	98
74) 1,3-Dichloropropene	8.148	76	11089	0.92	ug/L	91
75) Dibromochloromethane	8.367	129	5551	0.83	ug/L #	90
76) N-Butyl Acetate	8.404	43	11125	2.30	ug/L #	94
77) 1,2-Dibromoethane	8.465	107	7070	1.14	ug/L #	98
78) Chlorobenzene	8.934	112	25046	1.04	ug/L	91
79) 1,1,1,2-Tetrachloroethane	9.013	131	6508	0.90	ug/L	96
80) Ethylbenzene	9.050	106	13834	1.01	ug/L	92
81) (m+p)Xylene	9.160	106	32011	1.99	ug/L	96
82) o-Xylene	9.501	106	15248	0.98	ug/L	91
83) Styrene	9.513	104	25181	0.95	ug/L	94
85) Bromoform	9.660	173	3415	1.02	ug/L #	80
86) Isopropylbenzene	9.830	105	37684	0.95	ug/L	92
87) Cyclohexanone	9.885	55	12894	19.69	ug/L	96
88) trans-1,4-Dichloro-2-B...	10.117	53	2979	0.84	ug/L #	80
89) 1,1,2,2-Tetrachloroethane	10.068	83	7014	0.94	ug/L	91
90) Bromobenzene	10.068	156	9152	0.97	ug/L	93
92) 1,2,3-Trichloropropane	10.099	110	2021	0.94	ug/L #	43
93) n-Propylbenzene	10.178	91	50376	0.94	ug/L	97
94) 2-Chlorotoluene	10.239	91	31496	0.99	ug/L	99
95) 4-Chlorotoluene	10.330	91	38046	1.03	ug/L	94
96) 1,3,5-Trimethylbenzene	10.324	105	36075	1.01	ug/L	90
97) tert-Butylbenzene	10.592	119	28426	0.95	ug/L	96
98) 1,2,4-Trimethylbenzene	10.629	105	37639	0.99	ug/L #	94
99) sec-Butylbenzene	10.775	105	46062	0.96	ug/L	99

Sample : 1.0ppb
 Data File: J:\ACQUDATA\msvoa12\Data\091509\X4229.D
 Misc : 8260 WATER ICAL
 Acq On : 15 Sep 2009 4:20 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Sep 16 10:21:45 2009
 QLast Update : Wed Sep 16 09:49:13 2009
 Response via : Initial Calibration

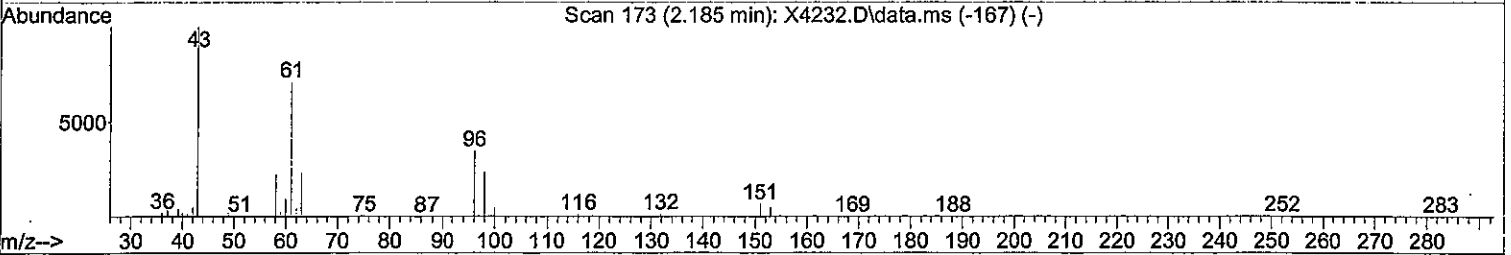
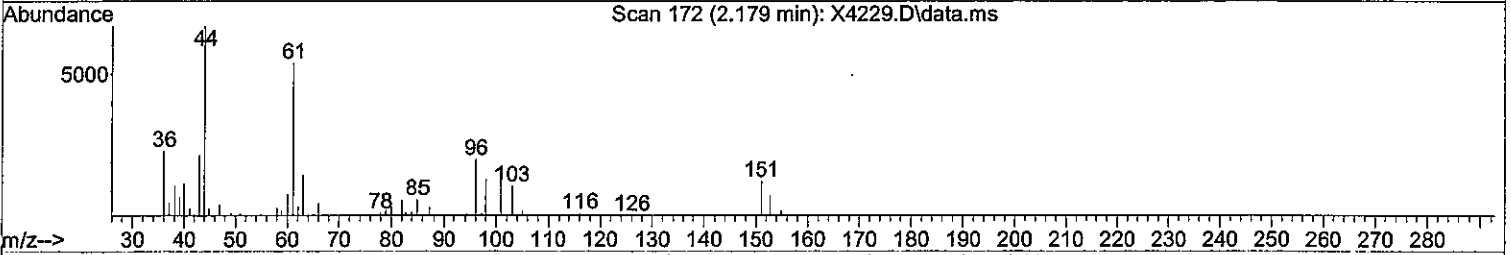
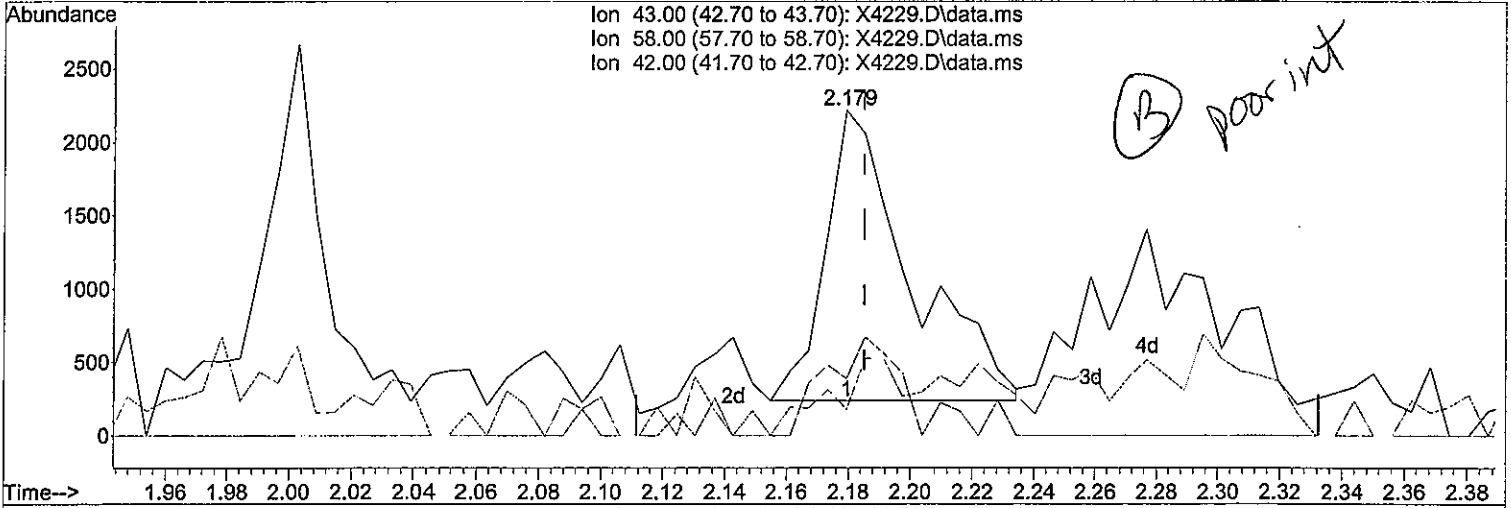
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
100) p-Isopropyltoluene	10.891	119	36675	0.96	ug/L #	88
101) 1,3-Dclbenz	10.855	146	19272	0.96	ug/L #	89
102) 1,4-Dclbenz	10.928	146	21842	1.04	ug/L	96
104) n-Butylbenzene	11.214	91	37400	0.97	ug/L	97
105) 1,2-Dclbenz	11.220	146	19181	1.03	ug/L	93
106) 1,2-Dibromo-3-chloropr...	11.763	157	1396	0.97	ug/L #	65
108) 1,2,4-Tcbenzene	12.287	180	11775	0.93	ug/L	94
109) Hexachlorobt	12.385	225	5984	1.04	ug/L	95
110) Naphthalen	12.427	128	23124	0.84	ug/L	96
111) 1,2,3-Tclbenzene	12.562	180	11370	0.99	ug/L	91

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Sample : 1.0ppb
 Data File: J:\ACQUDATA\msvoa12\Data\091509\X4229.D
 Misc : 8260 WATER ICAL
 Acq On : 15 Sep 2009 4:20 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Sep 16 10:15:38 2009
 QLast Update : Wed Sep 16 09:49:13 2009
 Response via : Initial Calibration



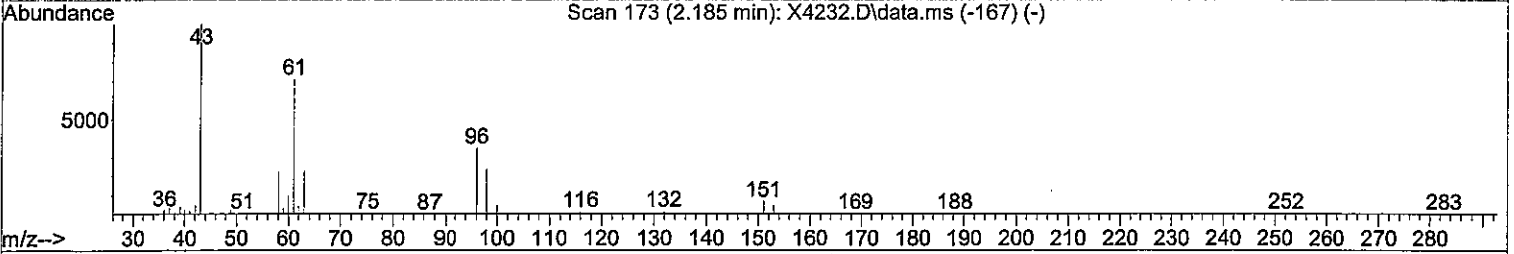
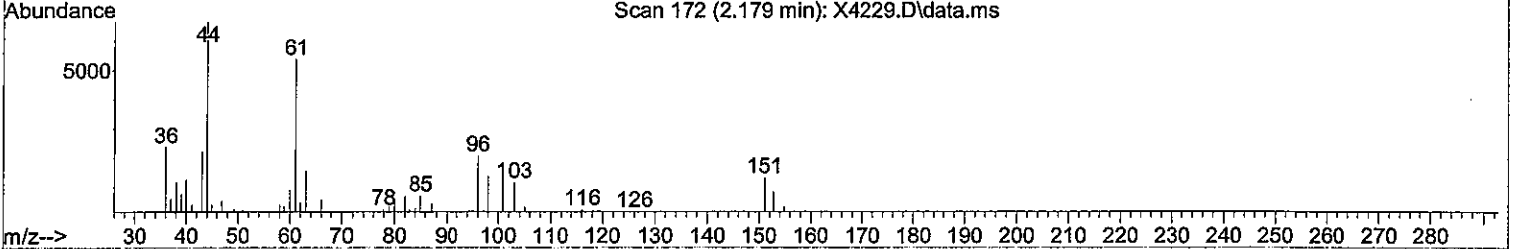
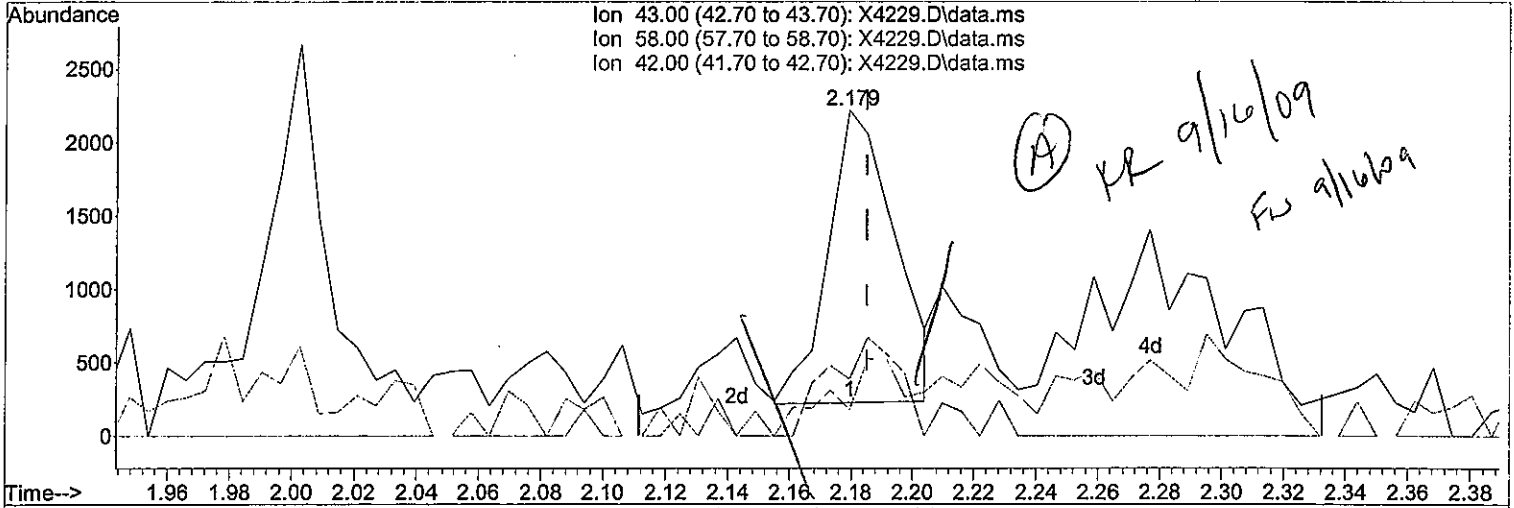
(16) Acetone
 2.179min (-0.006) 1.37 ug/L
 response 3803

Ion	Exp%	Act%
43.00	100	100
58.00	21.90	17.47
42.00	6.40	8.06
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 1.0ppb
 Data File: J:\ACQUDATA\msvoa12\Data\091509\X4229.D
 Misc : 8260 WATER ICAL
 Acq On : 15 Sep 2009 4:20 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Sep 16 10:15:38 2009
 QLast Update : Wed Sep 16 09:49:13 2009
 Response via : Initial Calibration



(16) Acetone

2.179min (-0.006) 1.09 ug/L m

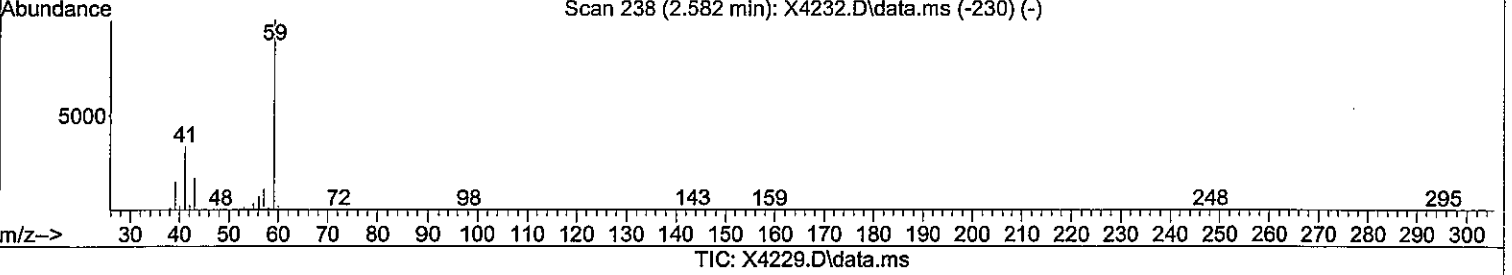
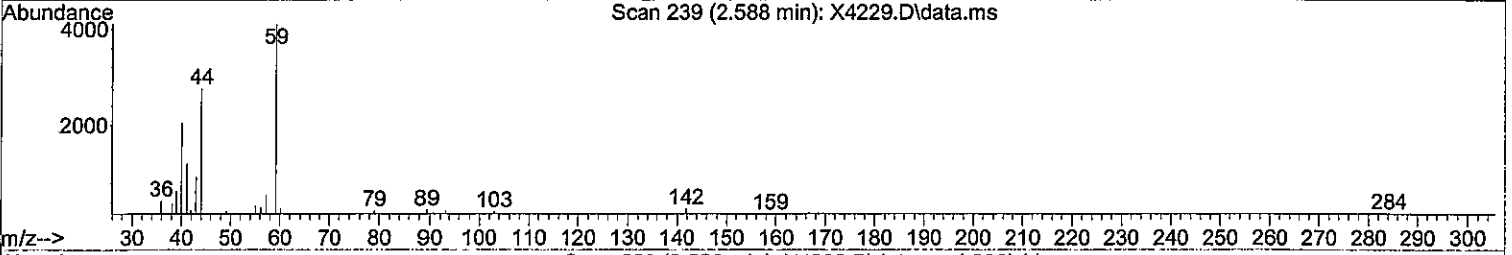
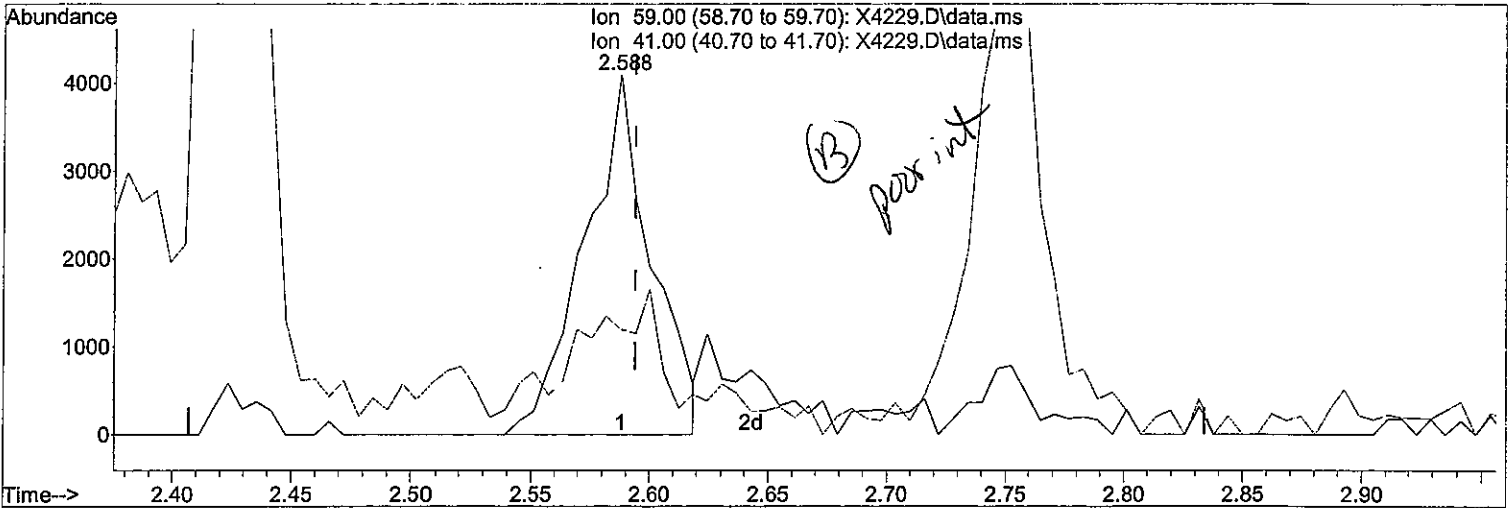
response 3030

Ion	Exp%	Act%
43.00	100	100
58.00	21.90	17.47
42.00	6.40	8.06
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 1.0ppb
 Data File: J:\ACQUDATA\msvoa12\Data\091509\X4229.D
 Misc : 8260 WATER ICAL
 Acq On : 15 Sep 2009 4:20 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Sep 16 10:15:38 2009
 QLast Update : Wed Sep 16 09:49:13 2009
 Response via : Initial Calibration



(24) TBA

2.588min (-0.006) 71.96 ug/L

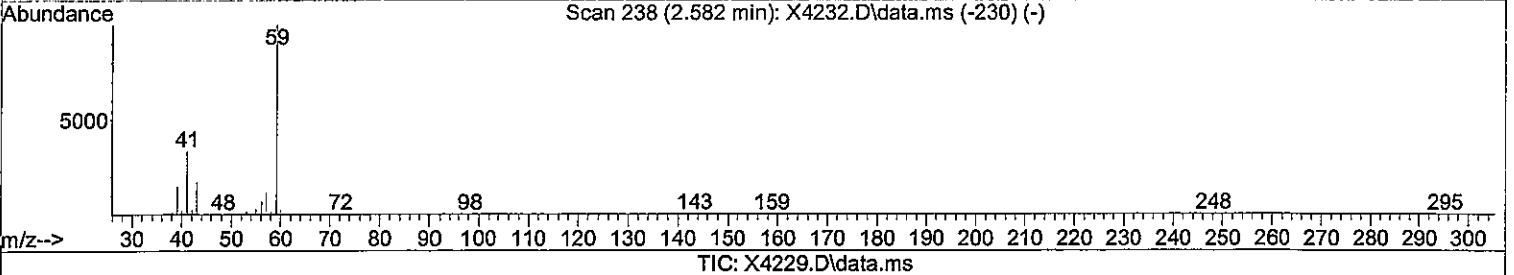
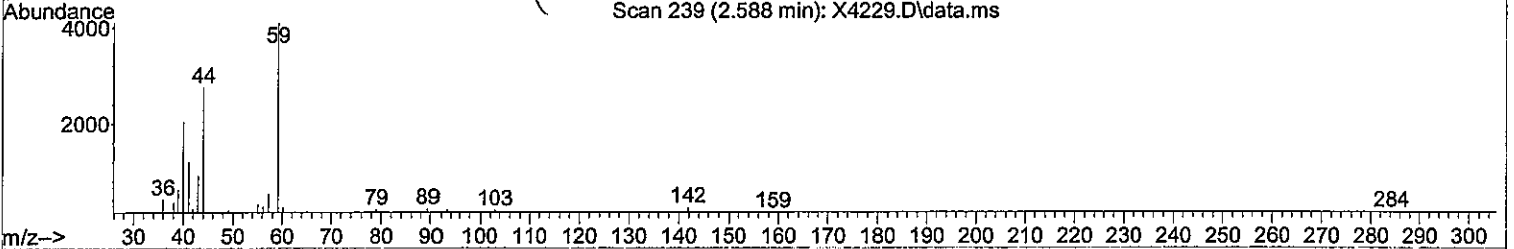
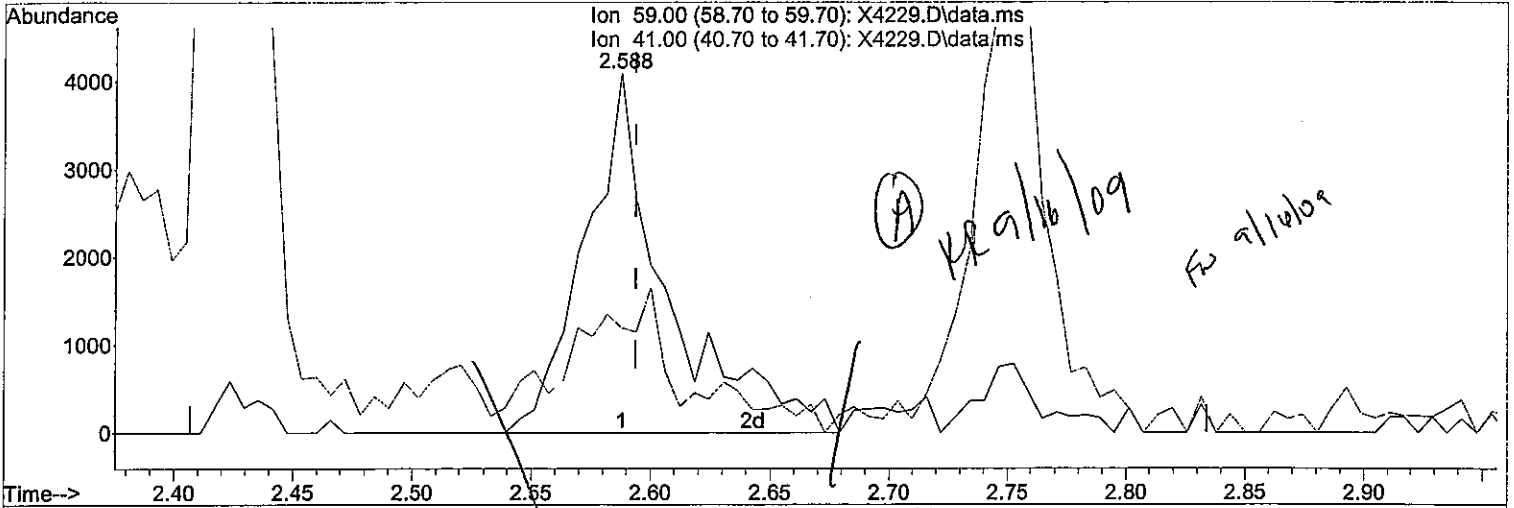
response 7944

Ion	Exp%	Act%
59.00	100	100
41.00	36.90	29.35
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 1.0ppb
 Data File: J:\ACQUDATA\msvoa12\Data\091509\X4229.D
 Misc : 8260 WATER ICAL
 Acq On : 15 Sep 2009 4:20 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Sep 16 10:15:38 2009
 QLast Update : Wed Sep 16 09:49:13 2009
 Response via : Initial Calibration



(24) TBA

2.588min (-0.006) 74.02 ug/L m

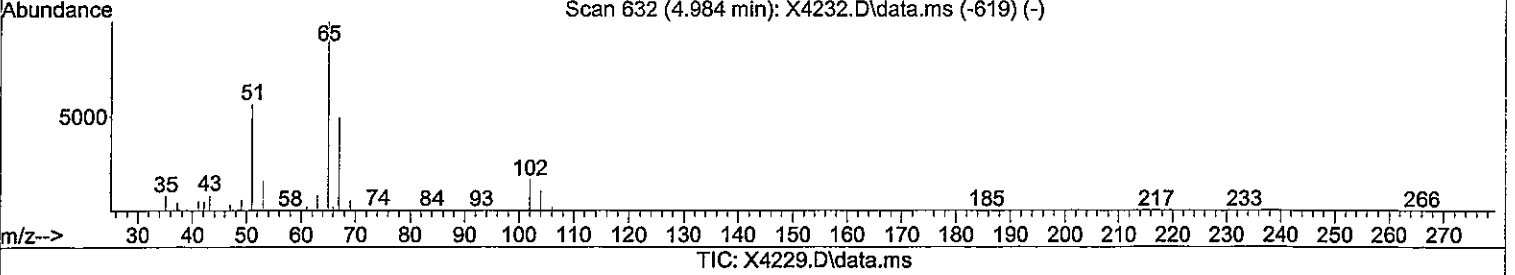
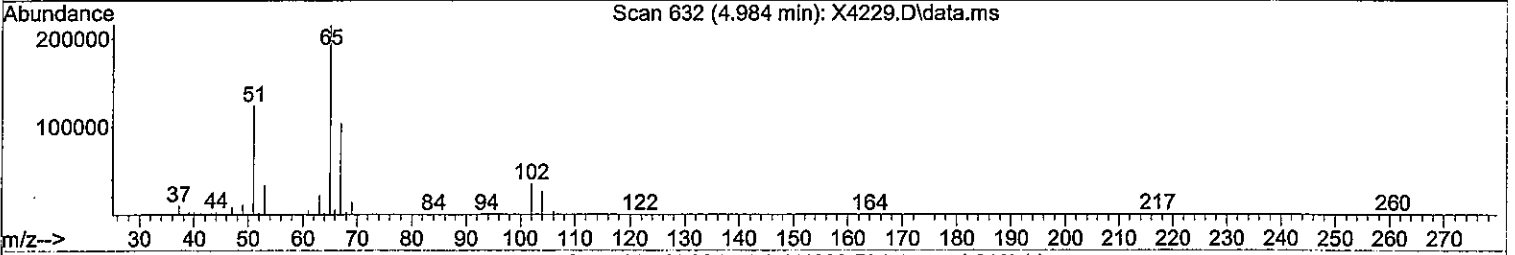
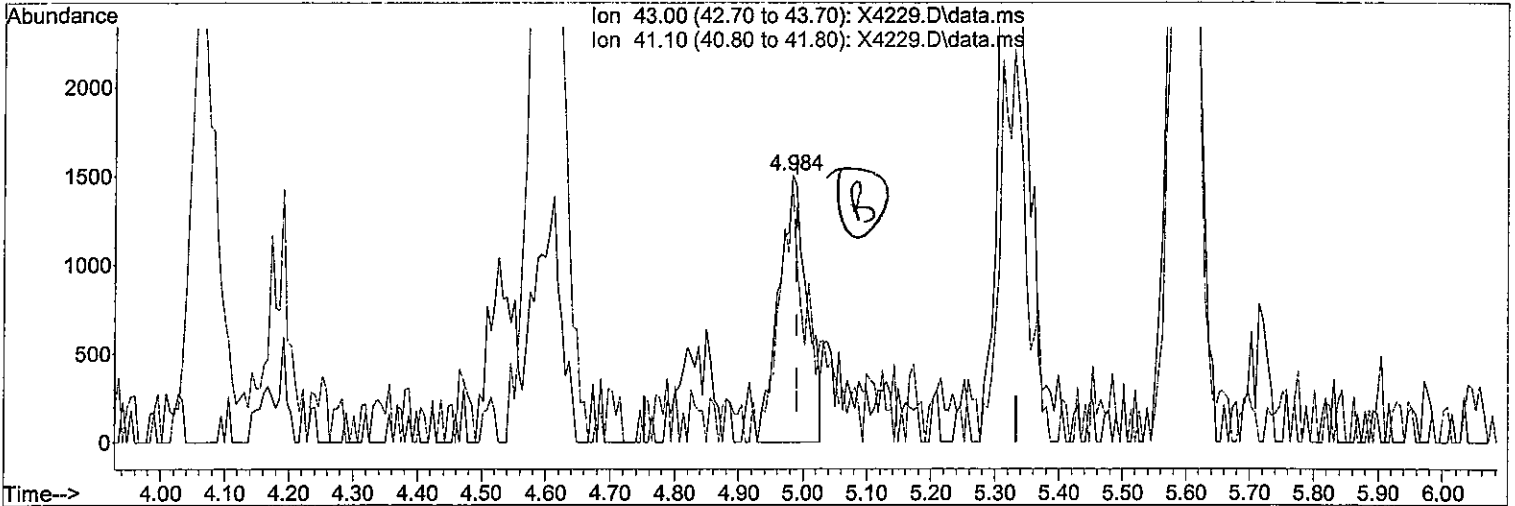
response 9791

Ion	Exp%	Act%
59.00	100	100
41.00	36.90	29.35
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 1.0ppb
 Data File: J:\ACQUDATA\msvoa12\Data\091509\X4229.D
 Misc : 8260 WATER ICAL
 Acq On : 15 Sep 2009 4:20 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Sep 16 10:15:38 2009
 QLast Update : Wed Sep 16 09:49:13 2009
 Response via : Initial Calibration



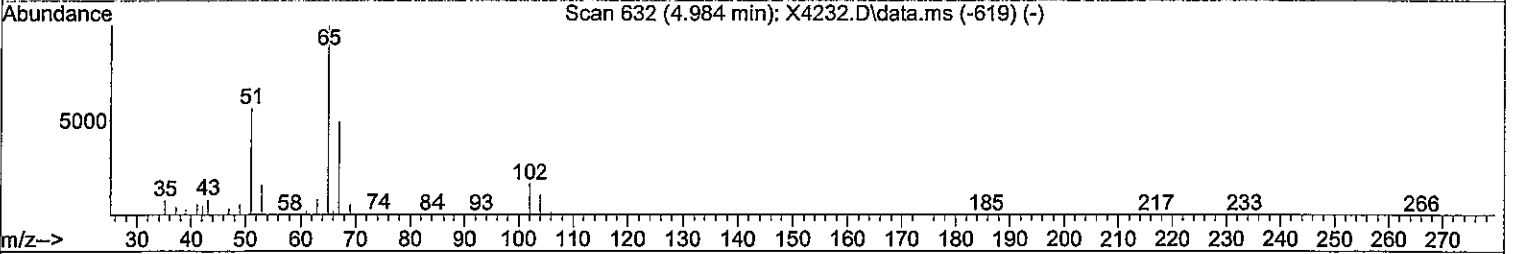
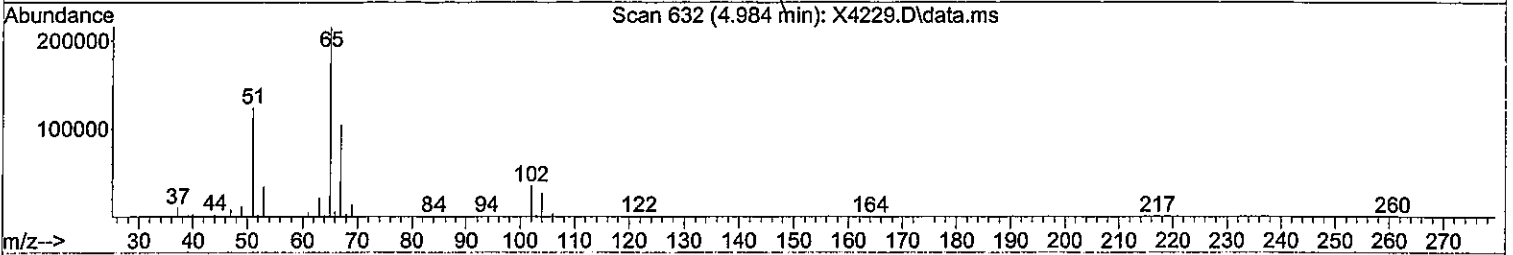
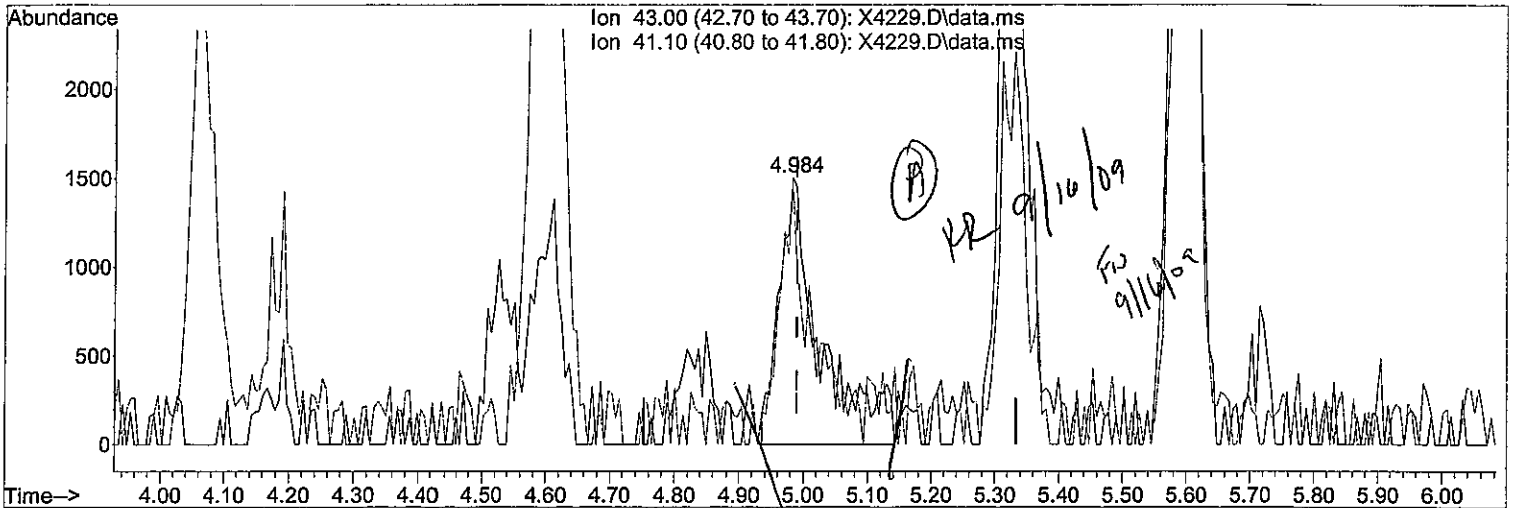
(52) Iso-Butyl Alcohol
 4.984min (-0.006) 75.31 ug/L
 response 4589

Ion	Exp%	Act%
43.00	100	100
41.10	70.50	96.62#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 1.0ppb
 Data File: J:\ACQUDATA\msvoa12\Data\091509\X4229.D
 Misc : 8260 WATER ICAL
 Acq On : 15 Sep 2009 4:20 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Sep 16 10:15:38 2009
 QLast Update : Wed Sep 16 09:49:13 2009
 Response via : Initial Calibration



TIC: X4229.D\data.ms

(52) Iso-Butyl Alcohol

4.984min (-0.006) 79.09 ug/L m

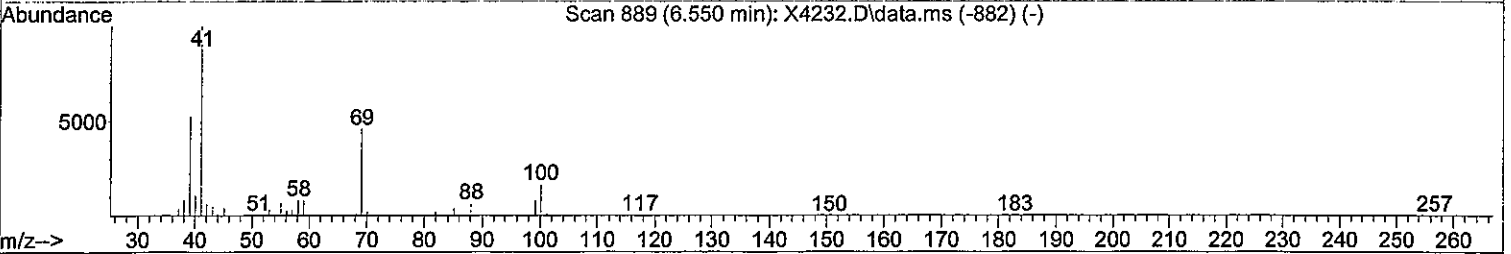
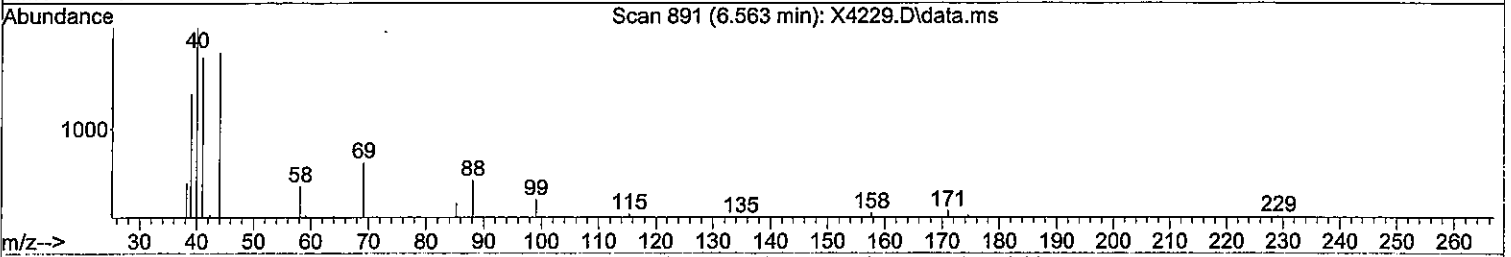
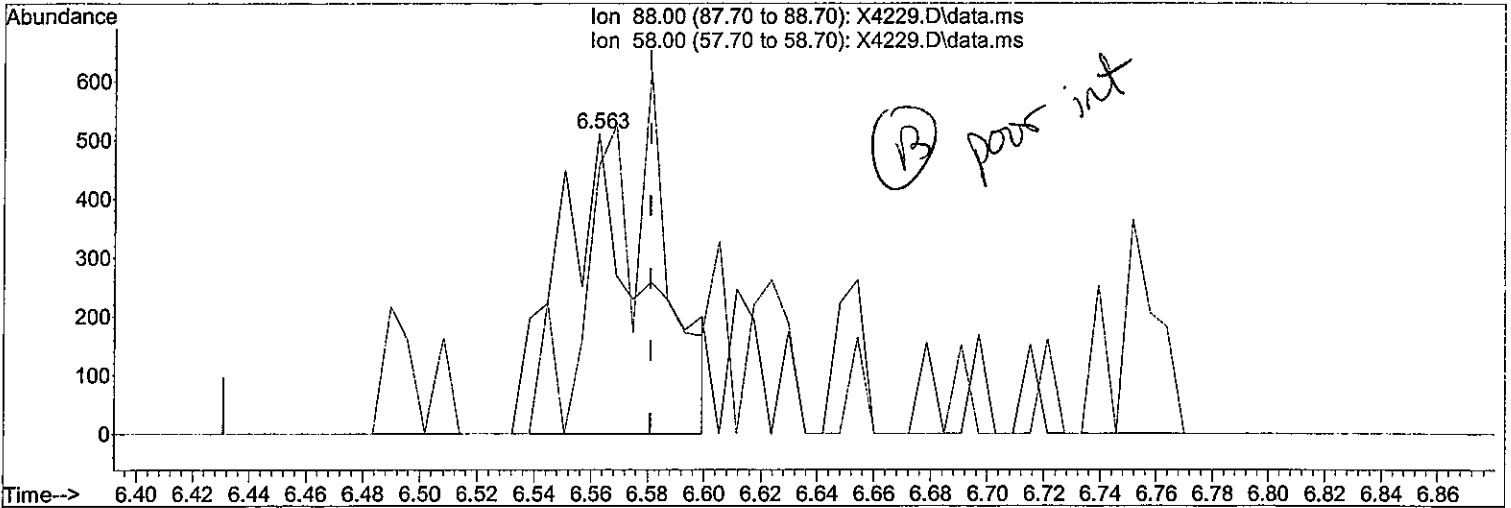
response 6646

Ion	Exp%	Act%
43.00	100	100
41.10	70.50	96.62#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 1.0ppb
 Data File: J:\ACQUDATA\msvoa12\Data\091509\X4229.D
 Misc : 8260 WATER ICAL
 Acq On : 15 Sep 2009 4:20 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Sep 16 10:15:38 2009
 QLast Update : Wed Sep 16 09:49:13 2009
 Response via : Initial Calibration



(58) 1,4-Dioxane

6.563min (-0.018) 15.36 ug/L

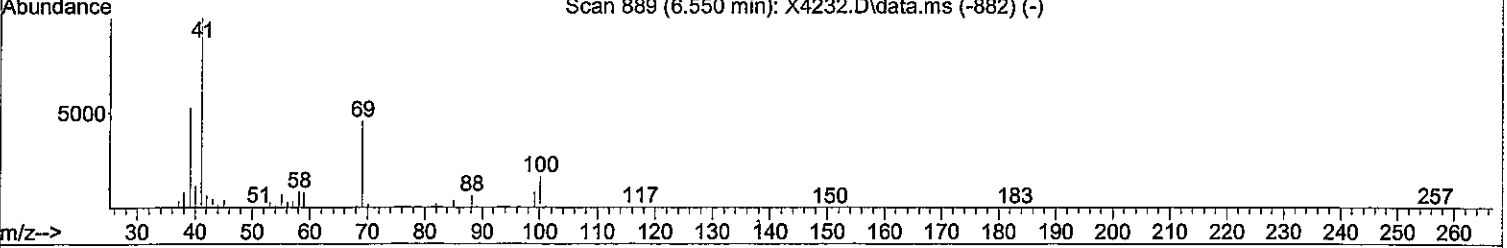
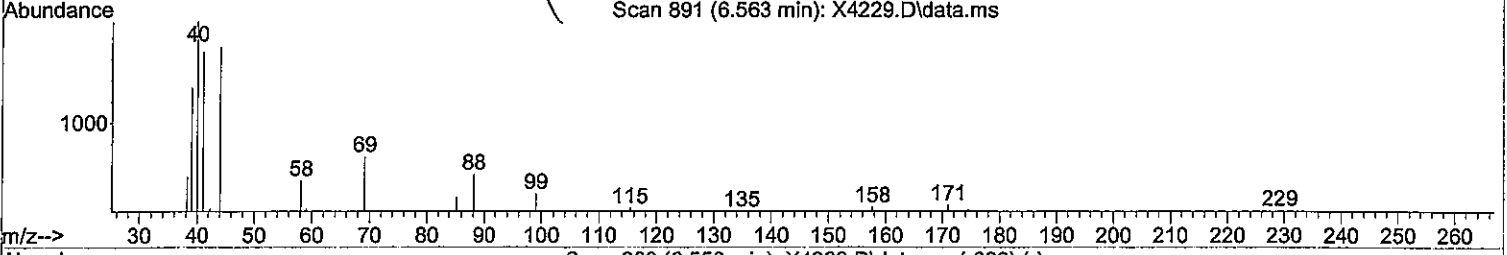
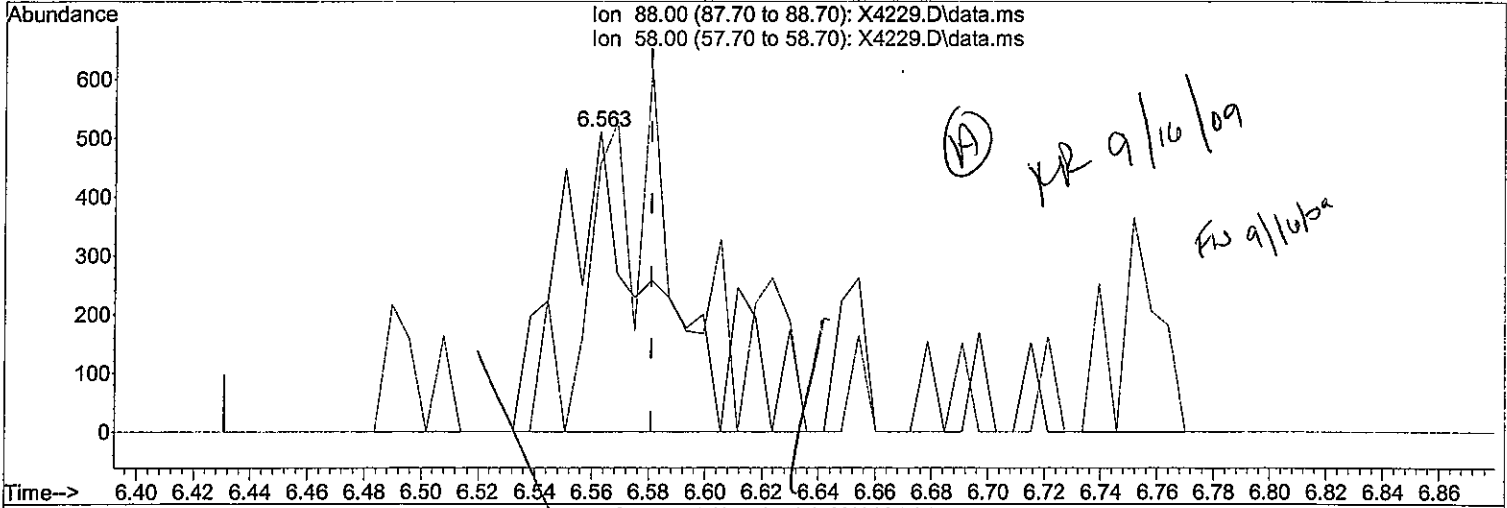
response 1095

Ion	Exp%	Act%
88.00	100	100
58.00	128.90	89.06#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 1.0ppb
Data File: J:\ACQUDATA\msvoa12\Data\091509\X4229.D
Misc : 8260 WATER ICAL
Acq On : 15 Sep 2009 4:20 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 16 10:15:38 2009
QLast Update : Wed Sep 16 09:49:13 2009
Response via : Initial Calibration



TIC: X4229.D\data.ms

(58) 1,4-Dioxane
6.563min (-0.018) 18.51 ug/L m

response 1320

Ion	Exp%	Act%
88.00	100	100
58.00	128.90	89.06#
0.00	0.00	0.00
0.00	0.00	0.00

Sample : 2.0ppb
 Data File: J:\ACQUDATA\msvoa12\Data\091509\X4230.D
 Misc : 8260 WATER ICAL
 Acq On : 15 Sep 2009 4:51 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Sep 16 10:23:53 2009
 QLast Update : Wed Sep 16 09:49:13 2009
 Response via : Initial Calibration

Handwritten: 9/16/09

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.533	168	823110	50.00	ug/L	0.00
44) 1,4-Difluorobenzene	5.715	114	1410773	50.00	ug/L	0.00
71) d5-Chlorobenzene	8.910	117	1220150	50.00	ug/L	0.00
84) 1,4-Dichlorobenzene-d4	10.909	152	650399	50.00	ug/L	0.00

System Monitoring Compounds						
46) surr4,Dibrflmethane	4.435	113	476116	61.57	ug/L	0.00
Spiked Amount	50.000	Range 89 - 119	Recovery	=	123.14%#	
49) surr1,1,2-dichloroetha...	4.978	65	713614	61.64	ug/L	0.00
Spiked Amount	50.000	Range 80 - 120	Recovery	=	123.28%#	
65) SURR3,Toluene-d8	7.508	98	2074814	63.24	ug/L	0.00
Spiked Amount	50.000	Range 87 - 121	Recovery	=	126.48%#	
70) SURR2,BFB	9.946	95	838043	62.40	ug/L	0.00
Spiked Amount	50.000	Range 85 - 122	Recovery	=	124.80%#	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.234	85	17430	1.87	ug/L	96
4) Chloromethane	1.344	50	34374	1.96	ug/L	100
5) Vinyl Chloride	1.411	62	19931	1.87	ug/L	98
7) Chloroethane	1.667	64	11796	1.94	ug/L	99
8) Freon 21	1.777	67	26338	1.96	ug/L	93
9) Trichlorofluoromethane	1.832	101	21293	1.92	ug/L	97
10) Diethyl Ether	2.003	59	14889	2.01	ug/L	92
11) Freon 123a	1.990	67	16631	2.01	ug/L	99
12) Freon 123	2.027	83	17293	2.00	ug/L	92
13) Acrolein	2.082	56	10240	8.72	ug/L	99
14) 1,1-Dicethene	2.173	96	10212	1.99	ug/L	90
15) Freon 113	2.167	101	10331	1.92	ug/L	89
16) Acetone	2.179	43	5772m <i>PL</i>	2.11	ug/L	
17) 2-Propanol	2.265	45	21003	36.59	ug/L	97
18) Iodomethane	2.283	142	8542	1.67	ug/L	95
19) Carbon Disulfide	2.350	76	54469	2.06	ug/L	100
20) Acetonitrile	2.381	40	7644	13.85	ug/L #	56
21) Allyl Chloride	2.423	76	9922	2.11	ug/L	87
22) Methyl Acetate	2.423	43	14841	1.83	ug/L #	89
23) Methylene Chloride	2.515	84	19450	2.03	ug/L	90
24) TBA	2.582	59	17981	83.53	ug/L	95
25) Acrylonitrile	2.698	53	34842	9.17	ug/L	90
26) Methyl-t-Butyl Ether	2.752	73	40453	1.91	ug/L	96
27) trans-1,2-Dichloroethene	2.752	96	18797	2.12	ug/L	98
28) 1,1-Dicethane	3.136	63	41201	1.93	ug/L	97
29) Vinyl Acetate	3.185	86 <i>201</i>	1461 <i>2.01</i>	1.33 <i>1.33</i>	ug/L <i>m</i>	1
30) DIPE	3.216	45	105649	1.92	ug/L	97
31) 2-Chloro-1,3-Butadiene	3.240	53	39633	1.92	ug/L	93
32) ETBE	3.624	59	62019	1.81	ug/L	94
33) 2,2-Dichloropropane	3.795	77	18682	1.74	ug/L	98
34) cis-1,2-Dichloroethene	3.783	96	19090	1.98	ug/L	94
35) 2-Butanone	3.801	43	11017	2.07	ug/L #	96
37) Propionitrile	3.850	54	12321	9.30	ug/L #	89
38) Bromochloromethane	4.094	130	10019	2.07	ug/L	87
39) Methacrylonitrile	4.069	67	5317	1.97	ug/L #	64

Sample : 2.0ppb
 Data File: J:\ACQUDATA\msvoa12\Data\091509\X4230.D
 Misc : 8260 WATER ICAL
 Acq On : 15 Sep 2009 4:51 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Sep 16 10:23:53 2009
 QLast Update : Wed Sep 16 09:49:13 2009
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Tetrahydrofuran	4.173	42	7583	2.23	ug/L	95
41) Chloroform	4.203	83	30872	1.95	ug/L	97
42) 1,1,1-Trichloroethane	4.496	97	24677	1.95	ug/L #	1
43) TAME	5.331	73	35536	1.77	ug/L #	86
45) Cyclohexane	4.600	41	32706	1.97	ug/L	92
47) Carbontetrachloride	4.764	121	5073	1.62	ug/L	90
48) 1,1-Dichloropropene	4.758	75	25610	2.00	ug/L	94
50) Benzene	5.100	78	76233	1.99	ug/L	94
51) 1,2-Dichloroethane	5.112	62	30954	1.98	ug/L #	87
52) Iso-Butyl Alcohol	4.978	43	9127	83.72	ug/L	94
53) n-Heptane	5.593	43	48467	1.90	ug/L	96
54) Trichloroethene	6.069	130	18317	2.12	ug/L	90
55) Methylcyclohexane	6.331	55	37684	1.84	ug/L	95
56) 1,2-Diclpropane	6.349	63	22796m ^{WR}	1.96	ug/L	
57) Dibromomethane	6.483	93	8714	1.98	ug/L	93
58) 1,4-Dioxane	6.557	88	2111	29.75	ug/L #	53
59) Methyl Methacrylate	6.550	69	6314	1.97	ug/L	94
60) Bromodichloromethane	6.691	83	21715	1.87	ug/L	98
62) 2-Chloroethylvinyl Ether	7.075	63	10631	1.93	ug/L #	86
63) cis-1,3-Dichloropropene	7.215	75	24329	1.84	ug/L	94
64) 4-Methyl-2-pentanone	7.404	43	17804	1.80	ug/L	99
66) Toluene	7.581	91	80749	2.05	ug/L	91
67) trans-1,3-Dichloropropene	7.812	75	19226	1.76	ug/L	94
68) Ethyl Methacrylate	7.940	69	12143	2.01	ug/L	100
69) 1,1,2-Trichloroethane	7.989	97	12386	1.93	ug/L	95
72) Tetrachloroethene	8.136	164	13301	2.01	ug/L	93
73) 2-Hexanone	8.257	43	11914	1.77	ug/L	99
74) 1,3-Dichloropropene	8.148	76	24009	2.00	ug/L	94
75) Dibromochloromethane	8.361	129	13000	1.96	ug/L #	89
76) N-Butyl Acetate	8.404	43	23812	2.96	ug/L #	98
77) 1,2-Dibromoethane	8.465	107	11625	1.88	ug/L #	90
78) Chlorobenzene	8.934	112	49645	2.08	ug/L	99
79) 1,1,1,2-Tetrachloroethane	9.020	131	14464	2.01	ug/L	84
80) Ethylbenzene	9.050	106	27296	2.01	ug/L	86
81) (m+p)Xylene	9.160	106	65905	4.13	ug/L	97
82) o-Xylene	9.507	106	31856	2.06	ug/L	85
83) Styrene	9.513	104	52402	1.99	ug/L	94
85) Bromoform	9.660	173	5586	1.64	ug/L	99
86) Isopropylbenzene	9.830	105	77022	1.92	ug/L	100
87) Cyclohexanone	9.885	55	23500	35.47	ug/L	95
88) trans-1,4-Dichloro-2-B...	10.117	53	6264	1.75	ug/L #	82
89) 1,1,2,2-Tetrachloroethane	10.068	83	15526	2.05	ug/L	93
90) Bromobenzene	10.068	156	19140	2.01	ug/L	95
92) 1,2,3-Trichloropropane	10.105	110	4498	2.07	ug/L #	93
93) n-Propylbenzene	10.178	91	103580	1.90	ug/L	96
94) 2-Chlorotoluene	10.239	91	62130	1.92	ug/L	95
95) 4-Chlorotoluene	10.330	91	75020	2.01	ug/L	98
96) 1,3,5-Trimethylbenzene	10.324	105	70063	1.94	ug/L #	95
97) tert-Butylbenzene	10.592	119	56331	1.86	ug/L	99
98) 1,2,4-Trimethylbenzene	10.629	105	73987	1.91	ug/L	96
99) sec-Butylbenzene	10.775	105	93836	1.94	ug/L	98
100) p-Isopropyltoluene	10.891	119	73191	1.90	ug/L #	94

Sample : 2.0ppb
 Data File: J:\ACQUDATA\msvoa12\Data\091509\X4230.D
 Misc : 8260 WATER ICAL
 Acq On : 15 Sep 2009 4:51 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Sep 16 10:23:53 2009
 QLast Update : Wed Sep 16 09:49:13 2009
 Response via : Initial Calibration

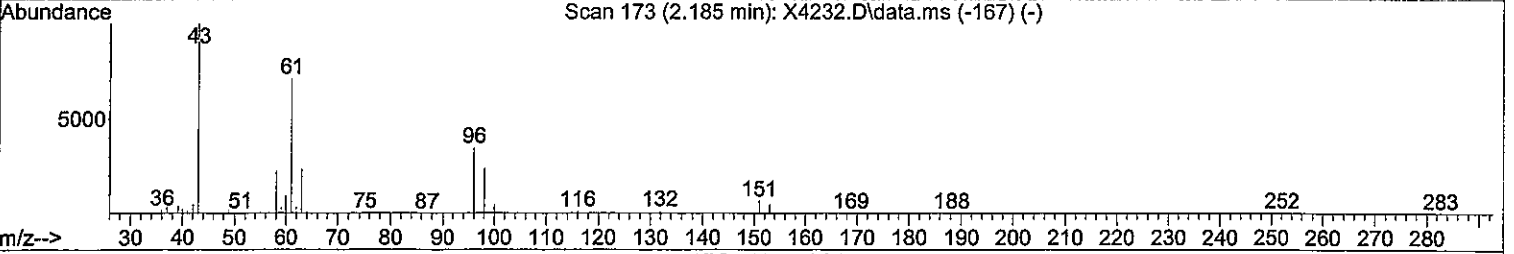
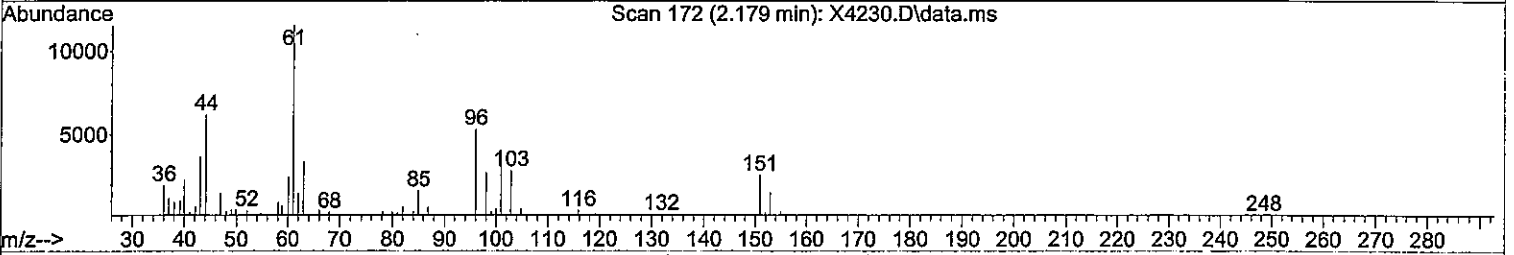
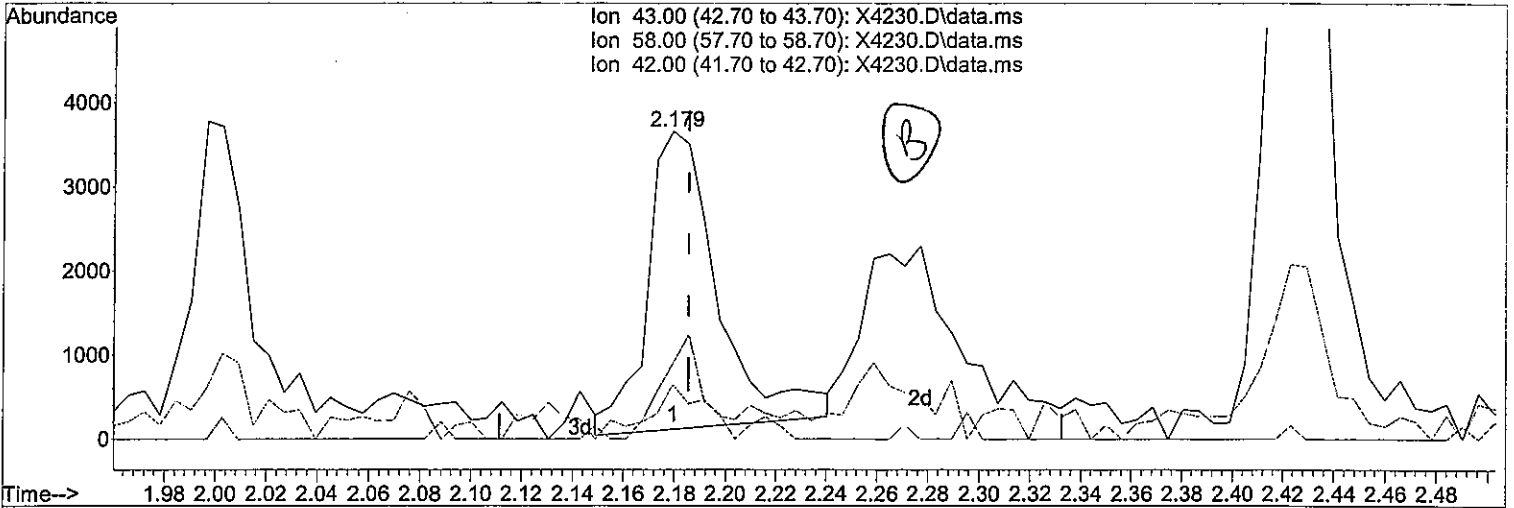
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
101) 1,3-Dclbenz	10.855	146	39223	1.92	ug/L	94
102) 1,4-Dclbenz	10.928	146	41434	1.95	ug/L	93
104) n-Butylbenzene	11.214	91	76221	1.96	ug/L	97
105) 1,2-Dclbenz	11.220	146	37680	2.01	ug/L	99
106) 1,2-Dibromo-3-chloropr...	11.763	157	2791	1.91	ug/L #	80
108) 1,2,4-Tcbenzene	12.287	180	23035	1.80	ug/L	95
109) Hexachlorobt	12.391	225	11818	2.04	ug/L	93
110) Naphthalen	12.427	128	50238	1.81	ug/L	96
111) 1,2,3-Tclbenzene	12.568	180	22611	1.95	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Sample : 2.0ppb
 Data File: J:\ACQUDATA\msvoa12\Data\091509\X4230.D
 Misc : 8260 WATER ICAL
 Acq On : 15 Sep 2009 4:51 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Sep 16 10:15:41 2009
 QLast Update : Wed Sep 16 09:49:13 2009
 Response via : Initial Calibration



(16) Acetone

2.179min (-0.006) 2.50 ug/L

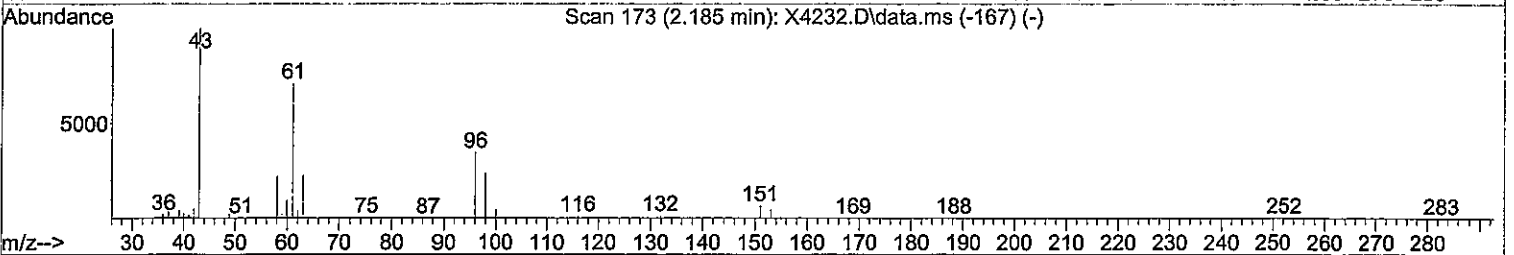
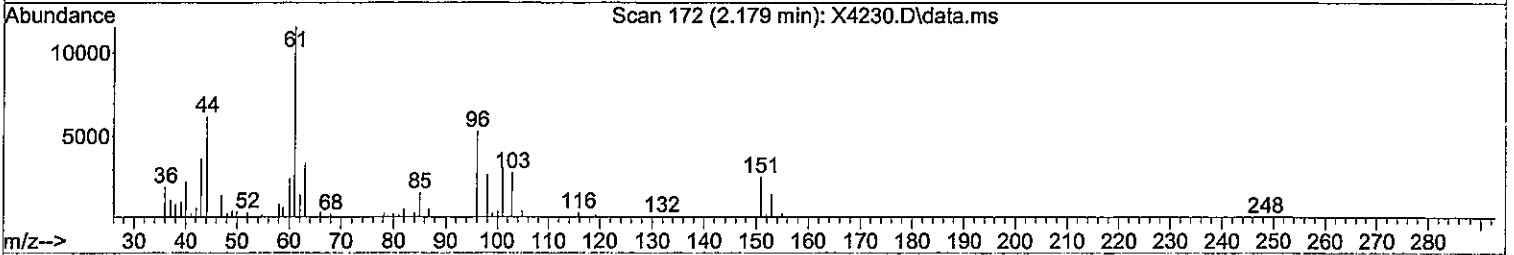
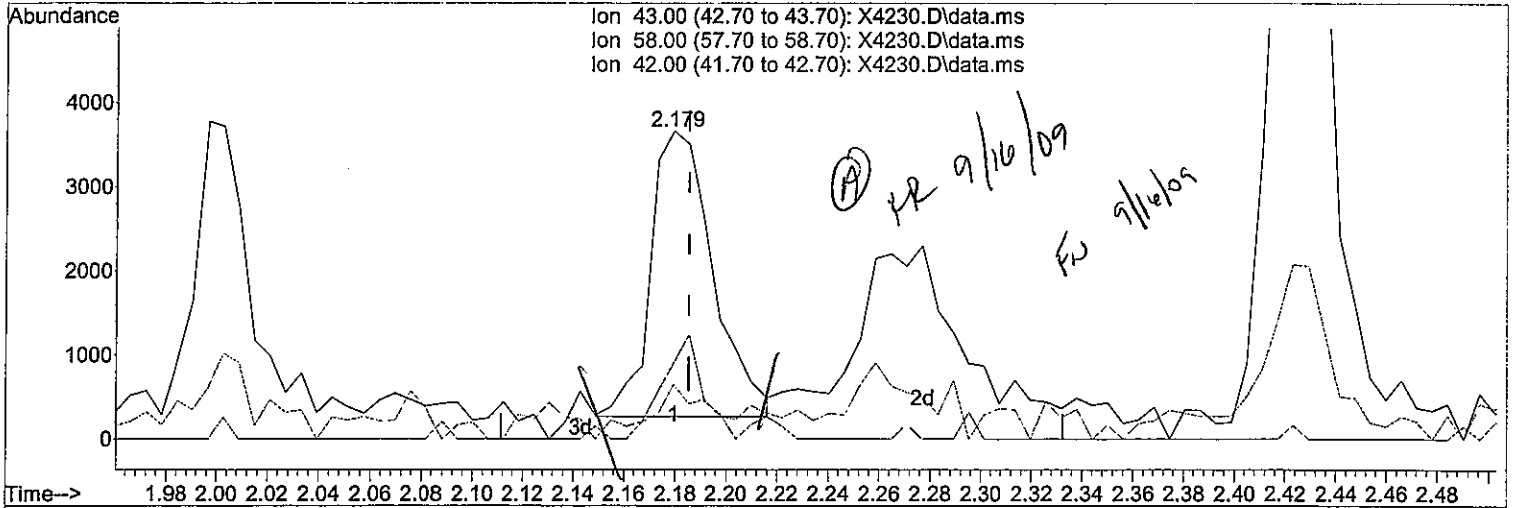
response 6816

Ion	Exp%	Act%
43.00	100	100
58.00	21.90	24.56
42.00	6.40	17.71
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 2.0ppb
 Data File: J:\ACQUDATA\msvoa12\Data\091509\X4230.D
 Misc : 8260 WATER ICAL
 Acq On : 15 Sep 2009 4:51 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Sep 16 10:15:41 2009
 QLast Update : Wed Sep 16 09:49:13 2009
 Response via : Initial Calibration



(16) Acetone

2.179min (-0.006) 2.11 ug/L m

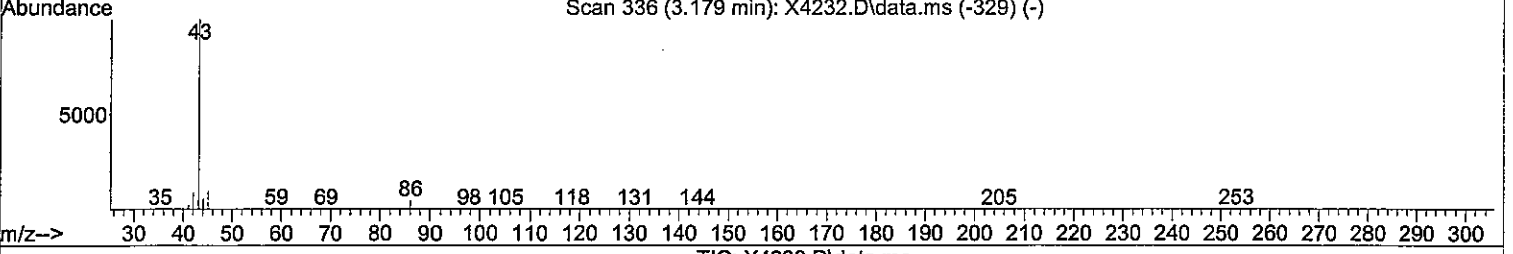
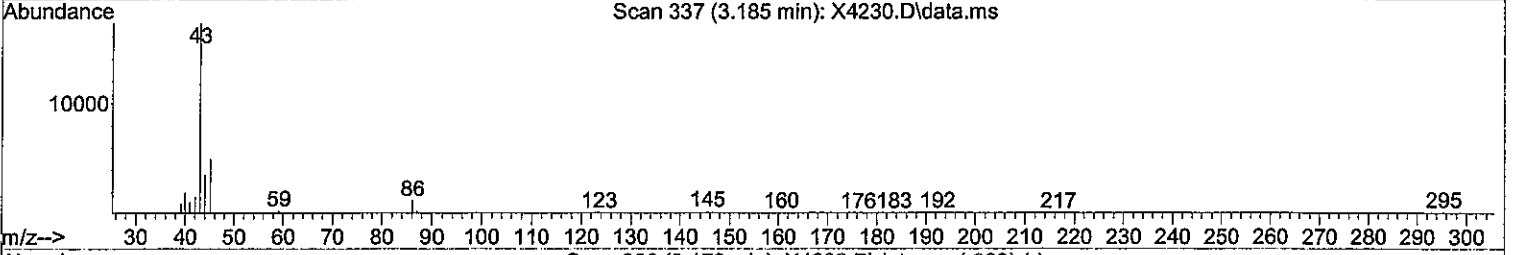
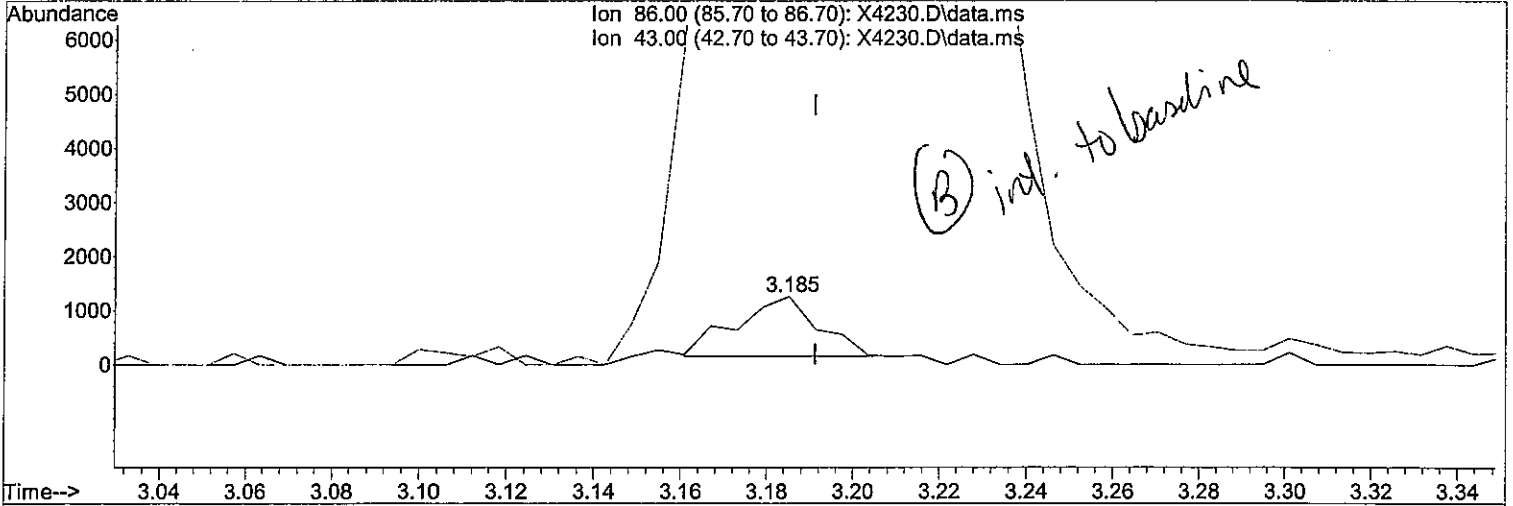
response 5772

Ion	Exp%	Act%
43.00	100	100
58.00	21.90	24.56
42.00	6.40	17.71
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 2.0ppb
 Data File: J:\ACQUDATA\msvoa12\Data\091509\X4230.D
 Misc : 8260 WATER ICAL
 Acq On : 15 Sep 2009 4:51 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Sep 16 10:23:53 2009
 QLast Update : Wed Sep 16 09:49:13 2009
 Response via : Initial Calibration



TIC: X4230.D\data.ms

(29) Vinyl Acetate

3.185min (-0.006) 1.33 ug/L

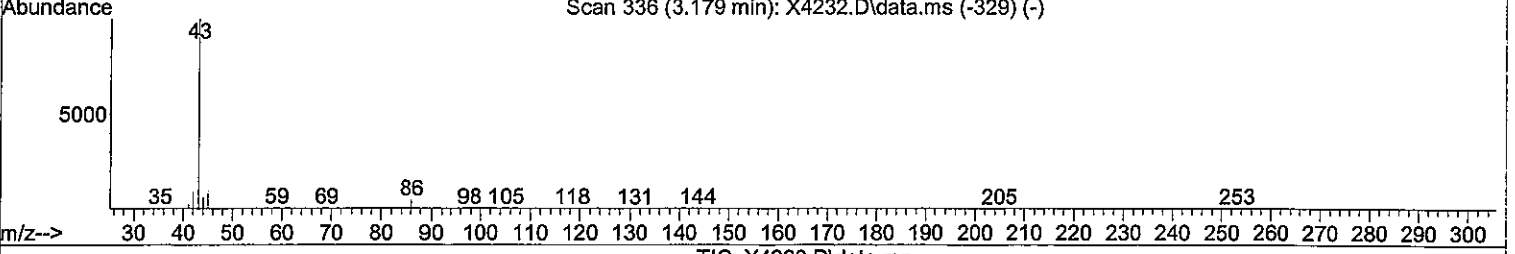
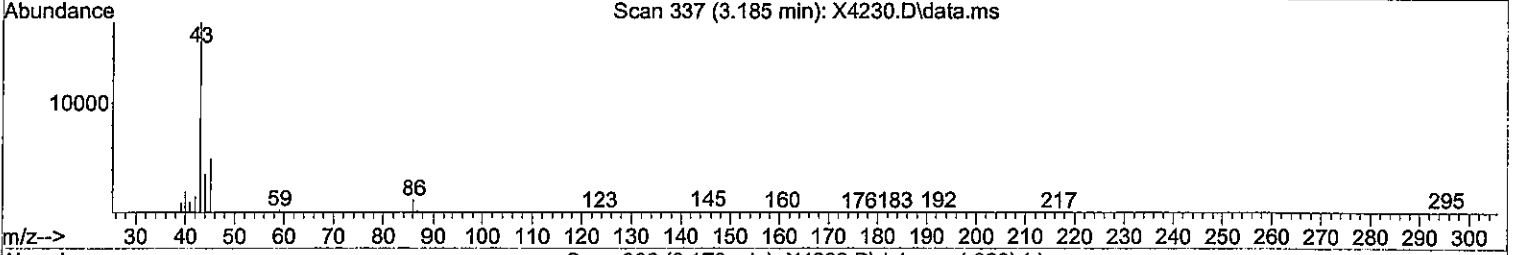
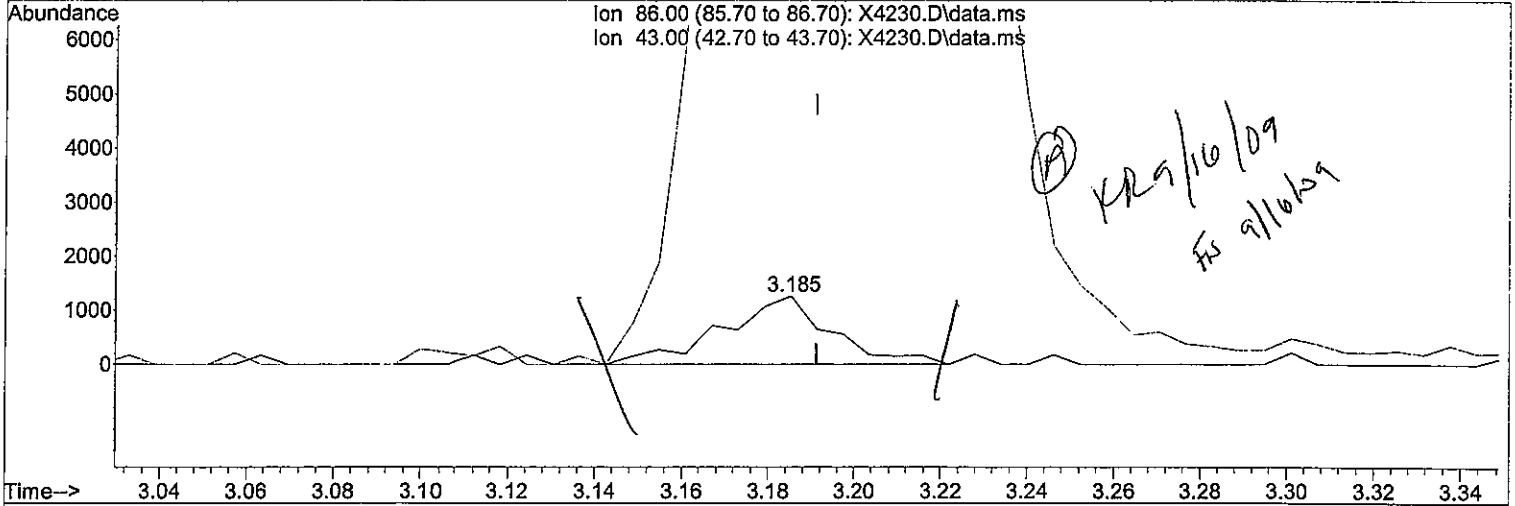
response 1461

Ion	Exp%	Act%
86.00	100	100
43.00	2158.10	1364.18
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 2.0ppb
 Data File: J:\ACQUDATA\msvoa12\Data\091509\X4230.D
 Misc : 8260 WATER ICAL
 Acq On : 15 Sep 2009 4:51 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Sep 16 10:23:53 2009
 QLast Update : Wed Sep 16 09:49:13 2009
 Response via : Initial Calibration



(29) Vinyl Acetate

3.185min (-0.006) 2.01 ug/L m

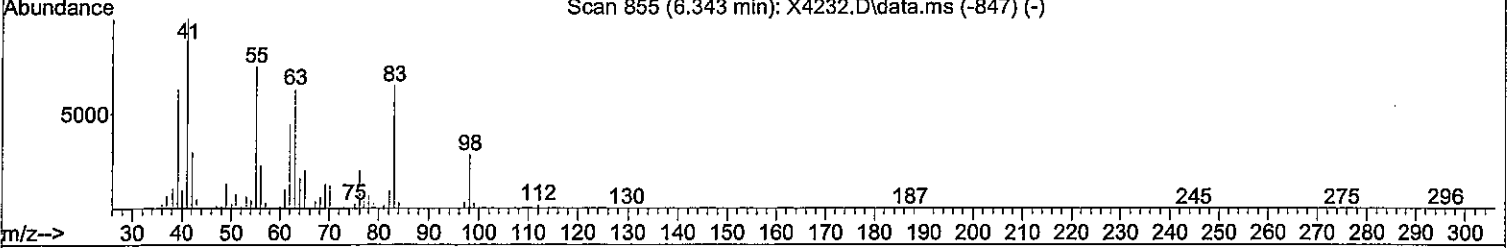
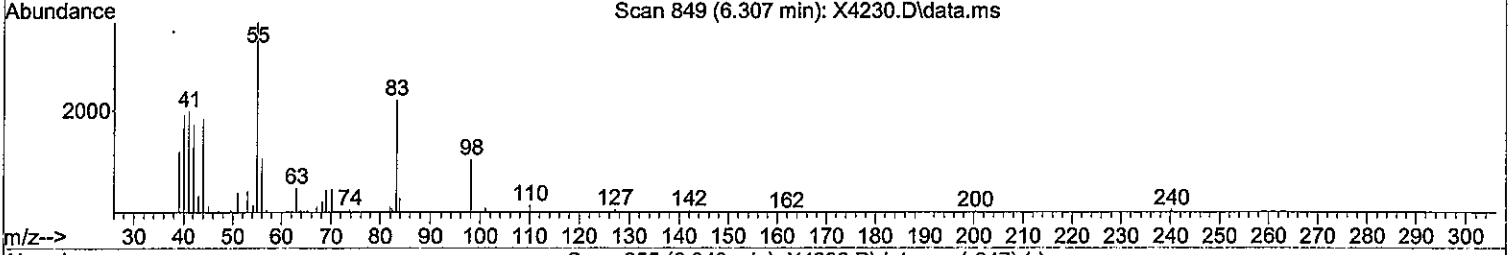
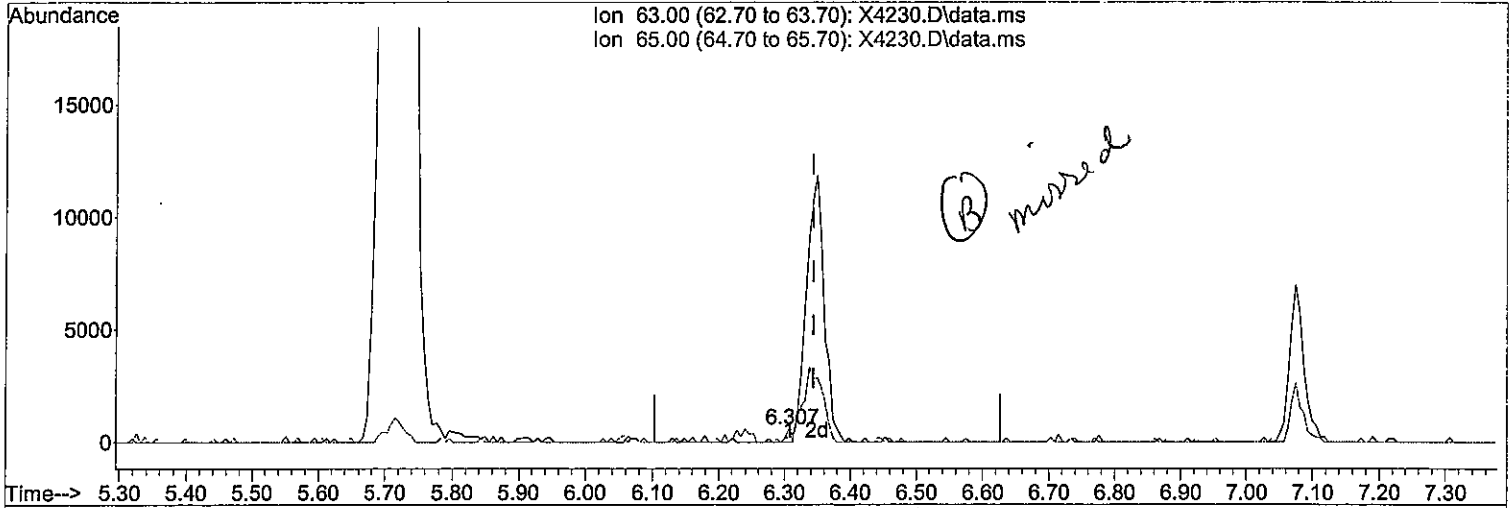
response 2201

Ion	Exp%	Act%
86.00	100	100
43.00	2158.10	1364.18
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 2.0ppb
 Data File: J:\ACQUDATA\msvoa12\Data\091509\X4230.D
 Misc : 8260 WATER ICAL
 Acq On : 15 Sep 2009 4:51 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Sep 16 10:15:41 2009
 QLast Update : Wed Sep 16 09:49:13 2009
 Response via : Initial Calibration



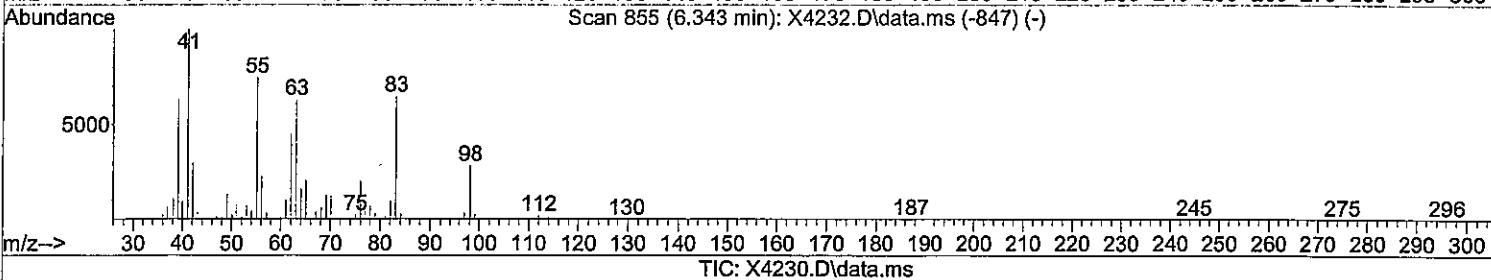
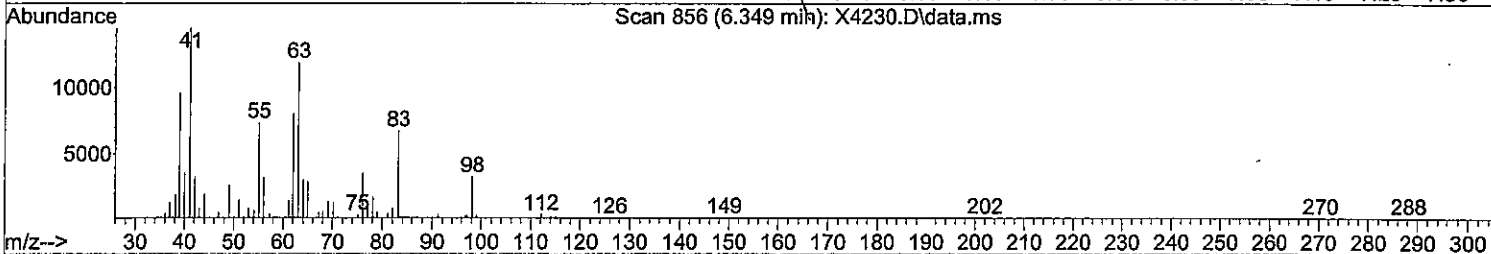
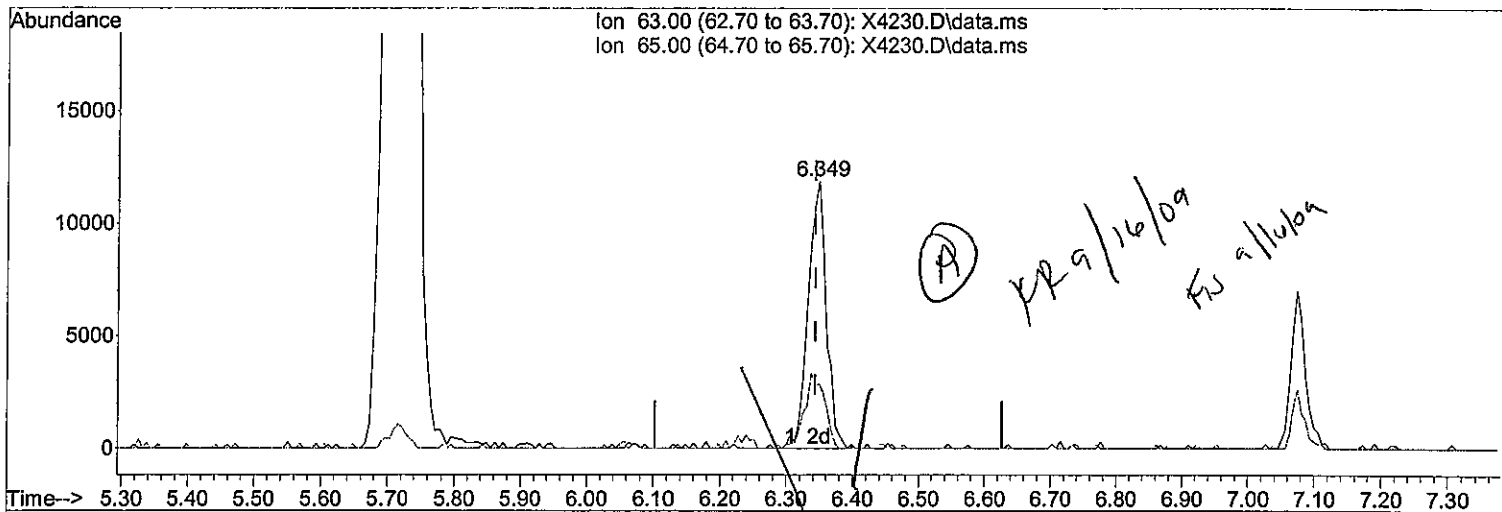
(56) 1,2-Dichloropropane (c)
 6.307min (-0.036) 0.03 ug/L
 response 384

Ion	Exp%	Act%
63.00	100	100
65.00	32.30	32.26
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 2.0ppb
 Data File: J:\ACQUDATA\msvoa12\Data\091509\X4230.D
 Misc : 8260 WATER ICAL
 Acq On : 15 Sep 2009 4:51 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Sep 16 10:15:41 2009
 QLast Update : Wed Sep 16 09:49:13 2009
 Response via : Initial Calibration



(56) 1,2-Dichloropropane (c)

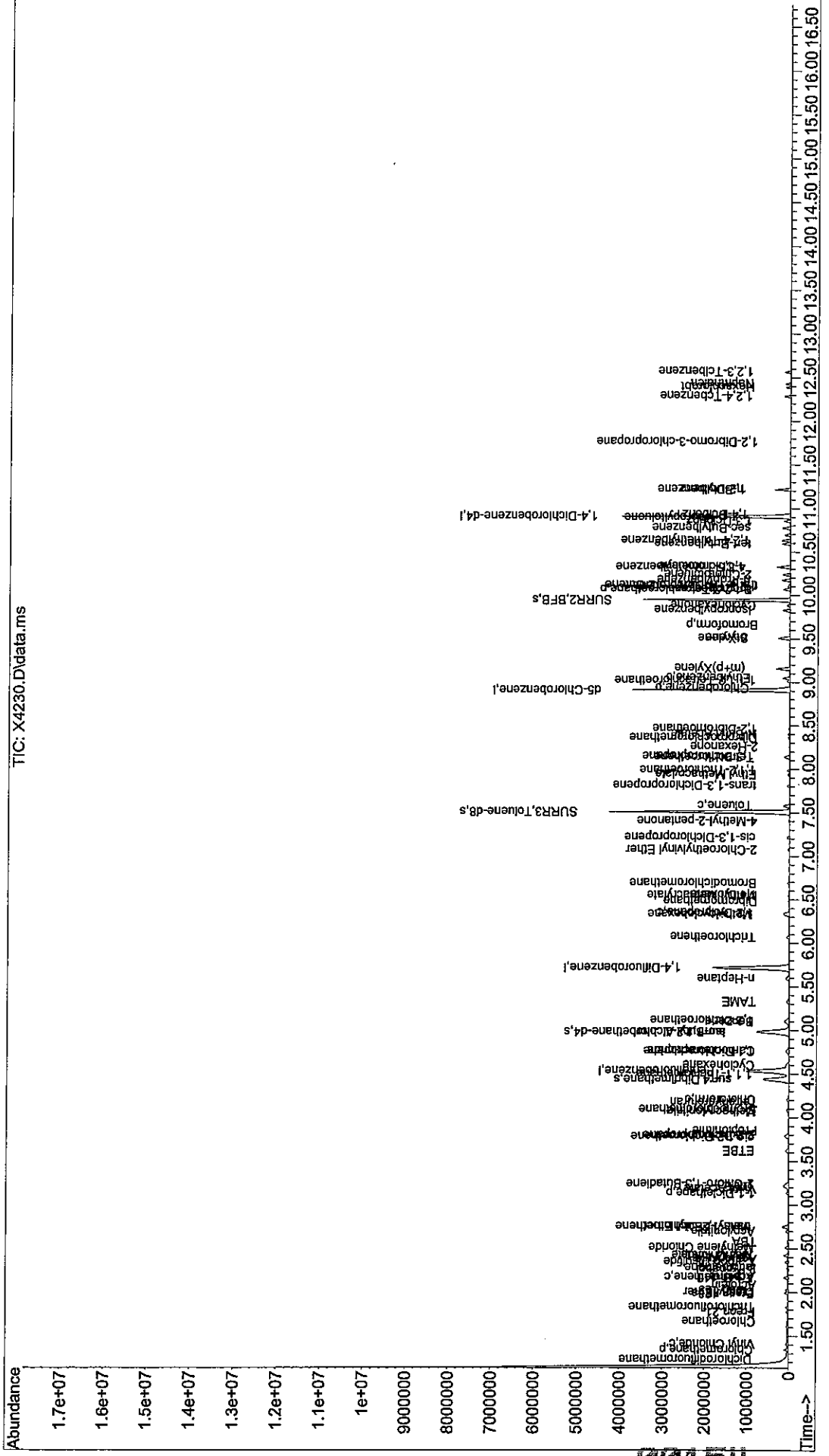
6.349min (+0.006) 1.96 ug/L m

response 22796

Ion	Exp%	Act%
63.00	100	100
65.00	32.30	24.20#
0.00	0.00	0.00
0.00	0.00	0.00

Sample : 2.0ppb
 Data File: J:\ACQDATA\msvoa12\Data\091509\X4230.D
 Misc : 8260 WATER ICAL
 Acq On : 15 Sep 2009 4:51 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Sep 16 10:23:53 2009
 Quant Update : Wed Sep 16 09:49:13 2009
 Response via : Initial Calibration



Sample : 5.0ppb
 Data File: J:\ACQUDATA\msvoa12\Data\091509\X4231.D
 Misc : 8260 WATER ICAL
 Acq On : 15 Sep 2009 5:22 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Sep 16 10:31:50 2009
 QLast Update : Wed Sep 16 09:49:13 2009
 Response via : Initial Calibration

YR 9/16/09

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.533	168	833316	50.00	ug/L	0.00
44) 1,4-Difluorobenzene	5.715	114	1419474	50.00	ug/L	0.00
71) d5-Chlorobenzene	8.910	117	1222216	50.00	ug/L	0.00
84) 1,4-Dichlorobenzene-d4	10.909	152	640214	50.00	ug/L	0.00
System Monitoring Compounds						
46) surr4, Dibrflmethane	4.435	113	561676	72.19	ug/L	0.00
Spiked Amount	50.000	Range 89 - 119	Recovery	=	144.38%#	
49) surr1, 1,2-dichloroetha...	4.984	65	835880	71.76	ug/L	0.00
Spiked Amount	50.000	Range 80 - 120	Recovery	=	143.52%#	
65) SURR3, Toluene-d8	7.508	98	2417004	73.22	ug/L	0.00
Spiked Amount	50.000	Range 87 - 121	Recovery	=	146.44%#	
70) SURR2, BFB	9.946	95	955084	70.68	ug/L	0.00
Spiked Amount	50.000	Range 85 - 122	Recovery	=	141.36%#	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.234	85	42231	4.48	ug/L	91
4) Chloromethane	1.344	50	81383	4.57	ug/L	100
5) Vinyl Chloride	1.411	62	50207	4.65	ug/L	94
6) Bromomethane	1.612	94	20252	2.94	ug/L	94
7) Chloroethane	1.667	64	28816	4.69	ug/L	97
8) Freon 21	1.777	67	65077	4.79	ug/L	98
9) Trichlorofluoromethane	1.826	101	53326	4.76	ug/L	91
10) Diethyl Ether	2.003	59	36890	4.91	ug/L	88
11) Freon 123a	1.990	67	41715	4.97	ug/L	100
12) Freon 123	2.027	83	43390	4.96	ug/L	99
13) Acrolein	2.082	56	26490	22.28	ug/L	95
14) 1,1-Dicethene	2.167	96	24347	4.69	ug/L	89
15) Freon 113	2.167	101	26242	4.81	ug/L	98
16) Acetone	2.179	43	12837m <i>YR</i>	4.64	ug/L	
17) 2-Propanol	2.271	45	48974	84.28	ug/L	99
18) Iodomethane	2.289	142	24915	3.98	ug/L	83
19) Carbon Disulfide	2.344	76	141648	5.29	ug/L	100
20) Acetonitrile	2.374	40	14911	26.69	ug/L	# 78
21) Allyl Chloride	2.423	76	23165	4.87	ug/L	96
22) Methyl Acetate	2.423	43	38495	4.70	ug/L	# 96
23) Methylene Chloride	2.515	84	48606	5.02	ug/L	97
24) TBA	2.576	59	47592	116.53	ug/L	97
25) Acrylonitrile	2.698	53	91416	23.77	ug/L	99
26) Methyl-t-Butyl Ether	2.752	73	106224	4.97	ug/L	98
27) trans-1,2-Dichloroethene	2.752	96	45750	5.10	ug/L	96
28) 1,1-Dicethane	3.143	63	104155	4.82	ug/L	95
29) Vinyl Acetate	3.185	86	5268	4.75	ug/L	25
30) DIPE	3.216	45	269208	4.83	ug/L	96
31) 2-Chloro-1,3-Butadiene	3.240	53	99706	4.77	ug/L	94
32) ETBE	3.624	59	160959	4.64	ug/L	100
33) 2,2-Dichloropropane	3.789	77	47232	4.34	ug/L	92
34) cis-1,2-Dichloroethene	3.783	96	49063	5.04	ug/L	84
35) 2-Butanone	3.795	43	27414	5.09	ug/L	96
37) Propionitrile	3.850	54	32969	24.58	ug/L	98
38) Bromochloromethane	4.087	130	22508	4.59	ug/L	84

Sample : 5.0ppb
 Data File: J:\ACQUDATA\msvoa12\Data\091509\X4231.D
 Misc : 8260 WATER ICAL
 Acq On : 15 Sep 2009 5:22 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Sep 16 10:31:50 2009
 QLast Update : Wed Sep 16 09:49:13 2009
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
39) Methacrylonitrile	4.063	67	12649	4.63	ug/L	89
40) Tetrahydrofuran	4.173	42	16396	4.75	ug/L	96
41) Chloroform	4.203	83	75854	4.74	ug/L	97
42) 1,1,1-Trichloroethane	4.496	97	58487	4.57	ug/L #	40
43) TAME	5.331	73	94446	4.65	ug/L	99
45) Cyclohexane	4.600	41	80082	4.80	ug/L	90
47) Carbontetrachloride	4.764	121	14193	4.52	ug/L	95
48) 1,1-Dichloropropene	4.758	75	63825	4.95	ug/L	96
50) Benzene	5.099	78	192319	4.98	ug/L	98
51) 1,2-Dichloroethane	5.112	62	75121	4.77	ug/L #	96
52) Iso-Butyl Alcohol	4.978	43	25917	114.39	ug/L	93
53) n-Heptane	5.593	43	126117	4.92	ug/L	94
54) Trichloroethene	6.069	130	43821	5.03	ug/L	94
55) Methylcyclohexane	6.331	55	100025	4.84	ug/L	98
56) 1,2-Dichloropropane	6.343	63	58453	4.99	ug/L	96
57) Dibromomethane	6.477	93	21066	4.76	ug/L	89
58) 1,4-Dioxane	6.550	88	7105m	99.51	ug/L	
59) Methyl Methacrylate	6.544	69	18078	4.38	ug/L #	90
60) Bromodichloromethane	6.691	83	55604	4.77	ug/L #	94
62) 2-Chloroethylvinyl Ether	7.075	63	24958	4.50	ug/L	100
63) cis-1,3-Dichloropropene	7.215	75	64282	4.84	ug/L #	92
64) 4-Methyl-2-pentanone	7.404	43	46036	4.64	ug/L	96
66) Toluene	7.575	91	197009	4.98	ug/L	96
67) trans-1,3-Dichloropropene	7.806	75	48670	4.43	ug/L	94
68) Ethyl Methacrylate	7.940	69	35442	4.30	ug/L	93
69) 1,1,2-Trichloroethane	7.983	97	30321	4.71	ug/L	99
72) Tetrachloroethene	8.135	164	31630	4.77	ug/L	87
73) 2-Hexanone	8.257	43	29818	4.41	ug/L #	91
74) 1,3-Dichloropropane	8.148	76	62061	5.15	ug/L	93
75) Dibromochloromethane	8.367	129	30794	4.64	ug/L #	83
76) N-Butyl Acetate	8.404	43	60039	4.83	ug/L	97
77) 1,2-Dibromoethane	8.465	107	28782	4.65	ug/L	97
78) Chlorobenzene	8.934	112	119612	5.00	ug/L	95
79) 1,1,1,2-Tetrachloroethane	9.013	131	33703	4.68	ug/L	99
80) Ethylbenzene	9.050	106	71550	5.25	ug/L	97
81) (m+p)Xylene	9.160	106	167168	10.46	ug/L	100
82) o-Xylene	9.501	106	78980	5.10	ug/L	96
83) Styrene	9.513	104	135552	5.15	ug/L	98
85) Bromoform	9.660	173	14687	4.38	ug/L	99
86) Isopropylbenzene	9.830	105	198913	5.03	ug/L	100
87) Cyclohexanone	9.885	55	65196	99.98	ug/L	91
88) trans-1,4-Dichloro-2-B...	10.117	53	14500	4.13	ug/L #	98
89) 1,1,2,2-Tetrachloroethane	10.068	83	37029	4.98	ug/L	96
90) Bromobenzene	10.068	156	45826	4.90	ug/L	93
92) 1,2,3-Trichloropropane	10.099	110	10236	4.79	ug/L #	67
93) n-Propylbenzene	10.178	91	272824	5.09	ug/L	98
94) 2-Chlorotoluene	10.239	91	162079	5.10	ug/L	99
95) 4-Chlorotoluene	10.330	91	186558	5.08	ug/L	100
96) 1,3,5-Trimethylbenzene	10.324	105	184090	5.17	ug/L	98
97) tert-Butylbenzene	10.592	119	149031	4.99	ug/L	99
98) 1,2,4-Trimethylbenzene	10.629	105	197066	5.18	ug/L	98
99) sec-Butylbenzene	10.775	105	243770	5.11	ug/L	99

Sample : 5.0ppb
Data File: J:\ACQUDATA\msvoa12\Data\091509\X4231.D
Misc : 8260 WATER ICAL
Acq On : 15 Sep 2009 5:22 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 16 10:31:50 2009
QLast Update : Wed Sep 16 09:49:13 2009
Response via : Initial Calibration

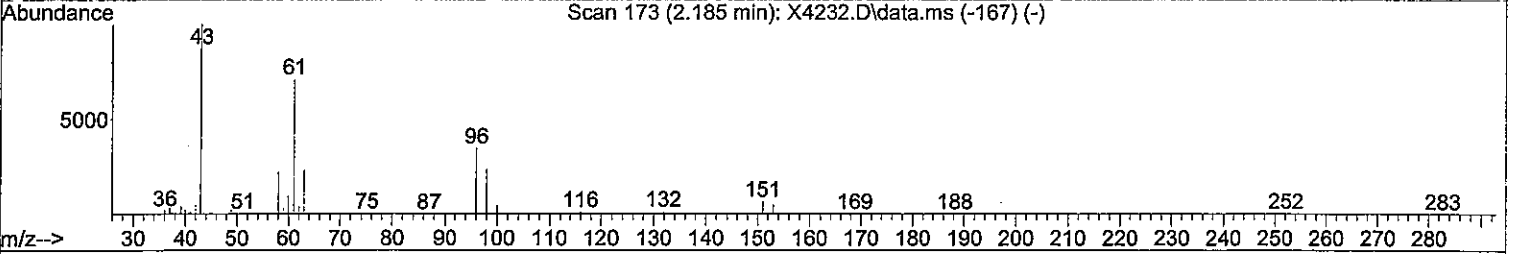
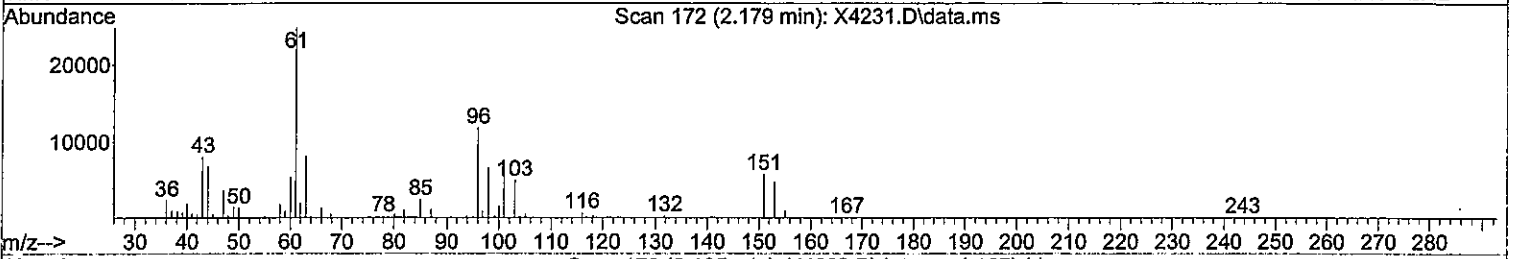
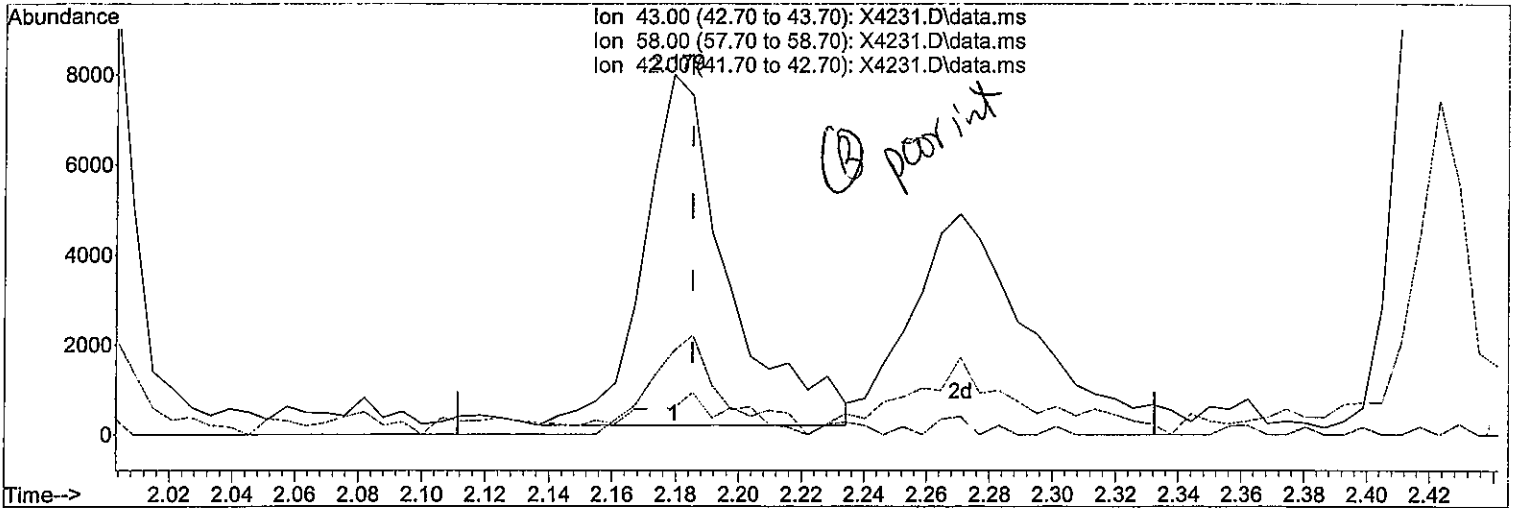
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
100) p-Isopropyltoluene	10.891	119	191706	5.05	ug/L	98
101) 1,3-Dclbenz	10.854	146	96457	4.80	ug/L	97
102) 1,4-Dclbenz	10.928	146	103138	4.93	ug/L	96
104) n-Butylbenzene	11.214	91	197855	5.17	ug/L	98
105) 1,2-Dclbenz	11.220	146	94440	5.11	ug/L	99
106) 1,2-Dibromo-3-chloropr...	11.763	157	5852	4.06	ug/L #	81
108) 1,2,4-Tclbenzene	12.287	180	62274	4.95	ug/L	96
109) Hexachlorobt	12.391	225	26751	4.69	ug/L	98
110) Naphthalen	12.427	128	126854	4.65	ug/L	98
111) 1,2,3-Tclbenzene	12.561	180	54967	4.81	ug/L	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Sample : 5.0ppb
 Data File: J:\ACQUDATA\msvoa12\Data\091509\X4231.D
 Misc : 8260 WATER ICAL
 Acq On : 15 Sep 2009 5:22 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Sep 16 10:15:44 2009
 QLast Update : Wed Sep 16 09:49:13 2009
 Response via : Initial Calibration



TIC: X4231.D\data.ms

(16) Acetone

2.179min (-0.006) 5.19 ug/L

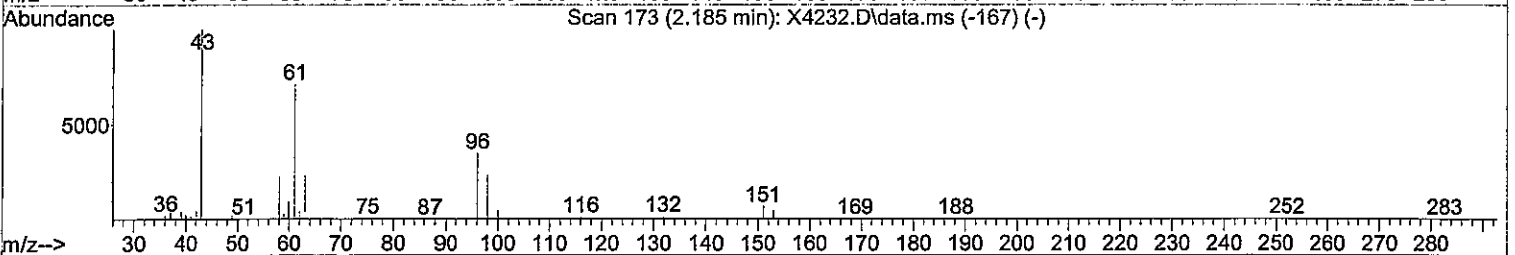
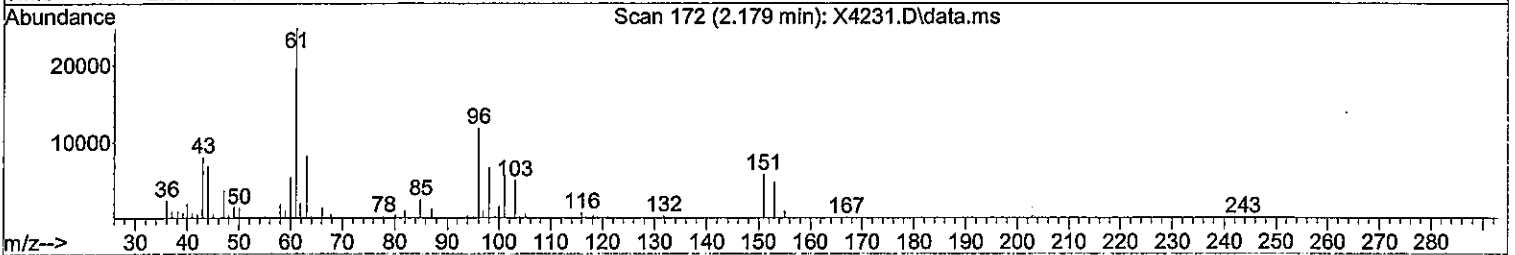
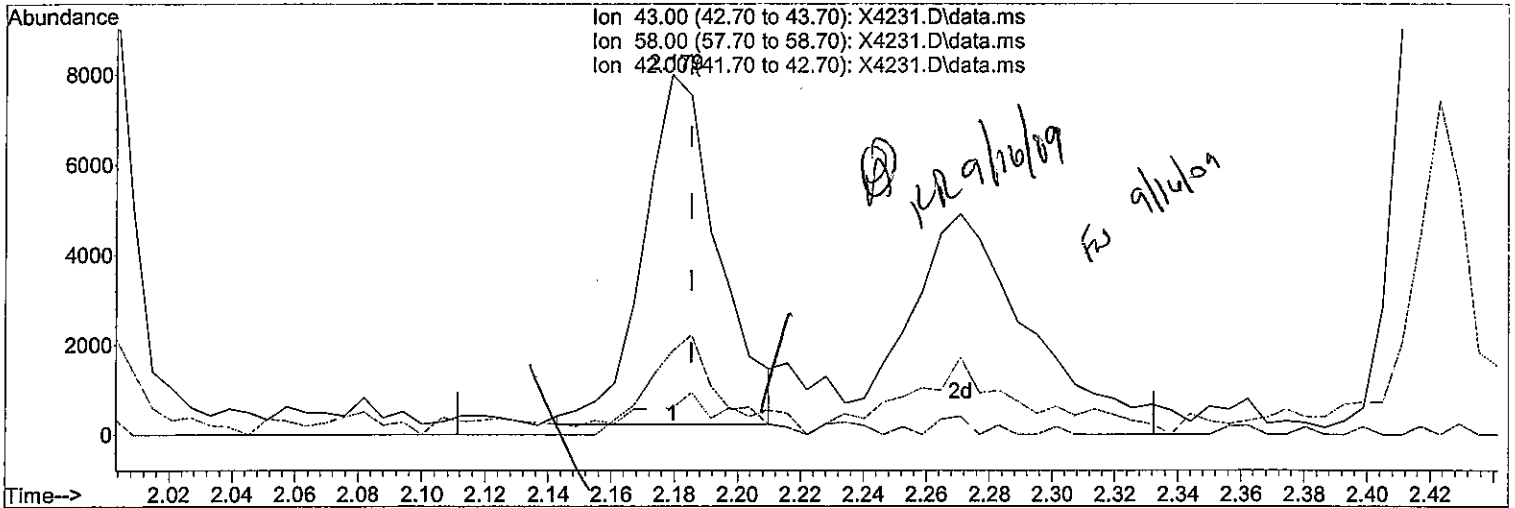
response 14362

Ion	Exp%	Act%
43.00	100	100
58.00	21.90	23.15
42.00	6.40	7.32
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 5.0ppb
 Data File: J:\ACQUDATA\msvoa12\Data\091509\X4231.D
 Misc : 8260 WATER ICAL
 Acq On : 15 Sep 2009 5:22 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Sep 16 10:15:44 2009
 QLast Update : Wed Sep 16 09:49:13 2009
 Response via : Initial Calibration



TIC: X4231.D\data.ms

(16) Acetone

2.179min (-0.006) 4.64 ug/L m

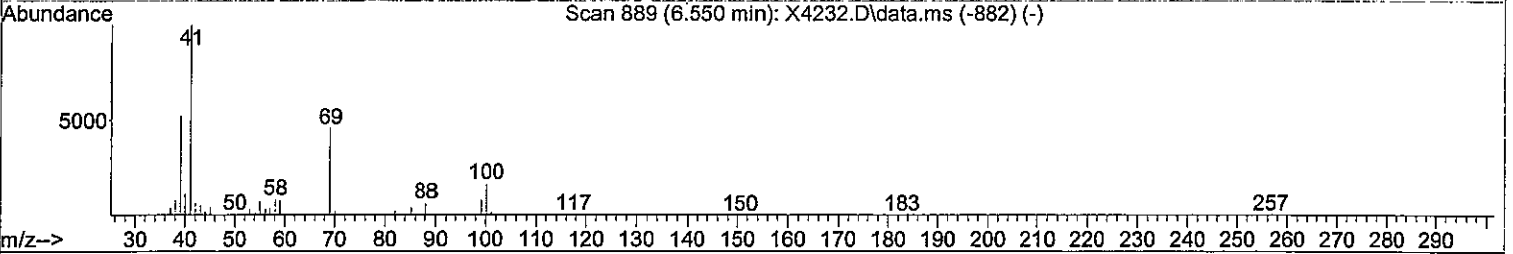
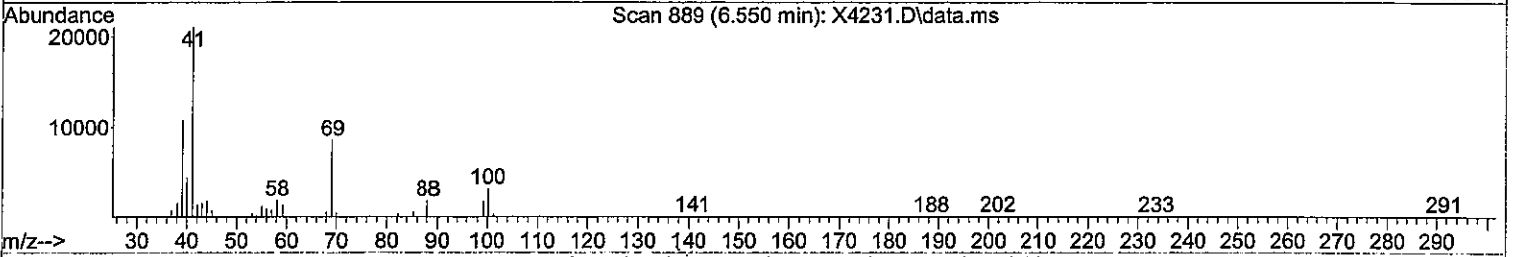
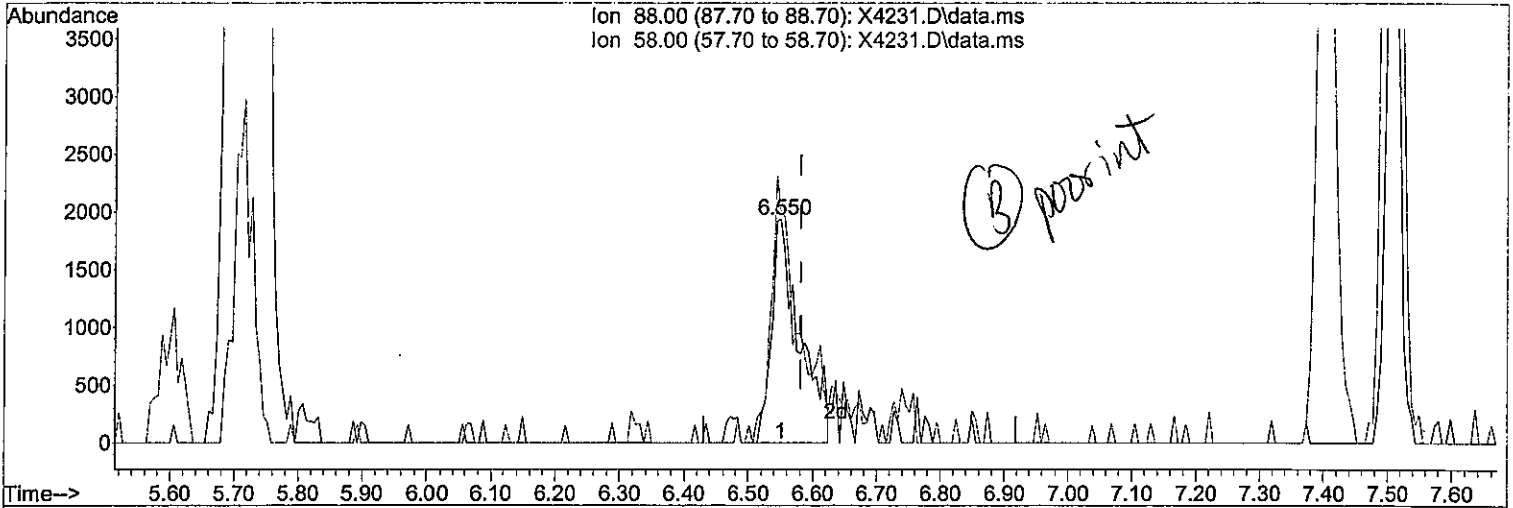
response 12837

Ion	Exp%	Act%
43.00	100	100
58.00	21.90	23.15
42.00	6.40	7.32
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 5.0ppb
 Data File: J:\ACQUDATA\msvoa12\Data\091509\X4231.D
 Misc : 8260 WATER ICAL
 Acq On : 15 Sep 2009 5:22 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Sep 16 10:15:44 2009
 QLast Update : Wed Sep 16 09:49:13 2009
 Response via : Initial Calibration



(58) 1,4-Dioxane

6.550min (-0.030) 82.85 ug/L

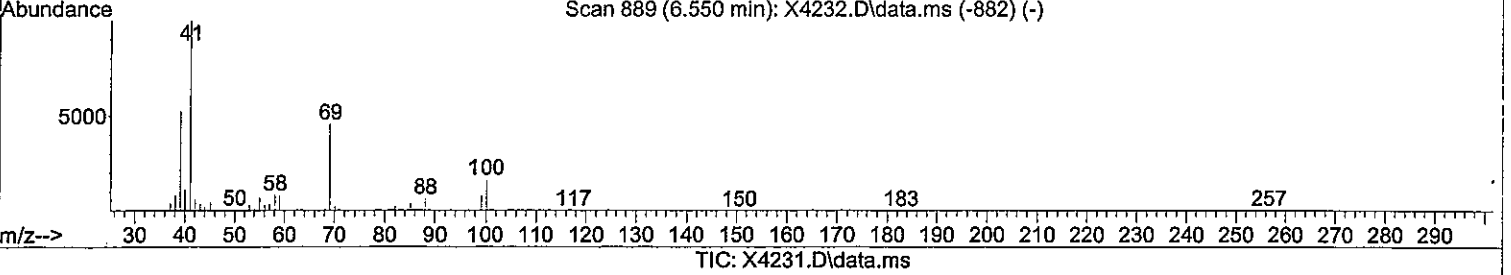
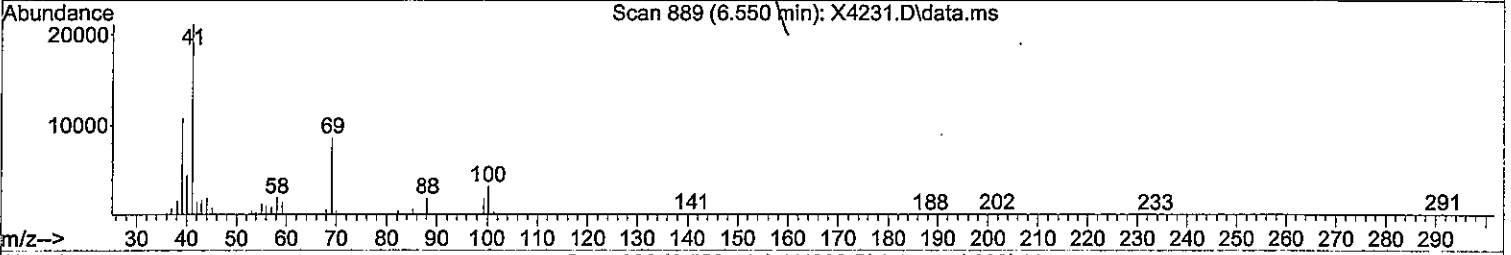
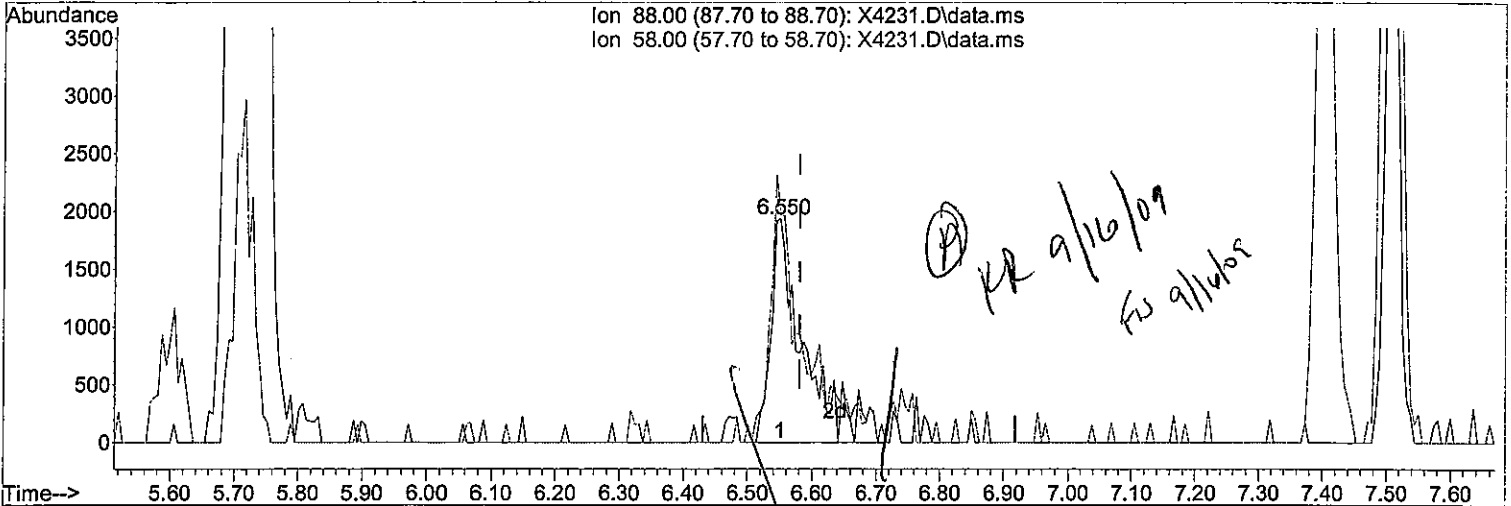
response 5915

Ion	Exp%	Act%
88.00	100	100
58.00	128.90	102.22#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 5.0ppb
 Data File: J:\ACQUDATA\msvoa12\Data\091509\X4231.D
 Misc : 8260 WATER ICAL
 Acq On : 15 Sep 2009 5:22 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Sep 16 10:15:44 2009
 QLast Update : Wed Sep 16 09:49:13 2009
 Response via : Initial Calibration



(58) 1,4-Dioxane

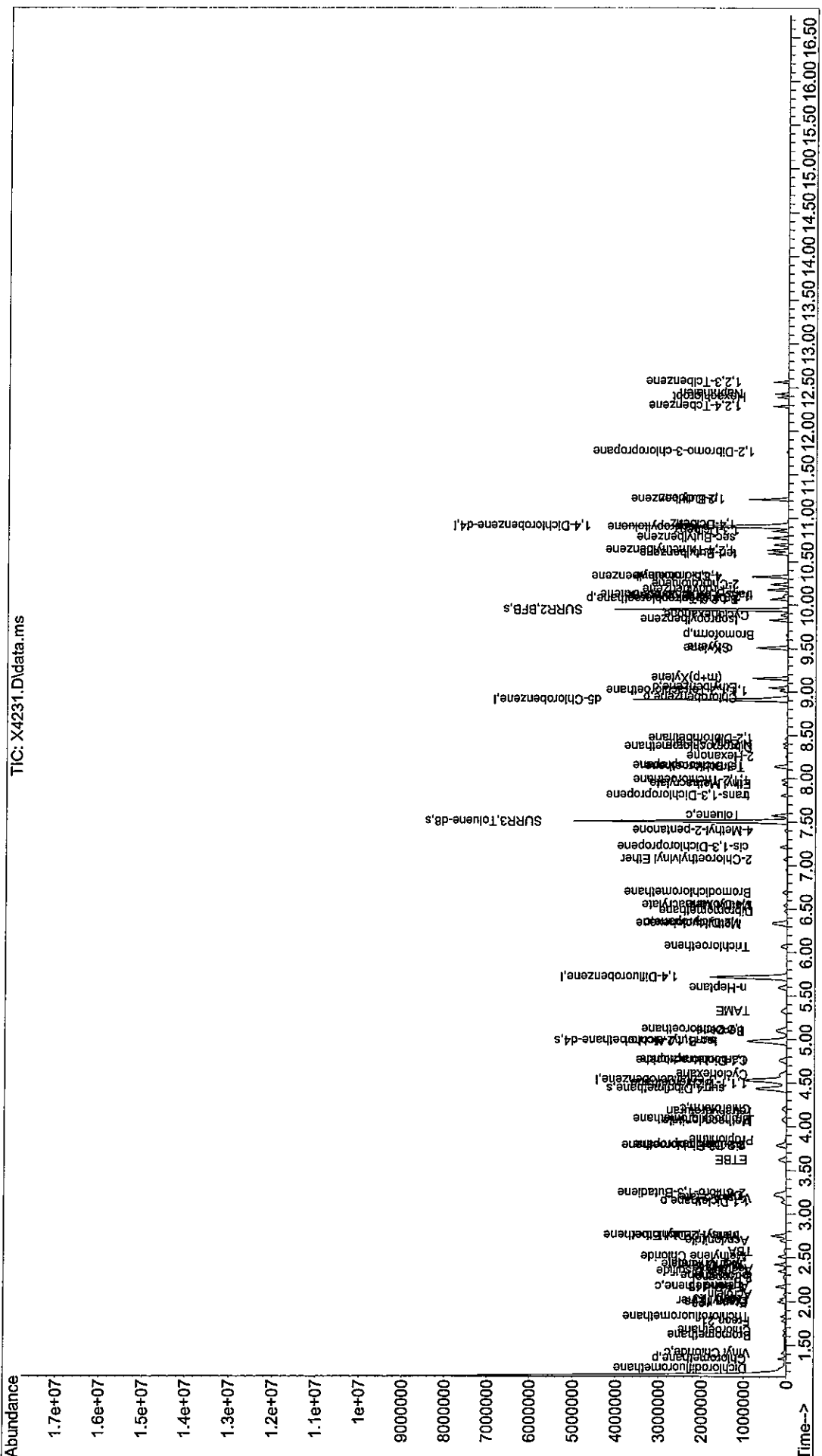
6.550min (-0.030) 99.51 ug/L m

response 7105

Ion	Exp%	Act%
88.00	100	100
58.00	128.90	102.22#
0.00	0.00	0.00
0.00	0.00	0.00

Sample : 5.0ppb
 Data File: J:\ACQUDATA\msvoa12\Data\091509\X4231.D
 Misc : 8260 WATER ICAL
 Acq On : 15 Sep 2009 5:22 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Sep 16 10:31:50 2009
 Quant Update : Wed Sep 16 09:49:13 2009
 Response via : Initial Calibration



00162

Sample : 20ppb
 Data File: J:\ACQUDATA\msvoa12\Data\091509\X4232.D
 Misc : 8260 WATER ICAL
 Acq On : 15 Sep 2009 5:53 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Sep 16 10:34:06 2009
 QLast Update : Wed Sep 16 09:49:13 2009
 Response via : Initial Calibration

Handwritten: KR 9/16/09

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Pentafluorobenzene	4.539	168	847996	50.00	ug/L	0.00	
44) 1,4-Difluorobenzene	5.715	114	1435672	50.00	ug/L	0.00	
71) d5-Chlorobenzene	8.910	117	1234765	50.00	ug/L	0.00	
84) 1,4-Dichlorobenzene-d4	10.909	152	643200	50.00	ug/L	0.00	
System Monitoring Compounds							
46) surr4,Dibrflmethane	4.435	113	767757	97.56	ug/L	0.00	
Spiked Amount	50.000	Range 89 - 119	Recovery	=	195.12%#		
49) surr1,1,2-dichloroetha...	4.984	65	1160033	98.46	ug/L	0.00	
Spiked Amount	50.000	Range 80 - 120	Recovery	=	196.92%#		
65) SURR3,Toluene-d8	7.508	98	3244549	97.18	ug/L	0.00	
Spiked Amount	50.000	Range 87 - 121	Recovery	=	194.36%#		
70) SURR2,BFB	9.946	95	1312870	96.06	ug/L	0.00	
Spiked Amount	50.000	Range 85 - 122	Recovery	=	192.12%#		
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	1.234	85	186222	19.42	ug/L	100	
4) Chloromethane	1.344	50	342765	18.93	ug/L	100	
5) Vinyl Chloride	1.411	62	211767	19.27	ug/L	100	
6) Bromomethane	1.612	94	84485	20.14	ug/L	100	
7) Chloroethane	1.667	64	116555	18.64	ug/L	100	
8) Freon 21	1.777	67	285859	20.66	ug/L	100	
9) Trichlorofluoromethane	1.832	101	209911	18.41	ug/L	100	
10) Diethyl Ether	2.003	59	159109	20.83	ug/L	100	
11) Freon 123a	1.990	67	180326	21.12	ug/L	100	
12) Freon 123	2.027	83	184202	20.68	ug/L	100	
13) Acrolein	2.082	56	125222	103.48	ug/L	100	
14) 1,1-Dicethene	2.167	96	98321	18.62	ug/L	100	
15) Freon 113	2.167	101	100714	18.13	ug/L	100	
16) Acetone	2.185	43	56501	20.08	ug/L	100	
17) 2-Propanol	2.271	45	233915	395.60	ug/L	100	
18) Iodomethane	2.289	142	143389	20.49	ug/L	100	
19) Carbon Disulfide	2.350	76	644203	23.65	ug/L	100	
20) Acetonitrile	2.387	40	61748	108.61	ug/L	100	
21) Allyl Chloride	2.423	76	101826	21.03	ug/L	100	
22) Methyl Acetate	2.423	43	183963	22.06	ug/L	100	
23) Methylene Chloride	2.515	84	194145	19.71	ug/L	100	
24) TBA	2.582	59	246301	334.86	ug/L	100	
25) Acrylonitrile	2.697	53	412344	105.35	ug/L	100	
26) Methyl-t-Butyl Ether	2.752	73	457490	21.01	ug/L	100	
27) trans-1,2-Dichloroethene	2.752	96	185161	20.29	ug/L	100	
28) 1,1-Dicethane	3.136	63	420112	19.10	ug/L	100	
29) Vinyl Acetate	3.179	86	23075	20.46	ug/L	100	
30) DIPE	3.216	45	1252365	22.07	ug/L	100	
31) 2-Chloro-1,3-Butadiene	3.240	53	475006	22.33	ug/L	100	
32) ETBE	3.624	59	754651	21.36	ug/L	100	
33) 2,2-Dichloropropane	3.795	77	200823	18.13	ug/L	100	
34) cis-1,2-Dichloroethene	3.783	96	196954	19.86	ug/L	100	
35) 2-Butanone	3.795	43	116432	21.25	ug/L	100	
37) Propionitrile	3.850	54	143031	104.79	ug/L	100	
38) Bromochloromethane	4.087	130	101313	20.30	ug/L	100	

Sample : 20ppb
 Data File: J:\ACQUDATA\msvoa12\Data\091509\X4232.D
 Misc : 8260 WATER ICAL
 Acq On : 15 Sep 2009 5:53 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Sep 16 10:34:06 2009
 QLast Update : Wed Sep 16 09:49:13 2009
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
39) Methacrylonitrile	4.057	67	59774	21.52	ug/L	100
40) Tetrahydrofuran	4.179	42	67940	19.36	ug/L	100
41) Chloroform	4.209	83	313644	19.27	ug/L	100
42) 1,1,1-Trichloroethane	4.490	97	241909	18.59	ug/L	100
43) TAME	5.325	73	449949	21.76	ug/L	100
45) Cyclohexane	4.600	41	352726	20.88	ug/L	100
47) Carbontetrachloride	4.770	121	55112	17.34	ug/L	100
48) 1,1-Dichloropropene	4.758	75	243915	18.70	ug/L	100
50) Benzene	5.099	78	768903	19.69	ug/L	100
51) 1,2-Dichloroethane	5.112	62	317703	19.95	ug/L	100
52) Iso-Butyl Alcohol	4.984	43	146587	332.56	ug/L	100
53) n-Heptane	5.599	43	471100	18.18	ug/L	100
54) Trichloroethene	6.075	130	165683	18.81	ug/L	100
55) Methylcyclohexane	6.331	55	442806	21.20	ug/L	100
56) 1,2-Diclp propane	6.343	63	240688	20.33	ug/L	100
57) Dibromomethane	6.483	93	93185	20.80	ug/L	100
58) 1,4-Dioxane	6.550	88	29918m	414.30	ug/L	100
59) Methyl Methacrylate	6.544	69	91628	19.26	ug/L	100
60) Bromodichloromethane	6.691	83	239943	20.35	ug/L	100
62) 2-Chloroethylvinyl Ether	7.075	63	125463	22.34	ug/L	100
63) cis-1,3-Dichloropropene	7.215	75	275031	20.48	ug/L	100
64) 4-Methyl-2-pentanone	7.404	43	217562	21.67	ug/L	100
66) Toluene	7.581	91	764938	19.13	ug/L	100
67) trans-1,3-Dichloropropene	7.806	75	224409	20.21	ug/L	100
68) Ethyl Methacrylate	7.940	69	181728	18.51	ug/L	100
69) 1,1,2-Trichloroethane	7.983	97	134874	20.70	ug/L	100
72) Tetrachloroethene	8.135	164	124444	18.59	ug/L	100
73) 2-Hexanone	8.257	43	145138	21.25	ug/L	100
74) 1,3-Dichloropropane	8.148	76	262687	21.60	ug/L	100
75) Dibromochloromethane	8.367	129	140266	20.94	ug/L	100
76) N-Butyl Acetate	8.404	43	340931	19.19	ug/L	100
77) 1,2-Dibromoethane	8.465	107	129928	20.79	ug/L	100
78) Chlorobenzene	8.934	112	480556	19.89	ug/L	100
79) 1,1,1,2-Tetrachloroethane	9.013	131	147993	20.36	ug/L	100
80) Ethylbenzene	9.050	106	268629	19.51	ug/L	100
81) (m+p)Xylene	9.160	106	641934	39.78	ug/L	100
82) o-Xylene	9.507	106	320396	20.46	ug/L	100
83) Styrene	9.513	104	559679	21.03	ug/L	100
85) Bromoform	9.660	173	70574	20.97	ug/L	100
86) Isopropylbenzene	9.830	105	783669	19.73	ug/L	100
87) Cyclohexanone	9.885	55	294759	449.91	ug/L	100
88) trans-1,4-Dichloro-2-B...	10.117	53	71256	20.18	ug/L	100
89) 1,1,2,2-Tetrachloroethane	10.068	83	159775	21.38	ug/L	100
90) Bromobenzene	10.068	156	193563	20.60	ug/L	100
92) 1,2,3-Trichloropropane	10.098	110	49173	22.89	ug/L	100
93) n-Propylbenzene	10.178	91	1045326	19.42	ug/L	100
94) 2-Chlorotoluene	10.239	91	624161	19.54	ug/L	100
95) 4-Chlorotoluene	10.330	91	740016	20.07	ug/L	100
96) 1,3,5-Trimethylbenzene	10.324	105	714981	20.01	ug/L	100
97) tert-Butylbenzene	10.592	119	588731	19.64	ug/L	100
98) 1,2,4-Trimethylbenzene	10.629	105	763629	19.98	ug/L	100
99) sec-Butylbenzene	10.775	105	918159	19.16	ug/L	100

Sample : 20ppb
 Data File: J:\ACQUADATA\msvoa12\Data\091509\X4232.D
 Misc : 8260 WATER ICAL
 Acq On : 15 Sep 2009 5:53 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUADATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Sep 16 10:34:06 2009
 QLast Update : Wed Sep 16 09:49:13 2009
 Response via : Initial Calibration

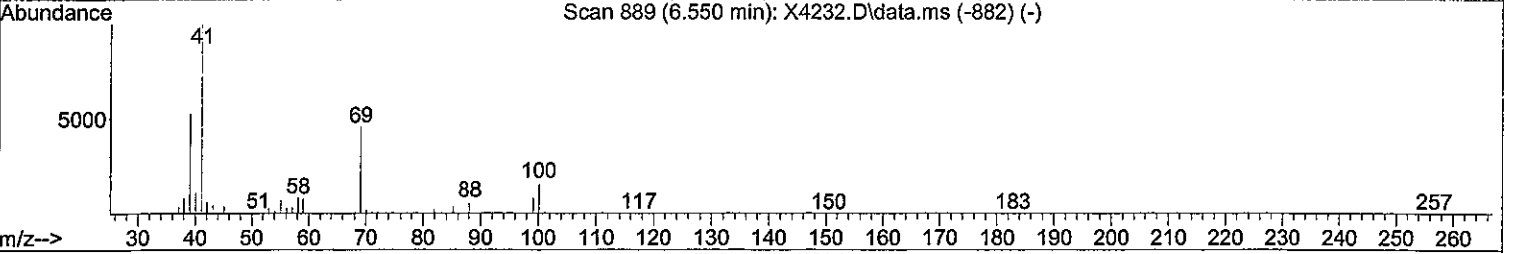
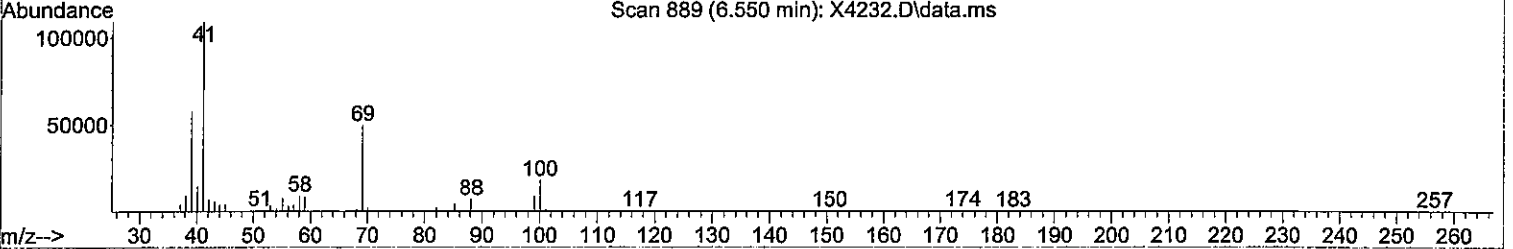
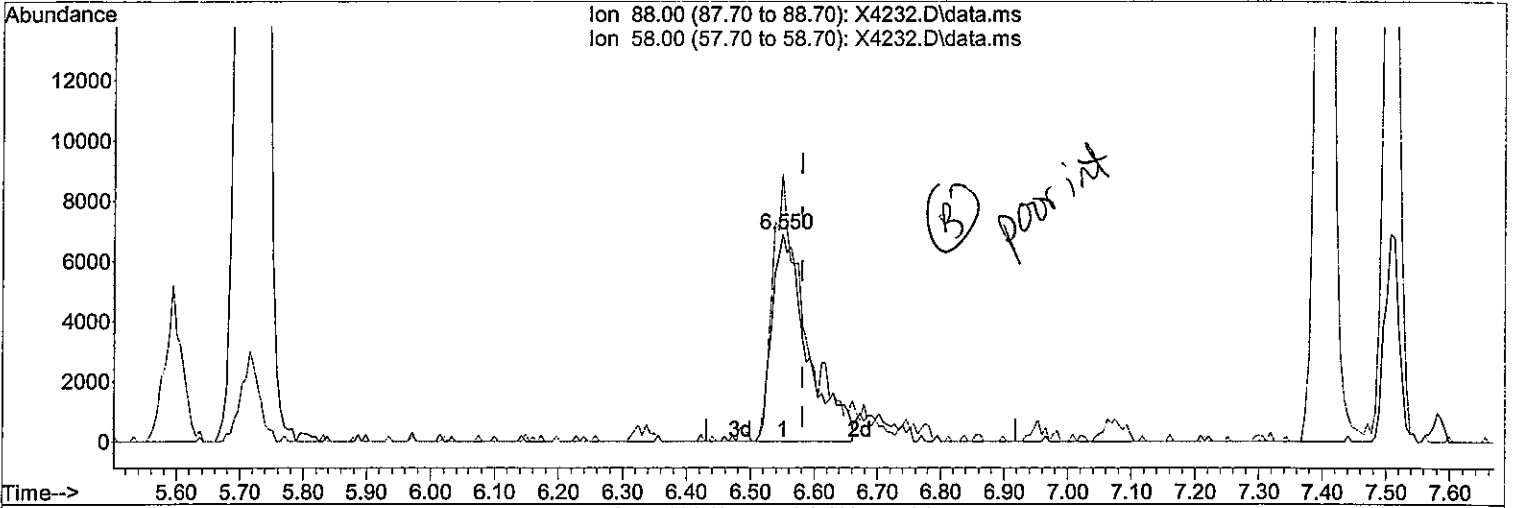
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
100) p-Isopropyltoluene	10.891	119	747587	19.61	ug/L	100
101) 1,3-Dclbenz	10.854	146	402652	19.95	ug/L	100
102) 1,4-Dclbenz	10.928	146	409642	19.50	ug/L	100
104) n-Butylbenzene	11.214	91	760357	19.76	ug/L	100
105) 1,2-Dclbenz	11.220	146	377358	20.34	ug/L	100
106) 1,2-Dibromo-3-chloropr...	11.763	157	28411	19.63	ug/L	100
108) 1,2,4-Tcbenzene	12.287	180	260441	20.62	ug/L	100
109) Hexachlorobt	12.391	225	104445	18.21	ug/L	100
110) Naphthalen	12.427	128	604189	22.05	ug/L	100
111) 1,2,3-Tclbenzene	12.561	180	239380	20.83	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Sample : 20ppb
 Data File: J:\ACQUDATA\msvoa12\Data\091509\X4232.D
 Misc : 8260 WATER ICAL
 Acq On : 15 Sep 2009 5:53 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Sep 16 10:15:47 2009
 QLast Update : Wed Sep 16 09:49:13 2009
 Response via : Initial Calibration



TIC: X4232.D\data.ms

(58) 1,4-Dioxane
 6.550min (-0.030) 365.73 ug/L

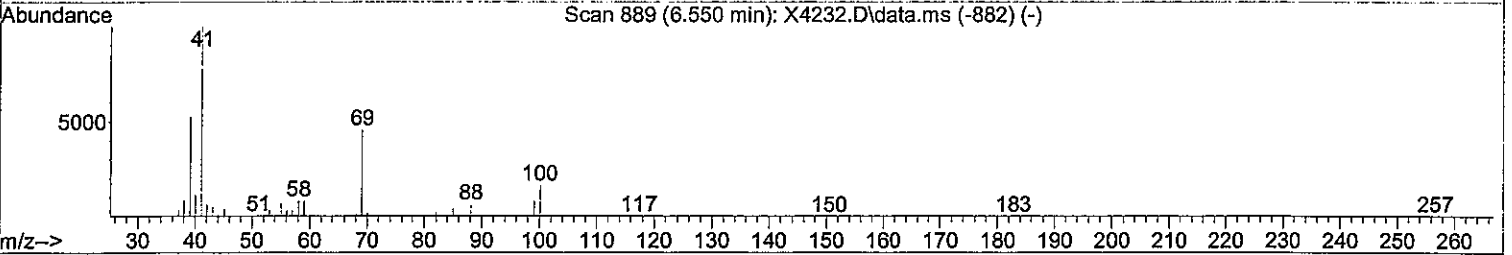
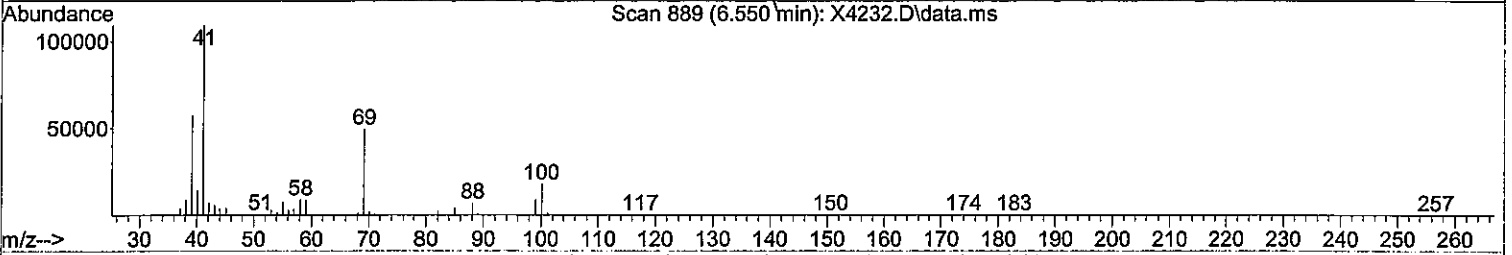
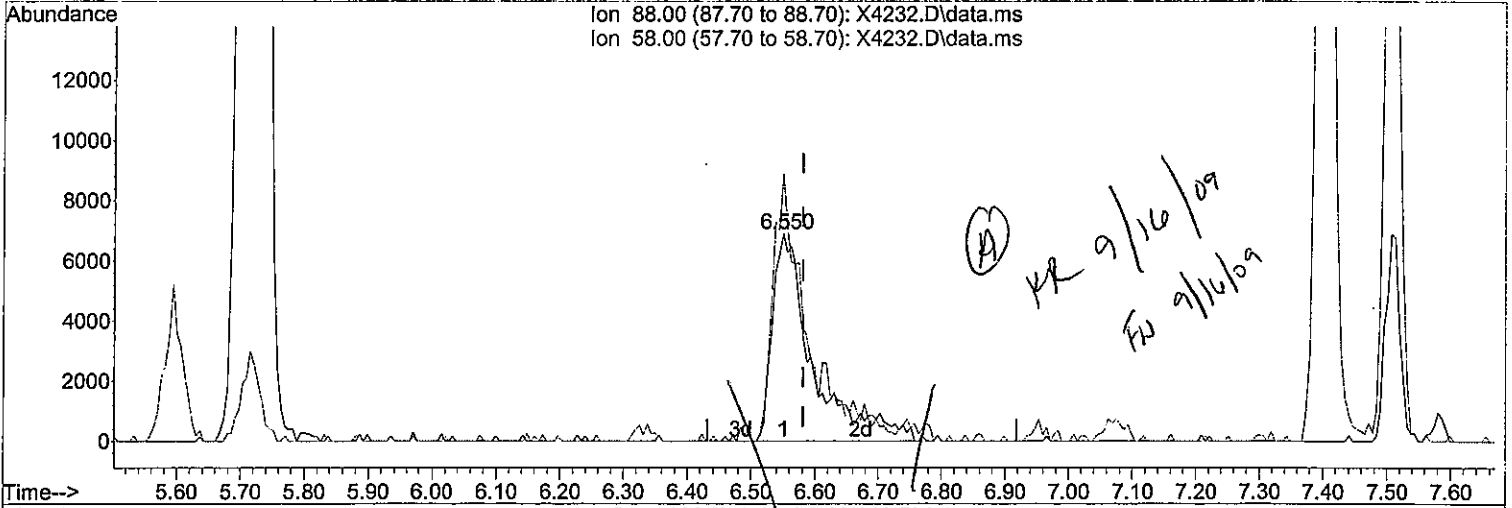
response 26410

Ion	Exp%	Act%
88.00	100	100
58.00	128.90	128.88
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 20ppb
 Data File: J:\ACQUDATA\msvoa12\Data\091509\X4232.D
 Misc : 8260 WATER ICAL
 Acq On : 15 Sep 2009 5:53 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Sep 16 10:15:47 2009
 QLast Update : Wed Sep 16 09:49:13 2009
 Response via : Initial Calibration



(58) 1,4-Dioxane

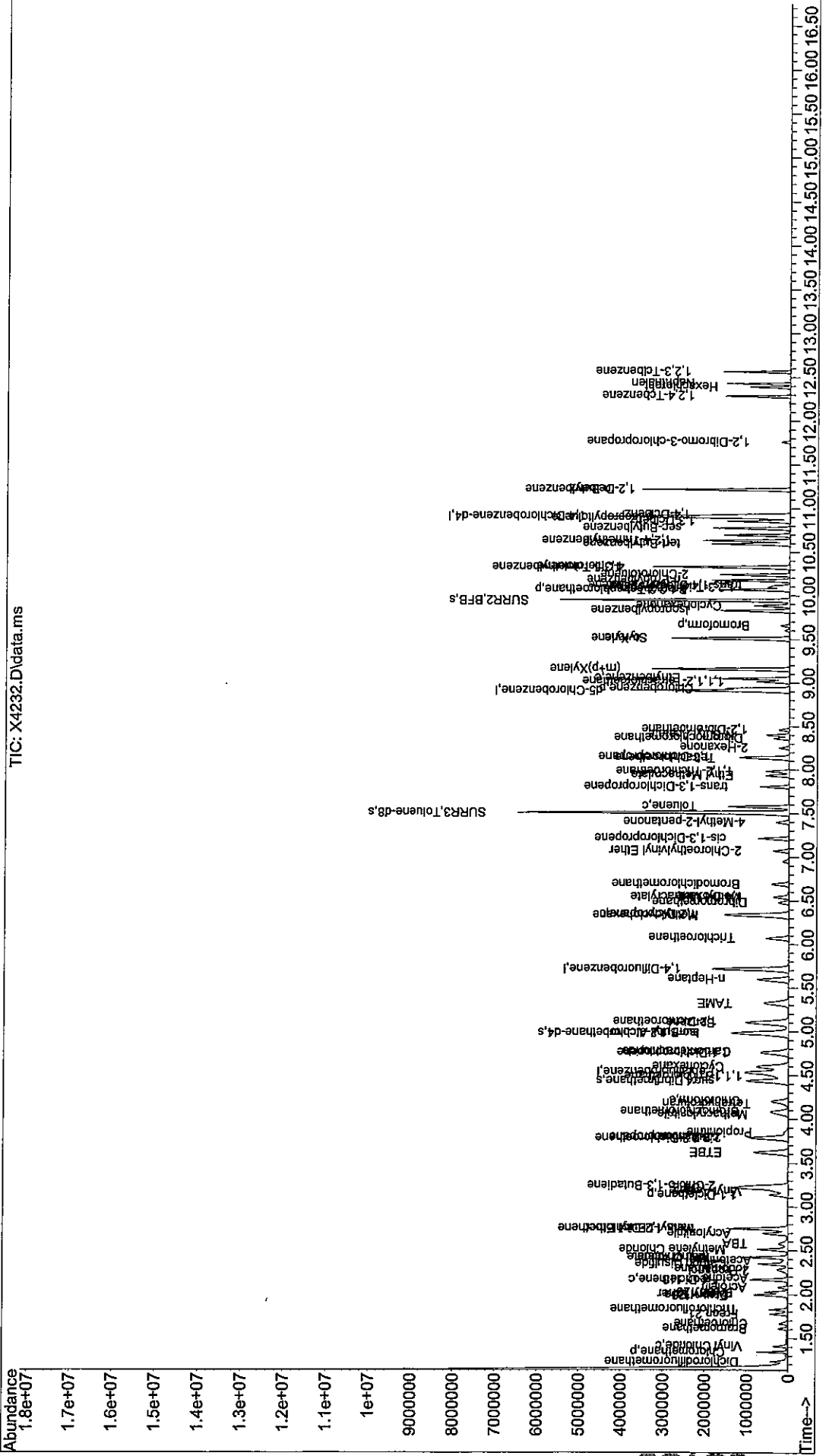
6.550min (-0.030) 414.30 ug/L m

response 29918

Ion	Exp%	Act%
88.00	100	100
58.00	128.90	128.88
0.00	0.00	0.00
0.00	0.00	0.00

Sample : 20ppb
Data File: J:\ACQUDATA\msvoa12\Data\091509\X4232.D
Misc : 8260 WATER ICAL
Acq On : 15 Sep 2009 5:53 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 16 10:34:06 2009
Quant Update : Wed Sep 16 09:49:13 2009
Response via : Initial Calibration



Sample : 50ppb
 Data File: J:\ACQUDATA\msvoa12\Data\091509\X4233.D
 Misc : 8260 WATER ICAL
 Acq On : 15 Sep 2009 6:24 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Sep 16 10:57:52 2009
 QLast Update : Wed Sep 16 09:49:13 2009
 Response via : Initial Calibration

KR 9/16/09

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Pentafluorobenzene	4.539	168	844816	50.00	ug/L	0.00	
44) 1,4-Difluorobenzene	5.721	114	1426174	50.00	ug/L	0.00	
71) d5-Chlorobenzene	8.910	117	1246771	50.00	ug/L	0.00	
84) 1,4-Dichlorobenzene-d4	10.909	152	649269	50.00	ug/L	0.00	
System Monitoring Compounds							
46) surr4,Dibrflmethane	4.435	113	406877	52.05	ug/L	0.00	
Spiked Amount	50.000	Range 89	- 119	Recovery	=	104.10%	
49) surr1,1,2-dichloroetha...	4.984	65	599788	51.25	ug/L	0.00	
Spiked Amount	50.000	Range 80	- 120	Recovery	=	102.50%	
65) SURRE3,Toluene-d8	7.508	98	1748265	52.71	ug/L	0.00	
Spiked Amount	50.000	Range 87	- 121	Recovery	=	105.42%	
70) SURRE2,BFB	9.946	95	710874	52.36	ug/L	0.00	
Spiked Amount	50.000	Range 85	- 122	Recovery	=	104.72%	
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	1.234	85	527679	55.25	ug/L		98
4) Chloromethane	1.344	50	941801	52.20	ug/L		99
5) Vinyl Chloride	1.411	62	590576	53.93	ug/L		99
6) Bromomethane	1.612	94	216855	56.00	ug/L		100
7) Chloroethane	1.673	64	317134	50.90	ug/L		99
8) Freon 21	1.777	67	694041	50.34	ug/L		98
9) Trichlorofluoromethane	1.832	101	596582	52.53	ug/L		98
10) Diethyl Ether	2.003	59	400868	52.68	ug/L		98
11) Freon 123a	1.990	67	416470	48.97	ug/L		96
12) Freon 123	2.027	83	450358	50.75	ug/L		98
13) Acrolein	2.082	56	312653	259.34	ug/L		97
14) 1,1-Dicethene	2.173	96	280211	53.28	ug/L		91
15) Freon 113	2.167	101	295864	53.45	ug/L		97
16) Acetone	2.185	43	141077	50.32	ug/L		94
17) 2-Propanol	2.271	45	634253	1076.69	ug/L		93
18) Iodomethane	2.289	142	363457	51.45	ug/L		94
19) Carbon Disulfide	2.350	76	1041536	38.38	ug/L		99
20) Acetonitrile	2.381	40	115750	204.36	ug/L		99
21) Allyl Chloride	2.423	76	221069	45.83	ug/L	#	58
22) Methyl Acetate	2.423	43	398662	47.98	ug/L		98
23) Methylene Chloride	2.515	84	488293	49.77	ug/L		94
24) TBA	2.588	59	762879	908.01	ug/L		92
25) Acrylonitrile	2.698	53	1019119	261.36	ug/L		97
26) Methyl-t-Butyl Ether	2.752	73	1130034	52.10	ug/L		99
27) trans-1,2-Dichloroethene	2.752	96	472455	51.95	ug/L		95
28) 1,1-Dicethane	3.136	63	1119748	51.09	ug/L		98
29) Vinyl Acetate	3.179	86	60710	54.03	ug/L		72
30) DIPE	3.216	45	2938210	51.98	ug/L		99
31) 2-Chloro-1,3-Butadiene	3.240	53	1097229	51.77	ug/L		100
32) ETBE	3.624	59	1814345	51.55	ug/L		99
33) 2,2-Dichloropropane	3.795	77	590502	53.52	ug/L		99
34) cis-1,2-Dichloroethene	3.783	96	510219	51.65	ug/L		98
35) 2-Butanone	3.795	43	264155	48.38	ug/L		98
37) Propionitrile	3.850	54	354294	260.55	ug/L		100
38) Bromochloromethane	4.094	130	252967	50.87	ug/L		98

Sample : 50ppb
 Data File: J:\ACQUDATA\msvoa12\Data\091509\X4233.D
 Misc : 8260 WATER ICAL
 Acq On : 15 Sep 2009 6:24 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Sep 16 10:57:52 2009
 QLast Update : Wed Sep 16 09:49:13 2009
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
39) Methacrylonitrile	4.063	67	144013	52.04	ug/L	92
40) Tetrahydrofuran	4.173	42	172817	49.43	ug/L	100
41) Chloroform	4.209	83	825296	50.89	ug/L	97
42) 1,1,1-Trichloroethane	4.496	97	686014	52.93	ug/L	97
43) TAME	5.331	73	1083268	52.58	ug/L	98
45) Cyclohexane	4.600	41	837916	49.94	ug/L	98
47) Carbontetrachloride	4.764	121	164395	52.06	ug/L	93
48) 1,1-Dichloropropene	4.758	75	678048	52.34	ug/L	98
50) Benzene	5.100	78	2006851	51.73	ug/L	97
51) 1,2-Dichloroethane	5.118	62	788076	49.83	ug/L	96
52) Iso-Butyl Alcohol	4.990	43	458753	903.86	ug/L	98
53) n-Heptane	5.599	43	1344478	52.22	ug/L	98
54) Trichloroethene	6.075	130	439305	50.20	ug/L	95
55) Methylcyclohexane	6.331	55	1058074	50.99	ug/L	99
56) 1,2-Diclpropane	6.349	63	612440	52.07	ug/L	97
57) Dibromomethane	6.483	93	225006	50.56	ug/L	97
58) 1,4-Dioxane	6.550	88	78123m	1089.05	ug/L	
59) Methyl Methacrylate	6.544	69	237610	49.21	ug/L	93
60) Bromodichloromethane	6.691	83	613011	52.34	ug/L	99
62) 2-Chloroethylvinyl Ether	7.075	63	295108	52.90	ug/L	96
63) cis-1,3-Dichloropropene	7.215	75	740659	55.53	ug/L	97
64) 4-Methyl-2-pentanone	7.404	43	529099	53.05	ug/L	99
66) Toluene	7.581	91	2037232	51.28	ug/L	98
67) trans-1,3-Dichloropropene	7.806	75	614492	55.71	ug/L	98
68) Ethyl Methacrylate	7.940	69	495883	49.44	ug/L	98
69) 1,1,2-Trichloroethane	7.983	97	338539	52.30	ug/L	96
72) Tetrachloroethene	8.136	164	338699	50.10	ug/L	95
73) 2-Hexanone	8.257	43	356488	51.70	ug/L	95
74) 1,3-Dichloropropene	8.148	76	638832	52.02	ug/L	95
75) Dibromochloromethane	8.361	129	359638	53.18	ug/L	98
76) N-Butyl Acetate	8.404	43	894889	47.13	ug/L	99
77) 1,2-Dibromoethane	8.465	107	321006	50.86	ug/L	94
78) Chlorobenzene	8.940	112	1239665	50.81	ug/L	97
79) 1,1,1,2-Tetrachloroethane	9.013	131	398225	54.25	ug/L	98
80) Ethylbenzene	9.050	106	711935	51.20	ug/L	94
81) (m+p)Xylene	9.160	106	1707868	104.81	ug/L	97
82) o-Xylene	9.501	106	844508	53.41	ug/L	99
83) Styrene	9.513	104	1446427	53.84	ug/L	98
85) Bromoform	9.660	173	186835	55.00	ug/L	96
86) Isopropylbenzene	9.830	105	2178690	54.34	ug/L	99
87) Cyclohexanone	9.885	55	711911	1076.48	ug/L	98
88) trans-1,4-Dichloro-2-B...	10.117	53	187069	52.48	ug/L #	90
89) 1,1,2,2-Tetrachloroethane	10.068	83	385344	51.09	ug/L	98
90) Bromobenzene	10.068	156	497952	52.51	ug/L	99
92) 1,2,3-Trichloropropene	10.099	110	117777	54.31	ug/L	96
93) n-Propylbenzene	10.178	91	2925104	53.83	ug/L	99
94) 2-Chlorotoluene	10.239	91	1689264	52.39	ug/L	98
95) 4-Chlorotoluene	10.330	91	1930520	51.86	ug/L	98
96) 1,3,5-Trimethylbenzene	10.324	105	1916999	53.14	ug/L	98
97) tert-Butylbenzene	10.592	119	1646461	54.41	ug/L	98
98) 1,2,4-Trimethylbenzene	10.629	105	2095676	54.33	ug/L	100
99) sec-Butylbenzene	10.775	105	2621024	54.17	ug/L	97

Sample : 50ppb
 Data File: J:\ACQUDATA\msvoa12\Data\091509\X4233.D
 Misc : 8260 WATER ICAL
 Acq On : 15 Sep 2009 6:24 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Sep 16 10:57:52 2009
 QLast Update : Wed Sep 16 09:49:13 2009
 Response via : Initial Calibration

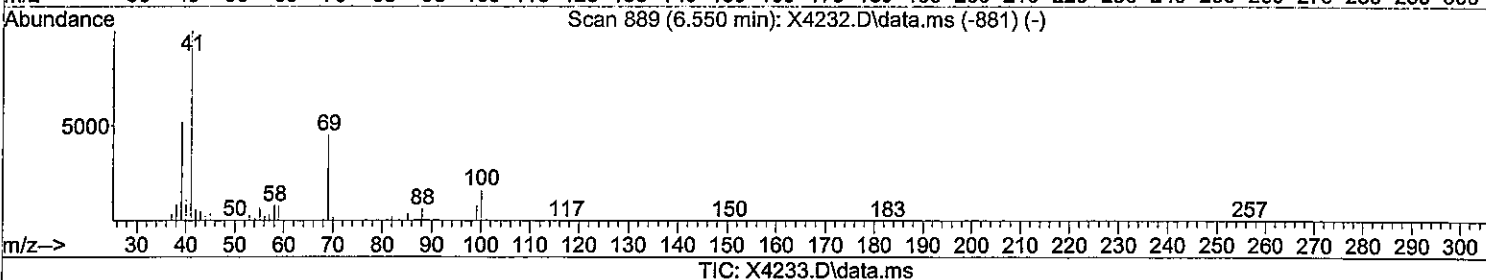
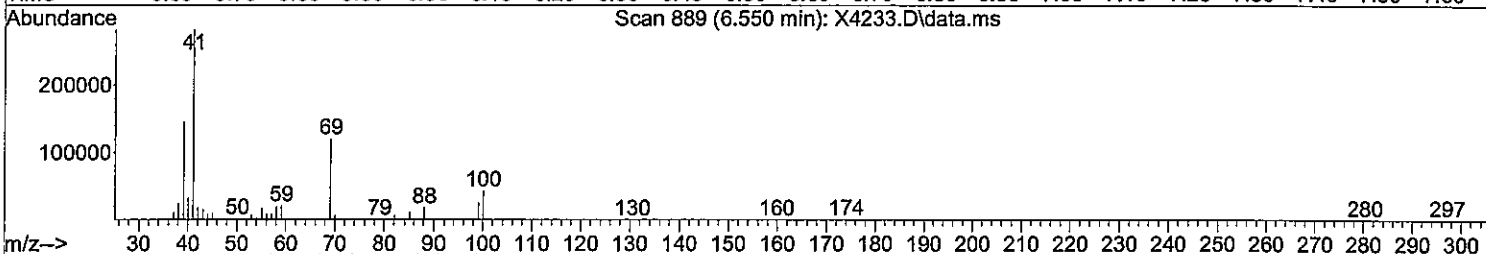
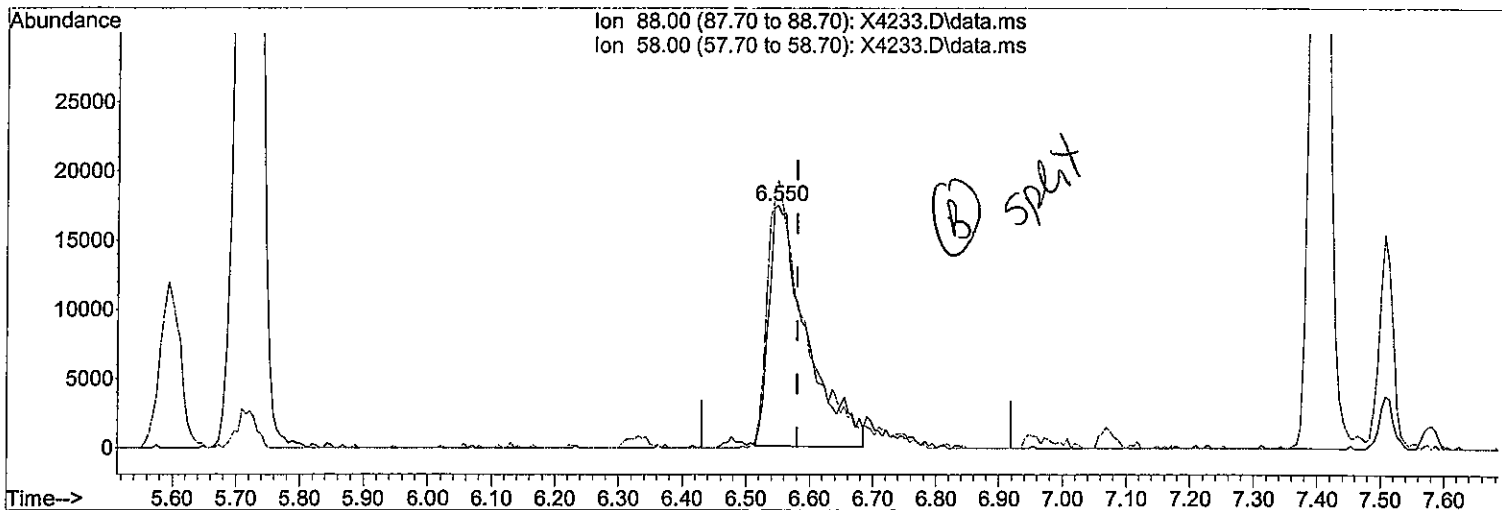
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
100) p-Isopropyltoluene	10.891	119	2102549	54.64	ug/L	99
101) 1,3-Dclbenz	10.854	146	1077067	52.87	ug/L	99
102) 1,4-Dclbenz	10.928	146	1074916	50.70	ug/L	98
104) n-Butylbenzene	11.214	91	2096444	53.97	ug/L	99
105) 1,2-Dclbenz	11.220	146	963245	51.44	ug/L	96
106) 1,2-Dibromo-3-chloropr...	11.763	157	78850	53.98	ug/L	95
108) 1,2,4-Tcbenzene	12.287	180	686004	53.80	ug/L	100
109) Hexachlorobt	12.391	225	297991	51.47	ug/L	98
110) Naphthalen	12.427	128	1561746	56.47	ug/L	99
111) 1,2,3-Tclbenzene	12.561	180	618787	53.35	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Sample : 50ppb
 Data File: J:\ACQUDATA\msvoa12\Data\091509\X4233.D
 Misc : 8260 WATER ICAL
 Acq On : 15 Sep 2009 6:24 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Sep 16 10:15:50 2009
 QLast Update : Wed Sep 16 09:49:13 2009
 Response via : Initial Calibration



(58) 1,4-Dioxane
 6.550min (-0.030) 999.01 ug/L

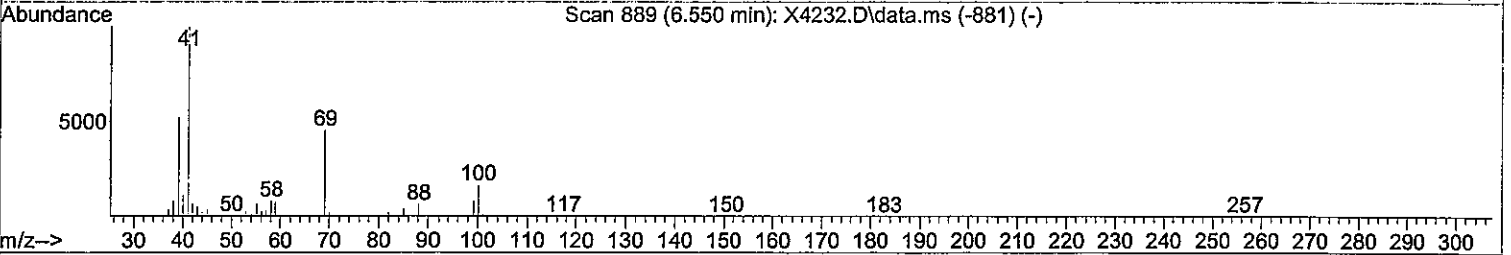
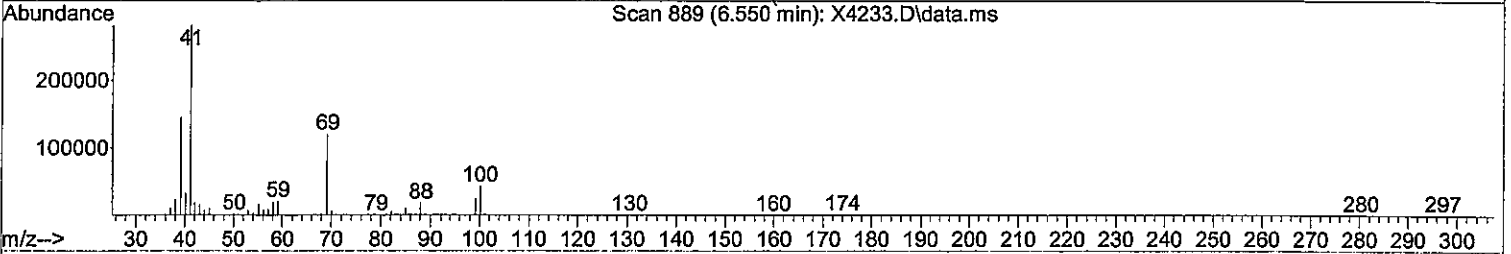
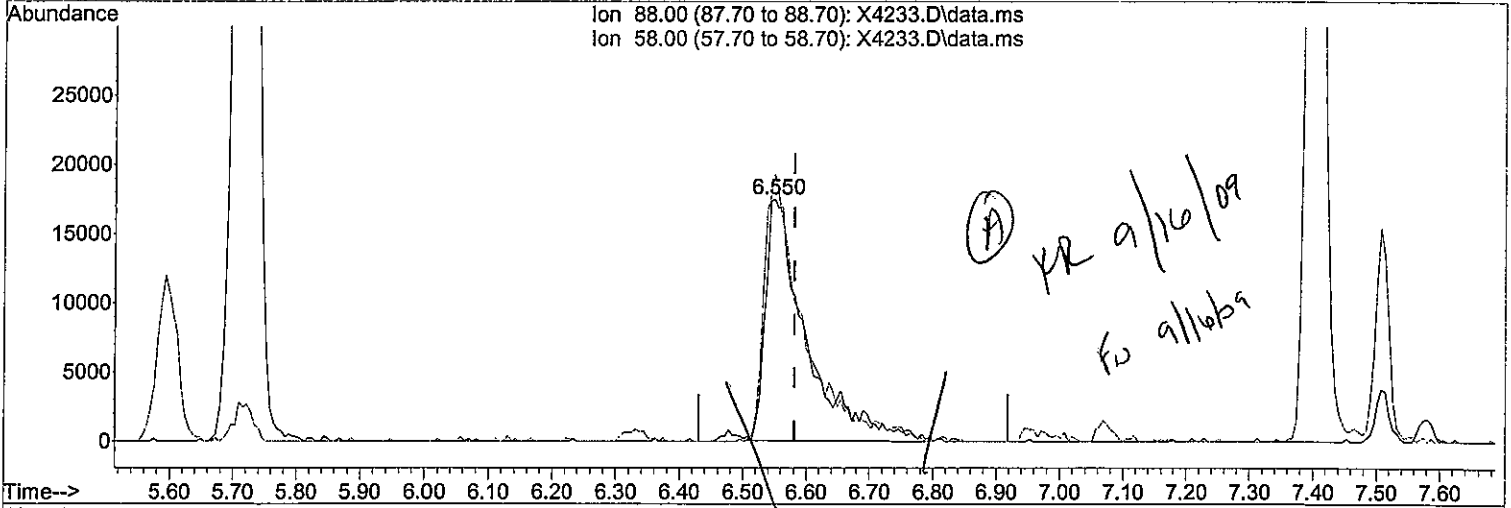
response 71664

Ion	Exp%	Act%
88.00	100	100
58.00	128.90	110.31
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 50ppb
 Data File: J:\ACQUDATA\msvoa12\Data\091509\X4233.D
 Misc : 8260 WATER ICAL
 Acq On : 15 Sep 2009 6:24 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Sep 16 10:15:50 2009
 QLast Update : Wed Sep 16 09:49:13 2009
 Response via : Initial Calibration



(58) 1,4-Dioxane

6.550min (-0.030) 1089.05 ug/L m

response 78123

Ion	Exp%	Act%
88.00	100	100
58.00	128.90	110.31
0.00	0.00	0.00
0.00	0.00	0.00

Sample : 100ppb
 Data File: J:\ACQUATA\msvoa12\Data\091509\X4234.D
 Misc : 8260 WATER ICAL
 Acq On : 15 Sep 2009 6:54 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Sep 16 10:15:53 2009
 QLast Update : Wed Sep 16 09:49:13 2009
 Response via : Initial Calibration

YR 9/16/09

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Pentafluorobenzene	4.533	168	830414	50.00	ug/L	0.00	
44) 1,4-Difluorobenzene	5.715	114	1403456	50.00	ug/L	0.00	
71) d5-Chlorobenzene	8.910	117	1238933	50.00	ug/L	0.00	
84) 1,4-Dichlorobenzene-d4	10.909	152	651175	50.00	ug/L	0.00	
System Monitoring Compounds							
46) surr4,Dibrflmethane	4.435	113	950392	123.55	ug/L	0.00	
Spiked Amount	50.000	Range 89 - 119	Recovery	=	247.10%#		
49) surr1,1,2-dichloroetha...	4.984	65	1407719	122.22	ug/L	0.00	
Spiked Amount	50.000	Range 80 - 120	Recovery	=	244.44%#		
65) SURR3,Toluene-d8	7.508	98	3899060	119.46	ug/L	0.00	
Spiked Amount	50.000	Range 87 - 121	Recovery	=	238.92%#		
70) SURR2,BFB	9.946	95	1632552	122.20	ug/L	0.00	
Spiked Amount	50.000	Range 85 - 122	Recovery	=	244.40%#		
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	1.234	85	1054459	112.32	ug/L		99
4) Chloromethane	1.344	50	1843127	103.93	ug/L		99
5) Vinyl Chloride	1.411	62	1145085	106.38	ug/L		97
6) Bromomethane	1.612	94	400894	107.61	ug/L		99
7) Chloroethane	1.673	64	595490	97.23	ug/L		99
8) Freon 21	1.777	67	1355189	100.00	ug/L		98
9) Trichlorofluoromethane	1.832	101	1174588	105.22	ug/L		97
10) Diethyl Ether	2.003	59	762755	101.98	ug/L		95
11) Freon 123a	1.990	67	803234	96.08	ug/L		99
12) Freon 123	2.027	83	858095	98.37	ug/L		100
13) Acrolein	2.082	56	608026	513.09	ug/L		99
14) 1,1-Dicethene	2.173	96	521900	100.96	ug/L		93
15) Freon 113	2.167	101	565828	103.99	ug/L		98
16) Acetone	2.185	43	261830	95.01	ug/L		98
17) 2-Propanol	2.271	45	1211709	2092.64	ug/L		94
18) Iodomethane	2.289	142	691722	99.20	ug/L		97
19) Carbon Disulfide	2.350	76	2721965	102.04	ug/L		99
20) Acetonitrile	2.381	40	283685	509.53	ug/L		93
21) Allyl Chloride	2.423	76	525962	110.92	ug/L		87
22) Methyl Acetate	2.423	43	859023	105.18	ug/L		99
23) Methylene Chloride	2.515	84	956381	99.17	ug/L		93
24) TBA	2.582	59	1642994	1914.34	ug/L		91
25) Acrylonitrile	2.698	53	2021379	527.39	ug/L		98
26) Methyl-t-Butyl Ether	2.752	73	2250151	105.55	ug/L		98
27) trans-1,2-Dichloroethene	2.752	96	901727	100.88	ug/L		93
28) 1,1-Dicethane	3.136	63	2188552	101.58	ug/L		98
29) Vinyl Acetate	3.179	86	110372	99.93	ug/L		70
30) DIPE	3.216	45	5794646	104.29	ug/L		98
31) 2-Chloro-1,3-Butadiene	3.240	53	2062319	98.99	ug/L		100
32) ETBE	3.624	59	3726830	107.72	ug/L		99
33) 2,2-Dichloropropane	3.795	77	1246269	114.91	ug/L		98
34) cis-1,2-Dichloroethene	3.783	96	982615	101.19	ug/L		97
35) 2-Butanone	3.795	43	479416	89.34	ug/L		95
37) Propionitrile	3.850	54	726028	543.19	ug/L		99
38) Bromochloromethane	4.094	130	476991	97.58	ug/L		89

Sample : 100ppb
 Data File: J:\ACQUDATA\msvoa12\Data\091509\X4234.D
 Misc : 8260 WATER ICAL
 Acq On : 15 Sep 2009 6:54 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Sep 16 10:15:53 2009
 QLast Update : Wed Sep 16 09:49:13 2009
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
39) Methacrylonitrile	4.063	67	293920	108.05	ug/L	100
40) Tetrahydrofuran	4.173	42	332941	96.87	ug/L	97
41) Chloroform	4.209	83	1610301	101.03	ug/L	97
42) 1,1,1-Trichloroethane	4.496	97	1387716	108.92	ug/L	97
43) TAME	5.331	73	2244321	110.83	ug/L	100
45) Cyclohexane	4.600	41	1669151	101.10	ug/L	96
47) Carbontetrachloride	4.764	121	338281	108.85	ug/L	90
48) 1,1-Dichloropropene	4.758	75	1329748	104.30	ug/L	99
50) Benzene	5.106	78	3862666	101.18	ug/L	98
51) 1,2-Dichloroethane	5.118	62	1547437	99.42	ug/L	97
52) Iso-Butyl Alcohol	4.978	43	994290	1910.28	ug/L	96
53) n-Heptane	5.599	43	2715298	107.18	ug/L	98
54) Trichloroethene	6.075	130	855279	99.32	ug/L	95
55) Methylcyclohexane	6.331	55	2108080	103.23	ug/L	96
56) 1,2-Diclpropane	6.349	63	1183113	102.22	ug/L	94
57) Dibromomethane	6.483	93	442511	101.04	ug/L	99
58) 1,4-Dioxane	6.544	88	157630	2232.97	ug/L	81
59) Methyl Methacrylate	6.544	69	488046	101.99	ug/L	97
60) Bromodichloromethane	6.691	83	1221882	106.01	ug/L	99
62) 2-Chloroethylvinyl Ether	7.075	63	569048	103.66	ug/L	94
63) cis-1,3-Dichloropropene	7.215	75	1476915	112.52	ug/L	98
64) 4-Methyl-2-pentanone	7.404	43	1028325	104.78	ug/L	98
66) Toluene	7.581	91	3965430	101.43	ug/L	97
67) trans-1,3-Dichloropropene	7.812	75	1258123	115.91	ug/L	98
68) Ethyl Methacrylate	7.940	69	1022836	102.75	ug/L	99
69) 1,1,2-Trichloroethane	7.983	97	644135	101.11	ug/L	97
72) Tetrachloroethene	8.136	164	655503	97.57	ug/L	95
73) 2-Hexanone	8.257	43	719689	105.03	ug/L	100
74) 1,3-Dichloropropene	8.148	76	1228294	100.65	ug/L	93
75) Dibromochloromethane	8.367	129	721895	107.42	ug/L	99
76) N-Butyl Acetate	8.404	43	1897843	98.63	ug/L	99
77) 1,2-Dibromoethane	8.465	107	636734	101.53	ug/L #	96
78) Chlorobenzene	8.940	112	2364708	97.53	ug/L	99
79) 1,1,1,2-Tetrachloroethane	9.013	131	820944	112.55	ug/L	96
80) Ethylbenzene	9.050	106	1381273	99.96	ug/L	97
81) (m+p)Xylene	9.160	106	3169374	195.73	ug/L	96
82) o-Xylene	9.501	106	1568009	99.80	ug/L	98
83) Styrene	9.513	104	2702218	101.21	ug/L	97
85) Bromoform	9.660	173	389051	114.20	ug/L	98
86) Isopropylbenzene	9.830	105	4264536	106.05	ug/L	97
87) Cyclohexanone	9.885	55	1324281	1996.59	ug/L	97
88) trans-1,4-Dichloro-2-B...	10.117	53	402043	112.46	ug/L #	91
89) 1,1,2,2-Tetrachloroethane	10.068	83	738766	97.66	ug/L	96
90) Bromobenzene	10.068	156	962842	101.23	ug/L	97
92) 1,2,3-Trichloropropane	10.099	110	235370	108.22	ug/L	92
93) n-Propylbenzene	10.178	91	5729212	105.13	ug/L	99
94) 2-Chlorotoluene	10.239	91	3328639	102.93	ug/L	99
95) 4-Chlorotoluene	10.330	91	3692907	98.91	ug/L	96
96) 1,3,5-Trimethylbenzene	10.324	105	3630333	100.33	ug/L	97
97) tert-Butylbenzene	10.592	119	3220020	106.11	ug/L	98
98) 1,2,4-Trimethylbenzene	10.635	105	4063267	105.02	ug/L	100
99) sec-Butylbenzene	10.775	105	5136826	105.85	ug/L	98

Sample : 100ppb
Data File: J:\ACQUDATA\msvoa12\Data\091509\X4234.D
Misc : 8260 WATER ICAL
Acq On : 15 Sep 2009 6:54 pm
Operator : K.Ruest
InstName : MSVOA-12

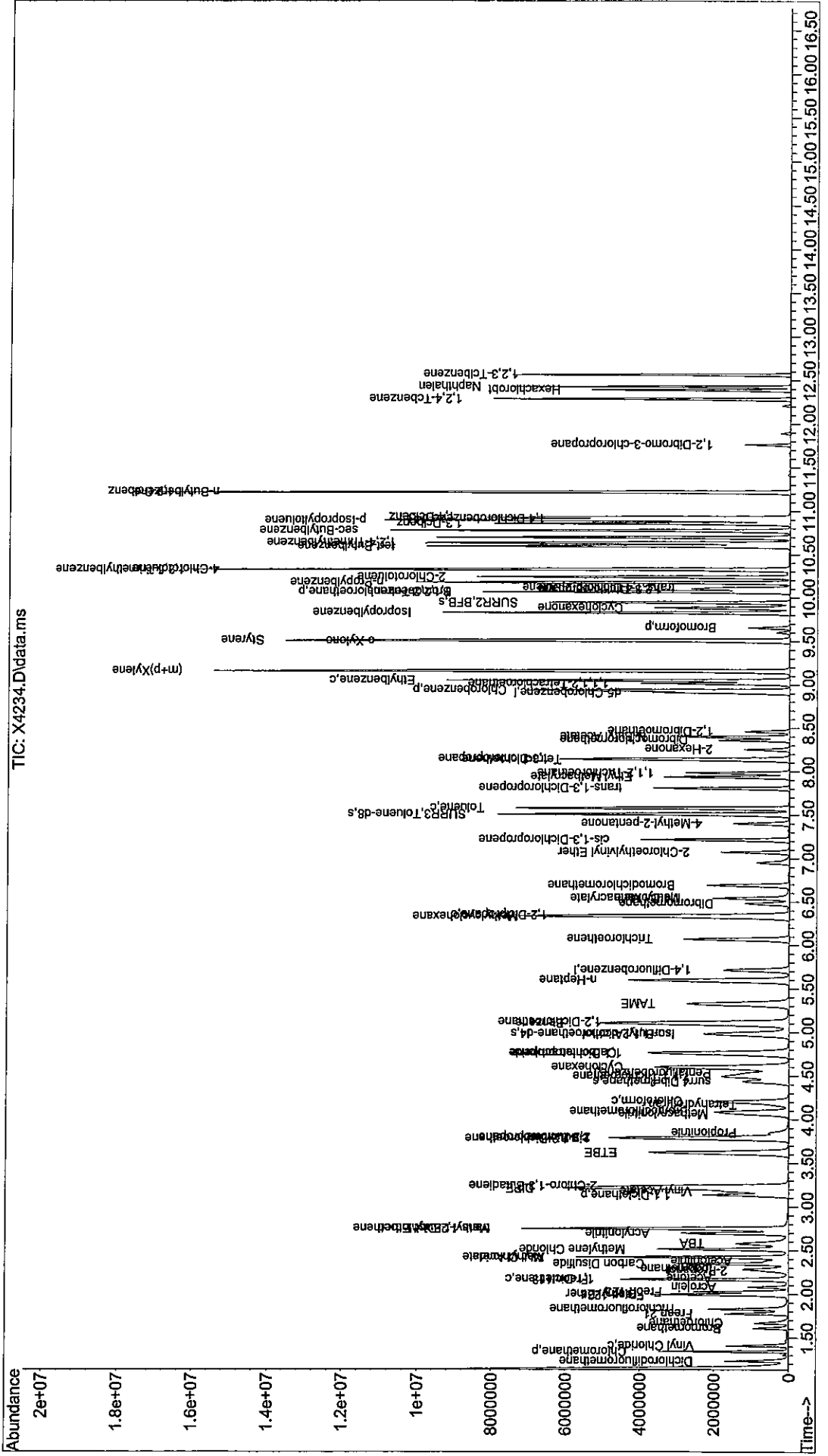
Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 16 10:15:53 2009
QLast Update : Wed Sep 16 09:49:13 2009
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
100) p-Isopropyltoluene	10.891	119	4064861	105.33	ug/L	99
101) 1,3-Dclbenz	10.854	146	2119779	103.75	ug/L	98
102) 1,4-Dclbenz	10.928	146	2119508	99.68	ug/L	97
104) n-Butylbenzene	11.214	91	4010743	102.95	ug/L	99
105) 1,2-Dclbenz	11.220	146	1795571	95.60	ug/L	97
106) 1,2-Dibromo-3-chloropr...	11.763	157	161719	110.39	ug/L	95
108) 1,2,4-Tcbenzene	12.287	180	1331187	104.10	ug/L	99
109) Hexachlorobt	12.391	225	591243	101.83	ug/L	99
110) Naphthalen	12.427	128	2996515	108.04	ug/L	99
111) 1,2,3-Tclbenzene	12.568	180	1178964	101.34	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sample : 100ppb
 Data File: J:\ACQDATA\msvoa12\Data\091509\X4234.D
 Misc : 8260 WATER ICAL
 Acq On : 15 Sep 2009 6:54 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Sep 16 10:15:53 2009
 QLast Update : Wed Sep 16 09:49:13 2009
 Response via : Initial Calibration



00178

Sample : 200ppb
 Data File: J:\ACQUDATA\msvoa12\Data\091509\X4235.D
 Misc : 8260 WATER ICAL
 Acq On : 15 Sep 2009 7:25 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Sep 16 11:02:00 2009
 QLast Update : Wed Sep 16 09:49:13 2009
 Response via : Initial Calibration

Handwritten: 9/16/09

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Pentafluorobenzene	4.538	168	846160	50.00	ug/L	0.00	
44) 1,4-Difluorobenzene	5.721	114	1450474	50.00	ug/L	0.00	
71) d5-Chlorobenzene	8.910	117	1256904	50.00	ug/L	0.00	
84) 1,4-Dichlorobenzene-d4	10.909	152	644855	50.00	ug/L	0.00	
System Monitoring Compounds							
46) surr4,Dibrflmethane	4.435	113	1119604	140.83	ug/L	0.00	
Spiked Amount	50.000	Range	89 - 119	Recovery	=	281.66%#	
49) surr1,1,2-dichloroetha...	4.983	65	1701221	142.92	ug/L	0.00	
Spiked Amount	50.000	Range	80 - 120	Recovery	=	285.84%#	
65) SURR3,Toluene-d8	7.507	98	4646293	137.74	ug/L	0.00	
Spiked Amount	50.000	Range	87 - 121	Recovery	=	275.48%#	
70) SURR2,BFB	9.946	95	1998181	144.72	ug/L	0.00	
Spiked Amount	50.000	Range	85 - 122	Recovery	=	289.44%#	
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	1.234	85	2055434	214.87	ug/L		98
4) Chloromethane	1.344	50	3689848	204.19	ug/L		99
5) Vinyl Chloride	1.411	62	2255868	205.68	ug/L		98
6) Bromomethane	1.612	94	731459	194.75	ug/L		99
7) Chloroethane	1.673	64	1127590	180.68	ug/L		99
8) Freon 21	1.777	67	2639468	191.14	ug/L		99
9) Trichlorofluoromethane	1.832	101	2309184	203.01	ug/L		97
10) Diethyl Ether	2.002	59	1483419	194.64	ug/L		95
11) Freon 123a	1.990	67	1430482m	167.93	ug/L		
12) Freon 123	2.027	83	1708515	192.22	ug/L		98
13) Acrolein	2.082	56	1321495	1094.41	ug/L		99
14) 1,1-Dicethene	2.173	96	1024503	194.49	ug/L		96
15) Freon 113	2.167	101	1078922	194.59	ug/L		97
16) Acetone	2.185	43	530450	188.90	ug/L		97
17) 2-Propanol	2.271	45	2592401	4393.80	ug/L		93
18) Iodomethane	2.289	142	1424246	200.02	ug/L		99
19) Carbon Disulfide	2.350	76	5499626	202.33	ug/L		99
20) Acetonitrile	2.380	40	572936	1009.92	ug/L		92
21) Allyl Chloride	2.423	76	1083455	224.24	ug/L		86
22) Methyl Acetate	2.423	43	1719075	206.58	ug/L		98
23) Methylene Chloride	2.514	84	1842224	187.47	ug/L		85
24) TBA	2.582	59	3624561	4071.08	ug/L		88
25) Acrylonitrile	2.697	53	4043564	1035.36	ug/L		98
26) Methyl-t-Butyl Ether	2.752	73	4395173	202.33	ug/L		97
27) trans-1,2-Dichloroethene	2.752	96	1648258	180.96	ug/L		89
28) 1,1-Dicethane	3.136	63	4342730	197.82	ug/L		98
29) Vinyl Acetate	3.179	86	262955	233.64	ug/L		75
30) DIPE	3.216	45	11581987	204.57	ug/L		97
31) 2-Chloro-1,3-Butadiene	3.240	53	4363202	205.54	ug/L		96
32) ETBE	3.624	59	7786774	220.89	ug/L		98
33) 2,2-Dichloropropane	3.795	77	2554118	231.12	ug/L		97
34) cis-1,2-Dichloroethene	3.783	96	1859825	187.96	ug/L		96
35) 2-Butanone	3.795	43	1006399	184.04	ug/L		97
37) Propionitrile	3.850	54	1497325	1099.40	ug/L		100
38) Bromochloromethane	4.093	130	930291	186.77	ug/L		88

Sample : 200ppb
 Data File: J:\ACQUDATA\msvoa12\Data\091509\X4235.D
 Misc : 8260 WATER ICAL
 Acq On : 15 Sep 2009 7:25 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Sep 16 11:02:00 2009
 QLast Update : Wed Sep 16 09:49:13 2009
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
39) Methacrylonitrile	4.063	67	570629	205.86	ug/L	91
40) Tetrahydrofuran	4.173	42	686317	195.97	ug/L #	92
41) Chloroform	4.209	83	3176417	195.57	ug/L	99
42) 1,1,1-Trichloroethane	4.496	97	2810944	216.52	ug/L	98
43) TAME	5.331	73	4611092	223.48	ug/L	97
45) Cyclohexane	4.599	41	3347474	196.17	ug/L	98
47) Carbontetrachloride	4.770	121	676480	210.62	ug/L	96
48) 1,1-Dichloropropene	4.764	75	2563951	194.59	ug/L	98
50) Benzene	5.105	78	7405891	187.70	ug/L	96
51) 1,2-Dichloroethane	5.118	62	3070888	190.90	ug/L	98
52) Iso-Butyl Alcohol	4.983	43	2233989	4074.40	ug/L	99
53) n-Heptane	5.599	43	5322684	203.28	ug/L	98
54) Trichloroethene	6.075	130	1670193	187.66	ug/L	93
55) Methylcyclohexane	6.331	55	4182630	198.18	ug/L	93
56) 1,2-Diclp propane	6.349	63	2286683	191.16	ug/L	95
57) Dibromomethane	6.483	93	874650	193.23	ug/L	99
58) 1,4-Dioxane	6.544	88	314643	4312.72	ug/L	89
59) Methyl Methacrylate	6.544	69	988731	199.29	ug/L	98
60) Bromodichloromethane	6.690	83	2413978	202.66	ug/L	100
62) 2-Chloroethylvinyl Ether	7.075	63	1196020	210.81	ug/L	94
63) cis-1,3-Dichloropropene	7.215	75	2911594	214.62	ug/L	98
64) 4-Methyl-2-pentanone	7.404	43	2248853	221.71	ug/L	99
66) Toluene	7.581	91	7481723	185.16	ug/L	100
67) trans-1,3-Dichloropropene	7.812	75	2542379	226.63	ug/L	98
68) Ethyl Methacrylate	7.940	69	2054489	198.93	ug/L	92
69) 1,1,2-Trichloroethane	7.989	97	1246232	189.28	ug/L	99
72) Tetrachloroethene	8.135	164	1243229	182.40	ug/L	97
73) 2-Hexanone	8.257	43	1579474	227.21	ug/L	97
74) 1,3-Dichloropropane	8.154	76	2304875	186.16	ug/L	93
75) Dibromochloromethane	8.367	129	1437060	210.78	ug/L	98
76) N-Butyl Acetate	8.404	43	3970882	201.58	ug/L	99
77) 1,2-Dibromoethane	8.465	107	1244776	195.64	ug/L	99
78) Chlorobenzene	8.940	112	4491065	182.59	ug/L	99
79) 1,1,1,2-Tetrachloroethane	9.019	131	1610730	217.67	ug/L	97
80) Ethylbenzene	9.050	106	2591271	184.84	ug/L	95
81) (m+p)Xylene	9.159	106	5713029	347.77	ug/L	98
82) o-Xylene	9.507	106	2891396	181.40	ug/L	95
83) Styrene	9.519	104	4965529	183.33	ug/L	97
85) Bromoform	9.659	173	809855	240.05	ug/L	98
86) Isopropylbenzene	9.830	105	8167268	205.09	ug/L	98
87) Cyclohexanone	9.885	55	2535271	3859.83	ug/L	99
88) trans-1,4-Dichloro-2-B...	10.117	53	842485	237.97	ug/L #	92
89) 1,1,2,2-Tetrachloroethane	10.068	83	1426694	190.45	ug/L	98
90) Bromobenzene	10.074	156	1818842	193.10	ug/L	93
92) 1,2,3-Trichloropropane	10.104	110	464264	215.56	ug/L	95
93) n-Propylbenzene	10.178	91	10666056	197.63	ug/L	97
94) 2-Chlorotoluene	10.245	91	6404901	200.00	ug/L	98
95) 4-Chlorotoluene	10.336	91	6880264	186.09	ug/L	99
96) 1,3,5-Trimethylbenzene	10.330	105	6766000	188.83	ug/L	96
97) tert-Butylbenzene	10.598	119	6147922	204.57	ug/L	98
98) 1,2,4-Trimethylbenzene	10.635	105	7629043	199.12	ug/L	98
99) sec-Butylbenzene	10.775	105	9581604	199.38	ug/L	97

Sample : 200ppb
 Data File: J:\ACQUDATA\msvoa12\Data\091509\X4235.D
 Misc : 8260 WATER ICAL
 Acq On : 15 Sep 2009 7:25 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Sep 16 11:02:00 2009
 QLast Update : Wed Sep 16 09:49:13 2009
 Response via : Initial Calibration

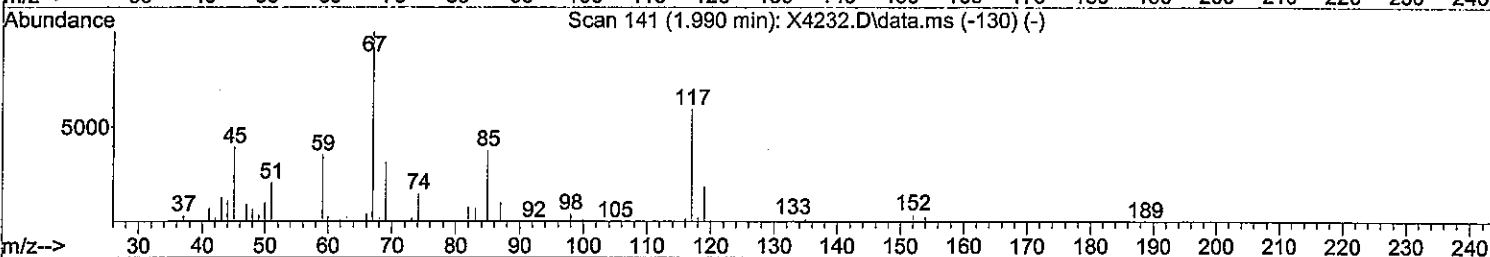
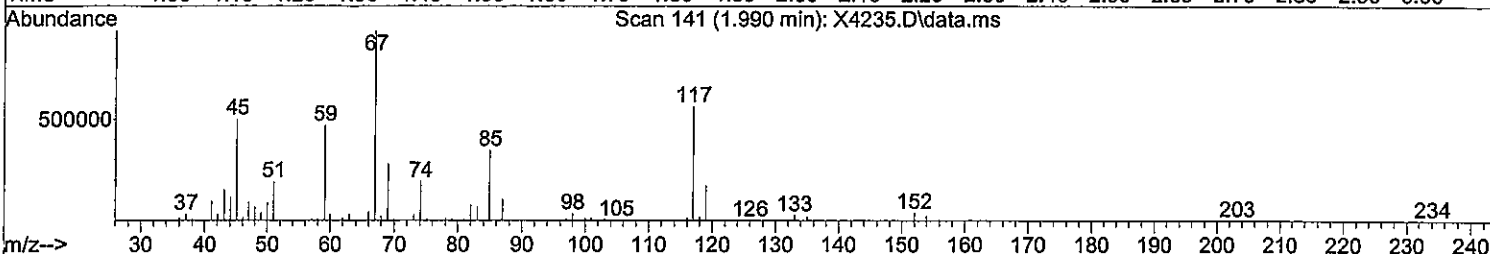
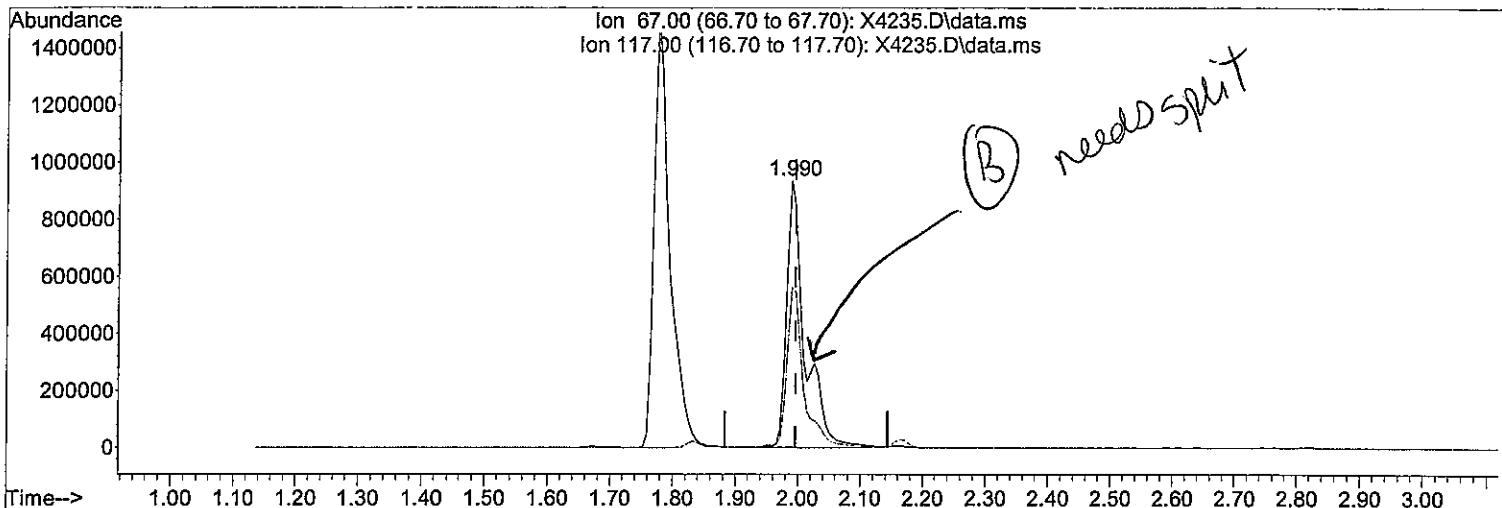
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
100) p-Isopropyltoluene	10.897	119	7561900	197.86	ug/L	98
101) 1,3-Dclbenz	10.860	146	4004642	197.92	ug/L	98
102) 1,4-Dclbenz	10.927	146	4012798	190.58	ug/L	98
104) n-Butylbenzene	11.220	91	7192787	186.44	ug/L	99
105) 1,2-Dclbenz	11.220	146	3228639	173.59	ug/L	96
106) 1,2-Dibromo-3-chloropr...	11.763	157	324421	223.63	ug/L	88
108) 1,2,4-Tcbenzene	12.287	180	2444514	193.04	ug/L	99
109) Hexachlorobt	12.391	225	1115625	194.03	ug/L	98
110) Naphthalen	12.427	128	5543061	201.81	ug/L	99
111) 1,2,3-Tclbenzene	12.567	180	2196630	190.67	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Sample : 200ppb
 Data File: J:\ACQUDATA\msvoa12\Data\091509\X4235.D
 Misc : 8260 WATER ICAL
 Acq On : 15 Sep 2009 7:25 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Sep 16 10:15:56 2009
 QLast Update : Wed Sep 16 09:49:13 2009
 Response via : Initial Calibration



TIC: X4235.D\data.ms

(11) Freon 123a
 1.990min (-0.006) 222.15 ug/L

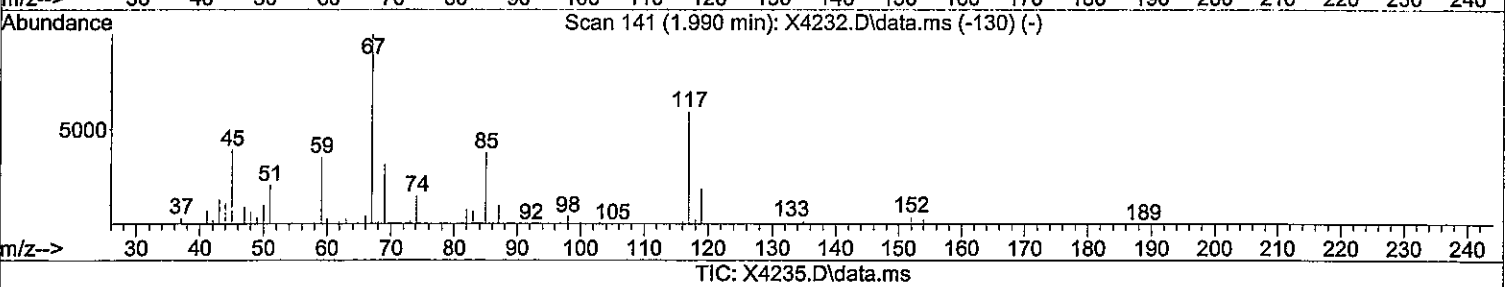
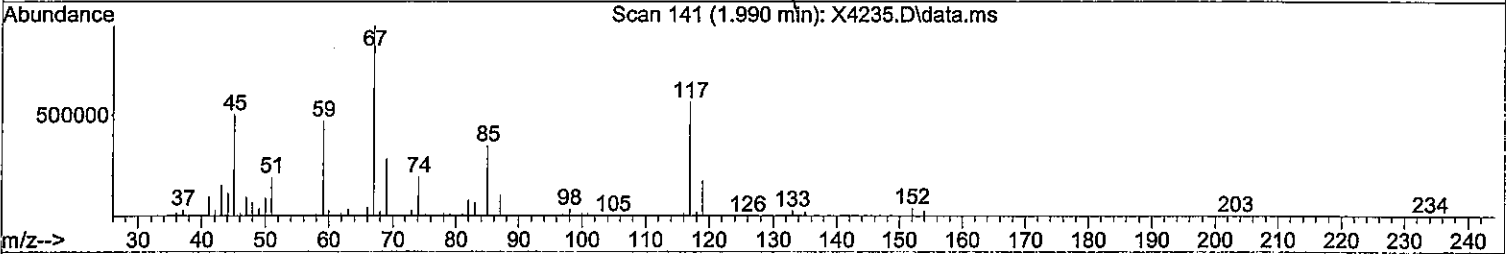
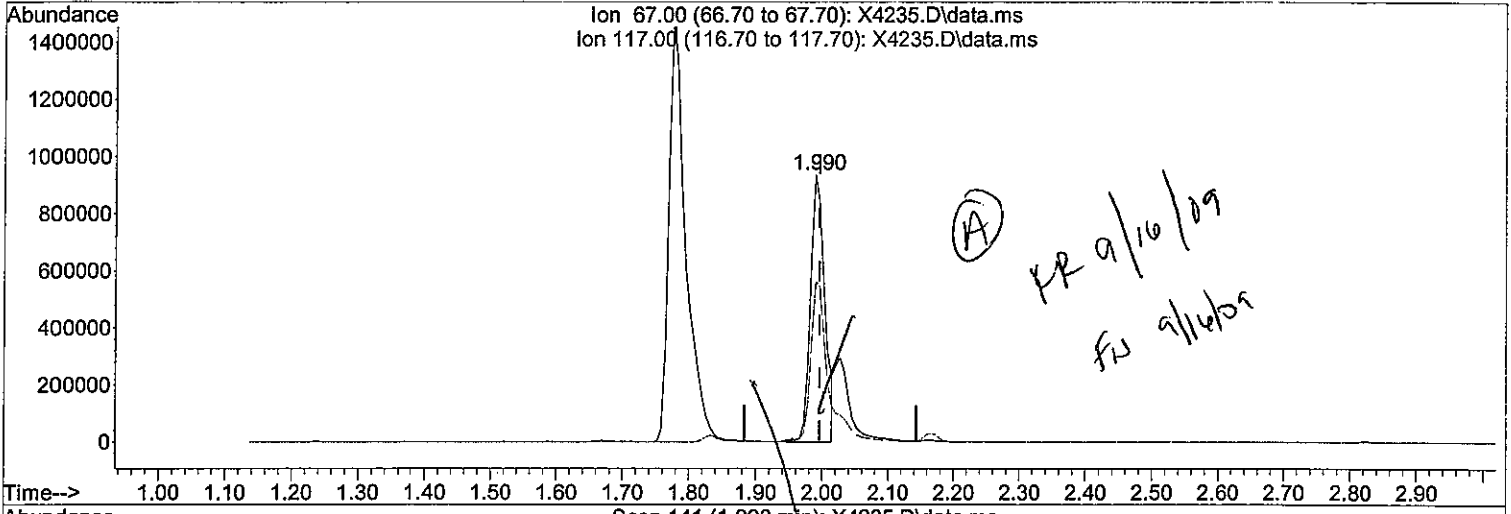
response 1892366

Ion	Exp%	Act%
67.00	100	100
117.00	59.30	60.02
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 200ppb
 Data File: J:\ACQUDATA\msvoa12\Data\091509\X4235.D
 Misc : 8260 WATER ICAL
 Acq On : 15 Sep 2009 7:25 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Sep 16 10:15:56 2009
 QLast Update : Wed Sep 16 09:49:13 2009
 Response via : Initial Calibration



(11) Freon 123a

1.990min (-0.006) 167.93 ug/L m

response 1430482

Ion	Exp%	Act%
67.00	100	100
117.00	59.30	60.02
0.00	0.00	0.00
0.00	0.00	0.00

Evaluate Continuing Calibration Report

Sample : CCV
 Data File: J:\ACQUDATA\msvoa12\Data\101209\X4881.D
 Misc :
 Acq On : 12 Oct 2009 12:15 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Oct 12 13:46:21 2009
 QLast Update : Fri Oct 09 14:32:15 2009
 Response via : Initial Calibration

YR 10/12/09

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)	
1 I	Pentafluorobenzene	1.000	1.000	0.0	90	0.00	
2 T	Dichlorodifluoromethane	0.565	0.473	16.3	68	0.00	
3	Freon 114	0.000	0.000	0.0	179	0.00	
4 p	Chloromethane	1.068	1.024	4.1	83	0.00	
5 c M	Vinyl Chloride	0.648	0.646	0.3	83	0.00	
6 T	Bromomethane	0.269	0.261	-13.9	92	0.00	YR
7 T	Chloroethane	0.369	0.366	0.8	88	0.00	
8	Freon 21	0.816	0.903	-10.7	99	0.00	
9 T	Trichlorofluoromethane	0.672	0.759	-12.9	97	0.00	
10	Diethyl Ether	0.450	0.434	3.6	83	0.00	
11	Freon 123a	0.486	0.535	-10.1	98	0.00	
12	Freon 123	0.525	0.562	-7.0	95	0.00	
13	Acrolein	0.071	0.054	23.9#	66	0.00	
14 c M	1,1-Dicethene	0.311	0.326	-4.8	89	0.00	
15 T	Freon 113	0.328	0.357	-8.8	92	0.00	
16 T	Acetone	0.163	0.149	8.6	81	0.00	
17	2-Propanol	0.034	0.025	26.5#	59	-0.03	
18	Iodomethane	0.341	0.482	-15.2	101	0.00	YR
19 T	Carbon Disulfide	1.606	1.270	20.9#	93	0.00	
20	Acetonitrile	0.034	0.022	35.3#	73	0.00	
21	Allyl Chloride	0.286	0.218	23.8#	75	0.00	
22 T	Methyl Acetate	0.492	0.394	19.9	75	0.00	
23 T	Methylene Chloride	0.581	0.521	10.3	81	0.00	
24	TBA	0.037	0.031	36.3	61	-0.02	YR
25	Acrylonitrile	0.231	0.197	14.7	74	0.00	
26 T	Methyl-t-Butyl Ether	1.284	1.142	11.1	77	0.00	
27 T M	trans-1,2-Dichloroethene	0.538	0.508	5.6	82	0.00	
28 p M	1,1-Dicethane	1.297	1.169	9.9	80	0.00	
29	Vinyl Acetate	0.067	0.060	10.4	75	-0.02	
30	DIPE	3.346	3.155	5.7	82	0.00	
31	2-Chloro-1,3-Butadiene	1.254	1.302	-3.8	90	0.00	
32	ETBE	2.083	1.944	6.7	82	0.00	
33	2,2-Dichloropropane	0.654	0.747	-14.2	96	0.00	
34 T M	cis-1,2-Dichloroethene	0.585	0.545	6.8	81	0.00	
35 T	2-Butanone	0.323	0.239	26.0#	69	-0.01	
36	Ethyl Acetate	0.000	0.000	0.0	71	0.02	
37	Propionitrile	0.080	0.065	18.8	70	-0.02	
38	Bromochloromethane	0.294	0.278	5.4	84	0.00	
39	Methacrylonitrile	0.164	0.130	20.7#	69	-0.01	
40	Tetrahydrofuran	0.207	0.147	29.0#	65	-0.02	
41 c M	Chloroform	0.960	0.905	5.7	84	0.00	
42 T M	1,1,1-Trichloroethane	0.763	0.801	-5.0	89	-0.01	
43	TAME	1.219	1.077	11.6	76	0.00	
44 I	1,4-Difluorobenzene	1.000	1.000	0.0	88	0.00	
45 T	Cyclohexane	0.588	0.567	3.6	85	0.00	
46 s	surr4,Dibrflmethane	0.274	0.287	-4.7	89	0.00	
47 T	Carbontetrachloride	0.111	0.122	-9.9	93	0.00	

Evaluate Continuing Calibration Report

Sample : CCV
 Data File: J:\ACQUDATA\msvoa12\Data\101209\X4881.D
 Misc :
 Acq On : 12 Oct 2009 12:15 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Oct 12 13:46:21 2009
 QLast Update : Fri Oct 09 14:32:15 2009
 Response via : Initial 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)
48	1,1-Dichloropropene	0.454	0.435	4.2	81	0.00
49 s	surr1,1,2-dichloroethane-d4	0.410	0.411	-0.2	86	0.00
50 T M	Benzene	1.359	1.251	7.9	79	0.00
51 T M	1,2-Dichloroethane	0.554	0.530	4.3	85	0.00
52	Iso-Butyl Alcohol	0.013	0.011	36.6	15.4	60 -0.01 YR
53	n-Heptane	0.902	0.850	5.8	80	0.00
54 T M	Trichloroethene	0.306	0.286	6.5	82	0.00
55	Methylcyclohexane	0.727	0.690	5.1	82	0.00
56 c	1,2-Diclp propane	0.413	0.379	8.2	78	0.00
57	Dibromomethane	0.156	0.140	10.3	78	0.00
58	1,4-Dioxane	0.003	0.001	66.7#	46#	-0.01
59	Methyl Methacrylate	0.144	0.131	22.5	9.9	69 0.00 YR
60 T	Bromodichloromethane	0.410	0.410	0.0	84	0.00
61	2-Nitropropane	0.000	0.000	0.0	85	0.00
62	2-Chloroethylvinyl Ether	0.196	0.161	17.9	69	0.00
63 T	cis-1,3-Dichloropropene	0.467	0.467	0.0	79	0.00
64 T	4-Methyl-2-pentanone	0.350	0.306	12.6	73	0.00
65 s	SURR3,Toluene-d8	1.163	1.231	-5.8	89	0.00
66 c M	Toluene	1.392	1.306	6.2	81	0.00
67 T	trans-1,3-Dichloropropene	0.386	0.396	-2.6	81	0.00
68	Ethyl Methacrylate	0.289	0.276	21.1	4.5	70 0.00 YR
69 T	1,1,2-Trichloroethane	0.227	0.207	8.8	77	0.00
70 s	SURR2,BFB	0.476	0.517	-8.6	92	0.00
71 I	d5-Chlorobenzene	1.000	1.000	0.0	90	0.00
72 T M	Tetrachloroethene	0.271	0.262	3.3	87	0.00
73 T	2-Hexanone	0.277	0.230	17.0	72	-0.01
74	1,3-Dichloropropane	0.493	0.434	12.0	76	0.00
75 T	Dibromochloromethane	0.271	0.272	-0.4	85	0.00
76	N-Butyl Acetate	0.601	0.603	20.3	0.3	75 -0.01 YR
77 T	1,2-Dibromoethane	0.253	0.225	11.1	79	0.00
78 p M	Chlorobenzene	0.978	0.919	6.0	83	0.00
79	1,1,1,2-Tetrachloroethane	0.294	0.320	-8.8	90	0.00
80 c M	Ethylbenzene	0.558	0.521	6.6	82	0.00
81 T	(m+p)Xylene	0.653	0.625	4.3	82	0.00
82 T M	o-Xylene	0.634	0.604	4.7	80	0.00
83 T	Styrene	1.077	1.025	4.8	79	0.00
84 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	95	0.00
85 p	Bromoform	0.262	0.256	2.3	85	-0.01
86 T	Isopropylbenzene	3.089	2.875	6.9	82	0.00
87	Cyclohexanone	0.051	0.066	29.4#	114	0.00
88	trans-1,4-Dichloro-2-Butene	0.275	0.252	8.4	83	-0.01
89 p	1,1,2,2-Tetrachloroethane	0.581	0.463	20.3#	74	0.00
90	Bromobenzene	0.731	0.669	8.5	83	0.00
91	4-Ethyltoluene	0.000	0.000	0.0	81	0.00
92	1,2,3-Trichloropropane	0.167	0.152	9.0	80	0.00
93	n-Propylbenzene	4.187	3.792	9.4	80	0.00

Evaluate Continuing Calibration Report

Sample : CCV
 Data File: J:\ACQUDATA\msvoa12\Data\101209\X4881.D
 Misc :
 Acq On : 12 Oct 2009 12:15 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Oct 12 13:46:21 2009
 QLast Update : Fri Oct 09 14:32:15 2009
 Response via : Initial 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)
94	2-Chlorotoluene	2.484	2.232	10.1	82	0.00
95	4-Chlorotoluene	2.869	2.597	9.5	83	0.00
96	1,3,5-Trimethylbenzene	2.780	2.551	8.2	82	0.00
97	tert-Butylbenzene	2.331	2.187	6.2	82	0.00
98	1,2,4-Trimethylbenzene	2.972	2.790	6.1	82	0.00
99	sec-Butylbenzene	3.728	3.423	8.2	81	0.00
100	p-Isopropyltoluene	2.965	2.790	5.9	82	0.00
101 T	1,3-Dclbenz	1.570	1.471	6.3	84	0.00
102 T	1,4-Dclbenz	1.633	1.464	10.3	84	0.00
103	Benzyl Chloride	0.000	0.000	0.0	149318#	0.00
104	n-Butylbenzene	2.993	2.726	8.9	80	0.00
105 T M	1,2-Dclbenz	1.443	1.312	9.1	84	0.00
106 T	1,2-Dibromo-3-chloropropane	0.113	0.087	✓ 23.0#	68	0.00
107	Nitrobenzene	0.000	0.000	0.0	90	0.00
108 T	1,2,4-Tcbenzene	0.982	0.910	7.3	82	0.00
109	Hexachlorobt	0.446	0.429	3.8	89	0.00
110	Naphthalen	2.131	1.793	15.9	71	0.00
111	1,2,3-Tclbenzene	0.894	0.777	13.1	78	0.00

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Sample : CCV
 Data File: J:\ACQUDATA\MSVOA12\DATA\101209\X4881.D
 Misc :
 Acq On : 12 Oct 2009 12:15 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Oct 12 12:31:32 2009
 QLast Update : Fri Oct 09 14:32:15 2009
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	

Internal Standards							
1) Pentafluorobenzene	4.534	168	762124	50.00	ug/L	0.00	
44) 1,4-Difluorobenzene	5.716	114	1259856	50.00	ug/L	0.00	
71) d5-Chlorobenzene	8.911	117	1120617	50.00	ug/L	0.00	
84) 1,4-Dichlorobenzene-d4	10.904	152	618078	50.00	ug/L	0.00	
System Monitoring Compounds							
46) surr4,Dibrflmethane	4.436	113	361846	52.39	ug/L	0.00	
Spiked Amount	50.000	Range 89 - 119	Recovery	=	104.78%		
49) surr1,1,2-dichloroetha...	4.979	65	517250	50.09	ug/L	0.00	
Spiked Amount	50.000	Range 80 - 120	Recovery	=	100.18%		
65) SURR3,Toluene-d8	7.509	98	1551483	52.95	ug/L	0.00	
Spiked Amount	50.000	Range 87 - 121	Recovery	=	105.90%		
70) SURR2,BFB	9.947	95	651566	54.33	ug/L	0.00	
Spiked Amount	50.000	Range 85 - 122	Recovery	=	108.66%		
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	1.236	85	360681	41.86	ug/L		98
4) Chloromethane	1.345	50	780206	47.93	ug/L		100
5) Vinyl Chloride	1.406	62	492367	49.84	ug/L		97
6) Bromomethane	1.613	94	198725	56.93	ug/L		93
7) Chloroethane	1.668	64	279092	49.65	ug/L		96
8) Freon 21	1.778	67	688566	55.35	ug/L		100
9) Trichlorofluoromethane	1.827	101	578633	56.48	ug/L		97
10) Diethyl Ether	1.998	59	331062	48.23	ug/L		96
11) Freon 123a	1.991	67	407586	54.98	ug/L		91
12) Freon 123	2.028	83	428442	53.51	ug/L		96
13) Acrolein	2.083	56	205257	188.72	ug/L		100
14) 1,1-Dicethene	2.168	96	248339	52.34	ug/L		94
15) Freon 113	2.168	101	272330	54.53	ug/L		99
16) Acetone	2.180	43	113625	45.77	ug/L		100
17) 2-Propanol	2.266	45	375608	719.91	ug/L		98
18) Iodomethane	2.284	142	367564	57.62	ug/L		93
19) Carbon Disulfide	2.345	76	968026	39.54	ug/L		99
20) Acetonitrile	2.376	40	83926	164.25	ug/L		94
21) Allyl Chloride	2.424	76	166445	38.25	ug/L		60
22) Methyl Acetate	2.424	43	300085	40.04	ug/L		98
23) Methylene Chloride	2.516	84	397442	44.90	ug/L		90
24) TBA	2.577	59	467416	636.94	ug/L		95
25) Acrylonitrile	2.699	53	752262	213.85	ug/L		98
26) Methyl-t-Butyl Ether	2.747	73	870044	44.47	ug/L		99
27) trans-1,2-Dichloroethene	2.753	96	387528	47.24	ug/L		98
28) 1,1-Dicethane	3.138	63	891001	45.06	ug/L		99
29) Vinyl Acetate	3.174	86	45519	44.90	ug/L		63
30) DIPE	3.211	45	2404744	47.16	ug/L		99
31) 2-Chloro-1,3-Butadiene	3.241	53	992201	51.92	ug/L		98
32) ETBE	3.619	59	1481220	46.65	ug/L		99
33) 2,2-Dichloropropane	3.790	77	569347	57.11	ug/L		97
34) cis-1,2-Dichloroethene	3.784	96	415487	46.62	ug/L		94
35) 2-Butanone	3.790	43	181976	36.95	ug/L		98
37) Propionitrile	3.845	54	248587	202.64	ug/L		95
38) Bromochloromethane	4.089	130	211640	47.17	ug/L		93

10/12/09

Sample : CCV
 Data File: J:\ACQUATA\MSVOA12\DATA\101209\X4881.D
 Misc :
 Acq On : 12 Oct 2009 12:15 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Oct 12 12:31:32 2009
 QLast Update : Fri Oct 09 14:32:15 2009
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
39) Methacrylonitrile	4.058	67	98893	39.61	ug/L	86
40) Tetrahydrofuran	4.168	42	112276	35.50	ug/L	93
41) Chloroform	4.204	83	689632	47.14	ug/L	98
42) 1,1,1-Trichloroethane	4.497	97	610127	52.46	ug/L	94
43) TAME	5.326	73	820713	44.16	ug/L	96
45) Cyclohexane	4.601	41	713798	48.19	ug/L	96
47) Carbontetrachloride	4.765	121	153648	55.12	ug/L	92
48) 1,1-Dichloropropene	4.759	75	547737	47.90	ug/L	100
50) Benzene	5.101	78	1576495	46.04	ug/L	95
51) 1,2-Dichloroethane	5.113	62	667745	47.83	ug/L	98
52) Iso-Butyl Alcohol	4.979	43	274781	634.28	ug/L	98
53) n-Heptane	5.594	43	1071125	47.14	ug/L	95
54) Trichloroethene	6.070	130	360478	46.68	ug/L	96
55) Methylcyclohexane	6.332	55	869312	47.46	ug/L	96
56) 1,2-Diclp propane	6.344	63	476894	45.82	ug/L	95
57) Dibromomethane	6.478	93	176330	44.88	ug/L	97
58) 1,4-Dioxane	6.545	88	354931318	495.35	ug/L	527.01 96 MKR
59) Methyl Methacrylate	6.545	69	164713	38.76	ug/L	98
60) Bromodichloromethane	6.692	83	516692	49.98	ug/L	99
62) 2-Chloroethylvinyl Ether	7.076	63	203224	41.25	ug/L	98
63) cis-1,3-Dichloropropene	7.216	75	588794	50.00	ug/L	99
64) 4-Methyl-2-pentanone	7.399	43	384909	43.61	ug/L	97
66) Toluene	7.576	91	1645659	46.93	ug/L	99
67) trans-1,3-Dichloropropene	7.807	75	498491	51.19	ug/L	98
68) Ethyl Methacrylate	7.935	69	348226	39.47	ug/L	90
69) 1,1,2-Trichloroethane	7.984	97	260491	45.59	ug/L	97
72) Tetrachloroethene	8.137	164	293401	48.28	ug/L	95
73) 2-Hexanone	8.252	43	257301	41.51	ug/L	97
74) 1,3-Dichloropropane	8.149	76	486637	44.09	ug/L	92
75) Dibromochloromethane	8.362	129	304461	50.09	ug/L	99
76) N-Butyl Acetate	8.399	43	675291	39.84	ug/L	100
77) 1,2-Dibromoethane	8.460	107	252423	44.50	ug/L	100
78) Chlorobenzene	8.935	112	1029996	46.97	ug/L	98
79) 1,1,1,2-Tetrachloroethane	9.014	131	358139	54.28	ug/L	96
80) Ethylbenzene	9.045	106	583318	46.67	ug/L	100
81) (m+p)Xylene	9.155	106	1401357	95.68	ug/L	97
82) o-Xylene	9.502	106	676342	47.59	ug/L	98
83) Styrene	9.514	104	1148859	47.57	ug/L	98
85) Bromoform	9.655	173	158195	48.89	ug/L	95
86) Isopropylbenzene	9.825	105	1776799	46.53	ug/L	99
87) Cyclohexanone	9.880	55	811689	1288.67	ug/L	98
88) trans-1,4-Dichloro-2-B...	10.112	53	155859	45.91	ug/L #	98
89) 1,1,2,2-Tetrachloroethane	10.063	83	286109	39.83	ug/L	97
90) Bromobenzene	10.069	156	413653	45.80	ug/L	82
92) 1,2,3-Trichloropropane	10.100	110	93836	45.44	ug/L	89
93) n-Propylbenzene	10.173	91	2343964	45.29	ug/L	99
94) 2-Chlorotoluene	10.234	91	1379401	44.92	ug/L	98
95) 4-Chlorotoluene	10.325	91	1605353	45.26	ug/L	97
96) 1,3,5-Trimethylbenzene	10.319	105	1576537	45.88	ug/L	98
97) tert-Butylbenzene	10.587	119	1352035	46.92	ug/L	97
98) 1,2,4-Trimethylbenzene	10.630	105	1724274	46.93	ug/L	100
99) sec-Butylbenzene	10.770	105	2115818	45.91	ug/L	98

Sample : CCV
 Data File: J:\ACQUDATA\MSVOA12\DATA\101209\X4881.D
 Misc :
 Acq On : 12 Oct 2009 12:15 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Oct 12 12:31:32 2009
 QLast Update : Fri Oct 09 14:32:15 2009
 Response via : Initial Calibration

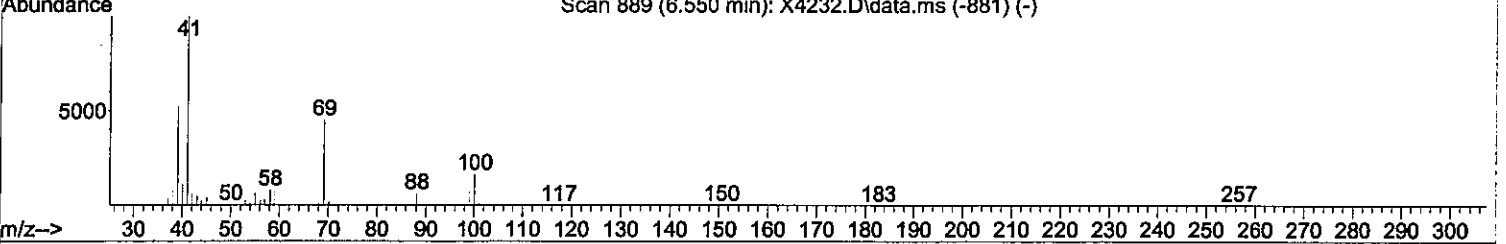
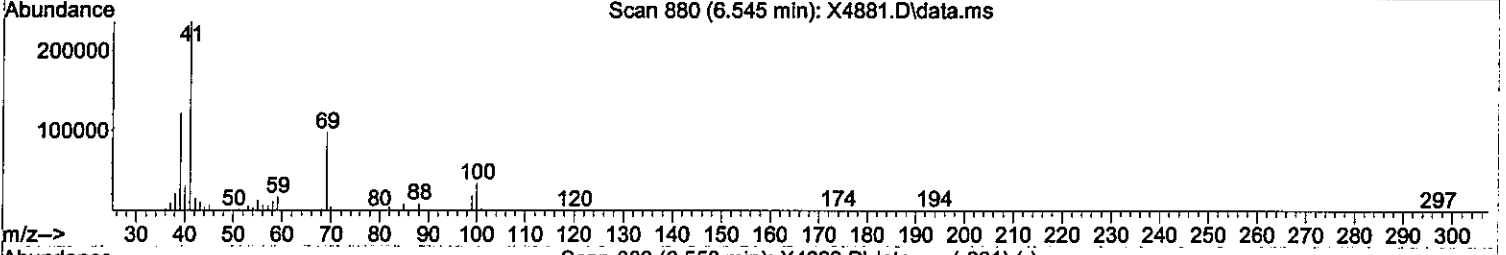
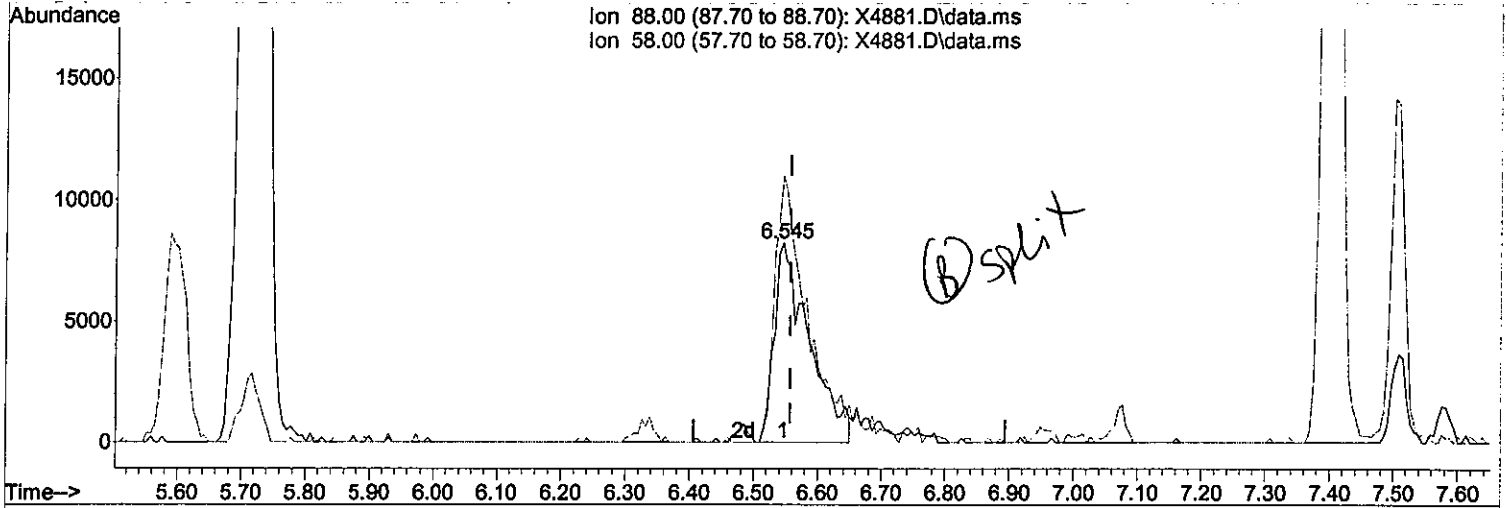
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
100) p-Isopropyltoluene	10.886	119	1724514	47.05	ug/L	100
101) 1,3-Dclbenz	10.849	146	909379	46.87	ug/L	98
102) 1,4-Dclbenz	10.923	146	904966	44.82	ug/L	98
104) n-Butylbenzene	11.209	91	1684986	45.55	ug/L	99
105) 1,2-Dclbenz	11.215	146	810815	45.46	ug/L	96
106) 1,2-Dibromo-3-chloropr...	11.758	157	53702	38.60	ug/L	93
108) 1,2,4-Tclbenzene	12.282	180	562146	46.29	ug/L	99
109) Hexachlorobt	12.386	225	265147	48.09	ug/L	99
110) Naphthalen	12.422	128	1108462	42.09	ug/L	99
111) 1,2,3-Tclbenzene	12.563	180	480146	43.46	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Sample : CCV
Data File: J:\ACQUDATA\msvoa12\Data\101209\X4881.D
Misc :
Acq On : 12 Oct 2009 12:15 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 12 12:31:32 2009
QLast Update : Fri Oct 09 14:32:15 2009
Response via : Initial Calibration



TIC: X4881.D\data.ms

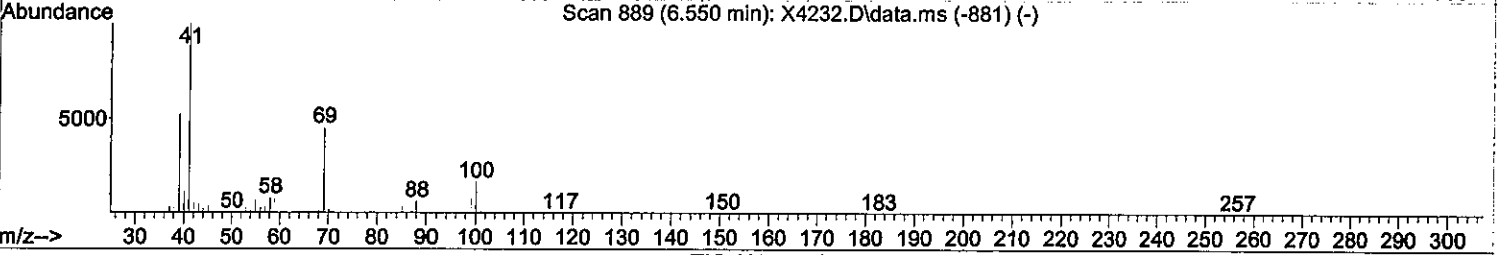
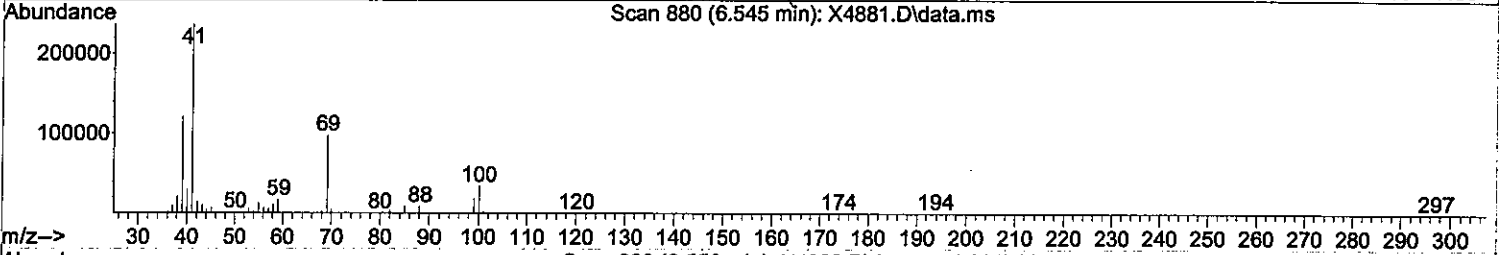
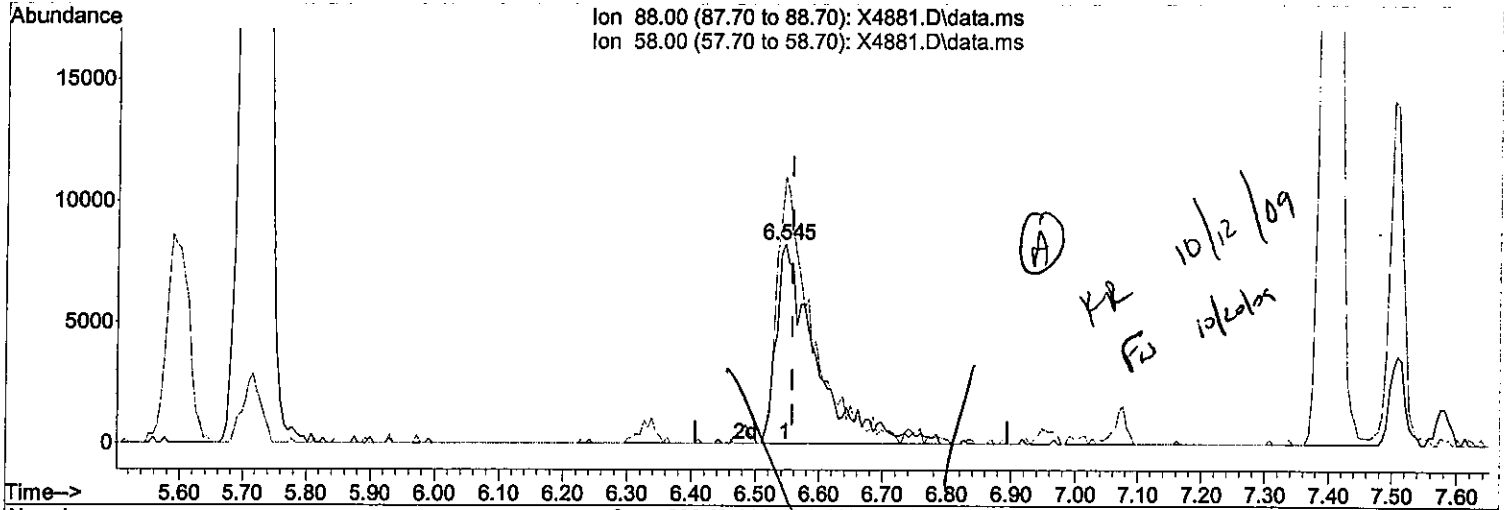
(58) 1,4-Dioxane
6.545min (-0.011) 495.35 ug/L
response 31318

Ion	Exp%	Act%
88.00	100	100
58.00	128.90	133.57
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : CCV
 Data File: J:\ACQUDATA\msvoa12\Data\101209\X4881.D
 Misc :
 Acq On : 12 Oct 2009 12:15 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Oct 12 12:31:32 2009
 QLast Update : Fri Oct 09 14:32:15 2009
 Response via : Initial Calibration



TIC: X4881.D\data.ms

(58) 1,4-Dioxane

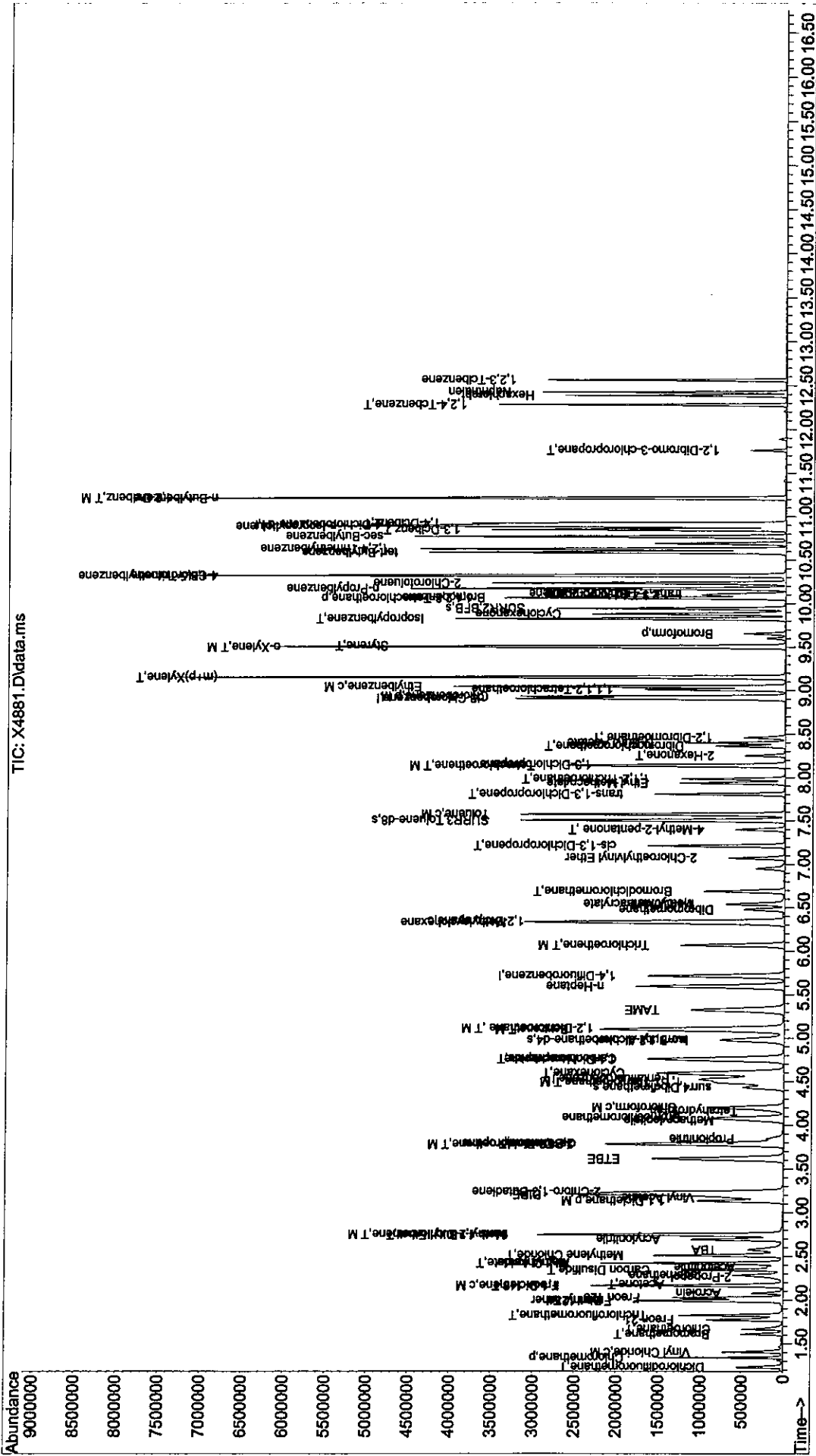
6.545min (-0.011) 567.01 ug/L m

response 35849

Ion	Exp%	Act%
88.00	100	100
58.00	128.90	133.57
0.00	0.00	0.00
0.00	0.00	0.00

Sample : CCV
Data File: J:\ACQDATA\MSVOA12\DATA\101209\X4881.D
Misc :
Acq On : 12 Oct 2009 12:15 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : J:\ACQDATA\MSVOA12\METHODS\W091509.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 12 12:31:32 2009
QLast Update : Fri Oct 09 14:32:15 2009
Response via : Initial Calibration



00193

Evaluate Continuing Calibration Report

Sample : CCV
 Data File: J:\ACQUATA\msvoa12\Data\101309\X4909.D
 Misc :
 Acq On : 13 Oct 2009 1:27 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Oct 13 13:49:23 2009
 QLast Update : Fri Oct 09 14:32:15 2009
 Response via : Initial 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)
1 I Pentafluorobenzene	1.000	1.000	0.0	85	0.00
2 T Dichlorodifluoromethane	0.565	0.486	14.0	66	0.00
3 Freon 114	0.000	0.000	0.0	101	0.00
4 p Chloromethane	1.068	1.025	4.0	78	0.00
5 c M Vinyl Chloride	0.648	0.649	-0.2	79	0.00
6 T Bromomethane	0.269	0.265	-16.0	88	0.00 KR
7 T Chloroethane	0.369	0.369	0.0	83	0.00
8 Freon 21	0.816	0.947	-16.1	98	0.00
9 T Trichlorofluoromethane	0.672	0.788	-17.3	94	0.00
10 Diethyl Ether	0.450	0.450	0.0	80	0.00
11 Freon 123a	0.486	0.562	-15.6	97	0.00
12 Freon 123	0.525	0.587	-11.8	93	0.00
13 Acrolein	0.071	0.050	29.6#	58	0.00
14 c M 1,1-Dicethene	0.311	0.339	-9.0	86	0.00
15 T Freon 113	0.328	0.377	-14.9	91	0.00
16 T Acetone	0.163	0.154	5.5	78	0.00
17 2-Propanol	0.034	0.028	17.6	63	-0.02
18 Iodomethane	0.341	0.504	-20.3	47.8#	99 0.00 KR
19 T Carbon Disulfide	1.606	1.274	20.7#	87	0.00
20 Acetonitrile	0.034	0.019	44.1#	59	0.00
21 Allyl Chloride	0.286	0.221	22.7#	72	0.00
22 T Methyl Acetate	0.492	0.433	12.0	78	0.00
23 T Methylene Chloride	0.581	0.530	8.8	78	0.00
24 TBA	0.037	0.037	24.2	0.0	70 -0.01 KR
25 Acrylonitrile	0.231	0.206	10.8	72	-0.01
26 T Methyl-t-Butyl Ether	1.284	1.199	6.6	76	0.00
27 T M trans-1,2-Dichloroethene	0.538	0.545	-1.3	82	0.00
28 p M 1,1-Dicethane	1.297	1.248	3.8	80	0.00
29 Vinyl Acetate	0.067	0.051	23.9#	60	-0.02
30 DIPE	3.346	3.415	-2.1	83	0.00
31 2-Chloro-1,3-Butadiene	1.254	1.349	-7.6	88	0.00
32 ETBE	2.083	2.132	-2.4	84	0.00
33 2,2-Dichloropropane	0.654	0.789	-20.6#	96	0.00
34 T M cis-1,2-Dichloroethene	0.585	0.568	2.9	80	0.00
35 T 2-Butanone	0.323	0.261	19.2	71	-0.01
36 Ethyl Acetate	0.000	0.000	0.0	82	0.01
37 Propionitrile	0.080	0.069	13.7	70	-0.01
38 Bromochloromethane	0.294	0.284	3.4	80	0.00
39 Methacrylonitrile	0.164	0.136	17.1	67	0.00
40 Tetrahydrofuran	0.207	0.163	21.3#	67	-0.02
41 c M Chloroform	0.960	0.954	0.6	83	0.00
42 T M 1,1,1-Trichloroethane	0.763	0.868	-13.8	90	-0.01
43 TAME	1.219	1.194	2.1	79	0.00
44 I 1,4-Difluorobenzene	1.000	1.000	0.0	83	0.00
45 T Cyclohexane	0.588	0.608	-3.4	86	0.00
46 s surr4,Dibrflmethane	0.274	0.291	-6.2	84	0.00
47 T Carbontetrachloride	0.111	0.134	-20.7#	97	0.00

KR 10/13/09

Evaluate Continuing Calibration Report

Sample : CCV
 Data File: J:\ACQUATA\msvoa12\Data\101309\X4909.D
 Misc :
 Acq On : 13 Oct 2009 1:27 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Oct 13 13:49:23 2009
 QLast Update : Fri Oct 09 14:32:15 2009
 Response via : Initial 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)	
48	1,1-Dichloropropene	0.454	0.458	-0.9	80	0.00
49 s	surrl,1,2-dichloroethane-d4	0.410	0.421	-2.7	83	0.00
50 T M	Benzene	1.359	1.322	2.7	78	0.00
51 T M	1,2-Dichloroethane	0.554	0.557	-0.5	84	0.00
52	Iso-Butyl Alcohol	0.013	0.014	22.6 -7.7	70	-0.01 YR
53	n-Heptane	0.902	0.746	17.3	66	0.00
54 T M	Trichloroethene	0.306	0.311	-1.6	84	0.00
55	Methylcyclohexane	0.727	0.707	2.8	79	0.00
56 c	1,2-Diclpropane	0.413	0.399	3.4	77	0.00
57	Dibromomethane	0.156	0.153	1.9	81	0.00
58	1,4-Dioxane	0.003	0.002	WT 33.3#	54	0.00
59	Methyl Methacrylate	0.144	0.143	15.5 0.7	71	0.00 YR
60 T	Bromodichloromethane	0.410	0.432	-5.4	83	0.00
61	2-Nitropropane	0.000	0.000	0.0	85	0.00
62	2-Chloroethylvinyl Ether	0.196	0.173	11.7	69	0.00
63 T	cis-1,3-Dichloropropene	0.467	0.495	-6.0	79	0.00
64 T	4-Methyl-2-pentanone	0.350	0.332	5.1	74	0.00
65 s	SURR3,Toluene-d8	1.163	1.222	-5.1	83	0.00
66 c M	Toluene	1.392	1.383	0.6	80	0.00
67 T	trans-1,3-Dichloropropene	0.386	0.421	-9.1	81	0.00
68	Ethyl Methacrylate	0.289	0.307	12.6 -6.2	73	0.00 YR
69 T	1,1,2-Trichloroethane	0.227	0.218	4.0	76	0.00
70 s	SURR2,BFB	0.476	0.515	-8.2	86	0.00
71 I	d5-Chlorobenzene	1.000	1.000	0.0	86	0.00
72 T M	Tetrachloroethene	0.271	0.278	-2.6	88	0.00
73 T	2-Hexanone	0.277	0.251	9.4	75	-0.01
74	1,3-Dichloropropane	0.493	0.462	6.3	77	0.00
75 T	Dibromochloromethane	0.271	0.287	-5.9	85	0.00
76	N-Butyl Acetate	0.601	0.630	16.9 -4.8	75	-0.01 YR
77 T	1,2-Dibromoethane	0.253	0.237	6.3	79	0.00
78 p M	Chlorobenzene	0.978	0.951	2.8	82	0.00
79	1,1,1,2-Tetrachloroethane	0.294	0.334	-13.6	90	0.00
80 c M	Ethylbenzene	0.558	0.544	2.5	82	0.00
81 T	(m+p)Xylene	0.653	0.648	0.8	81	0.00
82 T M	o-Xylene	0.634	0.626	1.3	79	0.00
83 T	Styrene	1.077	1.071	0.6	79	0.00
84 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	91	0.00
85 p	Bromoform	0.262	0.261	0.4	83	-0.01
86 T	Isopropylbenzene	3.089	2.955	4.3	80	0.00
87	Cyclohexanone	0.051	0.086	WT -68.6#	143	0.00
88	trans-1,4-Dichloro-2-Butene	0.275	0.259	5.8	82	-0.01
89 p	1,1,2,2-Tetrachloroethane	0.581	0.475	18.2	73	0.00
90	Bromobenzene	0.731	0.707	3.3	84	0.00
91	4-Ethyltoluene	0.000	0.000	0.0	83	0.00
92	1,2,3-Trichloropropane	0.167	0.154	7.8	77	0.00
93	n-Propylbenzene	4.187	3.882	7.3	79	0.00

Evaluate Continuing Calibration Report

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 Data File: J:\ACQUDATA\msvoa12\Data\101309\X4909.D
 Misc :
 Acq On : 13 Oct 2009 1:27 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Oct 13 13:49:23 2009
 QLast Update : Fri Oct 09 14:32:15 2009
 Response via : Initial 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)
94	2-Chlorotoluene	2.484	2.283	8.1	80	0.00
95	4-Chlorotoluene	2.869	2.684	6.4	82	0.00
96	1,3,5-Trimethylbenzene	2.780	2.652	4.6	82	0.00
97	tert-Butylbenzene	2.331	2.214	5.0	80	0.00
98	1,2,4-Trimethylbenzene	2.972	2.823	5.0	80	0.00
99	sec-Butylbenzene	3.728	3.344	10.3	76	0.00
100	p-Isopropyltoluene	2.965	2.737	7.7	77	0.00
101 T	1,3-Dclbenz	1.570	1.494	4.8	82	0.00
102 T	1,4-Dclbenz	1.633	1.519	7.0	84	0.00
103	Benzyl Chloride	0.000	0.000	0.0	239#	-0.05
104	n-Butylbenzene	2.993	2.579	13.8	73	0.00
105 T M	1,2-Dclbenz	1.443	1.344	6.9	83	0.00
106 T	1,2-Dibromo-3-chloropropane	0.113	0.095	15.9	71	0.00
107	Nitrobenzene	0.000	0.000	0.0	90	0.00
108 T	1,2,4-Tcbenzene	0.982	0.873	11.1	75	0.00
109	Hexachlorobt	0.446	0.349	21.7#	69	0.00
110	Naphthalen	2.131	1.803	15.4	68	0.00
111	1,2,3-Tclbenzene	0.894	0.754	15.7	72	0.00

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Sample : CCV
 Data File: J:\ACQUATA\MSVOA12\DATA\101309\X4909.D
 Misc :
 Acq On : 13 Oct 2009 1:27 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Oct 13 13:43:01 2009
 QLast Update : Fri Oct 09 14:32:15 2009
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Pentafluorobenzene	4.534	168	715176	50.00	ug/L	0.00	
44) 1,4-Difluorobenzene	5.716	114	1182000	50.00	ug/L	0.00	
71) d5-Chlorobenzene	8.911	117	1068731	50.00	ug/L	0.00	
84) 1,4-Dichlorobenzene-d4	10.905	152	593155	50.00	ug/L	0.00	
System Monitoring Compounds							
46) surr4,Dibrflmethane	4.436	113	343539	53.01	ug/L	0.00	
Spiked Amount	50.000	Range 89 - 119	Recovery	=	106.02%		
49) surr1,1,2-dichloroetha...	4.979	65	498018	51.41	ug/L	0.00	
Spiked Amount	50.000	Range 80 - 120	Recovery	=	102.82%		
65) SURR3,Toluene-d8	7.509	98	1444886	52.56	ug/L	0.00	
Spiked Amount	50.000	Range 87 - 121	Recovery	=	105.12%		
70) SURR2,BFB	9.947	95	608786	54.11	ug/L	0.00	
Spiked Amount	50.000	Range 85 - 122	Recovery	=	108.22%		
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	1.236	85	347830	43.02	ug/L		97
4) Chloromethane	1.345	50	733167	48.00	ug/L		100
5) Vinyl Chloride	1.412	62	464370	50.09	ug/L		95
6) Bromomethane	1.614	94	189817	57.99	ug/L		95
7) Chloroethane	1.669	64	264211	50.09	ug/L		99
8) Freon 21	1.778	67	677350	58.03	ug/L		98
9) Trichlorofluoromethane	1.827	101	563225	58.58	ug/L		97
10) Diethyl Ether	1.998	59	321964	49.98	ug/L		96
11) Freon 123a	1.992	67	402120	57.80	ug/L		90
12) Freon 123	2.028	83	419573	55.85	ug/L		96
13) Acrolein	2.083	56	180434	176.79	ug/L		98
14) 1,1-Dicethene	2.168	96	242126	54.38	ug/L		91
15) Freon 113	2.168	101	269461	57.50	ug/L		98
16) Acetone	2.181	43	110126	47.27	ug/L		95
17) 2-Propanol	2.272	45	398999	814.94	ug/L		97
18) Iodomethane	2.284	142	360312	60.17	ug/L		96
19) Carbon Disulfide	2.345	76	910791	39.64	ug/L		99
20) Acetonitrile	2.382	40	68698	143.27	ug/L #		92
21) Allyl Chloride	2.479	76	1215	0.30	ug/L		65
22) Methyl Acetate	2.424	43	309726	44.03	ug/L		99
23) Methylene Chloride	2.516	84	379334	45.67	ug/L		93
24) TBA	2.583	59	531459	758.40	ug/L		100
25) Acrylonitrile	2.693	53	735499	222.81	ug/L		99
26) Methyl-t-Butyl Ether	2.748	73	857442	46.70	ug/L		96
27) trans-1,2-Dichloroethene	2.754	96	389527	50.60	ug/L		99
28) 1,1-Dicethane	3.138	63	892277	48.09	ug/L		96
29) Vinyl Acetate	3.174	86	36722	38.60	ug/L		81
30) DIPE	3.211	45	2442003	51.03	ug/L		99
31) 2-Chloro-1,3-Butadiene	3.241	53	964643	53.79	ug/L		95
32) ETBE	3.619	59	1524664	51.17	ug/L		99
33) 2,2-Dichloropropane	3.796	77	564544	60.35	ug/L		96
34) cis-1,2-Dichloroethene	3.784	96	406448	48.60	ug/L		99
35) 2-Butanone	3.790	43	186649	40.38	ug/L		98
37) Propionitrile	3.851	54	246436	214.08	ug/L		96
38) Bromochloromethane	4.089	130	203116	48.24	ug/L		92

Handwritten: KR
10/13/09

Sample : CCV
 Data File: J:\ACQUATA\MSVOA12\DATA\101309\X4909.D
 Misc :
 Acq On : 13 Oct 2009 1:27 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Oct 13 13:43:01 2009
 QLast Update : Fri Oct 09 14:32:15 2009
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
39) Methacrylonitrile	4.064	67	97103	41.45	ug/L	83
40) Tetrahydrofuran	4.168	42	116393	39.22	ug/L	99
41) Chloroform	4.205	83	682125	49.69	ug/L	98
42) 1,1,1-Trichloroethane	4.497	97	620804	56.88	ug/L	94
43) TAME	5.326	73	853642	48.95	ug/L	96
45) Cyclohexane	4.601	41	718702	51.72	ug/L	97
47) Carbontetrachloride	4.765	121	158943	60.78	ug/L	100
48) 1,1-Dichloropropene	4.759	75	541243	50.45	ug/L	97
50) Benzene	5.101	78	1563138	48.65	ug/L	95
51) 1,2-Dichloroethane	5.113	62	658215	50.25	ug/L	98
52) Iso-Butyl Alcohol	4.979	43	320388	772.06	ug/L	94
53) n-Heptane	5.595	43	881965	41.37	ug/L	95
54) Trichloroethene	6.070	130	367207	50.68	ug/L	94
55) Methylcyclohexane	6.332	55	835771	48.63	ug/L	97
56) 1,2-Diclp propane	6.344	63	471470	48.29	ug/L	94
57) Dibromomethane	6.479	93	181229	49.17	ug/L	98
58) 1,4-Dioxane	6.558	88	42498	716.45	ug/L	91
59) Methyl Methacrylate	6.546	69	168641	42.24	ug/L	95
60) Bromodichloromethane	6.692	83	510516	52.63	ug/L	99
62) 2-Chloroethylvinyl Ether	7.076	63	204488	44.24	ug/L	98
63) cis-1,3-Dichloropropene	7.216	75	585471	52.99	ug/L	99
64) 4-Methyl-2-pentanone	7.399	43	392526	47.40	ug/L	98
66) Toluene	7.576	91	1635259	49.70	ug/L	100
67) trans-1,3-Dichloropropene	7.808	75	497155	54.42	ug/L	98
68) Ethyl Methacrylate	7.936	69	362537	43.71	ug/L	92
69) 1,1,2-Trichloroethane	7.984	97	257337	48.00	ug/L	95
72) Tetrachloroethene	8.137	164	296959	51.24	ug/L	94
73) 2-Hexanone	8.253	43	268721	45.45	ug/L	94
74) 1,3-Dichloropropane	8.149	76	493250	46.85	ug/L	98
75) Dibromochloromethane	8.362	129	307091	52.97	ug/L	99
76) N-Butyl Acetate	8.399	43	672848	41.54	ug/L	98
77) 1,2-Dibromoethane	8.460	107	253003	46.76	ug/L	98
78) Chlorobenzene	8.935	112	1016611	48.61	ug/L	98
79) 1,1,1,2-Tetrachloroethane	9.015	131	357095	56.75	ug/L	97
80) Ethylbenzene	9.051	106	581031	48.74	ug/L	99
81) (m+p)Xylene	9.155	106	1384428	99.11	ug/L	97
82) o-Xylene	9.502	106	668806	49.35	ug/L	97
83) Styrene	9.515	104	1144266	49.69	ug/L	98
85) Bromoform	9.655	173	155007	49.92	ug/L	96
86) Isopropylbenzene	9.825	105	1752512	47.82	ug/L	99
87) Cyclohexanone	9.880	55	1017545	1683.38	ug/L	98
88) trans-1,4-Dichloro-2-B...	10.112	53	153799	47.21	ug/L #	95
89) 1,1,2,2-Tetrachloroethane	10.063	83	281636	40.85	ug/L	100
90) Bromobenzene	10.069	156	419528	48.40	ug/L	85
92) 1,2,3-Trichloropropane	10.100	110	91119	45.97	ug/L	99
93) n-Propylbenzene	10.173	91	2302609	46.36	ug/L	99
94) 2-Chlorotoluene	10.234	91	1354199	45.95	ug/L	99
95) 4-Chlorotoluene	10.325	91	1591962	46.77	ug/L	97
96) 1,3,5-Trimethylbenzene	10.319	105	1572971	47.70	ug/L	95
97) tert-Butylbenzene	10.588	119	1313081	47.48	ug/L	98
98) 1,2,4-Trimethylbenzene	10.630	105	1674675	47.50	ug/L	99
99) sec-Butylbenzene	10.770	105	1983666	44.86	ug/L	98

Sample : CCV
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Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Oct 13 13:43:01 2009
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 Response via : Initial Calibration

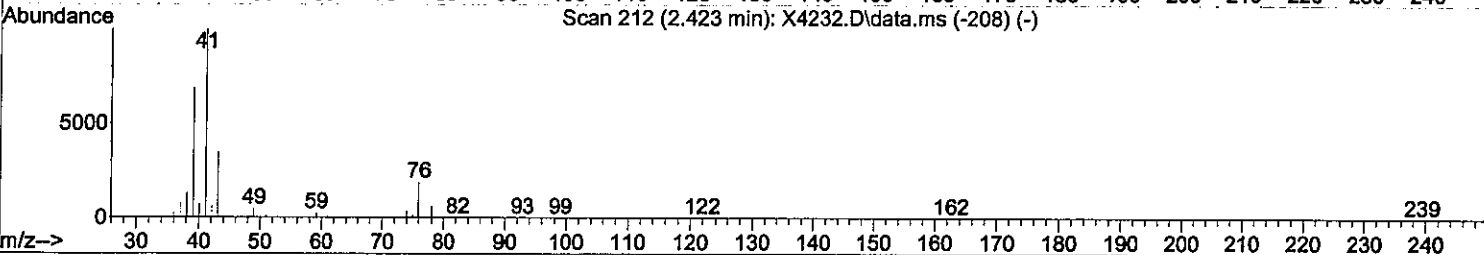
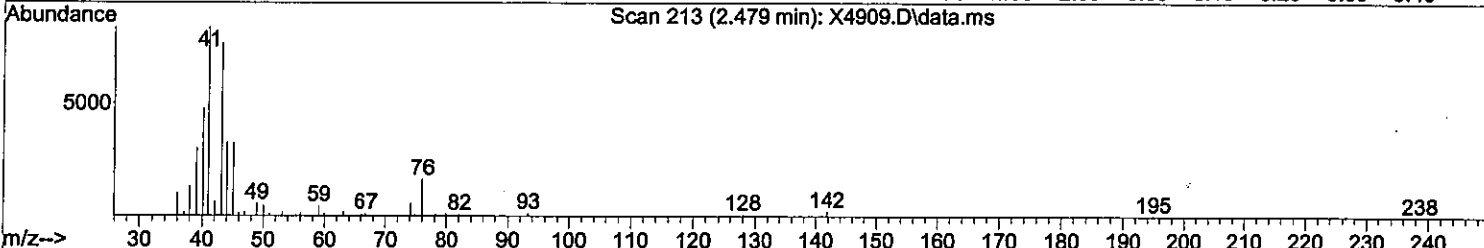
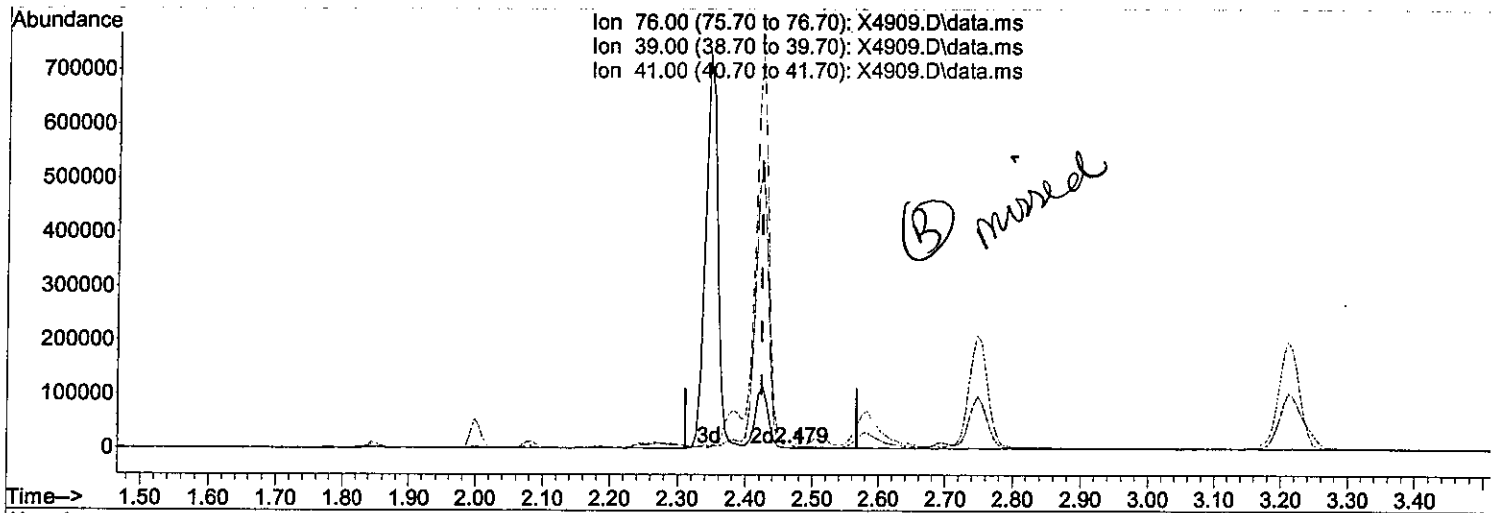
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
100) p-Isopropyltoluene	10.886	119	1623261	46.15	ug/L	99
101) 1,3-Dclbenz	10.850	146	886224	47.59	ug/L	98
102) 1,4-Dclbenz	10.923	146	900912	46.49	ug/L	100
104) n-Butylbenzene	11.209	91	1529535	43.08	ug/L	99
105) 1,2-Dclbenz	11.215	146	797377	46.58	ug/L	96
106) 1,2-Dibromo-3-chloropr...	11.758	157	56313	42.18	ug/L	96
108) 1,2,4-Tcbenzene	12.282	180	517725	44.43	ug/L	100
109) Hexachlorobt	12.386	225	206868	39.09	ug/L	95
110) Naphthalen	12.423	128	1069220	42.30	ug/L	99
111) 1,2,3-Tclbenzene	12.563	180	447016	42.16	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Sample : CCV
 Data File: J:\ACQUDATA\msvoa12\Data\101309\X4909.D
 Misc :
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 Quant Time: Oct 13 13:43:01 2009
 QLast Update : Fri Oct 09 14:32:15 2009
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TIC: X4909.D\data.ms

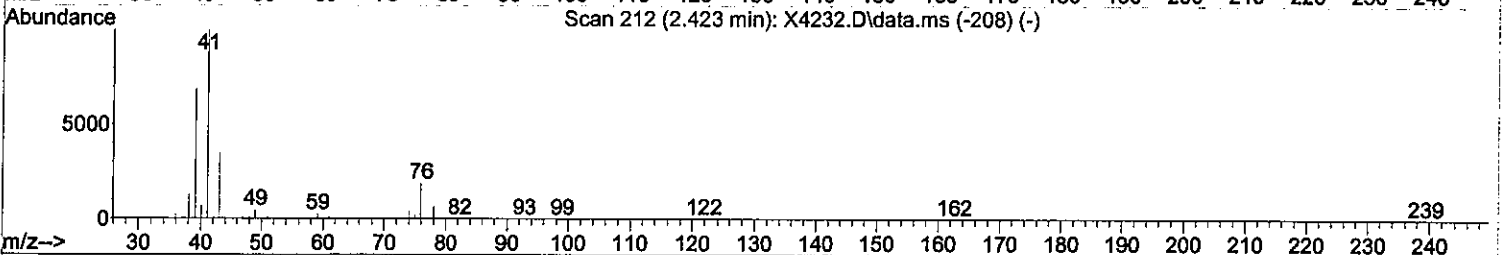
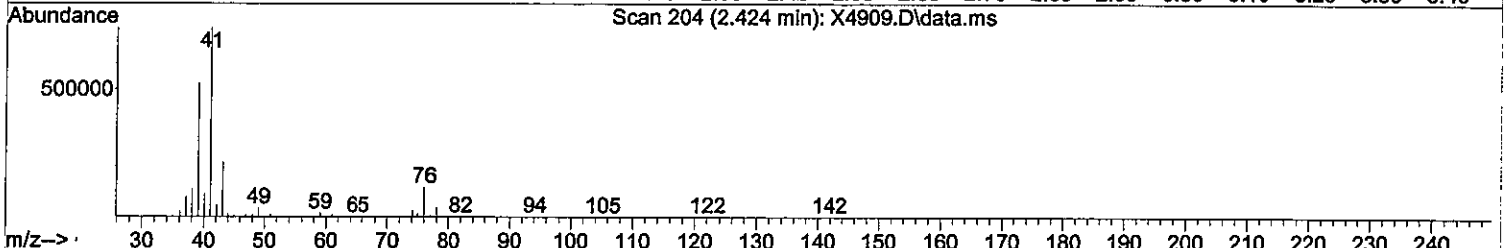
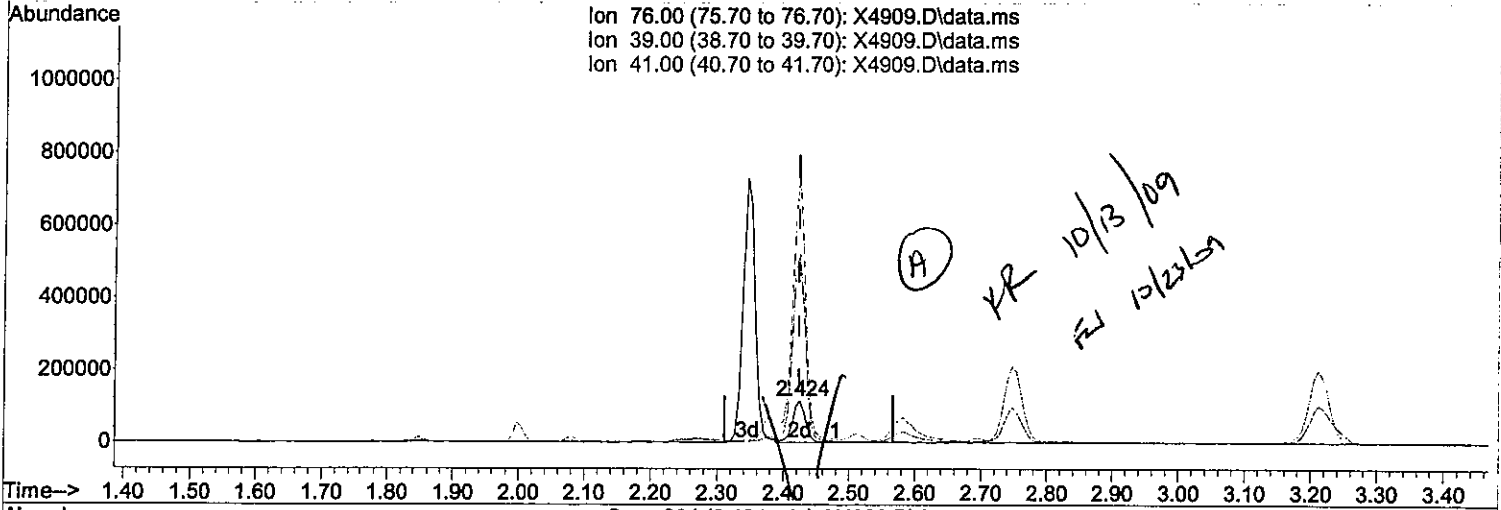
(21) Allyl Chloride
 2.479min (+0.056) 0.30 ug/L
 response 1215

Ion	Exp%	Act%
76.00	100	100
39.00	326.90	177.32
41.00	507.80	476.74
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : CCV
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 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Oct 13 13:43:01 2009
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 Response via : Initial Calibration



(21) Allyl Chloride

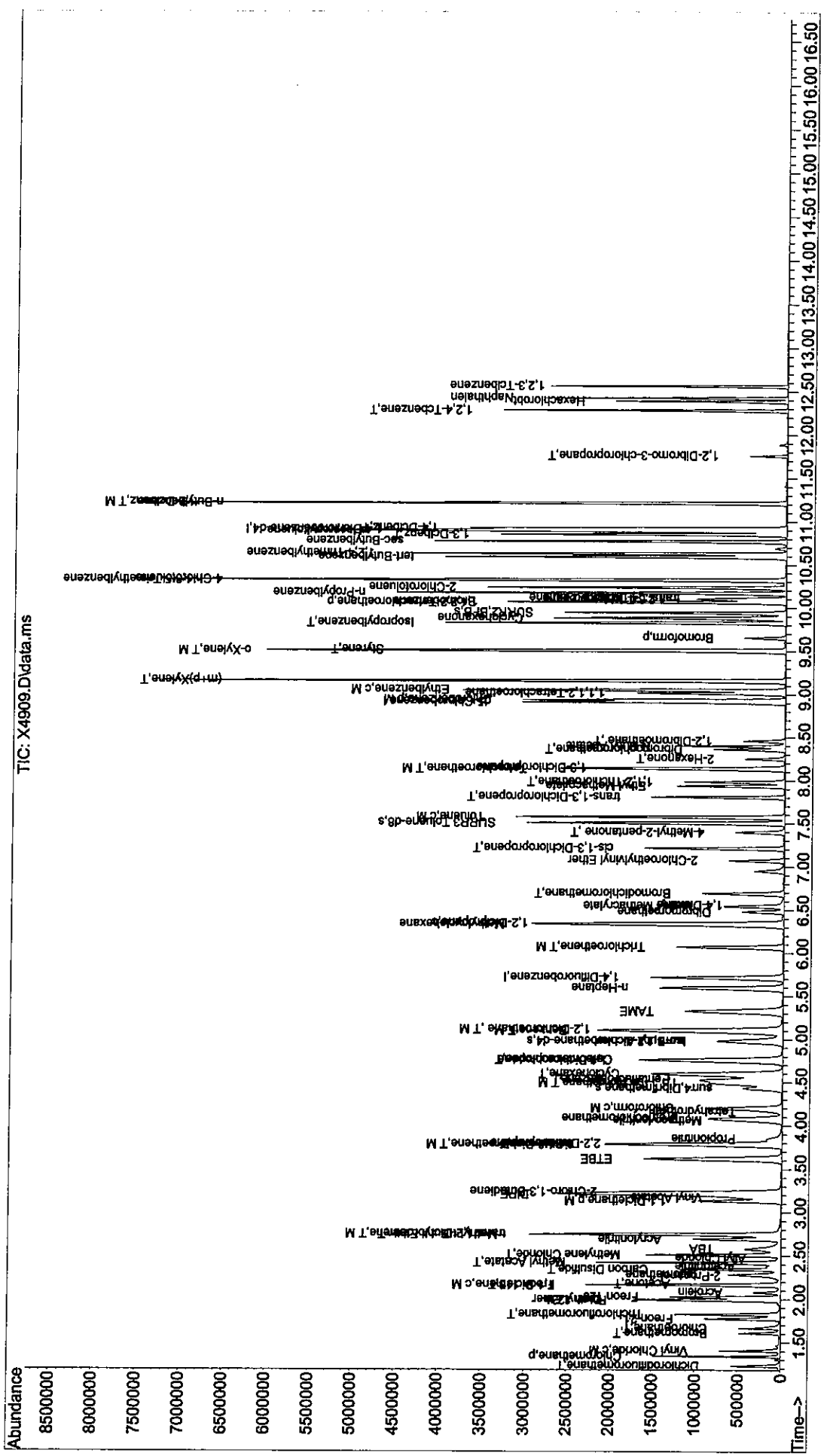
2.424min (+0.001) 38.74 ug/L m

response 158196

Ion	Exp%	Act%
76.00	100	100
39.00	326.90	450.84
41.00	507.80	637.94#
0.00	0.00	0.00

Sample : CCV
Data File: J:\ACQDATA\MSVOA12\DATA\101309\X4909.D
Misc :
Acq On : 13 Oct 2009 1:27 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : J:\ACQDATA\MSVOA12\METHODS\W091509.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 13 13:43:01 2009
QLast Update : Fri Oct 09 14:32:15 2009
Response via : Initial Calibration



00202

VOLATILE ORGANICS

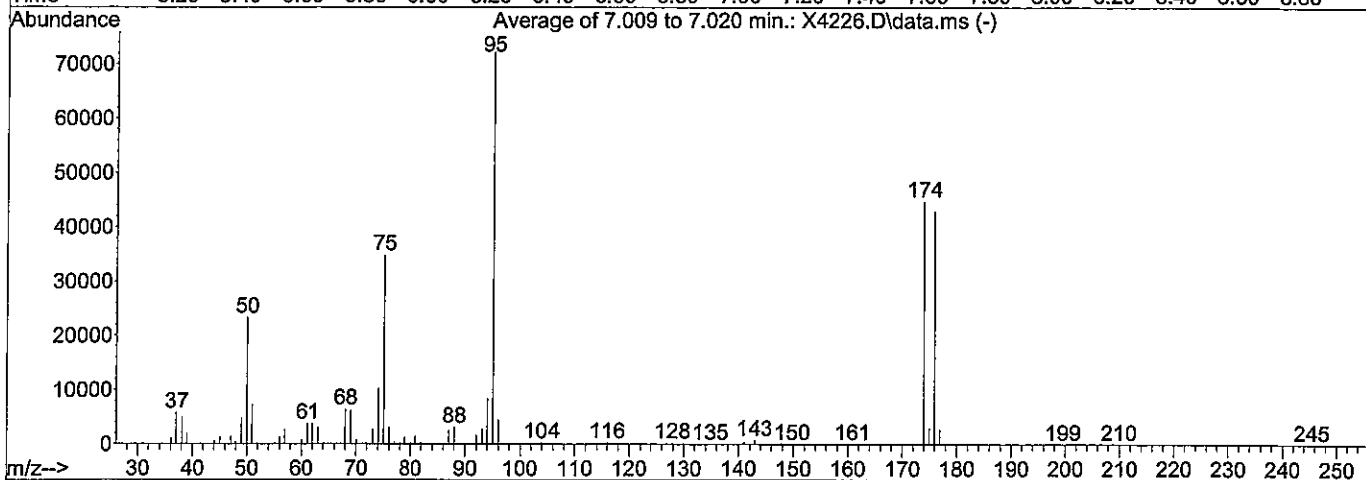
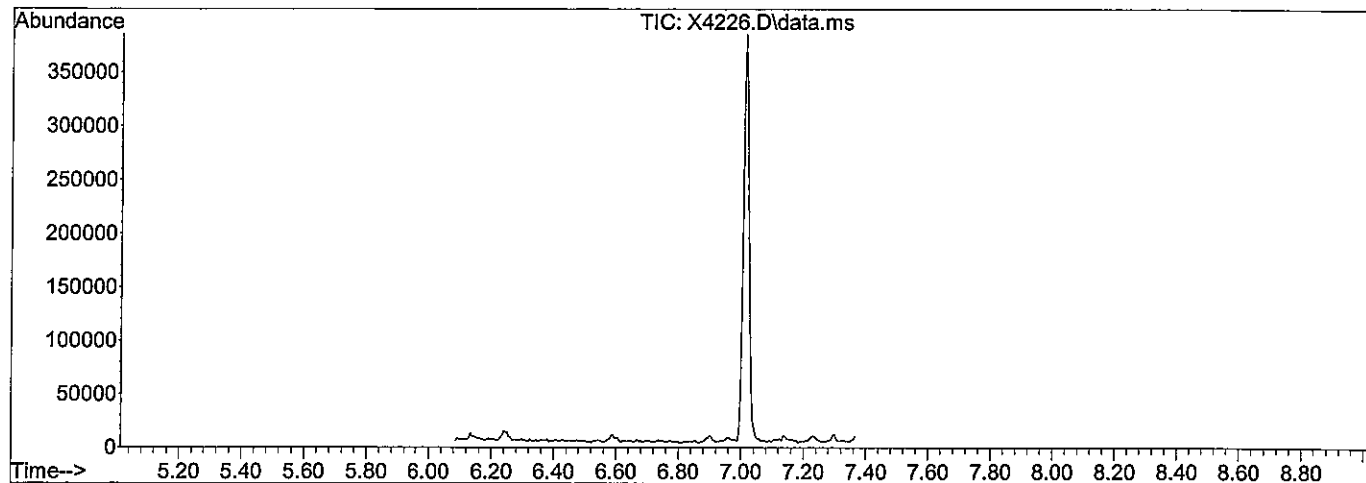
RAW QC DATA

Data Path : J:\ACQUDATA\MSVOA12\DATA\091509\Snapshot\
 Data File : X4226.D
 Acq On : 15 Sep 2009 2:41 pm
 Operator : K.Ruest
 Sample : TUNE
 Misc :
 ALS Vial : 27 Sample Multiplier: 1

Integration File: CPD4.P

Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Title : MS#12 - 8260B WATERS 10mL Purge
 Last Update : Tue Aug 04 11:25:11 2009

KR 9/15/09



AutoFind: Scans 177, 178, 179; Background Corrected with Scan 171

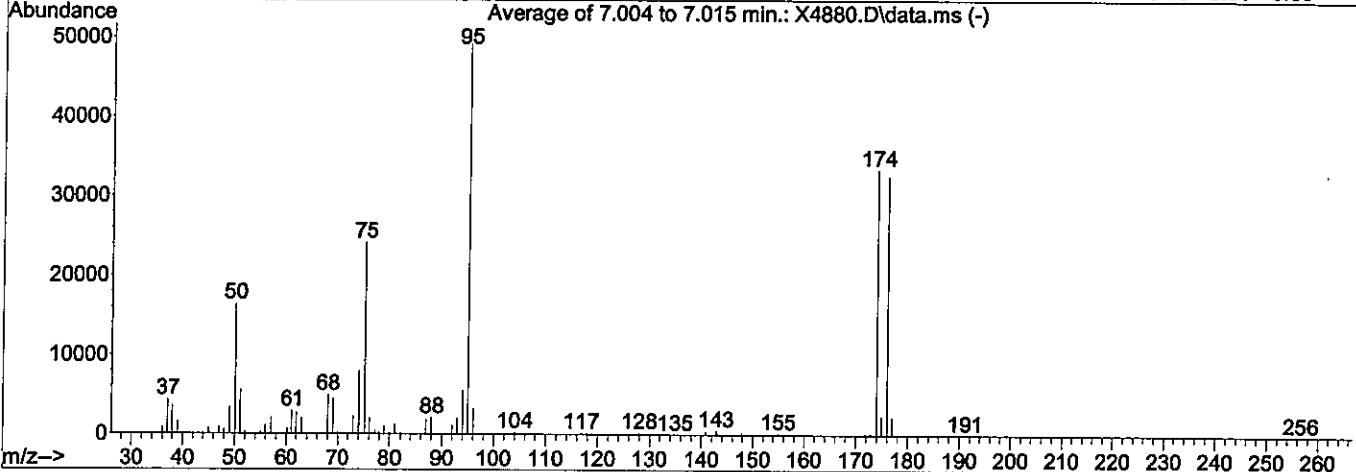
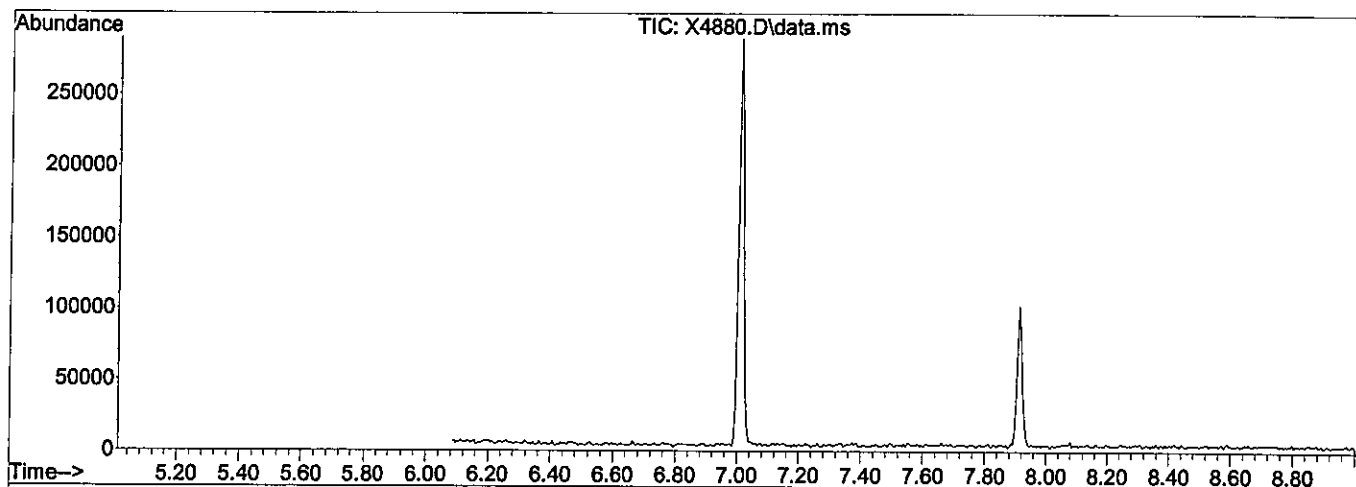
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	32.3	23320	PASS
75	95	30	60	48.2	34827	PASS
95	95	100	100	100.0	72293	PASS
96	95	5	9	6.3	4539	PASS
173	174	0.00	2	0.5	217	PASS
174	95	50	120	61.9	44773	PASS
175	174	5	9	6.8	3036	PASS
176	174	95	101	95.9	42925	PASS
177	176	5	9	6.6	2819	PASS

Data Path : J:\ACQUDATA\msvoa12\Data\101209\
 Data File : X4880.D
 Acq On : 12 Oct 2009 11:35 am
 Operator : K.Ruest
 Sample : TUNE
 Misc :
 ALS Vial : 27 Sample Multiplier: 1

Integration File: CPD4.P

Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Title : MS#12 - 8260B WATERS 10mL Purge
 Last Update : Fri Oct 09 14:32:15 2009

YR 10/12/09



AutoFind: Scans 176, 177, 178; Background Corrected with Scan 171

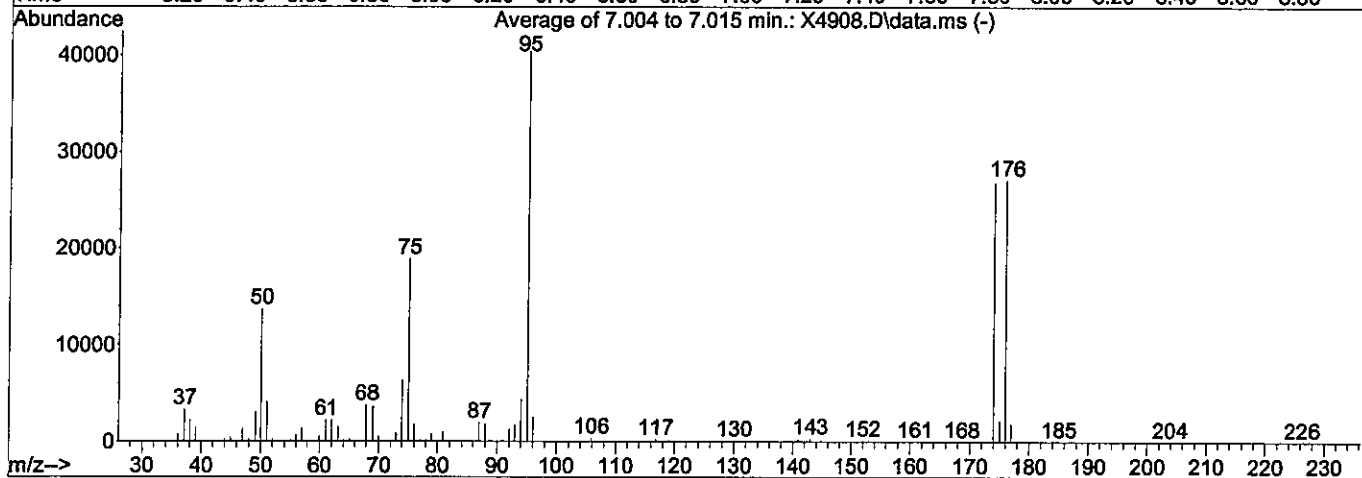
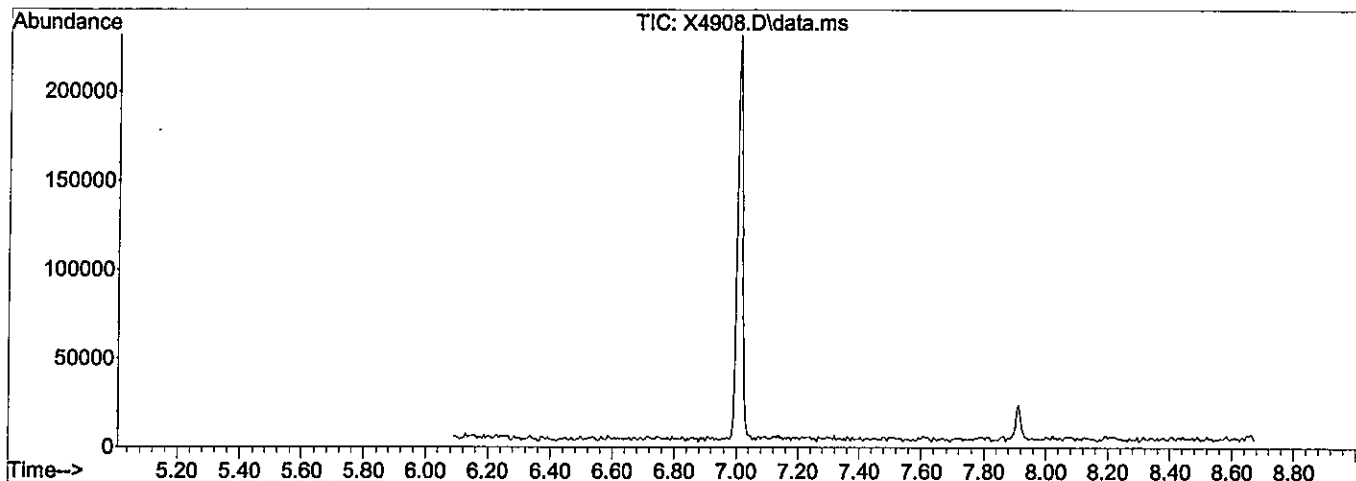
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	33.4	16411	PASS
75	95	30	60	49.1	24149	PASS
95	95	100	100	100.0	49200	PASS
96	95	5	9	6.6	3258	PASS
173	174	0.00	2	0.6	214	PASS
174	95	50	120	68.0	33448	PASS
175	174	5	9	7.2	2403	PASS
176	174	95	101	97.5	32627	PASS
177	176	5	9	6.8	2222	PASS

Data Path : J:\ACQUDATA\MSVOA12\DATA\101309\Snapshot\
 Data File : X4908.D
 Acq On : 13 Oct 2009 1:01 pm
 Operator : K.Ruest
 Sample : TUNE
 Misc :
 ALS Vial : 27 Sample Multiplier: 1

Integration File: CPD4.P

Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Title : MS#12 - 8260B WATERS 10mL Purge
 Last Update : Fri Oct 09 14:32:15 2009

YR 10/13/09



AutoFind: Scans 176, 177, 178; Background Corrected with Scan 171

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	34.0	13736	PASS
75	95	30	60	46.8	18907	PASS
95	95	100	100	100.0	40411	PASS
96	95	5	9	6.4	2583	PASS
173	174	0.00	2	0.6	150	PASS
174	95	50	120	66.5	26872	PASS
175	174	5	9	8.2	2200	PASS
176	174	95	101	100.9	27104	PASS
177	176	5	9	7.0	1891	PASS

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
 Project: Tronox LLC Henderson/2027.001
 Sample Matrix: Water
 Sample Name: Method Blank
 Lab Code: RQ0909815-01

Service Request: R0905636
 Date Collected: NA
 Date Received: NA
 Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	0.18	U	1.0	0.18	1	NA	10/12/09 14:10		174383	
1,1,1-Trichloroethane (TCA)	0.32	U	1.0	0.32	1	NA	10/12/09 14:10		174383	
1,1,2,2-Tetrachloroethane	0.090	U	1.0	0.090	1	NA	10/12/09 14:10		174383	
1,1,2-Trichloroethane	0.20	U	1.0	0.20	1	NA	10/12/09 14:10		174383	
1,1-Dichloroethane (1,1-DCA)	0.14	U	1.0	0.14	1	NA	10/12/09 14:10		174383	
1,1-Dichloroethene (1,1-DCE)	0.37	U	1.0	0.37	1	NA	10/12/09 14:10		174383	
1,1-Dichloropropene	0.21	U	2.0	0.21	1	NA	10/12/09 14:10		174383	
1,2,3-Trichlorobenzene	0.25	U	2.0	0.25	1	NA	10/12/09 14:10		174383	
1,2,3-Trichloropropane	0.30	U	2.0	0.30	1	NA	10/12/09 14:10		174383	
1,2,4-Trichlorobenzene	0.19	U	2.0	0.19	1	NA	10/12/09 14:10		174383	
1,2,4-Trimethylbenzene	0.36	U	2.0	0.36	1	NA	10/12/09 14:10		174383	
1,2-Dibromo-3-chloropropane (DBCP)	0.43	U	5.0	0.43	1	NA	10/12/09 14:10		174383	
1,2-Dibromoethane	0.18	U	1.0	0.18	1	NA	10/12/09 14:10		174383	
1,2-Dichlorobenzene	0.40	U	2.0	0.40	1	NA	10/12/09 14:10		174383	
1,2-Dichloroethane	0.14	U	1.0	0.14	1	NA	10/12/09 14:10		174383	
1,2-Dichloropropane	0.15	U	1.0	0.15	1	NA	10/12/09 14:10		174383	
1,3,5-Trimethylbenzene	0.36	U	2.0	0.36	1	NA	10/12/09 14:10		174383	
1,3-Dichlorobenzene	0.36	U	2.0	0.36	1	NA	10/12/09 14:10		174383	
1,3-Dichloropropane	0.12	U	2.0	0.12	1	NA	10/12/09 14:10		174383	
1,4-Dichlorobenzene	0.34	U	2.0	0.34	1	NA	10/12/09 14:10		174383	
2,2-Dichloropropane	0.20	U	2.0	0.20	1	NA	10/12/09 14:10		174383	
2-Butanone (MEK)	1.0	U	10	1.0	1	NA	10/12/09 14:10		174383	
2-Chlorotoluene	0.38	U	5.0	0.38	1	NA	10/12/09 14:10		174383	
2-Hexanone	0.40	U	10	0.40	1	NA	10/12/09 14:10		174383	
2-Methyl-2-propanol	3.0	U	100	3.0	1	NA	10/12/09 14:10		174383	
4-Chlorotoluene	0.37	U	5.0	0.37	1	NA	10/12/09 14:10		174383	
4-Isopropyltoluene	0.22	U	2.0	0.22	1	NA	10/12/09 14:10		174383	
4-Methyl-2-pentanone	0.34	U	10	0.34	1	NA	10/12/09 14:10		174383	
Acetone	1.6	U	20	1.6	1	NA	10/12/09 14:10		174383	
Benzene	0.18	U	1.0	0.18	1	NA	10/12/09 14:10		174383	
Bromobenzene	0.33	U	2.0	0.33	1	NA	10/12/09 14:10		174383	
Bromochloromethane	0.18	U	2.0	0.18	1	NA	10/12/09 14:10		174383	
Bromodichloromethane	0.17	U	1.0	0.17	1	NA	10/12/09 14:10		174383	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ0909815-01

Service Request: R0905636
Date Collected: NA
Date Received: NA
Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis	
								Lot	Lot Note
Bromoform	0.20	U	1.0	0.20	1	NA	10/12/09 14:10		174383
Bromomethane	0.40	U	2.0	0.40	1	NA	10/12/09 14:10		174383
Carbon Tetrachloride	0.36	U	1.0	0.36	1	NA	10/12/09 14:10		174383
Chlorobenzene	0.26	U	1.0	0.26	1	NA	10/12/09 14:10		174383
Chloroethane	0.21	U	2.0	0.21	1	NA	10/12/09 14:10		174383
Chloroform	0.16	U	1.0	0.16	1	NA	10/12/09 14:10		174383
Chloromethane	0.18	U	2.0	0.18	1	NA	10/12/09 14:10		174383
Dibromochloromethane	0.11	U	1.0	0.11	1	NA	10/12/09 14:10		174383
Dibromomethane	0.18	U	1.0	0.18	1	NA	10/12/09 14:10		174383
Dichlorodifluoromethane (CFC 12)	0.18	U	1.0	0.18	1	NA	10/12/09 14:10		174383
Dichloromethane	0.13	U	2.0	0.13	1	NA	10/12/09 14:10		174383
Diisopropyl Ether	0.090	U	1.0	0.090	1	NA	10/12/09 14:10		174383
Ethyl tert-Butyl Ether	0.12	U	1.0	0.12	1	NA	10/12/09 14:10		174383
Ethylbenzene	0.42	U	1.0	0.42	1	NA	10/12/09 14:10		174383
Hexachlorobutadiene	0.27	U	5.0	0.27	1	NA	10/12/09 14:10		174383
Isopropylbenzene (Cumene)	0.34	U	2.0	0.34	1	NA	10/12/09 14:10		174383
Methyl tert-Butyl Ether	0.13	U	1.0	0.13	1	NA	10/12/09 14:10		174383
Naphthalene	0.31	U	2.0	0.31	1	NA	10/12/09 14:10		174383
Styrene	0.36	U	1.0	0.36	1	NA	10/12/09 14:10		174383
Tetrachloroethene (PCE)	0.42	U	1.0	0.42	1	NA	10/12/09 14:10		174383
Toluene	0.21	U	1.0	0.21	1	NA	10/12/09 14:10		174383
Trichloroethene (TCE)	0.19	U	1.0	0.19	1	NA	10/12/09 14:10		174383
Trichlorofluoromethane (CFC 11)	0.16	U	1.0	0.16	1	NA	10/12/09 14:10		174383
Vinyl Chloride	0.22	U	1.0	0.22	1	NA	10/12/09 14:10		174383
cis-1,2-Dichloroethene	0.14	U	1.0	0.14	1	NA	10/12/09 14:10		174383
cis-1,3-Dichloropropene	0.14	U	1.0	0.14	1	NA	10/12/09 14:10		174383
m,p-Xylenes	0.81	U	2.0	0.81	1	NA	10/12/09 14:10		174383
n-Butylbenzene	0.20	U	5.0	0.20	1	NA	10/12/09 14:10		174383
n-Propylbenzene	0.32	U	2.0	0.32	1	NA	10/12/09 14:10		174383
o-Xylene	0.40	U	1.0	0.40	1	NA	10/12/09 14:10		174383
sec-Butylbenzene	0.23	U	2.0	0.23	1	NA	10/12/09 14:10		174383
tert-Amyl Methyl Ether	0.13	U	1.0	0.13	1	NA	10/12/09 14:10		174383
tert-Butylbenzene	0.28	U	2.0	0.28	1	NA	10/12/09 14:10		174383

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
 Project: Tronox LLC Henderson/2027.001
 Sample Matrix: Water
 Sample Name: Method Blank
 Lab Code: RQ0909815-01

Service Request: R0905636
 Date Collected: NA
 Date Received: NA
 Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
trans-1,2-Dichloroethene	0.16	U	1.0	0.16	1	NA	10/12/09 14:10		174383	
trans-1,3-Dichloropropene	0.17	U	1.0	0.17	1	NA	10/12/09 14:10		174383	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
4-Bromofluorobenzene	104	70-130	10/12/09 14:10		
Dibromofluoromethane	106	70-130	10/12/09 14:10		
Toluene-d8	105	70-130	10/12/09 14:10		

Comments: _____

Sample : METBLK *GRK5* -01
 Data File: J:\ACQUDATA\MSVOA12\DATA\101209\X4884.D
 Misc :
 Acq On : 12 Oct 2009 2:10 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Oct 12 14:26:17 2009
 QLast Update : Fri Oct 09 14:32:15 2009
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.534	168	731387	50.00	ug/L	0.00
44) 1,4-Difluorobenzene	5.716	114	1205786	50.00	ug/L	0.00
71) d5-Chlorobenzene	8.911	117	1068584	50.00	ug/L	0.00
84) 1,4-Dichlorobenzene-d4	10.904	152	577711	50.00	ug/L	0.00
System Monitoring Compounds						
46) surr4,Dibrflmethane	4.436	113	349002	52.79	ug/L	0.00
Spiked Amount	50.000	Range 89 - 119	Recovery	=	105.58%	
49) surr1,1,2-dichloroetha...	4.979	65	508799	51.48	ug/L	0.00
Spiked Amount	50.000	Range 80 - 120	Recovery	=	102.96%	
65) SURR3,Toluene-d8	7.509	98	1472211	52.50	ug/L	0.00
Spiked Amount	50.000	Range 87 - 121	Recovery	=	105.00%	
70) SURR2,BFB	9.941	95	597110	52.02	ug/L	0.00
Spiked Amount	50.000	Range 85 - 122	Recovery	=	104.04%	
Target Compounds						
16) Acetone	2.180	43	1271	0.53	ug/L #	33
17) 2-Propanol	2.284	45	425	0.85	ug/L #	36
20) Acetonitrile	2.406	40	738	1.51	ug/L #	2
21) Allyl Chloride	2.351	76	1113	0.27	ug/L #	1
87) Cyclohexanone	9.880	55	1354	2.30	ug/L #	79
109) Hexachlorobt	12.386	225	1111	0.22	ug/L #	73 LT

KR
10/12/09

(#) = qualifier out of range (m) = manual integration (+) = signals summed

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
 Project: Tronox LLC Henderson/2027.001
 Sample Matrix: Water
 Sample Name: Method Blank
 Lab Code: RQ0909884-01

Service Request: R0905636
 Date Collected: NA
 Date Received: NA

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis	
								Lot	Lot Note
1,1,1,2-Tetrachloroethane	0.18	U	1.0	0.18	1	NA	10/13/09 15:03	174548	
1,1,1-Trichloroethane (TCA)	0.32	U	1.0	0.32	1	NA	10/13/09 15:03	174548	
1,1,2,2-Tetrachloroethane	0.090	U	1.0	0.090	1	NA	10/13/09 15:03	174548	
1,1,2-Trichloroethane	0.20	U	1.0	0.20	1	NA	10/13/09 15:03	174548	
1,1-Dichloroethane (1,1-DCA)	0.14	U	1.0	0.14	1	NA	10/13/09 15:03	174548	
1,1-Dichloroethene (1,1-DCE)	0.37	U	1.0	0.37	1	NA	10/13/09 15:03	174548	
1,1-Dichloropropene	0.21	U	2.0	0.21	1	NA	10/13/09 15:03	174548	
1,2,3-Trichlorobenzene	0.25	U	2.0	0.25	1	NA	10/13/09 15:03	174548	
1,2,3-Trichloropropane	0.30	U	2.0	0.30	1	NA	10/13/09 15:03	174548	
1,2,4-Trichlorobenzene	0.19	U	2.0	0.19	1	NA	10/13/09 15:03	174548	
1,2,4-Trimethylbenzene	0.36	U	2.0	0.36	1	NA	10/13/09 15:03	174548	
1,2-Dibromo-3-chloropropane (DBCP)	0.43	U	5.0	0.43	1	NA	10/13/09 15:03	174548	
1,2-Dibromoethane	0.18	U	1.0	0.18	1	NA	10/13/09 15:03	174548	
1,2-Dichlorobenzene	0.40	U	2.0	0.40	1	NA	10/13/09 15:03	174548	
1,2-Dichloroethane	0.14	U	1.0	0.14	1	NA	10/13/09 15:03	174548	
1,2-Dichloropropane	0.15	U	1.0	0.15	1	NA	10/13/09 15:03	174548	
1,3,5-Trimethylbenzene	0.36	U	2.0	0.36	1	NA	10/13/09 15:03	174548	
1,3-Dichlorobenzene	0.36	U	2.0	0.36	1	NA	10/13/09 15:03	174548	
1,3-Dichloropropane	0.12	U	2.0	0.12	1	NA	10/13/09 15:03	174548	
1,4-Dichlorobenzene	0.34	U	2.0	0.34	1	NA	10/13/09 15:03	174548	
2,2-Dichloropropane	0.20	U	2.0	0.20	1	NA	10/13/09 15:03	174548	
2-Butanone (MEK)	1.0	U	10	1.0	1	NA	10/13/09 15:03	174548	
2-Chlorotoluene	0.38	U	5.0	0.38	1	NA	10/13/09 15:03	174548	
2-Hexanone	0.40	U	10	0.40	1	NA	10/13/09 15:03	174548	
2-Methyl-2-propanol	3.0	U	100	3.0	1	NA	10/13/09 15:03	174548	
4-Chlorotoluene	0.37	U	5.0	0.37	1	NA	10/13/09 15:03	174548	
4-Isopropyltoluene	0.22	U	2.0	0.22	1	NA	10/13/09 15:03	174548	
4-Methyl-2-pentanone	0.34	U	10	0.34	1	NA	10/13/09 15:03	174548	
Acetone	1.6	U	20	1.6	1	NA	10/13/09 15:03	174548	
Benzene	0.18	U	1.0	0.18	1	NA	10/13/09 15:03	174548	
Bromobenzene	0.33	U	2.0	0.33	1	NA	10/13/09 15:03	174548	
Bromochloromethane	0.18	U	2.0	0.18	1	NA	10/13/09 15:03	174548	
Bromodichloromethane	0.17	U	1.0	0.17	1	NA	10/13/09 15:03	174548	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
 Project: Tronox LLC Henderson/2027.001
 Sample Matrix: Water
 Sample Name: Method Blank
 Lab Code: RQ0909884-01

Service Request: R0905636
 Date Collected: NA
 Date Received: NA
 Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis	
								Lot	Lot Note
Bromoform	0.20	U	1.0	0.20	1	NA	10/13/09 15:03	174548	
Bromomethane	0.40	U	2.0	0.40	1	NA	10/13/09 15:03	174548	
Carbon Tetrachloride	0.36	U	1.0	0.36	1	NA	10/13/09 15:03	174548	
Chlorobenzene	0.26	U	1.0	0.26	1	NA	10/13/09 15:03	174548	
Chloroethane	0.21	U	2.0	0.21	1	NA	10/13/09 15:03	174548	
Chloroform	0.16	U	1.0	0.16	1	NA	10/13/09 15:03	174548	
Chloromethane	0.18	U	2.0	0.18	1	NA	10/13/09 15:03	174548	
Dibromochloromethane	0.11	U	1.0	0.11	1	NA	10/13/09 15:03	174548	
Dibromomethane	0.18	U	1.0	0.18	1	NA	10/13/09 15:03	174548	
Dichlorodifluoromethane (CFC 12)	0.18	U	1.0	0.18	1	NA	10/13/09 15:03	174548	
Dichloromethane	0.13	U	2.0	0.13	1	NA	10/13/09 15:03	174548	
Diisopropyl Ether	0.090	U	1.0	0.090	1	NA	10/13/09 15:03	174548	
Ethyl tert-Butyl Ether	0.12	U	1.0	0.12	1	NA	10/13/09 15:03	174548	
Ethylbenzene	0.42	U	1.0	0.42	1	NA	10/13/09 15:03	174548	
Hexachlorobutadiene	0.27	U	5.0	0.27	1	NA	10/13/09 15:03	174548	
Isopropylbenzene (Cumene)	0.34	U	2.0	0.34	1	NA	10/13/09 15:03	174548	
Methyl tert-Butyl Ether	0.13	U	1.0	0.13	1	NA	10/13/09 15:03	174548	
Naphthalene	0.31	U	2.0	0.31	1	NA	10/13/09 15:03	174548	
Styrene	0.36	U	1.0	0.36	1	NA	10/13/09 15:03	174548	
Tetrachloroethene (PCE)	0.42	U	1.0	0.42	1	NA	10/13/09 15:03	174548	
Toluene	0.21	U	1.0	0.21	1	NA	10/13/09 15:03	174548	
Trichloroethene (TCE)	0.19	U	1.0	0.19	1	NA	10/13/09 15:03	174548	
Trichlorofluoromethane (CFC 11)	0.16	U	1.0	0.16	1	NA	10/13/09 15:03	174548	
Vinyl Chloride	0.22	U	1.0	0.22	1	NA	10/13/09 15:03	174548	
cis-1,2-Dichloroethene	0.14	U	1.0	0.14	1	NA	10/13/09 15:03	174548	
cis-1,3-Dichloropropene	0.14	U	1.0	0.14	1	NA	10/13/09 15:03	174548	
m,p-Xylenes	0.81	U	2.0	0.81	1	NA	10/13/09 15:03	174548	
n-Butylbenzene	0.20	U	5.0	0.20	1	NA	10/13/09 15:03	174548	
n-Propylbenzene	0.32	U	2.0	0.32	1	NA	10/13/09 15:03	174548	
o-Xylene	0.40	U	1.0	0.40	1	NA	10/13/09 15:03	174548	
sec-Butylbenzene	0.23	U	2.0	0.23	1	NA	10/13/09 15:03	174548	
tert-Amyl Methyl Ether	0.13	U	1.0	0.13	1	NA	10/13/09 15:03	174548	
tert-Butylbenzene	0.28	U	2.0	0.28	1	NA	10/13/09 15:03	174548	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ0909884-01

Service Request: R0905636
Date Collected: NA
Date Received: NA
Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
trans-1,2-Dichloroethene	0.16	U	1.0	0.16	1	NA	10/13/09 15:03		174548	
trans-1,3-Dichloropropene	0.17	U	1.0	0.17	1	NA	10/13/09 15:03		174548	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
4-Bromofluorobenzene	105	70-130	10/13/09 15:03		
Dibromofluoromethane	108	70-130	10/13/09 15:03		
Toluene-d8	104	70-130	10/13/09 15:03		

Comments: _____

Sample : METBLK *Q9881-01*
 Data File: J:\ACQUDATA\MSVOA12\DATA\101309\X4912.D
 Misc :
 Acq On : 13 Oct 2009 3:03 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Oct 13 15:19:06 2009
 QLast Update : Fri Oct 09 14:32:15 2009
 Response via : Initial Calibration

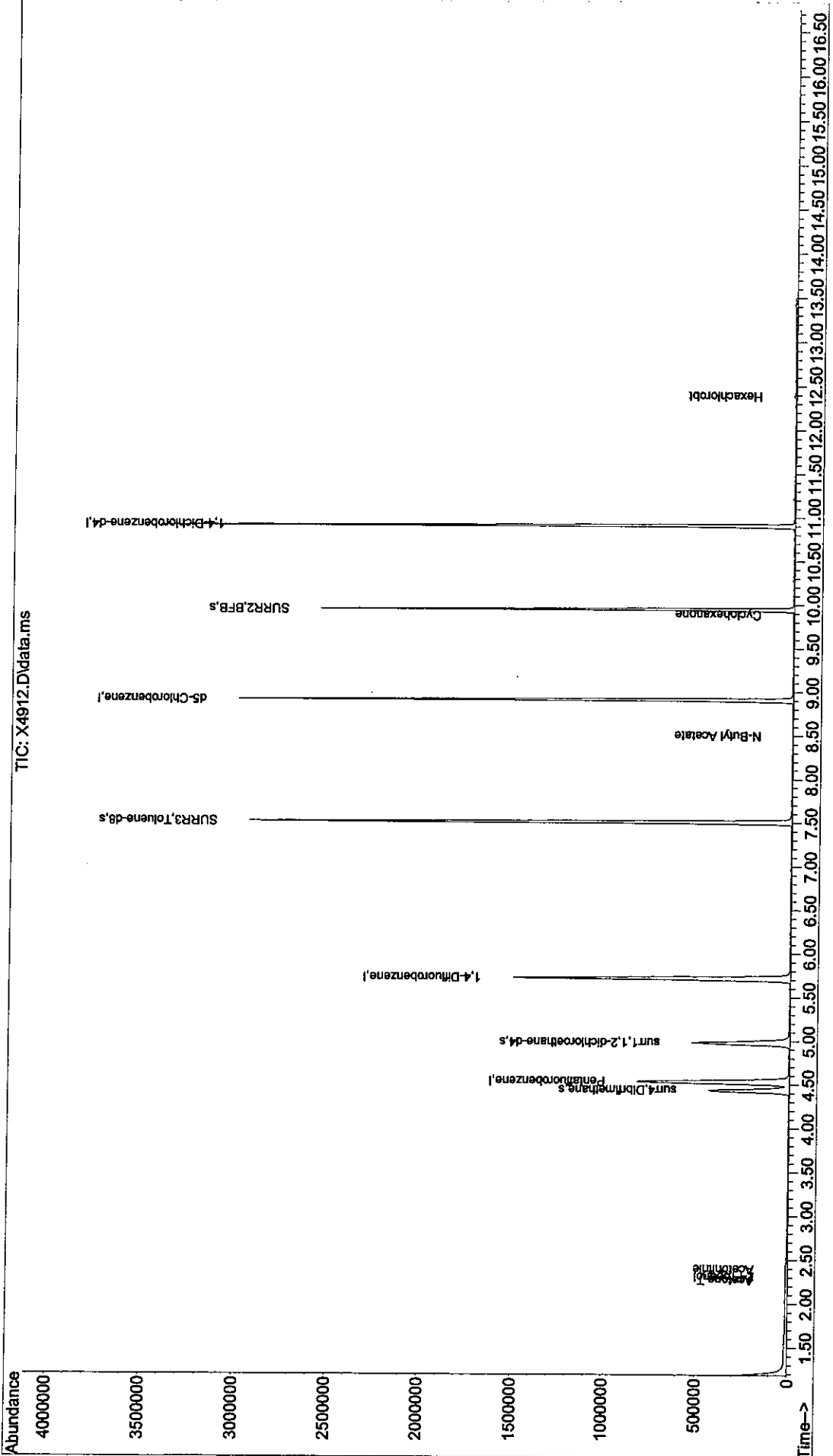
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.534	168	680204	50.00	ug/L	0.00
44) 1,4-Difluorobenzene	5.716	114	1149603	50.00	ug/L	0.00
71) d5-Chlorobenzene	8.905	117	1033700	50.00	ug/L	0.00
84) 1,4-Dichlorobenzene-d4	10.904	152	566089	50.00	ug/L	0.00
System Monitoring Compounds						
46) surr4,Dibrflmethane	4.436	113	338874	53.77	ug/L	0.00
Spiked Amount	50.000	Range 89 - 119	Recovery =	107.54%		
49) surr1,1,2-dichloroetha...	4.979	65	494290	52.46	ug/L	0.00
Spiked Amount	50.000	Range 80 - 120	Recovery =	104.92%		
65) SURR3,Toluene-d8	7.509	98	1392100	52.07	ug/L	0.00
Spiked Amount	50.000	Range 87 - 121	Recovery =	104.14%		
70) SURR2,BFB	9.941	95	572756	52.34	ug/L	0.00
Spiked Amount	50.000	Range 85 - 122	Recovery =	104.68%		
Target Compounds						
16) Acetone	2.272	43	458	0.21	ug/L	60
17) 2-Propanol	2.309	45	155	0.33	ug/L #	6
20) Acetonitrile	2.394	40	629	1.38	ug/L #	1
76) N-Butyl Acetate	8.496	43	262	1.75	ug/L #	45
87) Cyclohexanone	9.886	55	981	1.70	ug/L #	74
109) Hexachlorobt	12.380	225	1271	0.25	ug/L #	77

YR
10/19/09

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sample : METBLK
Data File: J:\ACQDATA\MSVOA12\DATA\101309\X4912.D
Misc :
Acq On : 13 Oct 2009 3:03 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : J:\ACQDATA\MSVOA12\METHODS\W091509.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 13 15:19:06 2009
QLast Update : Fri Oct 09 14:32:15 2009
Response via : Initial Calibration



00216

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: Lab Control Sample
Lab Code: RQ0909815-02

Service Request: R0905636
Date Collected: NA
Date Received: NA
Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis	
								Lot	Lot Note
1,1,1,2-Tetrachloroethane	22.4		1.0	0.18	1	NA	10/12/09 12:46	174383	
1,1,1-Trichloroethane (TCA)	22.5		1.0	0.32	1	NA	10/12/09 12:46	174383	
1,1,2,2-Tetrachloroethane	17.3		1.0	0.090	1	NA	10/12/09 12:46	174383	
1,1,2-Trichloroethane	19.6		1.0	0.20	1	NA	10/12/09 12:46	174383	
1,1-Dichloroethane (1,1-DCA)	19.5		1.0	0.14	1	NA	10/12/09 12:46	174383	
1,1-Dichloroethene (1,1-DCE)	24.4		1.0	0.37	1	NA	10/12/09 12:46	174383	
1,1-Dichloropropene	20.4		2.0	0.21	1	NA	10/12/09 12:46	174383	
1,2,3-Trichlorobenzene	19.3		2.0	0.25	1	NA	10/12/09 12:46	174383	
1,2,3-Trichloropropane	18.5		2.0	0.30	1	NA	10/12/09 12:46	174383	
1,2,4-Trichlorobenzene	20.0		2.0	0.19	1	NA	10/12/09 12:46	174383	
1,2,4-Trimethylbenzene	20.1		2.0	0.36	1	NA	10/12/09 12:46	174383	
1,2-Dibromo-3-chloropropane (DBCP)	16.5		5.0	0.43	1	NA	10/12/09 12:46	174383	
1,2-Dibromoethane	18.5		1.0	0.18	1	NA	10/12/09 12:46	174383	
1,2-Dichlorobenzene	20.0		2.0	0.40	1	NA	10/12/09 12:46	174383	
1,2-Dichloroethane	20.1		1.0	0.14	1	NA	10/12/09 12:46	174383	
1,2-Dichloropropane	20.1		1.0	0.15	1	NA	10/12/09 12:46	174383	
1,3,5-Trimethylbenzene	20.6		2.0	0.36	1	NA	10/12/09 12:46	174383	
1,3-Dichlorobenzene	20.3		2.0	0.36	1	NA	10/12/09 12:46	174383	
1,3-Dichloropropane	19.0		2.0	0.12	1	NA	10/12/09 12:46	174383	
1,4-Dichlorobenzene	19.8		2.0	0.34	1	NA	10/12/09 12:46	174383	
2,2-Dichloropropane	24.4		2.0	0.20	1	NA	10/12/09 12:46	174383	
2-Butanone (MEK)	16.8		10	1.0	1	NA	10/12/09 12:46	174383	
2-Chlorotoluene	19.4		5.0	0.38	1	NA	10/12/09 12:46	174383	
2-Hexanone	16.9		10	0.40	1	NA	10/12/09 12:46	174383	
2-Methyl-2-propanol	335		100	3.0	1	NA	10/12/09 12:46	174383	
4-Chlorotoluene	20.0		5.0	0.37	1	NA	10/12/09 12:46	174383	
4-Isopropyltoluene	20.7		2.0	0.22	1	NA	10/12/09 12:46	174383	
4-Methyl-2-pentanone	18.4		10	0.34	1	NA	10/12/09 12:46	174383	
Acetone	20.6		20	1.6	1	NA	10/12/09 12:46	174383	
Benzene	19.5		1.0	0.18	1	NA	10/12/09 12:46	174383	
Bromobenzene	20.3		2.0	0.33	1	NA	10/12/09 12:46	174383	
Bromochloromethane	19.7		2.0	0.18	1	NA	10/12/09 12:46	174383	
Bromodichloromethane	20.6		1.0	0.17	1	NA	10/12/09 12:46	174383	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
 Project: Tronox LLC Henderson/2027.001
 Sample Matrix: Water
 Sample Name: Lab Control Sample
 Lab Code: RQ0909815-02

Service Request: R0905636
 Date Collected: NA
 Date Received: NA
 Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Bromoform	20.8		1.0	0.20	1	NA	10/12/09 12:46		174383	
Bromomethane	23.9		2.0	0.40	1	NA	10/12/09 12:46		174383	
Carbon Tetrachloride	23.8		1.0	0.36	1	NA	10/12/09 12:46		174383	
Chlorobenzene	20.6		1.0	0.26	1	NA	10/12/09 12:46		174383	
Chloroethane	21.8		2.0	0.21	1	NA	10/12/09 12:46		174383	
Chloroform	20.4		1.0	0.16	1	NA	10/12/09 12:46		174383	
Chloromethane	21.4		2.0	0.18	1	NA	10/12/09 12:46		174383	
Dibromochloromethane	20.9		1.0	0.11	1	NA	10/12/09 12:46		174383	
Dibromomethane	19.8		1.0	0.18	1	NA	10/12/09 12:46		174383	
Dichlorodifluoromethane (CFC 12)	18.1		1.0	0.18	1	NA	10/12/09 12:46		174383	
Dichloromethane	14.8		2.0	0.13	1	NA	10/12/09 12:46		174383	
Diisopropyl Ether	19.7		1.0	0.090	1	NA	10/12/09 12:46		174383	
Ethyl tert-Butyl Ether	20.1		1.0	0.12	1	NA	10/12/09 12:46		174383	
Ethylbenzene	20.3		1.0	0.42	1	NA	10/12/09 12:46		174383	
Hexachlorobutadiene	21.1		5.0	0.27	1	NA	10/12/09 12:46		174383	
Isopropylbenzene (Cumene)	21.0		2.0	0.34	1	NA	10/12/09 12:46		174383	
Methyl tert-Butyl Ether	18.9		1.0	0.13	1	NA	10/12/09 12:46		174383	
Naphthalene	17.6		2.0	0.31	1	NA	10/12/09 12:46		174383	
Styrene	20.8		1.0	0.36	1	NA	10/12/09 12:46		174383	
Tetrachloroethene (PCE)	21.6		1.0	0.42	1	NA	10/12/09 12:46		174383	
Toluene	20.6		1.0	0.21	1	NA	10/12/09 12:46		174383	
Trichloroethene (TCE)	20.2		1.0	0.19	1	NA	10/12/09 12:46		174383	
Trichlorofluoromethane (CFC 11)	24.0		1.0	0.16	1	NA	10/12/09 12:46		174383	
Vinyl Chloride	22.7		1.0	0.22	1	NA	10/12/09 12:46		174383	
cis-1,2-Dichloroethene	19.8		1.0	0.14	1	NA	10/12/09 12:46		174383	
cis-1,3-Dichloropropene	20.5		1.0	0.14	1	NA	10/12/09 12:46		174383	
m,p-Xylenes	42.9		2.0	0.81	1	NA	10/12/09 12:46		174383	
n-Butylbenzene	20.3		5.0	0.20	1	NA	10/12/09 12:46		174383	
n-Propylbenzene	19.3		2.0	0.32	1	NA	10/12/09 12:46		174383	
o-Xylene	20.8		1.0	0.40	1	NA	10/12/09 12:46		174383	
sec-Butylbenzene	19.9		2.0	0.23	1	NA	10/12/09 12:46		174383	
tert-Amyl Methyl Ether	18.5		1.0	0.13	1	NA	10/12/09 12:46		174383	
tert-Butylbenzene	20.2		2.0	0.28	1	NA	10/12/09 12:46		174383	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: Lab Control Sample
Lab Code: RQ0909815-02

Service Request: R0905636
Date Collected: NA
Date Received: NA
Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
trans-1,2-Dichloroethene	20.4		1.0	0.16	1	NA	10/12/09 12:46		174383	
trans-1,3-Dichloropropene	21.1		1.0	0.17	1	NA	10/12/09 12:46		174383	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
4-Bromofluorobenzene	107	70-130	10/12/09 12:46		
Dibromofluoromethane	105	70-130	10/12/09 12:46		
Toluene-d8	105	70-130	10/12/09 12:46		

Comments: _____

Sample : LCS *Q9815-02*
 Data File: J:\ACQUATA\MSVOA12\DATA\101209\X4882.D
 Misc :
 Acq On : 12 Oct 2009 12:46 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Oct 12 13:02:27 2009
 QLast Update : Fri Oct 09 14:32:15 2009
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Pentafluorobenzene	4.534	168	748263	50.00	ug/L	0.00	
44) 1,4-Difluorobenzene	5.716	114	1235255	50.00	ug/L	0.00	
71) d5-Chlorobenzene	8.905	117	1097975	50.00	ug/L	0.00	
84) 1,4-Dichlorobenzene-d4	10.904	152	606522	50.00	ug/L	0.00	
System Monitoring Compounds							
46) surr4, Dibrflmethane	4.436	113	355362	52.47	ug/L	0.00	
Spiked Amount	50.000	Range 89 - 119	Recovery	=	104.94%		
49) surr1, 1,2-dichloroetha...	4.979	65	515380	50.90	ug/L	0.00	
Spiked Amount	50.000	Range 80 - 120	Recovery	=	101.80%		
65) SURR3, Toluene-d8	7.509	98	1502508	52.30	ug/L	0.00	
Spiked Amount	50.000	Range 87 - 121	Recovery	=	104.60%		
70) SURR2, BFB	9.941	95	631023	53.66	ug/L	0.00	
Spiked Amount	50.000	Range 85 - 122	Recovery	=	107.32%		
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	1.235	85	153441	18.14	ug/L		98
4) Chloromethane	1.345	50	341229	21.35	ug/L		97
5) Vinyl Chloride	1.406	62	219750	22.66	ug/L		95
6) Bromomethane	1.613	94	86729	23.86	ug/L		99
7) Chloroethane	1.668	64	120501	21.83	ug/L		100
8) Freon 21	1.778	67	261057	21.38	ug/L		99
9) Trichlorofluoromethane	1.827	101	241809	24.04	ug/L		99
10) Diethyl Ether	1.998	59	147306	21.86	ug/L		91
11) Freon 123a	1.991	67	148424	20.39	ug/L		89
12) Freon 123	2.028	83	156727	19.94	ug/L		96
13) Acrolein	2.077	56	59913	56.11	ug/L <i>m</i>		94
14) 1,1-Dicethene	2.168	96	113588	24.38	ug/L		90
15) Freon 113	2.162	101	118398	24.15	ug/L		89
16) Acetone	2.180	43	50170	20.58	ug/L		92
17) 2-Propanol	2.260	45	179584	350.57	ug/L		93
18) Iodomethane	2.284	142	141996	22.94	ug/L		95
19) Carbon Disulfide	2.345	76	388091	16.14	ug/L		99
20) Acetonitrile	2.376	40	37870	75.49	ug/L		93
21) Allyl Chloride	2.424	76	66332	15.52	ug/L		62
22) Methyl Acetate	2.424	43	145659	19.79	ug/L		99
23) Methylene Chloride	2.516	84	128472	14.78	ug/L ✓		82
24) TBA	2.577	59	217497	335.06	ug/L		96
25) Acrylonitrile	2.693	53	306986	88.89	ug/L		98
26) Methyl-t-Butyl Ether	2.747	73	363023	18.90	ug/L		99
27) trans-1,2-Dichloroethene	2.753	96	163926	20.35	ug/L		99
28) 1,1-Dicethane	3.138	63	377655	19.45	ug/L		99
29) Vinyl Acetate	3.174	86	13839	13.90	ug/L <i>m</i>		48
30) DIPE	3.211	45	987655	19.73	ug/L		99
31) 2-Chloro-1,3-Butadiene	3.241	53	468462	24.97	ug/L		96
32) ETBE	3.619	59	625061	20.05	ug/L		99
33) 2,2-Dichloropropane	3.790	77	238957	24.41	ug/L		98
34) cis-1,2-Dichloroethene	3.784	96	173178	19.79	ug/L		96
35) 2-Butanone	3.790	43	81237	16.80	ug/L		96
37) Propionitrile	3.845	54	101053	83.90	ug/L		99
38) Bromochloromethane	4.089	130	86860	19.72	ug/L		91

YR 10/12/09

OK 60-140.

Sample : LCS
 Data File: J:\ACQUDATA\MSVOA12\DATA\101209\X4882.D
 Misc :
 Acq On : 12 Oct 2009 12:46 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Oct 12 13:02:27 2009
 QLast Update : Fri Oct 09 14:32:15 2009
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
39) Methacrylonitrile	4.064	67	39011	15.91	ug/L	94
40) Tetrahydrofuran	4.168	42	46825	15.08	ug/L #	90
41) Chloroform	4.204	83	293007	20.40	ug/L	98
42) 1,1,1-Trichloroethane	4.491	97	256359	22.45	ug/L #	89
43) TAME	5.326	73	336712	18.45	ug/L	98
45) Cyclohexane	4.595	41	283990	19.56	ug/L	93
47) Carbontetrachloride	4.759	121	64915	23.75	ug/L	97
48) 1,1-Dichloropropene	4.759	75	228972	20.42	ug/L	98
50) Benzene	5.094	78	655060	19.51	ug/L	98
51) 1,2-Dichloroethane	5.113	62	275615	20.13	ug/L	97
52) Iso-Butyl Alcohol	4.973	43	114103	307.11	ug/L	85
53) n-Heptane	5.594	43	445062	19.98	ug/L	97
54) Trichloroethene	6.070	130	153222	20.24	ug/L	95
55) Methylcyclohexane	6.326	55	338250	18.83	ug/L	96
56) 1,2-Diclpropane	6.344	63	204725	20.06	ug/L	97
57) Dibromomethane	6.478	93	76072	19.75	ug/L	94
58) 1,4-Dioxane	6.545	88	23209	374.40	ug/L #	77
59) Methyl Methacrylate	6.545	69	66114	16.26	ug/L	96
60) Bromodichloromethane	6.692	83	208741	20.59	ug/L	97
62) 2-Chloroethylvinyl Ether	7.070	63	82603	17.10	ug/L	95
63) cis-1,3-Dichloropropene	7.216	75	236516	20.48	ug/L	98
64) 4-Methyl-2-pentanone	7.399	43	158796	18.35	ug/L	97
66) Toluene	7.576	91	708959	20.62	ug/L	99
67) trans-1,3-Dichloropropene	7.807	75	201618	21.12	ug/L	96
68) Ethyl Methacrylate	7.935	69	136349	16.24	ug/L	90
69) 1,1,2-Trichloroethane	7.984	97	109657	19.57	ug/L	93
72) Tetrachloroethene	8.137	164	128405	21.57	ug/L	96
73) 2-Hexanone	8.252	43	102564	16.89	ug/L #	93
74) 1,3-Dichloropropane	8.143	76	205806	19.03	ug/L	90
75) Dibromochloromethane	8.362	129	124684	20.94	ug/L	96
76) N-Butyl Acetate	8.399	43	253147	16.31	ug/L	96
77) 1,2-Dibromoethane	8.460	107	102582	18.46	ug/L	91
78) Chlorobenzene	8.935	112	441465	20.55	ug/L	98
79) 1,1,1,2-Tetrachloroethane	9.008	131	144588	22.37	ug/L #	98
80) Ethylbenzene	9.045	106	248874	20.32	ug/L	98
81) (m+p)Xylene	9.155	106	615243	42.87	ug/L	100
82) o-Xylene	9.502	106	289118	20.76	ug/L	99
83) Styrene	9.508	104	491360	20.77	ug/L	98
85) Bromoform	9.655	173	65881	20.75	ug/L	92
86) Isopropylbenzene	9.825	105	787428	21.01	ug/L	98
87) Cyclohexanone	9.880	55	360271	582.88	ug/L ✓	99
88) trans-1,4-Dichloro-2-B...	10.112	53	61549	18.48	ug/L #	95
89) 1,1,2,2-Tetrachloroethane	10.063	83	122237	17.34	ug/L	97
90) Bromobenzene	10.069	156	180210	20.33	ug/L #	80
92) 1,2,3-Trichloropropane	10.100	110	37384	18.45	ug/L #	94
93) n-Propylbenzene	10.173	91	979996	19.30	ug/L	99
94) 2-Chlorotoluene	10.234	91	584737	19.40	ug/L	98
95) 4-Chlorotoluene	10.325	91	696556	20.01	ug/L	99
96) 1,3,5-Trimethylbenzene	10.319	105	693467	20.57	ug/L	97
97) tert-Butylbenzene	10.587	119	572517	20.24	ug/L	99
98) 1,2,4-Trimethylbenzene	10.624	105	724046	20.08	ug/L	99
99) sec-Butylbenzene	10.770	105	899620	19.89	ug/L	98

Sample : LCS
 Data File: J:\ACQUDATA\MSVOA12\DATA\101209\X4882.D
 Misc :
 Acq On : 12 Oct 2009 12:46 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Oct 12 13:02:27 2009
 QLast Update : Fri Oct 09 14:32:15 2009
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
100) p-Isopropyltoluene	10.886	119	743712	20.68	ug/L	99
101) 1,3-Dclbenz	10.849	146	385810	20.26	ug/L	99
102) 1,4-Dclbenz	10.923	146	392245	19.80	ug/L	98
104) n-Butylbenzene	11.209	91	735276	20.25	ug/L	99
105) 1,2-Dclbenz	11.215	146	349704	19.98	ug/L	97
106) 1,2-Dibromo-3-chloropr...	11.758	157	22586	16.54	ug/L	93
108) 1,2,4-Tcbenzene	12.282	180	237909	19.97	ug/L	98
109) Hexachlorobt	12.386	225	114027	21.07	ug/L	98
110) Naphthalen	12.422	128	454242	17.57	ug/L	98
111) 1,2,3-Tclbenzene	12.563	180	209465	19.32	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: Lab Control Sample
Lab Code: RQ0909884-02

Service Request: R0905636
Date Collected: NA
Date Received: NA

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis	
								Lot	Lot Note
1,1,1,2-Tetrachloroethane	23.6		1.0	0.18	1	NA	10/13/09 14:01	174548	
1,1,1-Trichloroethane (TCA)	23.6		1.0	0.32	1	NA	10/13/09 14:01	174548	
1,1,2,2-Tetrachloroethane	19.2		1.0	0.090	1	NA	10/13/09 14:01	174548	
1,1,2-Trichloroethane	20.9		1.0	0.20	1	NA	10/13/09 14:01	174548	
1,1-Dichloroethane (1,1-DCA)	20.5		1.0	0.14	1	NA	10/13/09 14:01	174548	
1,1-Dichloroethene (1,1-DCE)	24.8		1.0	0.37	1	NA	10/13/09 14:01	174548	
1,1-Dichloropropene	21.3		2.0	0.21	1	NA	10/13/09 14:01	174548	
1,2,3-Trichlorobenzene	18.8		2.0	0.25	1	NA	10/13/09 14:01	174548	
1,2,3-Trichloropropane	20.4		2.0	0.30	1	NA	10/13/09 14:01	174548	
1,2,4-Trichlorobenzene	19.1		2.0	0.19	1	NA	10/13/09 14:01	174548	
1,2,4-Trimethylbenzene	20.1		2.0	0.36	1	NA	10/13/09 14:01	174548	
1,2-Dibromo-3-chloropropane (DBCP)	17.4		5.0	0.43	1	NA	10/13/09 14:01	174548	
1,2-Dibromoethane	19.8		1.0	0.18	1	NA	10/13/09 14:01	174548	
1,2-Dichlorobenzene	20.5		2.0	0.40	1	NA	10/13/09 14:01	174548	
1,2-Dichloroethane	21.1		1.0	0.14	1	NA	10/13/09 14:01	174548	
1,2-Dichloropropane	20.6		1.0	0.15	1	NA	10/13/09 14:01	174548	
1,3,5-Trimethylbenzene	20.8		2.0	0.36	1	NA	10/13/09 14:01	174548	
1,3-Dichlorobenzene	20.3		2.0	0.36	1	NA	10/13/09 14:01	174548	
1,3-Dichloropropane	20.1		2.0	0.12	1	NA	10/13/09 14:01	174548	
1,4-Dichlorobenzene	20.0		2.0	0.34	1	NA	10/13/09 14:01	174548	
2,2-Dichloropropane	24.3		2.0	0.20	1	NA	10/13/09 14:01	174548	
2-Butanone (MEK)	18.2		10	1.0	1	NA	10/13/09 14:01	174548	
2-Chlorotoluene	19.4		5.0	0.38	1	NA	10/13/09 14:01	174548	
2-Hexanone	18.6		10	0.40	1	NA	10/13/09 14:01	174548	
2-Methyl-2-propanol	416		100	3.0	1	NA	10/13/09 14:01	174548	
4-Chlorotoluene	20.0		5.0	0.37	1	NA	10/13/09 14:01	174548	
4-Isopropyltoluene	19.9		2.0	0.22	1	NA	10/13/09 14:01	174548	
4-Methyl-2-pentanone	19.4		10	0.34	1	NA	10/13/09 14:01	174548	
Acetone	23.1		20	1.6	1	NA	10/13/09 14:01	174548	
Benzene	20.5		1.0	0.18	1	NA	10/13/09 14:01	174548	
Bromobenzene	21.0		2.0	0.33	1	NA	10/13/09 14:01	174548	
Bromochloromethane	21.9		2.0	0.18	1	NA	10/13/09 14:01	174548	
Bromodichloromethane	21.7		1.0	0.17	1	NA	10/13/09 14:01	174548	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
 Project: Tronox LLC Henderson/2027.001
 Sample Matrix: Water
 Sample Name: Lab Control Sample
 Lab Code: RQ0909884-02

Service Request: R0905636
 Date Collected: NA
 Date Received: NA
 Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis	
								Lot	Lot Note
Bromoform	21.9		1.0	0.20	1	NA	10/13/09 14:01	174548	
Bromomethane	24.0		2.0	0.40	1	NA	10/13/09 14:01	174548	
Carbon Tetrachloride	23.7		1.0	0.36	1	NA	10/13/09 14:01	174548	
Chlorobenzene	21.2		1.0	0.26	1	NA	10/13/09 14:01	174548	
Chloroethane	22.4		2.0	0.21	1	NA	10/13/09 14:01	174548	
Chloroform	21.4		1.0	0.16	1	NA	10/13/09 14:01	174548	
Chloromethane	22.1		2.0	0.18	1	NA	10/13/09 14:01	174548	
Dibromochloromethane	22.1		1.0	0.11	1	NA	10/13/09 14:01	174548	
Dibromomethane	19.9		1.0	0.18	1	NA	10/13/09 14:01	174548	
Dichlorodifluoromethane (CFC 12)	19.2		1.0	0.18	1	NA	10/13/09 14:01	174548	
Dichloromethane	15.7		2.0	0.13	1	NA	10/13/09 14:01	174548	
Diisopropyl Ether	21.3		1.0	0.090	1	NA	10/13/09 14:01	174548	
Ethyl tert-Butyl Ether	21.9		1.0	0.12	1	NA	10/13/09 14:01	174548	
Ethylbenzene	20.8		1.0	0.42	1	NA	10/13/09 14:01	174548	
Hexachlorobutadiene	17.4		5.0	0.27	1	NA	10/13/09 14:01	174548	
Isopropylbenzene (Cumene)	21.4		2.0	0.34	1	NA	10/13/09 14:01	174548	
Methyl tert-Butyl Ether	20.5		1.0	0.13	1	NA	10/13/09 14:01	174548	
Naphthalene	18.3		2.0	0.31	1	NA	10/13/09 14:01	174548	
Styrene	21.2		1.0	0.36	1	NA	10/13/09 14:01	174548	
Tetrachloroethene (PCE)	21.9		1.0	0.42	1	NA	10/13/09 14:01	174548	
Toluene	21.4		1.0	0.21	1	NA	10/13/09 14:01	174548	
Trichloroethene (TCE)	21.1		1.0	0.19	1	NA	10/13/09 14:01	174548	
Trichlorofluoromethane (CFC 11)	24.3		1.0	0.16	1	NA	10/13/09 14:01	174548	
Vinyl Chloride	23.6		1.0	0.22	1	NA	10/13/09 14:01	174548	
cis-1,2-Dichloroethene	21.2		1.0	0.14	1	NA	10/13/09 14:01	174548	
cis-1,3-Dichloropropene	21.6		1.0	0.14	1	NA	10/13/09 14:01	174548	
m,p-Xylenes	43.5		2.0	0.81	1	NA	10/13/09 14:01	174548	
n-Butylbenzene	18.7		5.0	0.20	1	NA	10/13/09 14:01	174548	
n-Propylbenzene	19.5		2.0	0.32	1	NA	10/13/09 14:01	174548	
o-Xylene	21.4		1.0	0.40	1	NA	10/13/09 14:01	174548	
sec-Butylbenzene	18.9		2.0	0.23	1	NA	10/13/09 14:01	174548	
tert-Amyl Methyl Ether	20.1		1.0	0.13	1	NA	10/13/09 14:01	174548	
tert-Butylbenzene	19.9		2.0	0.28	1	NA	10/13/09 14:01	174548	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: Lab Control Sample
Lab Code: RQ0909884-02

Service Request: R0905636
Date Collected: NA
Date Received: NA
Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis	
								Lot	Lot Note
trans-1,2-Dichloroethene	21.8		1.0	0.16	1	NA	10/13/09 14:01		174548
trans-1,3-Dichloropropene	22.7		1.0	0.17	1	NA	10/13/09 14:01		174548

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
4-Bromofluorobenzene	108	70-130	10/13/09 14:01		
Dibromofluoromethane	106	70-130	10/13/09 14:01		
Toluene-d8	106	70-130	10/13/09 14:01		

Comments: _____

Sample : LCS ~~Q9881-02~~
 Data File: J:\ACQUATA\MSVOA12\DATA\101309\X4910.D
 Misc :
 Acq On : 13 Oct 2009 2:01 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Oct 13 14:17:04 2009
 QLast Update : Fri Oct 09 14:32:15 2009
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.534	168	710718	50.00	ug/L	0.00
44) 1,4-Difluorobenzene	5.716	114	1193388	50.00	ug/L	0.00
71) d5-Chlorobenzene	8.911	117	1076460	50.00	ug/L	0.00
84) 1,4-Dichlorobenzene-d4	10.904	152	595259	50.00	ug/L	0.00
System Monitoring Compounds						
46) surr4,Dibrflmethane	4.436	113	346857	53.01	ug/L	0.00
Spiked Amount	50.000	Range 89 - 119	Recovery =	106.02%		
49) surr1,1,2-dichloroetha...	4.979	65	497061	50.82	ug/L	0.00
Spiked Amount	50.000	Range 80 - 120	Recovery =	101.64%		
65) SURR3,Toluene-d8	7.509	98	1474148	53.12	ug/L	0.00
Spiked Amount	50.000	Range 87 - 121	Recovery =	106.24%		
70) SURR2,BFB	9.947	95	613864	54.04	ug/L	0.00
Spiked Amount	50.000	Range 85 - 122	Recovery =	108.08%		
Target Compounds						
2) Dichlorodifluoromethane	1.236	85	154321	19.21	ug/L	97
4) Chloromethane	1.345	50	334693	22.05	ug/L	98
5) Vinyl Chloride	1.406	62	217450	23.60	ug/L	97
6) Bromomethane	1.614	94	82801	23.99	ug/L	99
7) Chloroethane	1.668	64	117312	22.38	ug/L	99
8) Freon 21	1.778	67	252008	21.72	ug/L	97
9) Trichlorofluoromethane	1.827	101	231694	24.25	ug/L	98
10) Diethyl Ether	1.998	59	147862	23.10	ug/L	99
11) Freon 123a	1.992	67	144077	20.84	ug/L	94
12) Freon 123	2.028	83	152074	20.37	ug/L	96
13) Acrolein	2.083	56	58919	58.09	ug/L ✓	99
14) 1,1-Dicethene	2.168	96	109875	24.83	ug/L	96
15) Freon 113	2.168	101	115344	24.77	ug/L	94
16) Acetone	2.180	43	53391	23.06	ug/L	98
17) 2-Propanol	2.272	45	198636	408.25	ug/L	99
18) Iodomethane	2.284	142	147532	25.05	ug/L	95
19) Carbon Disulfide	2.345	76	394146	17.26	ug/L	99
20) Acetonitrile	2.382	40	33308	69.90	ug/L	97
21) Allyl Chloride	2.424	76	63139	15.56	ug/L #	48
22) Methyl Acetate	2.424	43	142898	20.44	ug/L #	95
23) Methylene Chloride	2.516	84	129757	15.72	ug/L	82
24) TBA	2.577	59	268031	415.96	ug/L	93
25) Acrylonitrile	2.693	53	328348	100.09	ug/L	98
26) Methyl-t-Butyl Ether	2.747	73	374752	20.54	ug/L	99
27) trans-1,2-Dichloroethene	2.754	96	166915	21.82	ug/L	97
28) 1,1-Dicethane	3.138	63	377095	20.45	ug/L	98
29) Vinyl Acetate	3.180	86	13721	14.51	ug/L	81
30) DIPE	3.211	45	1013670	21.32	ug/L	99
31) 2-Chloro-1,3-Butadiene	3.241	53	482880	27.10	ug/L ↑	97
32) ETBE	3.619	59	647691	21.87	ug/L	99
33) 2,2-Dichloropropane	3.790	77	225941	24.30	ug/L	98
34) cis-1,2-Dichloroethene	3.784	96	176507	21.24	ug/L	96
35) 2-Butanone	3.790	43	83755	18.23	ug/L #	95
37) Propionitrile	3.851	54	113388	99.12	ug/L	93
38) Bromochloromethane	4.089	130	91528	21.88	ug/L	91

KE 10/13/09

Sample : LCS
 Data File: J:\ACQUDATA\MSVOA12\DATA\101309\X4910.D
 Misc :
 Acq On : 13 Oct 2009 2:01 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Oct 13 14:17:04 2009
 QLast Update : Fri Oct 09 14:32:15 2009
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
39) Methacrylonitrile	4.064	67	42616	18.30	ug/L	88
40) Tetrahydrofuran	4.174	42	49918	16.92	ug/L	95
41) Chloroform	4.205	83	291838	21.39	ug/L	95
42) 1,1,1-Trichloroethane	4.491	97	256402	23.64	ug/L	92
43) TAME	5.326	73	348275	20.10	ug/L	93
45) Cyclohexane	4.595	41	282911	20.17	ug/L	97
47) Carbontetrachloride	4.765	121	62604	23.71	ug/L	94
48) 1,1-Dichloropropene	4.759	75	230164	21.25	ug/L	97
50) Benzene	5.101	78	663489	20.45	ug/L	94
51) 1,2-Dichloroethane	5.113	62	279290	21.12	ug/L	98
52) Iso-Butyl Alcohol	4.979	43	148005	389.46	ug/L	91
53) n-Heptane	5.594	43	371417	17.26	ug/L	97
54) Trichloroethene	6.070	130	154292	21.09	ug/L	92
55) Methylcyclohexane	6.332	55	325200	18.74	ug/L	96
56) 1,2-Dichloropropane	6.344	63	202647	20.56	ug/L	93
57) Dibromomethane	6.478	93	73893	19.86	ug/L	97
58) 1,4-Dioxane	6.546	88	2670625082	418.81	ug/L	79 mmp
59) Methyl Methacrylate	6.546	69	70650	17.92	ug/L	97
60) Bromodichloromethane	6.692	83	212221	21.67	ug/L	98
62) 2-Chloroethylvinyl Ether	7.076	63	81003	17.36	ug/L	100
63) cis-1,3-Dichloropropene	7.216	75	240994	21.61	ug/L	99
64) 4-Methyl-2-pentanone	7.399	43	162488	19.44	ug/L	98
66) Toluene	7.576	91	709628	21.36	ug/L	99
67) trans-1,3-Dichloropropene	7.807	75	209252	22.69	ug/L	99
68) Ethyl Methacrylate	7.935	69	147386	18.08	ug/L	93
69) 1,1,2-Trichloroethane	7.984	97	113098	20.90	ug/L	94
72) Tetrachloroethene	8.137	164	128011	21.93	ug/L	95
73) 2-Hexanone	8.252	43	110871	18.62	ug/L	92
74) 1,3-Dichloropropane	8.149	76	212896	20.08	ug/L	97
75) Dibromochloromethane	8.362	129	129065	22.10	ug/L	98
76) N-Butyl Acetate	8.399	43	254140	16.66	ug/L	99
77) 1,2-Dibromoethane	8.460	107	108041	19.83	ug/L	98
78) Chlorobenzene	8.935	112	447475	21.24	ug/L	97
79) 1,1,1,2-Tetrachloroethane	9.008	131	149571	23.60	ug/L	98
80) Ethylbenzene	9.045	106	249944	20.82	ug/L	98
81) (m+p)Xylene	9.155	106	612103	43.51	ug/L	97
82) o-Xylene	9.502	106	291521	21.36	ug/L	97
83) Styrene	9.514	104	492742	21.24	ug/L	96
85) Bromoform	9.655	173	68210	21.89	ug/L	97
86) Isopropylbenzene	9.825	105	786762	21.39	ug/L	98
87) Cyclohexanone	9.880	55	435548	718.00	ug/L	100
88) trans-1,4-Dichloro-2-B...	10.112	53	63393	19.39	ug/L	# 98
89) 1,1,2,2-Tetrachloroethane	10.063	83	132593	19.17	ug/L	98
90) Bromobenzene	10.069	156	182796	21.01	ug/L	83
92) 1,2,3-Trichloropropane	10.100	110	40578	20.40	ug/L	98
93) n-Propylbenzene	10.173	91	969908	19.46	ug/L	99
94) 2-Chlorotoluene	10.234	91	572666	19.36	ug/L	99
95) 4-Chlorotoluene	10.325	91	684534	20.04	ug/L	98
96) 1,3,5-Trimethylbenzene	10.319	105	688204	20.80	ug/L	96
97) tert-Butylbenzene	10.587	119	551232	19.86	ug/L	99
98) 1,2,4-Trimethylbenzene	10.630	105	710537	20.08	ug/L	99
99) sec-Butylbenzene	10.770	105	840134	18.93	ug/L	97

Sample : LCS
 Data File: J:\ACQUDATA\MSVOA12\DATA\101309\X4910.D
 Misc :
 Acq On : 13 Oct 2009 2:01 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Oct 13 14:17:04 2009
 QLast Update : Fri Oct 09 14:32:15 2009
 Response via : Initial Calibration

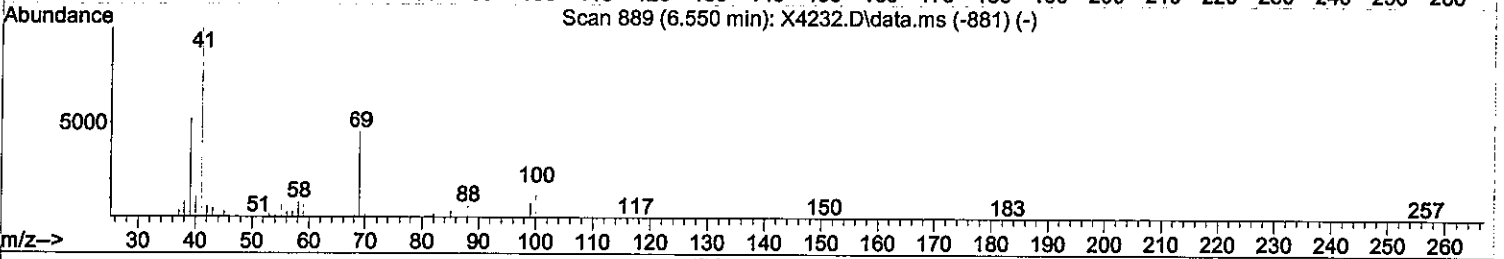
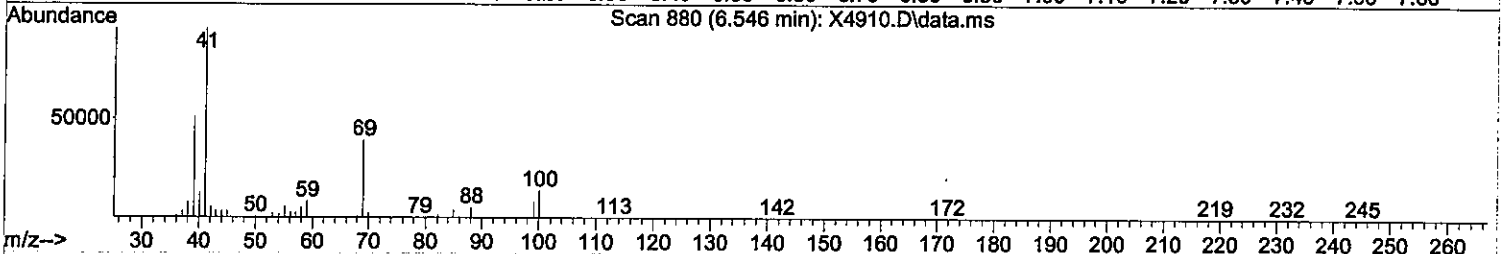
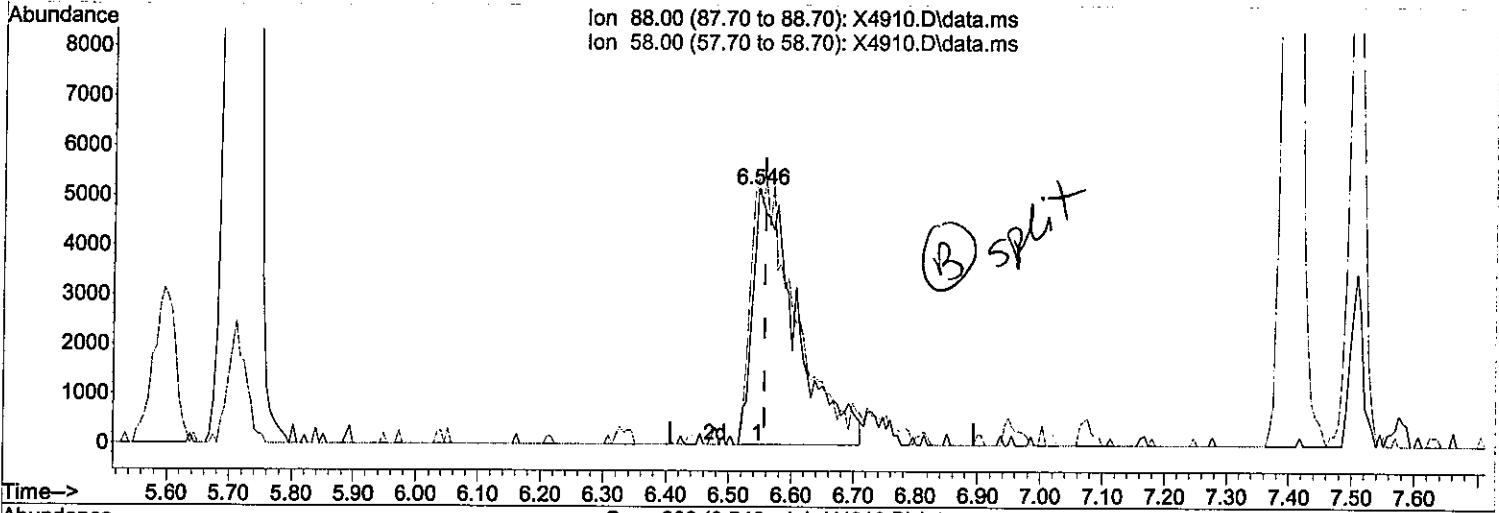
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
100) p-Isopropyltoluene	10.886	119	703576	19.93	ug/L	99
101) 1,3-Dclbenz	10.850	146	378348	20.25	ug/L	98
102) 1,4-Dclbenz	10.923	146	388397	19.97	ug/L	99
104) n-Butylbenzene	11.209	91	667867	18.74	ug/L	98
105) 1,2-Dclbenz	11.215	146	351703	20.47	ug/L	98
106) 1,2-Dibromo-3-chloropr...	11.758	157	23264	17.36	ug/L	93
108) 1,2,4-Tcbenzene	12.282	180	223749	19.13	ug/L	98
109) Hexachlorobt	12.386	225	92249	17.37	ug/L	95
110) Naphthalen	12.422	128	463825	18.29	ug/L	98
111) 1,2,3-Tclbenzene	12.563	180	199473	18.75	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Sample : LCS
 Data File: J:\ACQUDATA\msvoa12\Data\101309\X4910.D
 Misc :
 Acq On : 13 Oct 2009 2:01 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Oct 13 14:17:04 2009
 QLast Update : Fri Oct 09 14:32:15 2009
 Response via : Initial Calibration



TIC: X4910.D\data.ms

(58) 1,4-Dioxane

6.546min (-0.011) 418.81 ug/L

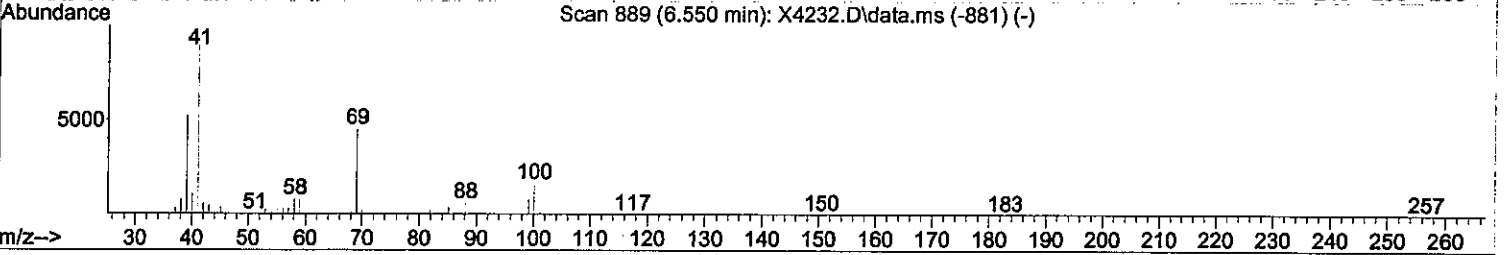
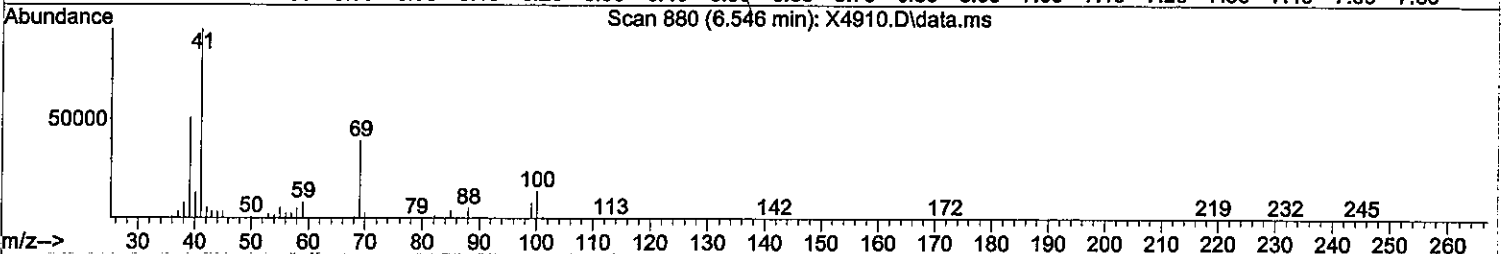
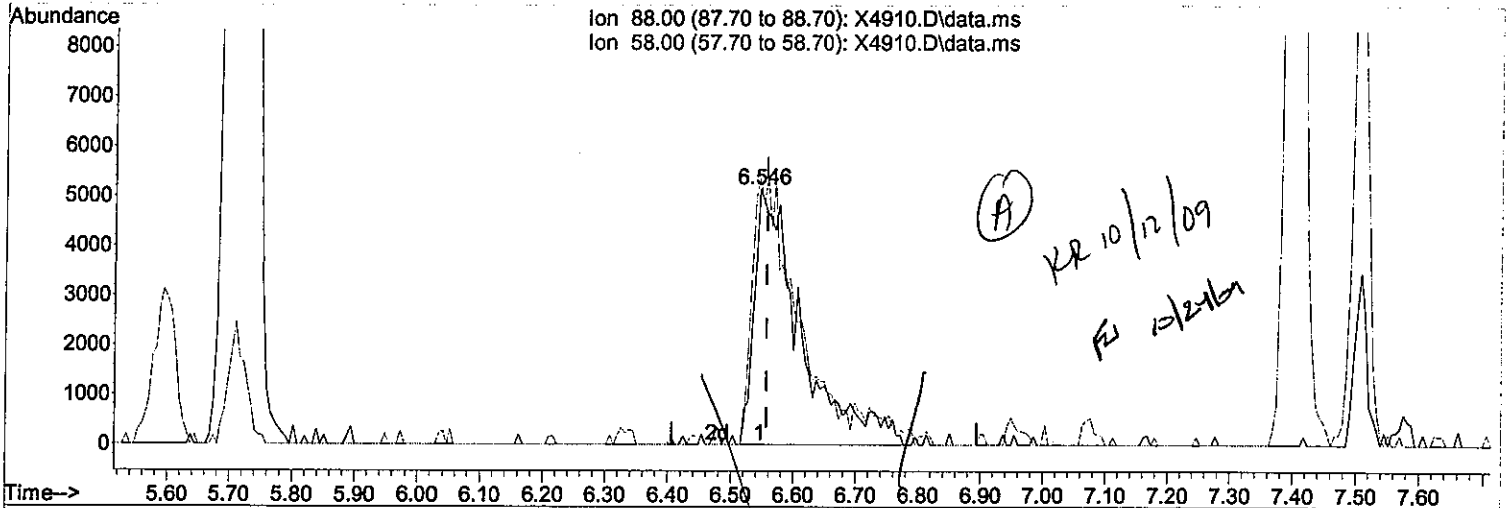
response 25082

Ion	Exp%	Act%
88.00	100	100
58.00	128.90	104.21
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : LCS
 Data File: J:\ACQUDATA\msvoa12\Data\101309\X4910.D
 Misc :
 Acq On : 13 Oct 2009 2:01 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Oct 13 14:17:04 2009
 QLast Update : Fri Oct 09 14:32:15 2009
 Response via : Initial Calibration



(58) 1,4-Dioxane

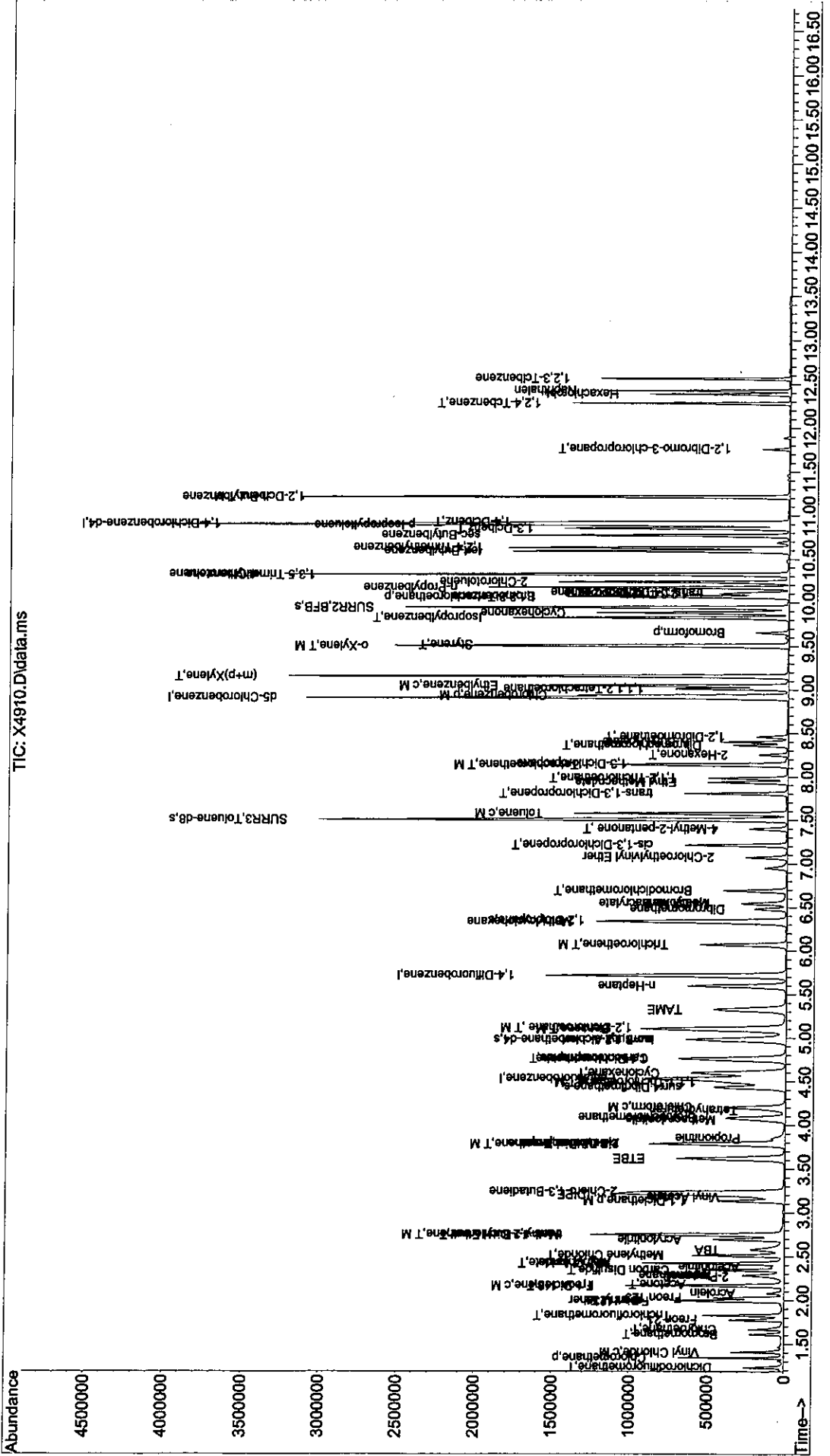
6.546min (-0.011) 445.96 ug/L m

response 26708

Ion	Exp%	Act%
88.00	100	100
58.00	128.90	104.21
0.00	0.00	0.00
0.00	0.00	0.00

Sample : LCS
Data File: J:\ACQDATA\MSVOA12\DATA\101309\X4910.D
Misc :
Acq On : 13 Oct 2009 2:01 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : J:\ACQDATA\MSVOA12\METHODS\W091509.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 13 14:17:04 2009
QLast Update : Fri Oct 09 14:32:15 2009
Response via : Initial Calibration



00232

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
 Project: Tronox LLC Henderson/2027.001
 Sample Matrix: Water
 Sample Name: M-76B
 Lab Code: RQ0909884-03
 Run Type: Matrix Spike

Service Request: R0905636
 Date Collected: 10/ 2/09 1155
 Date Received: 10/ 3/09

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	53.5		1.0	0.18	1	NA	10/13/09 17:08		174548	
1,1,1-Trichloroethane (TCA)	53.4		1.0	0.32	1	NA	10/13/09 17:08		174548	
1,1,2,2-Tetrachloroethane	41.7		1.0	0.090	1	NA	10/13/09 17:08		174548	
1,1,2-Trichloroethane	45.6		1.0	0.20	1	NA	10/13/09 17:08		174548	
1,1-Dichloroethane (1,1-DCA)	46.2		1.0	0.14	1	NA	10/13/09 17:08		174548	
1,1-Dichloroethene (1,1-DCE)	56.1		1.0	0.37	1	NA	10/13/09 17:08		174548	
1,1-Dichloropropene	49.2		2.0	0.21	1	NA	10/13/09 17:08		174548	
1,2,3-Trichlorobenzene	39.4		2.0	0.25	1	NA	10/13/09 17:08		174548	
1,2,3-Trichloropropane	42.5		2.0	0.30	1	NA	10/13/09 17:08		174548	
1,2,4-Trichlorobenzene	42.4		2.0	0.19	1	NA	10/13/09 17:08		174548	
1,2,4-Trimethylbenzene	40.9		2.0	0.36	1	NA	10/13/09 17:08		174548	
1,2-Dibromo-3-chloropropane (DBCP)	40.6		5.0	0.43	1	NA	10/13/09 17:08		174548	
1,2-Dibromoethane	43.6		1.0	0.18	1	NA	10/13/09 17:08		174548	
1,2-Dichlorobenzene	44.7		2.0	0.40	1	NA	10/13/09 17:08		174548	
1,2-Dichloroethane	47.3		1.0	0.14	1	NA	10/13/09 17:08		174548	
1,2-Dichloropropane	47.5		1.0	0.15	1	NA	10/13/09 17:08		174548	
1,3,5-Trimethylbenzene	42.9		2.0	0.36	1	NA	10/13/09 17:08		174548	
1,3-Dichlorobenzene	45.7		2.0	0.36	1	NA	10/13/09 17:08		174548	
1,3-Dichloropropane	44.8		2.0	0.12	1	NA	10/13/09 17:08		174548	
1,4-Dichlorobenzene	44.3		2.0	0.34	1	NA	10/13/09 17:08		174548	
2,2-Dichloropropane	57.4		2.0	0.20	1	NA	10/13/09 17:08		174548	
2-Butanone (MEK)	39.2		10	1.0	1	NA	10/13/09 17:08		174548	
2-Chlorotoluene	44.1		5.0	0.38	1	NA	10/13/09 17:08		174548	
2-Hexanone	42.8		10	0.40	1	NA	10/13/09 17:08		174548	
2-Methyl-2-propanol	670		100	3.0	1	NA	10/13/09 17:08		174548	
4-Chlorotoluene	45.2		5.0	0.37	1	NA	10/13/09 17:08		174548	
4-Isopropyltoluene	44.0		2.0	0.22	1	NA	10/13/09 17:08		174548	
4-Methyl-2-pentanone	44.7		10	0.34	1	NA	10/13/09 17:08		174548	
Acetone	46.8		20	1.6	1	NA	10/13/09 17:08		174548	
Benzene	46.3		1.0	0.18	1	NA	10/13/09 17:08		174548	
Bromobenzene	46.2		2.0	0.33	1	NA	10/13/09 17:08		174548	
Bromochloromethane	47.1		2.0	0.18	1	NA	10/13/09 17:08		174548	
Bromodichloromethane	48.9		1.0	0.17	1	NA	10/13/09 17:08		174548	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: M-76B
Lab Code: RQ0909884-03
Run Type: Matrix Spike

Service Request: R0905636
Date Collected: 10/ 2/09 1155
Date Received: 10/ 3/09

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis	
								Lot	Lot Note
Bromoform	48.7		1.0	0.20	1	NA	10/13/09 17:08		174548
Bromomethane	58.7		2.0	0.40	1	NA	10/13/09 17:08		174548
Carbon Tetrachloride	55.3		1.0	0.36	1	NA	10/13/09 17:08		174548
Chlorobenzene	47.4		1.0	0.26	1	NA	10/13/09 17:08		174548
Chloroethane	48.7		2.0	0.21	1	NA	10/13/09 17:08		174548
Chloroform	169		1.0	0.16	1	NA	10/13/09 17:08		174548
Chloromethane	50.5		2.0	0.18	1	NA	10/13/09 17:08		174548
Dibromochloromethane	49.7		1.0	0.11	1	NA	10/13/09 17:08		174548
Dibromomethane	46.3		1.0	0.18	1	NA	10/13/09 17:08		174548
Dichlorodifluoromethane (CFC 12)	43.0		1.0	0.18	1	NA	10/13/09 17:08		174548
Dichloromethane	36.9		2.0	0.13	1	NA	10/13/09 17:08		174548
Diisopropyl Ether	46.0		1.0	0.090	1	NA	10/13/09 17:08		174548
Ethyl tert-Butyl Ether	46.7		1.0	0.12	1	NA	10/13/09 17:08		174548
Ethylbenzene	47.8		1.0	0.42	1	NA	10/13/09 17:08		174548
Hexachlorobutadiene	36.6		5.0	0.27	1	NA	10/13/09 17:08		174548
Isopropylbenzene (Cumene)	48.5		2.0	0.34	1	NA	10/13/09 17:08		174548
Methyl tert-Butyl Ether	44.6		1.0	0.13	1	NA	10/13/09 17:08		174548
Naphthalene	21.8		2.0	0.31	1	NA	10/13/09 17:08		174548
Styrene	21.8		1.0	0.36	1	NA	10/13/09 17:08		174548
Tetrachloroethene (PCE)	49.2		1.0	0.42	1	NA	10/13/09 17:08		174548
Toluene	48.5		1.0	0.21	1	NA	10/13/09 17:08		174548
Trichloroethene (TCE)	47.8		1.0	0.19	1	NA	10/13/09 17:08		174548
Trichlorofluoromethane (CFC 11)	56.0		1.0	0.16	1	NA	10/13/09 17:08		174548
Vinyl Chloride	54.3		1.0	0.22	1	NA	10/13/09 17:08		174548
cis-1,2-Dichloroethene	46.5		1.0	0.14	1	NA	10/13/09 17:08		174548
cis-1,3-Dichloropropene	48.7		1.0	0.14	1	NA	10/13/09 17:08		174548
m,p-Xylenes	94.4		2.0	0.81	1	NA	10/13/09 17:08		174548
n-Butylbenzene	41.4		5.0	0.20	1	NA	10/13/09 17:08		174548
n-Propylbenzene	43.8		2.0	0.32	1	NA	10/13/09 17:08		174548
o-Xylene	47.6		1.0	0.40	1	NA	10/13/09 17:08		174548
sec-Butylbenzene	42.3		2.0	0.23	1	NA	10/13/09 17:08		174548
tert-Amyl Methyl Ether	43.7		1.0	0.13	1	NA	10/13/09 17:08		174548
tert-Butylbenzene	45.2		2.0	0.28	1	NA	10/13/09 17:08		174548

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: M-76B
Lab Code: RQ0909884-03
Run Type: Matrix Spike

Service Request: R0905636
Date Collected: 10/ 2/09 1155
Date Received: 10/ 3/09
Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis		
								Lot	Lot	Note
trans-1,2-Dichloroethene	47.0		1.0	0.16	1	NA	10/13/09 17:08		174548	
trans-1,3-Dichloropropene	50.5		1.0	0.17	1	NA	10/13/09 17:08		174548	

Surrogate Name	%Rec	Control Limits	Date		Q	Note
			Analyzed			
4-Bromofluorobenzene	108	70-130	10/13/09	17:08		
Dibromofluoromethane	105	70-130	10/13/09	17:08		
Toluene-d8	106	70-130	10/13/09	17:08		

Comments: _____

Sample : R0905636-002MS|1.0 ~~69864~~-03
 Data File: J:\ACQUDATA\MSVOA12\DATA\101309\X4916.D
 Misc : NORTH 4060 T4
 Acq On : 13 Oct 2009 5:08 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Oct 13 17:24:35 2009
 QLast Update : Fri Oct 09 14:32:15 2009
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Pentafluorobenzene	4.534	168	715438	50.00	ug/L	0.00	
44) 1,4-Difluorobenzene	5.716	114	1190616	50.00	ug/L	0.00	
71) d5-Chlorobenzene	8.911	117	1066484	50.00	ug/L	0.00	
84) 1,4-Dichlorobenzene-d4	10.904	152	589195	50.00	ug/L	0.00	
System Monitoring Compounds							
46) surr4,Dibrflmethane	4.436	113	343538	52.63	ug/L	0.00	
Spiked Amount	50.000	Range	89 - 119	Recovery	=	105.26%	
49) surr1,1,2-dichloroetha...	4.979	65	501591	51.40	ug/L	0.00	
Spiked Amount	50.000	Range	80 - 120	Recovery	=	102.80%	
65) SURR3,Toluene-d8	7.509	98	1473767	53.23	ug/L	0.00	
Spiked Amount	50.000	Range	87 - 121	Recovery	=	106.46%	
70) SURR2,BFB	9.941	95	612331	54.03	ug/L	0.00	
Spiked Amount	50.000	Range	85 - 122	Recovery	=	108.06%	
Target Compounds							
2) Dichlorodifluoromethane	1.236	85	347446	42.96	ug/L	99	Qvalue
4) Chloromethane	1.345	50	771038	50.46	ug/L	100	
5) Vinyl Chloride	1.406	62	503326	54.27	ug/L	97	
6) Bromomethane	1.614	94	192135	58.71	ug/L	99	
7) Chloroethane	1.668	64	256740	48.65	ug/L	97	
8) Freon 21	1.778	67	618579	52.97	ug/L	98	
9) Trichlorofluoromethane	1.827	101	538230	55.96	ug/L	99	
10) Diethyl Ether	1.998	59	318722	49.46	ug/L	95	
11) Freon 123a	1.992	67	350512	50.36	ug/L	94	
12) Freon 123	2.028	83	360136	47.92	ug/L	98	
13) Acrolein	2.077	56	47581	46.60	ug/L	88	
14) 1,1-Dicethene	2.168	96	249655	56.05	ug/L	95	
15) Freon 113	2.168	101	257998	55.03	ug/L	98	
16) Acetone	2.181	43	108955	46.75	ug/L	91	
17) 2-Propanol	2.254	45	344169	702.69	ug/L	97	
18) Iodomethane	2.284	142	285675	47.78	ug/L	94	
19) Carbon Disulfide	2.345	76	722202	31.42	ug/L	98	
20) Acetonitrile	2.376	40	79931	166.64	ug/L	97	
21) Allyl Chloride	2.424	76	139873	34.24	ug/L	58	
22) Methyl Acetate	2.424	43	329095	46.77	ug/L	98	
23) Methylene Chloride	2.516	84	306805	36.93	ug/L	83	
24) TBA	2.571	59	464149	670.12	ug/L	98	
25) Acrylonitrile	2.693	53	707248	214.17	ug/L	96	
26) Methyl-t-Butyl Ether	2.747	73	818226	44.55	ug/L	99	
27) trans-1,2-Dichloroethene	2.754	96	361841	46.98	ug/L	97	
28) 1,1-Dicethane	3.138	63	858055	46.23	ug/L	98	
29) Vinyl Acetate	3.180	86	8147	8.56	ug/L	88	
30) DIPE	3.211	45	2203841	46.04	ug/L	97	
31) 2-Chloro-1,3-Butadiene	3.241	53	1107355	61.73	ug/L	99	
32) ETBE	3.619	59	1392706	46.72	ug/L	99	
33) 2,2-Dichloropropane	3.790	77	537385	57.42	ug/L	98	
34) cis-1,2-Dichloroethene	3.784	96	388828	46.48	ug/L	99	
35) 2-Butanone	3.790	43	181434	39.24	ug/L	97	
37) Propionitrile	3.845	54	232346	201.76	ug/L	96	
38) Bromochloromethane	4.089	130	198428	47.11	ug/L	94	

Handwritten: KR
10/19/09

Sample : R0905636-002MS|1.0
 Data File: J:\ACQUDATA\MSVOA12\DATA\101309\X4916.D
 Misc : NORTH 4060 T4
 Acq On : 13 Oct 2009 5:08 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Oct 13 17:24:35 2009
 QLast Update : Fri Oct 09 14:32:15 2009
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
39) Methacrylonitrile	4.058	67	91566	39.07	ug/L	86
40) Tetrahydrofuran	4.168	42	110770	37.31	ug/L	99
41) Chloroform	4.205	83	2319767	<u>168.92</u>	ug/L	98
42) 1,1,1-Trichloroethane	4.491	97	583222	<u>53.42</u>	ug/L	96
43) TAME	5.326	73	763013	43.73	ug/L	99
45) Cyclohexane	4.595	41	681561	48.69	ug/L	98
47) Carbontetrachloride	4.765	121	145570	55.26	ug/L	100
48) 1,1-Dichloropropene	4.759	75	531589	49.19	ug/L	97
50) Benzene	5.101	78	1498280	<u>46.30</u>	ug/L	95
51) 1,2-Dichloroethane	5.107	62	623960	47.29	ug/L	97
52) Iso-Butyl Alcohol	4.967	43	268346	653.22	ug/L	95
53) n-Heptane	5.595	43	864017	40.23	ug/L	97
54) Trichloroethene	6.070	130	348977	<u>47.82</u>	ug/L	97
55) Methylcyclohexane	6.332	55	798141	<u>46.11</u>	ug/L	96
56) 1,2-Diclp propane	6.344	63	467069	47.49	ug/L	97
57) Dibromomethane	6.478	93	171845	46.28	ug/L	96
58) 1,4-Dioxane	6.539	88	32226	539.35	ug/L	90 (poor int)
59) Methyl Methacrylate	6.546	69	104751	26.30	ug/L	98
60) Bromodichloromethane	6.692	83	477843	48.91	ug/L	96
63) cis-1,3-Dichloropropene	7.216	75	541667	48.67	ug/L	99
64) 4-Methyl-2-pentanone	7.399	43	373085	44.73	ug/L	98
66) Toluene	7.576	91	1606479	<u>48.47</u>	ug/L	98
67) trans-1,3-Dichloropropene	7.807	75	464375	<u>50.46</u>	ug/L	98
68) Ethyl Methacrylate	7.936	69	194085	23.61	ug/L	91
69) 1,1,2-Trichloroethane	7.984	97	246129	45.58	ug/L	96
72) Tetrachloroethene	8.137	164	284663	<u>49.22</u>	ug/L	95
73) 2-Hexanone	8.253	43	252272	42.76	ug/L	95
74) 1,3-Dichloropropane	8.149	76	471078	44.84	ug/L	96
75) Dibromochloromethane	8.362	129	287707	49.73	ug/L	99
76) N-Butyl Acetate	8.399	43	639475	39.65	ug/L	97
77) 1,2-Dibromoethane	8.460	107	235120	43.55	ug/L	# 97
78) Chlorobenzene	8.935	112	989363	<u>47.40</u>	ug/L	99
79) 1,1,1,2-Tetrachloroethane	9.015	131	335635	53.45	ug/L	96
80) Ethylbenzene	9.045	106	568967	<u>47.83</u>	ug/L	96
81) (m+p)Xylene	9.155	106	1315319	94.36	ug/L	94
82) o-Xylene	9.502	106	643911	<u>47.61</u>	ug/L	100
83) Styrene	9.514	104	500746	21.79	ug/L	99
85) Bromoform	9.655	173	150126	48.67	ug/L	96
86) Isopropylbenzene	9.825	105	1765353	48.50	ug/L	98
87) Cyclohexanone	9.880	55	181192	301.77	ug/L	96
88) trans-1,4-Dichloro-2-B...	10.112	53	50829	15.71	ug/L	# 94
89) 1,1,2,2-Tetrachloroethane	10.063	83	285377	41.67	ug/L	99
90) Bromobenzene	10.069	156	397384	46.15	ug/L	87
92) 1,2,3-Trichloropropane	10.100	110	83586	42.46	ug/L	90
93) n-Propylbenzene	10.173	91	2161343	43.81	ug/L	100
94) 2-Chlorotoluene	10.234	91	1289849	44.06	ug/L	99
95) 4-Chlorotoluene	10.325	91	1527685	45.18	ug/L	99
96) 1,3,5-Trimethylbenzene	10.319	105	1405801	42.92	ug/L	97
97) tert-Butylbenzene	10.587	119	1242623	45.23	ug/L	98
98) 1,2,4-Trimethylbenzene	10.630	105	1430724	40.85	ug/L	100
99) sec-Butylbenzene	10.770	105	1858420	42.31	ug/L	98
100) p-Isopropyltoluene	10.886	119	1537786	44.02	ug/L	99

Sample : R0905636-002MS|1.0
 Data File: J:\ACQUDATA\MSVOA12\DATA\101309\X4916.D
 Misc : NORTH 4060 T4
 Acq On : 13 Oct 2009 5:08 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Oct 13 17:24:35 2009
 QLast Update : Fri Oct 09 14:32:15 2009
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
101) 1,3-Dclbenz	10.850	146	845857	45.73	ug/L	99
102) 1,4-Dclbenz	10.923	146	852451	44.29	ug/L	98
104) n-Butylbenzene	11.209	91	1459104	41.37	ug/L	99
105) 1,2-Dclbenz	11.215	146	760606	44.73	ug/L	97
106) 1,2-Dibromo-3-chloropr...	11.758	157	53799	40.57	ug/L	94
108) 1,2,4-Tcbenzene	12.282	180	490470	42.37	ug/L	99
109) Hexachlorobt	12.386	225	192204	36.57	ug/L	96
110) Naphthalen	12.422	128	547652	21.81	ug/L	98
111) 1,2,3-Tclbenzene	12.563	180	414401	39.35	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
 Project: Tronox LLC Henderson/2027.001
 Sample Matrix: Water
 Sample Name: M-76B
 Lab Code: RQ0909884-04
 Run Type: Duplicate Matrix Spike

Service Request: R0905636
 Date Collected: 10/ 2/09 1155
 Date Received: 10/ 3/09

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	52.3		1.0	0.18	1	NA	10/13/09 17:39		174548	
1,1,1-Trichloroethane (TCA)	52.1		1.0	0.32	1	NA	10/13/09 17:39		174548	
1,1,2,2-Tetrachloroethane	40.6		1.0	0.090	1	NA	10/13/09 17:39		174548	
1,1,2-Trichloroethane	46.3		1.0	0.20	1	NA	10/13/09 17:39		174548	
1,1-Dichloroethane (1,1-DCA)	45.3		1.0	0.14	1	NA	10/13/09 17:39		174548	
1,1-Dichloroethene (1,1-DCE)	53.6		1.0	0.37	1	NA	10/13/09 17:39		174548	
1,1-Dichloropropene	48.5		2.0	0.21	1	NA	10/13/09 17:39		174548	
1,2,3-Trichlorobenzene	39.4		2.0	0.25	1	NA	10/13/09 17:39		174548	
1,2,3-Trichloropropane	43.9		2.0	0.30	1	NA	10/13/09 17:39		174548	
1,2,4-Trichlorobenzene	41.7		2.0	0.19	1	NA	10/13/09 17:39		174548	
1,2,4-Trimethylbenzene	43.0		2.0	0.36	1	NA	10/13/09 17:39		174548	
1,2-Dibromo-3-chloropropane (DBCP)	41.0		5.0	0.43	1	NA	10/13/09 17:39		174548	
1,2-Dibromoethane	43.8		1.0	0.18	1	NA	10/13/09 17:39		174548	
1,2-Dichlorobenzene	43.4		2.0	0.40	1	NA	10/13/09 17:39		174548	
1,2-Dichloroethane	47.1		1.0	0.14	1	NA	10/13/09 17:39		174548	
1,2-Dichloropropane	47.4		1.0	0.15	1	NA	10/13/09 17:39		174548	
1,3,5-Trimethylbenzene	43.8		2.0	0.36	1	NA	10/13/09 17:39		174548	
1,3-Dichlorobenzene	44.4		2.0	0.36	1	NA	10/13/09 17:39		174548	
1,3-Dichloropropane	43.7		2.0	0.12	1	NA	10/13/09 17:39		174548	
1,4-Dichlorobenzene	43.3		2.0	0.34	1	NA	10/13/09 17:39		174548	
2,2-Dichloropropane	55.8		2.0	0.20	1	NA	10/13/09 17:39		174548	
2-Butanone (MEK)	39.1		10	1.0	1	NA	10/13/09 17:39		174548	
2-Chlorotoluene	42.9		5.0	0.38	1	NA	10/13/09 17:39		174548	
2-Hexanone	43.5		10	0.40	1	NA	10/13/09 17:39		174548	
2-Methyl-2-propanol	784		100	3.0	1	NA	10/13/09 17:39		174548	
4-Chlorotoluene	43.4		5.0	0.37	1	NA	10/13/09 17:39		174548	
4-Isopropyltoluene	42.6		2.0	0.22	1	NA	10/13/09 17:39		174548	
4-Methyl-2-pentanone	46.4		10	0.34	1	NA	10/13/09 17:39		174548	
Acetone	46.9		20	1.6	1	NA	10/13/09 17:39		174548	
Benzene	45.6		1.0	0.18	1	NA	10/13/09 17:39		174548	
Bromobenzene	44.8		2.0	0.33	1	NA	10/13/09 17:39		174548	
Bromochloromethane	46.3		2.0	0.18	1	NA	10/13/09 17:39		174548	
Bromodichloromethane	48.8		1.0	0.17	1	NA	10/13/09 17:39		174548	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
 Project: Tronox LLC Henderson/2027.001
 Sample Matrix: Water
 Sample Name: M-76B
 Lab Code: RQ0909884-04
 Run Type: Duplicate Matrix Spike

Service Request: R0905636
 Date Collected: 10/ 2/09 1155
 Date Received: 10/ 3/09

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Bromoform	47.2		1.0	0.20	1	NA	10/13/09 17:39		174548	
Bromomethane	55.3		2.0	0.40	1	NA	10/13/09 17:39		174548	
Carbon Tetrachloride	53.9		1.0	0.36	1	NA	10/13/09 17:39		174548	
Chlorobenzene	45.8		1.0	0.26	1	NA	10/13/09 17:39		174548	
Chloroethane	48.1		2.0	0.21	1	NA	10/13/09 17:39		174548	
Chloroform	164		1.0	0.16	1	NA	10/13/09 17:39		174548	
Chloromethane	47.3		2.0	0.18	1	NA	10/13/09 17:39		174548	
Dibromochloromethane	47.7		1.0	0.11	1	NA	10/13/09 17:39		174548	
Dibromomethane	46.1		1.0	0.18	1	NA	10/13/09 17:39		174548	
Dichlorodifluoromethane (CFC 12)	41.0		1.0	0.18	1	NA	10/13/09 17:39		174548	
Dichloromethane	44.0		2.0	0.13	1	NA	10/13/09 17:39		174548	
Diisopropyl Ether	46.3		1.0	0.090	1	NA	10/13/09 17:39		174548	
Ethyl tert-Butyl Ether	47.5		1.0	0.12	1	NA	10/13/09 17:39		174548	
Ethylbenzene	45.7		1.0	0.42	1	NA	10/13/09 17:39		174548	
Hexachlorobutadiene	35.5		5.0	0.27	1	NA	10/13/09 17:39		174548	
Isopropylbenzene (Cumene)	46.1		2.0	0.34	1	NA	10/13/09 17:39		174548	
Methyl tert-Butyl Ether	45.9		1.0	0.13	1	NA	10/13/09 17:39		174548	
Naphthalene	40.2		2.0	0.31	1	NA	10/13/09 17:39		174548	
Styrene	25.1		1.0	0.36	1	NA	10/13/09 17:39		174548	
Tetrachloroethene (PCE)	46.9		1.0	0.42	1	NA	10/13/09 17:39		174548	
Toluene	47.3		1.0	0.21	1	NA	10/13/09 17:39		174548	
Trichloroethene (TCE)	46.5		1.0	0.19	1	NA	10/13/09 17:39		174548	
Trichlorofluoromethane (CFC 11)	53.6		1.0	0.16	1	NA	10/13/09 17:39		174548	
Vinyl Chloride	51.7		1.0	0.22	1	NA	10/13/09 17:39		174548	
cis-1,2-Dichloroethene	45.5		1.0	0.14	1	NA	10/13/09 17:39		174548	
cis-1,3-Dichloropropene	49.3		1.0	0.14	1	NA	10/13/09 17:39		174548	
m,p-Xylenes	93.5		2.0	0.81	1	NA	10/13/09 17:39		174548	
n-Butylbenzene	39.4		5.0	0.20	1	NA	10/13/09 17:39		174548	
n-Propylbenzene	42.3		2.0	0.32	1	NA	10/13/09 17:39		174548	
o-Xylene	47.0		1.0	0.40	1	NA	10/13/09 17:39		174548	
sec-Butylbenzene	40.6		2.0	0.23	1	NA	10/13/09 17:39		174548	
tert-Amyl Methyl Ether	44.4		1.0	0.13	1	NA	10/13/09 17:39		174548	
tert-Butylbenzene	43.2		2.0	0.28	1	NA	10/13/09 17:39		174548	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: M-76B
Lab Code: RQ0909884-04
Run Type: Duplicate Matrix Spike

Service Request: R0905636
Date Collected: 10/ 2/09 1155
Date Received: 10/ 3/09
Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis		
								Lot	Lot	Note
trans-1,2-Dichloroethene	45.6		1.0	0.16	1	NA	10/13/09 17:39			174548
trans-1,3-Dichloropropene	51.0		1.0	0.17	1	NA	10/13/09 17:39			174548

Surrogate Name	%Rec	Control Limits	Date		Q	Note
			Analyzed			
4-Bromofluorobenzene	112	70-130	10/13/09	17:39		
Dibromofluoromethane	107	70-130	10/13/09	17:39		
Toluene-d8	107	70-130	10/13/09	17:39		

Comments: _____

Sample : R0905636-002MD|1.0 *Q9884-04*
 Data File: J:\ACQUATA\MSVOA12\DATA\101309\X4917.D
 Misc : NORTH 4060 T4
 Acq On : 13 Oct 2009 5:39 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Oct 13 17:55:38 2009
 QLast Update : Fri Oct 09 14:32:15 2009
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.534	168	721948	50.00	ug/L	0.00
44) 1,4-Difluorobenzene	5.716	114	1192799	50.00	ug/L	0.00
71) d5-Chlorobenzene	8.911	117	1090675	50.00	ug/L	0.00
84) 1,4-Dichlorobenzene-d4	10.904	152	604295	50.00	ug/L	0.00

System Monitoring Compounds						
46) surr4,Dibrflmethane	4.436	113	350841	53.65	ug/L	0.00
Spiked Amount	50.000	Range	89 - 119	Recovery	=	107.30%
49) surr1,1,2-dichloroetha...	4.979	65	519848	53.17	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	106.34%
65) SURR3,Toluene-d8	7.509	98	1482275	53.44	ug/L	0.00
Spiked Amount	50.000	Range	87 - 121	Recovery	=	106.88%
70) SURR2,BFB	9.941	95	634698	55.90	ug/L	0.00
Spiked Amount	50.000	Range	85 - 122	Recovery	=	111.80%

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.236	85	334532	40.99	ug/L	96
4) Chloromethane	1.345	50	729916	47.34	ug/L	100
5) Vinyl Chloride	1.412	62	483943	<u>51.71</u>	ug/L	97
6) Bromomethane	1.614	94	182992	55.27	ug/L	97
7) Chloroethane	1.668	64	256167	48.11	ug/L	100
8) Freon 21	1.778	67	593995	50.41	ug/L	98
9) Trichlorofluoromethane	1.827	101	520054	53.58	ug/L	99
10) Diethyl Ether	1.998	59	324390	49.88	ug/L	95
11) Freon 123a	1.992	67	342260	48.73	ug/L	89
12) Freon 123	2.028	83	346538	45.69	ug/L	97
13) Acrolein	2.077	56	126077	122.37	ug/L	95
14) 1,1-Dicethene	2.168	96	241035	<u>53.63</u>	ug/L	93
15) Freon 113	2.168	101	244842	51.75	ug/L	100
16) Acetone	2.181	43	110344	46.92	ug/L	96
17) 2-Propanol	2.266	45	420335	850.46	ug/L	95
18) Iodomethane	2.284	142	311328	51.57	ug/L	92
19) Carbon Disulfide	2.345	76	654045	28.20	ug/L	98
20) Acetonitrile	2.376	40	82130	169.68	ug/L	91
22) Methyl Acetate	2.424	43	343158	48.33	ug/L	99
23) Methylene Chloride	2.510	84	369149	44.03	ug/L	86
24) TBA	2.577	59	556356	784.15	ug/L	95
25) Acrylonitrile	2.693	53	724747	217.49	ug/L	99
26) Methyl-t-Butyl Ether	2.748	73	850653	45.90	ug/L	99
27) trans-1,2-Dichloroethene	2.748	96	354356	<u>45.60</u>	ug/L	94
28) 1,1-Dicethane	3.138	63	848609	<u>45.30</u>	ug/L	98
29) Vinyl Acetate	3.180	86	15153	15.78	ug/L	72
30) DIPE	3.211	45	2235823	46.28	ug/L	98
31) 2-Chloro-1,3-Butadiene	3.241	53	1082378	59.79	ug/L	98
32) ETBE	3.619	59	1427986	47.48	ug/L	100
33) 2,2-Dichloropropane	3.790	77	526573	55.76	ug/L	96
34) cis-1,2-Dichloroethene	3.784	96	384288	<u>45.52</u>	ug/L	99
35) 2-Butanone	3.784	43	182597	39.14	ug/L	97
37) Propionitrile	3.845	54	251864	216.74	ug/L	99
38) Bromochloromethane	4.089	130	196889	46.33	ug/L	98
39) Methacrylonitrile	4.058	67	96293	40.71	ug/L	93
21) allyl chloride	2.424		134707	33.65	m ^(K)	

KR
10/19/09

Sample : R0905636-002MD|1.0
 Data File: J:\ACQUDATA\MSVOA12\DATA\101309\X4917.D
 Misc : NORTH 4060 T4
 Acq On : 13 Oct 2009 5:39 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Oct 13 17:55:38 2009
 QLast Update : Fri Oct 09 14:32:15 2009
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Tetrahydrofuran	4.168	42	117803	39.32	ug/L	97
41) Chloroform	4.205	83	2271175	163.89	ug/L	98
42) 1,1,1-Trichloroethane	4.491	97	573837	52.08	ug/L	97
43) TAME	5.326	73	782047	44.42	ug/L	97
45) Cyclohexane	4.595	41	654733	46.69	ug/L	96
47) Carbontetrachloride	4.759	121	142301	53.92	ug/L	91
48) 1,1-Dichloropropene	4.759	75	524540	48.45	ug/L	97
50) Benzene	5.101	78	1478895	45.61	ug/L	97
51) 1,2-Dichloroethane	5.113	62	623096	47.14	ug/L	99
52) Iso-Butyl Alcohol	4.973	43	307976	738.60	ug/L	100
53) n-Heptane	5.595	43	831224	38.64	ug/L	98
54) Trichloroethene	6.070	130	339945	46.49	ug/L	95
55) Methylcyclohexane	6.332	55	769213	44.35	ug/L	99
56) 1,2-Dichloropropane	6.344	63	466752	47.37	ug/L	96
57) Dibromomethane	6.479	93	171396	46.08	ug/L	98
58) 1,4-Dioxane	6.539	88	47587	794.99	ug/L	86
59) Methyl Methacrylate	6.539	69	168149	41.74	ug/L	96
60) Bromodichloromethane	6.692	83	478072	48.84	ug/L	97
63) cis-1,3-Dichloropropene	7.216	75	549961	49.33	ug/L	99
64) 4-Methyl-2-pentanone	7.399	43	387470	46.37	ug/L	99
66) Toluene	7.576	91	1570692	47.31	ug/L	100
67) trans-1,3-Dichloropropene	7.808	75	470021	50.98	ug/L	99
68) Ethyl Methacrylate	7.936	69	354779	42.41	ug/L	89
69) 1,1,2-Trichloroethane	7.984	97	250287	46.26	ug/L	96
72) Tetrachloroethene	8.137	164	277125	46.86	ug/L	95
73) 2-Hexanone	8.253	43	262420	43.49	ug/L #	91
74) 1,3-Dichloropropane	8.149	76	469830	43.73	ug/L	96
75) Dibromochloromethane	8.362	129	282147	47.69	ug/L	97
76) N-Butyl Acetate	8.399	43	662840	40.16	ug/L	98
77) 1,2-Dibromoethane	8.460	107	241570	43.75	ug/L	97
78) Chlorobenzene	8.935	112	977233	45.78	ug/L	97
79) 1,1,1,2-Tetrachloroethane	9.015	131	336108	52.34	ug/L	97
80) Ethylbenzene	9.045	106	555871	45.69	ug/L	98
81) (m+p)Xylene	9.155	106	1332384	93.47	ug/L	97
82) o-Xylene	9.502	106	650502	47.03	ug/L	98
83) Styrene	9.515	104	590314	25.12	ug/L	98
85) Bromoform	9.655	173	149248	47.18	ug/L	93
86) Isopropylbenzene	9.825	105	1721624	46.11	ug/L	99
87) Cyclohexanone	9.880	55	223853	363.50	ug/L	97
88) trans-1,4-Dichloro-2-B...	10.112	53	139002	41.88	ug/L #	93
89) 1,1,2,2-Tetrachloroethane	10.063	83	285263	40.62	ug/L	98
90) Bromobenzene	10.069	156	395352	44.77	ug/L	87
92) 1,2,3-Trichloropropane	10.100	110	88561	43.86	ug/L	96
93) n-Propylbenzene	10.173	91	2139502	42.28	ug/L	99
94) 2-Chlorotoluene	10.234	91	1286874	42.86	ug/L	98
95) 4-Chlorotoluene	10.325	91	1505147	43.40	ug/L	98
96) 1,3,5-Trimethylbenzene	10.319	105	1470462	43.77	ug/L	95
97) tert-Butylbenzene	10.587	119	1216519	43.18	ug/L	98
98) 1,2,4-Trimethylbenzene	10.630	105	1543388	42.97	ug/L	100
99) sec-Butylbenzene	10.770	105	1830798	40.64	ug/L	98
100) p-Isopropyltoluene	10.886	119	1526840	42.61	ug/L	99
101) 1,3-Dichlorobenz	10.850	146	841649	44.37	ug/L	97

Sample : R0905636-002MD|1.0
 Data File: J:\ACQUDATA\MSVOA12\DATA\101309\X4917.D
 Misc : NORTH 4060 T4
 Acq On : 13 Oct 2009 5:39 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Oct 13 17:55:38 2009
 QLast Update : Fri Oct 09 14:32:15 2009
 Response via : Initial Calibration

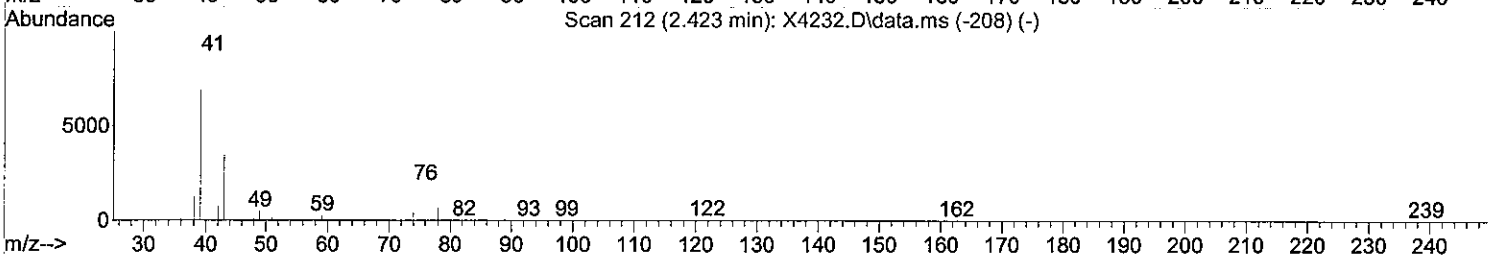
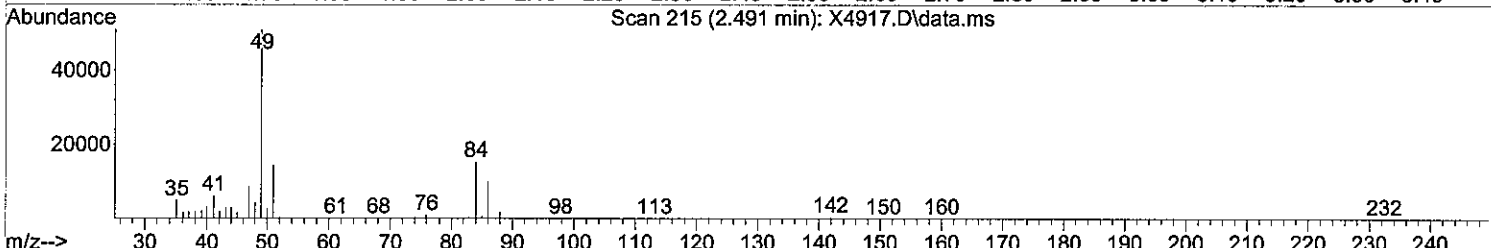
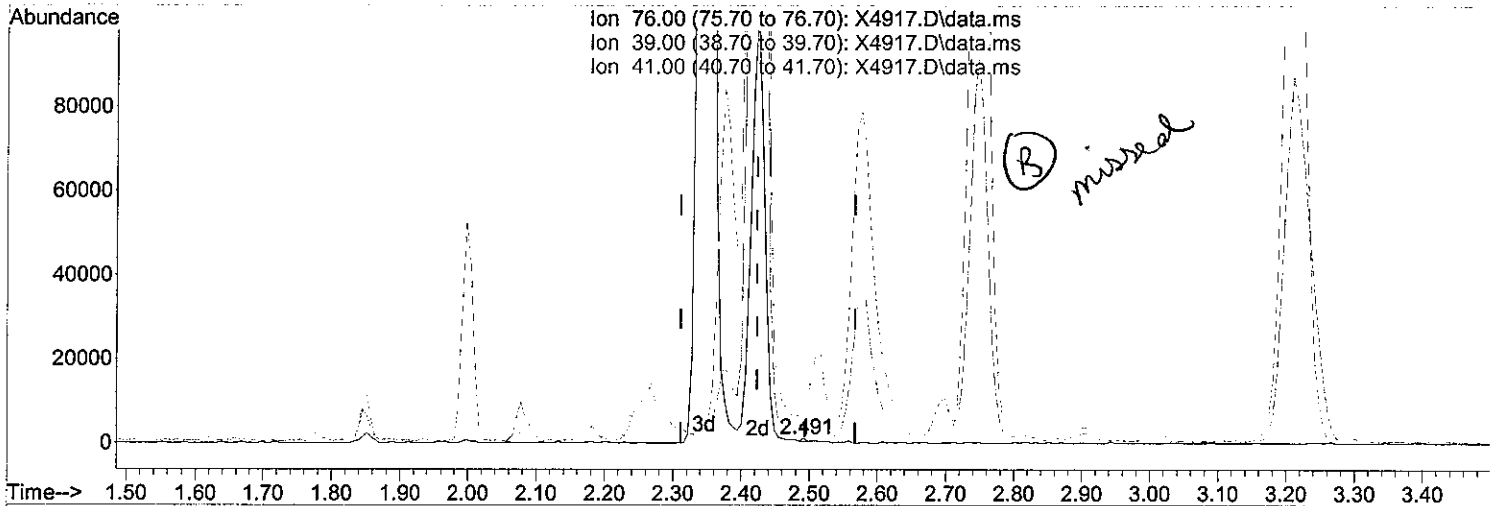
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) 1,4-Dclbenz	10.923	146	854162	43.27	ug/L	98
104) n-Butylbenzene	11.209	91	1425005	39.40	ug/L	100
105) 1,2-Dclbenz	11.215	146	757419	43.43	ug/L	96
106) 1,2-Dibromo-3-chloropr...	11.758	157	55724	40.97	ug/L	90
108) 1,2,4-Tcbenzene	12.282	180	494442	41.65	ug/L	99
109) Hexachlorobt	12.386	225	191514	35.53	ug/L	97
110) Naphthalen	12.422	128	1034558	40.18	ug/L	99
111) 1,2,3-Tclbenzene	12.563	180	425452	39.39	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Sample : R0905636-002MD|1.0
 Data File: J:\ACQUDATA\msvoa12\Data\101309\X4917.D
 Misc : NORTH 4060 T4
 Acq On : 13 Oct 2009 5:39 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Oct 13 17:55:38 2009
 QLast Update : Fri Oct 09 14:32:15 2009
 Response via : Initial Calibration



TIC: X4917.D\data.ms

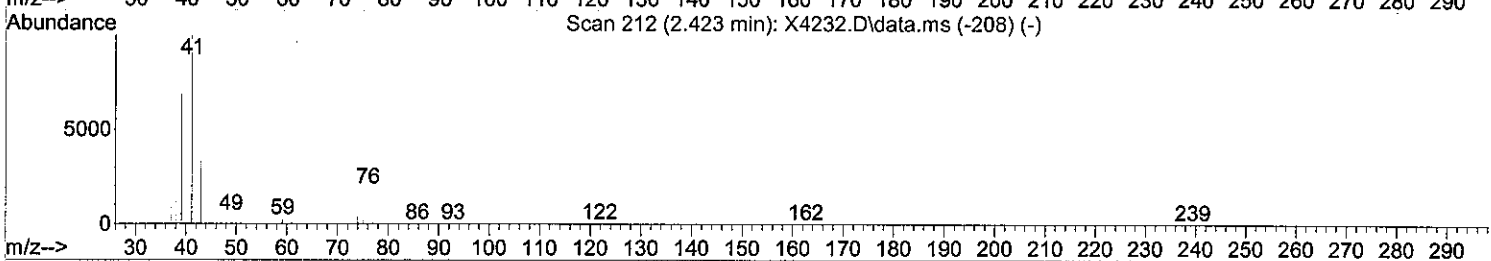
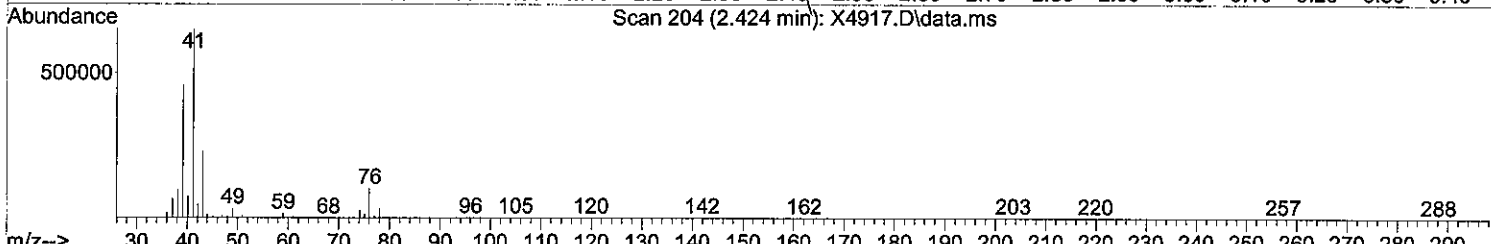
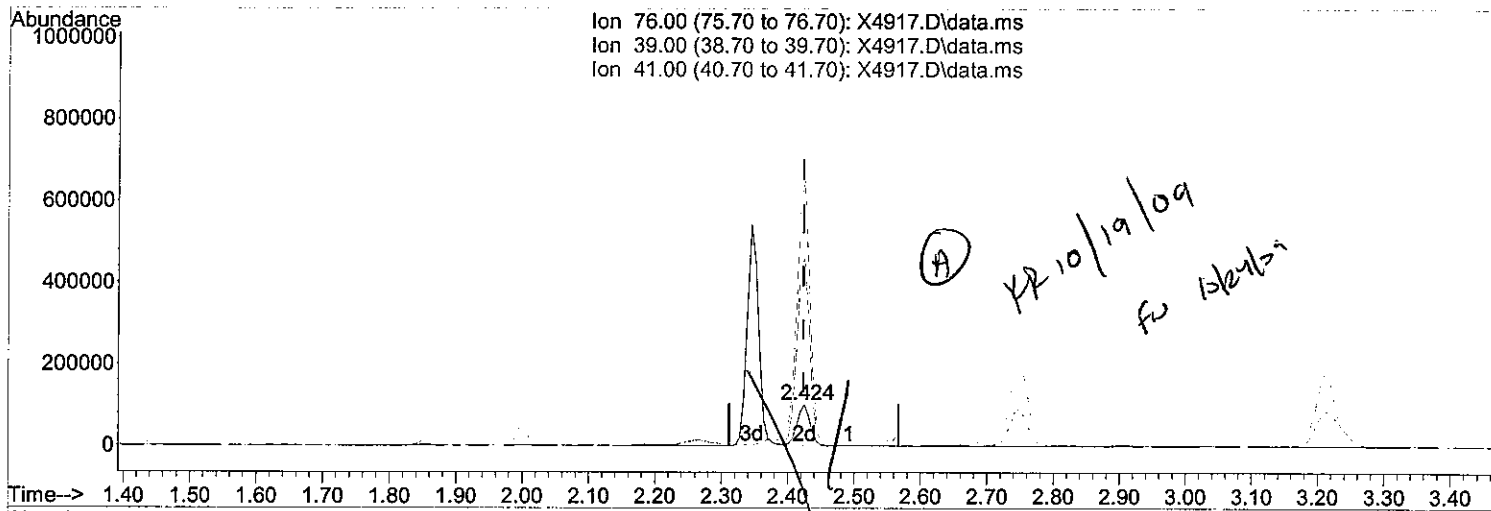
(21) Allyl Chloride
 2.491min (+0.068) 0.07 ug/L
 response 274

Ion	Exp%	Act%
76.00	100	100
39.00	326.90	191.62
41.00	507.80	560.29
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : R0905636-002MD|1.0
 Data File: J:\ACQUDATA\msvoa12\Data\101309\X4917.D
 Misc : NORTH 4060 T4
 Acq On : 13 Oct 2009 5:39 pm
 Operator : K.Ruest
 InstName : MSVOA-12

Quant Method : J:\ACQUDATA\MSVOA12\METHODS\W091509.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Time: Oct 13 17:55:38 2009
 QLast Update : Fri Oct 09 14:32:15 2009
 Response via : Initial Calibration



TIC: X4917.D\data.ms

(21) Allyl Chloride

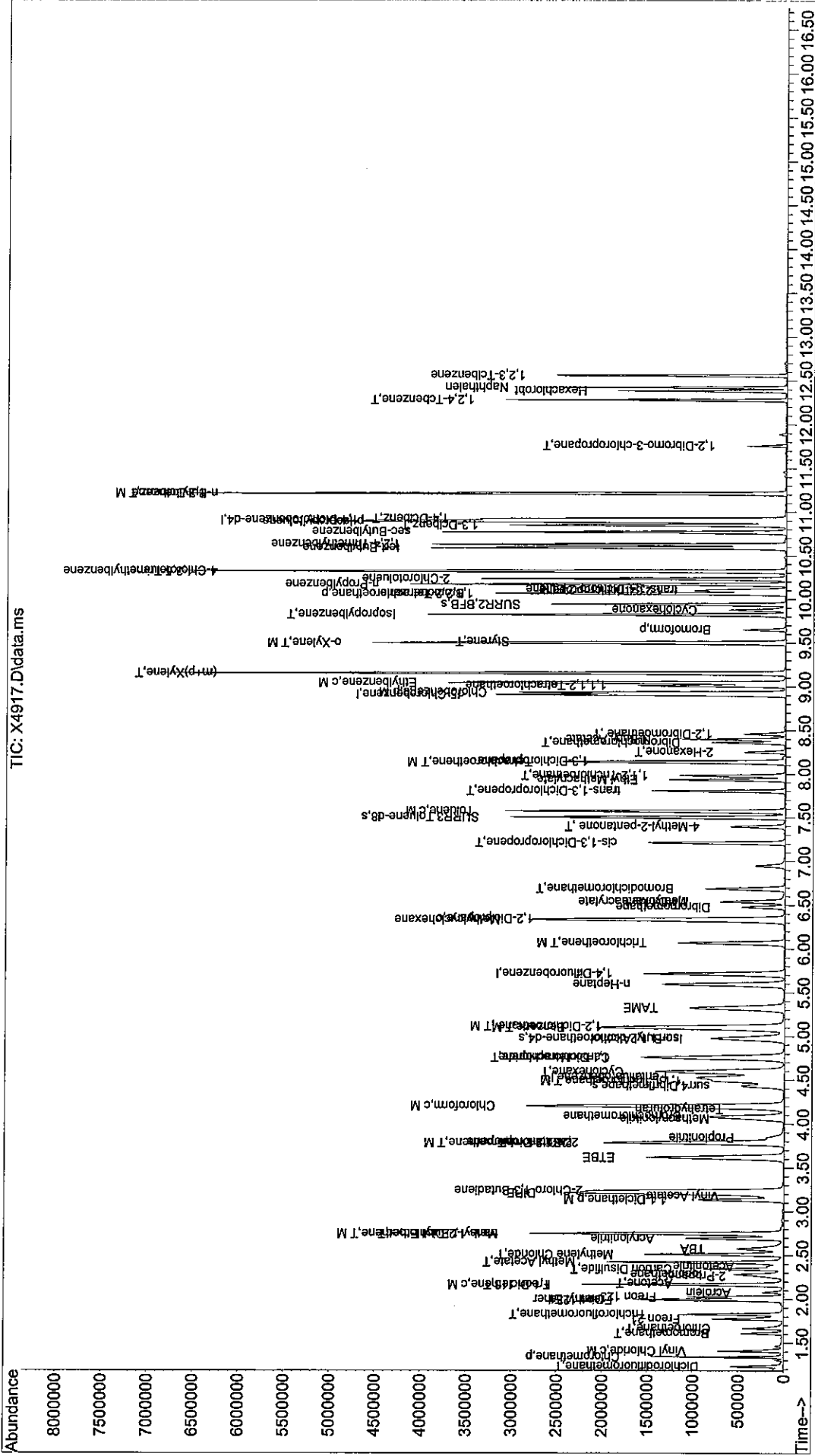
2.424min (+0.001) 33.65 ug/L m

response 138707

Ion	Exp%	Act%
76.00	100	100
39.00	326.90	452.78
41.00	507.80	642.12#
0.00	0.00	0.00

Sample : R0905636-002MD|1.0
Data File: J:\ACQDATA\MSVOA12\DATA\101309\X4917.D
Misc : NORTH 4060 T4
Acq On : 13 Oct 2009 5:39 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : J:\ACQDATA\MSVOA12\METHODS\W091509.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 13 17:55:38 2009
QLast Update : Fri Oct 09 14:32:15 2009
Response via : Initial Calibration



84200

Analysis: 82100 waters Analyst: Y. Kuest Tune Method: TC91509
 Date: 9/15/09 Data Path: j:\acquadatamsvoa\2\1091509 Run Method: W091509
 Instr. 12 * 5 prep cleaned w/ chrometex LIMS Run#: _____

Pos.	Sample	Diln.	Diln. Prep.	Client	RL	Tier	Vial	pH	File#	OK?	Comments
1	RL								X4222		
2	↓								X4223		
3	SO								X4224		
4	BK								X4225		
27	DATE								X4226	Y	14141 (auto signed)
1	1 BK	5ppm	1500	BUSBO FY					X4227	YB	
1	0.5ppb	5ul	—	—	50ml				X4228	Y	
2	1.0	10ul	—	—	—				X4229	Y	
3	2.0	20ul	—	1ul	—				X4230	Y	
4	5.0	50ul	—	2ul	—				X4231	Y	
5	20	—	2ul	5ul	—				X4232	Y	
6	50	—	5ul	—	—				X4233	Y	
7	100	—	10ul	7.5ul	—				X4234	Y	
8	200	—	20ul	10ul	↓				X4235	Y	
9	BK								X4236	—	
10	↓								X4237	—	
11	1CV								X4238	YB	
12	BK								X4239	—	
1	BK (9/16/09)								X4240	—	
2	↓								X4241	—	
3	↓								X4242	—	
4	↓								X4243	—	

RF 9/16/09

All samples = 10 mL + 1 uL Combined IS/Surr 10 mL purged

Primary T6 : 12219
 Primary HSL : 12220 10ul → 1.0ml MACH
 Primary OXY : 12131 = 5 ppm
 Primary Frt : 118536

600 Secondary T6 : 11958
 Secondary HSL : 12190 5ul
 Secondary OXY : 11570
 Secondary Frt : 119109 - 12.5ul

50ml = 1CV

Comb. IS/Surr. STD : 12211
 Surrogate STD : 11937
 Internal Std. : _____

Analysis: Blod Waters
 Date: 10/12/09
 Instr: @12

Analyt: Direct
 Data Path: j:\acqdata\msv012\101209

Tune Method: TOP1SD9
 Run Method: W095D9
 LIMS Run#: 143563

Pos.	Sample	Diln.	Diln. Prep.	Client	RL	Tier	Vial	pH	File#	OK?	Comments
1	BLK								X1877		
2									X1878		
3									X1879		
27	TUNE		1ul (51500) / 100mls						X1880	Y	1:35 (auto)
1	CCV								X1881	Y	
2	LCS		Q9815-02						X1882	Y	opt 1/6
3	MIST BLK								X1883	N	
4									X1884	Y	
5	R0905539-023	1.0			1000	4	2	22	X1885	Y	TB
6	R0905524-001	1.0					2	22	X1886	Y	TB
7	R0905576-007	1.0	25/50mls				2	22	X1887	Y	TB
8	R0905635-001	1.0			1000	4	2	22	X1888	Y	
9		1.0					1	22	X1889	Y	
10		1.0					1	22	X1890	Y	TB
11		1.0					1	22	X1891	Y	TB
12		1.0					1	22	X1892	Y	TB
13		1.0					1	22	X1893	Y	TB
14		1.0					1	22	X1894	Y	TB
15		1.0					1	22	X1895	Y	TB
16		1.0					1	22	X1896	Y	TB
17		1.0					1	22	X1897	Y	TB
18		1.0					1	22	X1898	Y	TB
19		2.0					1	22	X1899	Y	TB
20							1	22	X1900	Y	22:24 ✓
21							3		X1901		did not run - sequence not setup.
22							3		X1902		
23									X1903		
24									X1904		
25									X1905		

All samples = 10 mL + 1 uL Combined IS/Surr 10 mL purged

12518
 Primary T16 : 12310
 Primary HSL : 12622
 Primary OXY : 12600
 Primary FR : 12350
 Secondary T16 : 12310
 Secondary HSL : 12360
 Secondary OXY : 12212
 Secondary FR : 12209
 500 Secondary T16
 500 Secondary HSL
 200 Secondary OXY
 200 Secondary FR
 5mls - 5ml
 5mls - 5ml
 5mls - 5ml
 5mls - 12.5ml

Comb. IS/Surr. 979 : 12457
 Surrogate Sp : 12452
 Internal Std. : _____

00134

Analysis: 8260 Waters Analyst: 8260 Y. Duvert * Tune Method: T01509
 Date: 10/13/09 Data Path: j:\acquadatalmsvoa\11010309 Run Method: W091509
 Instr. 12 LIMS Run#: 174518

Pos.	Sample	Dilin.	Dilin. Prep.	Client	RL	Tier	Vial	pH	File#	OK?	Comments
1	BK								X4902		
2									X4903		
3									X4904		
4									X4905		
27	TUNE		Ind (Surr) / 100mls						X4906	N	176
27									X4907	N	176 (N rep.)
27	TUNE								X4908	YT	13:01 (auto)
1	CCV								X4909	YC	
1	LCS		Q98641-02						X4910	YQ	
2	METBUK								X4911	N	not 40
3			Q98641-01						X4912	YS	
4	PO105236-002	1.0			4000	4	2	22	X4913	Y	
5		1.0					2	22	X4914	Y	
6		1.0					2	22	X4915	Y	
7	MS 002	1.0	Q98641-03				3	22	X4916	YD	
8	M.D 002	1.0	Q98641-04				3	22	X4917	YD	
9	BK								X4918		
10	PO105236-001	1.0					1	22	X4919	Y	
11	024 015 (P)	1.0					1	22	X4920	Y	
12	025	1.0					1	22	X4921	Y	
13	026	1.0					1	22	X4922	Y	
14	PO105236-001	1.0			4000	2	1	22	X4923	Y	
15	002	2.5	20/50mls D1				1	22	X4924	(N)	not 1.0
16	003	1.0					1	22	X4925	(Y)	not 2.0
17	004	1.0					1	22	X4926	Y	
18	005	1.0					1	22	X4927	Y	
19	006	1.0					1	22	X4928	Y	
20	007	1.0					1	22	X4929	Y	
21	008	1.0					1	22	X4930	Y	00:21 ✓

All samples = 70 mL + 1 uL Combined IS/Surr 10 mL purged

500 Primary % : 12518
 Primary %L : 12422
 Primary Oxy : 12400
 Primary ft : 12350

500 Secondary % : 12310
 Secondary %L : 12360
 Secondary Oxy : 12242
 Secondary ft : 12209 - 5ml

5mls = LCS
 200 Secondary ft : 12209 - 5ml

Comb. IS/Surr. STD : 12457
 Surrogate STD : 12452
 Internal Std. :

00135

00251

SEMIVOLATILE ORGANICS

QC SUMMARY

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water

Service Request: R0905636
Date Analyzed: 10/ 6/09

Lab Control Sample Summary
Low Level Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Units: µg/L
Basis: NA

Extraction Lot: 97551

Analyte Name	Lab Control Sample RQ0909469-02			Duplicate Lab Control Sample RQ0909469-03			% Rec Limits	RPD	RPD Limit
	Result	Expected	% Rec	Result	Expected	% Rec			
2-Methylnaphthalene	3.33	4.00	83	3.10	4.00	78	50 - 120	7	30
Acenaphthene	3.37	4.00	84	3.38	4.00	85	50 - 120	0	30
Acenaphthylene	3.34	4.00	84	3.40	4.00	85	50 - 120	2	30
Anthracene	3.73	4.00	93	3.55	4.00	89	50 - 120	5	30
Benz(a)anthracene	3.84	4.00	96	3.87	4.00	97	50 - 120	1	30
Benzo(a)pyrene	3.32	4.00	83	3.30	4.00	83	50 - 120	1	30
Benzo(b)fluoranthene	3.70	4.00	93	3.79	4.00	95	50 - 120	2	30
Benzo(g,h,i)perylene	3.83	4.00	96	3.69	4.00	92	50 - 120	4	30
Benzo(k)fluoranthene	3.77	4.00	94	3.53	4.00	88	50 - 120	7	30
Bis(2-ethylhexyl) Phthalate	4.16	4.00	104	4.17	4.00	104	50 - 120	0	30
Butyl Benzyl Phthalate	3.70	4.00	93	3.71	4.00	93	50 - 120	0	30
Chrysene	3.63	4.00	91	3.61	4.00	90	50 - 120	1	30
Di-n-butyl Phthalate	4.01	4.00	100	3.55	4.00	89	50 - 120	12	30
Di-n-octyl Phthalate	3.80	4.00	95	3.69	4.00	92	50 - 120	3	30
Dibenz(a,h)anthracene	3.93	4.00	98	3.80	4.00	95	50 - 120	3	30
Diethyl Phthalate	3.26	4.00	82	3.22	4.00	81	50 - 120	1	30
Dimethyl Phthalate	3.10	4.00	78	3.05	4.00	76	50 - 120	2	30
Fluoranthene	3.45	4.00	86	3.17	4.00	79	50 - 120	8	30
Fluorene	3.72	4.00	93	3.77	4.00	94	50 - 120	1	30
Hexachlorobenzene	3.38	4.00	85	3.00	4.00	75	50 - 120	12	30
Indeno(1,2,3-cd)pyrene	3.81	4.00	95	3.78	4.00	95	50 - 120	1	30
Naphthalene	3.08	4.00	77	2.99	4.00	75	50 - 120	3	30
Nitrobenzene	3.33	4.00	83	3.27	4.00	82	50 - 120	2	30
Phenanthrene	3.53	4.00	88	3.23	4.00	81	50 - 120	9	30
Pyrene	3.66	4.00	92	3.60	4.00	90	50 - 120	2	30
Pyridine	0.820	4.00	21 *	0.940	4.00	24 *	50 - 120	14	30
1,4-Dioxane	1.63	5.00	33 *	1.64	5.00	33 *	50 - 120	1	30
Octachlorostyrene	2.84	4.00	71	2.71	4.00	68	50 - 120	5	30

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water

Service Request: R0905636
Date Analyzed: 10/13/09

**Lab Control Sample Summary
 Low Level Semivolatile Organic Compounds by GC/MS**

Analytical Method: 8270C
Prep Method: EPA 3510C

Units: µg/L
Basis: NA

Extraction Lot: 97951

Analyte Name	Lab Control Sample RQ0909715-02			Duplicate Lab Control Sample RQ0909715-03			% Rec Limits	RPD	RPD Limit
	Result	Expected	% Rec	Result	Expected	% Rec			
2-Methylnaphthalene	3.48	4.00	87	3.43	4.00	86	50 - 120	1	30
Acenaphthene	3.48	4.00	87	3.47	4.00	87	50 - 120	0	30
Acenaphthylene	3.52	4.00	88	3.48	4.00	87	50 - 120	1	30
Anthracene	3.64	4.00	91	3.76	4.00	94	50 - 120	3	30
Benz(a)anthracene	3.91	4.00	98	3.95	4.00	99	50 - 120	1	30
Benzo(a)pyrene	3.08	4.00	77	3.40	4.00	85	50 - 120	10	30
Benzo(b)fluoranthene	3.37	4.00	84	3.78	4.00	95	50 - 120	11	30
Benzo(g,h,i)perylene	3.68	4.00	92	3.93	4.00	98	50 - 120	7	30
Benzo(k)fluoranthene	3.32	4.00	83	3.68	4.00	92	50 - 120	10	30
Bis(2-ethylhexyl) Phthalate	4.03	4.00	101	4.06	4.00	102	50 - 120	1	30
Butyl Benzyl Phthalate	3.55	4.00	89	3.55	4.00	89	50 - 120	0	30
Chrysene	3.64	4.00	91	3.75	4.00	94	50 - 120	3	30
Di-n-butyl Phthalate	3.61	4.00	90	3.69	4.00	92	50 - 120	2	30
Di-n-octyl Phthalate	3.32	4.00	83	3.66	4.00	92	50 - 120	10	30
Dibenz(a,h)anthracene	3.69	4.00	92	4.07	4.00	102	50 - 120	10	30
Diethyl Phthalate	3.40	4.00	85	3.28	4.00	82	50 - 120	4	30
Dimethyl Phthalate	3.36	4.00	84	3.41	4.00	85	50 - 120	1	30
Fluoranthene	3.33	4.00	83	3.57	4.00	89	50 - 120	7	30
Fluorene	3.88	4.00	97	3.72	4.00	93	50 - 120	4	30
Hexachlorobenzene	3.50	4.00	88	3.64	4.00	91	50 - 120	4	30
Indeno(1,2,3-cd)pyrene	3.74	4.00	94	3.92	4.00	98	50 - 120	5	30
Naphthalene	3.16	4.00	79	3.14	4.00	79	50 - 120	1	30
Nitrobenzene	3.17	4.00	79	3.21	4.00	80	50 - 120	1	30
Phenanthrene	3.37	4.00	84	3.55	4.00	89	50 - 120	5	30
Pyrene	3.58	4.00	90	3.66	4.00	92	50 - 120	2	30
Pyridine	0.700	4.00	18	* 0.650	4.00	16	* 50 - 120	7	30
1,4-Dioxane	1.84	5.00	37	* 1.80	5.00	36	* 50 - 120	2	30
Octachlorostyrene	2.50	4.00	63	2.88	4.00	72	50 - 120	14	30

Comments:

SEMIVOLATILE METHOD BLANK SUMMARY

SBLK1

Lab Name: CAS-ROCH Contract: Northgate
 Lab Code: 10145 Case No.: R905636 SAS No.: _____ SDG No.: PB100209-A2
 Lab File ID: DB856.D Lab Sample ID: RQ0909469-01|1.0
 Instrument ID: 5973-B Date Extracted: 10/5/09
 Matrix: (soil/water) WATER Date Analyzed: 10/6/09
 Level: (low/med) LOW Time Analyzed: 15:02

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	SBLK1MS	RQ0909469-02 1.0	DB857.D	10/6/09
02	SBLK1MSD	RQ0909469-03 1.0	DB858.D	10/6/09
03	PB100209-A2	R0905636-001 1.0	DB871.D	10/6/09
04	M-76B	R0905636-002 1.0	DB872.D	10/6/09

COMMENTS:

SEMIVOLATILE METHOD BLANK SUMMARY

SBLK1 RE

Lab Name: CAS-ROCH Contract: Northgate
 Lab Code: 10145 Case No.: R905636 SAS No.: _____ SDG No.: PB100209-A2
 Lab File ID: AV572.D Lab Sample ID: RQ0909469-01|1.0
 Instrument ID: 5973-C Date Extracted: 10/5/09
 Matrix: (soil/water) WATER Date Analyzed: 10/14/09
 Level: (low/med) LOW Time Analyzed: 10:46

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	M-76009B	R0905636-003 1.0	AV573.D	10/14/09

COMMENTS:

SEMIVOLATILE METHOD BLANK SUMMARY

SBLK2

Lab Name: CAS-ROCH Contract: Northgate
 Lab Code: 10145 Case No.: R905636 SAS No.: _____ SDG No.: PB100209-A2
 Lab File ID: DC001.D Lab Sample ID: RQ0909715-01|1.0
 Instrument ID: 5973-B Date Extracted: 10/9/09
 Matrix: (soil/water) WATER Date Analyzed: 10/13/09
 Level: (low/med) LOW Time Analyzed: 0:21

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	SBLK2MS	RQ0909715-02 1.0	DC002.D	10/13/09
02	SBLK2MSD	RQ0909715-03 1.0	DC003.D	10/13/09
03	MC-94B	R0905636-006 1.0	DC025.D	10/13/09

COMMENTS:

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CAS-ROCH Contract: Northgate
 Lab Code: 10145 Case No.: R905636 SAS No.: _____ SDG No.: PB100209-A2
 Lab File ID: DB713.D DFTPP Injection Date: 9/28/09
 Instrument ID: 5973-B DFTPP Injection Time: 14:28

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	43.5
68	Less than 2.0% of mass 69	0.8 (1.8)1
69	Mass 69 Relative abundance	47.5
70	Less than 2.0% of mass 69	0.2 (0.4)1
127	40.0 - 60.0% of mass 198	53.9
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	7.7
275	10.0 - 30.0% of mass 198	26.5
365	Greater than 1.0% of mass 198	4.8
441	Present, but less than mass 443	14.8
442	40.0 - 100.0% of mass 198	97.3
443	17.0 - 23.0% of mass 442	19.0 (19.5)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	SSTD001	SSTD001	DB717.D	9/28/09	17:15
02	SSTD002	SSTD002	DB718.D	9/28/09	17:59
03	SSTD005	SSTD005	DB719.D	9/28/09	18:42
04	SSTD010	SSTD010	DB720.D	9/28/09	19:26
05	SSTD020	SSTD020	DB721.D	9/28/09	20:08
06	SSTD030	SSTD030	DB722.D	9/28/09	20:51
07	SSTD040	SSTD040	DB723.D	9/28/09	21:33
08	SSTD050	SSTD050	DB724.D	9/28/09	22:15
09	SSTD100	SSTD100	DB725.D	9/28/09	22:57

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CAS-ROCH Contract: Northgate
 Lab Code: 10145 Case No.: R905636 SAS No.: _____ SDG No.: PB100209-A2
 Lab File ID: AV554.D DFTPP Injection Date: 10/13/09
 Instrument ID: 5973-C DFTPP Injection Time: 15:13

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	43.8
68	Less than 2.0% of mass 69	0.4 (0.8)1
69	Mass 69 Relative abundance	47.6
70	Less than 2.0% of mass 69	0.1 (0.1)1
127	40.0 - 60.0% of mass 198	42.2
197	Less than 1.0% of mass 198	0.7
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.9
275	10.0 - 30.0% of mass 198	22.7
365	Greater than 1.0% of mass 198	4.8
441	Present, but less than mass 443	8.3
442	40.0 - 100.0% of mass 198	56.1
443	17.0 - 23.0% of mass 442	11.2 (19.9)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	SSTD001	SSTD001	AV559.D	10/13/09	17:47
02	SSTD002	SSTD002	AV560.D	10/13/09	18:25
03	SSTD005	SSTD005	AV561.D	10/13/09	19:03
04	SSTD010	SSTD010	AV562.D	10/13/09	19:40
05	SSTD020	SSTD020	AV563.D	10/13/09	20:18
06	SSTD030	SSTD030	AV564.D	10/13/09	20:56
07	SSTD040	SSTD040	AV565.D	10/13/09	21:34
08	SSTD050	SSTD050	AV566.D	10/13/09	22:11
09	SSTD100	SSTD100	AV567.D	10/13/09	22:49

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CAS-ROCH Contract: Northgate
 Lab Code: 10145 Case No.: R905636 SAS No.: _____ SDG No.: PB100209-A2
 Lab File ID: DB854.D DFTPP Injection Date: 10/6/09
 Instrument ID: 5973-B DFTPP Injection Time: 13:46

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	46.7
68	Less than 2.0% of mass 69	0.8 (1.7)1
69	Mass 69 Relative abundance	47.7
70	Less than 2.0% of mass 69	0.3 (0.7)1
127	40.0 - 60.0% of mass 198	54.2
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	27.1
365	Greater than 1.0% of mass 198	5.1
441	Present, but less than mass 443	16.1
442	40.0 - 100.0% of mass 198	99.9
443	17.0 - 23.0% of mass 442	17.8 (17.8)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	SSTD120	CALIBRATION CHECK	DB855.D	10/6/09	14:21
02	SBLK1	RQ0909469-01 1.0	DB856.D	10/6/09	15:02
03	SBLK1MS	RQ0909469-02 1.0	DB857.D	10/6/09	15:43
04	SBLK1MSD	RQ0909469-03 1.0	DB858.D	10/6/09	16:24
05	PB100209-A2	R0905636-001 1.0	DB871.D	10/6/09	23:08
06	M-76B	R0905636-002 1.0	DB872.D	10/6/09	23:47

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CAS-ROCH Contract: Northgate
 Lab Code: 10145 Case No.: R905636 SAS No.: _____ SDG No.: PB100209-A2
 Lab File ID: DB986.D DFTPP Injection Date: 10/12/09
 Instrument ID: 5973-B DFTPP Injection Time: 14:40

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	50.4
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 Relative abundance	52.4
70	Less than 2.0% of mass 69	0.4 (0.7)1
127	40.0 - 60.0% of mass 198	56.9
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	7.5
275	10.0 - 30.0% of mass 198	27.3
365	Greater than 1.0% of mass 198	5.9
441	Present, but less than mass 443	13.6
442	40.0 - 100.0% of mass 198	90.0
443	17.0 - 23.0% of mass 442	17.6 (19.6)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	SSTD220	CALIBRATION CHECK	DB987.D	10/12/09	15:17
02	SBLK2	RQ0909715-01 1.0	DC001.D	10/13/09	0:21
03	SBLK2MS	RQ0909715-02 1.0	DC002.D	10/13/09	1:02
04	SBLK2MSD	RQ0909715-03 1.0	DC003.D	10/13/09	1:43

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CAS-ROCH Contract: Northgate
 Lab Code: 10145 Case No.: R905636 SAS No.: _____ SDG No.: PB100209-A2
 Lab File ID: DC022.D DFTPP Injection Date: 10/13/09
 Instrument ID: 5973-B DFTPP Injection Time: 16:50

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	54.9
68	Less than 2.0% of mass 69	0.1 (0.2)1
69	Mass 69 Relative abundance	51.8
70	Less than 2.0% of mass 69	0.3 (0.5)1
127	40.0 - 60.0% of mass 198	58.4
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	6.7
275	10.0 - 30.0% of mass 198	27.2
365	Greater than 1.0% of mass 198	5.7
441	Present, but less than mass 443	15.0
442	40.0 - 100.0% of mass 198	89.4
443	17.0 - 23.0% of mass 442	17.8 (19.9)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	SSTD320	CALIBRATION CHECK	DC023.D	10/13/09	17:28
02	MC-94B	R0905636-006 1.0	DC025.D	10/13/09	18:54

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CAS-ROCH Contract: Northgate
 Lab Code: 10145 Case No.: R905636 SAS No.: _____ SDG No.: PB100209-A2
 Lab File ID: AV570.D DFTPP Injection Date: 10/14/09
 Instrument ID: 5973-C DFTPP Injection Time: 9:31

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	43.1
68	Less than 2.0% of mass 69	0.5 (1.0)1
69	Mass 69 Relative abundance	50.8
70	Less than 2.0% of mass 69	0.4 (0.8)1
127	40.0 - 60.0% of mass 198	43.9
197	Less than 1.0% of mass 198	0.5
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.1
275	10.0 - 30.0% of mass 198	23.7
365	Greater than 1.0% of mass 198	4.9
441	Present, but less than mass 443	7.7
442	40.0 - 100.0% of mass 198	53.0
443	17.0 - 23.0% of mass 442	9.2 (17.5)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	SSTD120	CALIBRATION CHECK	AV571.D	10/14/09	10:08
02	SBLK1 RE	RQ0909469-01 1.0	AV572.D	10/14/09	10:46
03	M-76009B	R0905636-003 1.0	AV573.D	10/14/09	11:31

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CAS-ROCH Contract: Northgate
 Lab Code: 10145 Case No.: R905636 SAS No.: _____ SDG No.: PB100209-A2
 Lab File ID (Standard): DB855.D Date Analyzed: 10/6/09
 Instrument ID: 5973-B Time Analyzed: 14:21

	IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
12 HOUR STD	67165	10.70	258312	11.96	138010	13.56
UPPER LIMIT	134330	11.20	516624	12.46	276020	14.06
LOWER LIMIT	33583	10.20	129156	11.46	69005	13.06
EPA SAMPLE NO.						
01 SBLK1	66031	10.70	264287	11.96	162559	13.57
02 SBLK1MS	70131	10.69	263773	11.96	157935	13.56
03 SBLK1MSD	72785	10.70	282076	11.96	159478	13.56
04 PB100209-A2	60127	10.70	241601	11.96	140088	13.57
05 M-76B	64494	10.70	237952	11.96	132651	13.56

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

8C
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CAS-ROCH Contract: Northgate
 Lab Code: 10145 Case No.: R905636 SAS No.: _____ SDG No.: PB100209-A2
 Lab File ID (Standard): DB855.D Date Analyzed: 10/06/09
 Instrument ID: 5973-B Time Analyzed: 14:21

	IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
12 HOUR STD	223640	14.77	218817	18.11	169615	21.93
UPPER LIMIT	447280	14.27	437634	17.61	339230	21.43
LOWER LIMIT	111820	15.27	109409	18.61	84808	22.43
EPA SAMPLE NO.						
01 SBLK1	228330	14.78	212806	18.11	164872	21.94
02 SBLK1MS	239420	14.78	238980	18.10	184615	21.93
03 SBLK1MSD	261658	14.78	240831	18.11	188059	21.92
04 PB100209-A2	205427	14.78	205787	18.11	152363	21.94
05 M-76B	199732	14.78	191526	18.10	144666	21.93

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: Northgate
 Lab Code: 10145 Case No.: R905636 SAS No.: _____ SDG No.: PB100209-Az
 Lab File ID (Standard): DB987.D Date Analyzed: 10/12/09
 Instrument ID: 5973-B Time Analyzed: 15:17

	IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
12 HOUR STD	84715	10.70	303469	11.96	181277	13.56
UPPER LIMIT	169430	11.20	606938	12.46	362554	14.06
LOWER LIMIT	42358	10.20	151735	11.46	90639	13.06
EPA SAMPLE NO.						
01 SBLK2	65234	10.70	255297	11.97	159951	13.57
02 SBLK2MS	66585	10.70	270263	11.96	166958	13.56
03 SBLK2MSD	65524	10.69	270487	11.96	163534	13.56

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

8C
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CAS-ROCH Contract: Northgate
 Lab Code: 10145 Case No.: R905636 SAS No.: _____ SDG No.: PB100209- A2
 Lab File ID (Standard): DB987.D Date Analyzed: 10/12/09
 Instrument ID: 5973-B Time Analyzed: 15:17

	IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
12 HOUR STD	299750	14.77	297631	18.10	225119	21.92
UPPER LIMIT	599500	14.27	595262	17.60	450238	21.42
LOWER LIMIT	149875	15.27	148816	18.60	112560	22.42
EPA SAMPLE NO.						
01 SBLK2	225322	14.78	230252	18.11	178251	21.94
02 SBLK2MS	258060	14.78	250928	18.11	215499	21.92
03 SBLK2MSD	234864	14.77	241942	18.10	191429	21.93

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: Northgate
 Lab Code: 10145 Case No.: R905636 SAS No.: _____ SDG No.: PB100209-A2
 Lab File ID (Standard): DC023.D Date Analyzed: 10/13/09
 Instrument ID: 5973-B Time Analyzed: 17:28

	IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
12 HOUR STD	119419	10.68	441354	11.95	266804	13.55
UPPER LIMIT	238838	11.18	882708	12.45	533608	14.05
LOWER LIMIT	59710	10.18	220677	11.45	133402	13.05
EPA SAMPLE NO.						
01 MC-94B	112287	10.68	426542	11.95	254342	13.55

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: Northgate
 Lab Code: 10145 Case No.: R905636 SAS No.: _____ SDG No.: PB100209-A2
 Lab File ID (Standard): DC023.D Date Analyzed: 10/13/09
 Instrument ID: 5973-B Time Analyzed: 17:28

	IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
12 HOUR STD	353137	14.76	346981	18.07	256052	21.87
UPPER LIMIT	706274	14.26	693962	17.57	512104	21.37
LOWER LIMIT	176569	15.26	173491	18.57	128026	22.37
EPA SAMPLE NO.						
01 MC-94B	360981	14.76	349239	18.07	249286	21.87

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: Northgate
 Lab Code: 10145 Case No.: R905636 SAS No.: _____ SDG No.: PB100209~A2
 Lab File ID (Standard): AV571.D Date Analyzed: 10/14/09
 Instrument ID: 5973-C Time Analyzed: 10:08

	IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
12 HOUR STD	59839	11.17	218177	12.42	142099	13.99
UPPER LIMIT	119678	11.67	436354	12.92	284198	14.49
LOWER LIMIT	29920	10.67	109089	11.92	71050	13.49
EPA SAMPLE NO.						
01 SBLK1 RE	75634	11.17	276562	12.42	156093	13.99
02 M-76009B	63276	11.17	256383	12.42	152633	13.99

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

8C
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CAS-ROCH Contract: Northgate
 Lab Code: 10145 Case No.: R905636 SAS No.: _____ SDG No.: PB100209 -Az
 Lab File ID (Standard): AV571.D Date Analyzed: 10/14/09
 Instrument ID: 5973-C Time Analyzed: 10:08

	IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
12 HOUR STD	190600	15.20	266232	18.79	238809	22.95
UPPER LIMIT	381200	14.70	532464	18.29	477618	22.45
LOWER LIMIT	95300	15.70	133116	19.29	119405	23.45
EPA SAMPLE NO.						
01 SBLK1 RE	220755	15.20	270926	18.79	221354	22.95
02 M-76009B	208584	15.20	261354	18.78	181015	22.96

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 ORGANICS

SAMPLE DATA

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: PB100209-A2
Lab Code: R0905636-001

Service Request: R0905636
Date Collected: 10/ 2/09 1111
Date Received: 10/ 3/09

Units: µg/L
Basis: NA

Low Level Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis		
								Lot	Lot	Note
2-Methylnaphthalene	0.048	U	0.19	0.048	1	10/ 5/09	10/6/09 23:08	97551	173710	
Acenaphthene	0.053	U	0.19	0.053	1	10/ 5/09	10/6/09 23:08	97551	173710	
Acenaphthylene	0.076	U	0.19	0.076	1	10/ 5/09	10/6/09 23:08	97551	173710	
Anthracene	0.041	U	0.19	0.041	1	10/ 5/09	10/6/09 23:08	97551	173710	
Benz(a)anthracene	0.041	U	0.19	0.041	1	10/ 5/09	10/6/09 23:08	97551	173710	
Benzo(a)pyrene	0.042	U	0.19	0.042	1	10/ 5/09	10/6/09 23:08	97551	173710	
Benzo(b)fluoranthene	0.027	U	0.19	0.027	1	10/ 5/09	10/6/09 23:08	97551	173710	
Benzo(g,h,i)perylene	0.030	U	0.19	0.030	1	10/ 5/09	10/6/09 23:08	97551	173710	
Benzo(k)fluoranthene	0.029	U	0.19	0.029	1	10/ 5/09	10/6/09 23:08	97551	173710	
Bis(2-ethylhexyl) Phthalate	0.37	BJ	4.7	0.23	1	10/ 5/09	10/6/09 23:08	97551	173710	
Butyl Benzyl Phthalate	0.22	J	4.7	0.11	1	10/ 5/09	10/6/09 23:08	97551	173710	
Chrysene	0.029	U	0.19	0.029	1	10/ 5/09	10/6/09 23:08	97551	173710	
Di-n-butyl Phthalate	0.76	U	4.7	0.76	1	10/ 5/09	10/6/09 23:08	97551	173710	
Di-n-octyl Phthalate	0.041	U	4.7	0.041	1	10/ 5/09	10/6/09 23:08	97551	173710	
Dibenz(a,h)anthracene	0.046	U	0.19	0.046	1	10/ 5/09	10/6/09 23:08	97551	173710	
Diethyl Phthalate	0.20	U	4.7	0.20	1	10/ 5/09	10/6/09 23:08	97551	173710	
Dimethyl Phthalate	0.044	U	4.7	0.044	1	10/ 5/09	10/6/09 23:08	97551	173710	
Fluoranthene	0.040	U	0.19	0.040	1	10/ 5/09	10/6/09 23:08	97551	173710	
Fluorene	0.055	U	0.19	0.055	1	10/ 5/09	10/6/09 23:08	97551	173710	
Hexachlorobenzene	0.035	U	0.19	0.035	1	10/ 5/09	10/6/09 23:08	97551	173710	
Indeno(1,2,3-cd)pyrene	0.049	U	0.19	0.049	1	10/ 5/09	10/6/09 23:08	97551	173710	
Naphthalene	0.14	U	0.19	0.14	1	10/ 5/09	10/6/09 23:08	97551	173710	
Nitrobenzene	0.046	U	0.19	0.046	1	10/ 5/09	10/6/09 23:08	97551	173710	
Phenanthrene	0.062	U	0.19	0.062	1	10/ 5/09	10/6/09 23:08	97551	173710	
Pyrene	0.029	U	0.19	0.029	1	10/ 5/09	10/6/09 23:08	97551	173710	
Pyridine	0.89	U	1.9	0.89	1	10/ 5/09	10/6/09 23:08	97551	173710	
1,4-Dioxane	0.13	U	1.9	0.13	1	10/ 5/09	10/6/09 23:08	97551	173710	
Octachlorostyrene	0.13	U	0.19	0.13	1	10/ 5/09	10/6/09 23:08	97551	173710	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: PB100209-A2
Lab Code: R0905636-001

Service Request: R0905636
Date Collected: 10/ 2/09 1111
Date Received: 10/ 3/09
Units: Percent
Basis: NA

Low Level Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
2-Fluorobiphenyl	75	45-135	10/6/09 23:08		
Nitrobenzene-d5	99	45-135	10/6/09 23:08		
Terphenyl-d14	99	45-135	10/6/09 23:08		

Comments:

Data File : J:\ACQUADATA\5973B\DATA\100609\DB871.D
 Acq On : 6 Oct 2009 11:08 pm
 Sample : R0905636-001|1.0
 Misc : 10/05/2009 1.0 NORTHGATE 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Oct 7 10:51 2009

Vial: 17
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: LVI0928.RES

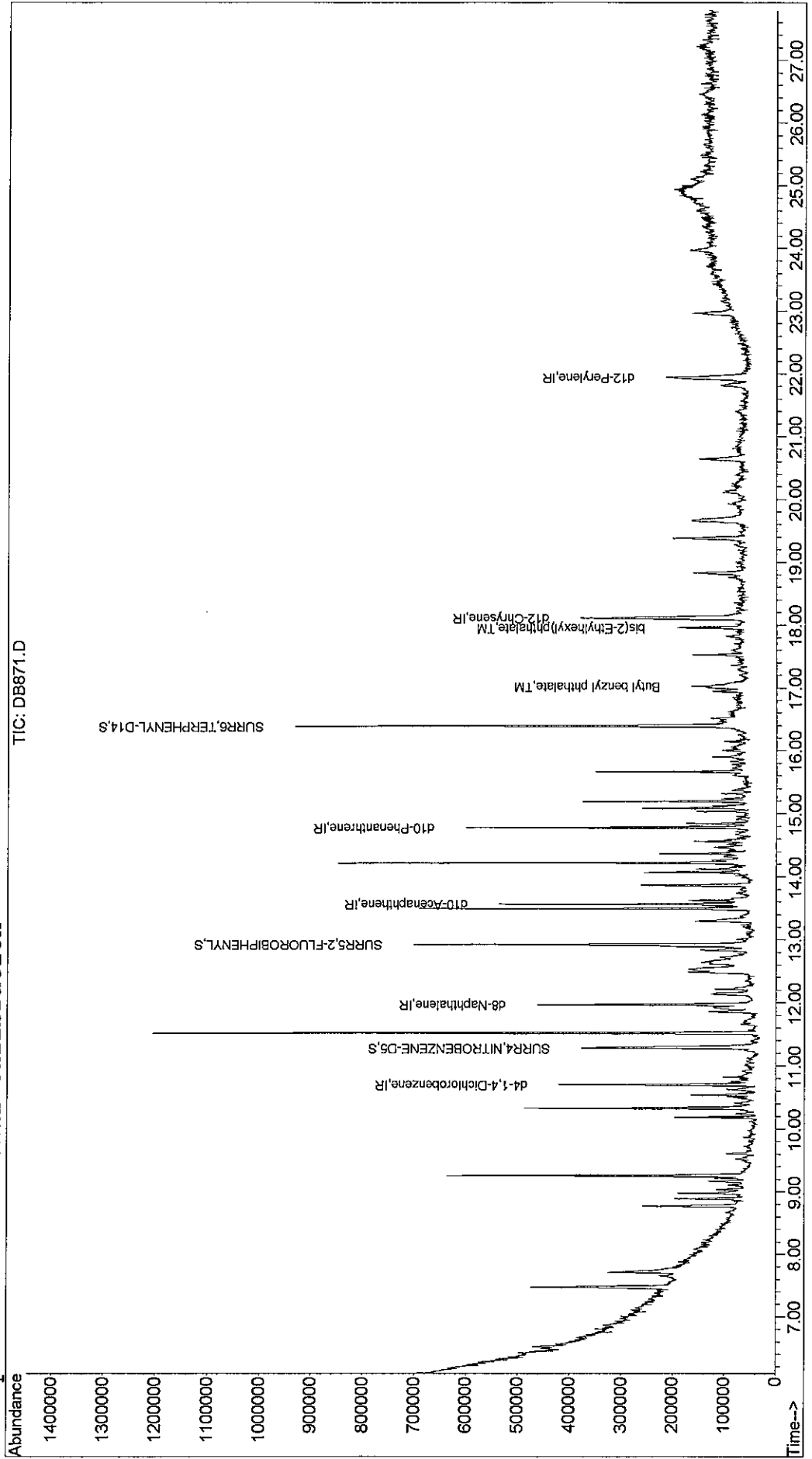
Quant Method : J:\ACQUADATA\5...\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI0928

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) d4-1,4-Dichlorobenzene	10.70	152	60127	1.00	ppm	0.00
4) d8-Naphthalene	11.96	136	241601	1.00	ppm	0.00
10) d10-Acenaphthene	13.57	164	140088	1.00	ppm	0.00
18) d10-Phenanthrene	14.78	188	205427	1.00	ppm	0.00
26) d12-Chrysene	18.11	240	205787	1.00	ppm	0.00
33) d12-Perylene	21.94	264	152363	1.00	ppm	0.00
System Monitoring Compounds						
5) SURR4,NITROBENZENE-D5	11.29	82	158108	1.97	ppm	0.00
Spiked Amount	2.000	Range	22 - 124	Recovery	=	98.50%
11) SURR5,2-FLUOROBIPHENYL	12.93	172	280255	1.49	ppm	0.00
Spiked Amount	2.000	Range	27 - 114	Recovery	=	74.50%
28) SURR6,TERPHENYL-D14	16.40	244	323174	1.98	ppm	0.00
Spiked Amount	2.000	Range	23 - 139	Recovery	=	99.00%
Target Compounds						Qvalue
29) Butyl benzyl phthalate	17.02	149	31965	0.23	ppm	97
30) bis(2-Ethylhexyl)phthalate	17.96	149	66710	0.39	ppm	96

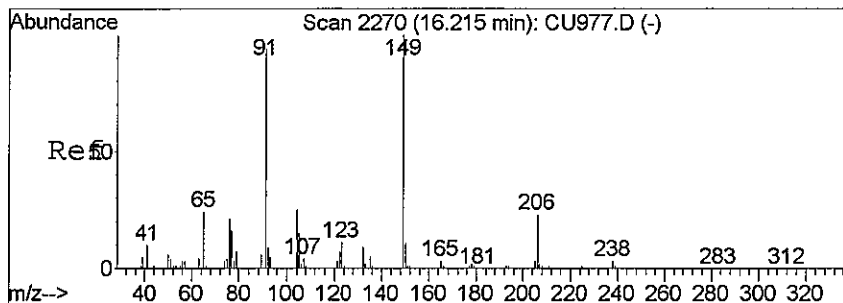
Quantitation Report

Data File : J:\ACQDATA\5973B\DATA\100609\DB871.D Vial: 17
Acq On : 6 Oct 2009 11:08 pm Operator: Z.Miao
Sample : R0905636-001|1.0 Inst : 5973-B
Misc : 10/05/2009 1.0 NORTHGATE 8270.LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 7 10:51 2009 Quant Results File: LVI0928.RES

Method : J:\ACQDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Sep 29 09:53:23 2009
Response via : Initial Calibration

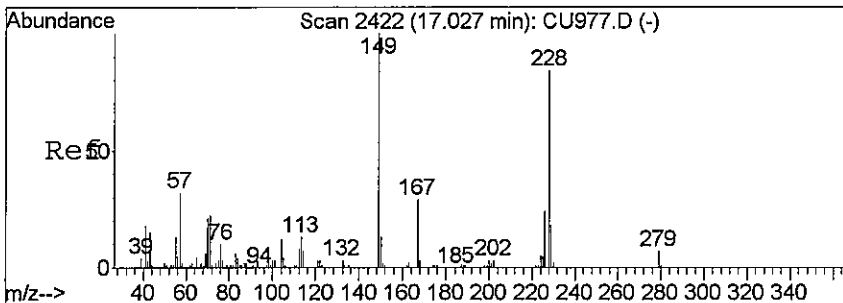
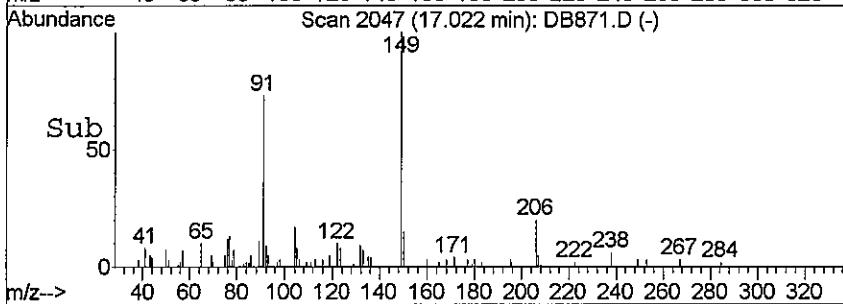
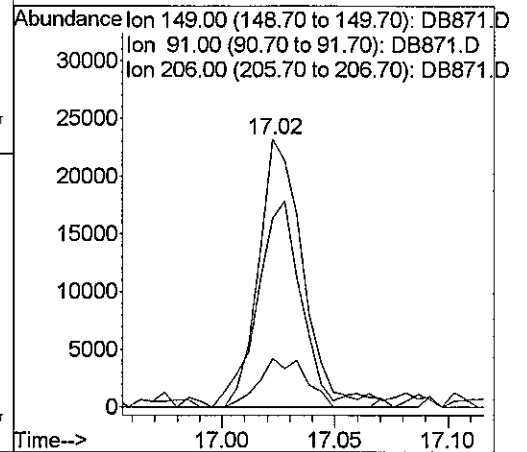
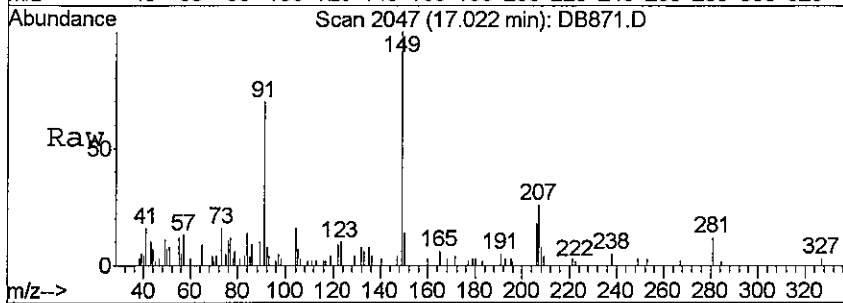


00276



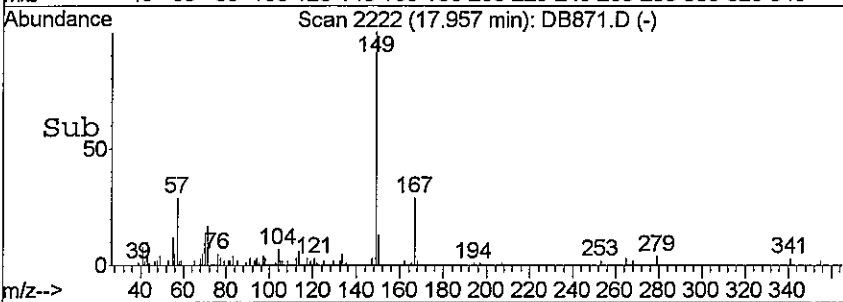
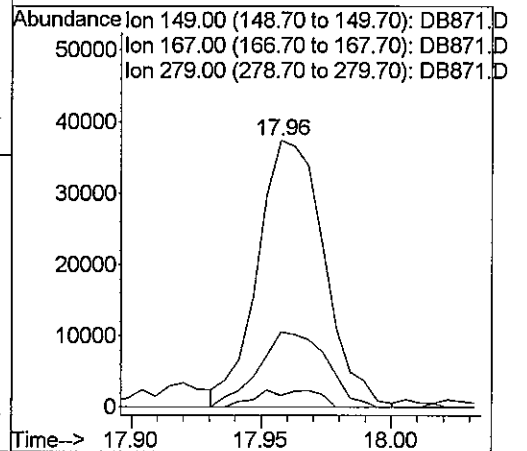
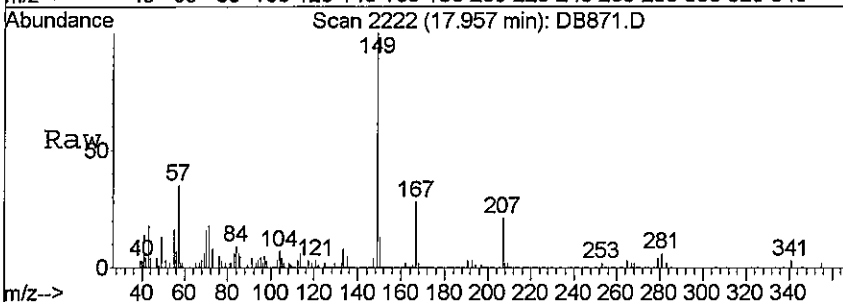
#29
 Butyl benzyl phthalate
 Concen: 0.23 ppm
 RT: 17.02 min Scan# 2047
 Delta R.T. -0.01 min
 Lab File: DB871.D
 Acq: 6 Oct 2009 11:08 pm

Tgt Ion	Resp	Lower	Upper
149	31965		
91	68.5	49.6	92.0
206	18.2	13.4	25.0



#30
 bis(2-Ethylhexyl)phthalate
 Concen: 0.39 ppm
 RT: 17.96 min Scan# 2222
 Delta R.T. -0.02 min
 Lab File: DB871.D
 Acq: 6 Oct 2009 11:08 pm

Tgt Ion	Resp	Lower	Upper
149	66710		
167	29.5	10.9	50.9
279	4.5	0.0	27.7



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: M-76B
Lab Code: R0905636-002

Service Request: R0905636
Date Collected: 10/ 2/09 1155
Date Received: 10/ 3/09

Units: µg/L
Basis: NA

Low Level Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis		Note
								Lot	Lot	
2-Methylnaphthalene	0.048	U	0.19	0.048	1	10/ 5/09	10/6/09 23:47	97551	173710	
Acenaphthene	0.053	U	0.19	0.053	1	10/ 5/09	10/6/09 23:47	97551	173710	
Acenaphthylene	0.076	U	0.19	0.076	1	10/ 5/09	10/6/09 23:47	97551	173710	
Anthracene	0.041	U	0.19	0.041	1	10/ 5/09	10/6/09 23:47	97551	173710	
Benz(a)anthracene	0.041	U	0.19	0.041	1	10/ 5/09	10/6/09 23:47	97551	173710	
Benzo(a)pyrene	0.042	U	0.19	0.042	1	10/ 5/09	10/6/09 23:47	97551	173710	
Benzo(b)fluoranthene	0.027	U	0.19	0.027	1	10/ 5/09	10/6/09 23:47	97551	173710	
Benzo(g,h,i)perylene	0.030	U	0.19	0.030	1	10/ 5/09	10/6/09 23:47	97551	173710	
Benzo(k)fluoranthene	0.029	U	0.19	0.029	1	10/ 5/09	10/6/09 23:47	97551	173710	
Bis(2-ethylhexyl) Phthalate	0.45	BJ	4.7	0.23	1	10/ 5/09	10/6/09 23:47	97551	173710	
Butyl Benzyl Phthalate	0.11	U	4.7	0.11	1	10/ 5/09	10/6/09 23:47	97551	173710	
Chrysene	0.029	U	0.19	0.029	1	10/ 5/09	10/6/09 23:47	97551	173710	
Di-n-butyl Phthalate	0.76	U	4.7	0.76	1	10/ 5/09	10/6/09 23:47	97551	173710	
Di-n-octyl Phthalate	0.041	U	4.7	0.041	1	10/ 5/09	10/6/09 23:47	97551	173710	
Dibenz(a,h)anthracene	0.046	U	0.19	0.046	1	10/ 5/09	10/6/09 23:47	97551	173710	
Diethyl Phthalate	0.20	U	4.7	0.20	1	10/ 5/09	10/6/09 23:47	97551	173710	
Dimethyl Phthalate	0.044	U	4.7	0.044	1	10/ 5/09	10/6/09 23:47	97551	173710	
Fluoranthene	0.040	U	0.19	0.040	1	10/ 5/09	10/6/09 23:47	97551	173710	
Fluorene	0.055	U	0.19	0.055	1	10/ 5/09	10/6/09 23:47	97551	173710	
Hexachlorobenzene	0.035	U	0.19	0.035	1	10/ 5/09	10/6/09 23:47	97551	173710	
Indeno(1,2,3-cd)pyrene	0.049	U	0.19	0.049	1	10/ 5/09	10/6/09 23:47	97551	173710	
Naphthalene	0.14	U	0.19	0.14	1	10/ 5/09	10/6/09 23:47	97551	173710	
Nitrobenzene	0.046	U	0.19	0.046	1	10/ 5/09	10/6/09 23:47	97551	173710	
Phenanthrene	0.062	U	0.19	0.062	1	10/ 5/09	10/6/09 23:47	97551	173710	
Pyrene	0.029	U	0.19	0.029	1	10/ 5/09	10/6/09 23:47	97551	173710	
Pyridine	0.89	U	1.9	0.89	1	10/ 5/09	10/6/09 23:47	97551	173710	
1,4-Dioxane	0.13	U	1.9	0.13	1	10/ 5/09	10/6/09 23:47	97551	173710	
Octachlorostyrene	0.13	U	0.19	0.13	1	10/ 5/09	10/6/09 23:47	97551	173710	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: M-76B
Lab Code: R0905636-002

Service Request: R0905636
Date Collected: 10/ 2/09 1155
Date Received: 10/ 3/09
Units: Percent
Basis: NA

Low Level Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
2-Fluorobiphenyl	81	45-135	10/6/09 23:47		
Nitrobenzene-d5	96	45-135	10/6/09 23:47		
Terphenyl-d14	106	45-135	10/6/09 23:47		

Comments:

Data File : J:\ACQUADATA\5973B\DATA\100609\DB872.D Vial: 18
 Acq On : 6 Oct 2009 11:47 pm Operator: Z.Miao
 Sample : R0905636-002|1.0 Inst : 5973-B
 Misc : 10/05/2009 1.0 NORTHGATE 8270.LL Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Oct 7 10:54 2009 Quant Results File: LVI0928.RES

Quant Method : J:\ACQUADATA\5...\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI0928

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	10.70	152	64494	1.00	ppm	0.00
4) d8-Naphthalene	11.96	136	237952	1.00	ppm	0.00
10) d10-Acenaphthene	13.56	164	132651	1.00	ppm	0.00
18) d10-Phenanthrene	14.78	188	199732	1.00	ppm	0.00
26) d12-Chrysene	18.10	240	191526	1.00	ppm	0.00
33) d12-Perylene	21.93	264	144666m	1.00	ppm	-0.02

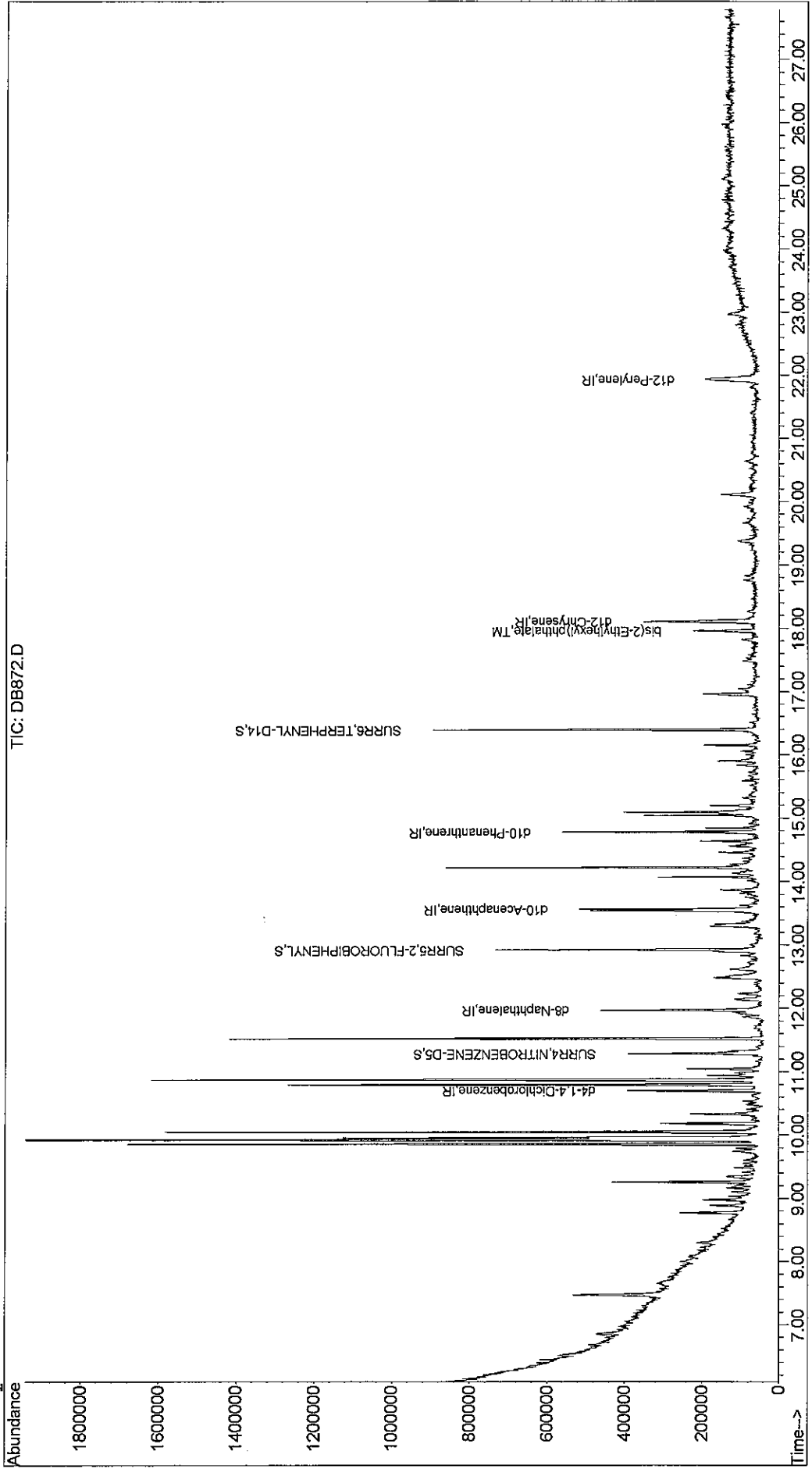
System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
5) SURR4,NITROBENZENE-D5	11.28	82	151944	1.92	ppm	0.00
Spiked Amount 2.000	Range 22 - 124		Recovery =	96.00%		
11) SURR5,2-FLUOROBIPHENYL	12.92	172	286533	1.61	ppm	0.00
Spiked Amount 2.000	Range 27 - 114		Recovery =	80.50%		
28) SURR6,TERPHENYL-D14	16.39	244	320013	2.11	ppm	0.00
Spiked Amount 2.000	Range 23 - 139		Recovery =	105.50%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
30) bis(2-Ethylhexyl)phthalate	17.96	149	76739	0.48	ppm	92

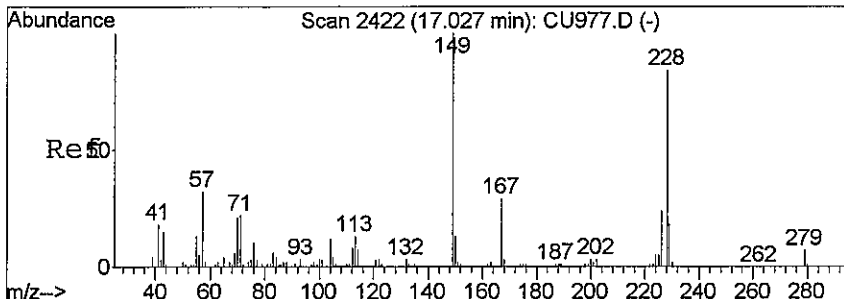
Quantitation Report

Data File : J:\ACQDATA\5973B\DATA\100609\DB872.D Vial: 18
Acq On : 6 Oct 2009 11:47 pm Operator: Z.Miao
Sample : R0905636-002|1.0 Inst : 5973-B
Misc : 10/05/2009 1.0 NORTHGATE 8270.LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 7 10:54 2009 Quant Results File: LVI0928.RES

Method : J:\ACQDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Sep 29 09:53:23 2009
Response via : Initial Calibration

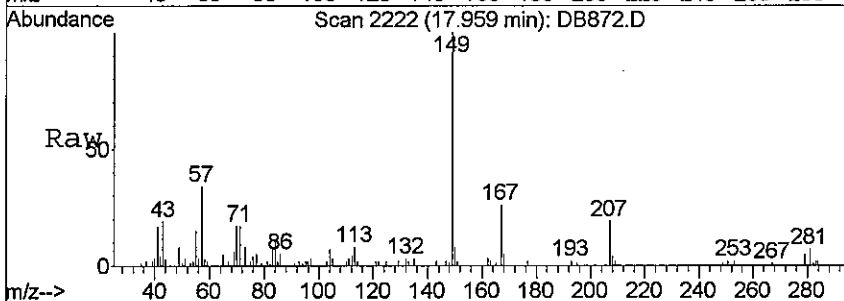


00281

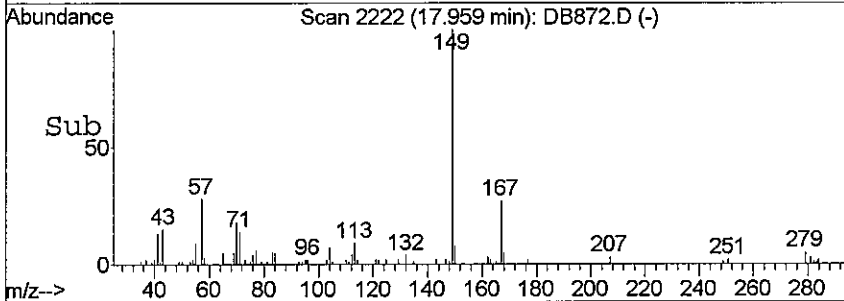
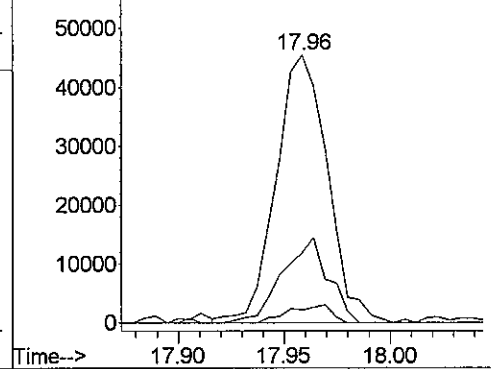


#30
 bis(2-Ethylhexyl)phthalate
 Concen: 0.48 ppm
 RT: 17.96 min Scan# 2222
 Delta R.T. -0.02 min
 Lab File: DB872.D
 Acq: 6 Oct 2009 11:47 pm

Tgt Ion	Resp	Lower	Upper
149	76739		
167	26.5	10.9	50.9
279	5.0	0.0	27.7



Abundance Ion 149.00 (148.70 to 149.70): DB872.D
 Ion 167.00 (166.70 to 167.70): DB872.D
 Ion 279.00 (278.70 to 279.70): DB872.D

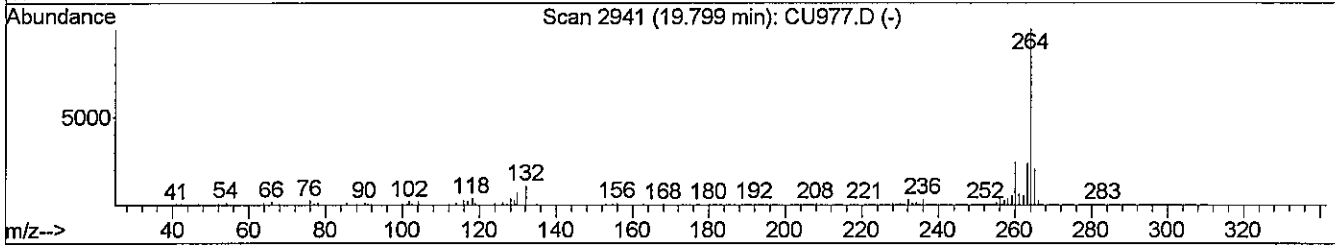
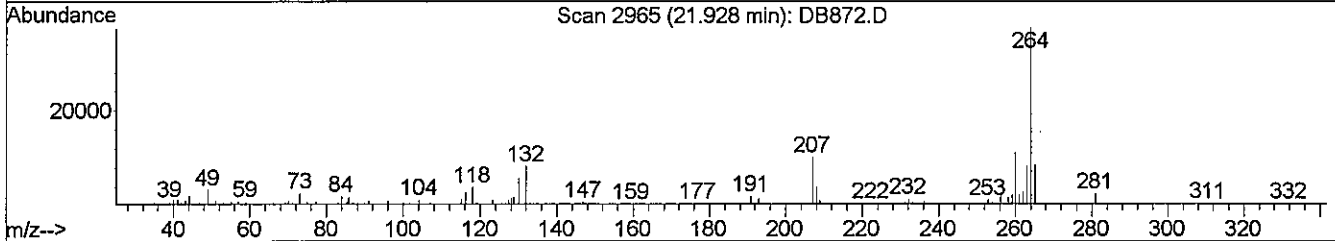
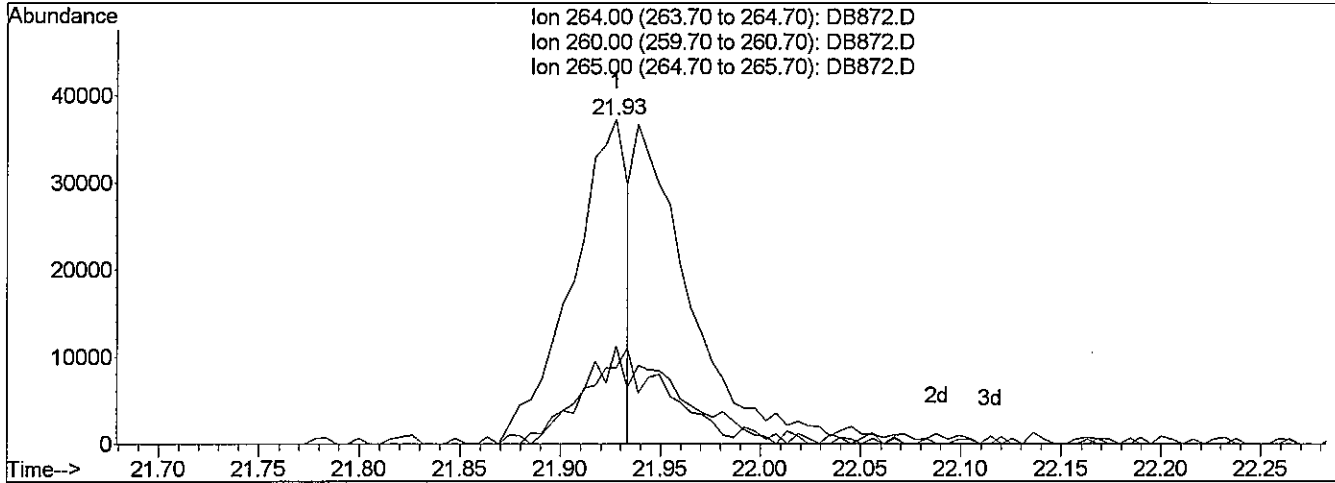


Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\100609\DB872.D
 Acq On : 6 Oct 2009 11:47 pm
 Sample : R0905636-002|1.0
 Misc : 10/05/2009 1.0 NORTHGATE 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Oct 7 10:54 2009

Vial: 18
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00
 Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 Response via : Multiple Level Calibration



TIC: DB872.D

(33) d12-Perylene (IR)

21.93min 1.00ppm

response 71870

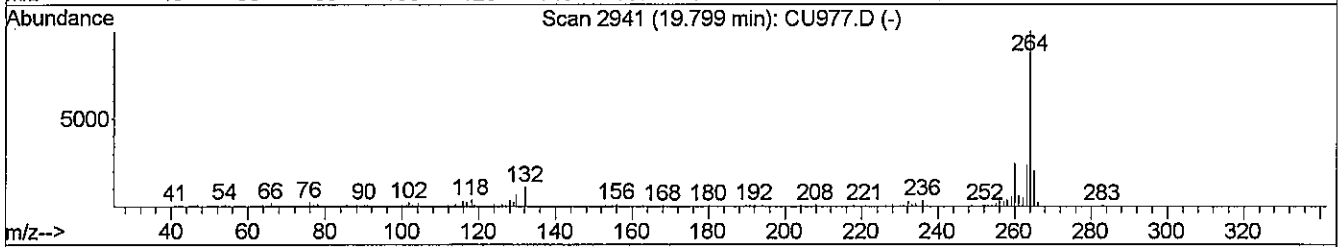
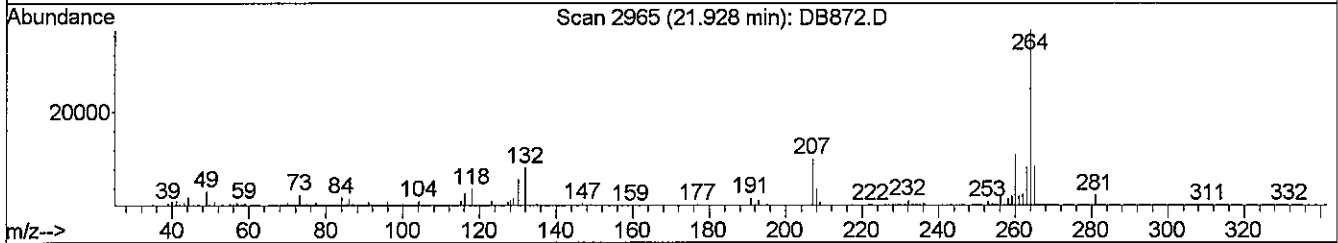
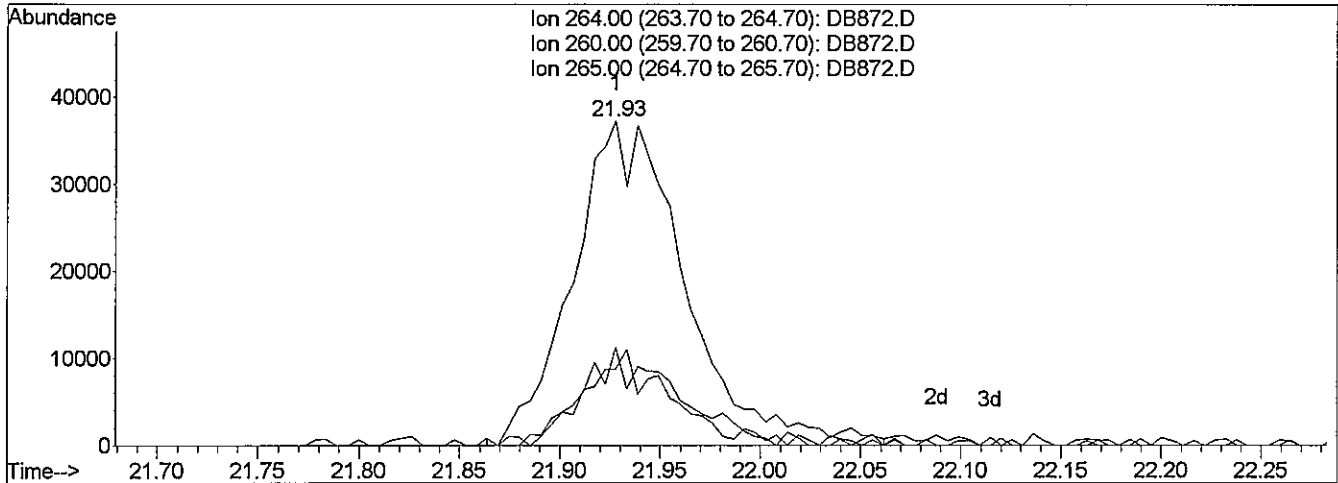
Ion	Exp%	Act%
264.00	100	100
260.00	22.60	35.47
265.00	13.90	14.28
0.00	0.00	0.00

17

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\100609\DB872.D Vial: 18
 Acq On : 6 Oct 2009 11:47 pm Operator: Z.Miao
 Sample : R0905636-002|1.0 Inst : 5973-B
 Misc : 10/05/2009 1.0 NORTHGATE 8270.LL Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Oct 7 10:54 2009 Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 Response via : Multiple Level Calibration



TIC: DB872.D

(33) d12-Perylene (IR)

21.93min 1.00ppm m

response 144666

Ion	Exp%	Act%
264.00	100	100
260.00	22.60	30.00
265.00	13.90	23.34
0.00	0.00	0.00

MW 147

A 10/7/09

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: M-76009B
Lab Code: R0905636-003

Service Request: R0905636
Date Collected: 10/ 2/09 1155
Date Received: 10/ 3/09

Units: µg/L
Basis: NA

Low Level Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
2-Methylnaphthalene	0.048	U	0.19	0.048	1	10/ 5/09	10/14/09 11:31	97551	174916	
Acenaphthene	0.053	U	0.19	0.053	1	10/ 5/09	10/14/09 11:31	97551	174916	
Acenaphthylene	0.076	U	0.19	0.076	1	10/ 5/09	10/14/09 11:31	97551	174916	
Anthracene	0.041	U	0.19	0.041	1	10/ 5/09	10/14/09 11:31	97551	174916	
Benz(a)anthracene	0.041	U	0.19	0.041	1	10/ 5/09	10/14/09 11:31	97551	174916	
Benzo(a)pyrene	0.042	U	0.19	0.042	1	10/ 5/09	10/14/09 11:31	97551	174916	
Benzo(b)fluoranthene	0.027	U	0.19	0.027	1	10/ 5/09	10/14/09 11:31	97551	174916	
Benzo(g,h,i)perylene	0.030	U	0.19	0.030	1	10/ 5/09	10/14/09 11:31	97551	174916	
Benzo(k)fluoranthene	0.029	U	0.19	0.029	1	10/ 5/09	10/14/09 11:31	97551	174916	
Bis(2-ethylhexyl) Phthalate	0.23	U	4.7	0.23	1	10/ 5/09	10/14/09 11:31	97551	174916	
Butyl Benzyl Phthalate	0.19	J	4.7	0.11	1	10/ 5/09	10/14/09 11:31	97551	174916	
Chrysene	0.029	U	0.19	0.029	1	10/ 5/09	10/14/09 11:31	97551	174916	
Di-n-butyl Phthalate	1.2	J	4.7	0.76	1	10/ 5/09	10/14/09 11:31	97551	174916	
Di-n-octyl Phthalate	0.041	U	4.7	0.041	1	10/ 5/09	10/14/09 11:31	97551	174916	
Dibenz(a,h)anthracene	0.046	U	0.19	0.046	1	10/ 5/09	10/14/09 11:31	97551	174916	
Diethyl Phthalate	0.27	J	4.7	0.20	1	10/ 5/09	10/14/09 11:31	97551	174916	
Dimethyl Phthalate	0.044	U	4.7	0.044	1	10/ 5/09	10/14/09 11:31	97551	174916	
Fluoranthene	0.040	U	0.19	0.040	1	10/ 5/09	10/14/09 11:31	97551	174916	
Fluorene	0.055	U	0.19	0.055	1	10/ 5/09	10/14/09 11:31	97551	174916	
Hexachlorobenzene	0.035	U	0.19	0.035	1	10/ 5/09	10/14/09 11:31	97551	174916	
Indeno(1,2,3-cd)pyrene	0.049	U	0.19	0.049	1	10/ 5/09	10/14/09 11:31	97551	174916	
Naphthalene	0.14	U	0.19	0.14	1	10/ 5/09	10/14/09 11:31	97551	174916	
Nitrobenzene	0.046	U	0.19	0.046	1	10/ 5/09	10/14/09 11:31	97551	174916	
Phenanthrene	0.062	U	0.19	0.062	1	10/ 5/09	10/14/09 11:31	97551	174916	
Pyrene	0.029	U	0.19	0.029	1	10/ 5/09	10/14/09 11:31	97551	174916	
Pyridine	0.89	U	1.9	0.89	1	10/ 5/09	10/14/09 11:31	97551	174916	
1,4-Dioxane	0.24	J	1.9	0.13	1	10/ 5/09	10/14/09 11:31	97551	174916	
Octachlorostyrene	0.13	U	0.19	0.13	1	10/ 5/09	10/14/09 11:31	97551	174916	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: M-76009B
Lab Code: R0905636-003

Service Request: R0905636
Date Collected: 10/ 2/09 1155
Date Received: 10/ 3/09
Units: Percent
Basis: NA

Low Level Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
2-Fluorobiphenyl	87	45-135	10/14/09 11:31		
Nitrobenzene-d5	89	45-135	10/14/09 11:31		
Terphenyl-d14	100	45-135	10/14/09 11:31		

Comments: _____

Quantitation Report (QT Reviewed)

Data File : J:\ACQUDATA\5973C\DATA\101409\AV573.D Vial: 3
 Acq On : 14 Oct 2009 11:31 am Operator: J.Wu
 Sample : R0905636-003|1.0 ✓ Inst : 5973C
 Misc : 10/05/2009 1.0 Northgate 8270.LL Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 11:59:32 2009 Quant Results File: LVI1013.RES

Quant Method : J:\ACQUDATA\5...\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:26:08 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI1013

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	11.17	152	63276	1.00	ppm	0.00
4) d8-Naphthalene	12.42	136	256383	1.00	ppm	0.00
10) d10-Acenaphthene	13.99	164	152633	1.00	ppm	0.00
18) d10-Phenanthrene	15.20	188	208584	1.00	ppm	0.00
26) d12-Chrysene	18.78	240	261354	1.00	ppm	0.00
33) d12-Perylene	22.96	264	181015	1.00	ppm	0.00

System Monitoring Compounds						
5) SURR4,NITROBENZENE-D5	11.75	82	233569	1.78	ppm	0.00
Spiked Amount 2.000	Range 22 - 124		Recovery =	89.00%		
11) SURR5,2-FLUOROBIPHENYL	13.37	172	369743	1.73	ppm	0.00
Spiked Amount 2.000	Range 27 - 114		Recovery =	86.50%		
28) SURR6,TERPHENYL-D14	16.92	244	352662	1.99	ppm	0.00
Spiked Amount 2.000	Range 23 - 139		Recovery =	99.50%		

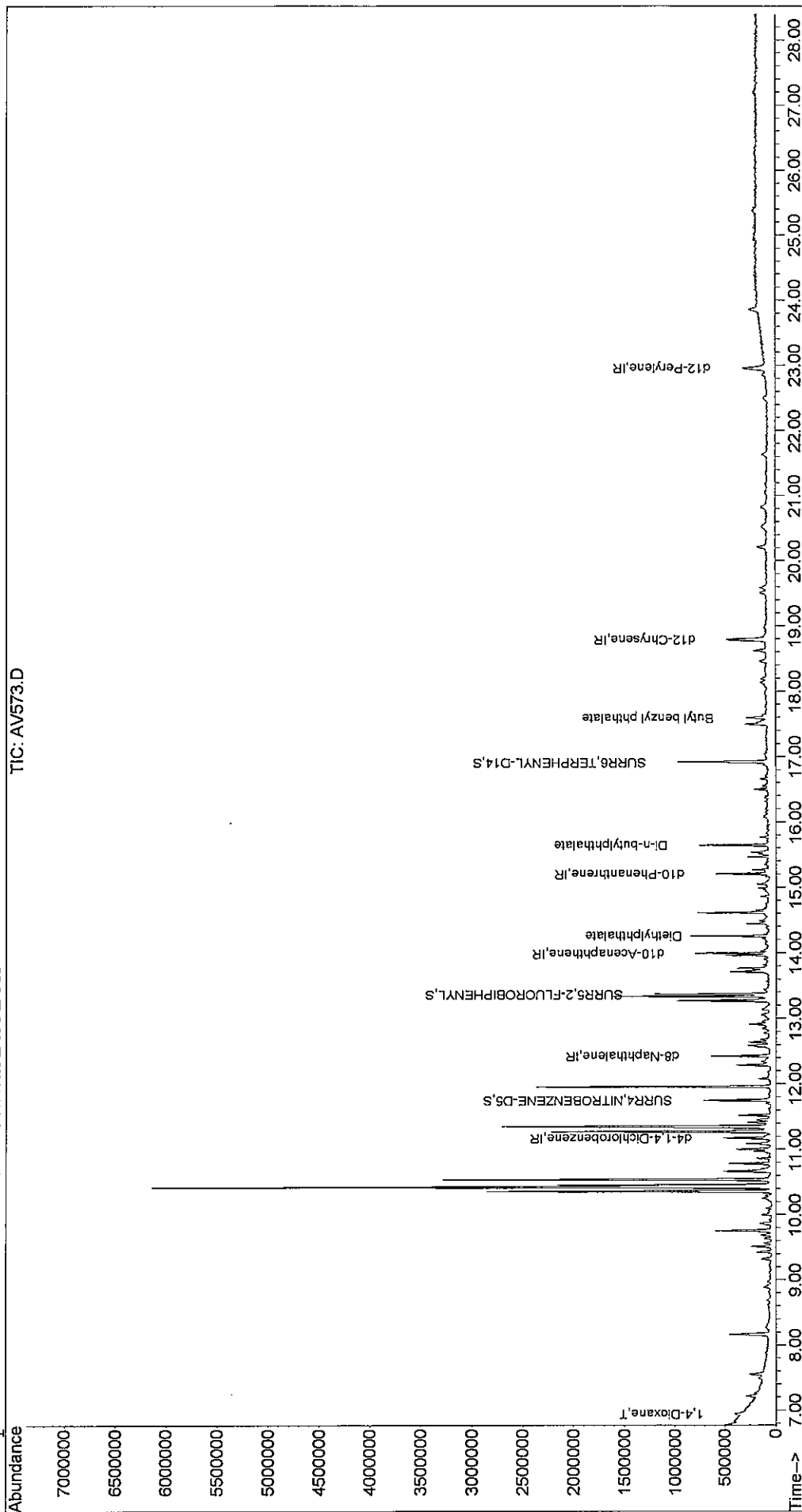
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	6.94	88	32758	0.25	ppm	94
17) Diethylphthalate	14.26	149	53021	0.29	ppm	93
24) Di-n-butylphthalate	15.64	149	381862	1.22	ppm	97
29) Butyl benzyl phthalate	17.59	149	36554	0.20	ppm	94

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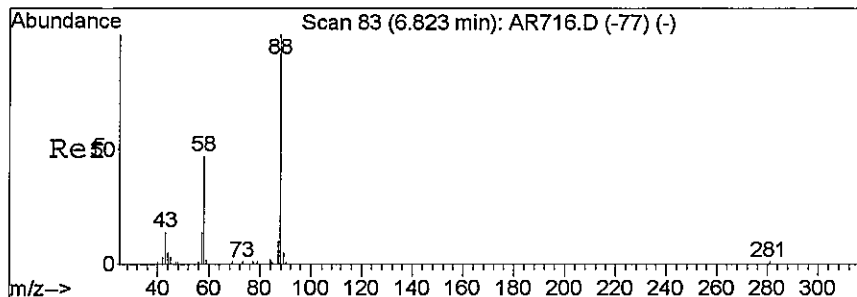
Quantitation Report (QT Reviewed)

Data File : J:\ACQDATA\5973C\DATA\101409\AV573.D Vial: 3
 Acq On : 14 Oct 2009 11:31 am Operator: J.Wu
 Sample : R0905636-003|1.0 Inst : 5973C
 Misc : 10/05/2009 1.0 Northgate 8270.LL Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Oct 15 10:07 2009 Quant Results File: LVII1013.RES

Method : J:\ACQDATA\5973C\METHODS\LVII1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:26:08 2009
 Response via : Initial Calibration

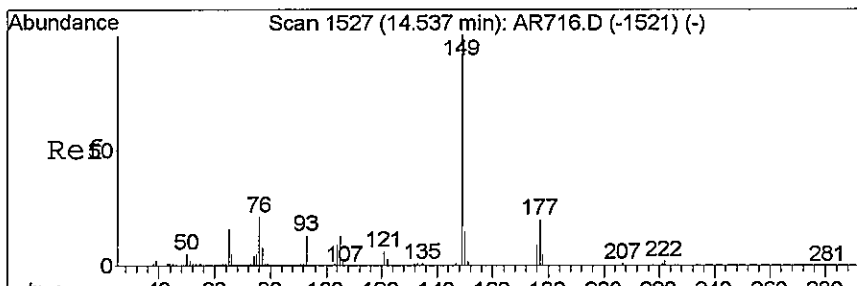
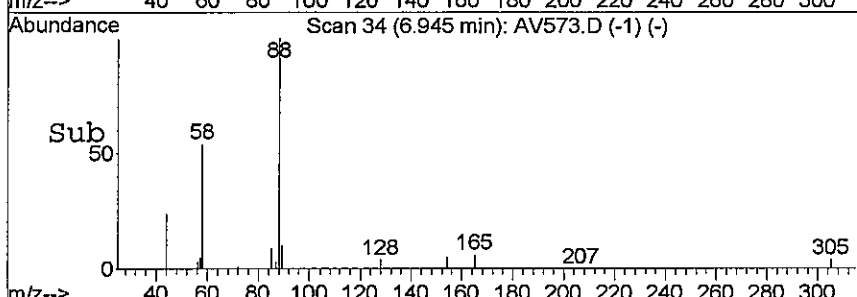
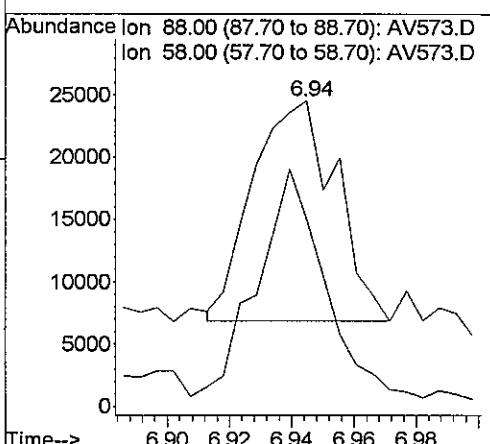
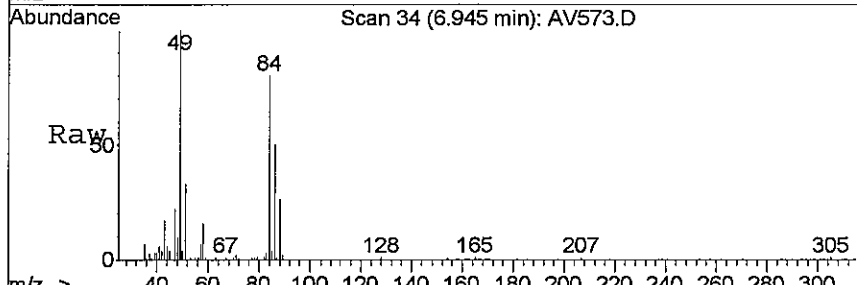


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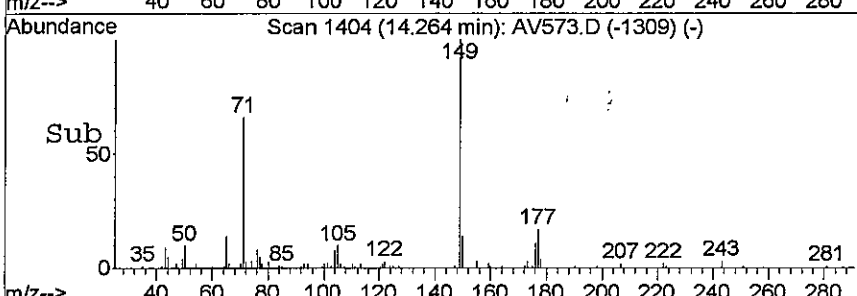
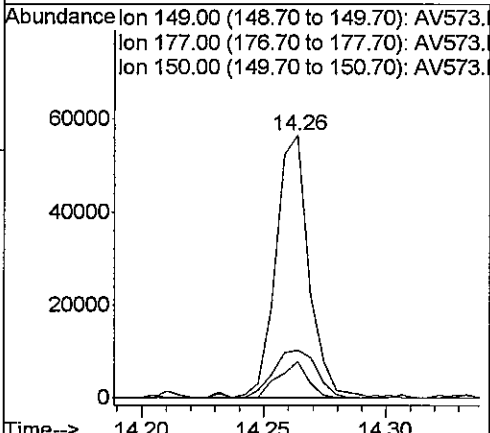
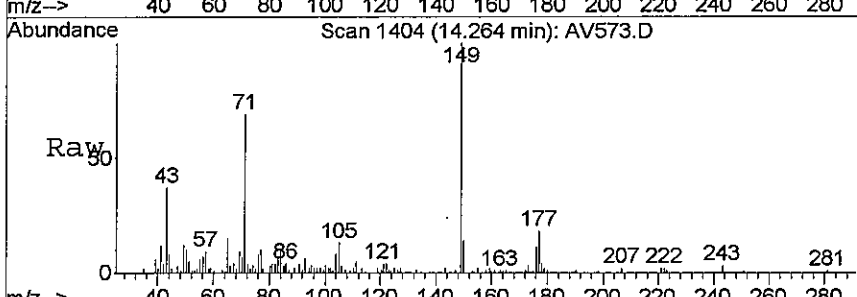
#2
 1,4-Dioxane
 Concen: 0.25 ppm
 RT: 6.94 min Scan# 34
 Delta R.T. 0.01 min
 Lab File: AV573.D
 Acq: 14 Oct 2009 11:31 am

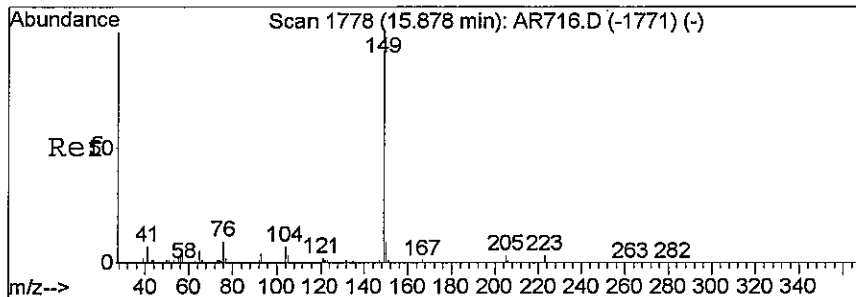
Tgt Ion	Resp	Lower	Upper
88	32758		
88	100		
58	78.5	53.1	93.1



#17
 Diethylphthalate
 Concen: 0.29 ppm
 RT: 14.26 min Scan# 1404
 Delta R.T. 0.01 min
 Lab File: AV573.D
 Acq: 14 Oct 2009 11:31 am

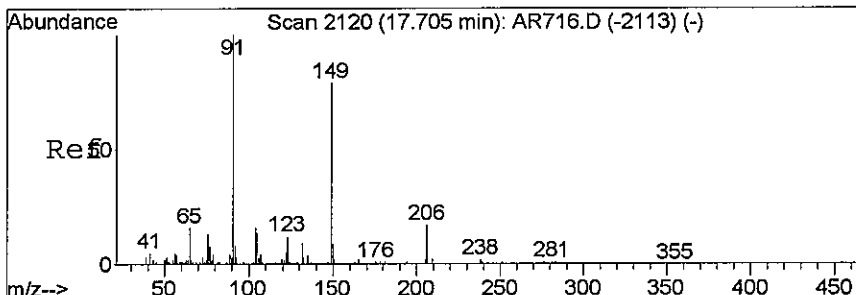
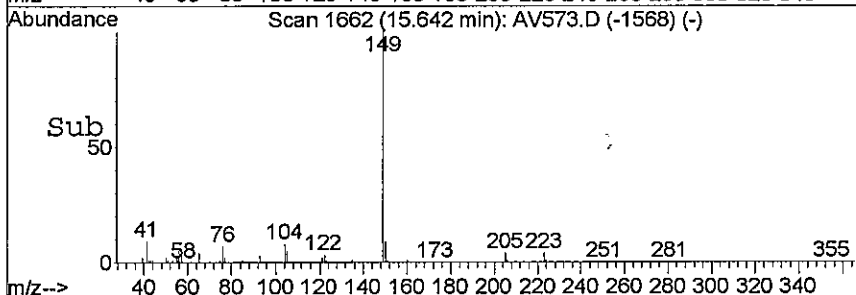
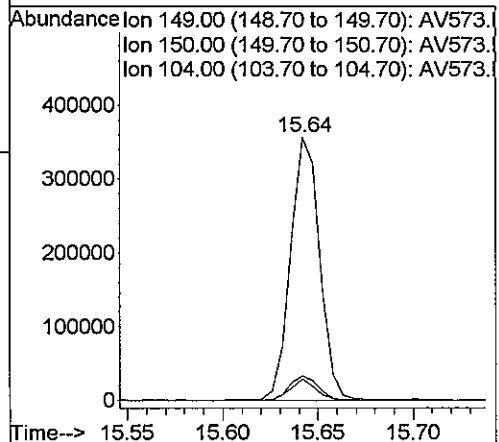
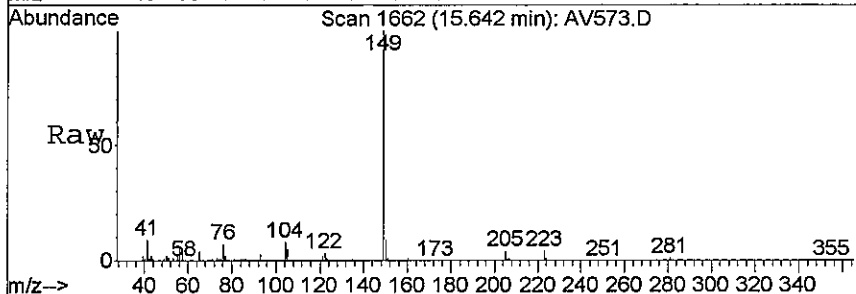
Tgt Ion	Resp	Lower	Upper
149	53021		
149	100		
177	18.1	15.0	28.0
150	13.2	7.8	14.4





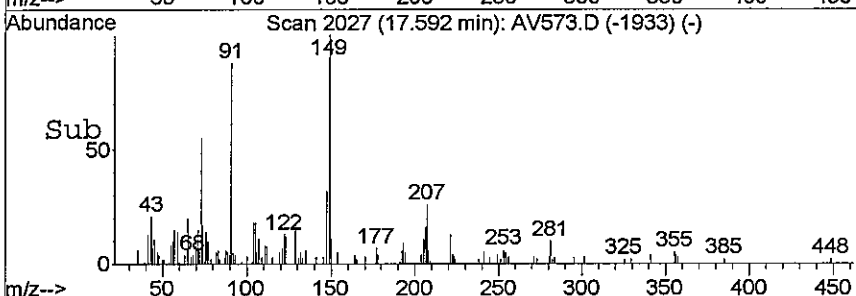
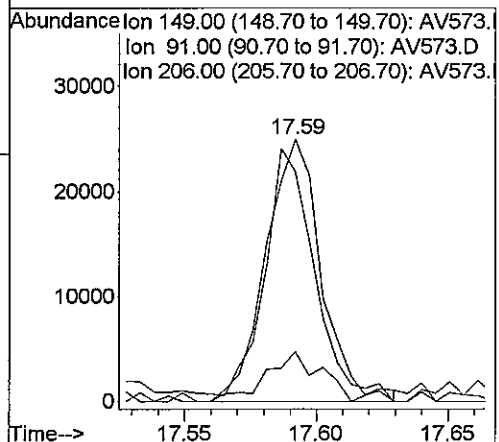
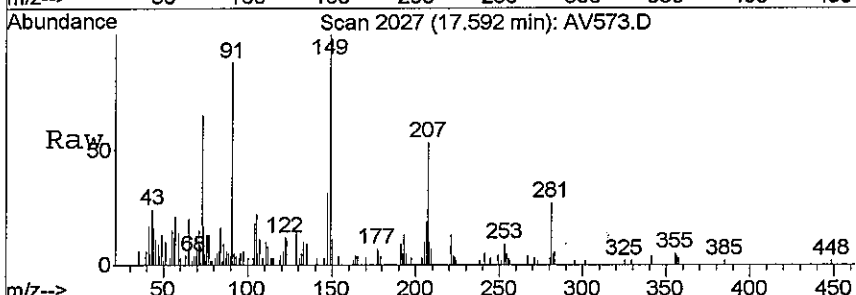
#24
 Di-n-butylphthalate
 Concen: 1.22 ppm
 RT: 15.64 min Scan# 1662
 Delta R.T. 0.00 min
 Lab File: AV573.D
 Acq: 14 Oct 2009 11:31 am

Tgt Ion	Resp	Lower	Upper
149	381862		
150	9.2	5.8	10.8
104	8.1	4.5	8.5



#29
 Butyl benzyl phthalate
 Concen: 0.20 ppm
 RT: 17.59 min Scan# 2027
 Delta R.T. 0.00 min
 Lab File: AV573.D
 Acq: 14 Oct 2009 11:31 am

Tgt Ion	Resp	Lower	Upper
149	36554		
149	100		
91	88.1	57.7	107.1
206	19.4	15.8	29.4



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: MC-94B
Lab Code: R0905636-006

Service Request: R0905636
Date Collected: 10/ 7/09 1045
Date Received: 10/ 8/09
Units: µg/L
Basis: NA

Low Level Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
2-Methylnaphthalene	0.048	U	0.19	0.048	1	10/ 9/09	10/13/09 18:54	97951	174762	
Acenaphthene	0.053	U	0.19	0.053	1	10/ 9/09	10/13/09 18:54	97951	174762	
Acenaphthylene	0.076	U	0.19	0.076	1	10/ 9/09	10/13/09 18:54	97951	174762	
Anthracene	0.041	U	0.19	0.041	1	10/ 9/09	10/13/09 18:54	97951	174762	
Benz(a)anthracene	0.041	U	0.19	0.041	1	10/ 9/09	10/13/09 18:54	97951	174762	
Benzo(a)pyrene	0.042	U	0.19	0.042	1	10/ 9/09	10/13/09 18:54	97951	174762	
Benzo(b)fluoranthene	0.027	U	0.19	0.027	1	10/ 9/09	10/13/09 18:54	97951	174762	
Benzo(g,h,i)perylene	0.030	U	0.19	0.030	1	10/ 9/09	10/13/09 18:54	97951	174762	
Benzo(k)fluoranthene	0.029	U	0.19	0.029	1	10/ 9/09	10/13/09 18:54	97951	174762	
Bis(2-ethylhexyl) Phthalate	0.23	U	4.7	0.23	1	10/ 9/09	10/13/09 18:54	97951	174762	
Butyl Benzyl Phthalate	0.11	U	4.7	0.11	1	10/ 9/09	10/13/09 18:54	97951	174762	
Chrysene	0.029	U	0.19	0.029	1	10/ 9/09	10/13/09 18:54	97951	174762	
Di-n-butyl Phthalate	0.76	U	4.7	0.76	1	10/ 9/09	10/13/09 18:54	97951	174762	
Di-n-octyl Phthalate	0.041	U	4.7	0.041	1	10/ 9/09	10/13/09 18:54	97951	174762	
Dibenz(a,h)anthracene	0.046	U	0.19	0.046	1	10/ 9/09	10/13/09 18:54	97951	174762	
Diethyl Phthalate	0.20	U	4.7	0.20	1	10/ 9/09	10/13/09 18:54	97951	174762	
Dimethyl Phthalate	0.044	U	4.7	0.044	1	10/ 9/09	10/13/09 18:54	97951	174762	
Fluoranthene	0.040	U	0.19	0.040	1	10/ 9/09	10/13/09 18:54	97951	174762	
Fluorene	0.055	U	0.19	0.055	1	10/ 9/09	10/13/09 18:54	97951	174762	
Hexachlorobenzene	0.035	U	0.19	0.035	1	10/ 9/09	10/13/09 18:54	97951	174762	
Indeno(1,2,3-cd)pyrene	0.049	U	0.19	0.049	1	10/ 9/09	10/13/09 18:54	97951	174762	
Naphthalene	0.15	J	0.19	0.14	1	10/ 9/09	10/13/09 18:54	97951	174762	
Nitrobenzene	0.046	U	0.19	0.046	1	10/ 9/09	10/13/09 18:54	97951	174762	
Phenanthrene	0.062	U	0.19	0.062	1	10/ 9/09	10/13/09 18:54	97951	174762	
Pyrene	0.029	U	0.19	0.029	1	10/ 9/09	10/13/09 18:54	97951	174762	
Pyridine	0.89	U	1.9	0.89	1	10/ 9/09	10/13/09 18:54	97951	174762	
1,4-Dioxane	0.84	J	1.9	0.13	1	10/ 9/09	10/13/09 18:54	97951	174762	
Octachlorostyrene	0.13	U	0.19	0.13	1	10/ 9/09	10/13/09 18:54	97951	174762	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: MC-94B
Lab Code: R0905636-006

Service Request: R0905636
Date Collected: 10/ 7/09 1045
Date Received: 10/ 8/09
Units: Percent
Basis: NA

Low Level Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
2-Fluorobiphenyl	75	45-135	10/13/09 18:54		
Nitrobenzene-d5	90	45-135	10/13/09 18:54		
Terphenyl-d14	102	45-135	10/13/09 18:54		

Comments:

Data File : J:\ACQUDATA\5973B\DATA\101309\DC025.D Vial: 3
 Acq On : 13 Oct 2009 6:54 pm Operator: J.Wu
 Sample : R0905636-006|1.0√ Inst : 5973-B
 Misc : 10/09/2009 1.0 Northgate 8270.LL Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 12:52 2009 Quant Results File: LVI0928.RES

Quant Method : J:\ACQUDATA\5...\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI0928

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	10.68	152	112287	1.00	ppm	-0.02
4) d8-Naphthalene	11.95	136	426542	1.00	ppm	-0.01
10) d10-Acenaphthene	13.55	164	254342	1.00	ppm	-0.02
18) d10-Phenanthrene	14.76	188	360981	1.00	ppm	-0.02
26) d12-Chrysene	18.07	240	349239	1.00	ppm	-0.04
33) d12-Perylene	21.87	264	249286	1.00	ppm	-0.08

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
5) SURR4,NITROBENZENE-D5	11.27	82	254203	1.79	ppm	-0.01
Spiked Amount 2.000	Range 22 - 124		Recovery =	89.50%		
11) SURR5,2-FLUOROBIPHENYL	12.91	172	509666	1.49	ppm	-0.02
Spiked Amount 2.000	Range 27 - 114		Recovery =	74.50%		
28) SURR6,TERPHENYL-D14	16.37	244	564450	2.04	ppm	-0.03
Spiked Amount 2.000	Range 23 - 139		Recovery =	102.00%		

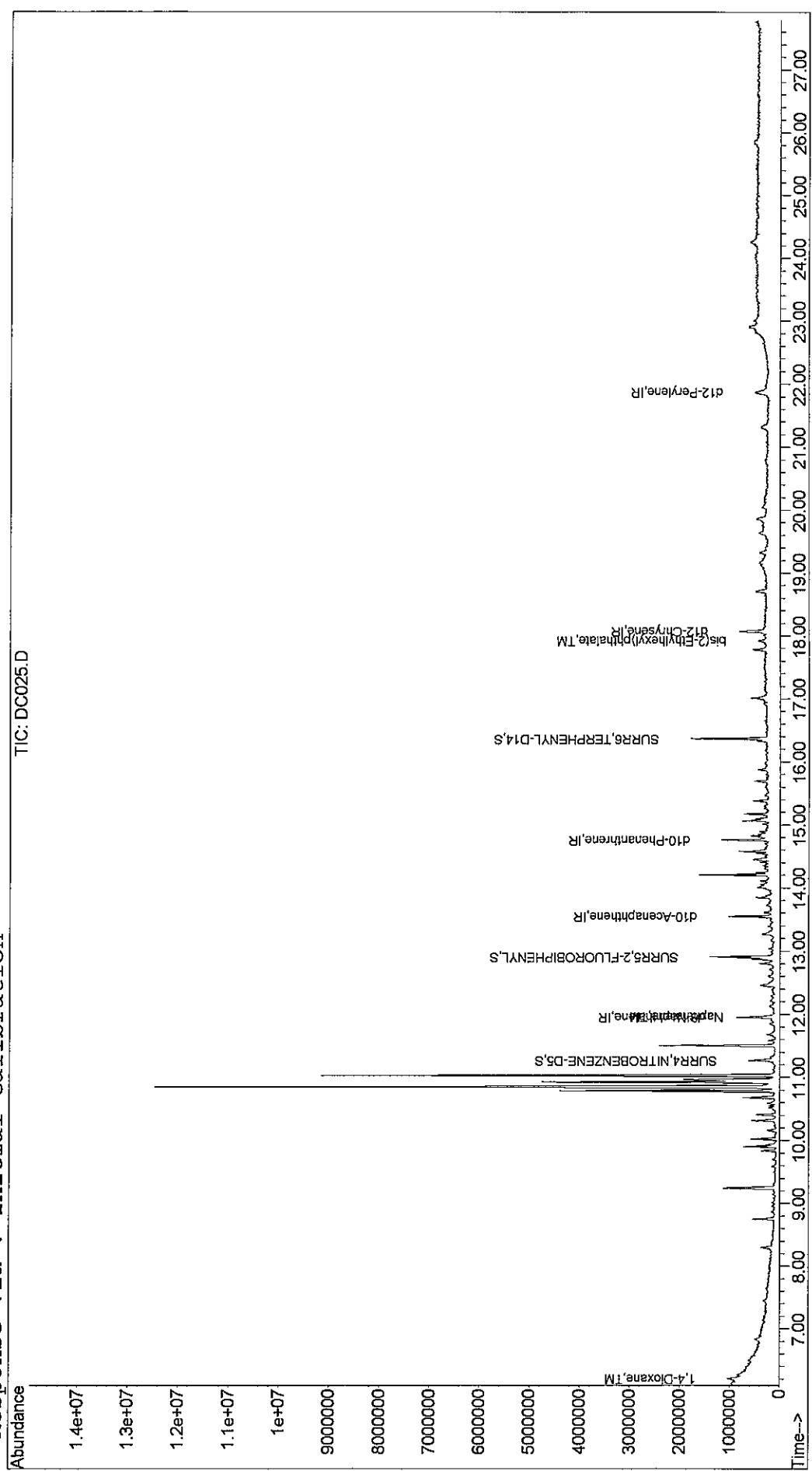
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	6.20	88	110804	0.89	ppm	88
7) Naphthalene	11.97	128	71479	0.16	ppm	80
30) bis(2-Ethylhexyl)phthalate	17.92	149	70706	0.24	ppm	89

JW ✓ Page 1

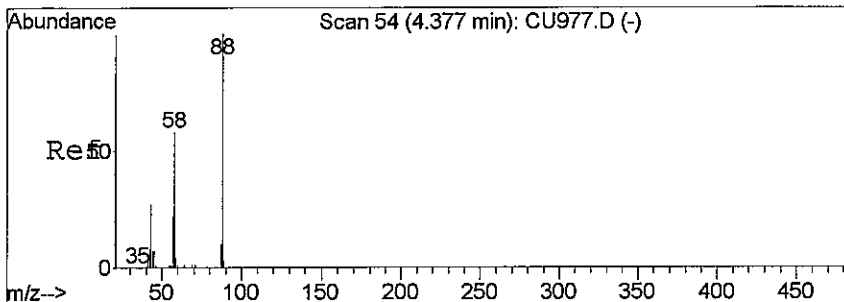
Quantitation Report

Data File : J:\ACQDATA\5973B\DATA\101309\DC025.D Vial: 3
Acq On : 13 Oct 2009 6:54 pm Operator: J.Wu
Sample : R0905636-006|1.0 Inst : 5973-B
Misc : 10/09/2009 1.0 Northgate 8270.LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 14 12:52 2009 Quant Results File: LVI0928.RES

Method : J:\ACQDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Sep 29 09:53:23 2009
Response via : Initial Calibration

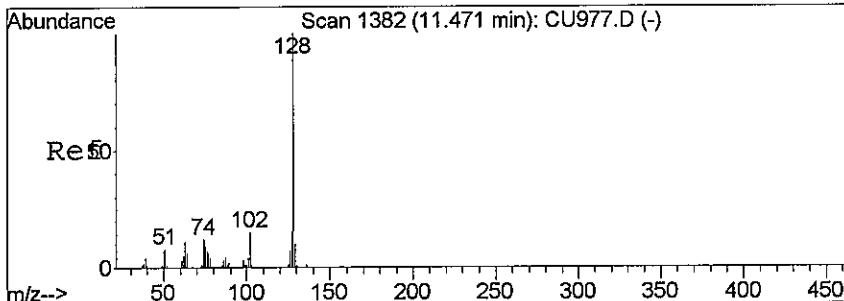
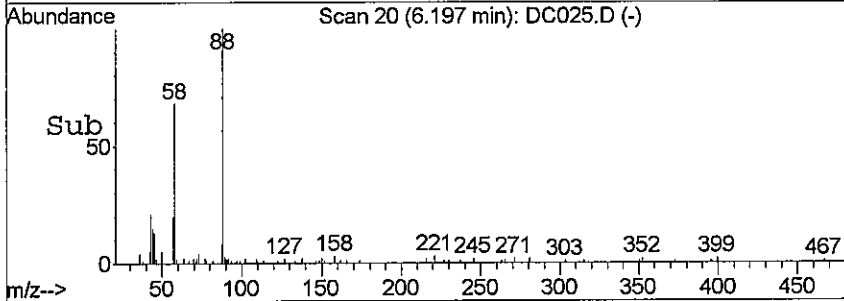
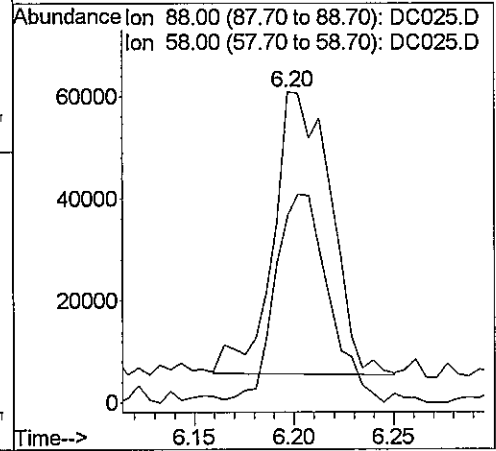
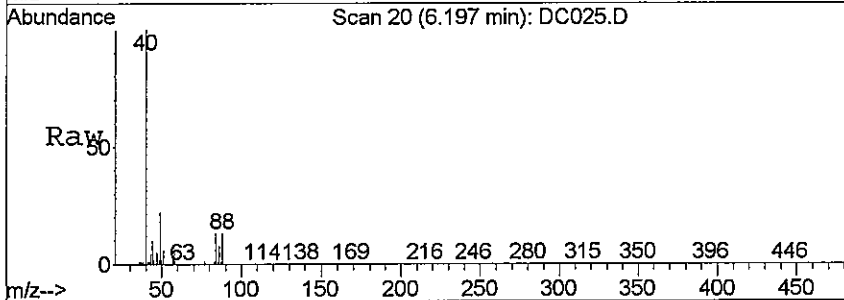


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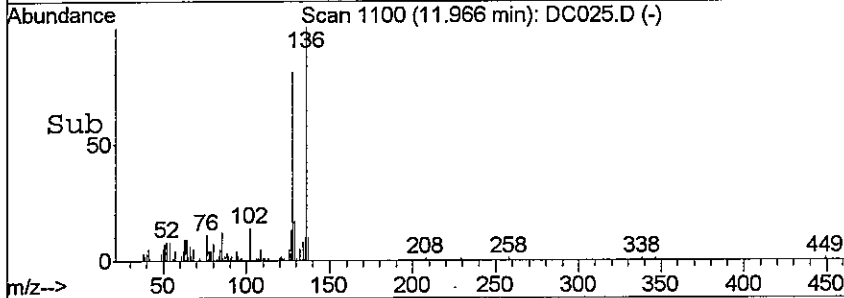
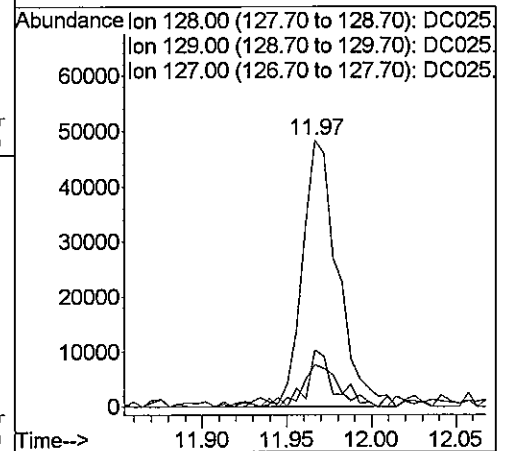
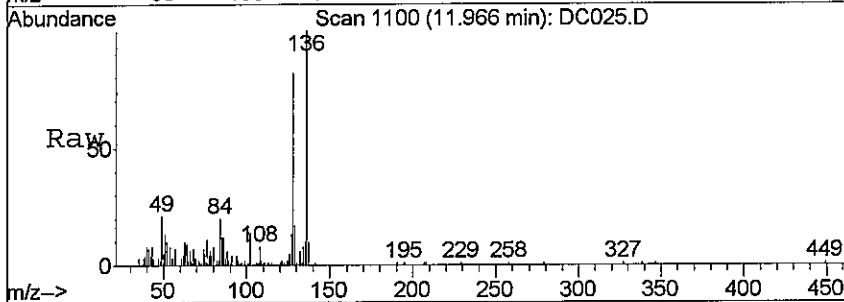
#2
 1,4-Dioxane
 Concen: 0.89 ppm
 RT: 6.20 min Scan# 20
 Delta R.T. -0.02 min
 Lab File: DC025.D
 Acq: 13 Oct 2009 6:54 pm

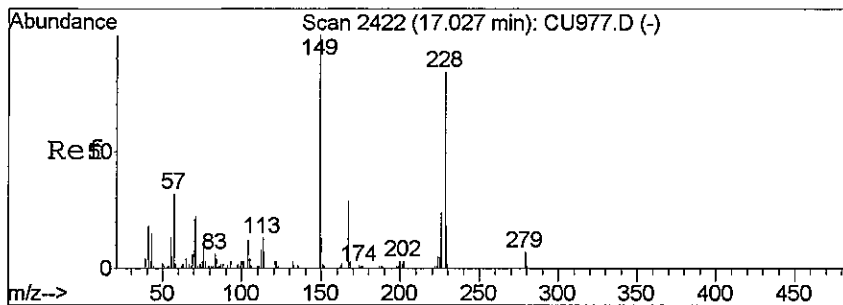
Tgt Ion	Resp	Lower	Upper
88	110804		
58	64.0	44.1	104.1



#7
 Naphthalene
 Concen: 0.16 ppm
 RT: 11.97 min Scan# 1100
 Delta R.T. -0.02 min
 Lab File: DC025.D
 Acq: 13 Oct 2009 6:54 pm

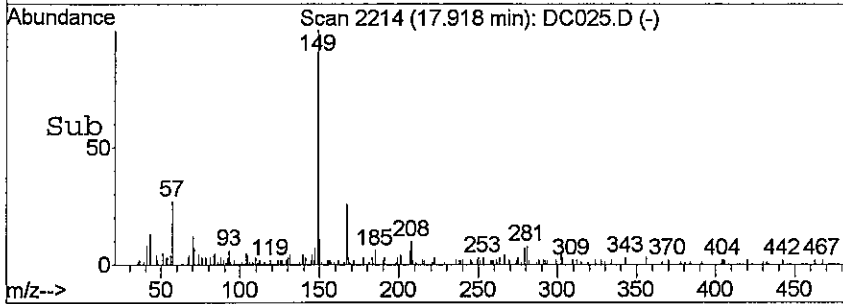
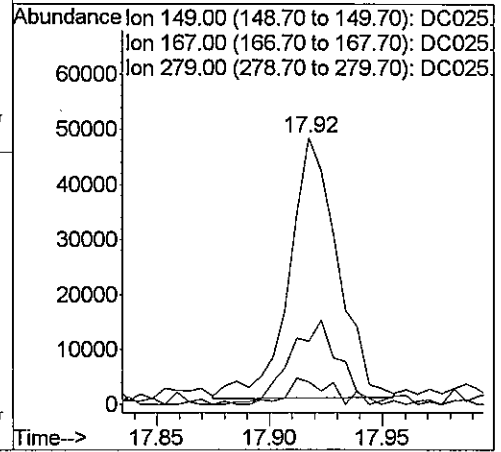
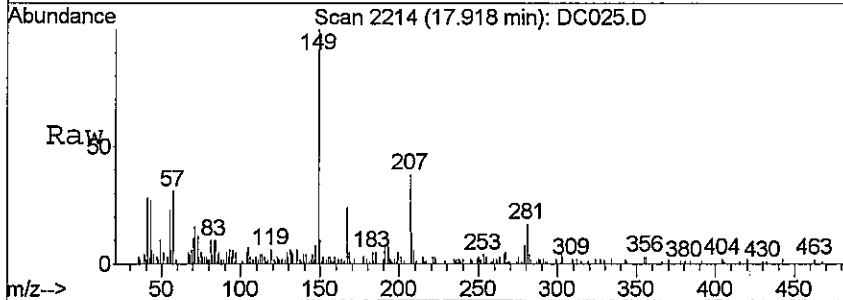
Tgt Ion	Resp	Lower	Upper
128	71479		
129	21.4	0.0	39.7
127	13.8	0.0	40.6





#30
 bis(2-Ethylhexyl)phthalate
 Concen: 0.24 ppm
 RT: 17.92 min Scan# 2214
 Delta R.T. -0.06 min
 Lab File: DC025.D
 Acq: 13 Oct 2009 6:54 pm

Tgt Ion	Resp	Lower	Upper
149	100		
167	23.8	10.9	50.9
279	7.1	0.0	27.7



SEMIVOLATILE ORGANICS

STANDARDS DATA

Response Factor Report 5973-B

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 Response via : Initial Calibration

Calibration Files

0.1 =DB717.D 0.2 =DB718.D 0.5 =DB719.D
 1.0 =DB720.D 2.0 =DB721.D 3.0 =DB722.D 4.0 =DB723.D
 5.0 =DB724.D 10.0 =DB725.D

Compound	0.1	0.2	0.5	1.0	2.0	3.0	Avg	%RSD
-----ISTD-----								
1) IR d4-1,4-Dichlorobenzen								
2) TM 1,4-Dioxane	1.640	1.083	0.863	0.873	0.862	0.933	0.980	26.43 <i>LR</i>
3) TM Pyridine				1.114	1.256	1.430	1.325	9.25
-----ISTD-----								
4) IR d8-Naphthalene								
5) S SURR4,NITROBENZENE-	0.300	0.309	0.327	0.303	0.350	0.348	0.333	7.61
6) TM Nitrobenzene	0.313	0.328	0.328	0.336	0.365	0.354	0.336	4.96
7) TM Naphthalene	1.060	1.025	1.102	1.023	1.099	1.105	1.049	5.03
8) TM 2-Methylnaphthalene	0.729	0.649	0.710	0.652	0.662	0.703	0.674	4.65
9) TM 1-Methylnaphthalene	0.644	0.659	0.649	0.572	0.635	0.641	0.626	4.43
-----ISTD-----								
10) IR d10-Acenaphthene								
11) S SURR5,2-FLUOROBIPHE	1.366	1.342	1.362	1.315	1.336	1.408	1.345	4.49
12) TM Acenaphthylene	1.725	1.820	1.847	1.934	1.903	1.944	1.863	6.73
13) TM Dimethyl phthalate		1.297	1.380	1.476	1.483	1.560	1.471	8.16
14) TM Acenaphthene	1.186	1.259	1.164	1.105	1.157	1.137	1.160	4.79
15) TM Dibenzofuran	1.250	1.421	1.544	1.499	1.596	1.664	1.546	10.47
16) TM Fluorene	1.009	1.051	1.085	1.131	1.247	1.297	1.192	11.04
17) TM Diethylphthalate	1.478	1.328	1.578	1.503	1.595	1.648	1.542	8.57
-----ISTD-----								
18) IR d10-Phenanthrene								
19) TM Hexachlorobenzene	0.226	0.245	0.260	0.247	0.249	0.233	0.239	5.44
20) TM Phenanthrene	1.149	1.278	1.219	1.146	1.209	1.183	1.161	8.15
21) TM Anthracene	1.046	1.065	1.079	1.073	1.181	1.111	1.085	6.78
22) TM Carbazole	0.897	0.928	0.869	0.799	0.775	0.611	0.720	27.67 <i>N.T</i>
23) TM Octachlorostyrene		0.065	0.070	0.067	0.083	0.072	0.070	8.22
24) TM Di-n-butylphthalate		1.538	1.604	1.589	1.738	1.671	1.535	13.71
25) TM Fluoranthene	1.273	1.363	1.326	1.299	1.390	1.337	1.302	6.89
-----ISTD-----								
26) IR d12-Chrysene								
27) TM Pyrene	1.227	1.344	1.373	1.213	1.300	1.299	1.258	7.71
28) S SURR6,TERPHENYL-D14	0.760	0.796	0.769	0.773	0.823	0.811	0.792	3.65
29) TM Butyl benzyl phthal		0.624	0.621	0.664	0.721	0.723	0.677	6.06
30) TM bis(2-Ethylhexyl)ph		0.789	0.817	0.848	0.928	0.915	0.840	9.03
31) TM Benzo(a)anthracene	0.957	0.987	1.059	1.078	1.148	1.167	1.080	6.87
32) TM Chrysene	1.050	1.162	1.052	1.100	1.139	1.113	1.094	3.94
-----ISTD-----								
33) IR d12-Perylene								
34) TM Di-n-octyl phthalat			1.361	1.591	1.920	1.969	1.860	15.02
35) TM Benzo(b)Fluoranthen		1.378	1.364	1.330	1.530	1.453	1.447	5.51
36) TM Benzo(k)fluoranthen		1.394	1.344	1.394	1.474	1.438	1.434	4.23
37) TM Benzo(a)pyrene		1.053	1.098	1.204	1.360	1.350	1.274	10.74
38) TM Indeno(1,2,3-cd)Pyr		1.328	1.406	1.456	1.618	1.598	1.509	7.11

Response Factor Report 5973-B

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 Response via : Initial Calibration

Calibration Files

0.1 =DB717.D 0.2 =DB718.D 0.5 =DB719.D
 1.0 =DB720.D 2.0 =DB721.D 3.0 =DB722.D

Compound	0.1	0.2	0.5	1.0	2.0	3.0	Avg	%RSD
39) TM Dibenz(a,h)anthrace	1.082	1.119	1.167	1.289	1.316	1.250	1.250	8.90
40) TM Benzo(g,h,i)perylene	1.222	1.207	1.315	1.386	1.370	1.278	1.278	6.54

Evaluate Continuing Calibration Report

Data File : J:\ACQUADATA\5973B\DATA\092809\DB721.D
 Acq On : 28 Sep 2009 8:08 pm
 Sample : SSTD020
 Misc : 2.0/4.0 PPM STD 8270.LL
 MS Integration Params: RTEINT.P

Vial: 7
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00

Method : J:\ACQUADATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 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	TM 1,4-Dioxane	0.980	0.862	12.0	100	0.00
3	TM Pyridine	1.325	1.256	5.2	100	0.00
4	IR d8-Naphthalene	1.000	1.000	0.0	100	0.00
5	S SURR4,NITROBENZENE-D5	0.333	0.350	-5.1	100	0.00
6	TM Nitrobenzene	0.336	0.365	-8.6	100	0.00
7	TM Naphthalene	1.049	1.099	-4.8	100	0.00
8	TM 2-Methylnaphthalene	0.674	0.662	1.8	100	0.00
9	TM 1-Methylnaphthalene	0.626	0.635	-1.4	100	0.00
10	IR d10-Acenaphthene	1.000	1.000	0.0	100	0.00
11	S SURR5,2-FLUOROBIPHENYL	1.345	1.336	0.7	100	0.00
12	TM Acenaphthylene	1.863	1.903	-2.1	100	0.00
13	TM Dimethyl phthalate	1.471	1.483	-0.8	100	0.00
14	TM Acenaphthene	1.160	1.157	0.3	100	0.00
15	TM Dibenzofuran	1.546	1.596	-3.2	100	0.00
16	TM Fluorene	1.192	1.247	-4.6	100	0.00
17	TM Diethylphthalate	1.542	1.595	-3.4	100	0.00
18	IR d10-Phenanthrene	1.000	1.000	0.0	100	0.00
19	TM Hexachlorobenzene	0.239	0.249	-4.2	100	0.00
20	TM Phenanthrene	1.161	1.209	-4.1	100	0.00
21	TM Anthracene	1.085	1.181	-8.8	100	0.00
22	TM Carbazole	0.720	0.775	-7.6	100	0.00
23	TM Octachlorostyrene	0.070	0.083	-18.6	100	0.00
24	TM Di-n-butylphthalate	1.535	1.738	-13.2	100	0.00
25	TM Fluoranthene	1.302	1.390	-6.8	100	0.00
26	IR d12-Chrysene	1.000	1.000	0.0	100	0.00
27	TM Pyrene	1.258	1.300	-3.3	100	0.00
28	S SURR6,TERPHENYL-D14	0.792	0.823	-3.9	100	0.00
29	TM Butyl benzyl phthalate	0.677	0.721	-6.5	100	0.00
30	TM bis(2-Ethylhexyl)phthalate	0.840	0.928	-10.5	100	0.00
31	TM Benzo(a)anthracene	1.080	1.148	-6.3	100	0.00
32	TM Chrysene	1.094	1.139	-4.1	100	0.00
33	IR d12-Perylene	1.000	1.000	0.0	100	0.00
34	TM Di-n-octyl phthalate	1.860	1.920	-3.2	100	0.00
35	TM Benzo(b)Fluoranthene	1.447	1.530	-5.7	100	0.00
36	TM Benzo(k)fluoranthene	1.434	1.474	-2.8	100	0.00

(#) = Out of Range
 DB721.D LVI0928.M

Tue Sep 29 10:08:30 2009

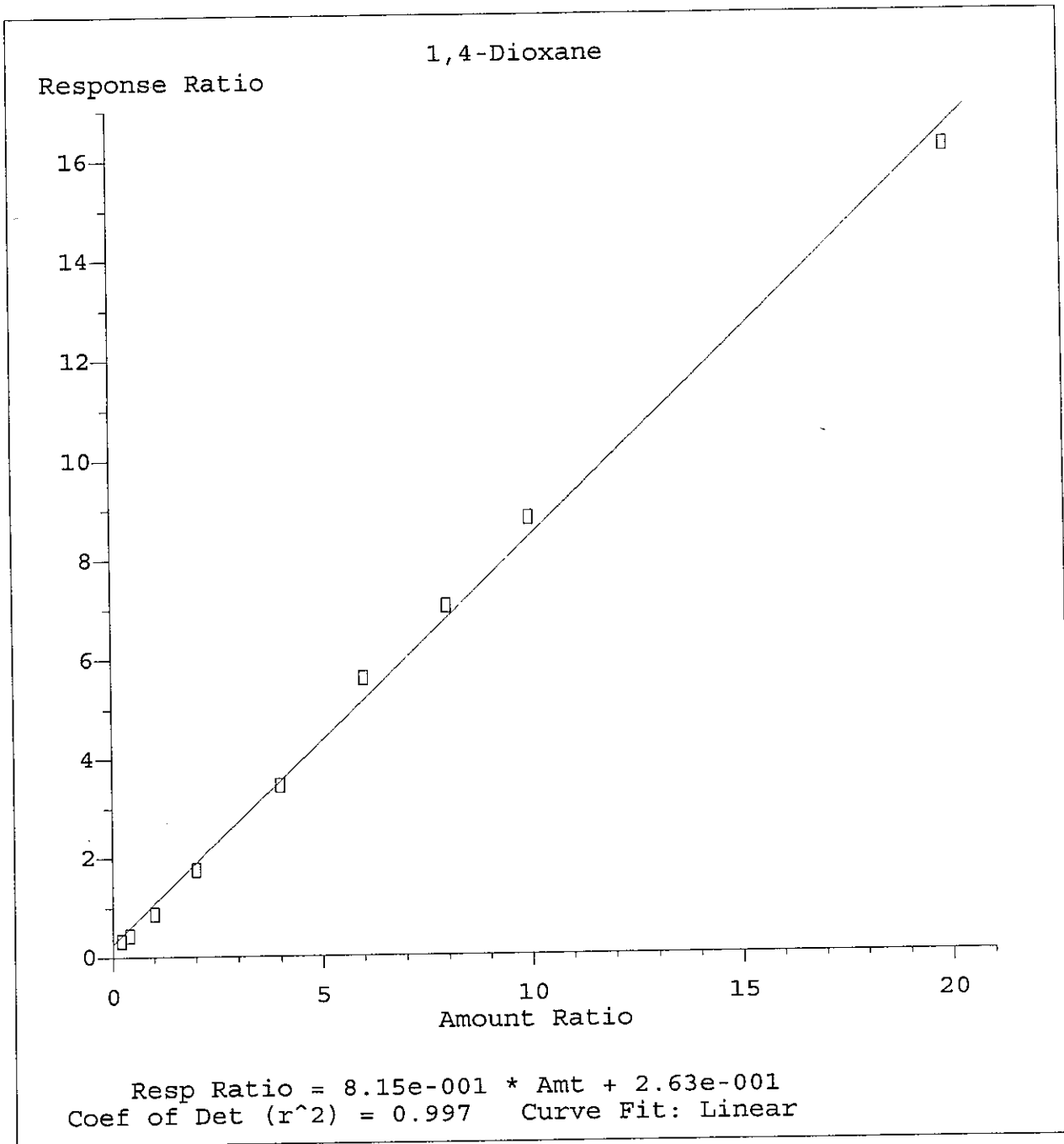
Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\5973B\DATA\092809\DB721.D Vial: 7
 Acq On : 28 Sep 2009 8:08 pm Operator: Z.Miao
 Sample : SSTD020 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\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 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 TM Benzo(a)pyrene	1.274	1.360	-6.8	100	0.00
38 TM Indeno(1,2,3-cd)Pyrene	1.509	1.618	-7.2	100	0.00
39 TM Dibenz(a,h)anthracene	1.250	1.289	-3.1	100	0.00
40 TM Benzo(g,h,i)perylene	1.278	1.386	-8.5	100	0.00



Method Name: J:\ACQUDATA\5973B\METHODS\LVI0928.M
Calibration Table Last Updated: Tue Sep 29 09:53:23 2009

Data File : J:\ACQUDATA\5973B\DATA\092809\DB717.D
 Acq On : 28 Sep 2009 5:15 pm
 Sample : SSTD001
 Misc : 0.1/0.2 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Sep 29 9:23 2009

Vial: 3
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: LVI0928.RES

Quant Method : J:\ACQUDATA\5...\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:21:50 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI0928

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	10.70	152	118623	1.00	ppm	0.00
4) d8-Naphthalene	11.96	136	479052	1.00	ppm	0.00
10) d10-Acenaphthene	13.57	164	255534	1.00	ppm	0.00
18) d10-Phenanthrene	14.78	188	338551	1.00	ppm	0.00
26) d12-Chrysene	18.11	240	340856	1.00	ppm	0.00
33) d12-Perylene	21.94	264	269484	1.00	ppm	0.00

System Monitoring Compounds

5) SURR4,NITROBENZENE-D5	11.29	82	14360	0.08	ppm	0.00
Spiked Amount	2.000	Range	22 - 124	Recovery	=	4.00%#
11) SURR5,2-FLUOROBIPHENYL	12.93	172	34916	0.10	ppm	0.00
Spiked Amount	2.000	Range	27 - 114	Recovery	=	5.00%#
28) SURR6,TERPHENYL-D14	16.40	244	25920	0.09	ppm	0.00
Spiked Amount	2.000	Range	23 - 139	Recovery	=	4.50%#

Target Compounds

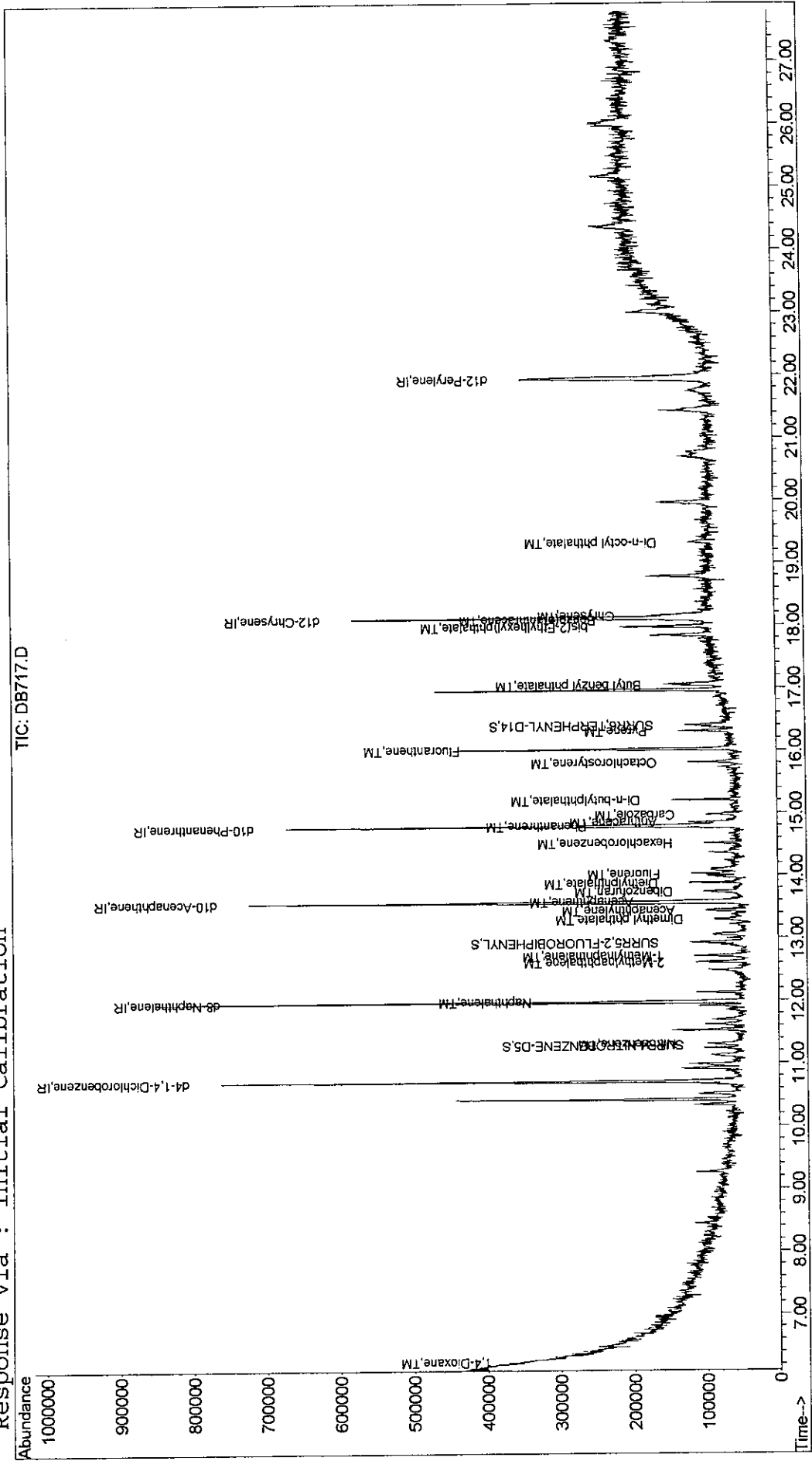
	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	6.24	88	38905	0.30	ppm	100
6) Nitrobenzene	11.31	77	15009	0.08	ppm	100
7) Naphthalene	11.99	128	50803	0.09	ppm	100
8) 2-Methylnaphthalene	12.61	142	34912	0.11	ppm	99
9) 1-Methylnaphthalene	12.72	142	30854	0.10	ppm	100
12) Acenaphthylene	13.44	152	44088	0.09	ppm	100
13) Dimethyl phthalate	13.30	163	27411	0.07	ppm	100
14) Acenaphthene	13.59	153	30307	0.10	ppm	95
15) Dibenzofuran	13.74	168	31932	0.08	ppm	100
16) Fluorene	14.03	166	25782	0.08	ppm	100
17) Diethylphthalate	13.88	149	37780	0.09	ppm	100
19) Hexachlorobenzene	14.52	284	7664	0.09	ppm	100
20) Phenanthrene	14.80	178	38897	0.10	ppm	100
21) Anthracene	14.84	178	35405	0.09	ppm	100
22) Carbazole	14.97	167	30354	0.11	ppm	100
23) Octachlorostyrene	15.81	378	2561	0.31	ppm	95
24) Di-n-butylphthalate	15.20	149	49019	0.10	ppm	100
25) Fluoranthene	16.02	202	43088	0.10	ppm	100
27) Pyrene	16.31	202	41813	0.10	ppm	100
29) Butyl benzyl phthalate	17.04	149	19782	0.09	ppm	100
30) bis(2-Ethylhexyl)phthalate	17.97	149	59574	0.21	ppm	100
31) Benzo(a)anthracene	18.08	228	32628	0.09	ppm	100
32) Chrysene	18.16	228	35795	0.10	ppm	100
34) Di-n-octyl phthalate	19.32	149	32005	0.06	ppm	100

(#) = qualifier out of range (m) = manual integration
 DB717.D LVI0928.M Tue Sep 29 09:56:03 2009

Quantitation Report

Data File : J:\ACQUDATA\5973B\DATA\092809\DB717.D Vial: 3
 Acq On : 28 Sep 2009 5:15 pm Operator: Z.Miao
 Sample : SSTD001 Inst : 5973-B
 Misc : 0.1/0.2 PPM STD 8270.LL Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Sep 29 9:23 2009 Quant Results File: LVI0928.RES

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 Response via : Initial Calibration



Data File : J:\ACQUDATA\5973B\DATA\092809\DB718.D
 Acq On : 28 Sep 2009 5:59 pm
 Sample : SSTD002
 Misc : 0.2/0.4 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Sep 29 9:26 2009

Vial: 4
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: LVI0928.RES

Quant Method : J:\ACQUDATA\5...\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:25:38 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI0928

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	10.70	152	112163	1.00	ppm	0.00
4) d8-Naphthalene	11.97	136	488036	1.00	ppm	0.00
10) d10-Acenaphthene	13.57	164	249472	1.00	ppm	0.00
18) d10-Phenanthrene	14.78	188	324911	1.00	ppm	0.00
26) d12-Chrysene	18.12	240	339617	1.00	ppm	0.00
33) d12-Perylene	21.94	264	268750	1.00	ppm	0.00

System Monitoring Compounds

5) SURR4,NITROBENZENE-D5	11.29	82	30187	0.16	ppm	0.00
Spiked Amount	2.000	Range	22 - 124	Recovery	=	8.00%#
11) SURR5,2-FLUOROBIPHENYL	12.93	172	66982	0.20	ppm	0.00
Spiked Amount	2.000	Range	27 - 114	Recovery	=	10.00%#
28) SURR6,TERPHENYL-D14	16.41	244	54058	0.19	ppm	0.00
Spiked Amount	2.000	Range	23 - 139	Recovery	=	9.50%#

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	6.23	88	48609	0.41	ppm	100
6) Nitrobenzene	11.31	77	31998	0.17	ppm	98
7) Naphthalene	11.99	128	100073	0.19	ppm	100
8) 2-Methylnaphthalene	12.61	142	63315	0.19	ppm	100
9) 1-Methylnaphthalene	12.71	142	64307	0.20	ppm	100
12) Acenaphthylene	13.44	152	90791	0.19	ppm	100
13) Dimethyl phthalate	13.29	163	64690	0.17	ppm	100
14) Acenaphthene	13.59	153	62793	0.21	ppm	100
15) Dibenzofuran	13.74	168	70904	0.18	ppm	100
16) Fluorene	14.03	166	52451	0.17	ppm	100
17) Diethylphthalate	13.88	149	66268	0.17	ppm	100
19) Hexachlorobenzene	14.51	284	15939	0.20	ppm	100
20) Phenanthrene	14.80	178	83079	0.21	ppm	100
21) Anthracene	14.85	178	69229	0.19	ppm	100
22) Carbazole	14.97	167	60311	0.22	ppm	100
23) Octachlorostyrene	15.82	378	4218	0.35	ppm	100
24) Di-n-butylphthalate	15.20	149	99958	0.20	ppm	100
25) Fluoranthene	16.02	202	88583	0.21	ppm	100
27) Pyrene	16.30	202	91312	0.21	ppm	100
29) Butyl benzyl phthalate	17.04	149	42390	0.19	ppm	100
30) bis(2-Ethylhexyl)phthalate	17.97	149	107231	0.37	ppm	100
31) Benzo(a)anthracene	18.08	228	67071	0.18	ppm	100
32) Chrysene	18.16	228	78894	0.21	ppm	100
34) Di-n-octyl phthalate	19.32	149	61035	0.12	ppm	93
35) Benzo(b)Fluoranthene	20.71	252	74092	0.18	ppm	100
36) Benzo(k)fluoranthene	20.76	252	74933	0.19	ppm	100

(#) = qualifier out of range (m) = manual integration
 DB718.D LVI0928.M Tue Sep 29 09:56:10 2009

Data File : J:\ACQUDATA\5973B\DATA\092809\DB718.D
 Acq On : 28 Sep 2009 5:59 pm
 Sample : SSTD002
 Misc : 0.2/0.4 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Sep 29 9:26 2009

Vial: 4
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: LVI0928.RES

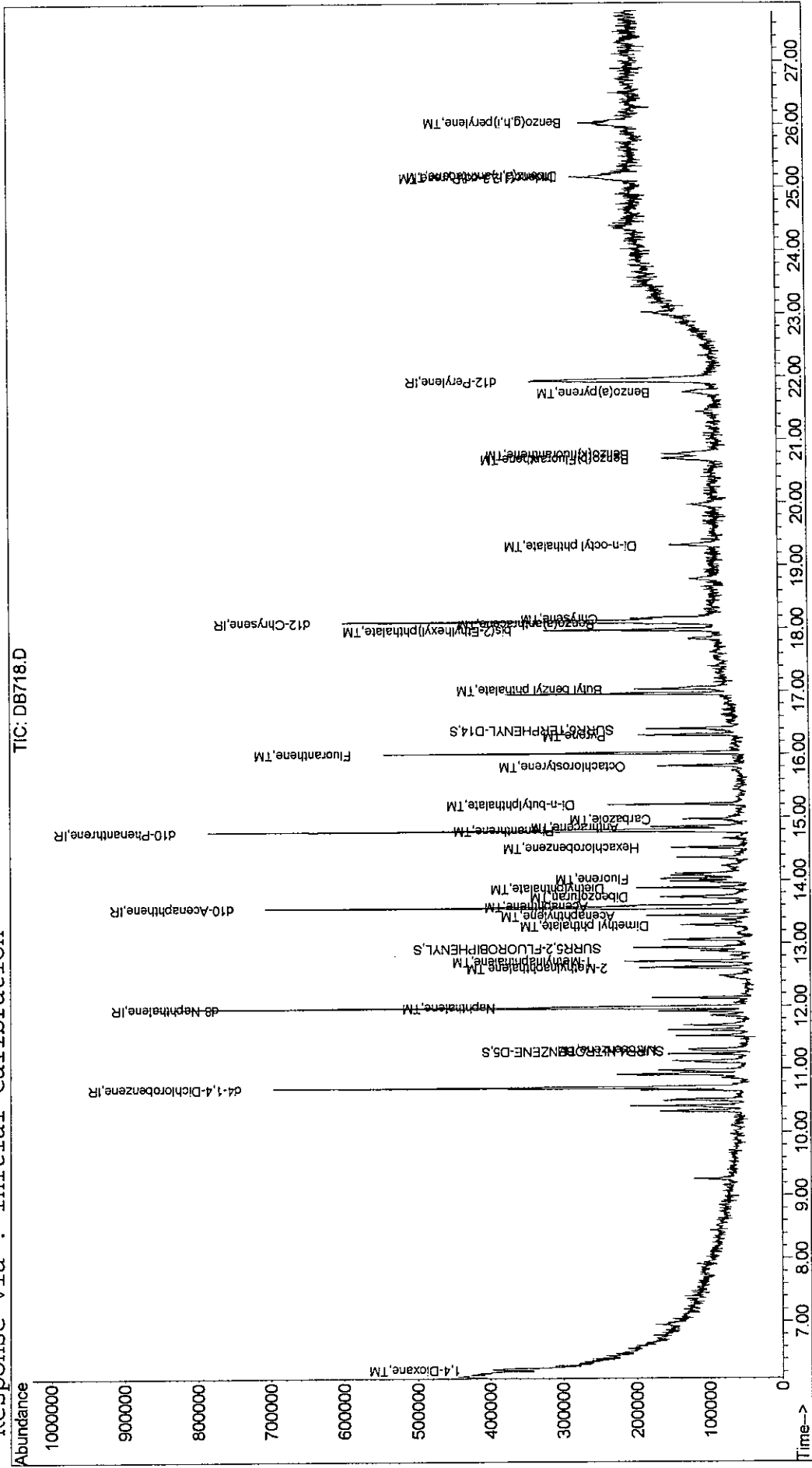
Quant Method : J:\ACQUDATA\5...\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:25:38 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI0928

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37) Benzo(a)pyrene	21.76	252	56618	0.16	ppm	100
38) Indeno(1,2,3-cd)Pyrene	25.16	276	71376m	0.17	ppm	
39) Dibenz(a,h)anthracene	25.18	278	58145m	0.16	ppm	
40) Benzo(g,h,i)perylene	26.03	276	65658	0.20	ppm	100

Quantitation Report

Data File : J:\ACQDATA\5973B\DATA\092809\DB718.D Vial: 4
Acq On : 28 Sep 2009 5:59 pm Operator: Z.Miao
Sample : SSTD002 Inst : 5973-B
Misc : 0.2/0.4 PPM STD 8270.LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 29 9:26 2009 Quant Results File: LVI0928.RES

Method : J:\ACQDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Sep 29 09:53:23 2009
Response via : Initial Calibration



00307

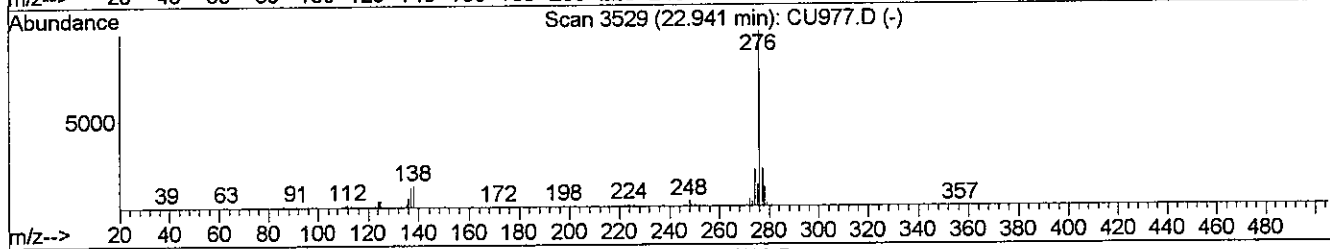
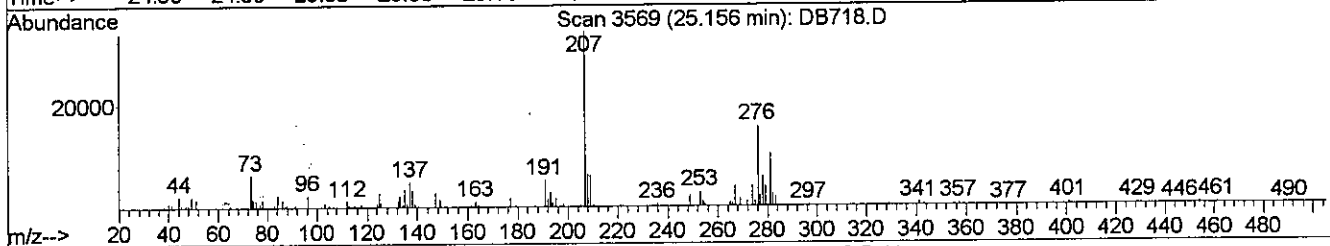
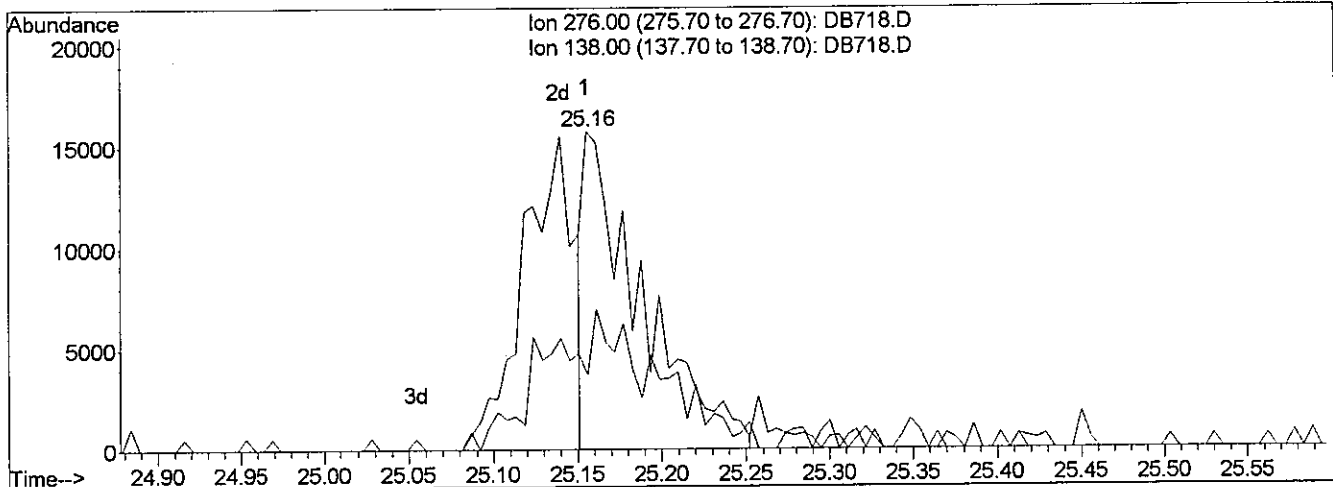
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\092809\DB718.D
 Acq On : 28 Sep 2009 5:59 pm
 Sample : SSTD002
 Misc : 0.2/0.4 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Sep 29 9:25 2009

Vial: 4
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:25:38 2009
 Response via : Multiple Level Calibration



TIC: DB718.D

(38) Indeno(1,2,3-cd)Pyrene (TM)

25.16min 0.09ppm

response 36973

Ion	Exp%	Act%
276.00	100	100
138.00	23.60	6.63
0.00	0.00	0.00
0.00	0.00	0.00

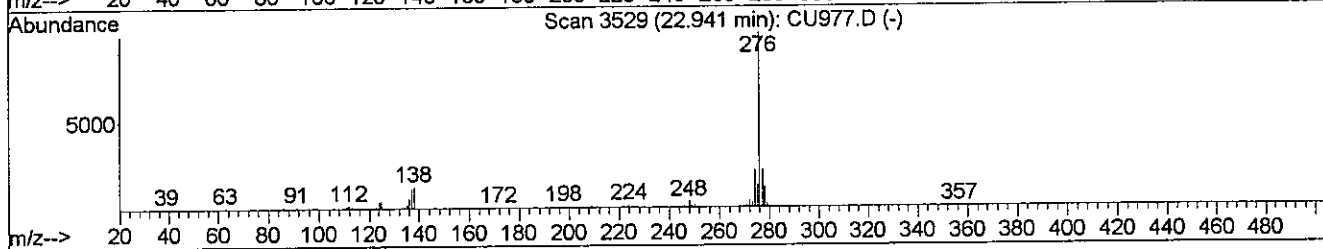
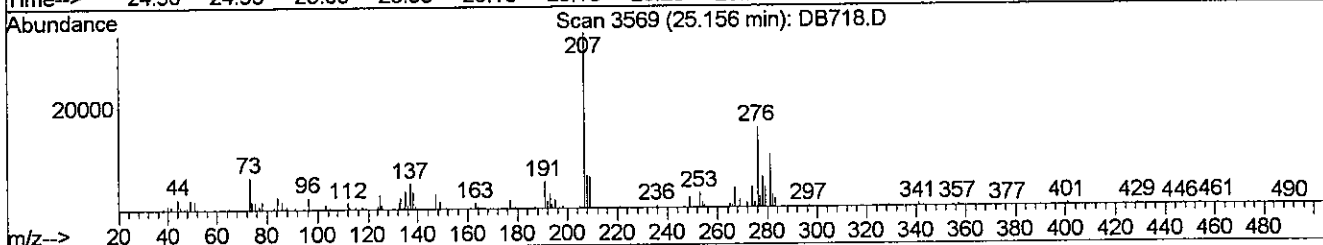
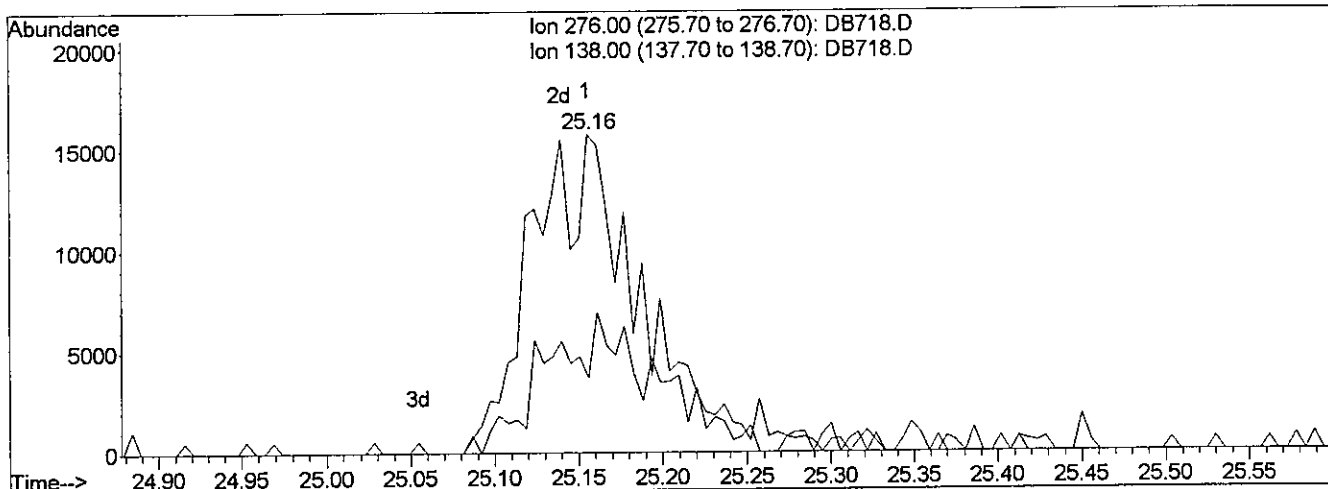
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\092809\DB718.D
 Acq On : 28 Sep 2009 5:59 pm
 Sample : SSTD002
 Misc : 0.2/0.4 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Sep 29 9:26 2009

Vial: 4
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:25:38 2009
 Response via : Multiple Level Calibration



TIC: DB718.D

(38) Indeno(1,2,3-cd)Pyrene (TM)

25.16min 0.17ppm m

response 71376

Ion	Exp%	Act%
276.00	100	100
138.00	23.60	23.59
0.00	0.00	0.00
0.00	0.00	0.00

Handwritten notes:
 ✓ 9/29/09
 ✓ 9/29

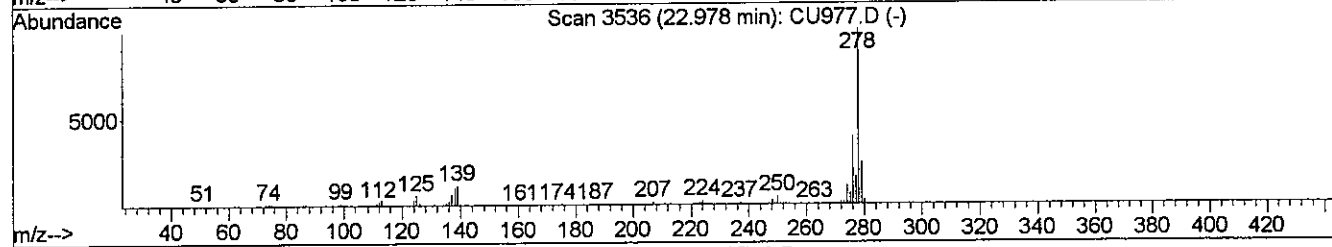
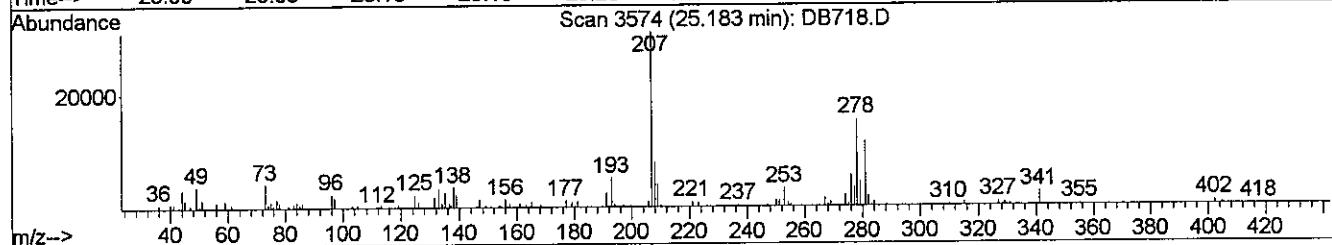
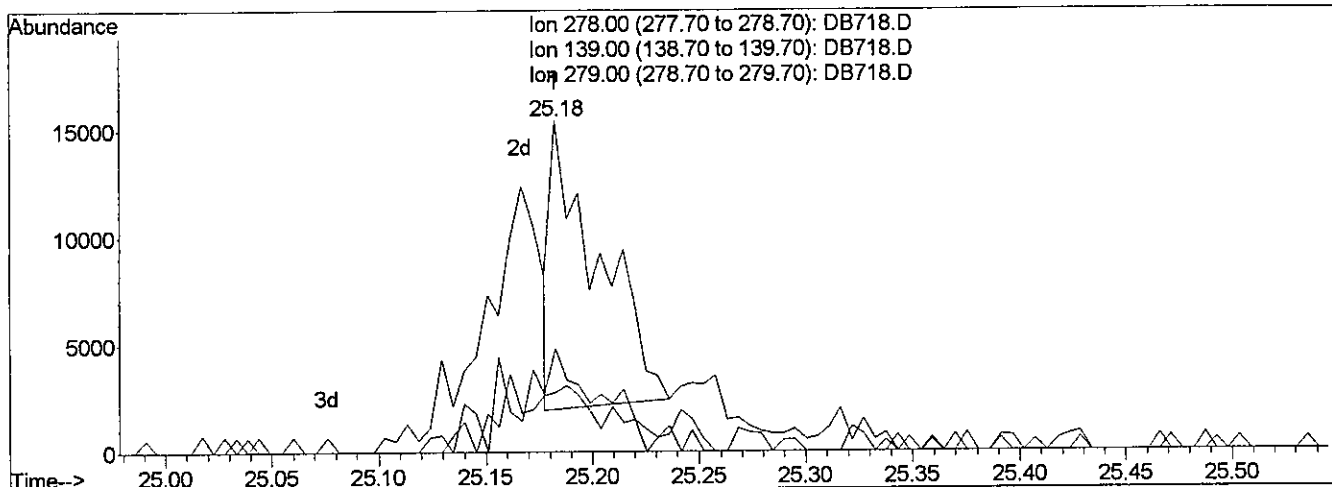
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\092809\DB718.D
 Acq On : 28 Sep 2009 5:59 pm
 Sample : SSTD002
 Misc : 0.2/0.4 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Sep 29 9:26 2009

Vial: 4
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:25:38 2009
 Response via : Multiple Level Calibration



TIC: DB718.D

(39) Dibenz(a,h)anthracene (TM)

25.18min 0.06ppm

response 20788

Ion	Exp%	Act%
278.00	100	100
139.00	18.00	8.73
279.00	31.30	30.65
0.00	0.00	0.00

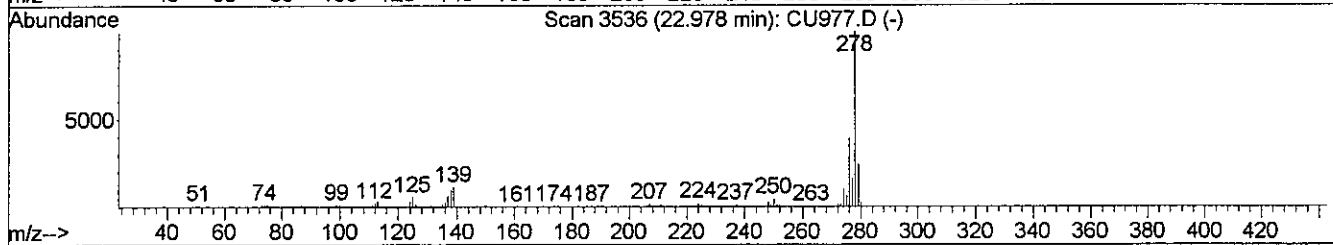
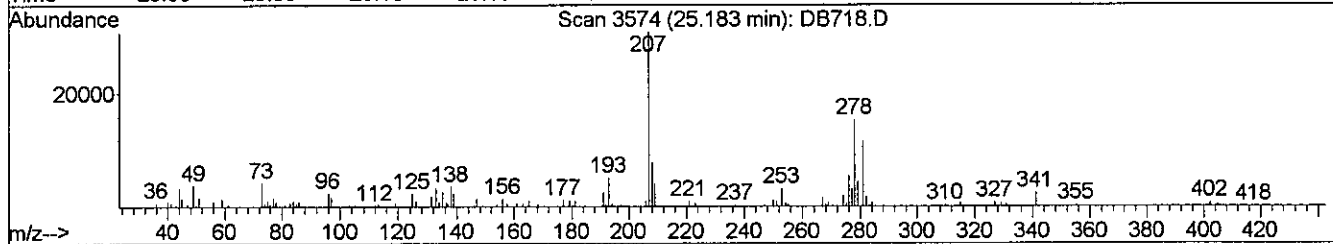
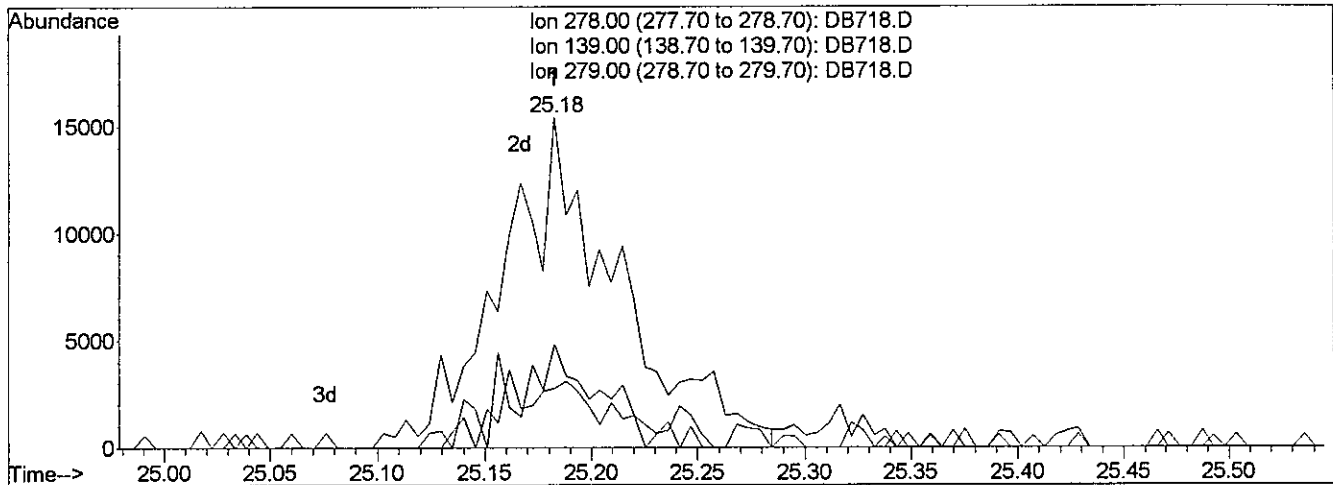
15

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\092809\DB718.D
 Acq On : 28 Sep 2009 5:59 pm
 Sample : SST002
 Misc : 0.2/0.4 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Sep 29 9:26 2009

Vial: 4
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00
 Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:25:38 2009
 Response via : Multiple Level Calibration



TIC: DB718.D

(39) Dibenz(a,h)anthracene (TM)

25.18min 0.16ppm m

response 58145

Ion	Exp%	Act%
278.00	100	100
139.00	18.00	17.99
279.00	31.30	31.30
0.00	0.00	0.00

Azm 9/29/09

mm 9/29

Data File : J:\ACQUDATA\5973B\DATA\092809\DB719.D
 Acq On : 28 Sep 2009 6:42 pm
 Sample : SSTD005
 Misc : 0.5/1.0 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Sep 29 9:32 2009

Vial: 5
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: LVI0928.RES

Quant Method : J:\ACQUDATA\5...\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:30:24 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI0928

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	10.70	152	113031	1.00	ppm	0.00
4) d8-Naphthalene	11.97	136	454083	1.00	ppm	0.00
10) d10-Acenaphthene	13.57	164	233497	1.00	ppm	0.00
18) d10-Phenanthrene	14.78	188	323250	1.00	ppm	0.00
26) d12-Chrysene	18.12	240	336113	1.00	ppm	0.00
33) d12-Perylene	21.94	264	265337	1.00	ppm	0.00

System Monitoring Compounds

5) SURR4,NITROBENZENE-D5	11.28	82	74185	0.43	ppm	0.00
Spiked Amount 2.000	Range 22 - 124		Recovery	=	21.50%#	
11) SURR5,2-FLUOROBIPHENYL	12.93	172	158958	0.50	ppm	0.00
Spiked Amount 2.000	Range 27 - 114		Recovery	=	25.00%#	
28) SURR6,TERPHENYL-D14	16.40	244	129180	0.47	ppm	0.00
Spiked Amount 2.000	Range 23 - 139		Recovery	=	23.50%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	6.23	88	97537	0.82	ppm	85
6) Nitrobenzene	11.30	77	74403	0.43	ppm	96
7) Naphthalene	11.98	128	250271	0.50	ppm	97
8) 2-Methylnaphthalene	12.61	142	161171	0.52	ppm	88
9) 1-Methylnaphthalene	12.71	142	147260	0.50	ppm	93
12) Acenaphthylene	13.44	152	215676	0.48	ppm	95
13) Dimethyl phthalate	13.28	163	161057m	0.44	ppm	
14) Acenaphthene	13.60	153	135882	0.48	ppm	84
15) Dibenzofuran	13.73	168	180292	0.48	ppm	97
16) Fluorene	14.03	166	126639	0.43	ppm	88
17) Diethylphthalate	13.88	149	184174	0.50	ppm	98
19) Hexachlorobenzene	14.52	284	41972	0.52	ppm	92
20) Phenanthrene	14.80	178	197023	0.51	ppm	97
21) Anthracene	14.84	178	174384	0.48	ppm	97
22) Carbazole	14.96	167	140427	0.53	ppm	91
23) Octachlorostyrene	15.81	378	11372	0.66	ppm	88
24) Di-n-butylphthalate	15.20	149	259260	0.53	ppm	97
25) Fluoranthene	16.01	202	214313	0.52	ppm	96
27) Pyrene	16.30	202	230682	0.55	ppm	95
29) Butyl benzyl phthalate	17.03	149	104292	0.47	ppm	94
30) bis(2-Ethylhexyl)phthalate	17.98	149	274715	0.97	ppm	93
31) Benzo(a)anthracene	18.07	228	177949	0.49	ppm	96
32) Chrysene	18.17	228	176724	0.48	ppm	90
34) Di-n-octyl phthalate	19.33	149	180573	0.36	ppm	92
35) Benzo(b)Fluoranthene	20.69	252	180957	0.45	ppm	92
36) Benzo(k)fluoranthene	20.76	252	178305	0.46	ppm	88

(#) = qualifier out of range (m) = manual integration
 DB719.D LVI0928.M Tue Sep 29 09:56:17 2009

Data File : J:\ACQUDATA\5973B\DATA\092809\DB719.D
 Acq On : 28 Sep 2009 6:42 pm
 Sample : SSTD005
 Misc : 0.5/1.0 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Sep 29 9:32 2009

Vial: 5
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: LVI0928.RES

Quant Method : J:\ACQUDATA\5...\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:30:24 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI0928

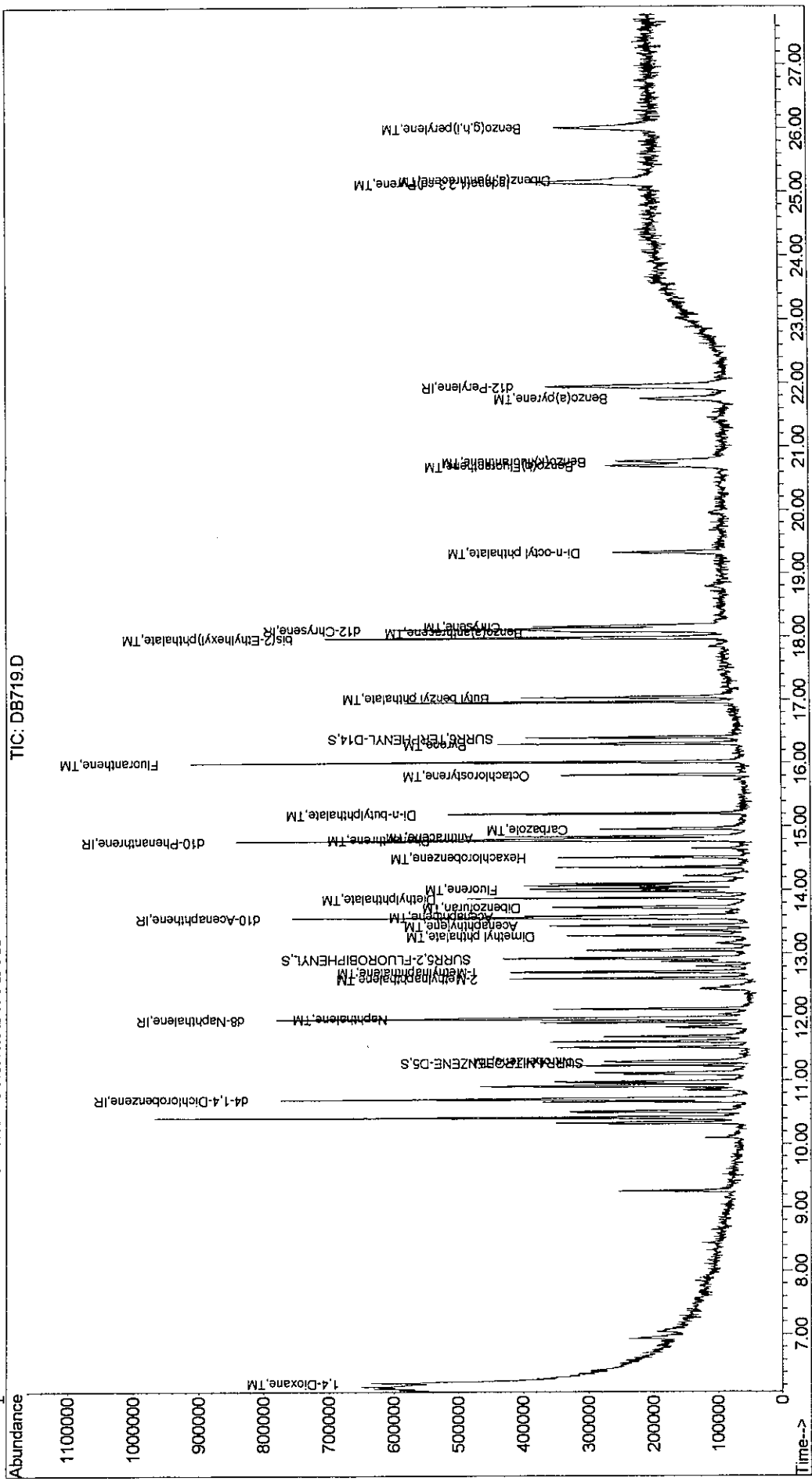
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37) Benzo(a)pyrene	21.76	252	145629	0.41	ppm	84
38) Indeno(1,2,3-cd)Pyrene	25.14	276	186592m	0.45	ppm	
39) Dibenz(a,h)anthracene	25.19	278	148448m	0.42	ppm	
40) Benzo(g,h,i)perylene	26.01	276	160128	0.48	ppm	89

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQDATA\5973B\DATA\092809\DB719.D Vial: 5
 Acq On : 28 Sep 2009 6:42 pm Operator: Z.Miao
 Sample : SST005 Inst : 5973-B
 Misc : 0.5/1.0 PPM STD 8270.II Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Sep 29 9:32 2009 Quant Results File: LVI0928.RES

Method : J:\ACQDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 Response via : Initial Calibration



00314

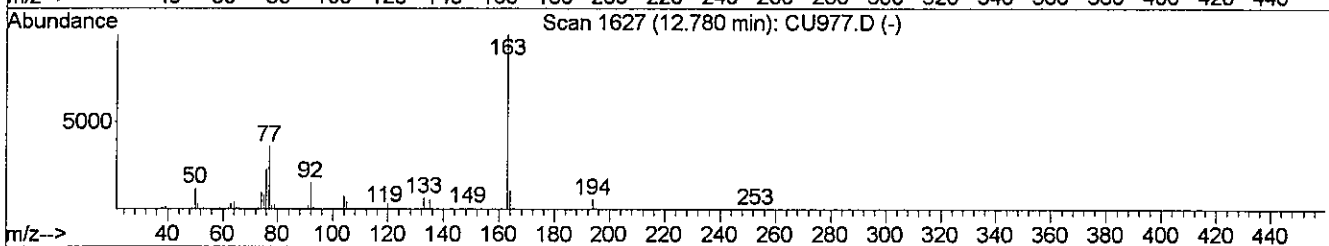
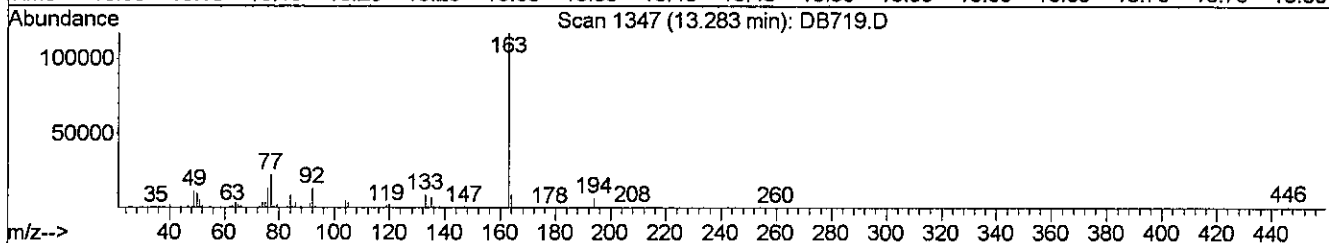
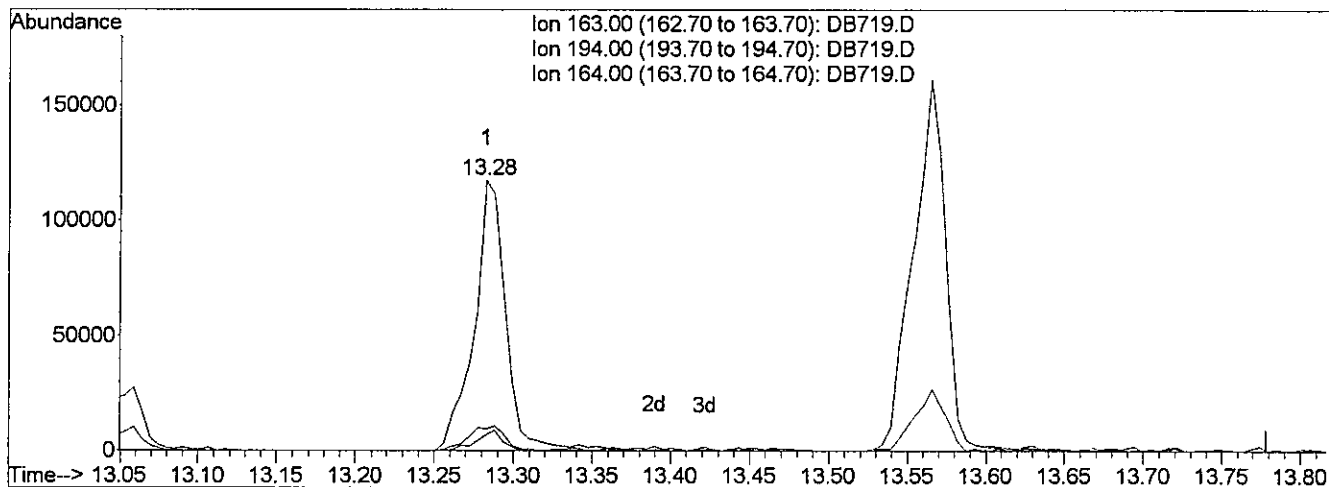
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\092809\DB719.D
 Acq On : 28 Sep 2009 6:42 pm
 Sample : SSTD005
 Misc : 0.5/1.0 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Sep 29 9:30 2009

Vial: 5
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:30:24 2009
 Response via : Multiple Level Calibration



TIC: DB719.D

(13) Dimethyl phthalate (TM)

13.28min 0.44ppm

response 161608

Ion	Exp%	Act%
163.00	100	100
194.00	5.70	6.02
164.00	11.10	7.56#
0.00	0.00	0.00

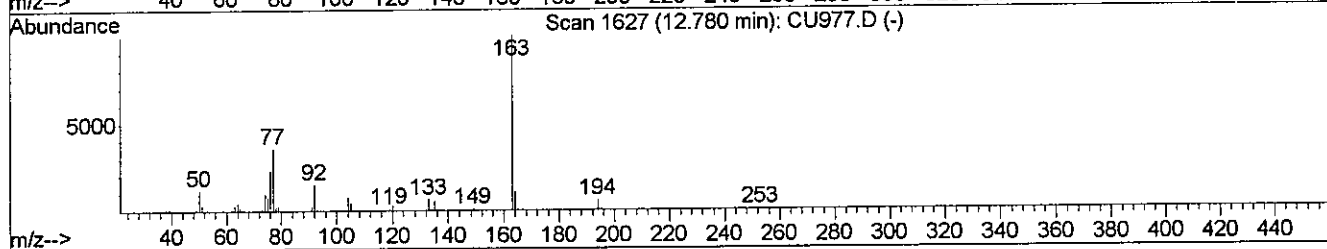
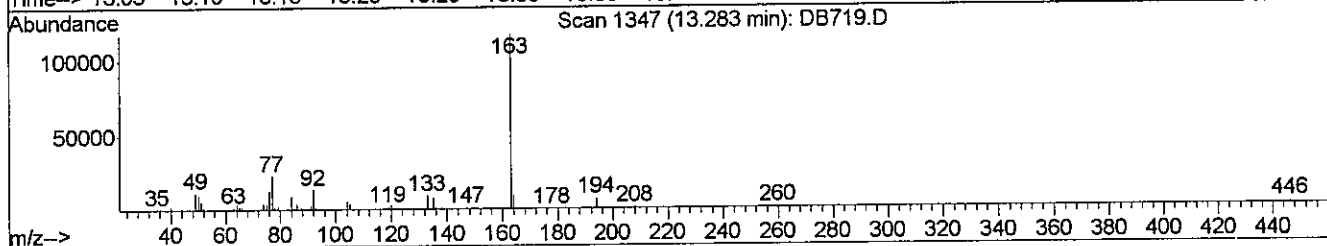
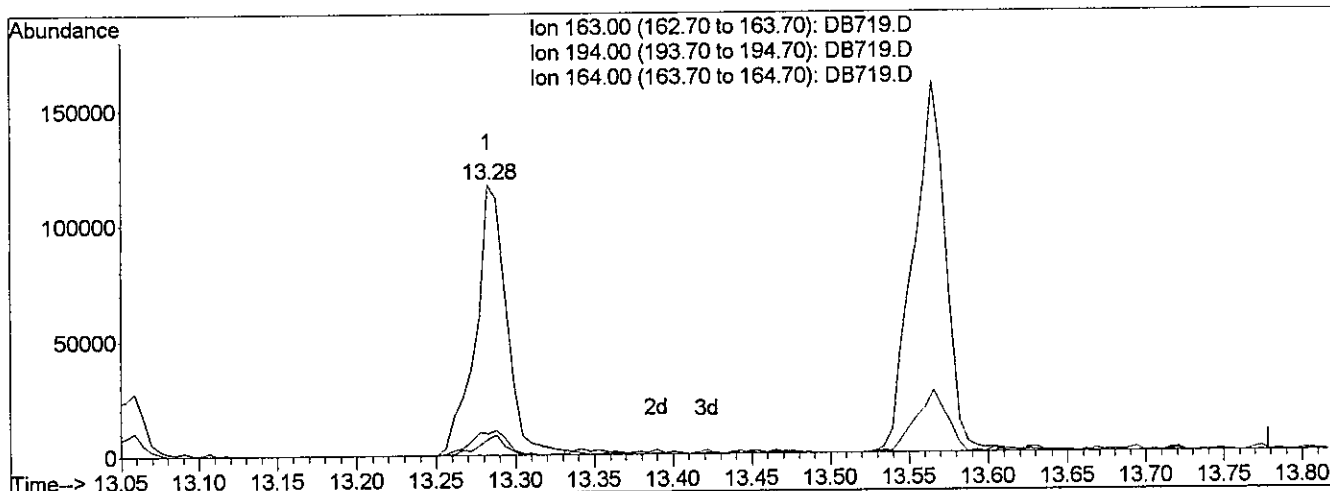
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\092809\DB719.D
 Acq On : 28 Sep 2009 6:42 pm
 Sample : SSTD005
 Misc : 0.5/1.0 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Sep 29 9:31 2009

Vial: 5
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:30:24 2009
 Response via : Multiple Level Calibration



TIC: DB719.D

(13) Dimethyl phthalate (TM)

13.28min 0.44ppm m

response 161057

Ion	Exp%	Act%
163.00	100	100
194.00	5.70	5.98
164.00	11.10	8.11
0.00	0.00	0.00

Handwritten notes: 9/29/09

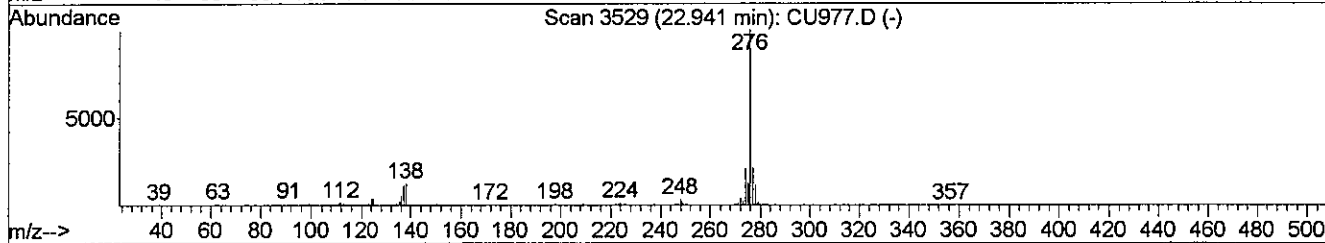
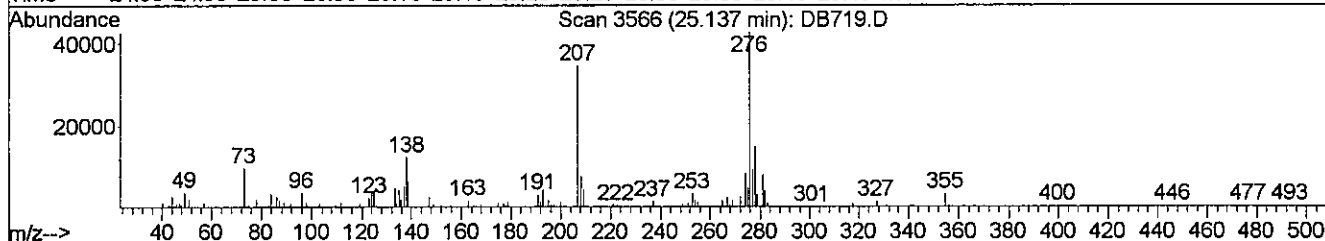
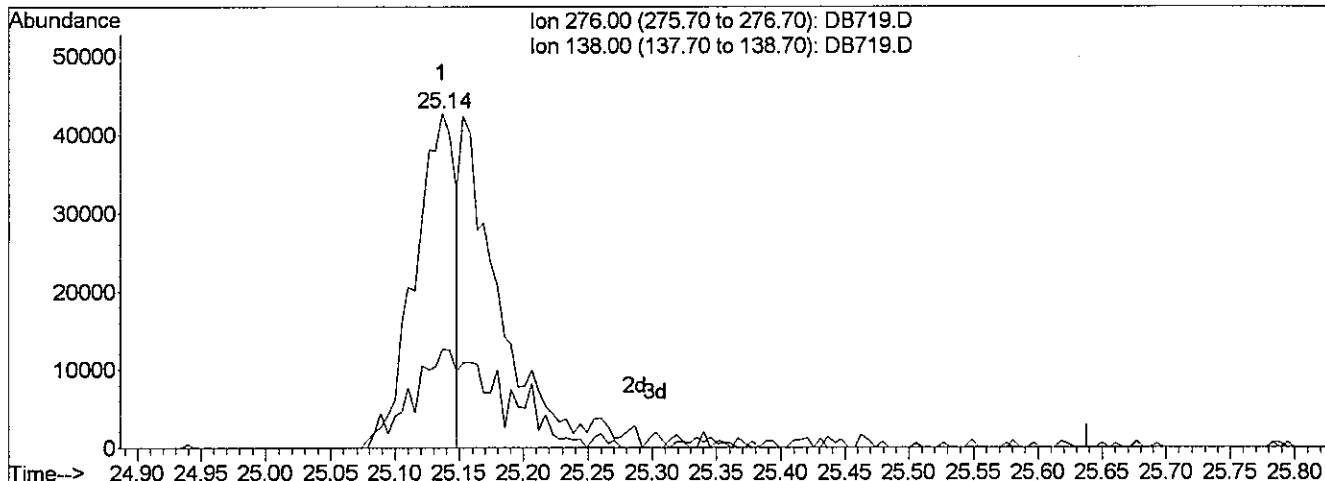
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\092809\DB719.D
 Acq On : 28 Sep 2009 6:42 pm
 Sample : SSTD005
 Misc : 0.5/1.0 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Sep 29 9:31 2009

Vial: 5
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:30:24 2009
 Response via : Multiple Level Calibration



TIC: DB719.D

(38) Indeno(1,2,3-cd)Pyrene (TM)

25.14min 0.23ppm

response 94158

Ion	Exp%	Act%
276.00	100	100
138.00	26.40	54.42
0.00	0.00	0.00
0.00	0.00	0.00

13

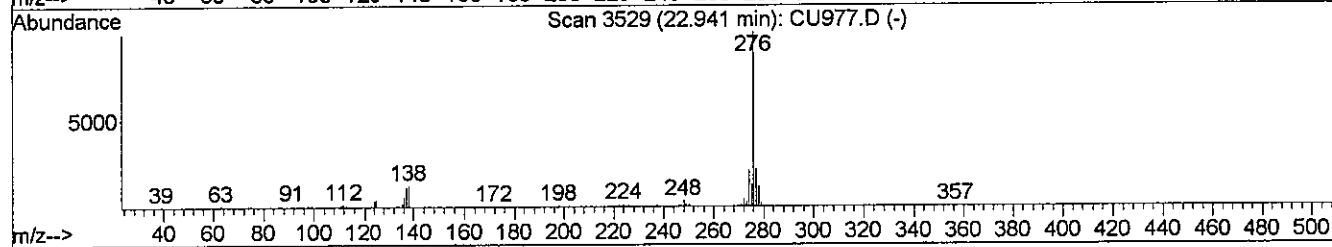
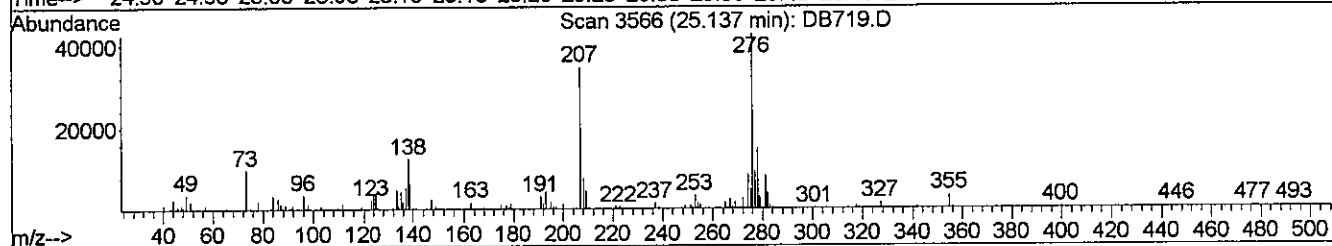
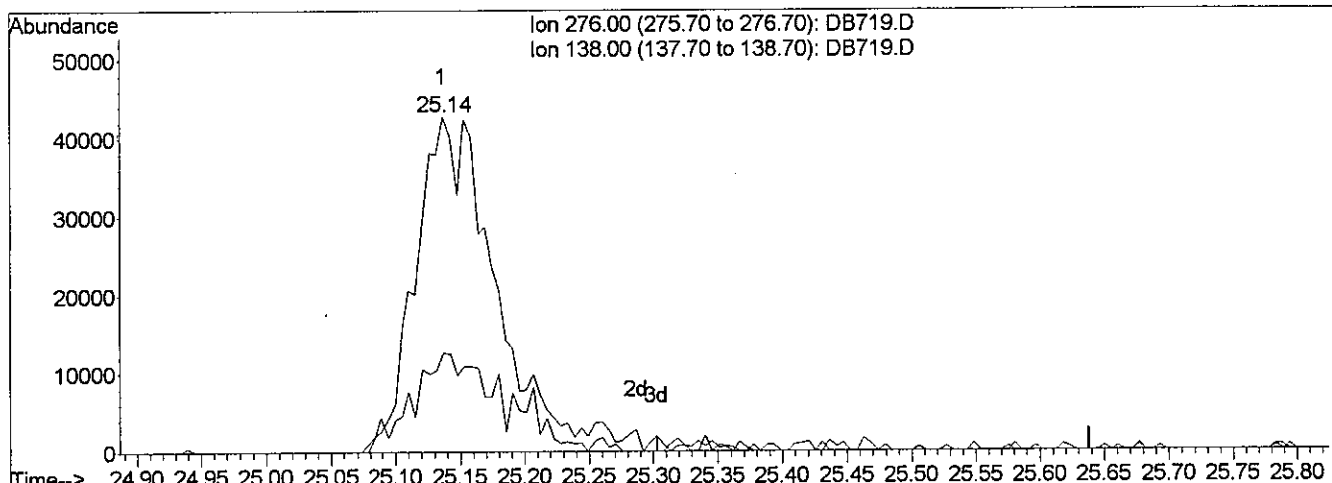
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\092809\DB719.D
 Acq On : 28 Sep 2009 6:42 pm
 Sample : SSTD005
 Misc : 0.5/1.0 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Sep 29 9:31 2009

Vial: 5
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:30:24 2009
 Response via : Multiple Level Calibration



TIC: DB719.D

(38) Indeno(1,2,3-cd)Pyrene (TM)

25.14min 0.45ppm m

response 186592

Ion	Exp%	Act%
276.00	100	100
138.00	26.40	29.47
0.00	0.00	0.00
0.00	0.00	0.00

MW 1/4
N 9/29/09

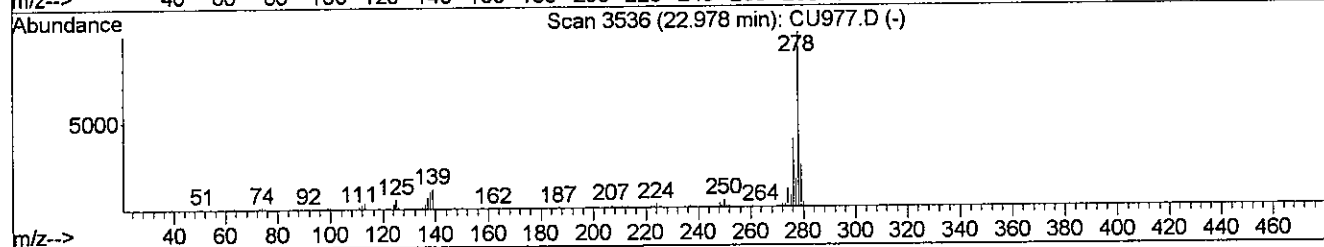
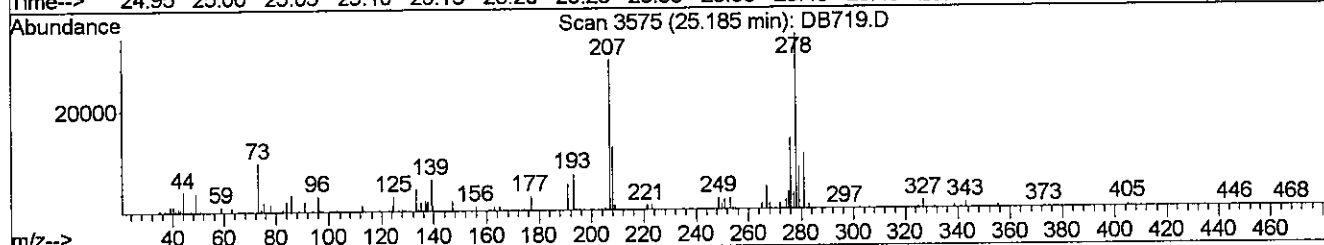
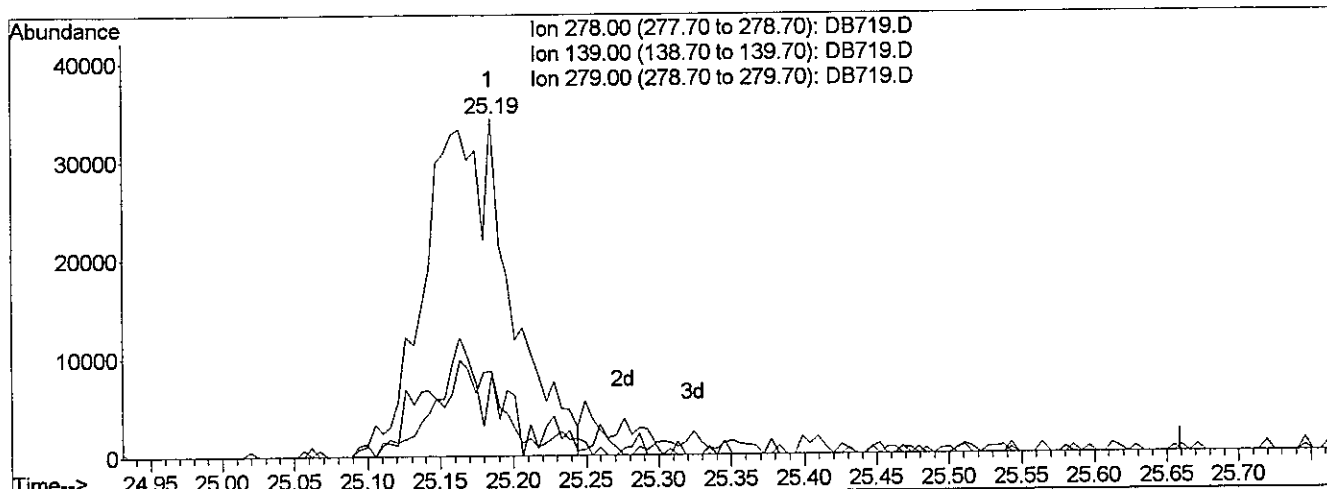
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\092809\DB719.D
 Acq On : 28 Sep 2009 6:42 pm
 Sample : SSTD005
 Misc : 0.5/1.0 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Sep 29 9:31 2009

Vial: 5
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:30:24 2009
 Response via : Multiple Level Calibration



TIC: DB719.D

(39) Dibenz(a,h)anthracene (TM)

25.19min 0.39ppm

response 136523

Ion	Exp%	Act%
278.00	100	100
139.00	17.80	24.39
279.00	19.60	23.60
0.00	0.00	0.00

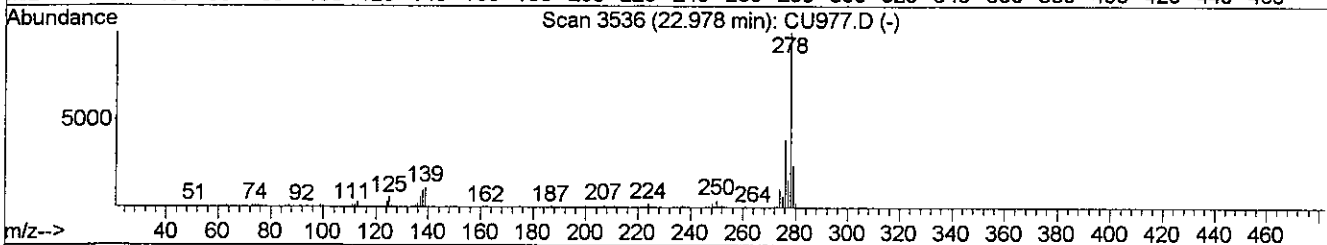
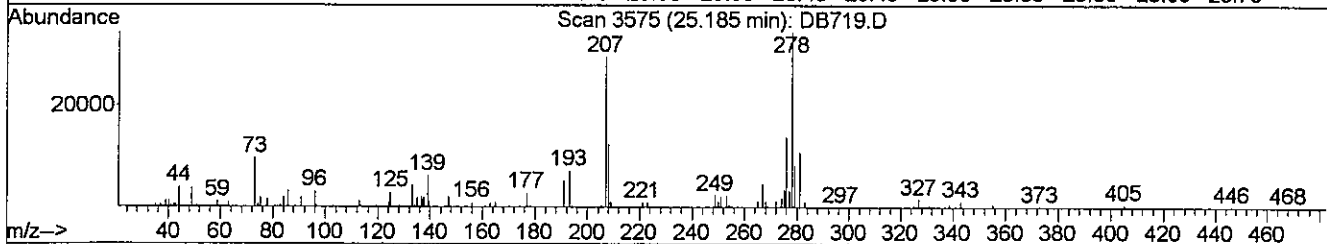
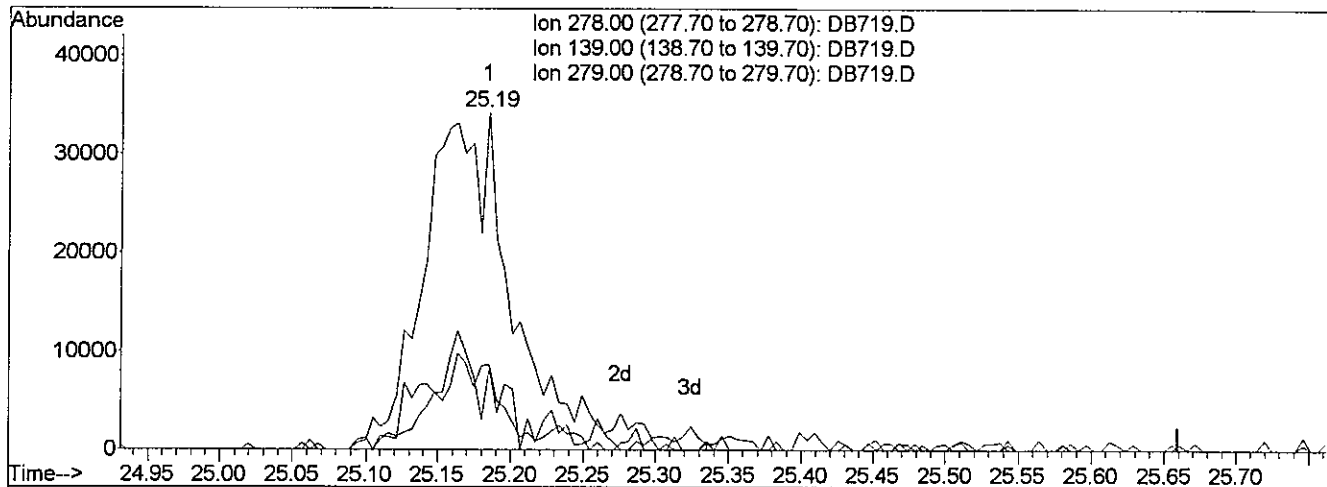
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\092809\DB719.D
 Acq On : 28 Sep 2009 6:42 pm
 Sample : SSTD005
 Misc : 0.5/1.0 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Sep 29 9:32 2009

Vial: 5
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:30:24 2009
 Response via : Multiple Level Calibration



TIC: DB719.D

(39) Dibenz(a,h)anthracene (TM)

25.19min 0.42ppm m

response 148448

Ion	Exp%	Act%
278.00	100	100
139.00	17.80	19.35
279.00	19.60	25.08
0.00	0.00	0.00

MM
1/4
A 9/29/09

Data File : J:\ACQUDATA\5973B\DATA\092809\DB720.D
 Acq On : 28 Sep 2009 7:26 pm
 Sample : SSTD010
 Misc : 1.0/2.0 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Sep 29 9:33 2009

Vial: 6
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: LVI0928.RES

Quant Method : J:\ACQUDATA\5...\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:32:24 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI0928

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	10.70	152	123368	1.00	ppm	0.00
4) d8-Naphthalene	11.97	136	515344	1.00	ppm	0.00
10) d10-Acenaphthene	13.56	164	245228	1.00	ppm	0.00
18) d10-Phenanthrene	14.78	188	369998	1.00	ppm	0.00
26) d12-Chrysene	18.11	240	405155	1.00	ppm	0.00
33) d12-Perylene	21.94	264	312585	1.00	ppm	0.00

System Monitoring Compounds

5) SURR4,NITROBENZENE-D5	11.28	82	156239	0.82	ppm	0.00
Spiked Amount	2.000	Range	22 - 124	Recovery	=	41.00%
11) SURR5,2-FLUOROBIPHENYL	12.93	172	322448	0.96	ppm	0.00
Spiked Amount	2.000	Range	27 - 114	Recovery	=	48.00%
28) SURR6,TERPHENYL-D14	16.40	244	313017	0.94	ppm	0.00
Spiked Amount	2.000	Range	23 - 139	Recovery	=	47.00%

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	6.24	88	215318	1.67	ppm	95
3) Pyridine	7.02	79	137387	0.81	ppm	84
6) Nitrobenzene	11.30	77	173227	0.91	ppm	96
7) Naphthalene	11.99	128	526983	0.93	ppm	96
8) 2-Methylnaphthalene	12.61	142	335798	0.95	ppm	97
9) 1-Methylnaphthalene	12.71	142	295005	0.88	ppm	94
12) Acenaphthylene	13.44	152	474285	1.01	ppm	98
13) Dimethyl phthalate	13.28	163	362009	0.96	ppm	98
14) Acenaphthene	13.60	153	270880	0.91	ppm	88
15) Dibenzofuran	13.73	168	367626	0.94	ppm	100
16) Fluorene	14.02	166	277455	0.92	ppm	90
17) Diethylphthalate	13.87	149	368582	0.95	ppm	94
19) Hexachlorobenzene	14.52	284	91490	0.98	ppm	93
20) Phenanthrene	14.80	178	424067	0.96	ppm	97
21) Anthracene	14.84	178	396855	0.94	ppm	98
22) Carbazole	14.96	167	295806	0.97	ppm	94
23) Octachlorostyrene	15.81	378	24651m	1.07	ppm	
24) Di-n-butylphthalate	15.20	149	587883	1.02	ppm	99
25) Fluoranthene	16.01	202	480668	1.00	ppm	98
27) Pyrene	16.30	202	491524	0.95	ppm	94
29) Butyl benzyl phthalate	17.03	149	269026	1.00	ppm	100
30) bis(2-Ethylhexyl)phthalate	17.97	149	687162	1.98	ppm	94
31) Benzo(a)anthracene	18.07	228	436564	0.99	ppm	100
32) Chrysene	18.16	228	445777	1.00	ppm	90
34) Di-n-octyl phthalate	19.32	149	497390	0.85	ppm	98
35) Benzo(b)Fluoranthene	20.69	252	415841	0.89	ppm	96

(#) = qualifier out of range (m) = manual integration
 DB720.D LVI0928.M Tue Sep 29 09:56:29 2009

Data File : J:\ACQUDATA\5973B\DATA\092809\DB720.D
 Acq On : 28 Sep 2009 7:26 pm
 Sample : SSTD010
 Misc : 1.0/2.0 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Sep 29 9:33 2009

Vial: 6
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: LVI0928.RES

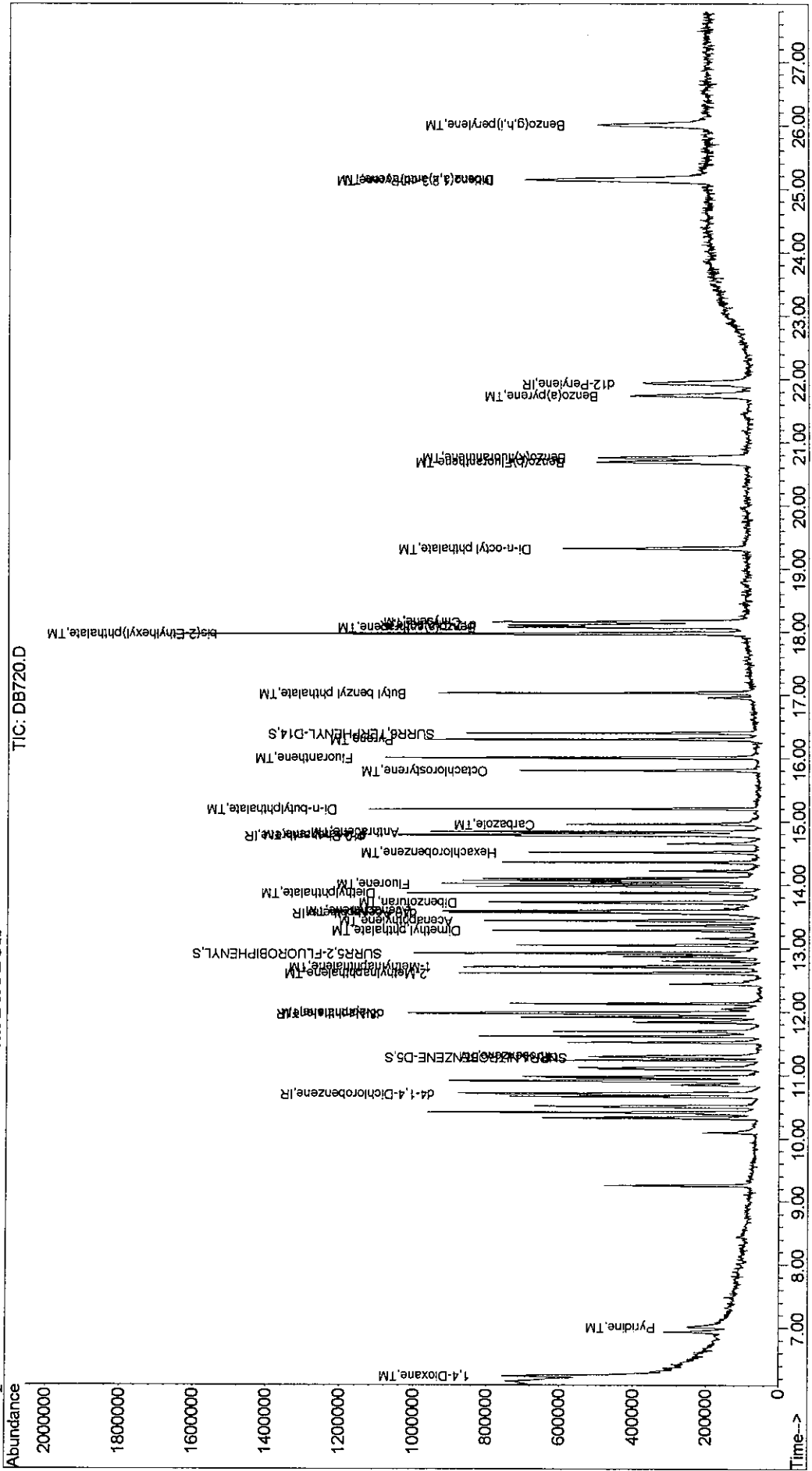
Quant Method : J:\ACQUDATA\5...\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:32:24 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI0928

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
36) Benzo(k)fluoranthene	20.76	252	435664	0.95	ppm	97
37) Benzo(a)pyrene	21.74	252	376504	0.92	ppm	88
38) Indeno(1,2,3-cd)Pyrene	25.14	276	455103	0.94	ppm	89
39) Dibenz(a,h)anthracene	25.15	278	364843	0.90	ppm	95
40) Benzo(g,h,i)perylene	26.01	276	410984	1.07	ppm	96

Quantitation Report

Data File : J:\ACQDATA\5973B\DATA\092809\DB720.D Vial: 6
Acq On : 28 Sep 2009 7:26 pm Operator: Z.Miao
Sample : SST010 Inst : 5973-B
Misc : 1.0/2.0 PPM STD 8270.LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 29 9:33 2009 Quant Results File: LVI0928.RES

Method : J:\ACQDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Sep 29 09:53:23 2009
Response via : Initial Calibration



00323

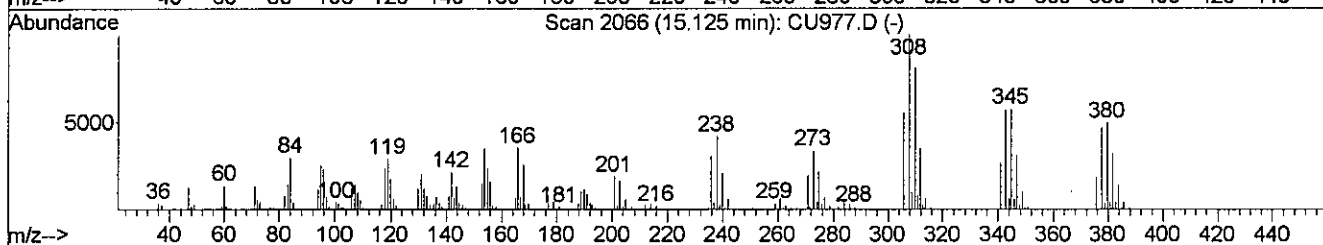
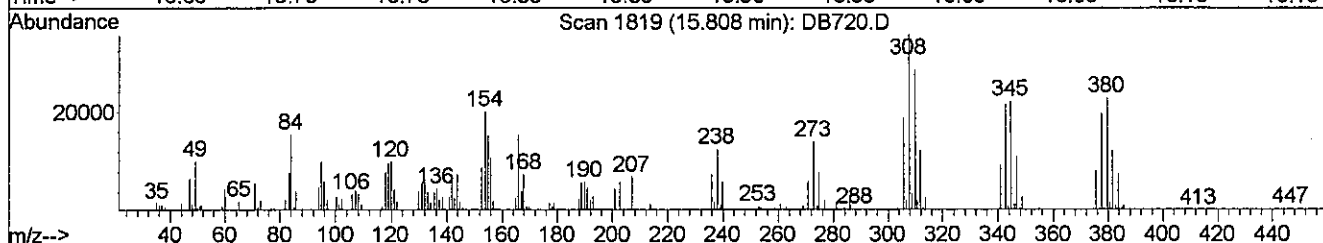
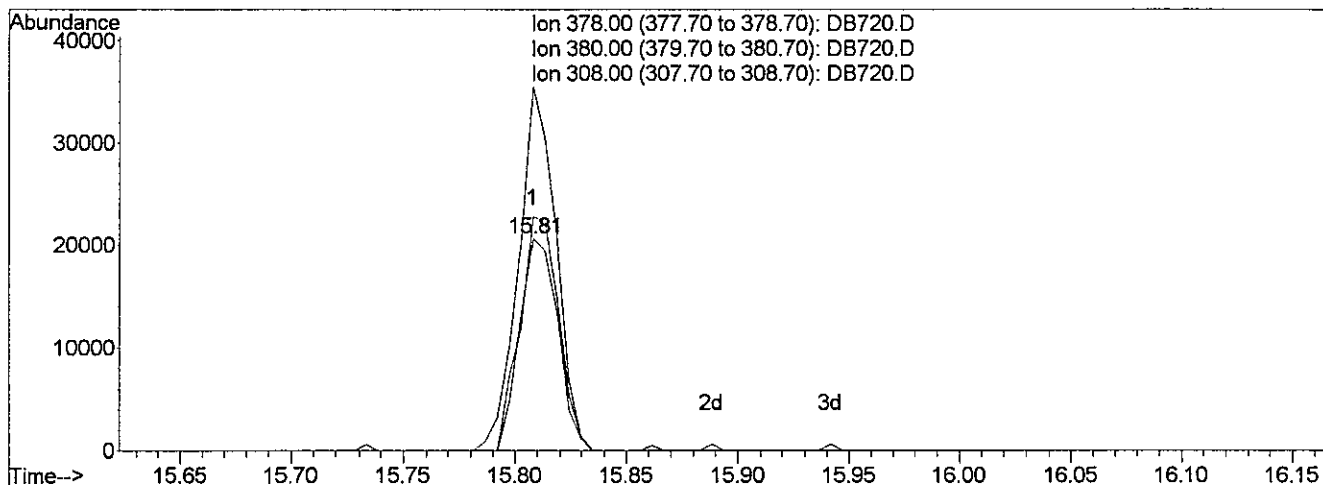
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\092809\DB720.D
 Acq On : 28 Sep 2009 7:26 pm
 Sample : SSTD010
 Misc : 1.0/2.0 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Sep 29 9:32 2009

Vial: 6
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:32:24 2009
 Response via : Multiple Level Calibration



TIC: DB720.D

(23) Octachlorostyrene (TM)

15.81min 1.07ppm

response 24651

Ion	Exp%	Act%
378.00	100	100
380.00	95.60	110.59
308.00	119.80	167.79#
0.00	0.00	0.00

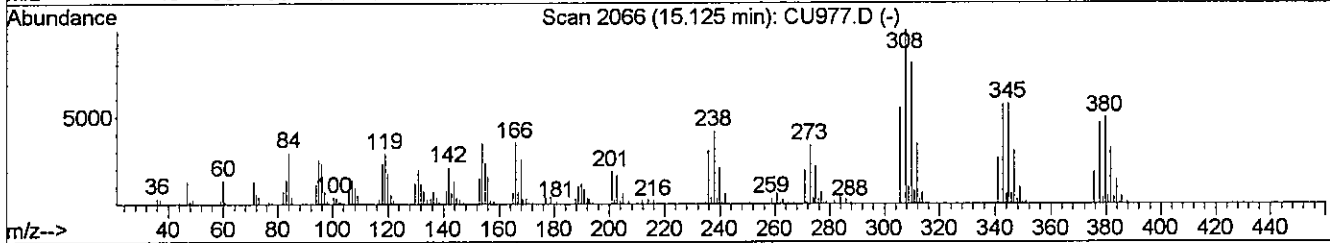
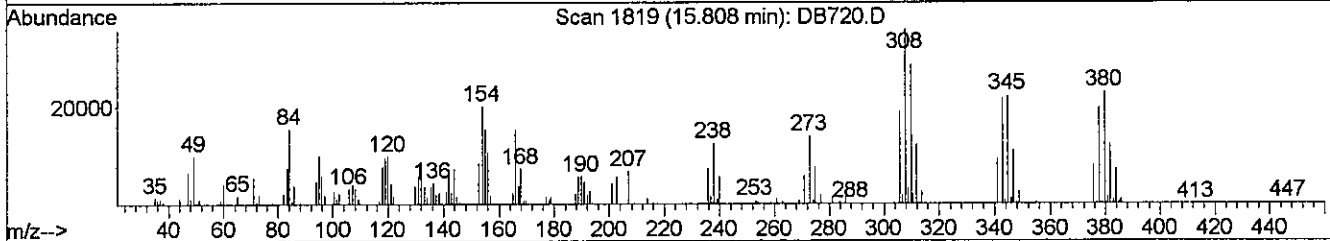
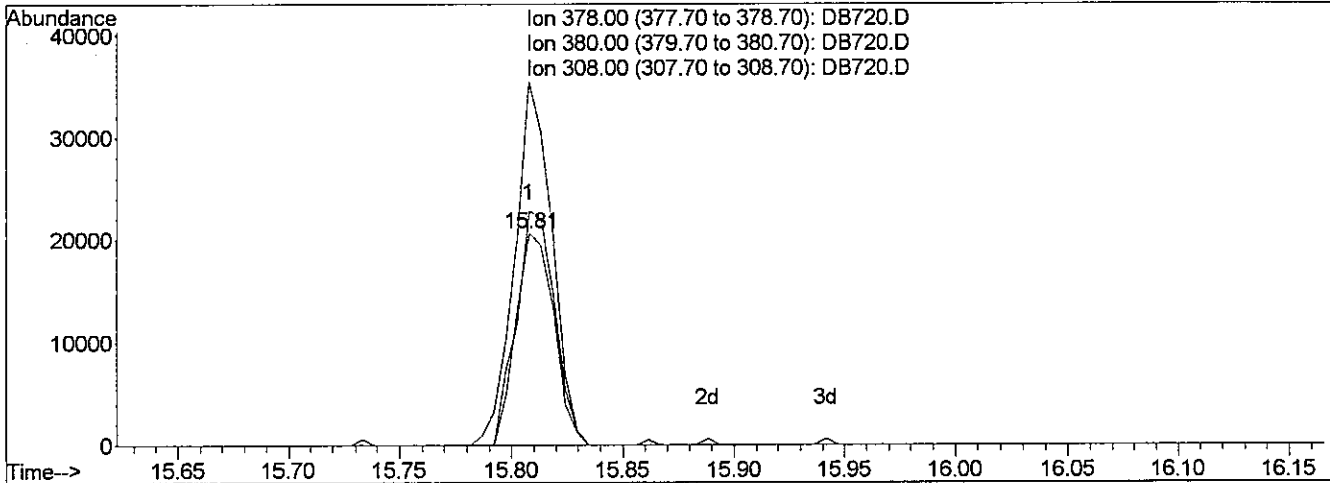
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Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\092809\DB720.D
 Acq On : 28 Sep 2009 7:26 pm
 Sample : SSTD010
 Misc : 1.0/2.0 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Sep 29 9:33 2009

Vial: 6
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00
 Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:32:24 2009
 Response via : Multiple Level Calibration



TIC: DB720.D

(23) Octachlorostyrene (TM)

15.81min 1.07ppm m

response 24651

Ion	Exp%	Act%
378.00	100	100
380.00	95.60	115.82
308.00	119.80	179.64#
0.00	0.00	0.00

A 9/29/09

MW 9/14

Data File : J:\ACQUDATA\5973B\DATA\092809\DB721.D
 Acq On : 28 Sep 2009 8:08 pm
 Sample : SST020
 Misc : 2.0/4.0 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Sep 29 9:16 2009

Vial: 7
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: LVI0928.RES

Quant Method : J:\ACQUDATA\5...\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:16:41 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI0928

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	10.70	152	115221	1.00	ppm	0.00
4) d8-Naphthalene	11.96	136	439151	1.00	ppm	0.00
10) d10-Acenaphthene	13.57	164	226794	1.00	ppm	0.00
18) d10-Phenanthrene	14.78	188	345110	1.00	ppm	0.00
26) d12-Chrysene	18.11	240	386574	1.00	ppm	0.00
33) d12-Perylene	21.94	264	295235	1.00	ppm	0.00

System Monitoring Compounds

5) SURR4,NITROBENZENE-D5	11.28	82	307255	1.77	ppm	0.00
Spiked Amount	2.000	Range	22 - 124	Recovery	=	88.50%
11) SURR5,2-FLUOROBIPHENYL	12.93	172	606132	1.98	ppm	0.00
Spiked Amount	2.000	Range	27 - 114	Recovery	=	99.00%
28) SURR6,TERPHENYL-D14	16.40	244	636397	1.98	ppm	0.00
Spiked Amount	2.000	Range	23 - 139	Recovery	=	99.00%

Target Compounds

						Qvalue
2) 1,4-Dioxane	6.22	88	397465	3.43	ppm	100
3) Pyridine	6.98	79	289517	1.70	ppm	99
6) Nitrobenzene	11.30	77	320488	1.85	ppm	100
7) Naphthalene	11.99	128	965596	1.95	ppm	100
8) 2-Methylnaphthalene	12.61	142	581443	1.96	ppm	100
9) 1-Methylnaphthalene	12.71	142	557316	1.97	ppm	100
12) Acenaphthylene	13.44	152	863366	1.99	ppm	100
13) Dimethyl phthalate	13.28	163	672712	1.89	ppm	100
14) Acenaphthene	13.59	153	524730	1.90	ppm	100
15) Dibenzofuran	13.73	168	723738	1.94	ppm	100
16) Fluorene	14.02	166	565824	1.96	ppm	100
17) Diethylphthalate	13.88	149	723357	2.01	ppm	100
19) Hexachlorobenzene	14.52	284	172036	2.05	ppm	100
20) Phenanthrene	14.80	178	834464	2.09	ppm	100
21) Anthracene	14.84	178	815211	2.09	ppm	100
22) Carbazole	14.96	167	535239	1.96	ppm	100
23) Octachlorostyrene	15.81	378	57273	2.48	ppm	100
24) Di-n-butylphthalate	15.20	149	1199566	2.33	ppm	100
25) Fluoranthene	16.01	202	959749	2.30	ppm	100
27) Pyrene	16.30	202	1005001	2.14	ppm	100
29) Butyl benzyl phthalate	17.03	149	557288	2.21	ppm	100
30) bis(2-Ethylhexyl)phthalate	17.97	149	1434796	4.47	ppm	100
31) Benzo(a)anthracene	18.08	228	887676	2.09	ppm	100
32) Chrysene	18.16	228	880372	2.10	ppm	100
34) Di-n-octyl phthalate	19.32	149	1133409	2.02	ppm	100
35) Benzo(b)Fluoranthene	20.69	252	903237	2.01	ppm	100

(#) = qualifier out of range (m) = manual integration
 DB721.D LVI0928.M Tue Sep 29 09:57:24 2009

Data File : J:\ACQUDATA\5973B\DATA\092809\DB721.D Vial: 7
 Acq On : 28 Sep 2009 8:08 pm Operator: Z.Miao
 Sample : SSTD020 Inst : 5973-B
 Misc : 2.0/4.0 PPM STD 8270.LL Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Sep 29 9:16 2009 Quant Results File: LVI0928.RES

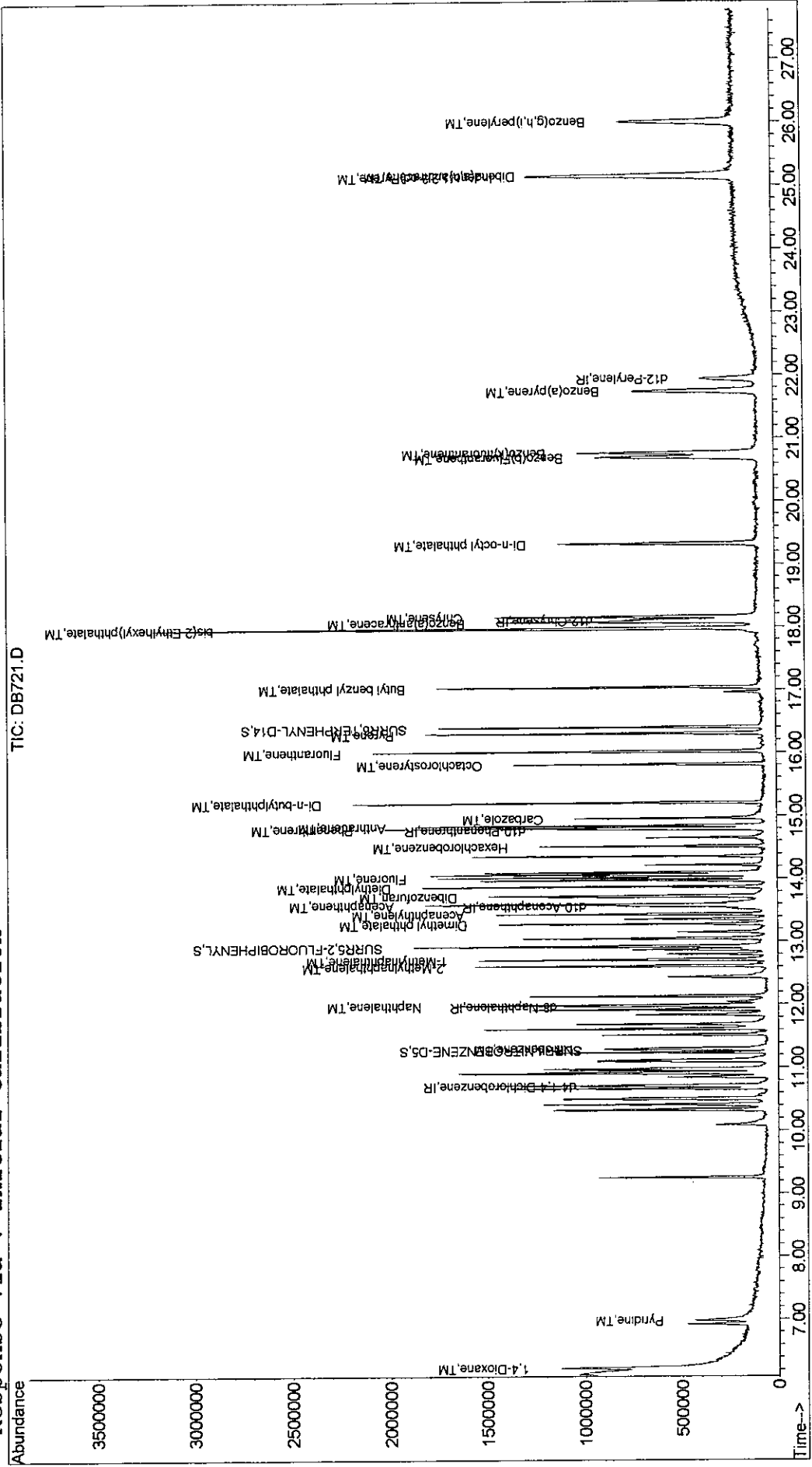
Quant Method : J:\ACQUDATA\5...\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:16:41 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI0928

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
36) Benzo(k)fluoranthene	20.76	252	870411	2.01	ppm	100
37) Benzo(a)pyrene	21.74	252	803105	2.02	ppm	100
38) Indeno(1,2,3-cd)Pyrene	25.14	276	955439	2.04	ppm	100
39) Dibenz(a,h)anthracene	25.16	278	761033	1.92	ppm	100
40) Benzo(g,h,i)perylene	26.01	276	818454	2.20	ppm	100

Quantitation Report

Data File : J:\ACQDATA\5973B\DATA\092809\DB721.D Vial: 7
Acq On : 28 Sep 2009 8:08 pm Operator: Z.Miao
Sample : SSTD020 Inst : 5973-B
Misc : 2.0/4.0 PPM STD 8270.LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 29 9:16 2009 Quant Results File: LVI0928.RES

Method : J:\ACQDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Sep 29 09:53:23 2009
Response via : Initial Calibration



00328

Data File : J:\ACQUDATA\5973B\DATA\092809\DB722.D
 Acq On : 28 Sep 2009 8:51 pm
 Sample : SSTD030
 Misc : 3.0/6.0 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Sep 29 9:34 2009

Vial: 8
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: LVI0928.RES

Quant Method : J:\ACQUDATA\5...\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:34:07 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI0928

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) d4-1,4-Dichlorobenzene	10.70	152	111138	1.00	ppm	0.00
4) d8-Naphthalene	11.96	136	444533	1.00	ppm	0.00
10) d10-Acenaphthene	13.57	164	225534	1.00	ppm	0.00
18) d10-Phenanthrene	14.78	188	383061	1.00	ppm	0.00
26) d12-Chrysene	18.11	240	414546	1.00	ppm	0.00
33) d12-Perylene	21.94	264	317357	1.00	ppm	0.00

System Monitoring Compounds

5) SURR4,NITROBENZENE-D5	11.28	82	463926	2.92	ppm	0.00
Spiked Amount	2.000	Range	22 - 124	Recovery	=	146.00%#
11) SURR5,2-FLUOROBIPHENYL	12.93	172	952835	3.09	ppm	0.00
Spiked Amount	2.000	Range	27 - 114	Recovery	=	154.50%#
28) SURR6,TERPHENYL-D14	16.40	244	1008194	2.98	ppm	0.00
Spiked Amount	2.000	Range	23 - 139	Recovery	=	149.00%#

Target Compounds

						Qvalue
2) 1,4-Dioxane	6.23	88	621843	5.47	ppm	95
3) Pyridine	6.97	79	476928	3.24	ppm	92
6) Nitrobenzene	11.30	77	471935	2.92	ppm	94
7) Naphthalene	11.99	128	1473792	3.04	ppm	95
8) 2-Methylnaphthalene	12.61	142	937881	3.06	ppm	96
9) 1-Methylnaphthalene	12.71	142	854902	3.00	ppm	96
12) Acenaphthylene	13.44	152	1315149	3.05	ppm	97
13) Dimethyl phthalate	13.28	163	1055608	3.07	ppm	99
14) Acenaphthene	13.59	153	769108	2.84	ppm	98
15) Dibenzofuran	13.73	168	1126097	3.16	ppm	98
16) Fluorene	14.02	166	877370	3.21	ppm	96
17) Diethylphthalate	13.88	149	1114916	3.15	ppm	97
19) Hexachlorobenzene	14.52	284	268304	2.78	ppm	99
20) Phenanthrene	14.80	178	1360035	2.99	ppm	98
21) Anthracene	14.84	178	1276168	2.96	ppm	99
22) Carbazole	14.96	167	702343	2.26	ppm	98
23) Octachlorostyrene	15.81	378	82702	3.12	ppm	92
24) Di-n-butylphthalate	15.20	149	1919721	3.20	ppm	98
25) Fluoranthene	16.01	202	1536265	3.09	ppm	95
27) Pyrene	16.30	202	1615795	3.06	ppm	96
29) Butyl benzyl phthalate	17.03	149	898880	3.26	ppm	99
30) bis(2-Ethylhexyl)phthalate	17.97	149	2274855	6.37	ppm	97
31) Benzo(a)anthracene	18.08	228	1451790	3.21	ppm	99
32) Chrysene	18.16	228	1383873	3.03	ppm	98
34) Di-n-octyl phthalate	19.33	149	1874297	3.20	ppm	98
35) Benzo(b)Fluoranthene	20.70	252	1383382	2.94	ppm	100

(#) = qualifier out of range (m) = manual integration

Data File : J:\ACQUDATA\5973B\DATA\092809\DB722.D Vial: 8
 Acq On : 28 Sep 2009 8:51 pm Operator: Z.Miao
 Sample : SSTD030 Inst : 5973-B
 Misc : 3.0/6.0 PPM STD 8270.LL Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Sep 29 9:34 2009 Quant Results File: LVI0928.RES

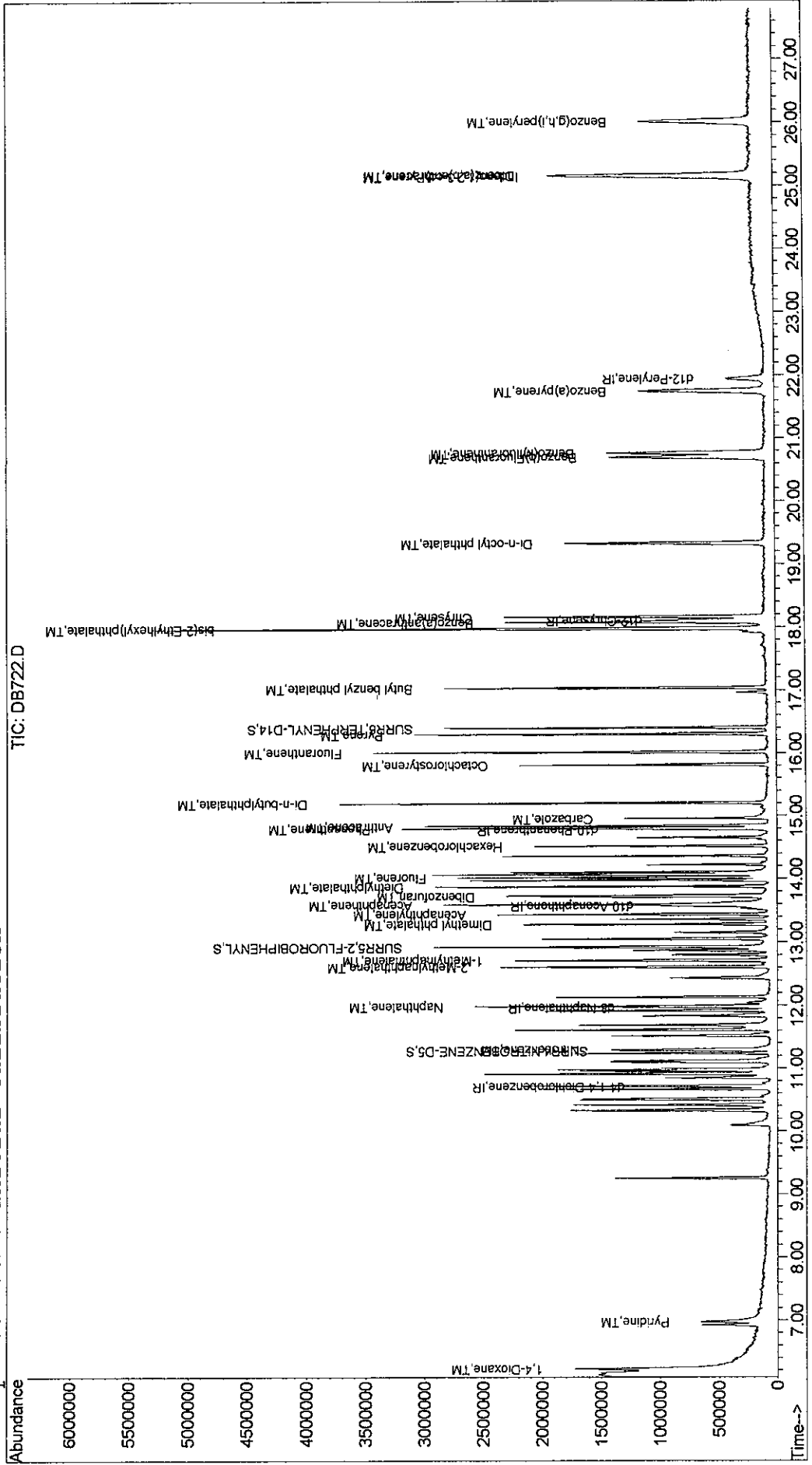
Quant Method : J:\ACQUDATA\5...\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:34:07 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI0928

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
36) Benzo(k)fluoranthene	20.76	252	1368795	2.95	ppm	97
37) Benzo(a)pyrene	21.74	252	1285544	3.10	ppm	98
38) Indeno(1,2,3-cd)Pyrene	25.14	276	1520998	3.13	ppm	92
39) Dibenz(a,h)anthracene	25.16	278	1253236	3.08	ppm	90
40) Benzo(g,h,i)perylene	26.01	276	1304731	3.35	ppm	98

Quantitation Report

Data File : J:\ACQDATA\5973B\DATA\092809\DB722.D Vial: 8
Acq On : 28 Sep 2009 8:51 pm Operator: Z.Miao
Sample : SSTD030 Inst : 5973-B
Misc : 3.0/6.0 PPM STD 8270.LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 29 9:34 2009 Quant Results File: LVI0928.RES

Method : J:\ACQDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Sep 29 09:53:23 2009
Response via : Initial Calibration



13320

Data File : J:\ACQUDATA\5973B\DATA\092809\DB723.D
 Acq On : 28 Sep 2009 9:33 pm
 Sample : SSTD040
 Misc : 4.0/8.0 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Sep 29 9:35 2009

Vial: 9
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: LVI0928.RES

Quant Method : J:\ACQUDATA\5...\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:35:22 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI0928

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	10.70	152	110043	1.00	ppm	0.00
4) d8-Naphthalene	11.96	136	422598	1.00	ppm	0.00
10) d10-Acenaphthene	13.57	164	208006	1.00	ppm	0.00
18) d10-Phenanthrene	14.78	188	363610	1.00	ppm	0.00
26) d12-Chrysene	18.11	240	410190	1.00	ppm	0.00
33) d12-Perylene	21.94	264	303078	1.00	ppm	0.00

System Monitoring Compounds

5) SURR4,NITROBENZENE-D5	11.28	82	560662	3.78	ppm	0.00
Spiked Amount 2.000	Range 22 - 124		Recovery	=	189.00%#	
11) SURR5,2-FLUOROBIPHENYL	12.92	172	1151103	4.04	ppm	0.00
Spiked Amount 2.000	Range 27 - 114		Recovery	=	202.00%#	
28) SURR6,TERPHENYL-D14	16.40	244	1313702	3.94	ppm	0.00
Spiked Amount 2.000	Range 23 - 139		Recovery	=	197.00%#	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	6.20	88	773791	6.95	ppm	95
3) Pyridine	6.95	79	586722	4.10	ppm	97
6) Nitrobenzene	11.30	77	540860	3.59	ppm	100
7) Naphthalene	11.98	128	1797731	3.91	ppm	96
8) 2-Methylnaphthalene	12.61	142	1118519	3.85	ppm	97
9) 1-Methylnaphthalene	12.71	142	1066240	3.95	ppm	99
12) Acenaphthylene	13.44	152	1656848	4.17	ppm	97
13) Dimethyl phthalate	13.28	163	1364537	4.32	ppm	97
14) Acenaphthene	13.59	153	974878	3.94	ppm	97
15) Dibenzofuran	13.73	168	1467463	4.48	ppm	100
16) Fluorene	14.02	166	1134614	4.51	ppm	97
17) Diethylphthalate	13.88	149	1430962	4.39	ppm	98
19) Hexachlorobenzene	14.52	284	348254	3.82	ppm	94
20) Phenanthrene	14.80	178	1742244	4.02	ppm	96
21) Anthracene	14.84	178	1689419	4.14	ppm	98
22) Carbazole	14.95	167	712002	2.49	ppm	96
23) Octachlorostyrene	15.82	378	99442	3.87	ppm	82
24) Di-n-butylphthalate	15.20	149	2360407	4.10	ppm	97
25) Fluoranthene	16.01	202	1985517	4.17	ppm	97
27) Pyrene	16.30	202	2055374	3.92	ppm	99
29) Butyl benzyl phthalate	17.04	149	1130035	4.09	ppm	97
30) bis(2-Ethylhexyl)phthalate	17.97	149	2829915	7.93	ppm	98
31) Benzo(a)anthracene	18.08	228	1841023	4.11	ppm	99
32) Chrysene	18.17	228	1804169	3.98	ppm	95
34) Di-n-octyl phthalate	19.32	149	2478156	4.42	ppm	96
35) Benzo(b)Fluoranthene	20.70	252	1786094	4.00	ppm	99

(#) = qualifier out of range (m) = manual integration
 DB723.D LVI0928.M Tue Sep 29 09:57:38 2009

Data File : J:\ACQUADATA\5973B\DATA\092809\DB723.D
 Acq On : 28 Sep 2009 9:33 pm
 Sample : SSTD040
 Misc : 4.0/8.0 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Sep 29 9:35 2009

Vial: 9
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: LVI0928.RES

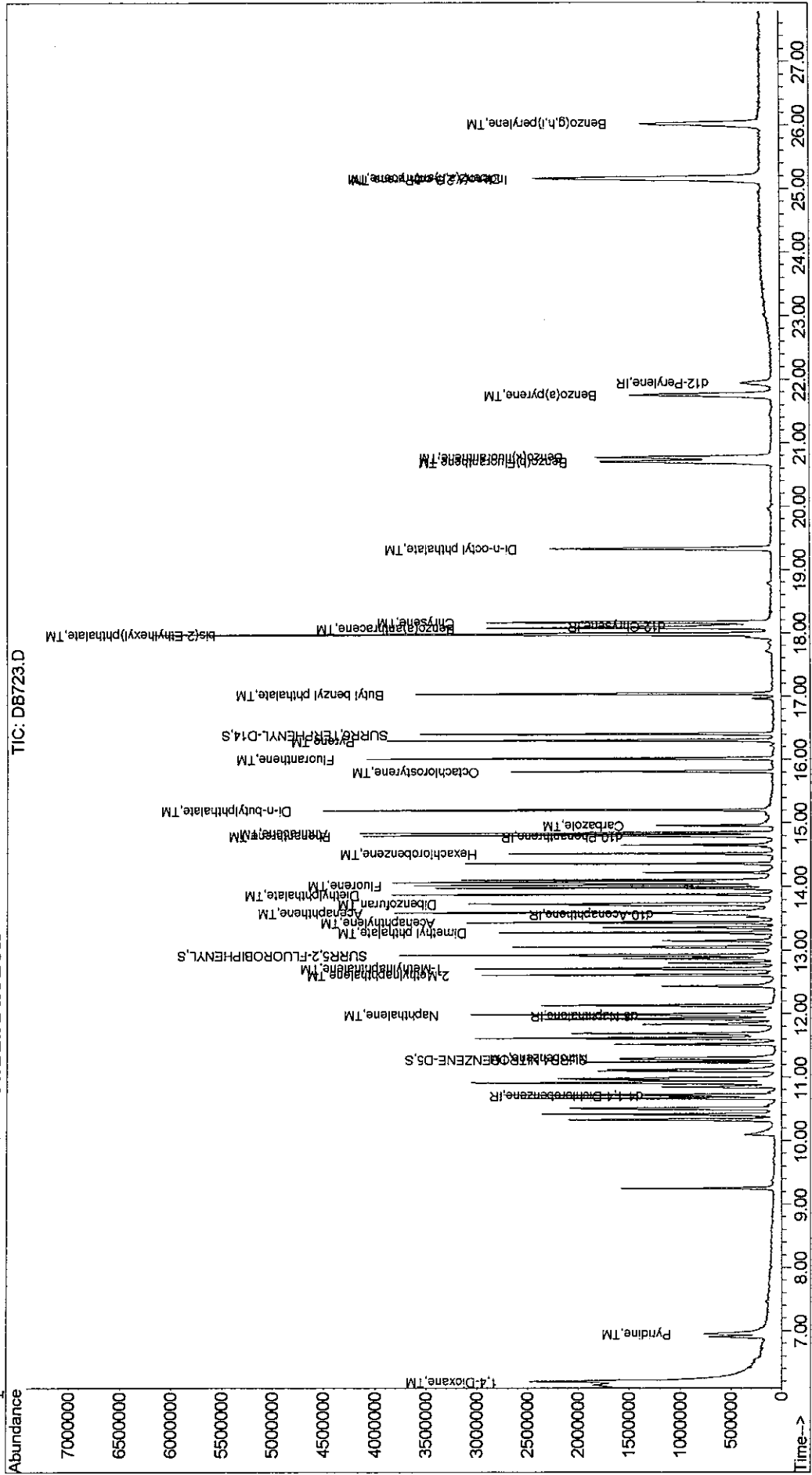
Quant Method : J:\ACQUADATA\5...\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:35:22 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI0928

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
36) Benzo(k)fluoranthene	20.77	252	1772911	4.04	ppm	99
37) Benzo(a)pyrene	21.75	252	1621888	4.12	ppm	94
38) Indeno(1,2,3-cd)Pyrene	25.15	276	1937231	4.21	ppm	87
39) Dibenz(a,h)anthracene	25.16	278	1611903	4.20	ppm	91
40) Benzo(g,h,i)perylene	26.02	276	1610729	4.32	ppm	95

Quantitation Report

Data File : J:\ACQDATA\5973B\DATA\092809\DB723.D Vial: 9
Acq On : 28 Sep 2009 9:33 pm Operator: Z.Miao
Sample : SSTD040 Inst : 5973-B
Misc : 4.0/8.0 PPM STD 8270.LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 29 9:35 2009 Quant Results File: LVI0928.RES

Method : J:\ACQDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Sep 29 09:53:23 2009
Response via : Initial Calibration



43300

Data File : J:\ACQUDATA\5973B\DATA\092809\DB724.D
 Acq On : 28 Sep 2009 10:15 pm
 Sample : SSTD050
 Misc : 5.0/10 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Sep 29 9:37 2009

Vial: 10
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: LVI0928.RES

Quant Method : J:\ACQUDATA\5...\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:36:34 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI0928

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	10.70	152	114850	1.00	ppm	0.00
4) d8-Naphthalene	11.97	136	459492	1.00	ppm	0.00
10) d10-Acenaphthene	13.56	164	222038	1.00	ppm	0.00
18) d10-Phenanthrene	14.78	188	395429	1.00	ppm	0.00
26) d12-Chrysene	18.11	240	415148	1.00	ppm	0.00
33) d12-Perylene	21.93	264	304169	1.00	ppm	0.00

System Monitoring Compounds

5) SURR4,NITROBENZENE-D5	11.28	82	812861	5.17	ppm	0.00
Spiked Amount 2.000	Range 22 - 124		Recovery =	258.50%#		
11) SURR5,2-FLUOROBIPHENYL	12.93	172	1537510	5.07	ppm	0.00
Spiked Amount 2.000	Range 27 - 114		Recovery =	253.50%#		
28) SURR6,TERPHENYL-D14	16.40	244	1744152	5.19	ppm	0.00
Spiked Amount 2.000	Range 23 - 139		Recovery =	259.50%#		

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	6.22	88	1009487	8.80	ppm	94
3) Pyridine	6.97	79	819434	5.64	ppm	91
6) Nitrobenzene	11.30	77	771420	4.82	ppm	95
7) Naphthalene	11.99	128	2338637	4.71	ppm	94
8) 2-Methylnaphthalene	12.61	142	1488923	4.74	ppm	94
9) 1-Methylnaphthalene	12.71	142	1383919	4.72	ppm	96
12) Acenaphthylene	13.44	152	2203861	5.19	ppm	98
13) Dimethyl phthalate	13.28	163	1752616	5.19	ppm	99
14) Acenaphthene	13.60	153	1327575	5.05	ppm	96
15) Dibenzofuran	13.73	168	1914404	5.45	ppm	100
16) Fluorene	14.02	166	1504313	5.59	ppm	99
17) Diethylphthalate	13.88	149	1835900	5.25	ppm	97
19) Hexachlorobenzene	14.52	284	438502	4.46	ppm	98
20) Phenanthrene	14.80	178	2227929	4.72	ppm	100
21) Anthracene	14.84	178	2206576	4.98	ppm	98
22) Carbazole	14.96	167	776930	2.60	ppm	93
23) Octachlorostyrene	15.81	378	131677m	4.68	ppm	
24) Di-n-butylphthalate	15.20	149	2890087	4.57	ppm	97
25) Fluoranthene	16.02	202	2517333	4.81	ppm	99
27) Pyrene	16.30	202	2644654	4.98	ppm	98
29) Butyl benzyl phthalate	17.04	149	1478129	5.27	ppm	95
30) bis(2-Ethylhexyl)phthalate	17.98	149	3605214	10.01	ppm	97
31) Benzo(a)anthracene	18.08	228	2388882	5.26	ppm	98
32) Chrysene	18.16	228	2288652	4.99	ppm	98
34) Di-n-octyl phthalate	19.33	149	3258777	5.75	ppm	98
35) Benzo(b)Fluoranthene	20.71	252	2329630	5.22	ppm	97

(#) = qualifier out of range (m) = manual integration



Data File : J:\ACQUDATA\5973B\DATA\092809\DB724.D
 Acq On : 28 Sep 2009 10:15 pm
 Sample : SSTD050
 Misc : 5.0/10 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Sep 29 9:37 2009

Vial: 10
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: LVI0928.RES

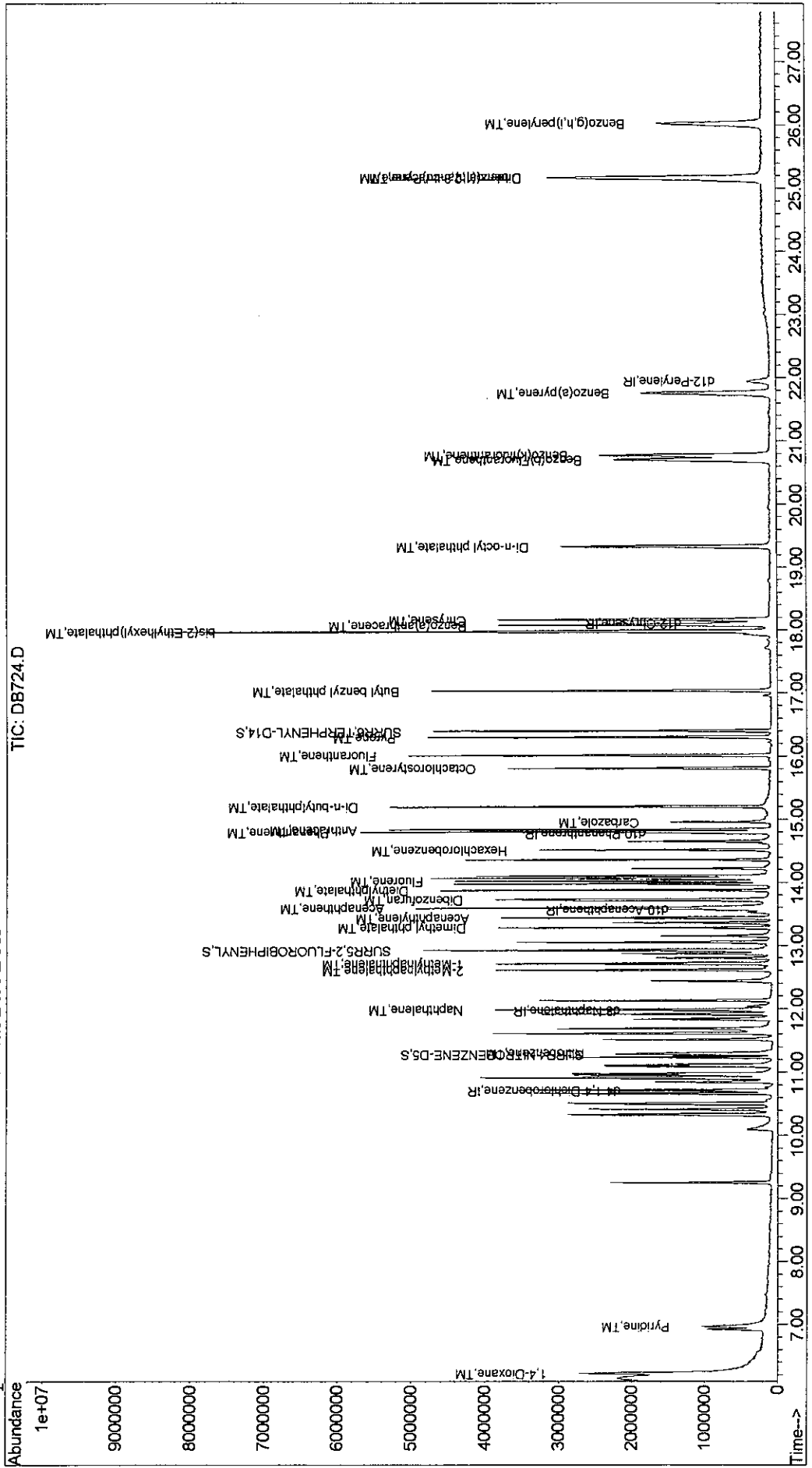
Quant Method : J:\ACQUDATA\5...\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:36:34 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI0928

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
36) Benzo(k)fluoranthene	20.76	252	2346275	5.32	ppm	96
37) Benzo(a)pyrene	21.76	252	2132912	5.42	ppm	95
38) Indeno(1,2,3-cd)Pyrene	25.16	276	2411739	5.22	ppm	87
39) Dibenz(a,h)anthracene	25.17	278	2102927	5.49	ppm	93
40) Benzo(g,h,i)perylene	26.02	276	1890232	4.95	ppm	91

Quantitation Report

Data File : J:\ACQDATA\5973B\DATA\092809\DB724.D Vial: 10
Acq On : 28 Sep 2009 10:15 pm Operator: Z.Miao
Sample : SSTD050 Inst : 5973-B
Misc : 5.0/10 PPM STD 8270.LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 29 9:37 2009 Quant Results File: LVI0928.RES

Method : J:\ACQDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Sep 29 09:53:23 2009
Response via : Initial Calibration



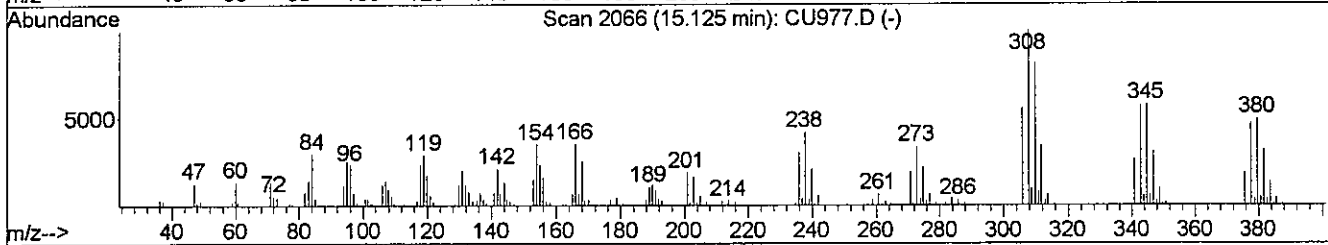
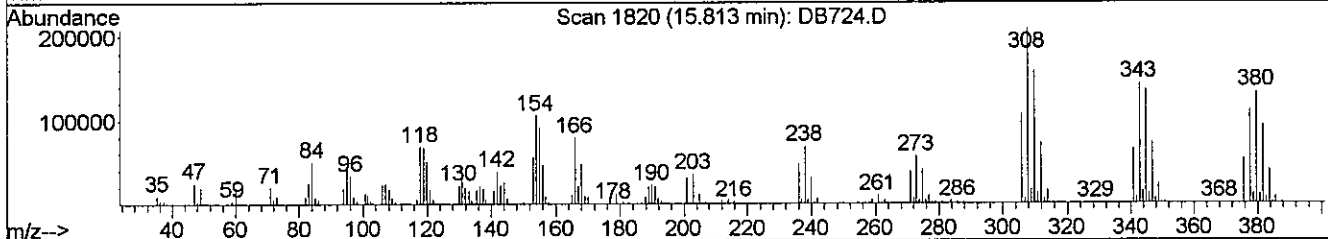
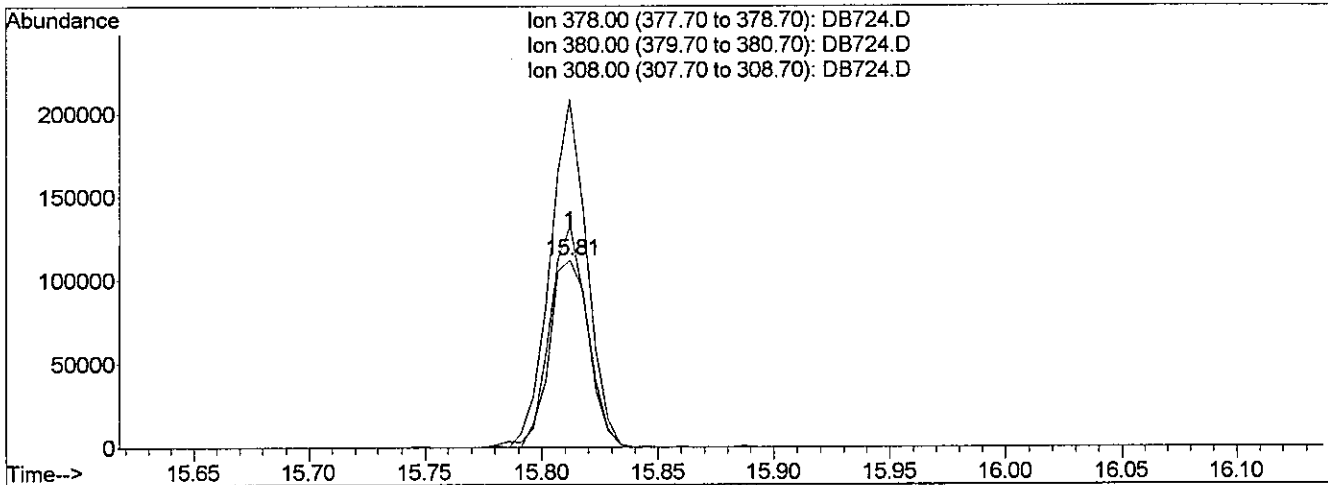
00337

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\092809\DB724.D
 Acq On : 28 Sep 2009 10:15 pm
 Sample : SSTD050
 Misc : 5.0/10 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Sep 29 9:36 2009

Vial: 10
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00
 Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:36:34 2009
 Response via : Multiple Level Calibration



TIC: DB724.D

(23) Octachlorostyrene (TM)

15.81min 4.68ppm

response 131696

Ion	Exp%	Act%
378.00	100	100
380.00	95.60	114.36
308.00	119.80	167.43#
0.00	0.00	0.00

B

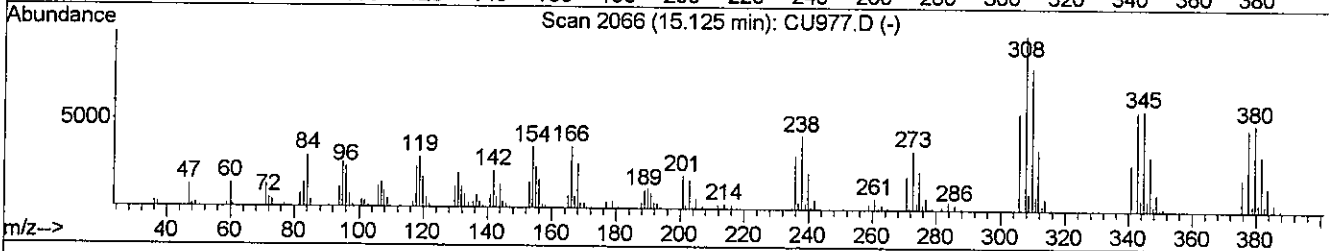
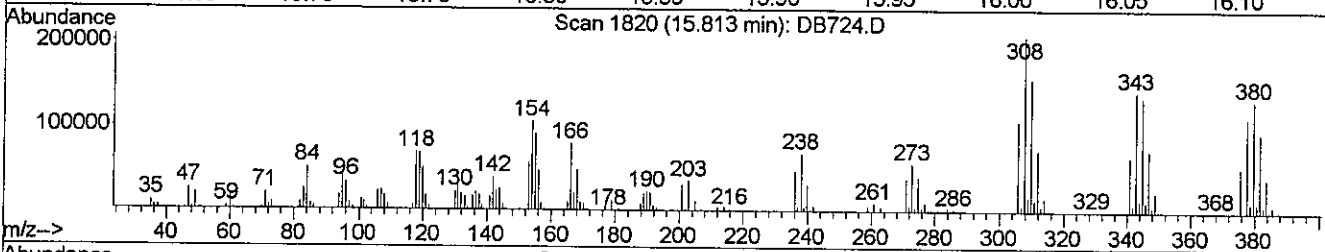
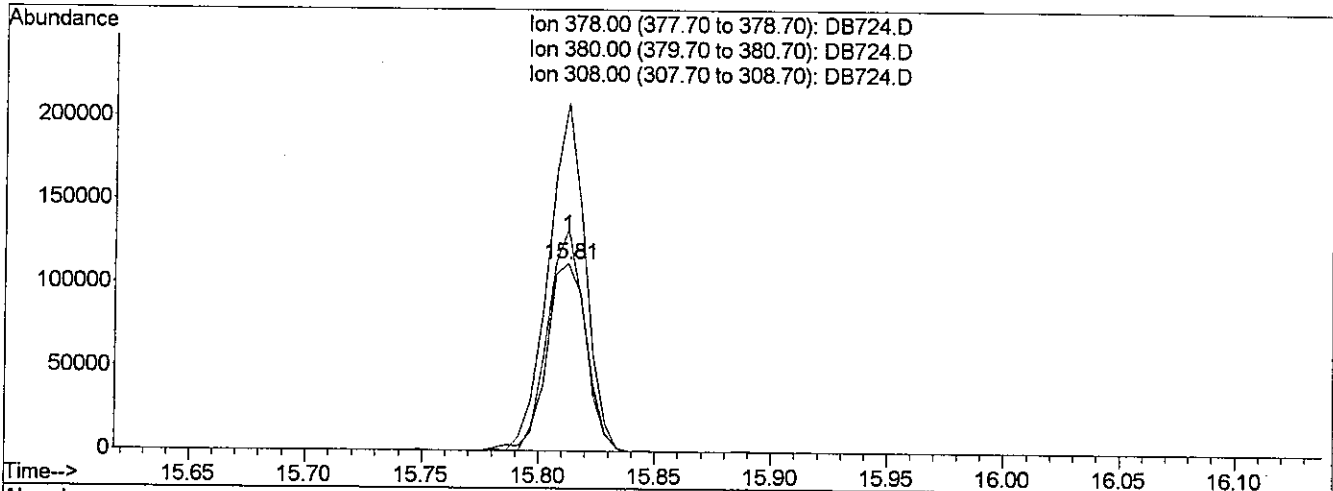
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\092809\DB724.D
 Acq On : 28 Sep 2009 10:15 pm
 Sample : SSTD050
 Misc : 5.0/10 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Sep 29 9:37 2009

Vial: 10
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:36:34 2009
 Response via : Multiple Level Calibration



TIC: DB724.D

(23) Octachlorostyrene (TM)

15.81min 4.68ppm m

response 131677

Ion	Exp%	Act%
378.00	100	100
380.00	95.60	118.54
308.00	119.80	185.97#
0.00	0.00	0.00

Handwritten: 9/29/09 MW 9/29

Data File : J:\ACQUDATA\5973B\DATA\092809\DB725.D
 Acq On : 28 Sep 2009 10:57 pm
 Sample : SSTD100
 Misc : 10/20 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Sep 29 9:40 2009

Vial: 11
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: LVI0928.RES

Quant Method : J:\ACQUDATA\5...\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:37:57 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI0928

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) d4-1,4-Dichlorobenzene	10.70	152	124530m	1.00	ppm	0.00
4) d8-Naphthalene	11.97	136	441994	1.00	ppm	0.00
10) d10-Acenaphthene	13.57	164	250210	1.00	ppm	0.00
18) d10-Phenanthrene	14.78	188	421394	1.00	ppm	0.00
26) d12-Chrysene	18.12	240	456492	1.00	ppm	0.00
33) d12-Perylene	21.96	264	326456	1.00	ppm	0.01

System Monitoring Compounds

5) SURR4,NITROBENZENE-D5	11.28	82	1648007	11.07	ppm	0.00
Spiked Amount	2.000	Range	22 - 124	Recovery	=	553.50%#
11) SURR5,2-FLUOROBIPHENYL	12.92	172	3008393	8.78	ppm	0.00
Spiked Amount	2.000	Range	27 - 114	Recovery	=	439.00%#
28) SURR6,TERPHENYL-D14	16.40	244	3467599	9.42	ppm	0.00
Spiked Amount	2.000	Range	23 - 139	Recovery	=	471.00%#

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	6.22	88	2016458	16.34	ppm	96
3) Pyridine	6.96	79	1729648	11.11	ppm	91
6) Nitrobenzene	11.30	77	1541957	10.22	ppm	88
7) Naphthalene	11.98	128	4169783	8.82	ppm	85
8) 2-Methylnaphthalene	12.61	142	2869563	9.55	ppm	89
9) 1-Methylnaphthalene	12.71	142	2669514	9.55	ppm	96
12) Acenaphthylene	13.44	152	4047228	8.45	ppm	88
13) Dimethyl phthalate	13.28	163	3386289m	8.94	ppm	
14) Acenaphthene	13.59	153	2661517	8.98	ppm	98
15) Dibenzofuran	13.73	168	3639380	9.19	ppm	86
16) Fluorene	14.02	166	2983015	9.81	ppm	96
17) Diethylphthalate	13.88	149	3432418m	8.70	ppm	
19) Hexachlorobenzene	14.52	284	944701	9.15	ppm	96
20) Phenanthrene	14.81	178	3961556	7.89	ppm	87
21) Anthracene	14.84	178	3913982	8.32	ppm	82
22) Carbazole	14.96	167	1223898	4.03	ppm	99
23) Octachlorostyrene	15.81	378	283692	9.34	ppm	77
24) Di-n-butylphthalate	15.21	149	4448777m	6.61	ppm	
25) Fluoranthene	16.02	202	4589959	8.21	ppm	88
27) Pyrene	16.31	202	4742561	8.11	ppm	88
29) Butyl benzyl phthalate	17.04	149	3019773	9.74	ppm	90
30) bis(2-Ethylhexyl)phthalate	17.98	149	6299332	15.96	ppm	81
31) Benzo(a)anthracene	18.09	228	4798158	9.63	ppm	93
32) Chrysene	18.17	228	4701483	9.33	ppm	92
34) Di-n-octyl phthalate	19.34	149	6507449	10.58	ppm	97
35) Benzo(b)Fluoranthene	20.71	252	4942310	10.31	ppm	98

(#) = qualifier out of range (m) = manual integration

Data File : J:\ACQUDATA\5973B\DATA\092809\DB725.D Vial: 11
 Acq On : 28 Sep 2009 10:57 pm Operator: Z.Miao
 Sample : SSTD100 Inst : 5973-B
 Misc : 10/20 PPM STD 8270.LL Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Sep 29 9:40 2009 Quant Results File: LVI0928.RES

Quant Method : J:\ACQUDATA\5...\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:37:57 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI0928

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
36) Benzo(k)fluoranthene	20.78	252	4644564	9.79	ppm	95
37) Benzo(a)pyrene	21.77	252	4527808	10.76	ppm	95
38) Indeno(1,2,3-cd)Pyrene	25.17	276	4832434	9.73	ppm	85
39) Dibenz(a,h)anthracene	25.19	278	4298927	10.46	ppm	91
40) Benzo(g,h,i)perylene	26.03	276	3768742	8.99	ppm	95

 (#) = qualifier out of range (m) = manual integration

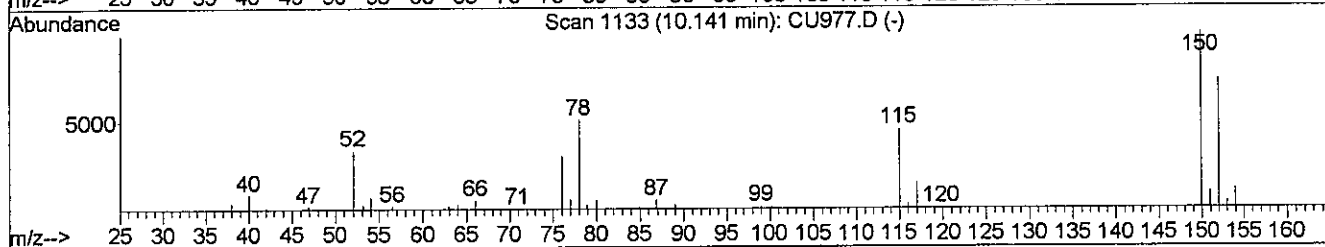
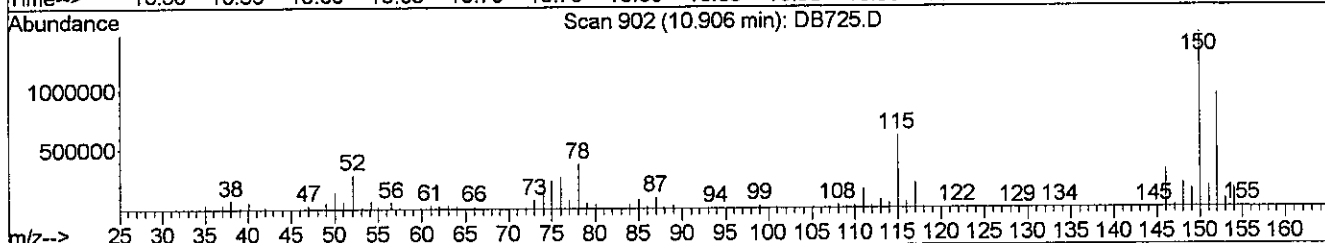
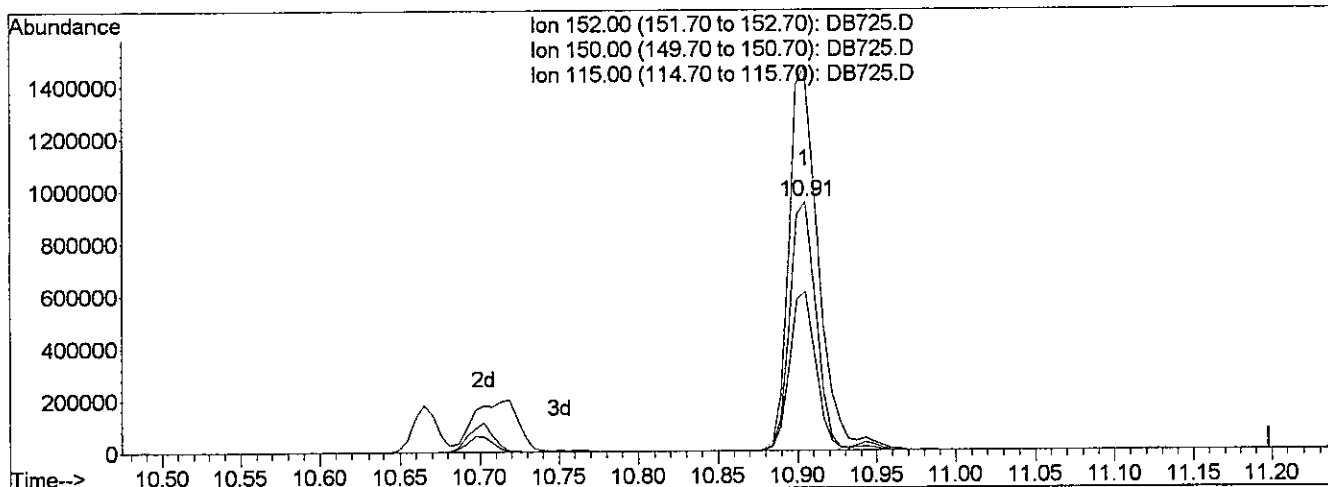
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\092809\DB725.D
 Acq On : 28 Sep 2009 10:57 pm
 Sample : SSTD100
 Misc : 10/20 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Sep 29 9:39 2009

Vial: 11
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:39:38 2009
 Response via : Multiple Level Calibration



TIC: DB725.D

(1) d4-1,4-Dichlorobenzene (IR)

10.91min 1.00ppm

response 1085333

Ion	Exp%	Act%
152.00	100	100
150.00	144.30	152.70
115.00	55.70	63.80
0.00	0.00	0.00

W

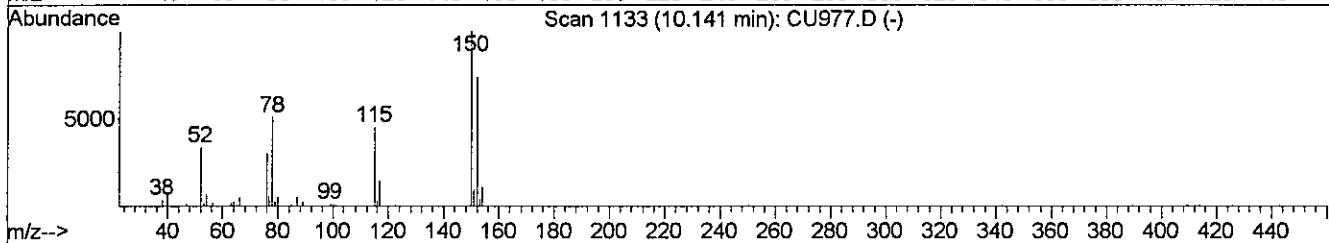
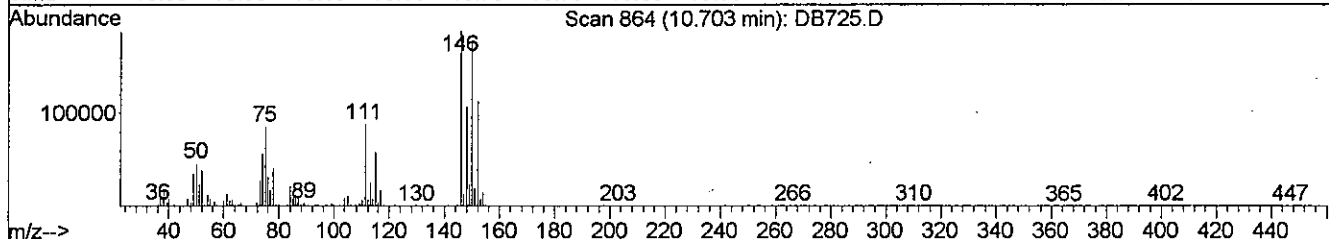
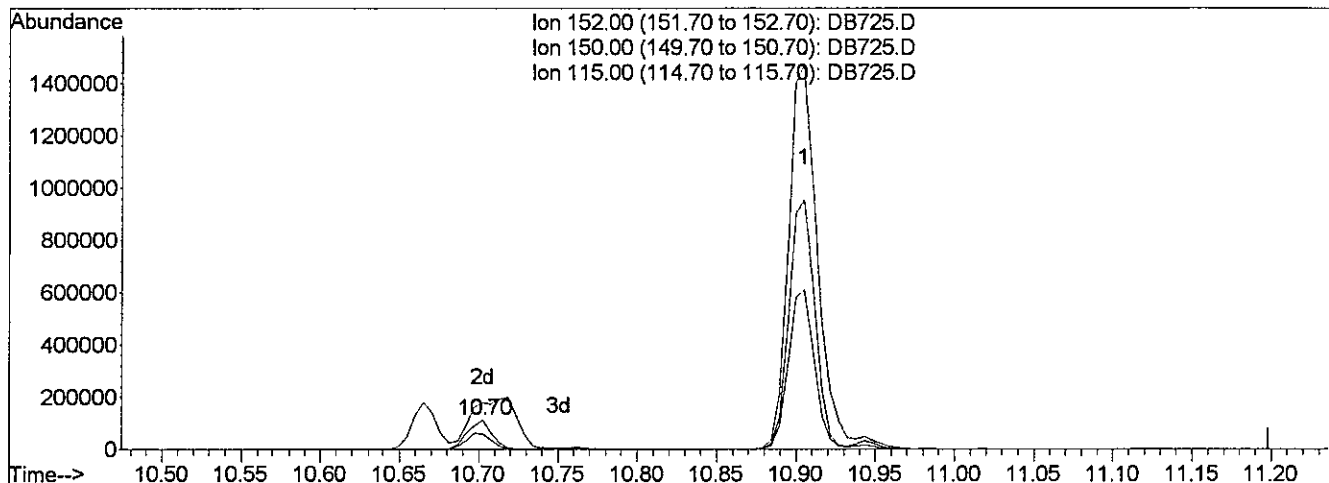
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\092809\DB725.D
 Acq On : 28 Sep 2009 10:57 pm
 Sample : SSTD100
 Misc : 10/20 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Sep 29 9:40 2009

Vial: 11
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:39:38 2009
 Response via : Multiple Level Calibration



TIC: DB725.D

(1) d4-1,4-Dichlorobenzene (IR)

10.70min 1.00ppm m

response 124530

Ion	Exp%	Act%
152.00	100	100
150.00	144.30	156.66
115.00	55.70	51.66
0.00	0.00	0.00

MW 7/11
29/29/09

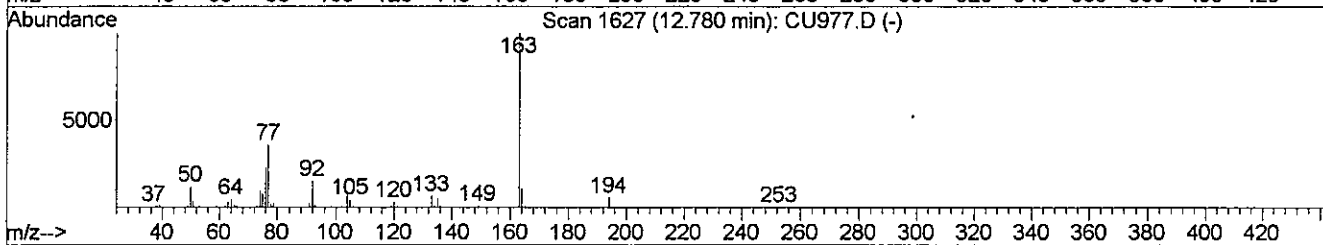
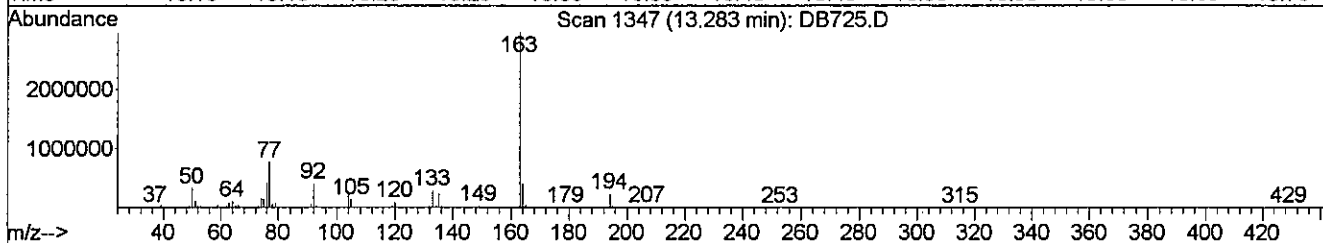
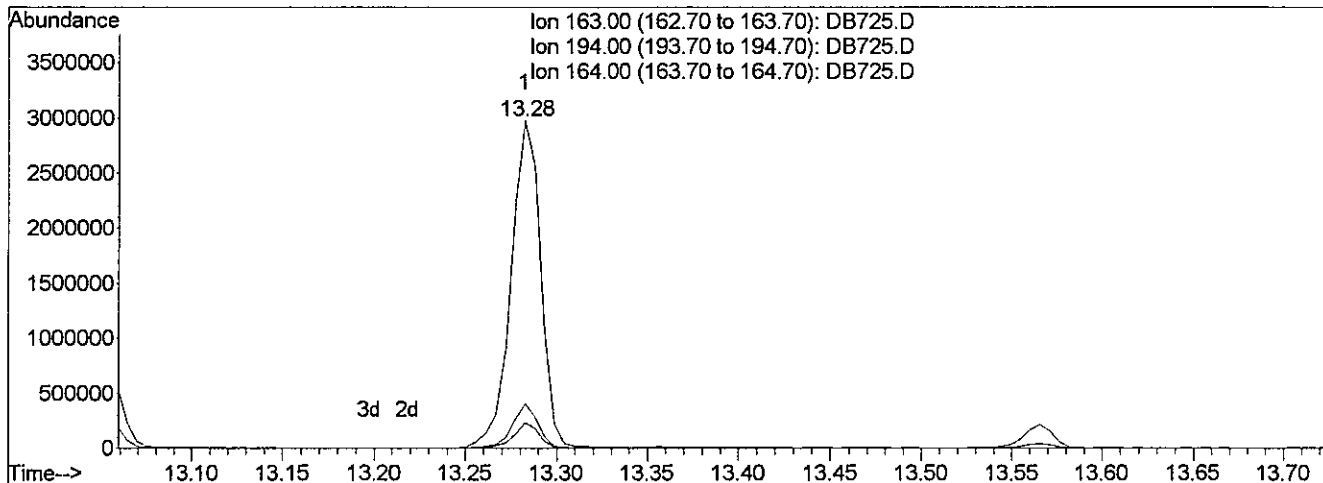
Quantitation Report (Qedit)

Data File : J:\ACQUATA\5973B\DATA\092809\DB725.D
 Acq On : 28 Sep 2009 10:57 pm
 Sample : SSTD100
 Misc : 10/20 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Sep 29 9:38 2009

Vial: 11
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:37:57 2009
 Response via : Multiple Level Calibration



TIC: DB725.D

(13) Dimethyl phthalate (TM)

13.28min 8.99ppm

response 3403060

Ion	Exp%	Act%
163.00	100	100
194.00	5.70	7.83#
164.00	11.10	13.56
0.00	0.00	0.00

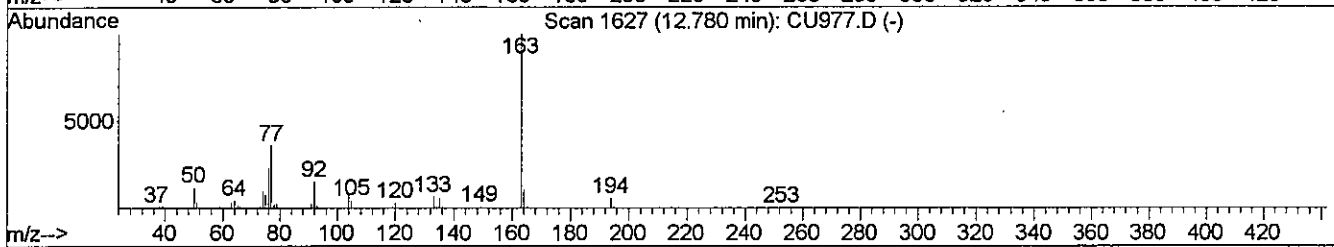
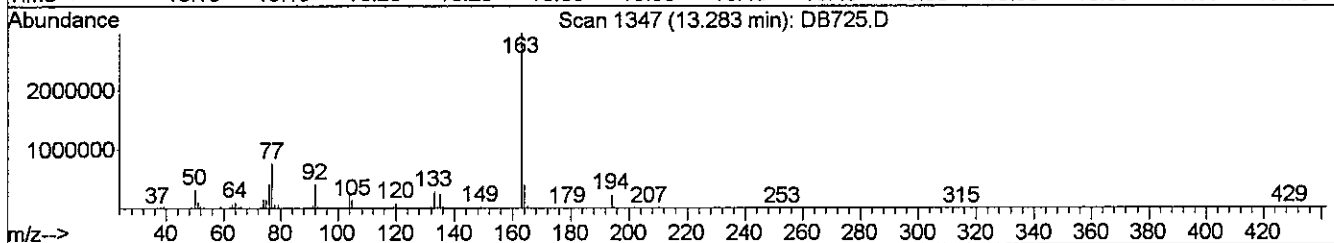
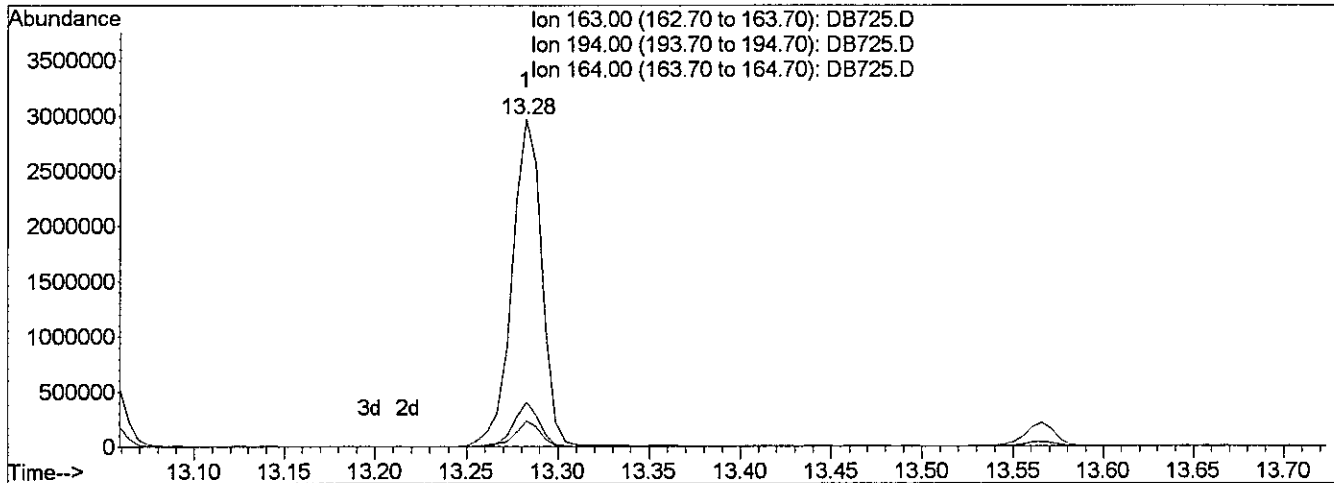
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\092809\DB725.D
 Acq On : 28 Sep 2009 10:57 pm
 Sample : SSTD100
 Misc : 10/20 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Sep 29 9:38 2009

Vial: 11
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:37:57 2009
 Response via : Multiple Level Calibration



TIC: DB725.D

(13) Dimethyl phthalate (TM)

13.28min 8.94ppm m

response 3386289

Ion	Exp%	Act%
163.00	100	100
194.00	5.70	7.84#
164.00	11.10	13.64
0.00	0.00	0.00

Analogue

mw 9/4

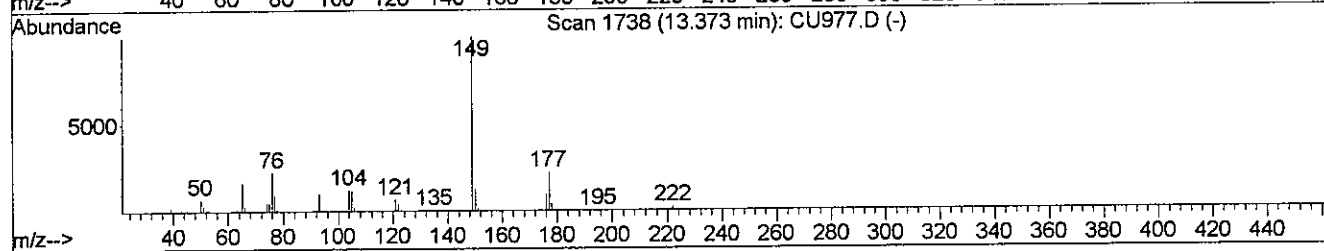
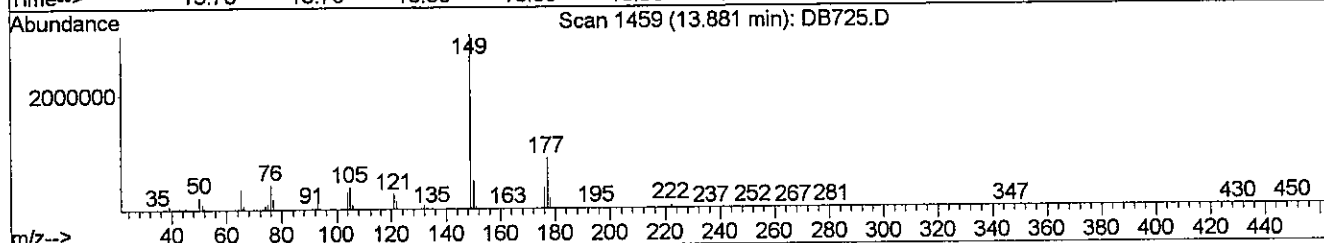
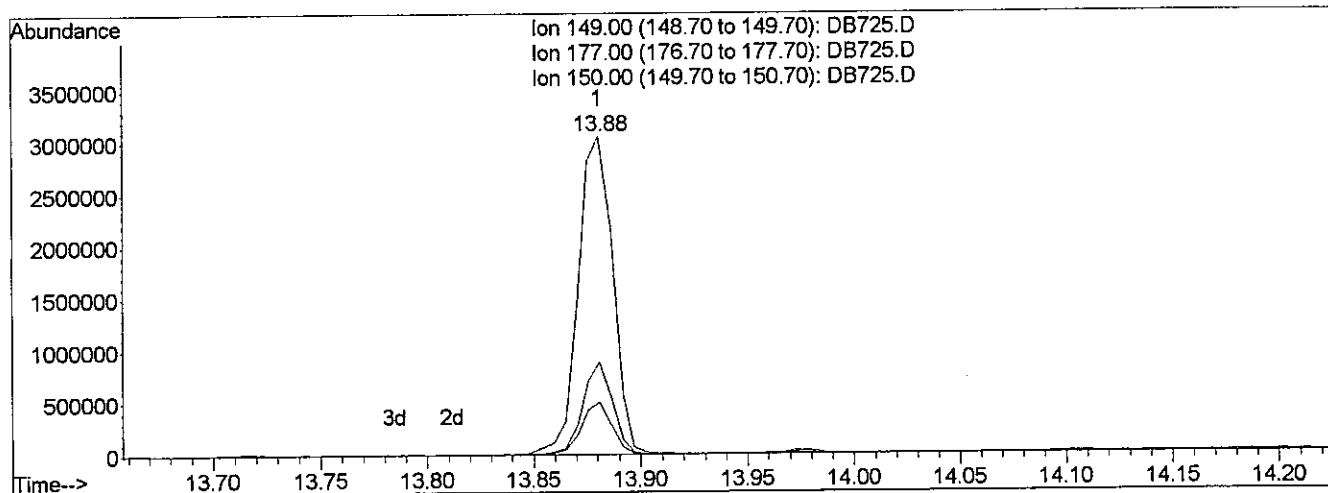
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\092809\DB725.D
 Acq On : 28 Sep 2009 10:57 pm
 Sample : SSTD100
 Misc : 10/20 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Sep 29 9:38 2009

Vial: 11
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:37:57 2009
 Response via : Multiple Level Calibration



TIC: DB725.D

(17) Diethylphthalate (TM)

13.88min 8.75ppm

response 3448812

Ion	Exp%	Act%
149.00	100	100
177.00	21.00	29.02#
150.00	12.10	16.21#
0.00	0.00	0.00

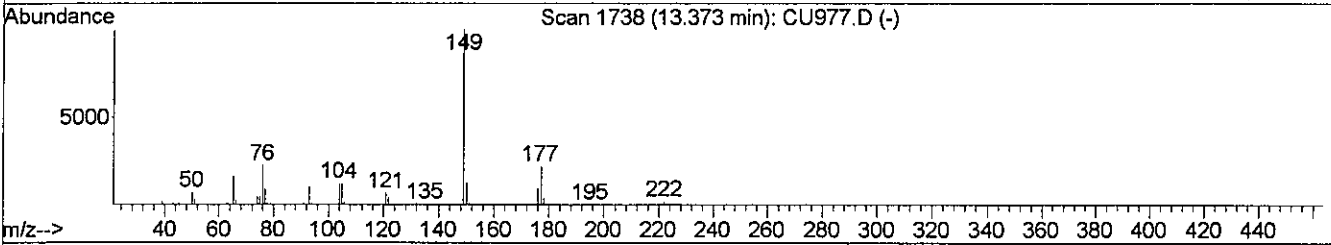
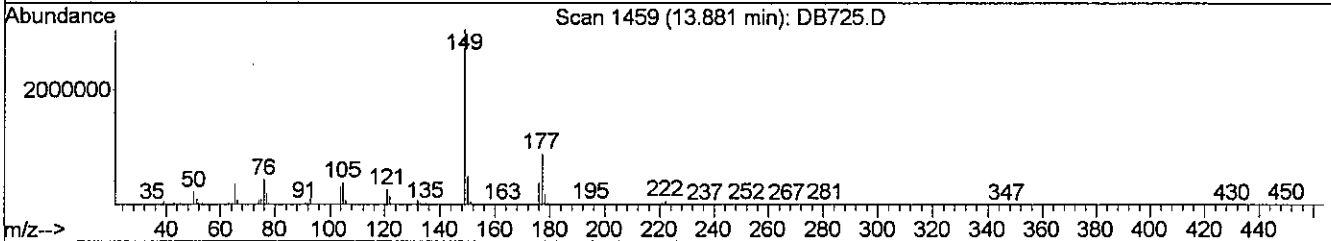
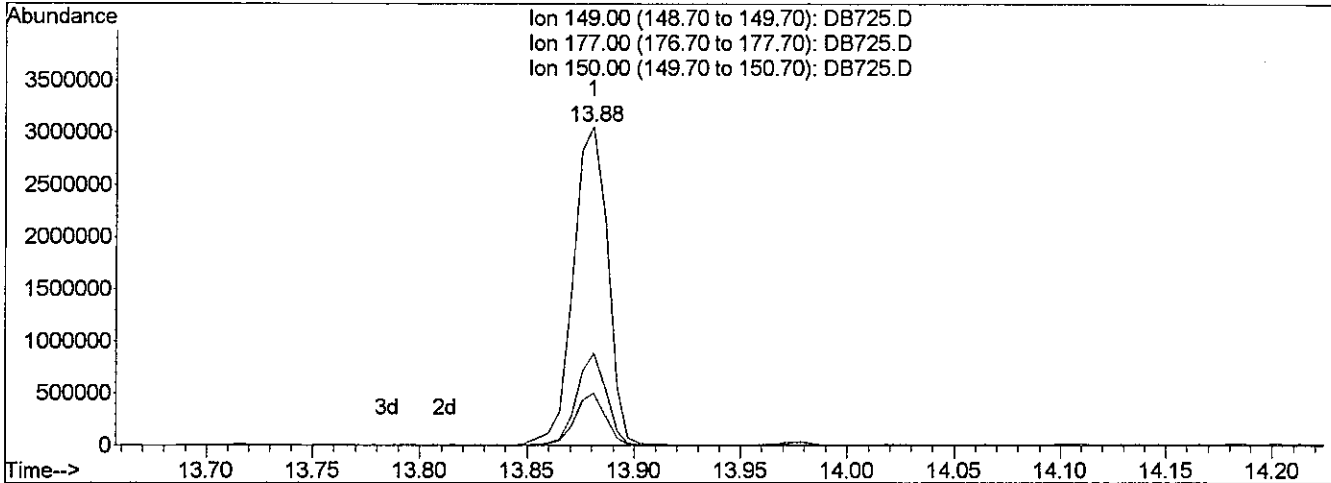
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\092809\DB725.D
 Acq On : 28 Sep 2009 10:57 pm
 Sample : SSTD100
 Misc : 10/20 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Sep 29 9:38 2009

Vial: 11
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:37:57 2009
 Response via : Multiple Level Calibration



TIC: DB725.D

(17) Diethylphthalate (TM)

13.88min 8.70ppm m

response 3432418

Ion	Exp%	Act%
149.00	100	100
177.00	21.00	29.00#
150.00	12.10	16.33#
0.00	0.00	0.00

A 9/29/09 *MM 9/29*

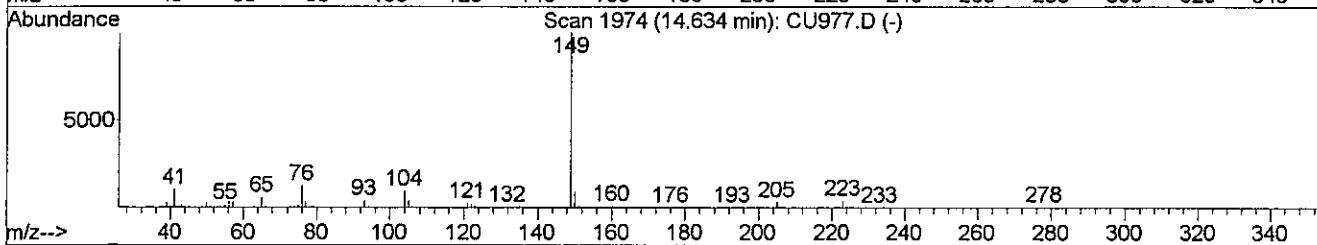
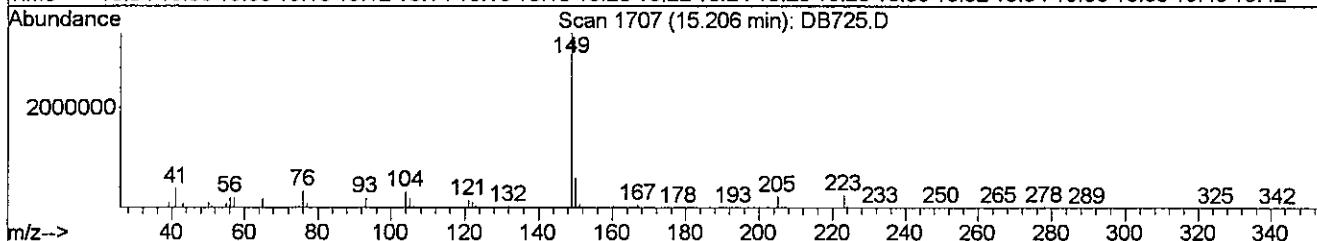
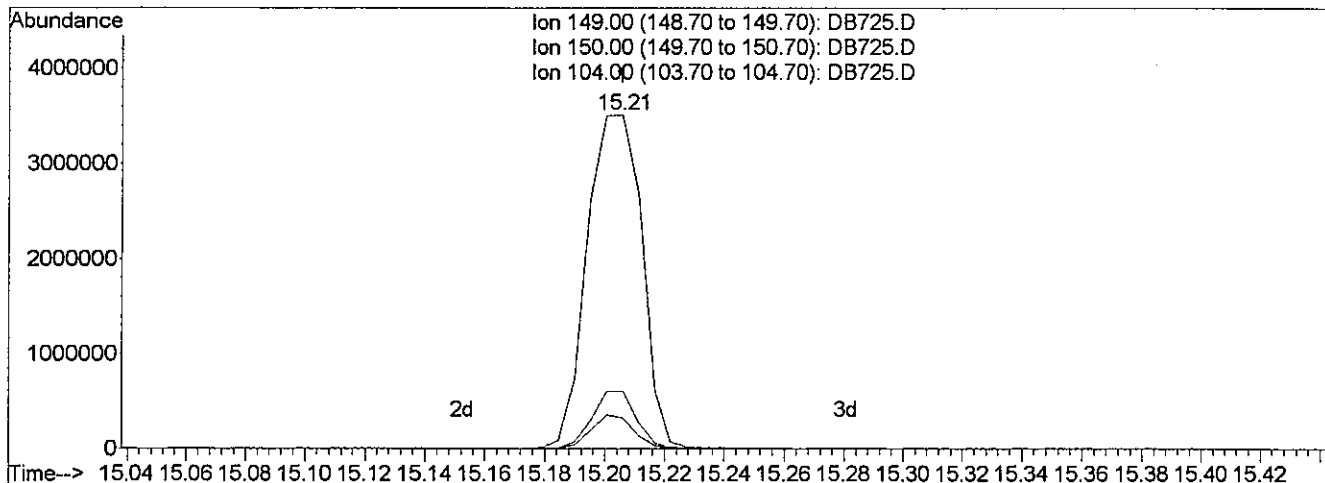
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\092809\DB725.D
 Acq On : 28 Sep 2009 10:57 pm
 Sample : SSTD100
 Misc : 10/20 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Sep 29 9:38 2009

Vial: 11
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:37:57 2009
 Response via : Multiple Level Calibration



TIC: DB725.D

(24) Di-n-butylphthalate (TM)

15.21min 6.64ppm

response 4468347

Ion	Exp%	Act%
149.00	100	100
150.00	8.90	17.07#
104.00	5.20	9.13#
0.00	0.00	0.00

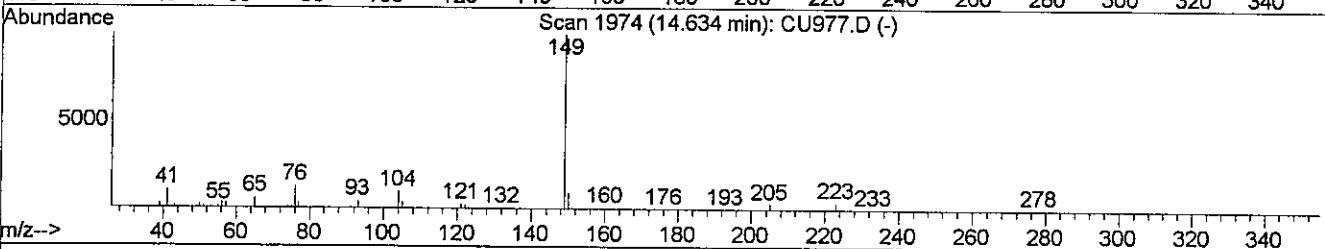
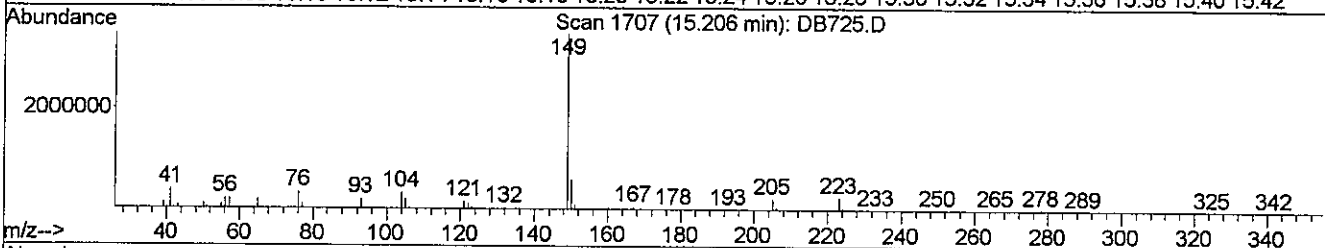
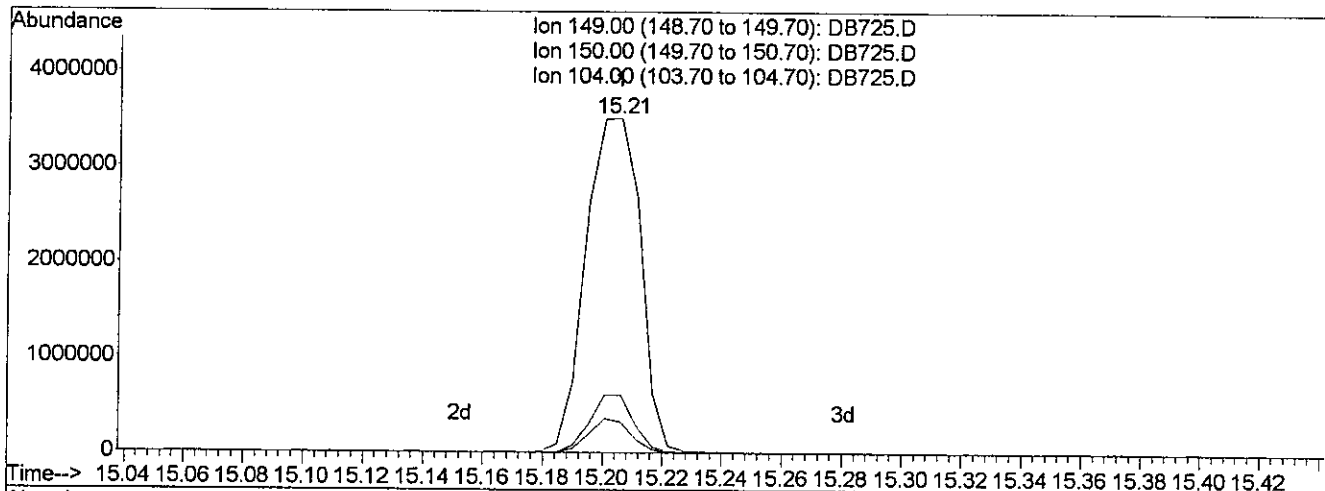
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\092809\DB725.D
 Acq On : 28 Sep 2009 10:57 pm
 Sample : SSTD100
 Misc : 10/20 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Sep 29 9:39 2009

Vial: 11
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:37:57 2009
 Response via : Multiple Level Calibration



TIC: DB725.D

(24) Di-n-butylphthalate (TM)

15.21min 6.61ppm m

response 4448777

Ion	Exp%	Act%
149.00	100	100
150.00	8.90	17.15#
104.00	5.20	9.17#
0.00	0.00	0.00

Handwritten: 9/29/09
Handwritten: miao 9/29

Quantitation Report (QT Reviewed)

Data File : J:\ACQUDATA\5973B\DATA\092809\DB716.D
 Acq On : 28 Sep 2009 4:32 pm
 Sample : BLK
 Misc : 09/28/2009 1.0 8270LL
 MS Integration Params: RTEINT.P
 Quant Time: Sep 29 10:38 2009

Vial: 2
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: LVI0928.RES

Quant Method : J:\ACQUDATA\5...\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI0928

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) d4-1,4-Dichlorobenzene	10.70	152	134418	1.00	ppm	0.00
4) d8-Naphthalene	11.97	136	572632	1.00	ppm	0.00
10) d10-Acenaphthene	13.57	164	302223	1.00	ppm	0.00
18) d10-Phenanthrene	14.78	188	387195	1.00	ppm	0.00
26) d12-Chrysene	18.11	240	353249	1.00	ppm	0.00
33) d12-Perylene	21.94	264	294026	1.00	ppm	0.00

System Monitoring Compounds

5) SURR4,NITROBENZENE-D5	11.32	82	319	0.00	ppm	0.04
Spiked Amount 2.000	Range 22 - 124		Recovery =			0.00%#
11) SURR5,2-FLUOROBIPHENYL	12.94	172	226	0.00	ppm	0.01
Spiked Amount 2.000	Range 27 - 114		Recovery =			0.00%#
28) SURR6,TERPHENYL-D14	16.41	244	651	0.00	ppm	0.02
Spiked Amount 2.000	Range 23 - 139		Recovery =			0.00%#

Target Compounds

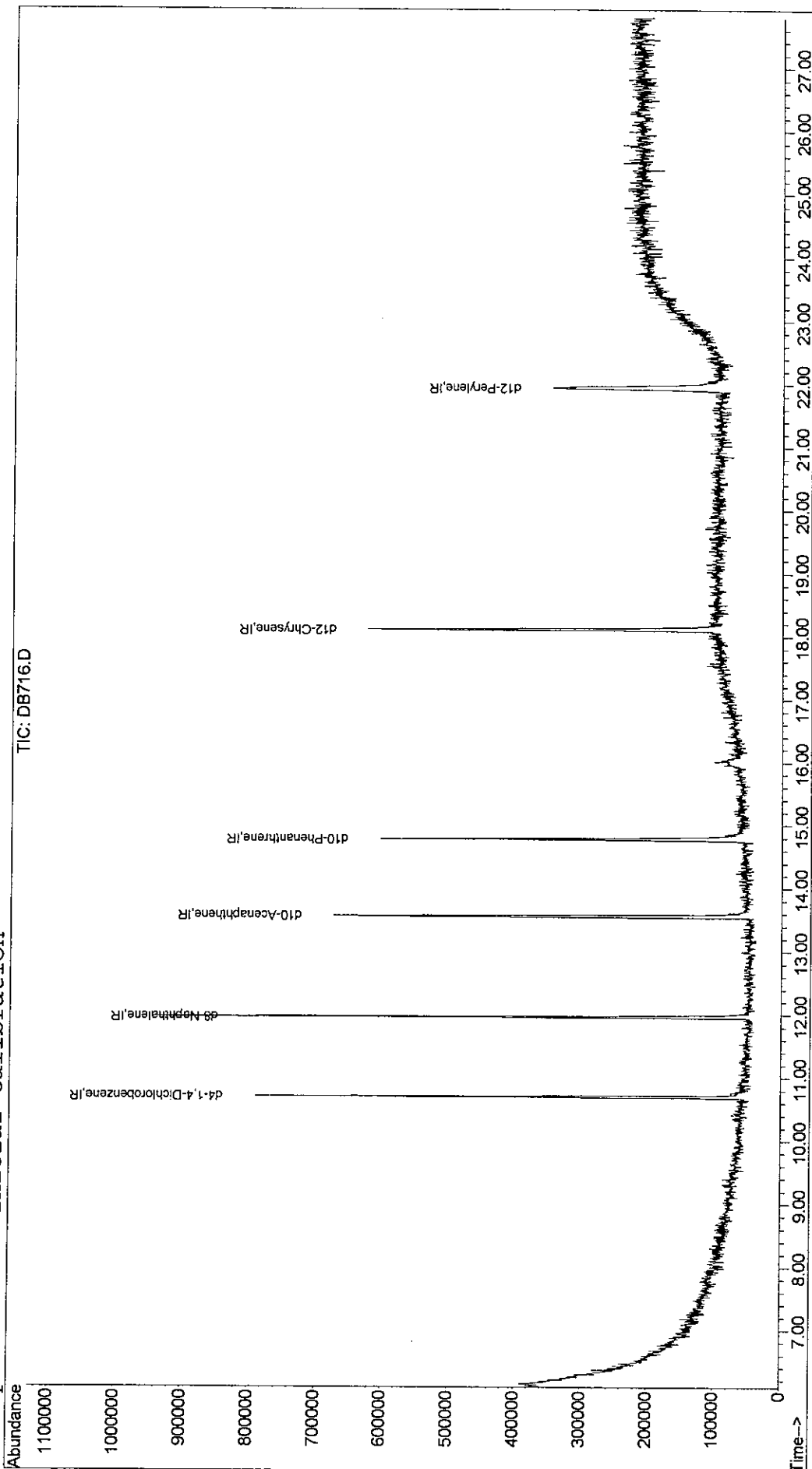
Qvalue

 (#) = qualifier out of range (m) = manual integration
 DB716.D LVI0928.M Tue Sep 29 10:38:16 2009

Quantitation Report

Data File : J:\ACQDATA\5973B\DATA\092809\DB716.D Vial: 2
Acq On : 28 Sep 2009 4:32 pm Operator: Z.Miao
Sample : BLK Inst : 5973-B
Misc : 09/28/2009 1.0 8270LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 29 10:38 2009 Quant Results File: LVI0928.RES

Method : J:\ACQDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Sep 29 09:53:23 2009
Response via : Initial Calibration



00352

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\5973B\DATA\092809\DB726.D
 Acq On : 28 Sep 2009 11:39 pm
 Sample : ICV #1
 Misc : 2.0 PPM STD 8270.LL
 MS Integration Params: RTEINT.P

Vial: 12
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00

UR: #2

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 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	TM 1,4-Dioxane	0.980	0.000#	100.0#	0#	-6.22#
3	TM Pyridine	1.325	1.335	-0.8	106	0.00
4	IR d8-Naphthalene	1.000	1.000	0.0	96	0.00
5	S SURR4,NITROBENZENE-D5	0.333	0.001#	99.7#	0#	0.01
6	TM Nitrobenzene	0.336	0.357	-6.2	94	0.00
7	TM Naphthalene	1.049	1.103	-5.1	97	0.00
8	TM 2-Methylnaphthalene	0.674	0.704	-4.5	102	0.00
9	TM 1-Methylnaphthalene	0.626	0.658	-5.1	100	0.00
10	IR d10-Acenaphthene	1.000	1.000	0.0	94	0.00
11	S SURR5,2-FLUOROBIPHENYL	1.345	0.005#	99.6#	0#	0.00
12	TM Acenaphthylene	1.863	2.058	-10.5	102	0.00
13	TM Dimethyl phthalate	1.471	1.397	5.0	89	0.00
14	TM Acenaphthene	1.160	1.218	-5.0	99	0.00
15	TM Dibenzofuran	1.546	1.780	-15.1	105	0.00
16	TM Fluorene	1.192	1.372	-15.1	103	0.00
17	TM Diethylphthalate	1.542	1.521	1.4	90	0.00
18	IR d10-Phenanthrene	1.000	1.000	0.0	109	0.00
19	TM Hexachlorobenzene	0.239	0.234	2.1	102	0.00
20	TM Phenanthrene	1.161	1.160	0.1	104	0.00
21	TM Anthracene	1.085	1.129	-4.1	104	0.00
22	TM Carbazole	0.720	0.819	-13.7	115	0.00 NT
23	TM Octachlorostyrene	0.070	0.064	8.6	84	0.00
24	TM Di-n-butylphthalate	1.535	1.385	9.8	87	0.00
25	TM Fluoranthene	1.302	1.335	-2.5	105	0.00
26	IR d12-Chrysene	1.000	1.000	0.0	101	0.00
27	TM Pyrene	1.258	1.280	-1.7	99	0.00
28	S SURR6,TERPHENYL-D14	0.792	0.001#	99.9#	0#	0.01
29	TM Butyl benzyl phthalate	0.677	0.610	9.9	85	0.00
30	TM bis(2-Ethylhexyl)phthalate	0.840	0.000#	100.0#	0#	17.97#
31	TM Benzo(a)anthracene	1.080	1.164	-7.8	102	0.00
32	TM Chrysene	1.094	1.139	-4.1	101	0.00
33	IR d12-Perylene	1.000	1.000	0.0	96	-0.01
34	TM Di-n-octyl phthalate	1.860	1.637	12.0	82	0.00
35	TM Benzo(b)Fluoranthene	1.447	1.622	-12.1	102	0.00
36	TM Benzo(k)fluoranthene	1.434	1.543	-7.6	100	0.00

(#) = Out of Range

DB726.D LVI0928.M

Tue Sep 29 10:02:36 2009

Z.Miao

Page 1

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Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\5973B\DATA\092809\DB726.D Vial: 12
 Acq On : 28 Sep 2009 11:39 pm Operator: Z.Miao
 Sample : ICV #1 Inst : 5973-B
 Misc : 2.0 PPM STD 8270.LL Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 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 TM	Benzo(a)pyrene	1.274	1.289	-1.2	91	0.00
38 TM	Indeno(1,2,3-cd)Pyrene	1.509	1.758	-16.5	104	0.00
39 TM	Dibenz(a,h)anthracene	1.250	1.452	-16.2	108	0.00
40 TM	Benzo(g,h,i)perylene	1.278	1.487	-16.4	103	0.00

Data File : J:\ACQUDATA\5973B\DATA\092809\DB726.D
 Acq On : 28 Sep 2009 11:39 pm
 Sample : ICV #1
 Misc : 2.0 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Sep 29 10:02 2009

Vial: 12
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: LVI0928.RES

Quant Method : J:\ACQUDATA\5...\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI0928

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) d4-1,4-Dichlorobenzene	10.70	152	115206	1.00	ppm	0.00
4) d8-Naphthalene	11.97	136	422978	1.00	ppm	0.00
10) d10-Acenaphthene	13.56	164	213337	1.00	ppm	0.00
18) d10-Phenanthrene	14.78	188	375917	1.00	ppm	0.00
26) d12-Chrysene	18.11	240	389393	1.00	ppm	0.00
33) d12-Perylene	21.93	264	282690	1.00	ppm	-0.01

System Monitoring Compounds

5) SURR4,NITROBENZENE-D5	11.29	82	426	0.00	ppm	0.01
Spiked Amount	2.000	Range	22 - 124	Recovery	=	0.00%#
11) SURR5,2-FLUOROBIPHENYL	12.93	172	2131	0.01	ppm	0.00
Spiked Amount	2.000	Range	27 - 114	Recovery	=	0.50%#
28) SURR6,TERPHENYL-D14	16.41	244	621	0.00	ppm	0.01
Spiked Amount	2.000	Range	23 - 139	Recovery	=	0.00%#

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) Pyridine	6.98	79	307695	2.02	ppm	88
6) Nitrobenzene	11.30	77	301906	2.12	ppm	92
7) Naphthalene	11.99	128	932969	2.10	ppm	99
8) 2-Methylnaphthalene	12.61	142	595837	2.09	ppm	98
9) 1-Methylnaphthalene	12.71	142	556554	2.10	ppm	96
12) Acenaphthylene	13.44	152	877957	2.21	ppm	97
13) Dimethyl phthalate	13.28	163	596170	1.90	ppm	99
14) Acenaphthene	13.59	153	519511	2.10	ppm	91
15) Dibenzofuran	13.73	168	759639	2.30	ppm	98
16) Fluorene	14.02	166	585600	2.30	ppm	93
17) Diethylphthalate	13.87	149	649083	1.97	ppm	99
19) Hexachlorobenzene	14.52	284	175843	1.96	ppm	96
20) Phenanthrene	14.80	178	871775	2.00	ppm	92
21) Anthracene	14.84	178	848673	2.08	ppm	98
22) Carbazole	14.96	167	615489	2.27	ppm	98
23) Octachlorostyrene	15.81	378	48357m	1.84	ppm	
24) Di-n-butylphthalate	15.20	149	1041497	1.80	ppm	97
25) Fluoranthene	16.01	202	1003861	2.05	ppm	95
27) Pyrene	16.30	202	996482	2.03	ppm	99
29) Butyl benzyl phthalate	17.03	149	474947	1.80	ppm	99
31) Benzo(a)anthracene	18.08	228	906787	2.16	ppm	99
32) Chrysene	18.16	228	887022	2.08	ppm	98
34) Di-n-octyl phthalate	19.33	149	925373	1.76	ppm	97
35) Benzo(b)Fluoranthene	20.69	252	916841	2.24	ppm	99
36) Benzo(k)fluoranthene	20.76	252	872499	2.15	ppm	98
37) Benzo(a)pyrene	21.74	252	728804	2.02	ppm	95

(#) = qualifier out of range (m) = manual integration
 DB726.D LVI0928.M Tue Sep 29 10:02:30 2009

Data File : J:\ACQUDATA\5973B\DATA\092809\DB726.D
Acq On : 28 Sep 2009 11:39 pm
Sample : ICV #1
Misc : 2.0 PPM STD 8270.LL
MS Integration Params: RTEINT.P
Quant Time: Sep 29 10:02 2009

Vial: 12
Operator: Z.Miao
Inst : 5973-B
Multiplr: 1.00

Quant Results File: LVI0928.RES

Quant Method : J:\ACQUDATA\5...\LVI0928.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Sep 29 09:53:23 2009
Response via : Initial Calibration
DataAcq Meth : LVI0928

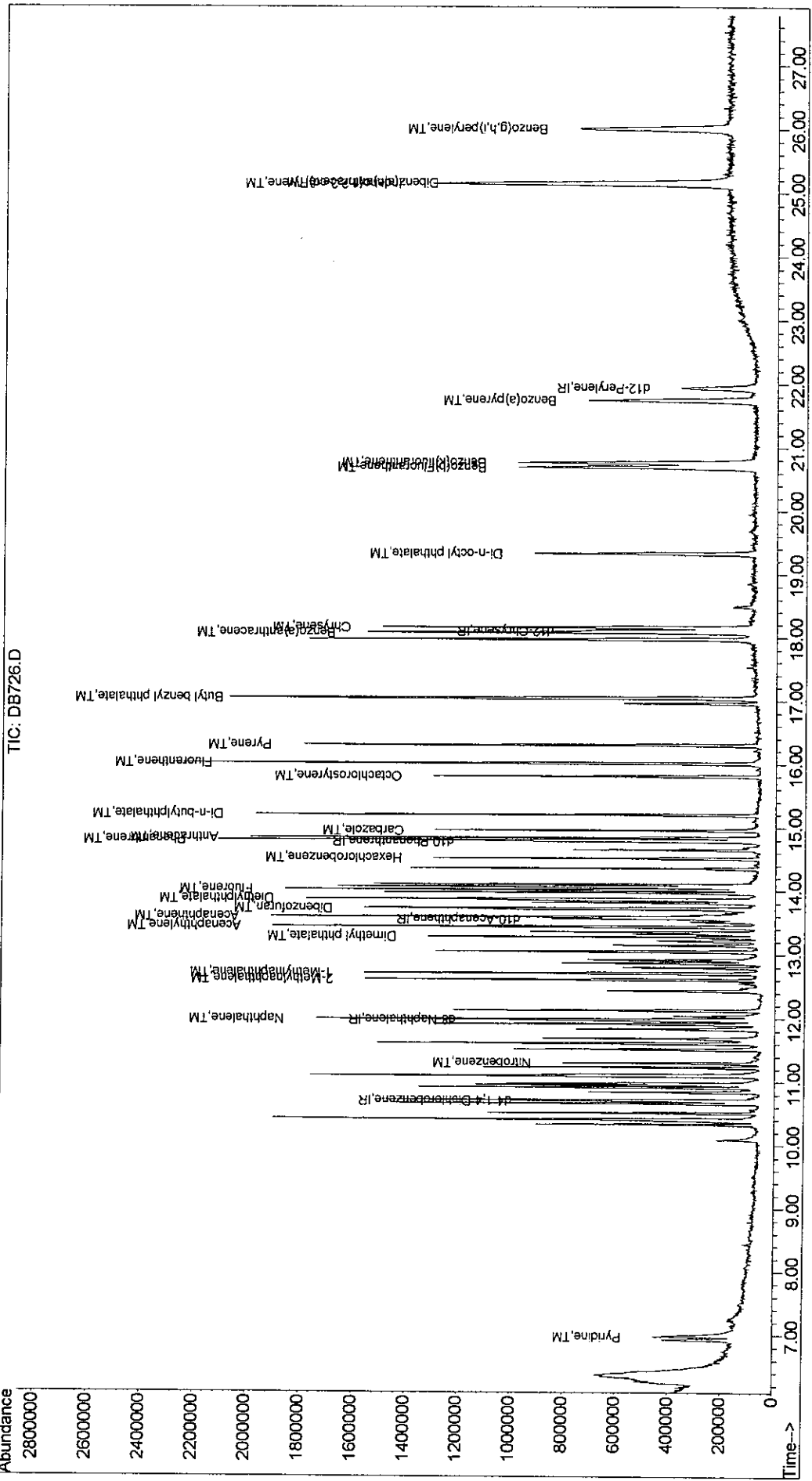
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) Indeno(1,2,3-cd)Pyrene	25.14	276	993766	2.33	ppm	92
39) Dibenz(a,h)anthracene	25.16	278	820910	2.32	ppm	97
40) Benzo(g,h,i)perylene	26.01	276	840702	2.33	ppm	93

(#) = qualifier out of range (m) = manual integration
DB726.D LVI0928.M Tue Sep 29 10:02:30 2009

Quantitation Report

Data File : J:\ACQDATA\5973B\DATA\092809\DB726.D Vial: 12
 Acq On : 28 Sep 2009 11:39 pm Operator: Z.Miao
 Sample : ICV #1 Inst : 5973-B
 Misc : 2.0 PPM STD 8270.LL Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Sep 29 10:02 2009 Quant Results File: LVI0928.RES

Method : J:\ACQDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 Response via : Initial Calibration



00357

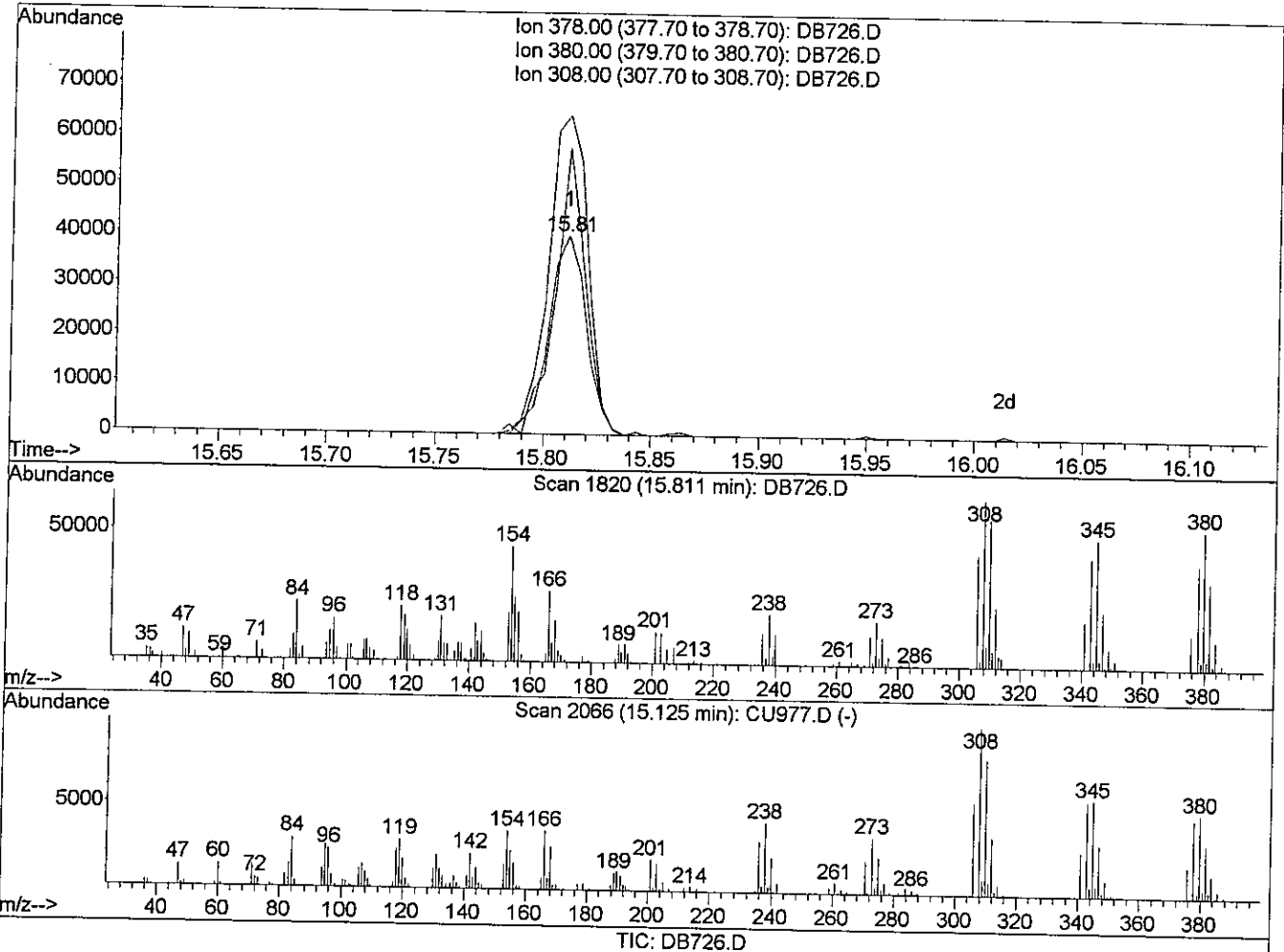
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\092809\DB726.D
 Acq On : 28 Sep 2009 11:39 pm
 Sample : ICV #1
 Misc : 2.0 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Sep 29 9:59 2009

Vial: 12
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 Response via : Multiple Level Calibration



TIC: DB726.D

(23) Octachlorostyrene (TM)

15.81min 1.84ppm

response 48369

Ion	Exp%	Act%
378.00	100	100
380.00	95.60	144.18#
308.00	119.80	159.74#
0.00	0.00	0.00

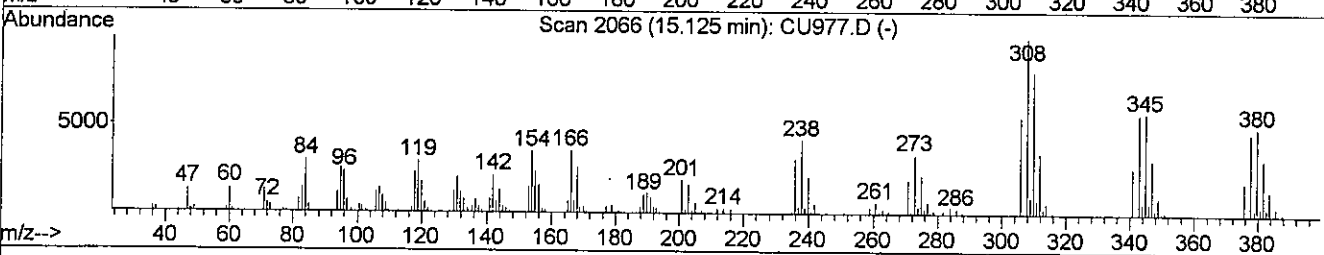
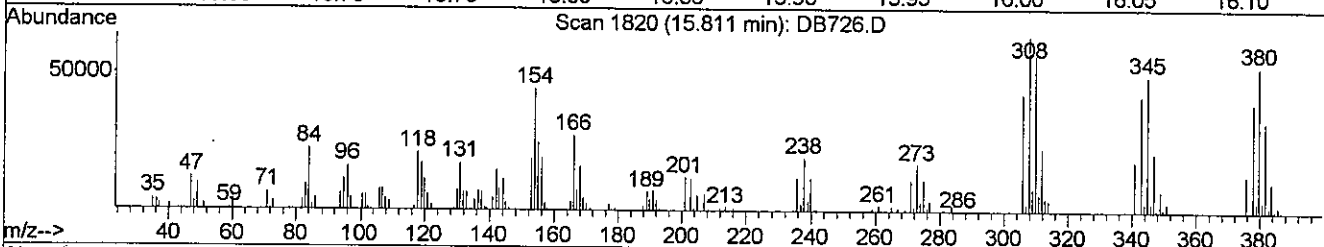
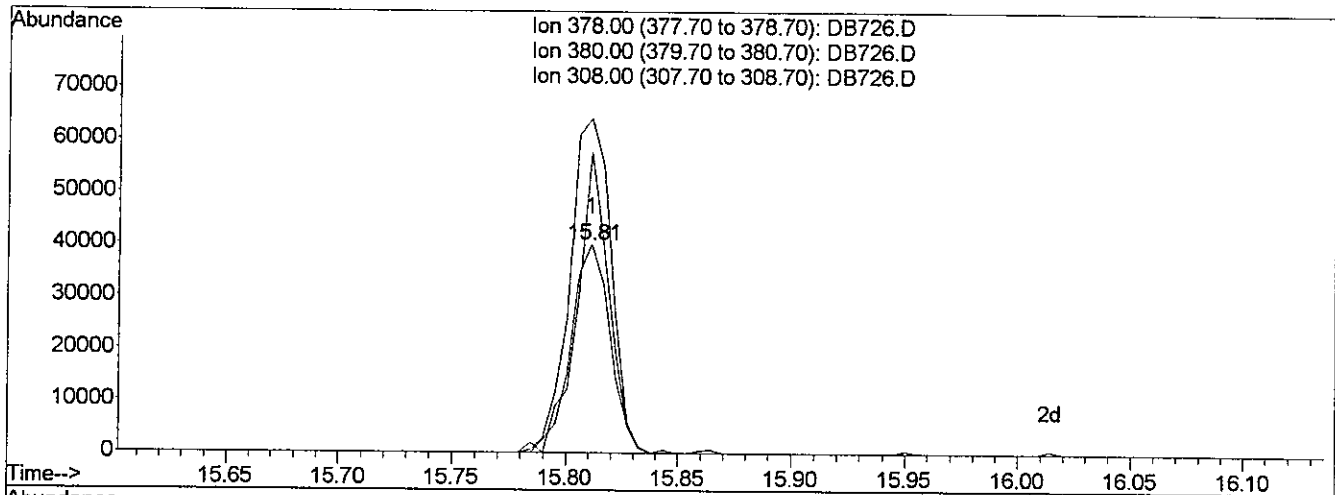
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\092809\DB726.D
 Acq On : 28 Sep 2009 11:39 pm
 Sample : ICV #1
 Misc : 2.0 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Sep 29 10:00 2009

Vial: 12
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 Response via : Multiple Level Calibration



TIC: DB726.D

(23) Octachlorostyrene (TM)

15.81min 1.84ppm

response 48357

Ion	Exp%	Act%
378.00	100	100
380.00	95.60	133.54#
308.00	119.80	160.44#
0.00	0.00	0.00

Handwritten signature: A 9/29/09

Handwritten initials: MW 9/29

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\5973B\DATA\092809\DB727.D
 Acq On : 29 Sep 2009 12:21 am
 Sample : ICV #2
 Misc : 2.0 PPM STD 8270.LL
 MS Integration Params: RTEINT.P

Vial: 13
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00

USE #5, 11+28 only

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 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	101	0.00
2 TM	1,4-Dioxane	0.980	0.475	51.5#	56	0.01
3 TM	Pyridine	1.325	0.000#	100.0#	0#	-6.98#
4 IR	d8-Naphthalene	1.000	1.000	0.0	102	0.00
5 S	SURR4,NITROBENZENE-D5	0.333	0.383	-15.0	112	0.00
6 TM	Nitrobenzene	0.336	0.143	57.4#	40#	0.00
7 TM	Naphthalene	1.049	0.003#	99.7#	0#	0.00
8 TM	2-Methylnaphthalene	0.674	0.001#	99.9#	0#	0.00
9 TM	1-Methylnaphthalene	0.626	0.000#	100.0#	0#	0.00
10 IR	d10-Acenaphthene	1.000	1.000	0.0	105	0.00
11 S	SURR5,2-FLUOROBIPHENYL	1.345	1.462	-8.7	115	0.00
12 TM	Acenaphthylene	1.863	0.001#	99.9#	0#	0.00
13 TM	Dimethyl phthalate	1.471	0.000#	100.0#	0#	0.01
14 TM	Acenaphthene	1.160	0.000#	100.0#	0#	0.00
15 TM	Dibenzofuran	1.546	0.001#	99.9#	0#	0.00
16 TM	Fluorene	1.192	0.000#	100.0#	0#	0.00
17 TM	Diethylphthalate	1.542	0.007#	99.5#	0#	0.00
18 IR	d10-Phenanthrene	1.000	1.000	0.0	97	0.00
19 TM	Hexachlorobenzene	0.239	0.000#	100.0#	0#	0.01
20 TM	Phenanthrene	1.161	0.000#	100.0#	0#	0.00
21 TM	Anthracene	1.085	0.000#	100.0#	0#	-0.04
22 TM	Carbazole	0.720	0.000#	100.0#	0#	-0.13
23 TM	Octachlorostyrene	0.070	0.000#	100.0#	0#	-15.81#
24 TM	Di-n-butylphthalate	1.535	0.000#	100.0#	0#	-15.20#
25 TM	Fluoranthene	1.302	0.000#	100.0#	0#	0.03
26 IR	d12-Chrysene	1.000	1.000	0.0	88	0.00
27 TM	Pyrene	1.258	0.001#	99.9#	0#	0.00
28 S	SURR6, TERPHENYL-D14	0.792	0.954	-20.5#	102	0.00
29 TM	Butyl benzyl phthalate	0.677	0.002#	99.7#	0#	-0.01
30 TM	bis(2-Ethylhexyl)phthalate	0.840	0.457	45.6#	43#	0.00
31 TM	Benzo(a)anthracene	1.080	0.001#	99.9#	0#	0.00
32 TM	Chrysene	1.094	0.000#	100.0#	0#	0.00
33 IR	d12-Perylene	1.000	1.000	0.0	85	0.00
34 TM	Di-n-octyl phthalate	1.860	0.001#	99.9#	0#	0.00
35 TM	Benzo(b)Fluoranthene	1.447	0.000#	100.0#	0#	-0.11
36 TM	Benzo(k)fluoranthene	1.434	0.000#	100.0#	0#	0.04

(#) = Out of Range

Z

Evaluate Continuing Calibration Report

Data File : J:\ACQUADATA\5973B\DATA\092809\DB727.D
 Acq On : 29 Sep 2009 12:21 am
 Sample : ICV #2
 Misc : 2.0 PPM STD 8270.LL
 MS Integration Params: RTEINT.P

Vial: 13
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00

Method : J:\ACQUADATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 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 TM Benzo(a)pyrene	1.274	0.000#	100.0#	0#	-0.02
38 TM Indeno(1,2,3-cd)Pyrene	1.509	0.001#	99.9#	0#	0.03
39 TM Dibenz(a,h)anthracene	1.250	0.000#	100.0#	0#	0.02
40 TM Benzo(g,h,i)perylene	1.278	0.001#	99.9#	0#	0.10

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\5973B\DATA\092809\DB727.D
 Acq On : 29 Sep 2009 12:21 am
 Sample : ICV #2
 Misc : 2.0 PPM STD 8270.LL
 MS Integration Params: RTEINT.P

Vial: 13
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00

Use # 2, 30 only

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 Response via : Multiple Level Calibration

LR: #2

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	95	0.00
2 TM	1,4-Dioxane	0.980	0.951	3.0	103	0.01
3 TM	Pyridine	1.325	0.000#	100.0#	0#	-6.98#
4 IR	d8-Naphthalene	1.000	1.000	0.0	87	0.00
5 S	SURR4,NITROBENZENE-D5	0.333	0.766	-130.0#	220#	0.00
6 TM	Nitrobenzene	0.336	0.286	14.9	74	0.00
7 TM	Naphthalene	1.049	0.005#	99.5#	0#	0.00
8 TM	2-Methylnaphthalene	0.674	0.002#	99.7#	0#	0.00
9 TM	1-Methylnaphthalene	0.626	0.001#	99.8#	0#	0.00
10 IR	d10-Acenaphthene	1.000	1.000	0.0	97	0.00
11 S	SURR5,2-FLUOROBIPHENYL	1.345	2.925	-117.5#	216#	0.00
12 TM	Acenaphthylene	1.863	0.002#	99.9#	0#	0.00
13 TM	Dimethyl phthalate	1.471	0.001#	99.9#	0#	0.01
14 TM	Acenaphthene	1.160	0.001#	99.9#	0#	0.00
15 TM	Dibenzofuran	1.546	0.003#	99.8#	0#	0.00
16 TM	Fluorene	1.192	0.001#	99.9#	0#	0.00
17 TM	Diethylphthalate	1.542	0.014#	99.1#	1#	0.00
18 IR	d10-Phenanthrene	1.000	1.000	0.0	90	0.00
19 TM	Hexachlorobenzene	0.239	0.001#	99.6#	0#	0.01
20 TM	Phenanthrene	1.161	0.001#	99.9#	0#	0.00
21 TM	Anthracene	1.085	0.001#	99.9#	0#	-0.04
22 TM	Carbazole	0.720	0.001#	99.9#	0#	-0.13
23 TM	Octachlorostyrene	0.070	0.000#	100.0#	0#	-15.81#
24 TM	Di-n-butylphthalate	1.535	0.000#	100.0#	0#	-15.20#
25 TM	Fluoranthene	1.302	0.001#	99.9#	0#	0.03
26 IR	d12-Chrysene	1.000	1.000	0.0	84	0.00
27 TM	Pyrene	1.258	0.001#	99.9#	0#	0.00
28 S	SURR6,TERPHENYL-D14	0.792	1.908	-140.9#	206#	0.00
29 TM	Butyl benzyl phthalate	0.677	0.004#	99.4#	1#	-0.01
30 TM	bis(2-Ethylhexyl)phthalate	0.840	0.914	-8.8	90	0.00
31 TM	Benzo(a)anthracene	1.080	0.001#	99.9#	0#	0.00
32 TM	Chrysene	1.094	0.001#	99.9#	0#	0.00
33 IR	d12-Perylene	1.000	1.000	0.0	80	0.00
34 TM	Di-n-octyl phthalate	1.860	0.003#	99.8#	0#	0.00
35 TM	Benzo(b)Fluoranthene	1.447	0.001#	99.9#	0#	-0.11
36 TM	Benzo(k)fluoranthene	1.434	0.001#	99.9#	0#	0.04

(#) = Out of Range

DB727.D LVI0928.M

Tue Sep 29 10:04:05 2009

W

Page 1

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Evaluate Continuing Calibration Report

Data File : J:\ACQUADATA\5973B\DATA\092809\DB727.D
 Acq On : 29 Sep 2009 12:21 am
 Sample : ICV #2
 Misc : 2.0 PPM STD 8270.LL
 MS Integration Params: RTEINT.P

Vial: 13
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00

Method : J:\ACQUADATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 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 TM	Benzo(a)pyrene	1.274	0.001#	99.9#	0#	-0.02
38 TM	Indeno(1,2,3-cd)Pyrene	1.509	0.001#	99.9#	0#	0.03
39 TM	Dibenz(a,h)anthracene	1.250	0.001#	99.9#	0#	0.02
40 TM	Benzo(g,h,i)perylene	1.278	0.002#	99.8#	0#	0.10

Evaluate Continuing Calibration Report

Data File : J:\ACQUATA\5973B\DATA\092809\DB727.D
 Acq On : 29 Sep 2009 12:21 am
 Sample : ICV #2
 Misc : 2.0 PPM STD 8270.LL
 MS Integration Params: RTEINT.P

Vial: 13
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00

UK: #2

Method : J:\ACQUATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 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	95	0.00
2 TM	1,4-Dioxane	2.000	2.010	-0.5	103	0.01
3 TM	Pyridine	1.000	0.000	100.0#	0	-6.98#
4 IR	d8-Naphthalene	1.000	1.000	0.0	87	0.00
5 S	SURR4,NITROBENZENE-D5	1.000	2.301	-130.1#	220	0.00
6 TM	Nitrobenzene	1.000	0.851	14.9	74	0.00
7 TM	Naphthalene	1.000	0.005	99.5#	0	0.00
8 TM	2-Methylnaphthalene	1.000	0.004	99.6#	0	0.00
9 TM	1-Methylnaphthalene	1.000	0.001	99.9#	0	0.00
10 IR	d10-Acenaphthene	1.000	1.000	0.0	97	0.00
11 S	SURR5,2-FLUOROBIPHENYL	1.000	2.175	-117.5#	216	0.00
12 TM	Acenaphthylene	1.000	0.001	99.9#	0	0.00
13 TM	Dimethyl phthalate	1.000	0.001	99.9#	0	0.01
14 TM	Acenaphthene	1.000	0.001	99.9#	0	0.00
15 TM	Dibenzofuran	1.000	0.002	99.8#	0	0.00
16 TM	Fluorene	1.000	0.001	99.9#	0	0.00
17 TM	Diethylphthalate	1.000	0.009	99.1#	1	0.00
18 IR	d10-Phenanthrene	1.000	1.000	0.0	90	0.00
19 TM	Hexachlorobenzene	1.000	0.003	99.7#	0	0.01
20 TM	Phenanthrene	1.000	0.000	100.0#	0	0.00
21 TM	Anthracene	1.000	0.000	100.0#	0	-0.04
22 TM	Carbazole	1.000	0.001	99.9#	0	-0.13
23 TM	Octachlorostyrene	1.000	0.000	100.0#	0	-15.81#
24 TM	Di-n-butylphthalate	1.000	0.000	100.0#	0	-15.20#
25 TM	Fluoranthene	1.000	0.001	99.9#	0	0.03
26 IR	d12-Chrysene	1.000	1.000	0.0	84	0.00
27 TM	Pyrene	1.000	0.001	99.9#	0	0.00
28 S	SURR6,TERPHENYL-D14	1.000	2.407	-140.7#	206	0.00
29 TM	Butyl benzyl phthalate	1.000	0.007	99.3#	1	-0.01
30 TM	bis(2-Ethylhexyl)phthalate	2.000	2.177	-8.9	90	0.00
31 TM	Benzo(a)anthracene	1.000	0.001	99.9#	0	0.00
32 TM	Chrysene	1.000	0.000	100.0#	0	0.00
33 IR	d12-Perylene	1.000	1.000	0.0	80	0.00
34 TM	Di-n-octyl phthalate	1.000	0.001	99.9#	0	0.00
35 TM	Benzo(b)Fluoranthene	1.000	0.001	99.9#	0	-0.11
36 TM	Benzo(k)fluoranthene	1.000	0.001	99.9#	0	0.04

(#) = Out of Range

Z

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\5973B\DATA\092809\DB727.D Vial: 13
 Acq On : 29 Sep 2009 12:21 am Operator: Z.Miao
 Sample : ICV #2 Inst : 5973-B
 Misc : 2.0 PPM STD 8270.LL Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 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 TM	Benzo(a)pyrene	1.000	0.001	99.9#	0	-0.02
38 TM	Indeno(1,2,3-cd)Pyrene	1.000	0.001	99.9#	0	0.03
39 TM	Dibenz(a,h)anthracene	1.000	0.001	99.9#	0	0.02
40 TM	Benzo(g,h,i)perylene	1.000	0.001	99.9#	0	0.10

Data File : J:\ACQUDATA\5973B\DATA\092809\DB727.D Vial: 13
 Acq On : 29 Sep 2009 12:21 am Operator: Z.Miao
 Sample : ICV #2 Inst : 5973-B
 Misc : 2.0 PPM STD 8270.LL Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Sep 29 10:03 2009

Quant Results File: LVI0928.RES

Quant Method : J:\ACQUDATA\5...\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI0928

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	10.70	152	116683	1.00	ppm	0.00
4) d8-Naphthalene	11.96	136	449342	1.00	ppm	0.00
10) d10-Acenaphthene	13.57	164	237608	1.00	ppm	0.00
18) d10-Phenanthrene	14.79	188	333934	1.00	ppm	0.00
26) d12-Chrysene	18.11	240	338823	1.00	ppm	0.00
33) d12-Perylene	21.94	264	249590	1.00	ppm	0.00

System Monitoring Compounds

5) SURR4, NITROBENZENE-D5	11.28	82	344138	2.30	ppm	0.00
Spiked Amount 2.000	Range 22 - 124		Recovery	=	115.00%	
11) SURR5, 2-FLUOROBIPHENYL	12.93	172	694948	2.18	ppm	0.00
Spiked Amount 2.000	Range 27 - 114		Recovery	=	109.00%	
28) SURR6, TERPHENYL-D14	16.40	244	646319	2.41	ppm	0.00
Spiked Amount 2.000	Range 23 - 139		Recovery	=	120.50%	

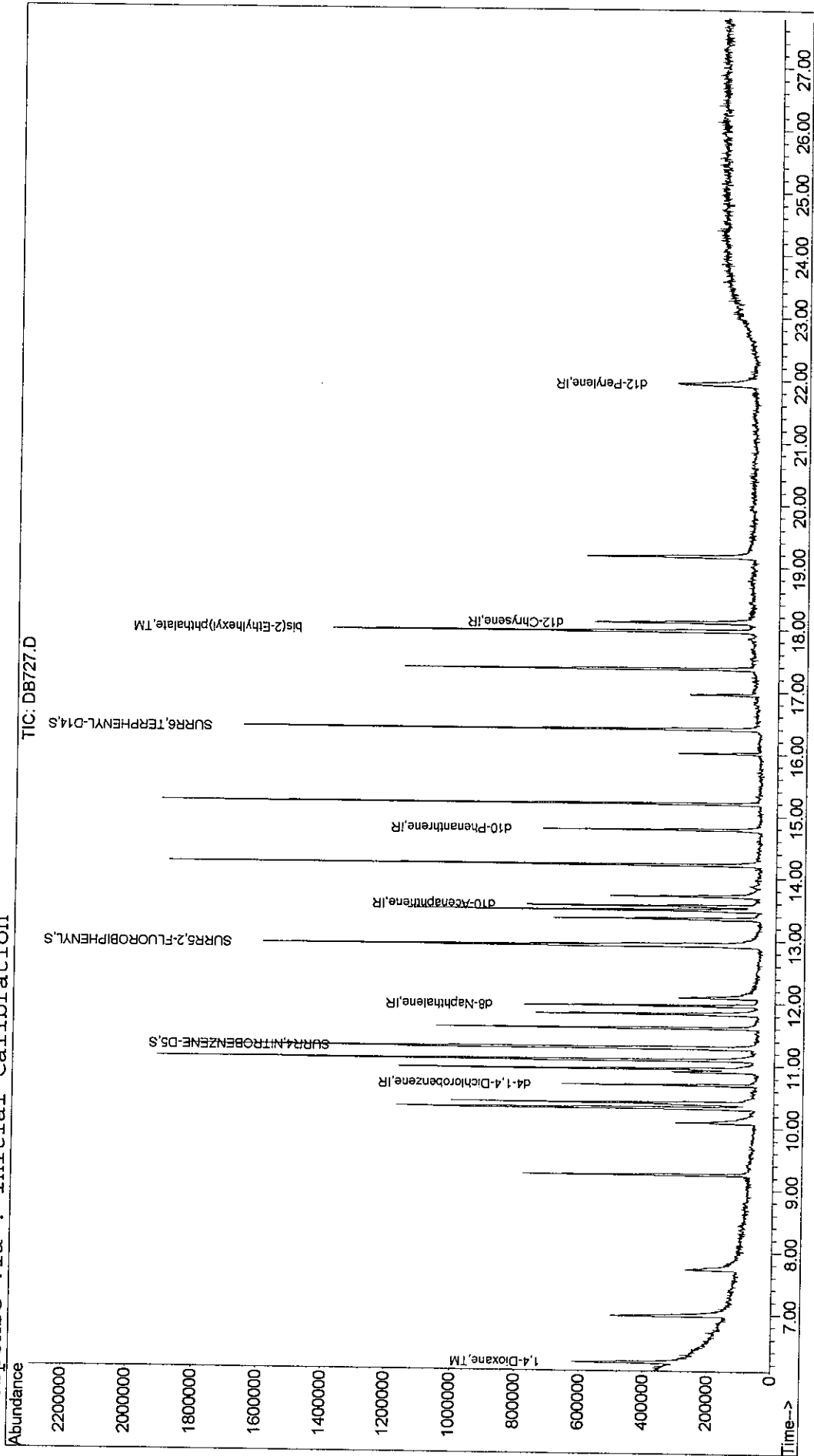
Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	6.23	88	221832	2.01	ppm	100
30) bis(2-Ethylhexyl)phthalate	17.97	149	619281	2.18	ppm	97

Quantitation Report

Data File : J:\ACQDATA\5973B\DATA\092809\DB727.D
Acq On : 29 Sep 2009 12:21 am Vial: 13
Sample : ICV #2 Operator: Z.Miao
Misc : 2.0 PPM STD 8270.LL Inst : 5973-B
MS Integration Params: RTEINT.P Multiplr: 1.00
Quant Time: Sep 29 10:03 2009 Quant Results File: LVI0928.RES

Method : J:\ACQDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Sep 29 09:53:23 2009
Response via : Initial Calibration



00367

Response Factor Report 5973C

Method : J:\ACQUADATA\5973C\METHODS\LVII1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:26:08 2009
 Response via : Initial Calibration

#34 LR

Calibration Files

0.1 =AV559.D 0.2 =AV560.D 0.5 =AV561.D
 1.0 =AV562.D 2.0 =AV563.D 3.0 =AV564.D 4.0=AV565, 5.0=AV566
 10.0=AV567

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	2.470	2.151	2.106	1.833	1.758	2.169	2.059	10.06
3) Pyridine			2.129	2.323	2.291	2.616	2.458	8.99
4) IR d8-Naphthalene	-----ISTD-----							
5) S SURR4,NITROBENZ	0.466	0.453	0.515	0.498	0.524	0.544	0.512	6.49
6) T Nitrobenzene		0.523	0.499	0.552	0.572	0.567	0.547	4.49
7) T Naphthalene	0.886	0.967	1.067	1.113	1.104	1.104	1.075	8.48
8) T 2-Methylnaphtha	0.761	0.629	0.705	0.716	0.728	0.747	0.739	7.55
9) T 1-Methylnaphtha	0.602	0.643	0.643	0.713	0.732	0.745	0.704	8.76
10) IR d10-Acenaphthene	-----ISTD-----							
11) S SURR5,2-FLUOROB	1.127	1.321	1.394	1.312	1.379	1.434	1.403	10.37
12) T Acenaphthylene	1.648	1.642	1.821	1.718	1.847	1.971	1.870	9.52
13) Dimethyl phthal		1.177	1.236	1.237	1.391	1.469	1.429	14.17
14) T Acenaphthene	1.015	1.089	1.124	1.048	1.158	1.210	1.166	9.37
15) T Dibenzofuran	1.396	1.448	1.463	1.428	1.454	1.479	1.490	5.27
16) T Fluorene	0.887	1.034	1.144	1.043	1.128	1.177	1.132	11.44
17) Diethylphthalat		1.139	1.160	1.009	1.090	1.200	1.205	12.02
18) IR d10-Phenanthrene	-----ISTD-----							
19) T Hexachlorobenze		0.259	0.254	0.245	0.279	0.264	0.267	5.16
20) T Phenanthrene	1.024	1.030	1.133	1.096	1.158	1.216	1.153	7.73
21) T Anthracene	0.944	1.069	1.041	1.258	1.164	1.204	1.146	9.13
22) T Carbazole	0.769	0.882	0.978	0.981	0.943	0.807	0.853	15.65 W.T.
23) Octachlorostyre		0.055	0.046	0.049	0.048	0.050	0.053	10.63
24) Di-n-butylphtha		1.713	1.707	1.627	1.460	1.397	1.499	10.60
25) T Fluoranthene	1.248	1.242	1.318	1.281	1.253	1.276	1.269	1.96
26) IR d12-Chrysene	-----ISTD-----							
27) T Pyrene	0.806	0.919	0.975	0.966	0.991	1.045	1.002	11.04
28) S SURR6,TERPHENYL	0.657	0.596	0.658	0.629	0.702	0.694	0.678	7.49
29) Butyl benzyl ph				0.646	0.720	0.733	0.710	4.65
30) T bis(2-Ethylhexy			0.786	0.831	0.986	1.082	1.002	13.97
31) T Benzo(a)anthrac	0.913	1.022	1.050	1.092	1.158	1.177	1.111	9.11
32) T Chrysene	1.169	1.060	1.074	1.083	1.132	1.141	1.129	4.30
33) IR d12-Perylene	-----ISTD-----							
34) Di-n-octyl phth				1.405	1.678	1.923	1.881	15.48 L.R
35) T Benzo(b)Fluoran		1.179	1.281	1.361	1.409	1.374	1.364	6.93
36) T Benzo(k)fluoran		1.246	1.385	1.309	1.365	1.382	1.380	5.65
37) T Benzo(a)pyrene		1.144	1.180	1.249	1.295	1.327	1.301	8.18
38) T Indeno(1,2,3-cd		1.209	1.206	1.308	1.417	1.445	1.397	10.09

Response Factor Report 5973C

Method : J:\ACQUDATA\5973C\METHODS\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:26:08 2009
 Response via : Initial Calibration

Calibration Files

0.1 =AV559.D 0.2 =AV560.D 0.5 =AV561.D
 1.0 =AV562.D 2.0 =AV563.D 3.0 =AV564.D

Compound	0.1	0.2	0.5	1.0	2.0	3.0	Avg	%RSD
39) T Dibenz(a,h)anth		1.129	0.940	1.036	1.192	1.203	1.182	12.30
40) T Benzo(g,h,i)per		1.071	1.095	1.145	1.205	1.231	1.170	5.44

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\5973C\DATA\101309\AV563.D
 Acq On : 13 Oct 2009 8:18 pm
 Sample : INITIAL CALIBRATION
 Misc : 2.0/4.0 PPM STD 8270.LL
 MS Integration Params: RTEINT.P

Vial: 7
 Operator: J.Wu
 Inst : 5973C
 Multiplr: 1.00

Method : J:\ACQUDATA\5973C\METHODS\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:26:08 2009
 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	2.059	1.758	14.6	100	0.00
3	Pyridine	2.458	2.291	6.8	100	0.00
4	IR d8-Naphthalene	1.000	1.000	0.0	100	0.00
5	S SURR4,NITROBENZENE-D5	0.512	0.524	-2.3	100	0.00
6	T Nitrobenzene	0.547	0.572	-4.6	100	0.00
7	T Naphthalene	1.075	1.104	-2.7	100	0.00
8	T 2-Methylnaphthalene	0.739	0.728	1.5	100	0.00
9	T 1-Methylnaphthalene	0.704	0.732	-4.0	100	0.00
10	IR d10-Acenaphthene	1.000	1.000	0.0	100	0.00
11	S SURR5,2-FLUOROBIPHENYL	1.403	1.379	1.7	100	0.00
12	T Acenaphthylene	1.870	1.847	1.2	100	0.00
13	Dimethyl phthalate	1.429	1.391	2.7	100	0.00
14	T Acenaphthene	1.166	1.158	0.7	100	0.00
15	T Dibenzofuran	1.490	1.454	2.4	100	0.00
16	T Fluorene	1.132	1.128	0.4	100	0.00
17	Diethylphthalate	1.205	1.090	9.5	100	0.00
18	IR d10-Phenanthrene	1.000	1.000	0.0	100	0.00
19	T Hexachlorobenzene	0.267	0.279	-4.5	100	0.00
20	T Phenanthrene	1.153	1.158	-0.4	100	0.00
21	T Anthracene	1.146	1.164	-1.6	100	0.00
22	T Carbazole	0.853	0.943	-10.6	100	0.00
23	Octachlorostyrene	0.053	0.048#	9.4	100	0.00
24	Di-n-butylphthalate	1.499	1.460	2.6	100	0.00
25	T Fluoranthene	1.269	1.253	1.3	100	0.00
26	IR d12-Chrysene	1.000	1.000	0.0	100	0.00
27	T Pyrene	1.002	0.991	1.1	100	0.00
28	S SURR6,TERPHENYL-D14	0.678	0.702	-3.5	100	0.00
29	Butyl benzyl phthalate	0.710	0.720	-1.4	100	0.00
30	T bis(2-Ethylhexyl)phthalate	1.002	0.986	1.6	100	0.00
31	T Benzo(a)anthracene	1.111	1.158	-4.2	100	0.00
32	T Chrysene	1.129	1.132	-0.3	100	0.00
33	IR d12-Perylene	1.000	1.000	0.0	100	0.00
34	Di-n-octyl phthalate	1.881	1.678	10.8	100	0.00
35	T Benzo(b)Fluoranthene	1.364	1.409	-3.3	100	0.00
36	T Benzo(k)fluoranthene	1.380	1.365	1.1	100	0.00

(#) = Out of Range
 AV563.D LVI1013.M

Wed Oct 14 09:34:16 2009

JW

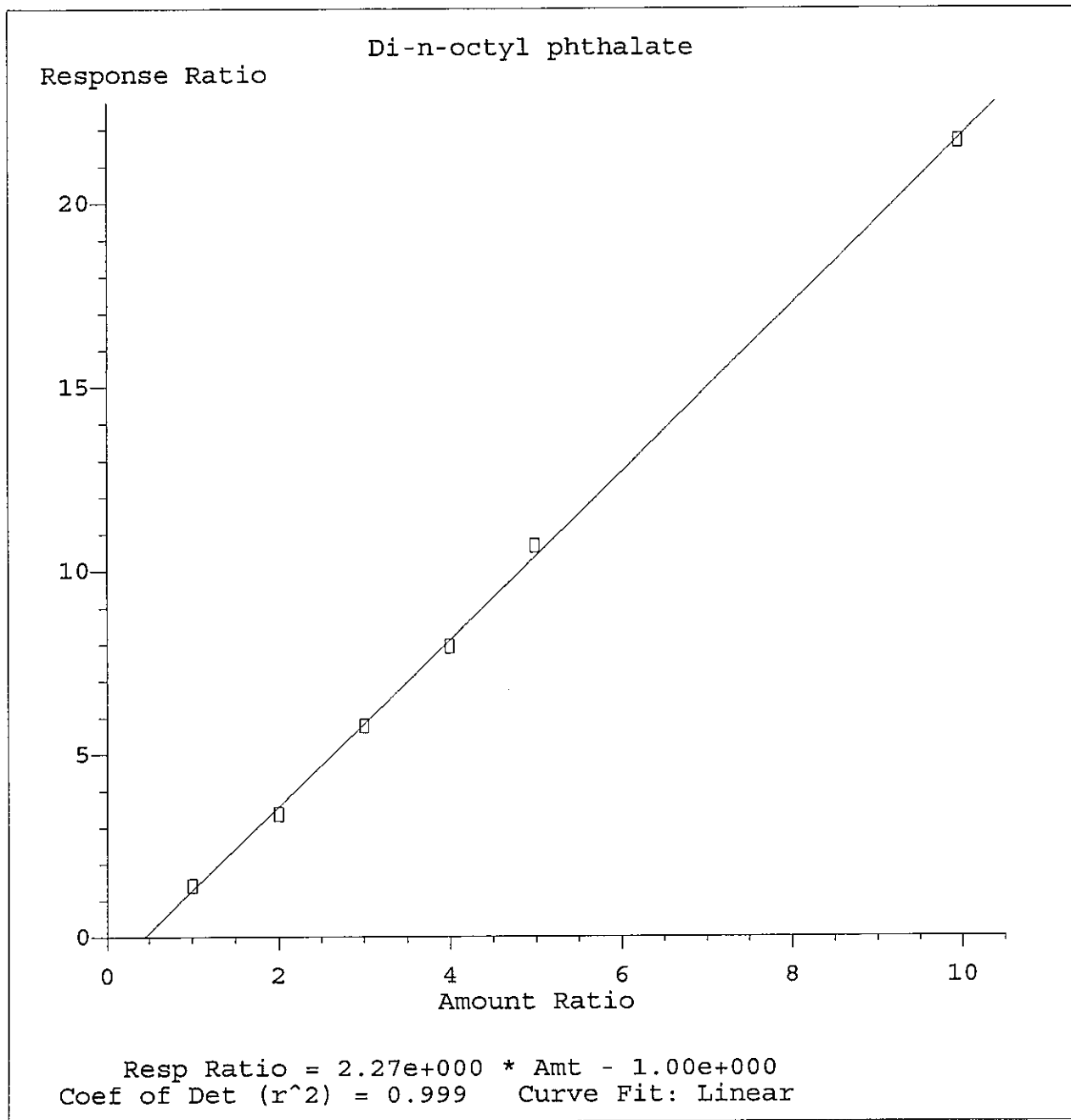
Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\5973C\DATA\101309\AV563.D Vial: 7
 Acq On : 13 Oct 2009 8:18 pm Operator: J.Wu
 Sample : INITIAL CALIBRATION Inst : 5973C
 Misc : 2.0/4.0 PPM STD 8270.LL Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : J:\ACQUDATA\5973C\METHODS\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:26:08 2009
 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	1.301	1.295	0.5	100	0.00
38 T	Indeno(1,2,3-cd)Pyrene	1.397	1.417	-1.4	100	0.00
39 T	Dibenz(a,h)anthracene	1.182	1.192	-0.8	100	0.00
40 T	Benzo(g,h,i)perylene	1.170	1.205	-3.0	100	0.00



Method Name: J:\ACQUDATA\5973C\METHODS\LVI1013.M
Calibration Table Last Updated: Wed Oct 14 09:26:08 2009

Quantitation Report (QT Reviewed)

Data File : J:\ACQUDATA\5973C\DATA\101309\AV559.D Vial: 3
 Acq On : 13 Oct 2009 5:47 pm Operator: J.Wu
 Sample : INITIAL CALIBRATION Inst : 5973C
 Misc : 0.1/0.2 PPM STD 8270.LL Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 09:10:08 2009 Quant Results File: LVI1013.RES

Quant Method : J:\ACQUDATA\5...\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:10:02 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI1013

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	11.17	152	51906	1.00	ppm	0.00
4) d8-Naphthalene	12.43	136	183202	1.00	ppm	0.00
10) d10-Acenaphthene	14.00	164	111518	1.00	ppm	0.00
18) d10-Phenanthrene	15.21	188	151443	1.00	ppm	0.00
26) d12-Chrysene	18.79	240	214588	1.00	ppm	0.00
33) d12-Perylene	22.96	264	173483	1.00	ppm	0.01

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
5) SURR4,NITROBENZENE-D5	11.75	82	8538	0.09	ppm	0.00
Spiked Amount	2.000	Range 22 - 124	Recovery	=	4.50%#	
11) SURR5,2-FLUOROBIPHENYL	13.38	172	12568	0.08	ppm	0.01
Spiked Amount	2.000	Range 27 - 114	Recovery	=	4.00%#	
28) SURR6,TERPHENYL-D14	16.92	244	14089	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	6.94	88	25645m _g	0.29	ppm	
6) Nitrobenzene	11.77	77	7339	0.07	ppm	86
7) Naphthalene	12.44	128	16231	0.08	ppm	85
8) 2-Methylnaphthalene	13.06	142	13947	0.11	ppm	93
9) 1-Methylnaphthalene	13.17	142	11032	0.09	ppm	97
12) Acenaphthylene	13.88	152	18379	0.09	ppm	94
14) Acenaphthene	14.02	153	11315	0.09	ppm	90
15) Dibenzofuran	14.15	168	15563	0.09	ppm	97
16) Fluorene	14.41	166	9888m _g	0.08	ppm	
20) Phenanthrene	15.24	178	15501	0.09	ppm	84
21) Anthracene	15.28	178	14293	0.08	ppm	87
22) Carbazole	15.42	167	11649	0.08	ppm	92
25) Fluoranthene	16.53	202	18895	0.10	ppm	74
27) Pyrene	16.83	202	17306	0.08	ppm	86
29) Butyl benzyl phthalate	17.60	149	19482	0.12	ppm	80
31) Benzo(a)anthracene	18.76	228	19587	0.08	ppm	88
32) Chrysene	18.84	228	25082	0.11	ppm	87
35) Benzo(b)Fluoranthene	21.67	252	23257	0.10	ppm	93
36) Benzo(k)fluoranthene	21.77	252	20162	0.09	ppm	84
37) Benzo(a)pyrene	22.81	252	19834	0.09	ppm	89

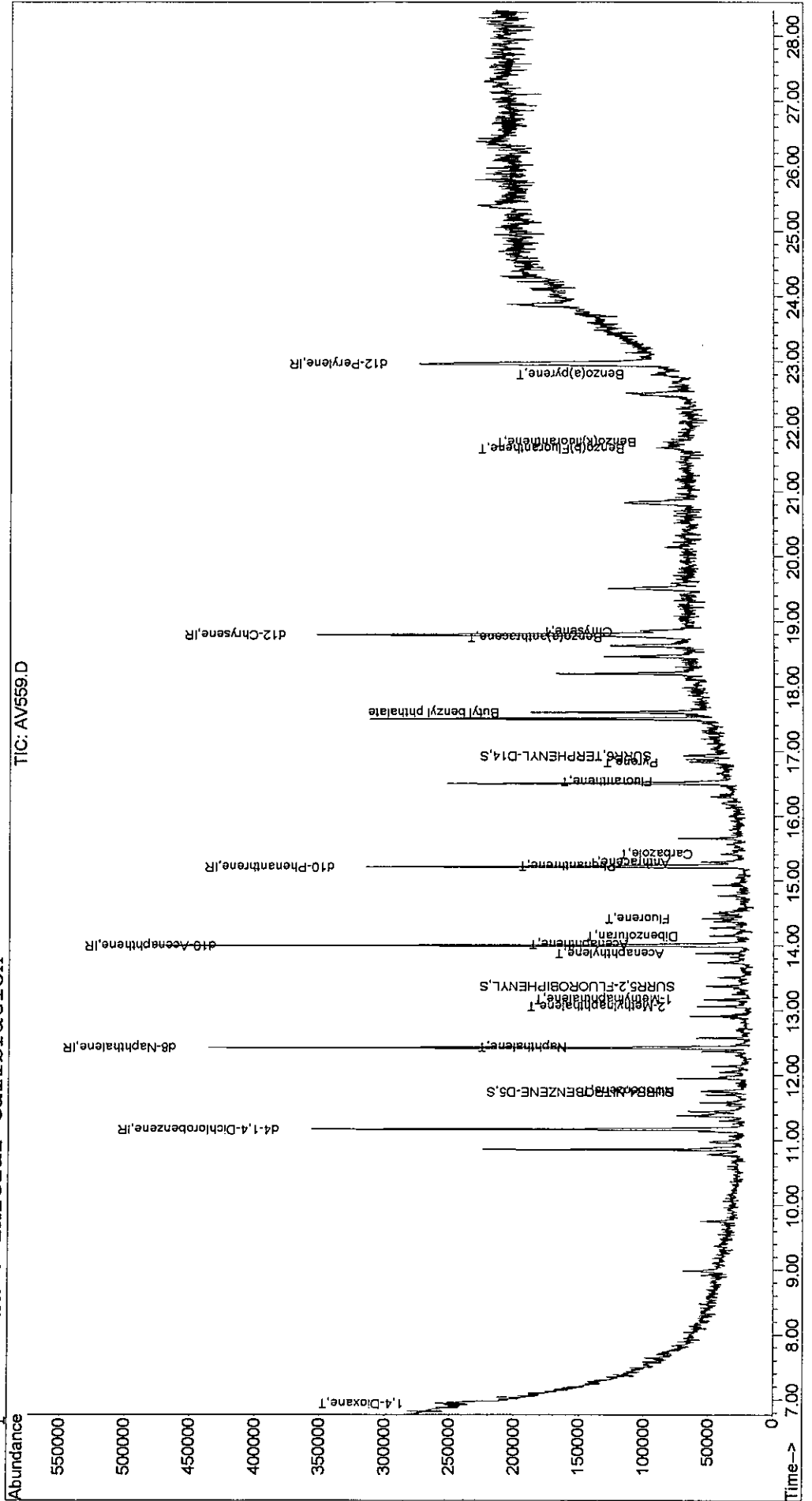
 (#) = qualifier out of range (m) = manual integration (+) = signals summed
 AV559.D LVI1013.M Wed Oct 14 09:47:30 2009 Page 1

JW
00373

Quantitation Report (QT Reviewed)

Data File : J:\ACQDATA\5973C\DATA\101309\AV559.D Vial: 3
 Acq On : 13 Oct 2009 5:47 pm Operator: J.Wu
 Sample : INITIAL CALIBRATION Inst : 5973C
 Misc : 0.1/0.2 PPM STD 8270.LL Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 9:12 2009 Quant Results File: LVII1013.RES

Method : J:\ACQDATA\5973C\METHODS\LVII1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:26:08 2009
 Response via : Initial Calibration



00374

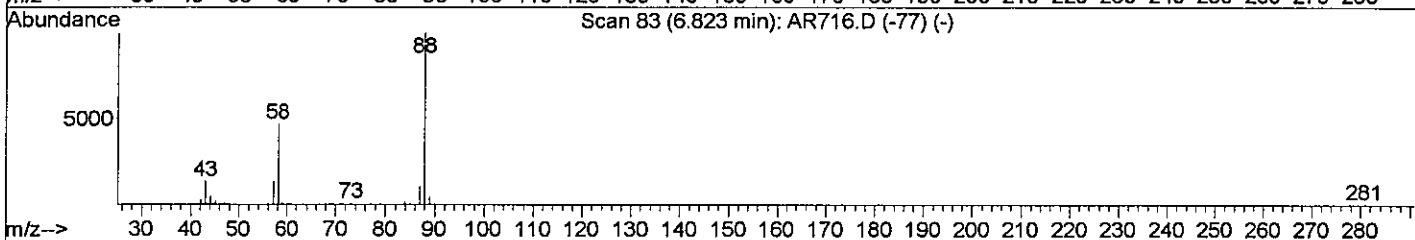
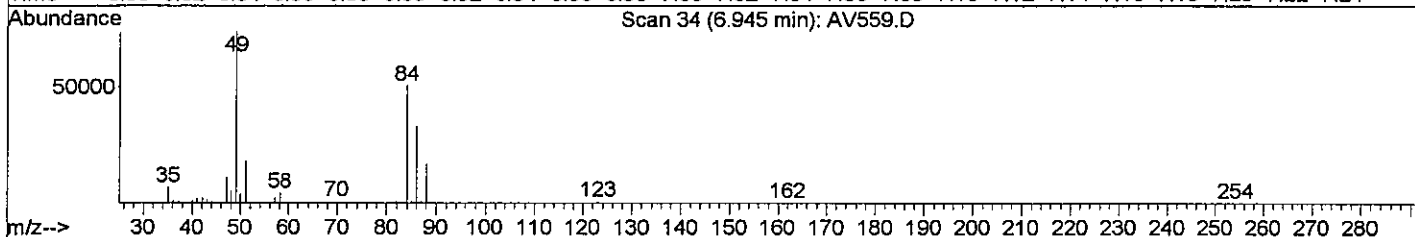
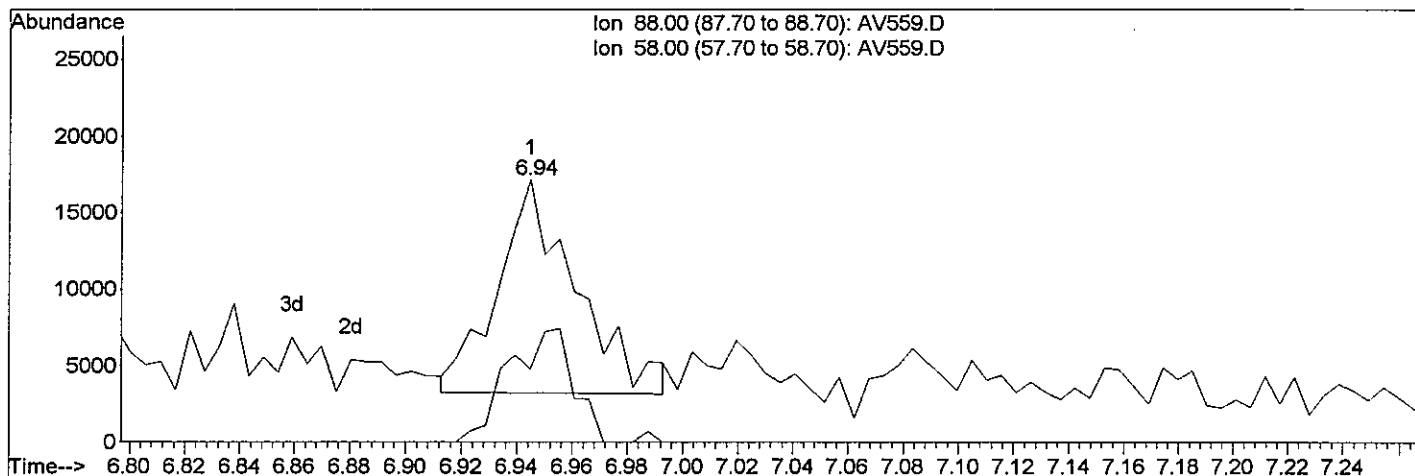
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973C\DATA\101309\AV559.D
 Acq On : 13 Oct 2009 5:47 pm
 Sample : INITIAL CALIBRATION
 Misc : 0.1/0.2 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 9:10 2009

Vial: 3
 Operator: J.Wu
 Inst : 5973C
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973C\METHODS\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:10:02 2009
 Response via : Multiple Level Calibration



TIC: AV559.D

(2) 1,4-Dioxane (T)

6.94min 0.31ppm

response 27390

Ion	Exp%	Act%
88.00	100	100
58.00	73.10	38.67#
0.00	0.00	0.00
0.00	0.00	0.00

b

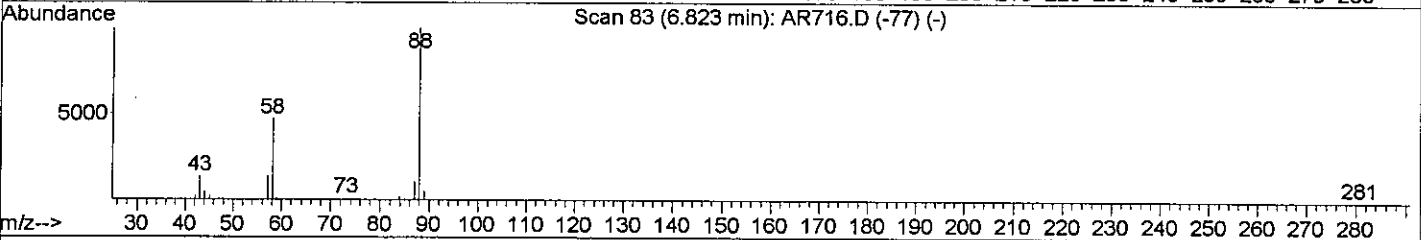
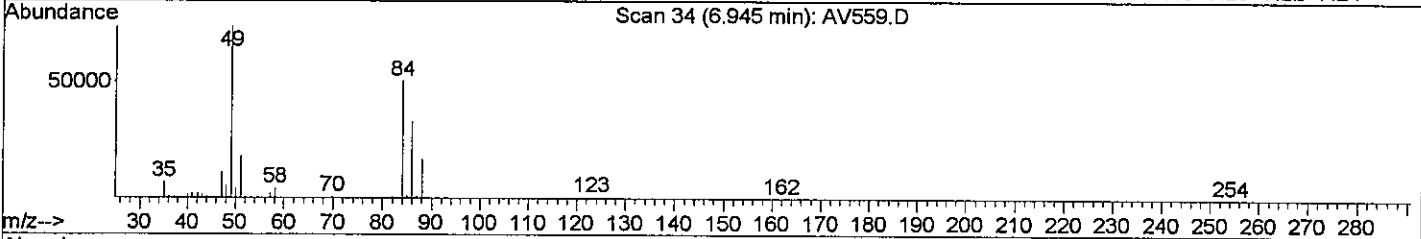
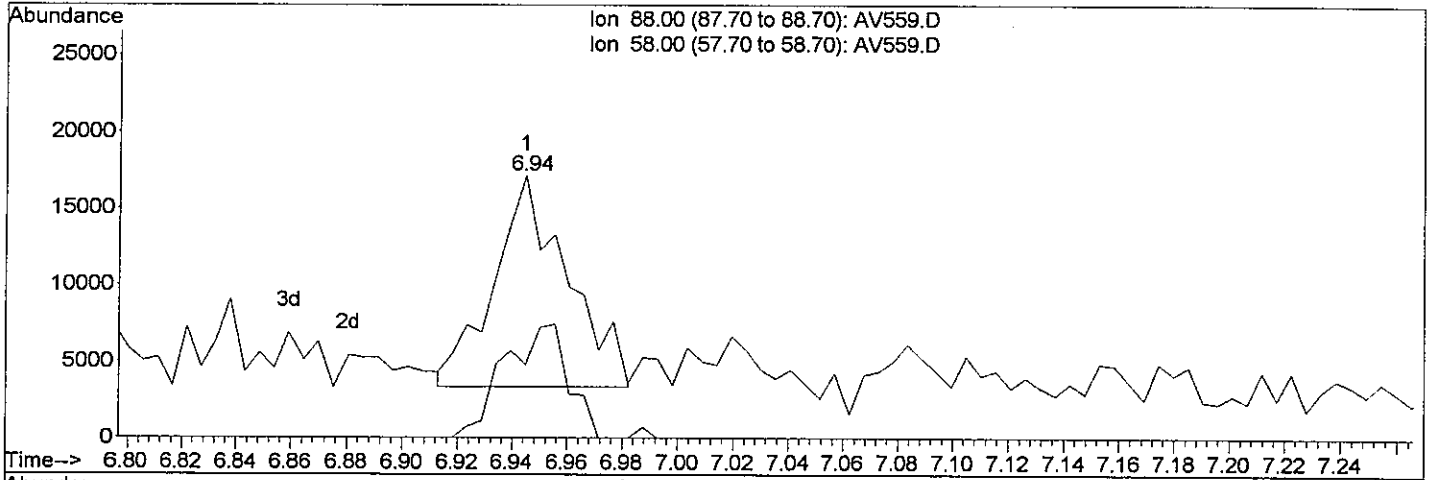
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973C\DATA\101309\AV559.D
 Acq On : 13 Oct 2009 5:47 pm
 Sample : INITIAL CALIBRATION
 Misc : 0.1/0.2 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 9:10 2009

Vial: 3
 Operator: J.Wu
 Inst : 5973C
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973C\METHODS\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:10:02 2009
 Response via : Multiple Level Calibration



TIC: AV559.D

(2) 1,4-Dioxane (T)		
6.94min	0.29ppm	m
response	25645	
Ion	Exp%	Act%
88.00	100	100
58.00	73.10	27.98#
0.00	0.00	0.00
0.00	0.00	0.00

A JW 10/14/09
mp 10/14

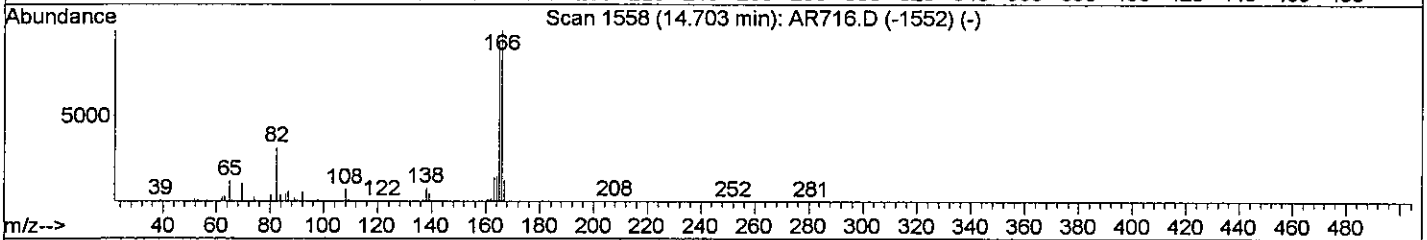
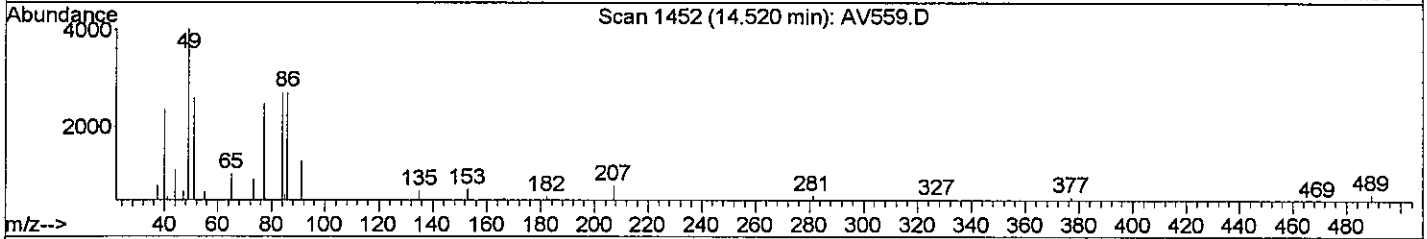
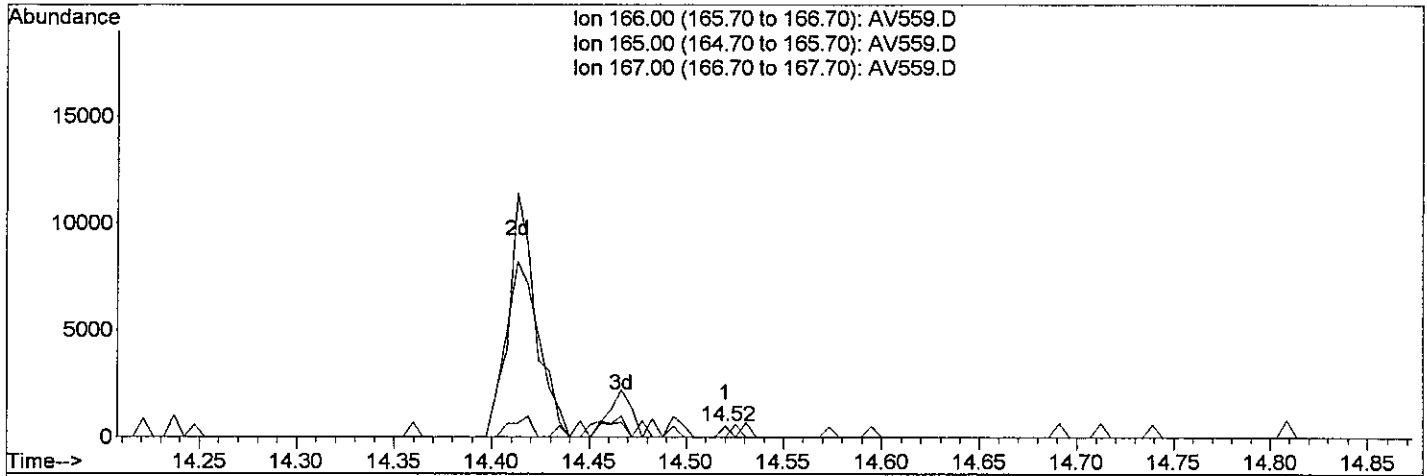
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973C\DATA\101309\AV559.D
 Acq On : 13 Oct 2009 5:47 pm
 Sample : INITIAL CALIBRATION
 Misc : 0.1/0.2 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 9:10 2009

Vial: 3
 Operator: J.Wu
 Inst : 5973C
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973C\METHODS\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:10:02 2009
 Response via : Multiple Level Calibration



TIC: AV559.D

(16) Fluorene (T)
 14.52min 0.00ppm
 response 177

Ion	Exp%	Act%
166.00	100	100
165.00	90.20	92.77
167.00	12.00	0.00
0.00	0.00	0.00

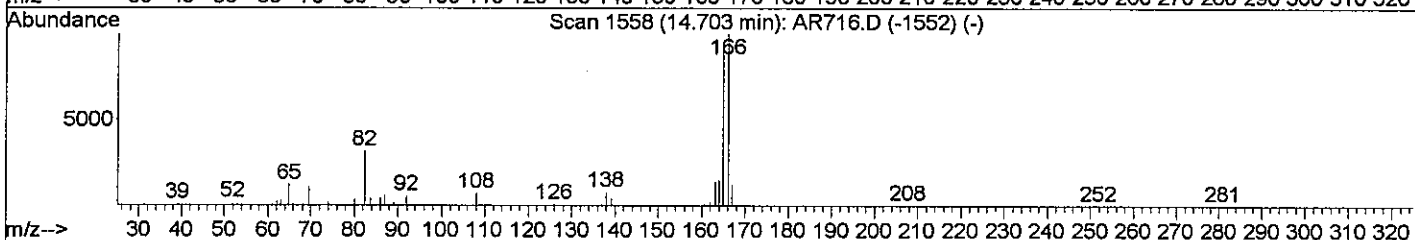
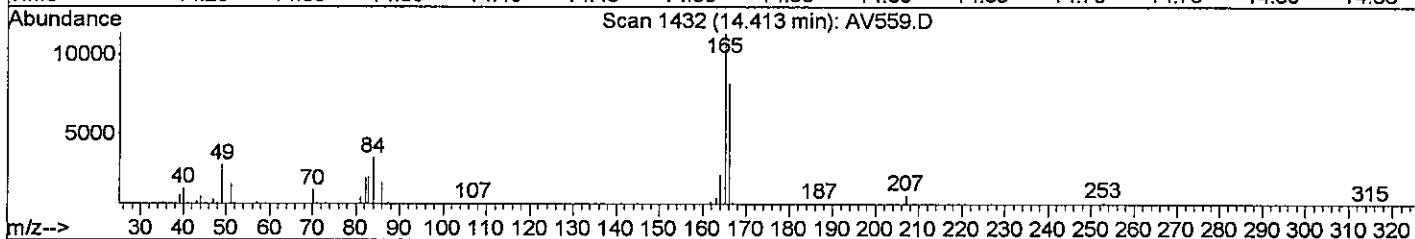
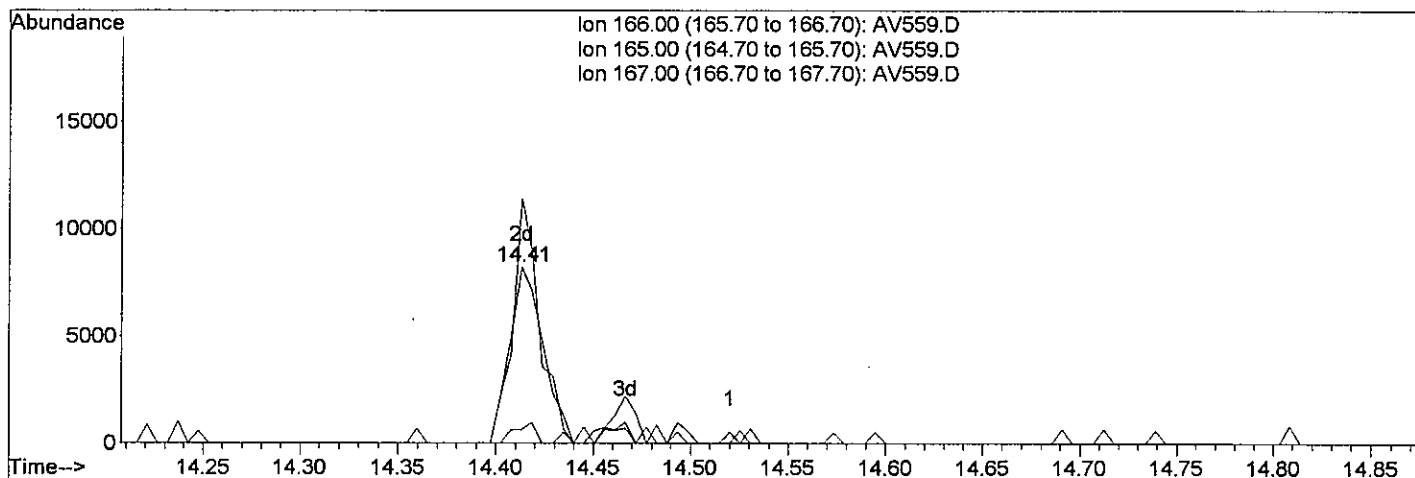
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973C\DATA\101309\AV559.D
 Acq On : 13 Oct 2009 5:47 pm
 Sample : INITIAL CALIBRATION
 Misc : 0.1/0.2 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 9:11 2009

Vial: 3
 Operator: J.Wu
 Inst : 5973C
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973C\METHODS\LV11013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:10:02 2009
 Response via : Multiple Level Calibration



TIC: AV559.D

(16) Fluorene (T)

14.41min 0.08ppm m

response 9888

Ion	Exp%	Act%
166.00	100	100
165.00	90.20	138.69#
167.00	12.00	7.73
0.00	0.00	0.00

A JW 10/14/09

mp 10/14

Quantitation Report (QT Reviewed)

Data File : J:\ACQUATA\5973C\DATA\101309\AV560.D Vial: 4
 Acq On : 13 Oct 2009 6:25 pm Operator: J.Wu
 Sample : INITIAL CALIBRATION Inst : 5973C
 Misc : 0.2/0.4 PPM STD 8270.LL Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 09:12:54 2009 Quant Results File: LVI1013.RES

Quant Method : J:\ACQUATA\5...\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:12:48 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI1013

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) d4-1,4-Dichlorobenzene	11.17	152	50850	1.00	ppm	0.00
4) d8-Naphthalene	12.42	136	186450	1.00	ppm	0.00
10) d10-Acenaphthene	14.00	164	109901	1.00	ppm	0.00
18) d10-Phenanthrene	15.21	188	146238	1.00	ppm	0.00
26) d12-Chrysene	18.79	240	213082	1.00	ppm	0.00
33) d12-Perylene	22.96	264	179411	1.00	ppm	0.00

System Monitoring Compounds

5) SURR4,NITROBENZENE-D5	11.75	82	16883	0.18	ppm	0.00
Spiked Amount	2.000	Range	22 - 124	Recovery	=	9.00%#
11) SURR5,2-FLUOROBIPHENYL	13.37	172	29038	0.19	ppm	0.00
Spiked Amount	2.000	Range	27 - 114	Recovery	=	9.50%#
28) SURR6,TERPHENYL-D14	16.93	244	25404	0.17	ppm	0.01
Spiked Amount	2.000	Range	23 - 139	Recovery	=	8.50%#

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	6.95	88	43747	0.49	ppm	100
3) Pyridine	7.71	79	19422	0.18	ppm	74
6) Nitrobenzene	11.76	77	19493	0.19	ppm	92
7) Naphthalene	12.44	128	36056	0.18	ppm	86
8) 2-Methylnaphthalene	13.06	142	23461	0.17	ppm	89
9) 1-Methylnaphthalene	13.16	142	23959	0.18	ppm	84
12) Acenaphthylene	13.88	152	36097	0.18	ppm	93
13) Dimethyl phthalate	13.73	163	25876m	0.15	ppm	
14) Acenaphthene	14.02	153	23929 (m)	0.19	ppm	91
15) Dibenzofuran	14.15	168	31822	0.20	ppm	89
16) Fluorene	14.41	166	22726	0.18	ppm	90
17) Diethylphthalate	14.27	149	25036m	0.17	ppm	
19) Hexachlorobenzene	14.92	284	7570	0.19	ppm	82
20) Phenanthrene	15.23	178	30125	0.18	ppm	94
21) Anthracene	15.28	178	31262	0.19	ppm	93
22) Carbazole	15.41	167	25799	0.19	ppm	94
23) Octachlorostyrene	16.30	380	1605m (m)	0.46	ppm	
24) Di-n-butylphthalate	15.65	149	50113m (m)	0.20	ppm	
25) Fluoranthene	16.52	202	36338	0.20	ppm	97
27) Pyrene	16.83	202	39178	0.18	ppm	90
29) Butyl benzyl phthalate	17.59	149	28725	0.18	ppm	93
30) bis(2-Ethylhexyl)phthalate	18.63	149	58180	0.99	ppm	97
31) Benzo(a)anthracene	18.75	228	43573	0.18	ppm	93
32) Chrysene	18.85	228	45154	0.19	ppm	97
34) Di-n-octyl phthalate	20.14	149	37669	0.85	ppm	97
35) Benzo(b)Fluoranthene	21.68	252	42315	0.17	ppm	94

(#) = qualifier out of range (m) = manual integration
 AV560.D LVI1013.M Wed Oct 14 09:47:41 2009

JW

Quantitation Report (QT Reviewed)

Data File : J:\ACQUDATA\5973C\DATA\101309\AV560.D Vial: 4
 Acq On : 13 Oct 2009 6:25 pm Operator: J.Wu
 Sample : INITIAL CALIBRATION Inst : 5973C
 Misc : 0.2/0.4 PPM STD 8270.LL Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 09:12:54 2009 Quant Results File: LVI1013.RES

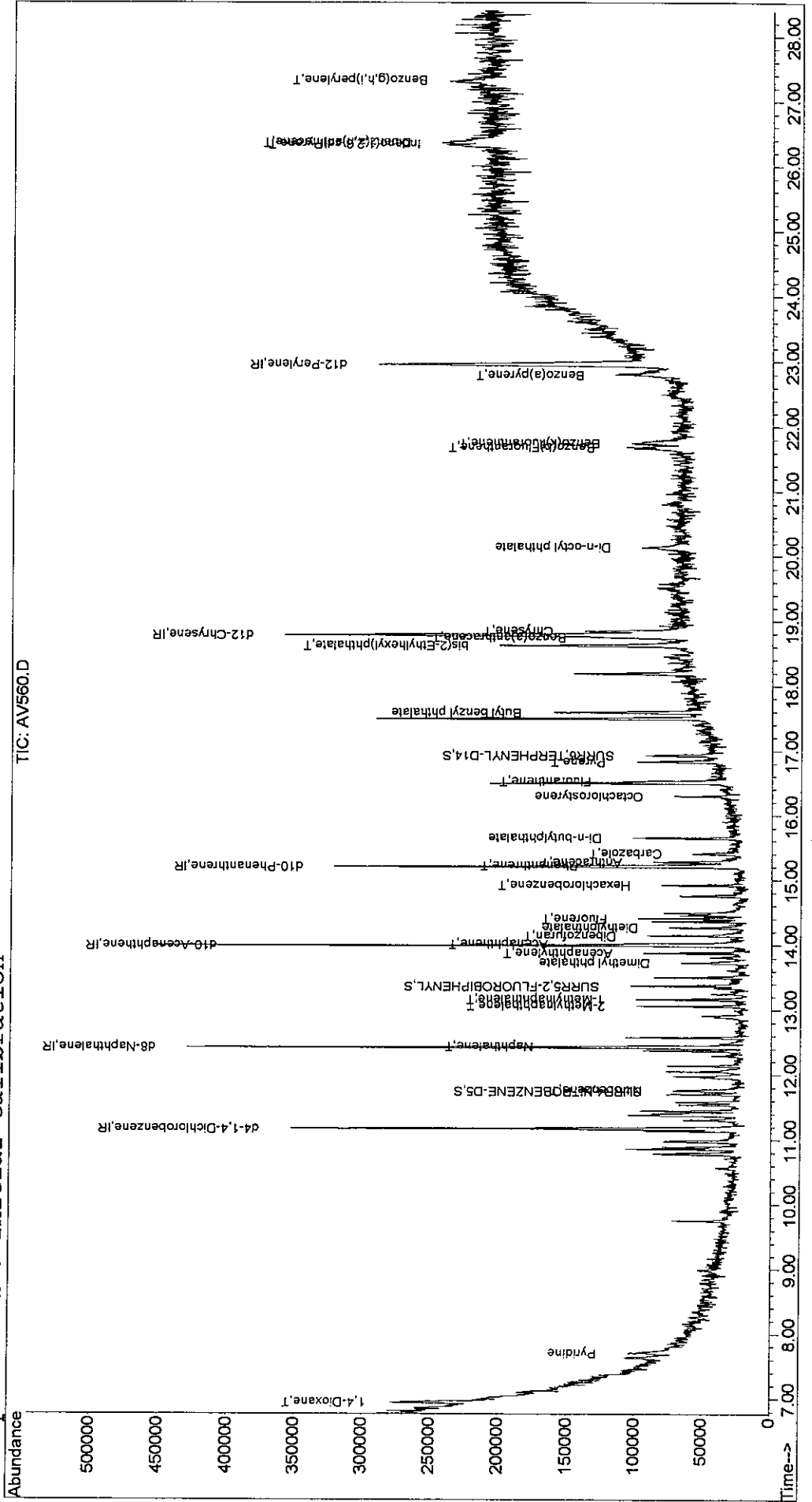
Quant Method : J:\ACQUDATA\5...\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:12:48 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI1013

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
36) Benzo(k)fluoranthene	21.75	252	44702m [↗]	0.19	ppm	
37) Benzo(a)pyrene	22.80	252	41047	0.18	ppm	76
38) Indeno(1,2,3-cd)Pyrene	26.34	276	43393	0.17	ppm	68
39) Dibenz(a,h)anthracene	26.36	278	40494m	0.19	ppm	
40) Benzo(g,h,i)perylene	27.33	276	38444m [↘]	0.19	ppm	

Quantitation Report (QT Reviewed)

Data File : J:\ACQDATA\5973C\DATA\101309\AV560.D
 Acq On : 13 Oct 2009 6:25 pm Vial: 4
 Sample : INITIAL CALIBRATION Operator: J.Wu
 Misc : 0.2/0.4 PPM STD 8270.LL Inst : 5973C
 MS Integration Params: RTEINT.P Multiplr: 1.00
 Quant Time: Oct 14 9:15 2009 Quant Results File: LVII1013.RES

Method : J:\ACQDATA\5973C\METHODS\LVII1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:26:08 2009
 Response via : Initial Calibration



00381

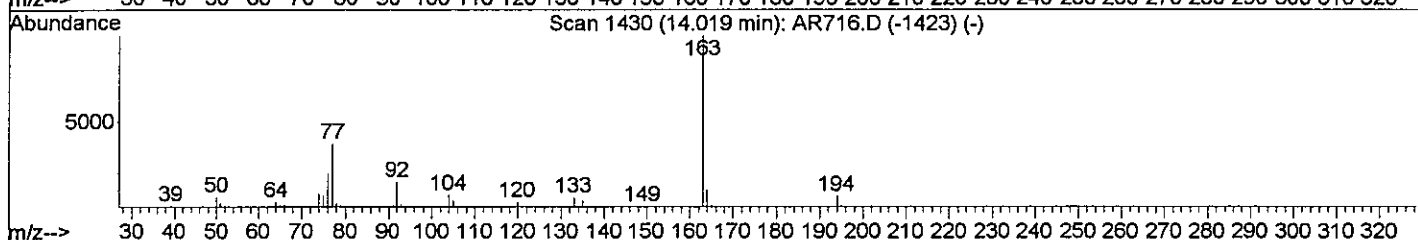
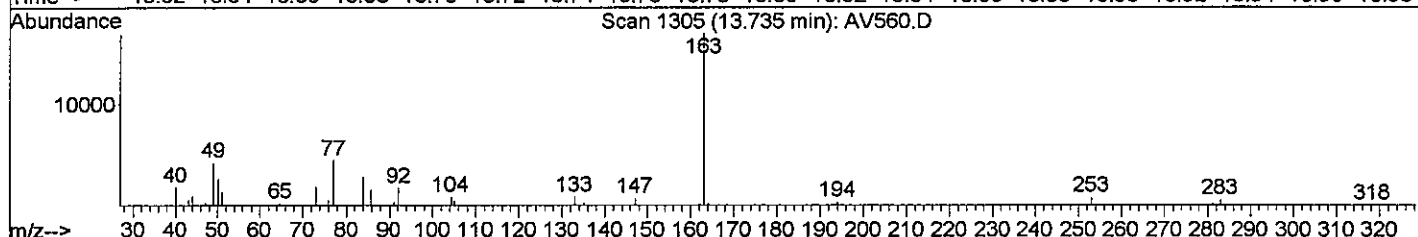
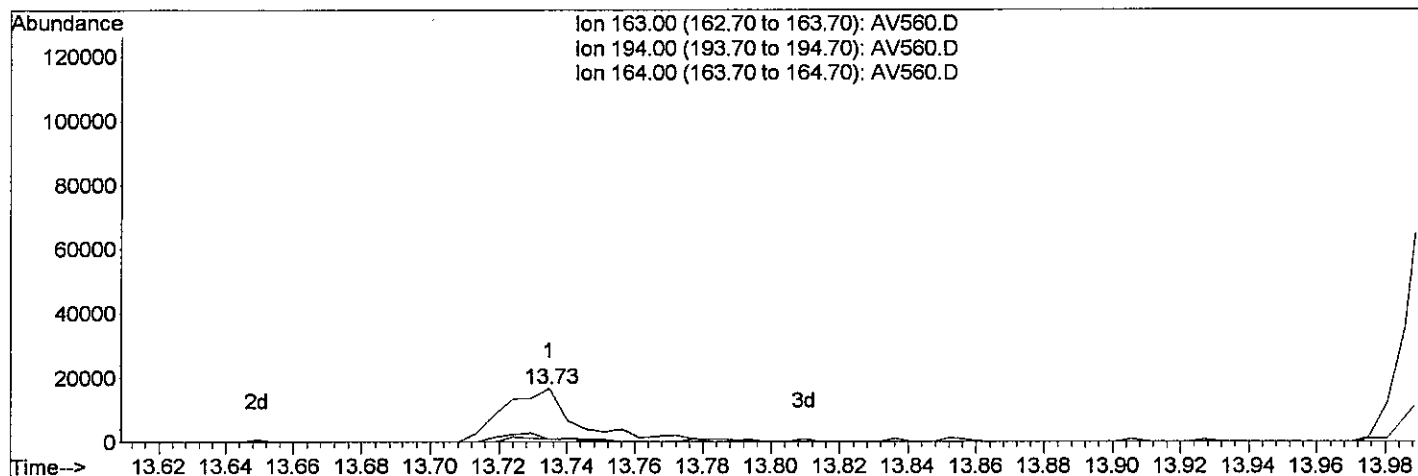
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973C\DATA\101309\AV560.D
 Acq On : 13 Oct 2009 6:25 pm
 Sample : INITIAL CALIBRATION
 Misc : 0.2/0.4 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 9:12 2009

Vial: 4
 Operator: J.Wu
 Inst : 5973C
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973C\METHODS\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:12:48 2009
 Response via : Multiple Level Calibration



TIC: AV560.D

(13) Dimethyl phthalate

13.73min 0.15ppm

response 25876

Ion	Exp%	Act%
163.00	100	100
194.00	7.70	5.06#
164.00	10.90	4.45#
0.00	0.00	0.00

B

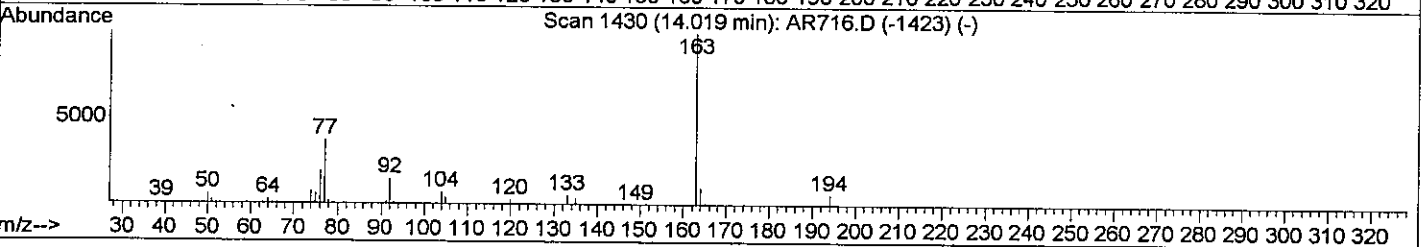
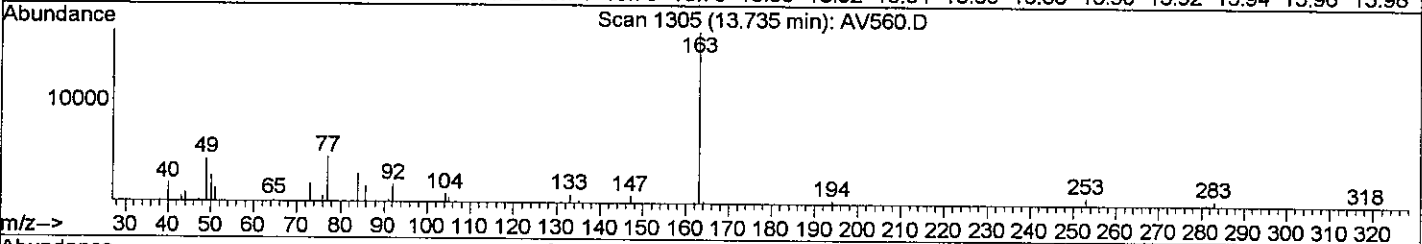
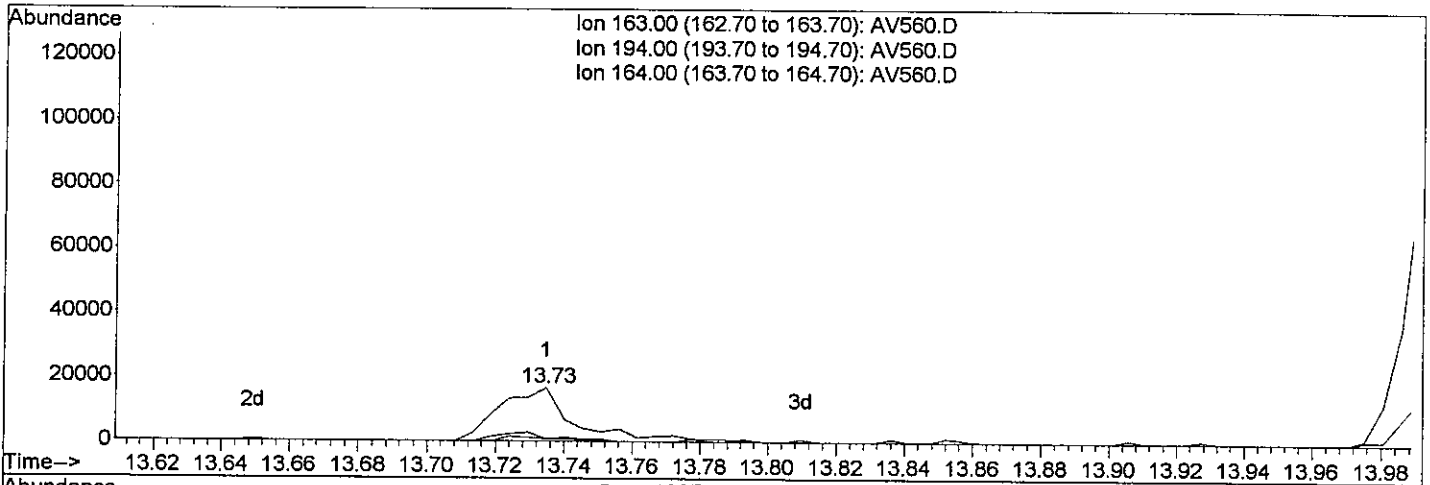
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973C\DATA\101309\AV560.D
 Acq On : 13 Oct 2009 6:25 pm
 Sample : INITIAL CALIBRATION
 Misc : 0.2/0.4 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 9:13 2009

Vial: 4
 Operator: J.Wu
 Inst : 5973C
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973C\METHODS\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:12:48 2009
 Response via : Multiple Level Calibration



TIC: AV560.D

(13) Dimethyl phthalate

13.73min 0.15ppm m

response 25876

Ion	Exp%	Act%
163.00	100	100
194.00	7.70	5.06#
164.00	10.90	4.45#
0.00	0.00	0.00

A JW 10/14/09

Wu 10/14

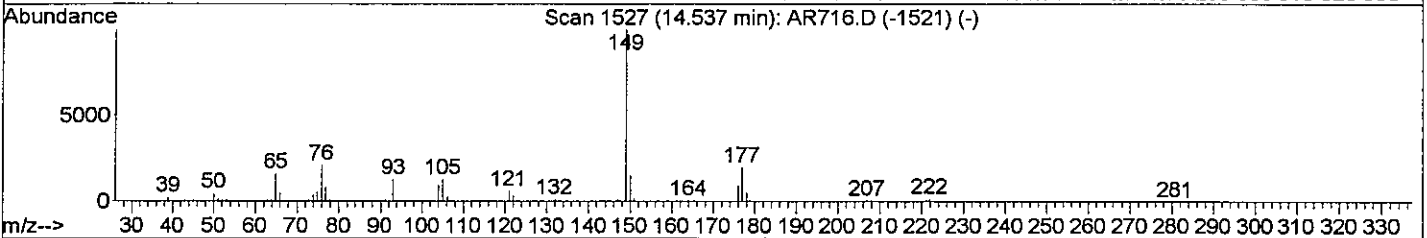
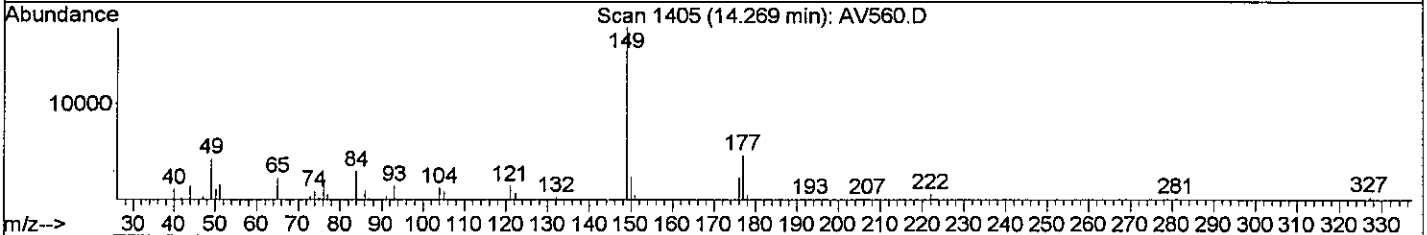
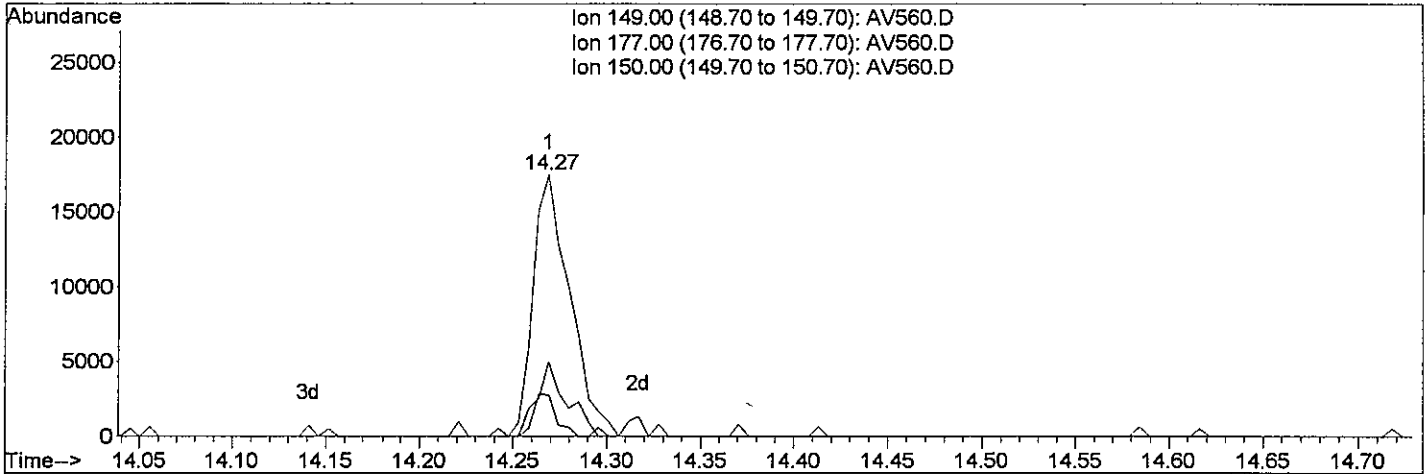
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973C\DATA\101309\AV560.D
 Acq On : 13 Oct 2009 6:25 pm
 Sample : INITIAL CALIBRATION
 Misc : 0.2/0.4 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 9:13 2009

Vial: 4
 Operator: J.Wu
 Inst : 5973C
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973C\METHODS\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:12:48 2009
 Response via : Multiple Level Calibration



TIC: AV560.D

(17) Diethylphthalate

14.27min 0.16ppm

response 24029

Ion	Exp%	Act%
149.00	100	100
177.00	21.50	28.39#
150.00	11.10	15.90#
0.00	0.00	0.00

B

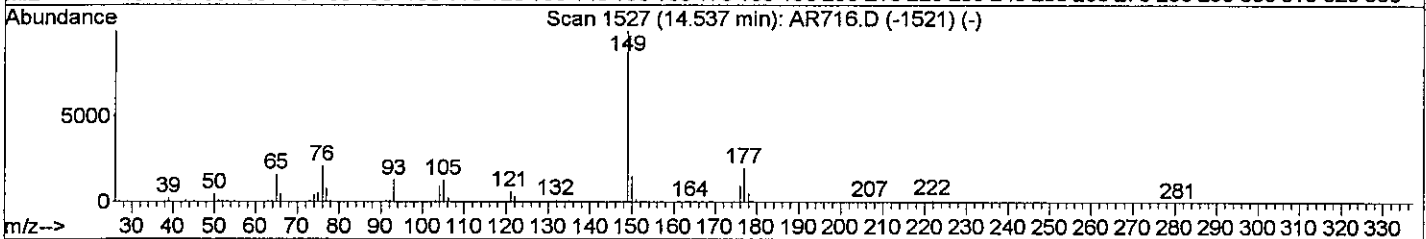
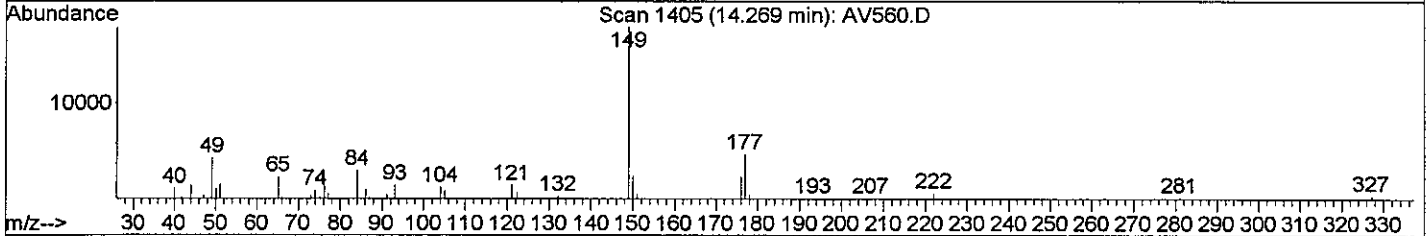
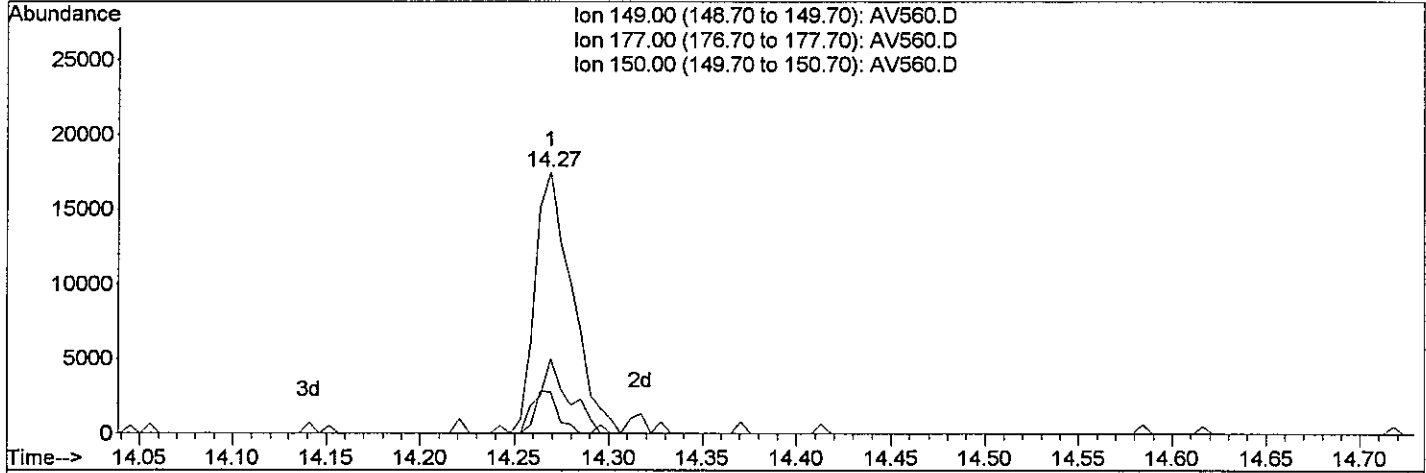
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973C\DATA\101309\AV560.D
 Acq On : 13 Oct 2009 6:25 pm
 Sample : INITIAL CALIBRATION
 Misc : 0.2/0.4 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 9:14 2009

Vial: 4
 Operator: J.Wu
 Inst : 5973C
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973C\METHODS\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:12:48 2009
 Response via : Multiple Level Calibration



TIC: AV560.D

(17) Diethylphthalate

14.27min 0.17ppm m

response 25036

Ion	Exp%	Act%
149.00	100	100
177.00	21.50	28.39#
150.00	11.10	15.90#
0.00	0.00	0.00

A. Wu 10/14/09
MP
10/14

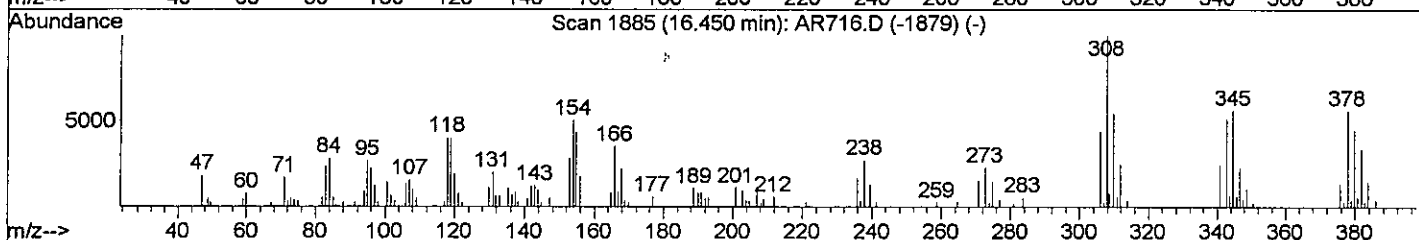
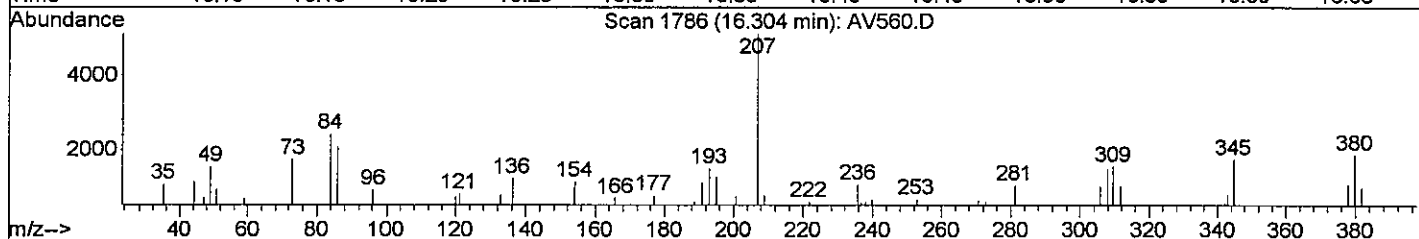
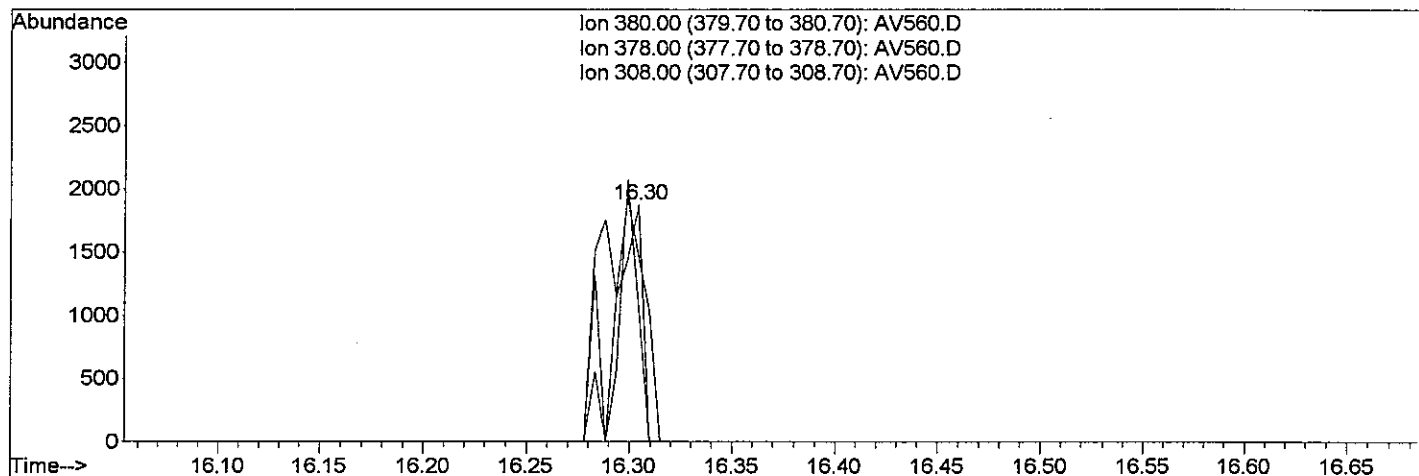
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973C\DATA\101309\AV560.D
 Acq On : 13 Oct 2009 6:25 pm
 Sample : INITIAL CALIBRATION
 Misc : 0.2/0.4 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 9:14 2009

Vial: 4
 Operator: J.Wu
 Inst : 5973C
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973C\METHODS\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:12:48 2009
 Response via : Multiple Level Calibration



TIC: AV560.D

(23) Octachlorostyrene

16.30min 0.46ppm

response 1605

ion	Exp%	Act%
380.00	100	100
378.00	103.70	56.72#
308.00	220.20	78.23#
0.00	0.00	0.00

13

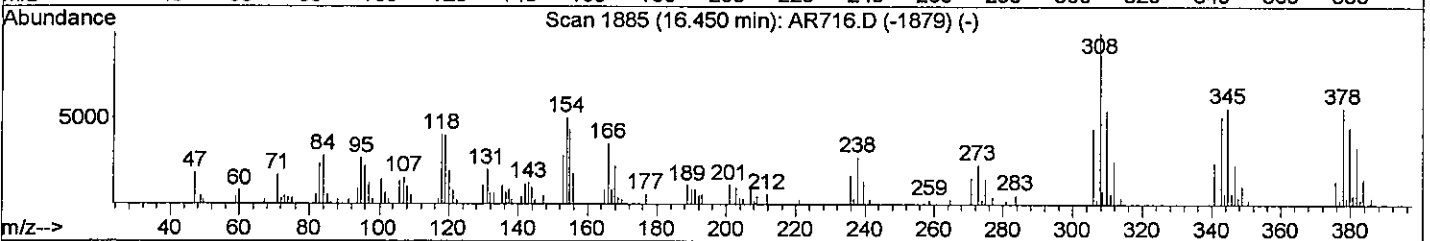
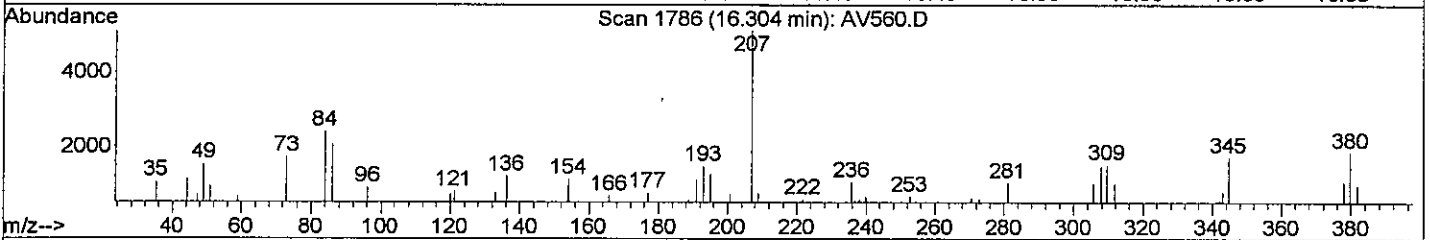
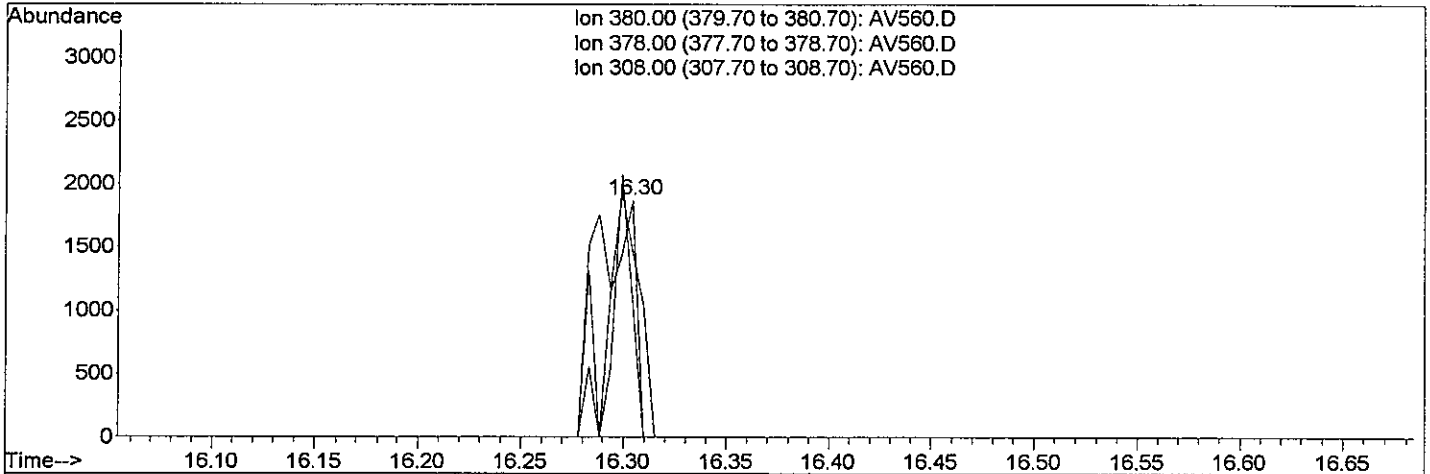
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973C\DATA\101309\AV560.D
 Acq On : 13 Oct 2009 6:25 pm
 Sample : INITIAL CALIBRATION
 Misc : 0.2/0.4 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 9:14 2009

Vial: 4
 Operator: J.Wu
 Inst : 5973C
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973C\METHODS\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:12:48 2009
 Response via : Multiple Level Calibration



TIC: AV560.D

Ion	Exp%	Act%
380.00	100	100
378.00	103.70	56.72#
308.00	220.20	78.23#
0.00	0.00	0.00

(23) Octachlorostyrene
 16.30min 0.46ppm m
 response 1605

A.J.W. 10/14/09
WJ 10/14

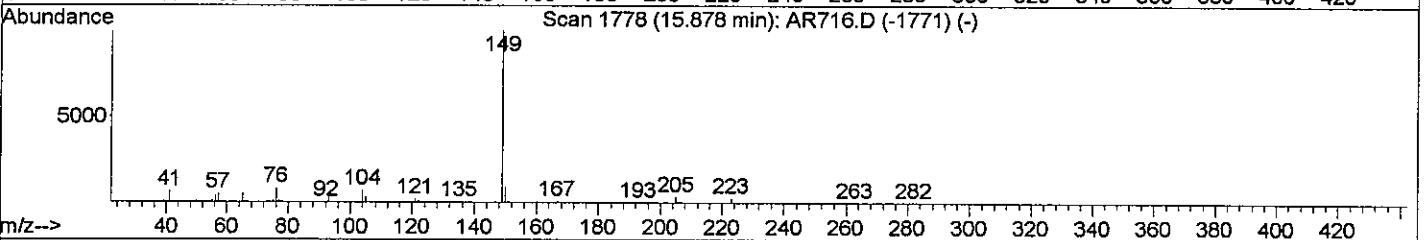
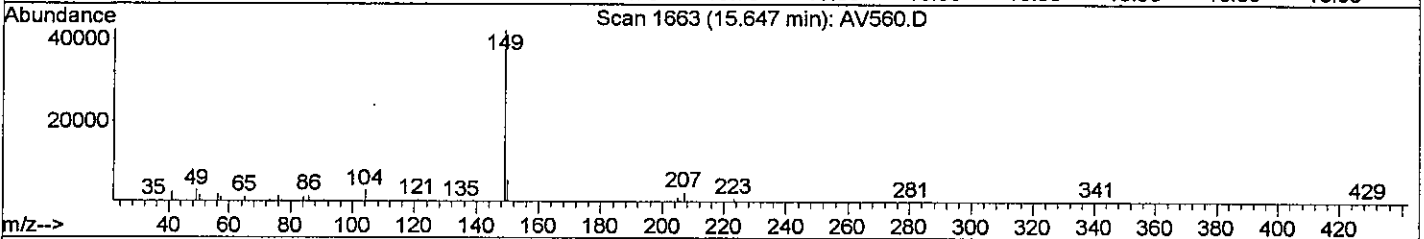
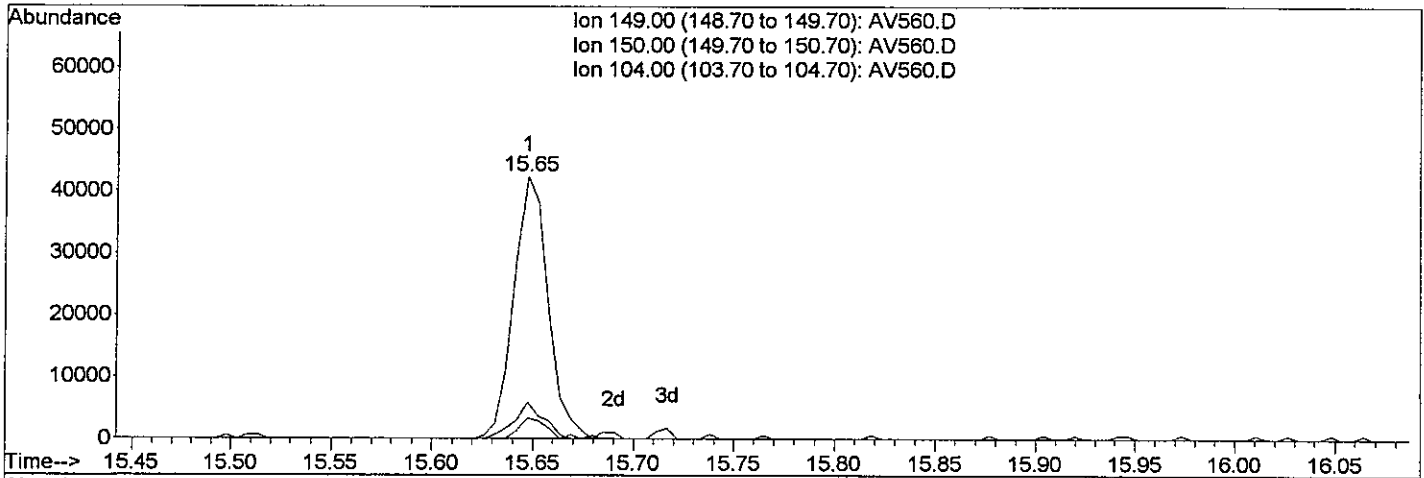
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973C\DATA\101309\AV560.D
 Acq On : 13 Oct 2009 6:25 pm
 Sample : INITIAL CALIBRATION
 Misc : 0.2/0.4 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 9:14 2009

Vial: 4
 Operator: J.Wu
 Inst : 5973C
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973C\METHODS\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:12:48 2009
 Response via : Multiple Level Calibration



TIC: AV560.D

(24) Di-n-butylphthalate

15.65min 0.20ppm

response 49790

Ion	Exp%	Act%
149.00	100	100
150.00	8.30	13.97#
104.00	6.50	7.23
0.00	0.00	0.00

13

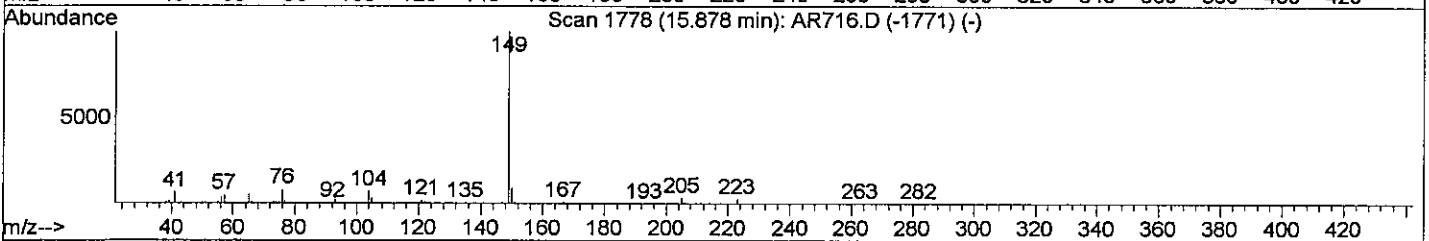
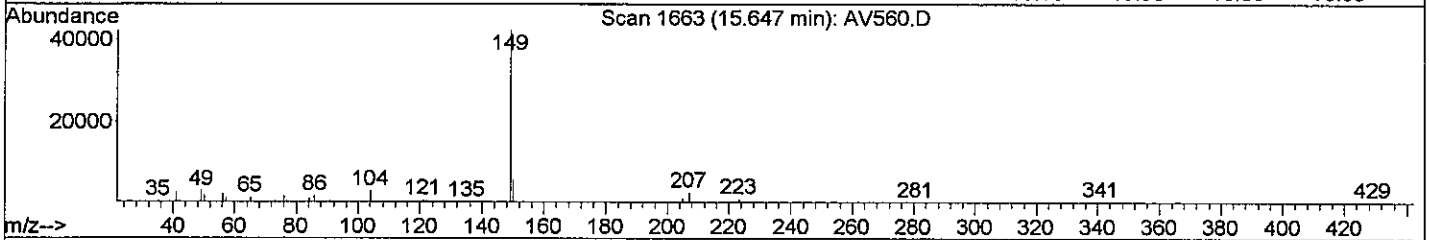
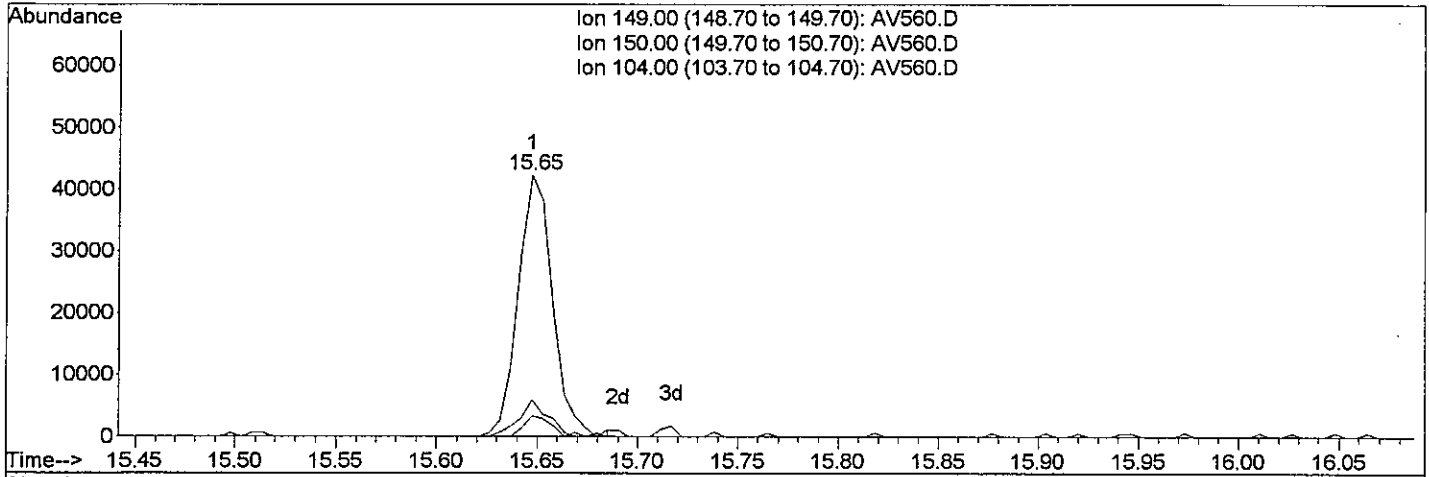
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973C\DATA\101309\AV560.D
 Acq On : 13 Oct 2009 6:25 pm
 Sample : INITIAL CALIBRATION
 Misc : 0.2/0.4 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 9:14 2009

Vial: 4
 Operator: J.Wu
 Inst : 5973C
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973C\METHODS\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:12:48 2009
 Response via : Multiple Level Calibration



TIC: AV560.D

(24) Di-n-butylphthalate

15.65min 0.20ppm m

response 50113

Ion	Exp%	Act%
149.00	100	100
150.00	8.30	13.97#
104.00	6.50	7.88
0.00	0.00	0.00

A JW 10/14/09

RW 10/14

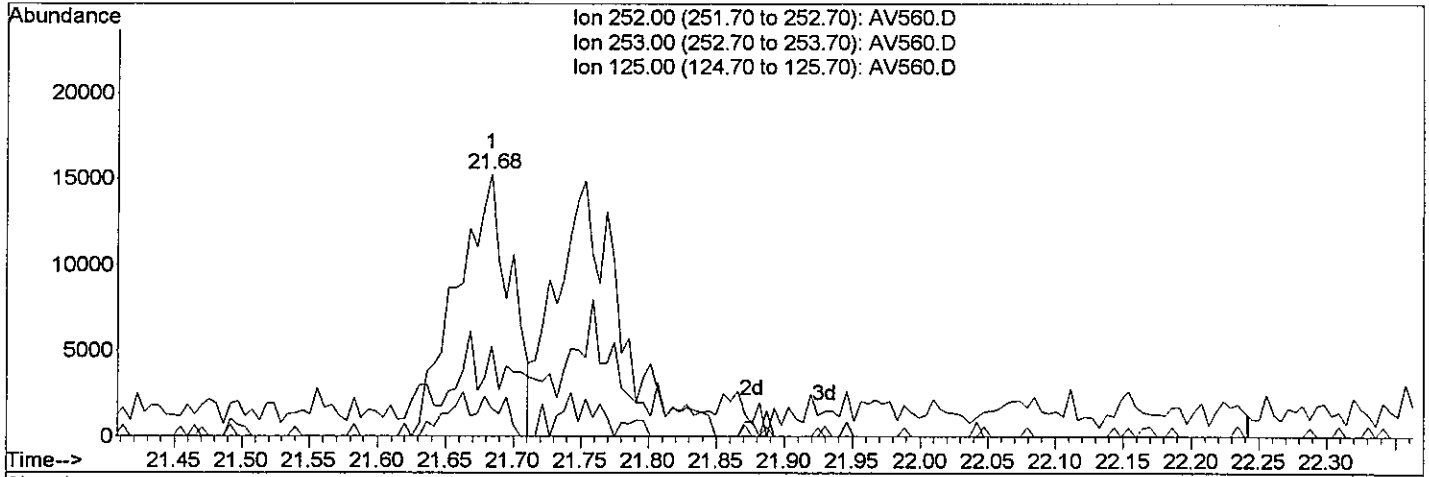
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973C\DATA\101309\AV560.D
 Acq On : 13 Oct 2009 6:25 pm
 Sample : INITIAL CALIBRATION
 Misc : 0.2/0.4 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 9:14 2009

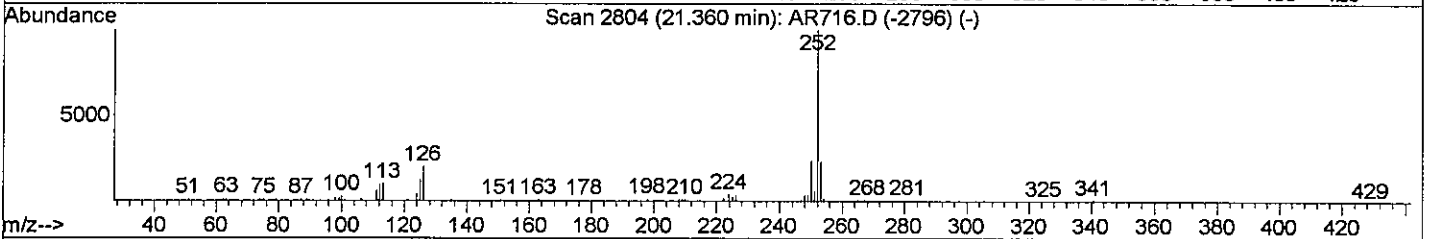
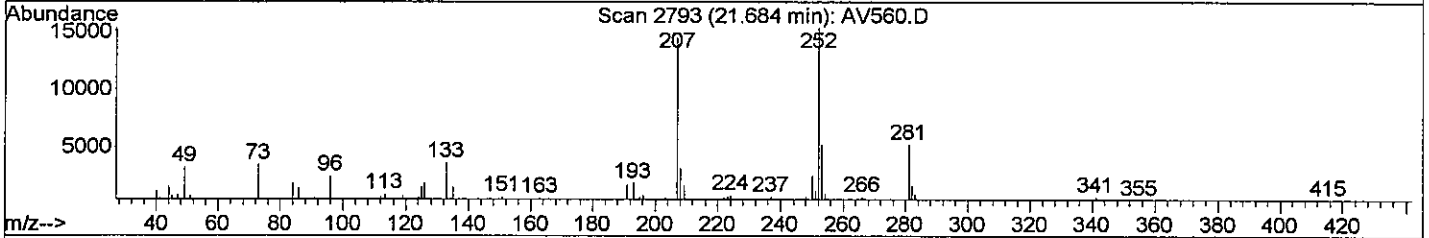
Vial: 4
 Operator: J.Wu
 Inst : 5973C
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973C\METHODS\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:12:48 2009
 Response via : Multiple Level Calibration



Ion 252.00 (251.70 to 252.70): AV560.D
 Ion 253.00 (252.70 to 253.70): AV560.D
 Ion 125.00 (124.70 to 125.70): AV560.D



TIC: AV560.D

(36) Benzo(k)fluoranthene (T)

21.68min 0.18ppm

response 42315

Ion	Exp%	Act%
252.00	100	100
253.00	18.00	19.83
125.00	9.00	12.26
0.00	0.00	0.00

B

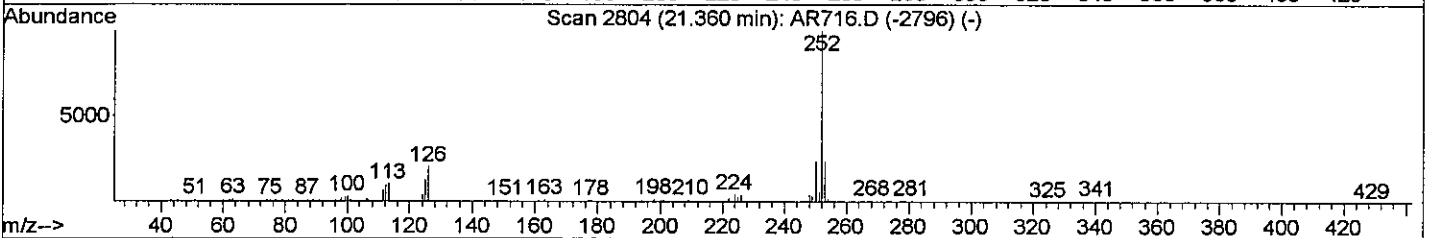
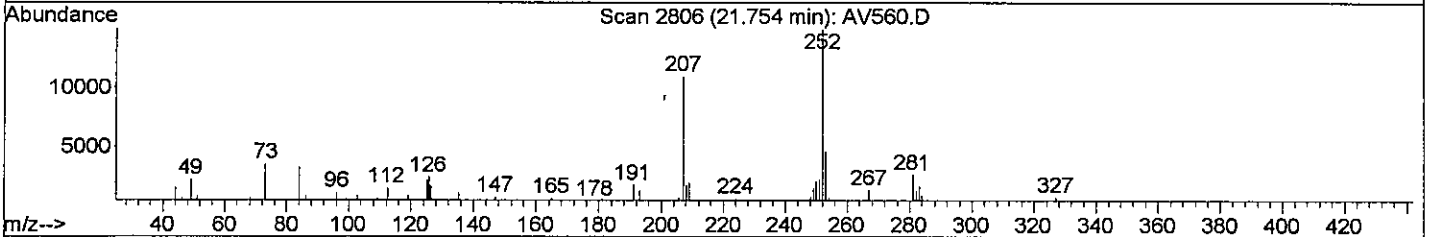
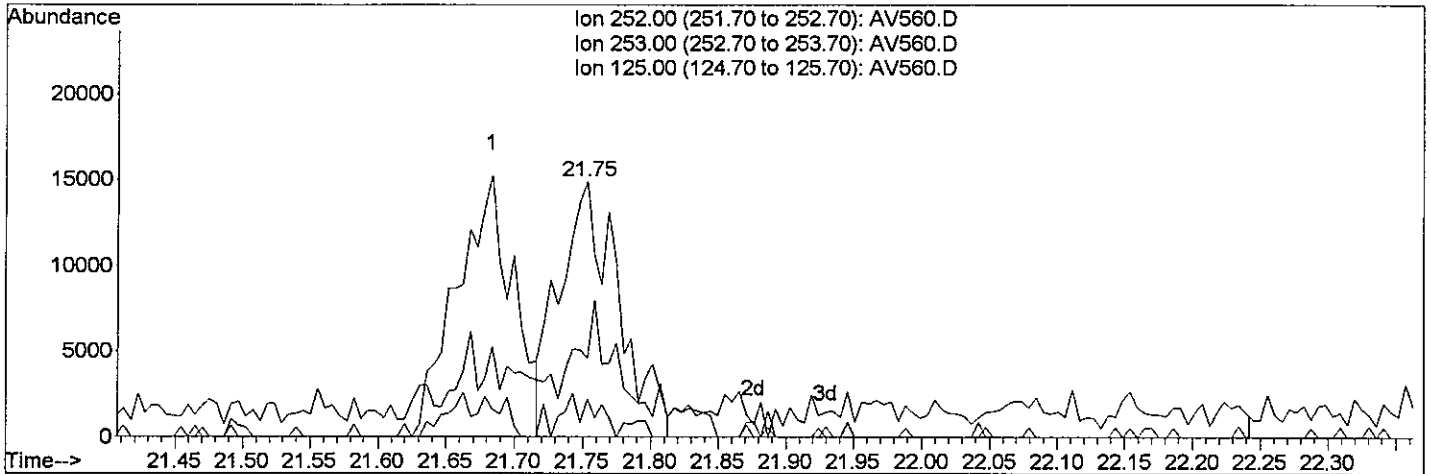
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973C\DATA\101309\AV560.D
 Acq On : 13 Oct 2009 6:25 pm
 Sample : INITIAL CALIBRATION
 Misc : 0.2/0.4 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 9:15 2009

Vial: 4
 Operator: J.Wu
 Inst : 5973C
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973C\METHODS\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:12:48 2009
 Response via : Multiple Level Calibration



TIC: AV560.D

Ion	Exp%	Act%
252.00	100	100
253.00	18.00	30.96
125.00	9.00	16.55
0.00	0.00	0.00

(36) Benzo(k)fluoranthene (T)
 21.75min 0.19ppm m
 response 44702

A J.W. 10/14/09
10/14/09

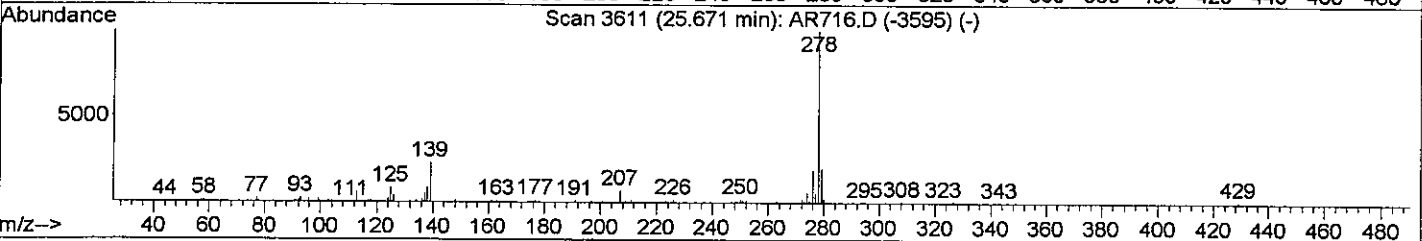
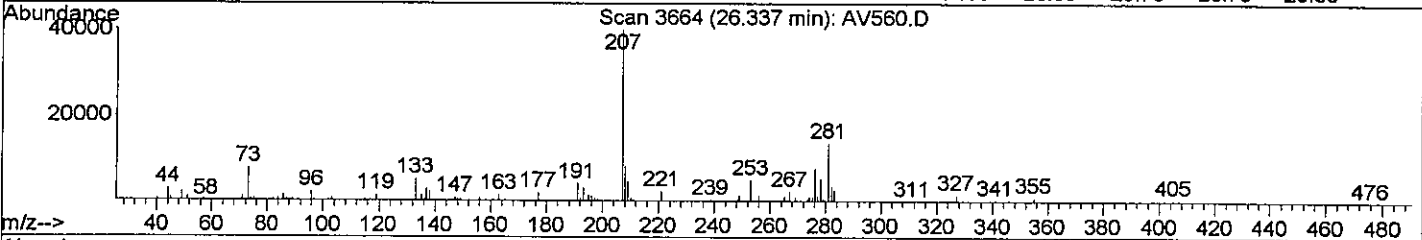
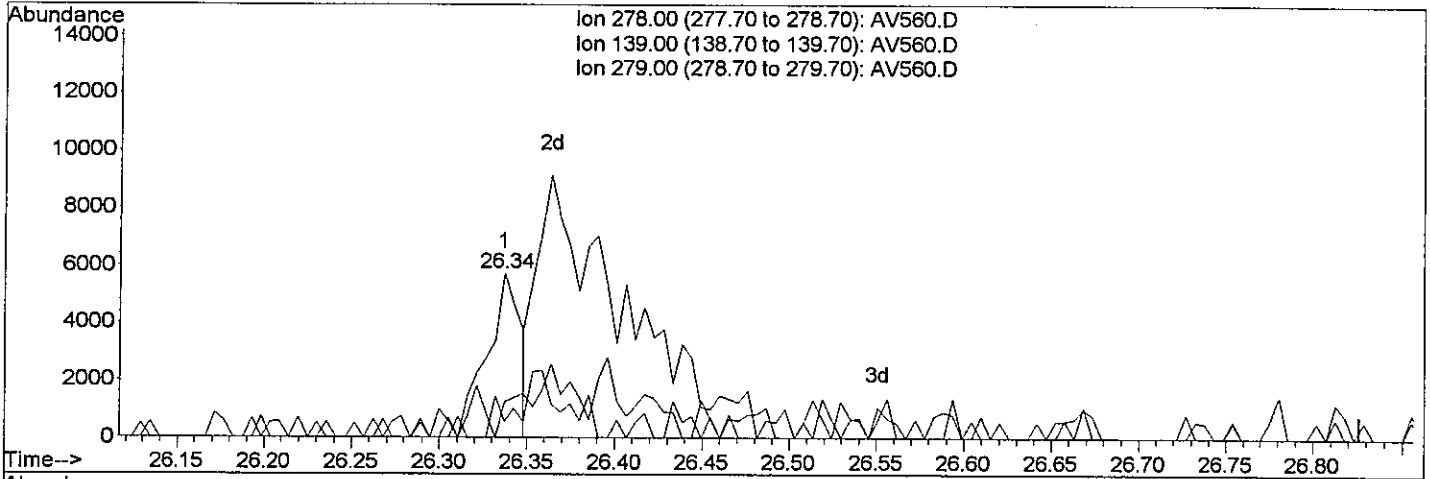
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973C\DATA\101309\AV560.D
 Acq On : 13 Oct 2009 6:25 pm
 Sample : INITIAL CALIBRATION
 Misc : 0.2/0.4 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 9:15 2009

Vial: 4
 Operator: J.Wu
 Inst : 5973C
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973C\METHODS\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:12:48 2009
 Response via : Multiple Level Calibration



TIC: AV560.D

(39) Dibenz(a,h)anthracene (T)

26.34min 0.04ppm

response 7673

ion	Exp%	Act%
278.00	100	100
139.00	18.40	0.00
279.00	22.50	12.31
0.00	0.00	0.00

B

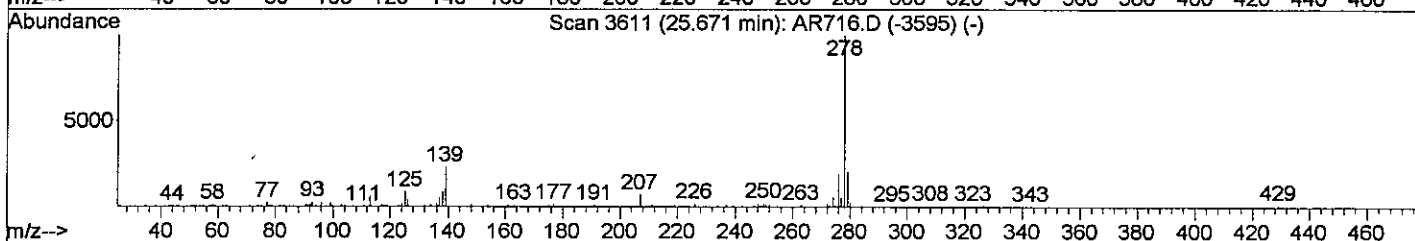
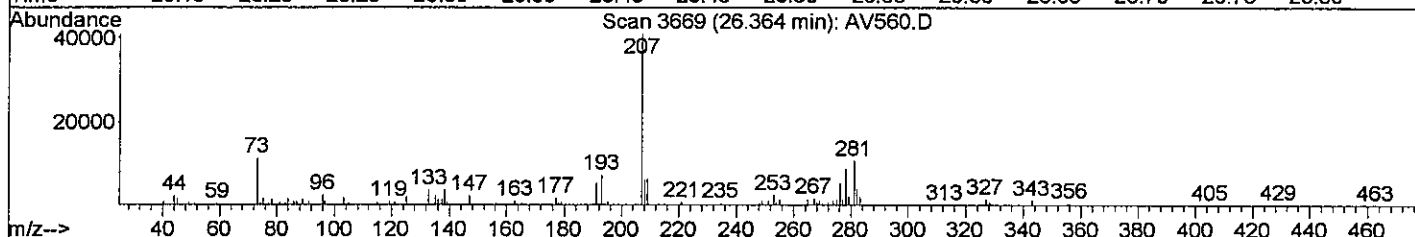
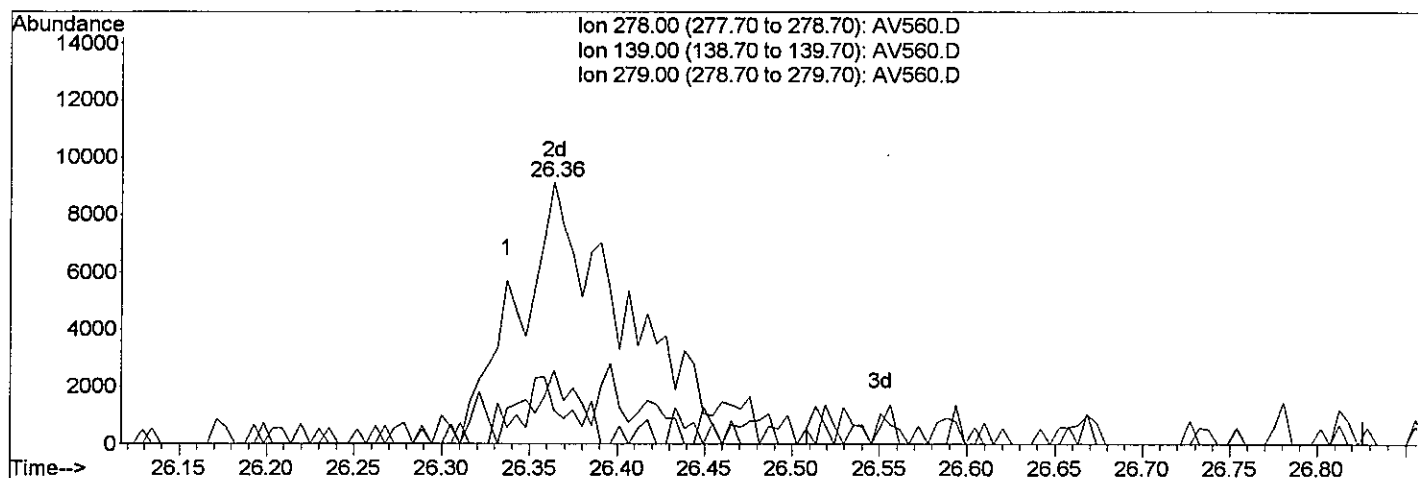
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973C\DATA\101309\AV560.D
 Acq On : 13 Oct 2009 6:25 pm
 Sample : INITIAL CALIBRATION
 Misc : 0.2/0.4 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 9:15 2009

Vial: 4
 Operator: J.Wu
 Inst : 5973C
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973C\METHODS\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:12:48 2009
 Response via : Multiple Level Calibration



TIC: AV560.D

(39) Dibenz(a,h)anthracene (T)

26.36min 0.19ppm m

response 40494

Ion	Exp%	Act%
278.00	100	100
139.00	18.40	12.80
279.00	22.50	28.02
0.00	0.00	0.00

A J.W. 10/14/09
KAP 10/14

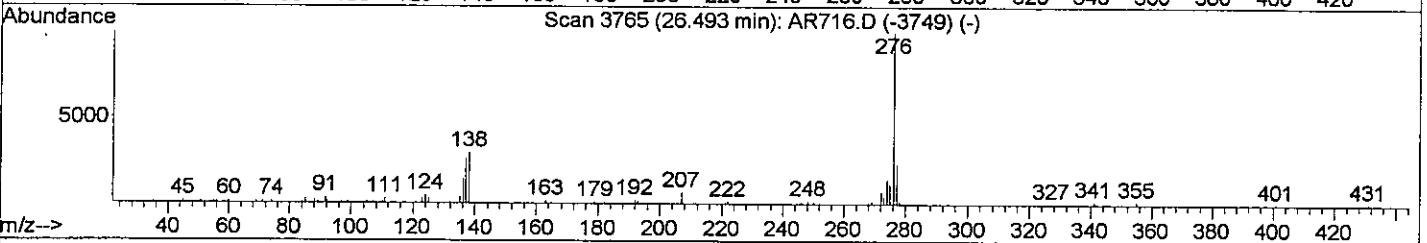
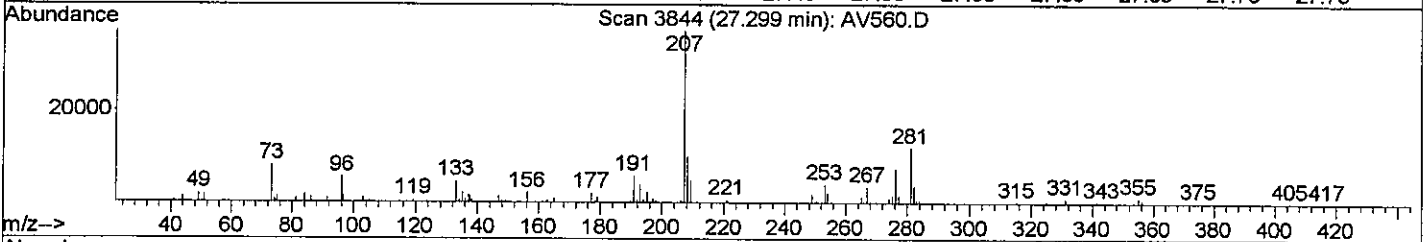
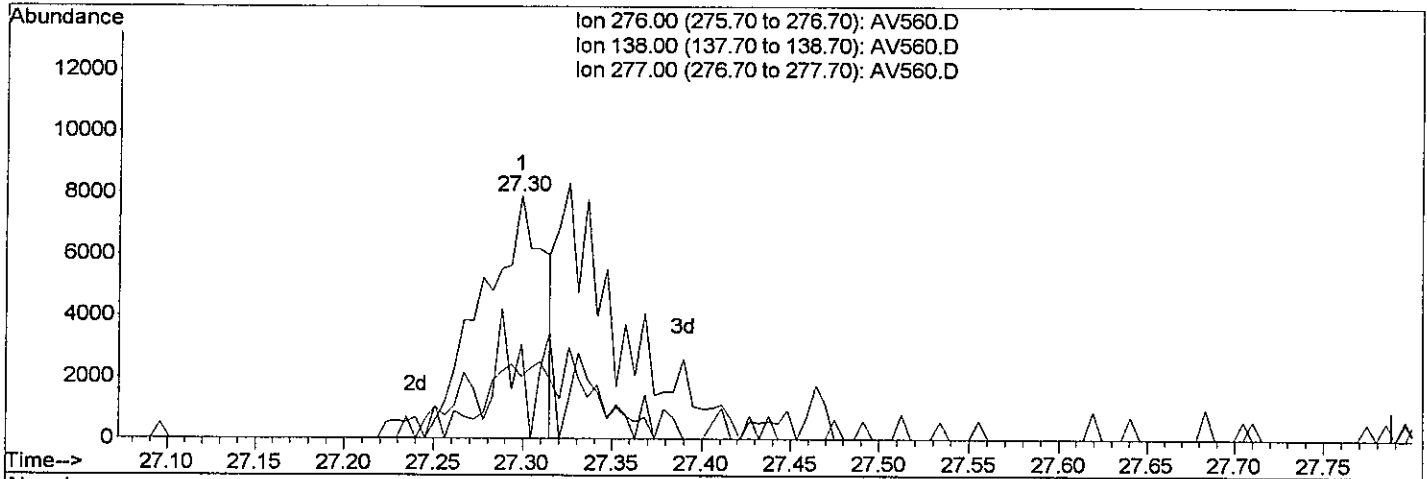
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973C\DATA\101309\AV560.D
 Acq On : 13 Oct 2009 6:25 pm
 Sample : INITIAL CALIBRATION
 Misc : 0.2/0.4 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 9:15 2009

Vial: 4
 Operator: J.Wu
 Inst : 5973C
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973C\METHODS\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:12:48 2009
 Response via : Multiple Level Calibration



(40) Benzo(g,h,i)perylene (T)

27.30min 0.09ppm

response 18990

Ion	Exp%	Act%
276.00	100	100
138.00	22.90	21.09
277.00	25.00	21.34
0.00	0.00	0.00

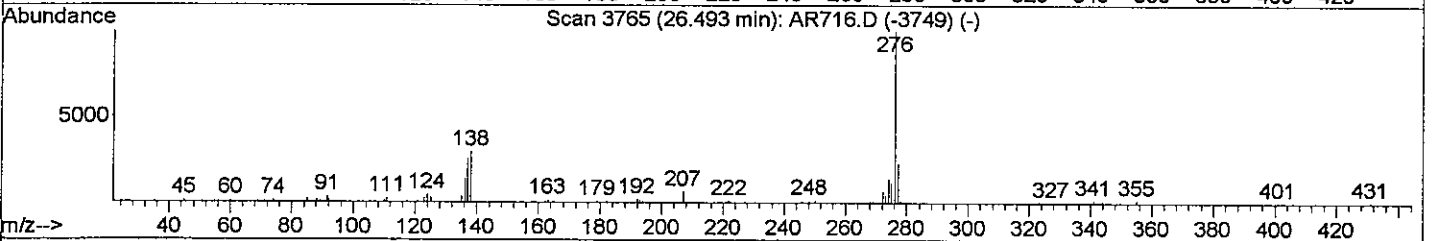
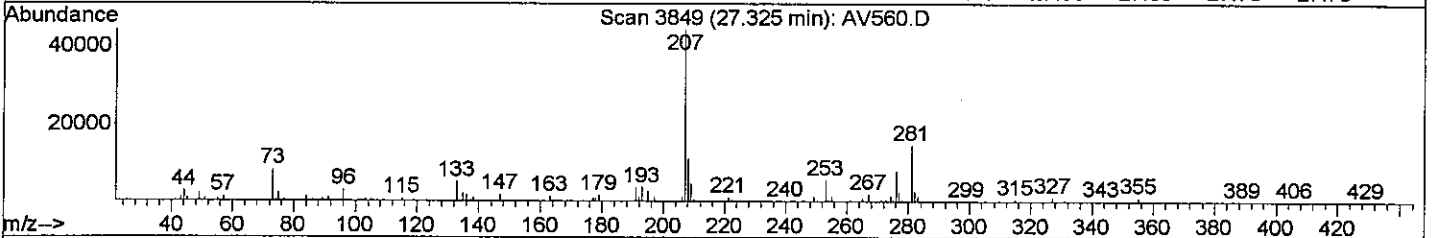
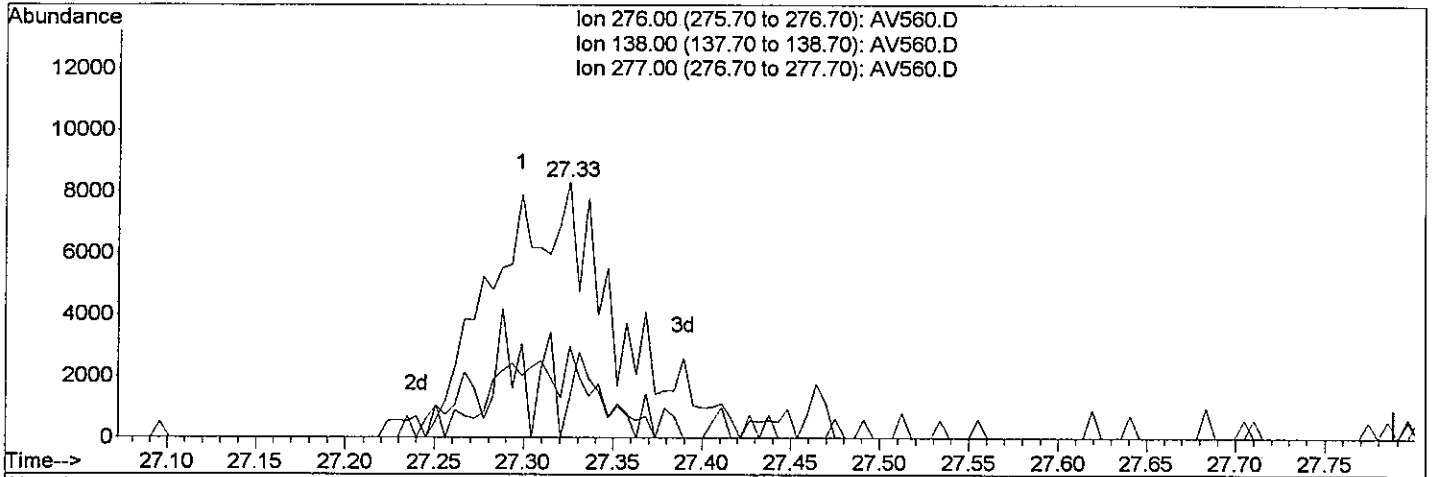
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973C\DATA\101309\AV560.D
 Acq On : 13 Oct 2009 6:25 pm
 Sample : INITIAL CALIBRATION
 Misc : 0.2/0.4 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 9:15 2009

Vial: 4
 Operator: J.Wu
 Inst : 5973C
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973C\METHODS\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:12:48 2009
 Response via : Multiple Level Calibration



TIC: AV560.D

(40) Benzo(g,h,i)perylene (T)

27.33min 0.19ppm

response 38444

Ion	Exp%	Act%
276.00	100	100
138.00	22.90	15.98
277.00	25.00	35.82
0.00	0.00	0.00

A J.W. 10/14/09
MLP
10/14

Quantitation Report (QT Reviewed)

Data File : J:\ACQUDATA\5973C\DATA\101309\AV561.D Vial: 5
 Acq On : 13 Oct 2009 7:03 pm Operator: J.Wu
 Sample : INITIAL CALIBRATION Inst : 5973C
 Misc : 0.5/1.0 PPM STD 8270.LL Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 09:16:31 2009 Quant Results File: LVI1013.RES

Quant Method : J:\ACQUDATA\5...\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:16:25 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI1013

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	11.17	152	54034	1.00	ppm	0.00
4) d8-Naphthalene	12.42	136	196515	1.00	ppm	0.00
10) d10-Acenaphthene	13.99	164	119695	1.00	ppm	0.00
18) d10-Phenanthrene	15.20	188	158451	1.00	ppm	0.00
26) d12-Chrysene	18.79	240	228567	1.00	ppm	0.00
33) d12-Perylene	22.96	264	197383	1.00	ppm	0.00

System Monitoring Compounds

5) SURR4,NITROBENZENE-D5	11.75	82	50632	0.51	ppm	0.00
Spiked Amount	2.000	Range	22 - 124	Recovery	=	25.50%
11) SURR5,2-FLUOROBIPHENYL	13.37	172	83443	0.50	ppm	0.00
Spiked Amount	2.000	Range	27 - 114	Recovery	=	25.00%#
28) SURR6,TERPHENYL-D14	16.92	244	75239	0.49	ppm	0.00
Spiked Amount	2.000	Range	23 - 139	Recovery	=	24.50%

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	6.94	88	113802	1.16	ppm	90
3) Pyridine	7.70	79	57513	0.50	ppm	91
6) Nitrobenzene	11.76	77	49046	0.46	ppm	97
7) Naphthalene	12.44	128	104861	0.50	ppm	89
8) 2-Methylnaphthalene	13.06	142	69235	0.49	ppm	96
9) 1-Methylnaphthalene	13.16	142	63200	0.46	ppm	96
12) Acenaphthylene	13.88	152	109005	0.49	ppm	98
13) Dimethyl phthalate	13.72	163	73953	0.41	ppm	97
14) Acenaphthene	14.02	153	67246	0.49	ppm	94
15) Dibenzofuran	14.14	168	87534	0.50	ppm	98
16) Fluorene	14.41	166	68469	0.51	ppm	96
17) Diethylphthalate	14.26	149	69420m	0.45	ppm	
19) Hexachlorobenzene	14.92	284	20110m	0.46	ppm	
20) Phenanthrene	15.23	178	89767	0.50	ppm	93
21) Anthracene	15.27	178	82483	0.47	ppm	95
22) Carbazole	15.40	167	77450	0.55	ppm	94
23) Octachlorostyrene	16.30	380	3665	0.63	ppm	81
24) Di-n-butylphthalate	15.65	149	135208	0.52	ppm	99
25) Fluoranthene	16.52	202	104442	0.53	ppm	90
27) Pyrene	16.83	202	111464	0.48	ppm	97
30) bis(2-Ethylhexyl)phthalate	18.62	149	179547m	1.39	ppm	
31) Benzo(a)anthracene	18.75	228	119947	0.47	ppm	98
32) Chrysene	18.85	228	122701	0.47	ppm	97
34) Di-n-octyl phthalate	20.13	149	116843	1.01	ppm	99
35) Benzo(b)Fluoranthene	21.67	252	126460	0.47	ppm	97
36) Benzo(k)fluoranthene	21.75	252	136677	0.52	ppm	90

(#) = qualifier out of range (m) = manual integration

JW

Quantitation Report (QT Reviewed)

Data File : J:\ACQUDATA\5973C\DATA\101309\AV561.D Vial: 5
 Acq On : 13 Oct 2009 7:03 pm Operator: J.Wu
 Sample : INITIAL CALIBRATION Inst : 5973C
 Misc : 0.5/1.0 PPM STD 8270.LL Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 09:16:31 2009 Quant Results File: LVI1013.RES

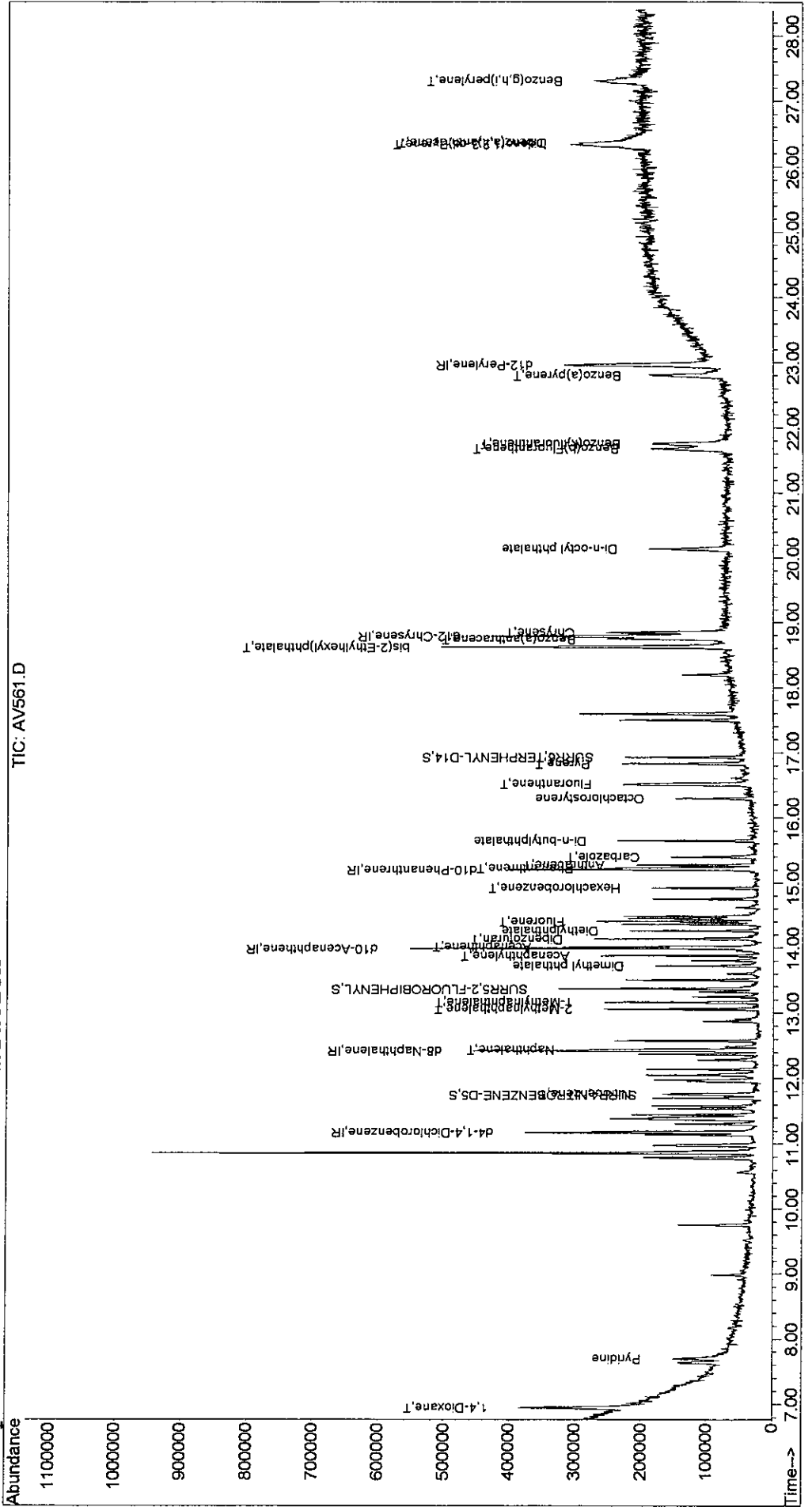
Quant Method : J:\ACQUDATA\5...\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:16:25 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI1013

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37) Benzo(a)pyrene	22.79	252	116426	0.46	ppm	91
38) Indeno(1,2,3-cd)Pyrene	26.32	276	119017	0.43	ppm	65
39) Dibenz(a,h)anthracene	26.35	278	92781	0.39	ppm	93
40) Benzo(g,h,i)perylene	27.30	276	108110	0.49	ppm	91

Quantitation Report (QT Reviewed)

Data File : J:\ACQDATA\5973C\DATA\101309\AV561.D Vial: 5
 Acq On : 13 Oct 2009 7:03 pm Operator: J.Wu
 Sample : INITIAL CALIBRATION Inst : 5973C
 Misc : 0.5/1.0 PPM STD 8270.LL Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 9:17 2009 Quant Results File: LVII1013.RE5

Method : J:\ACQDATA\5973C\METHODS\LVII1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:26:08 2009
 Response via : Initial Calibration



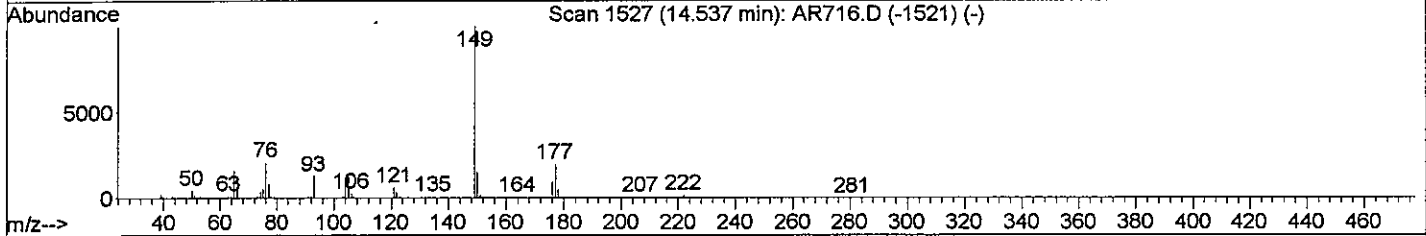
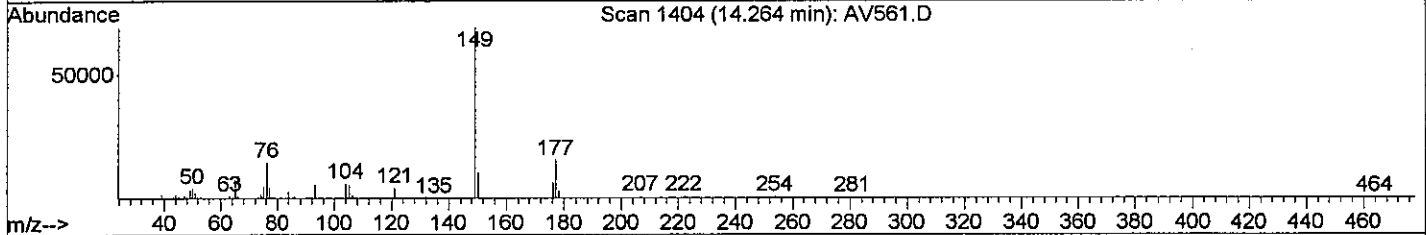
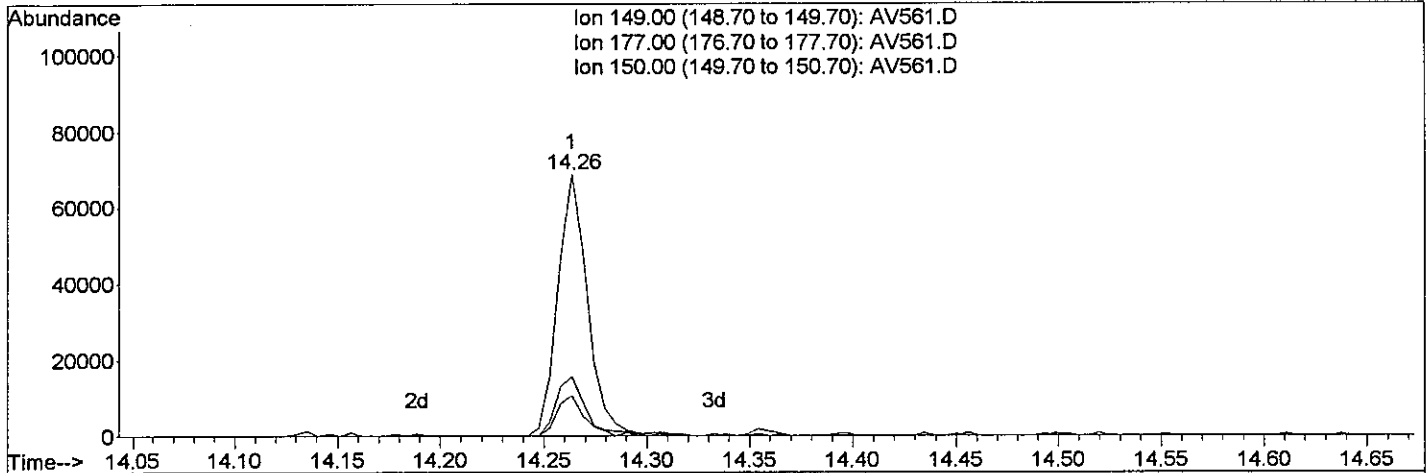
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973C\DATA\101309\AV561.D
 Acq On : 13 Oct 2009 7:03 pm
 Sample : INITIAL CALIBRATION
 Misc : 0.5/1.0 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 9:16 2009

Vial: 5
 Operator: J.Wu
 Inst : 5973C
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973C\METHODS\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:16:25 2009
 Response via : Multiple Level Calibration



TIC: AV561.D

(17) Diethylphthalate

14.26min 0.45ppm

response 69420

Ion	Exp%	Act%
149.00	100	100
177.00	21.50	22.73
150.00	11.10	15.52#
0.00	0.00	0.00

b

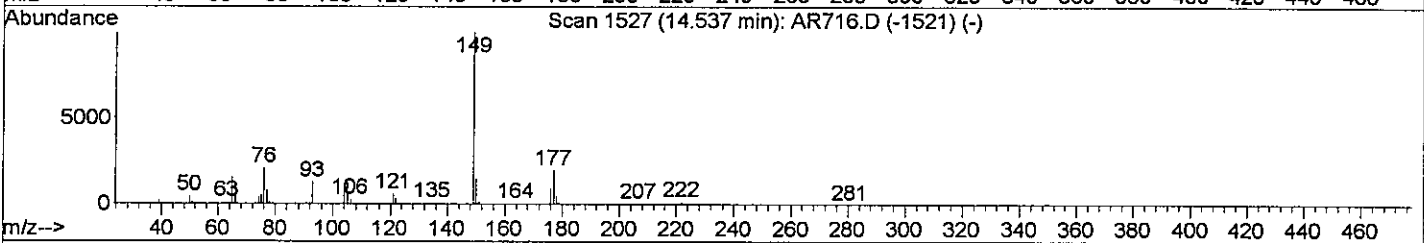
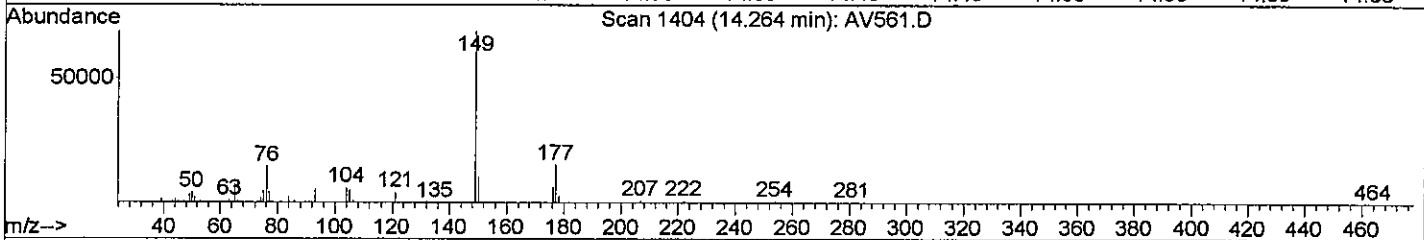
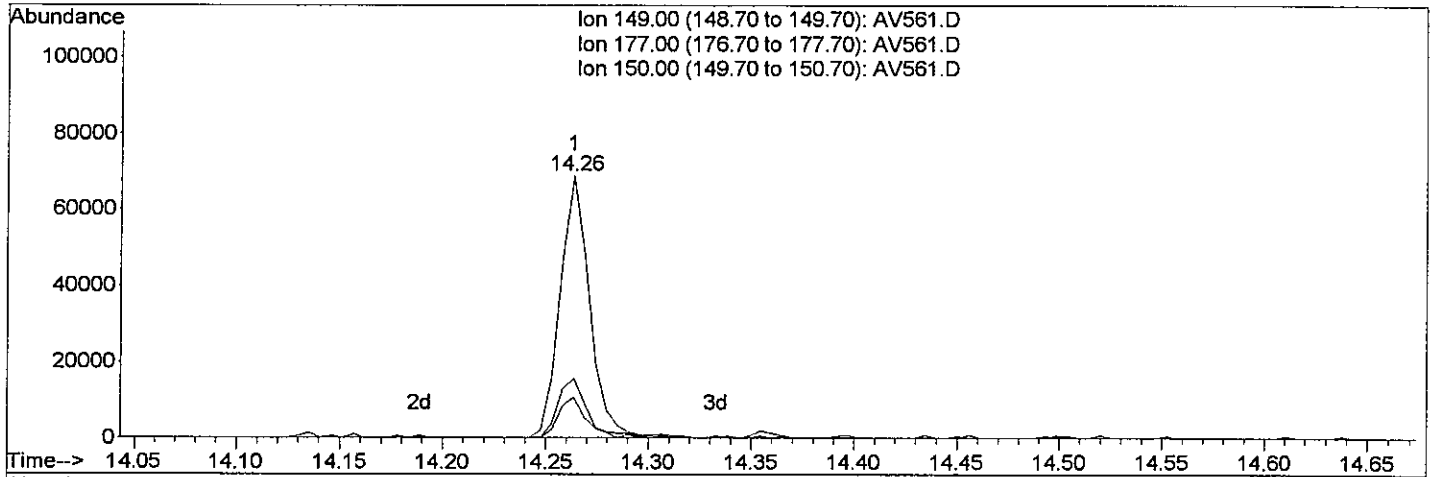
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973C\DATA\101309\AV561.D
 Acq On : 13 Oct 2009 7:03 pm
 Sample : INITIAL CALIBRATION
 Misc : 0.5/1.0 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 9:16 2009

Vial: 5
 Operator: J.Wu
 Inst : 5973C
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973C\METHODS\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:16:25 2009
 Response via : Multiple Level Calibration



TIC: AV561.D

(17) Diethylphthalate

14.26min 0.45ppm m

response 69420

Ion	Exp%	Act%
149.00	100	100
177.00	21.50	22.73
150.00	11.10	15.52#
0.00	0.00	0.00

A J.W 10/14/09
ref 10/14

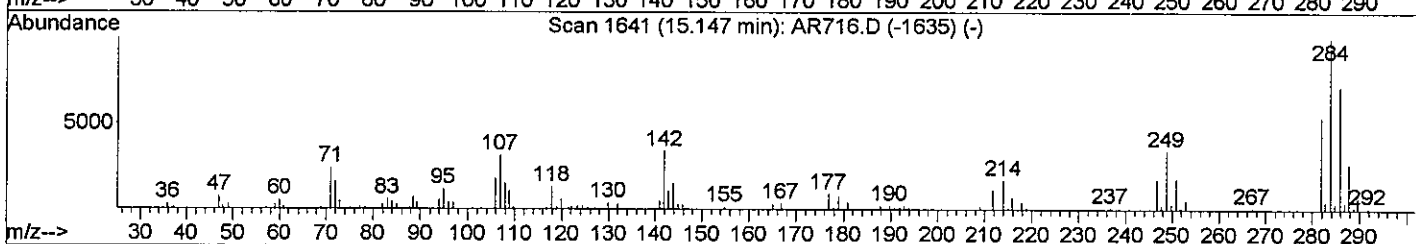
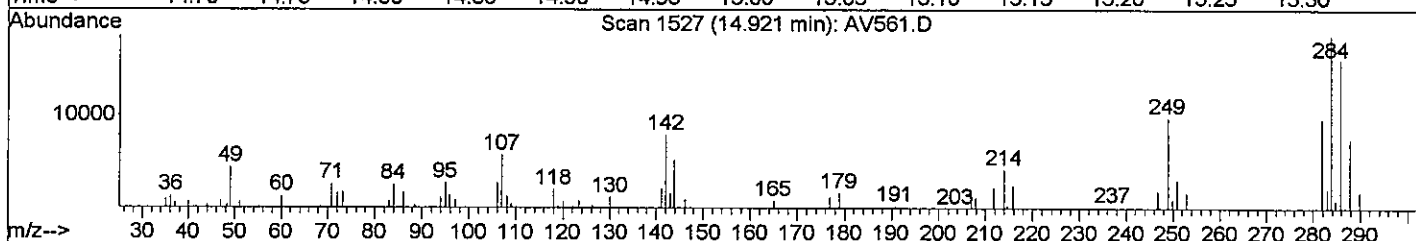
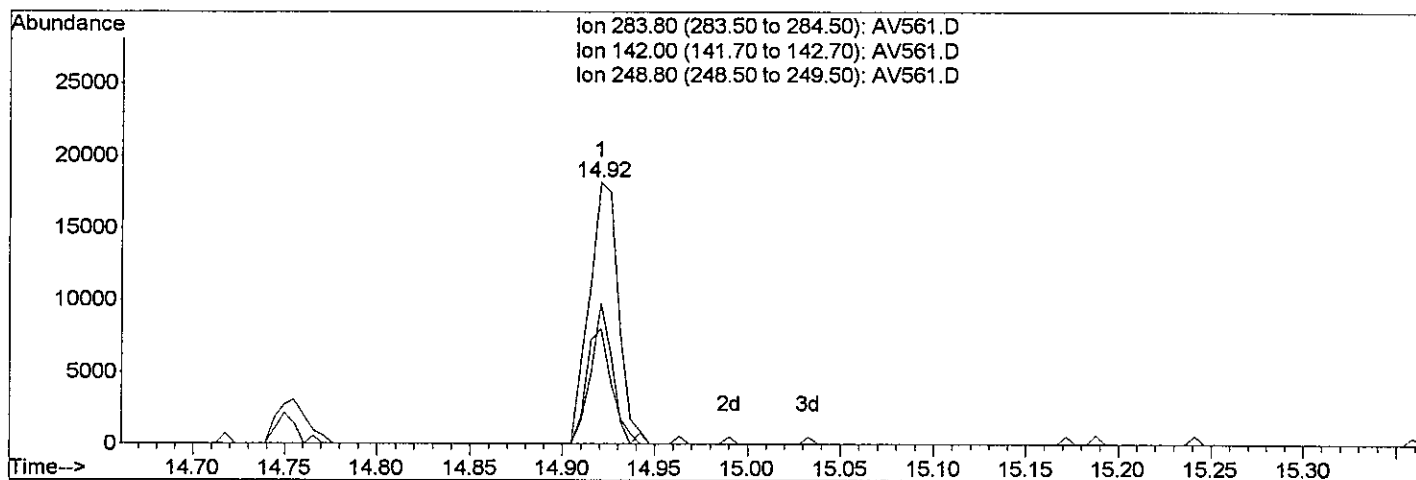
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973C\DATA\101309\AV561.D
 Acq On : 13 Oct 2009 7:03 pm
 Sample : INITIAL CALIBRATION
 Misc : 0.5/1.0 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 9:16 2009

Vial: 5
 Operator: J.Wu
 Inst : 5973C
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973C\METHODS\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:16:25 2009
 Response via : Multiple Level Calibration



TIC: AV561.D

(19) Hexachlorobenzene (T)

14.92min 0.46ppm

response 20116

Ion	Exp%	Act%
283.80	100	100
142.00	35.50	44.05
248.80	32.40	53.88#
0.00	0.00	0.00

B

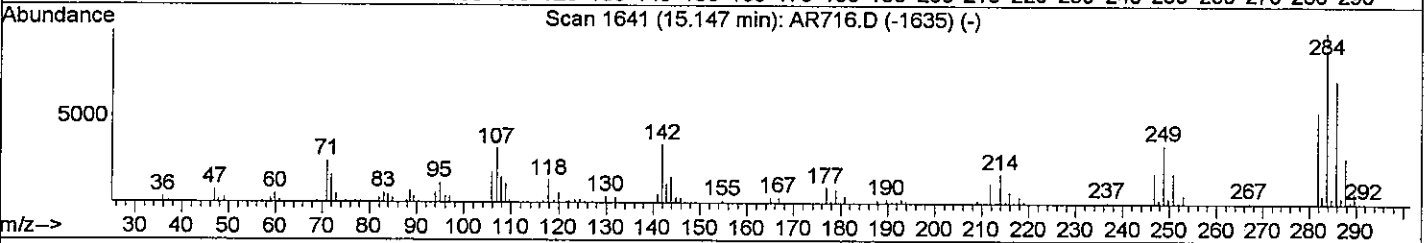
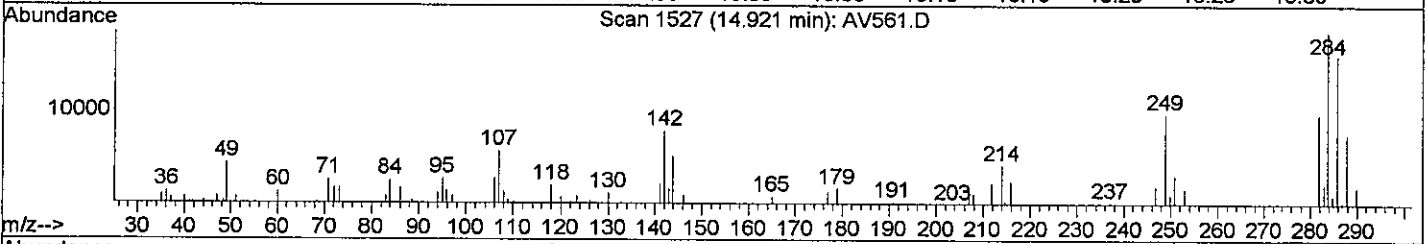
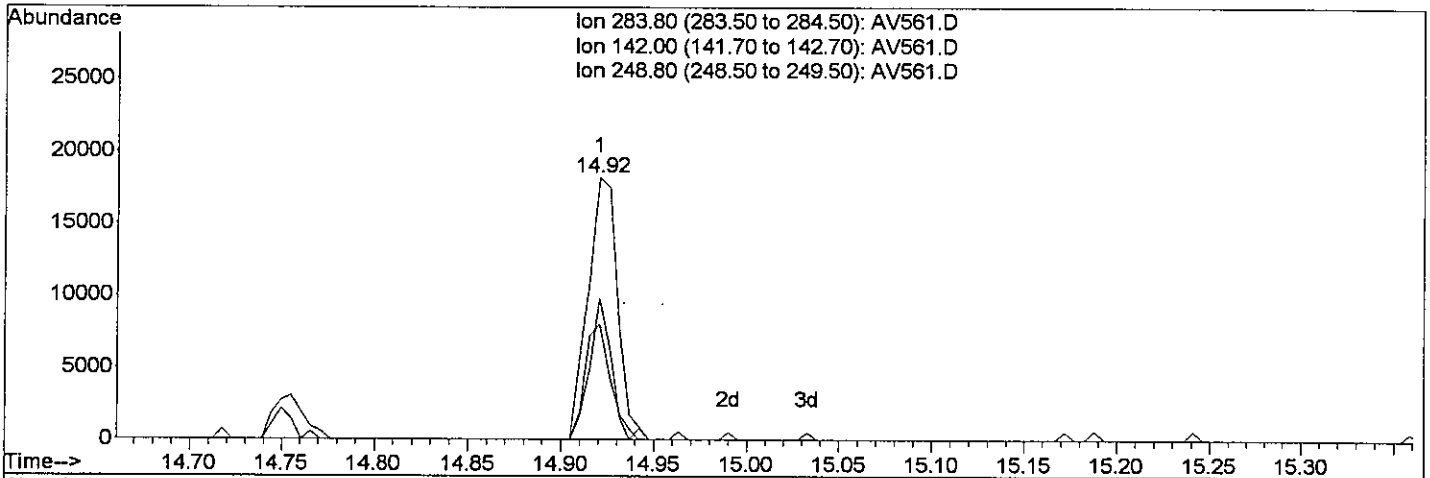
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973C\DATA\101309\AV561.D
 Acq On : 13 Oct 2009 7:03 pm
 Sample : INITIAL CALIBRATION
 Misc : 0.5/1.0 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 9:17 2009

Vial: 5
 Operator: J.Wu
 Inst : 5973C
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973C\METHODS\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:16:25 2009
 Response via : Multiple Level Calibration



(19) Hexachlorobenzene (T)

14.92min 0.46ppm m

response 20110

Ion	Exp%	Act%
283.80	100	100
142.00	35.50	44.05
248.80	32.40	53.88#
0.00	0.00	0.00

A JW 10/14/09

*14
10/14*

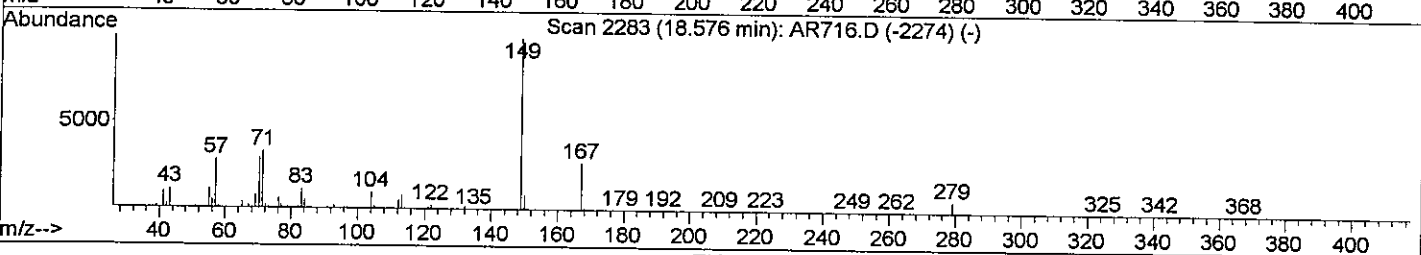
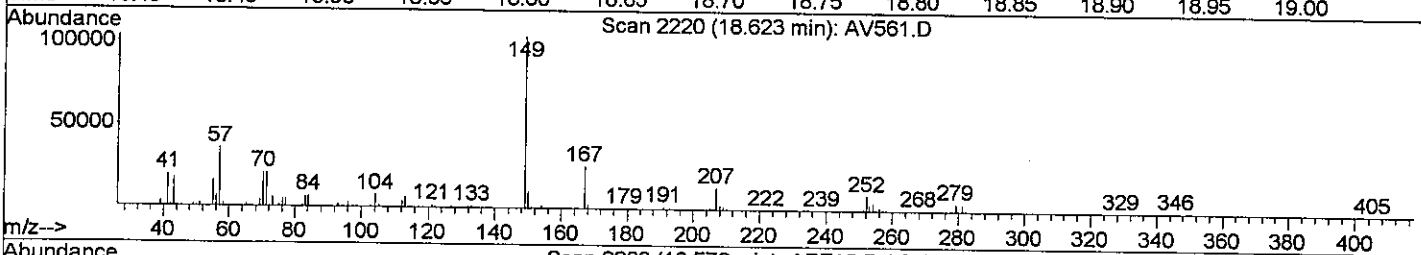
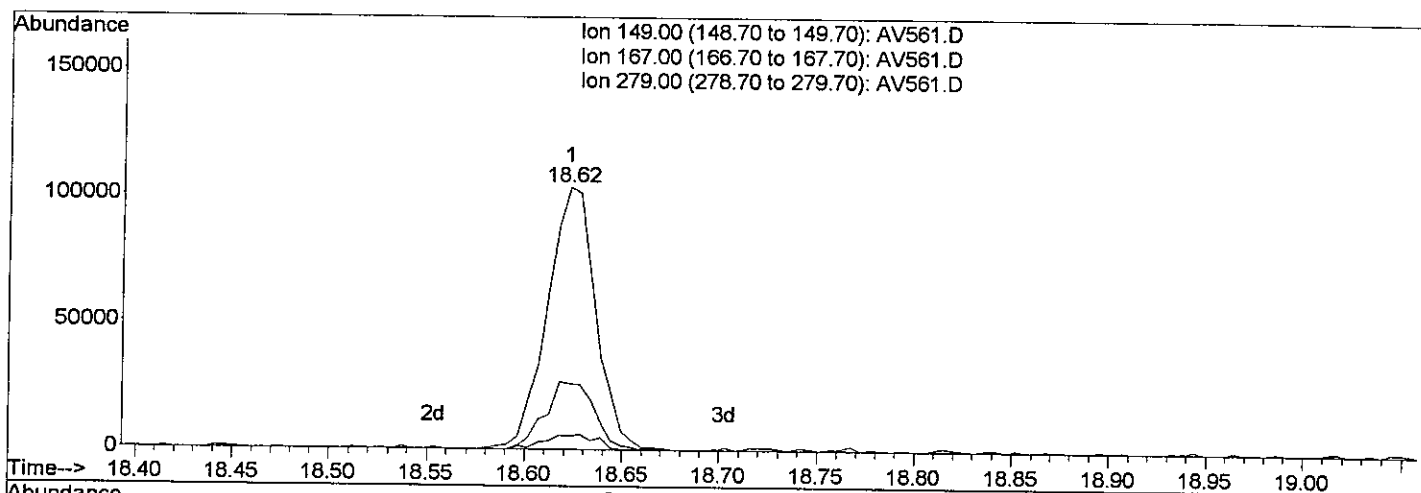
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973C\DATA\101309\AV561.D
 Acq On : 13 Oct 2009 7:03 pm
 Sample : INITIAL CALIBRATION
 Misc : 0.5/1.0 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 9:17 2009

Vial: 5
 Operator: J.Wu
 Inst : 5973C
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973C\METHODS\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:16:25 2009
 Response via : Single Level Calibration



(30) bis(2-Ethylhexyl)phthalate (T)

18.62min 1.39ppm

response 179532

Ion	Exp%	Act%
149.00	100	100
167.00	30.40	25.08
279.00	7.40	5.05#
0.00	0.00	0.00

b

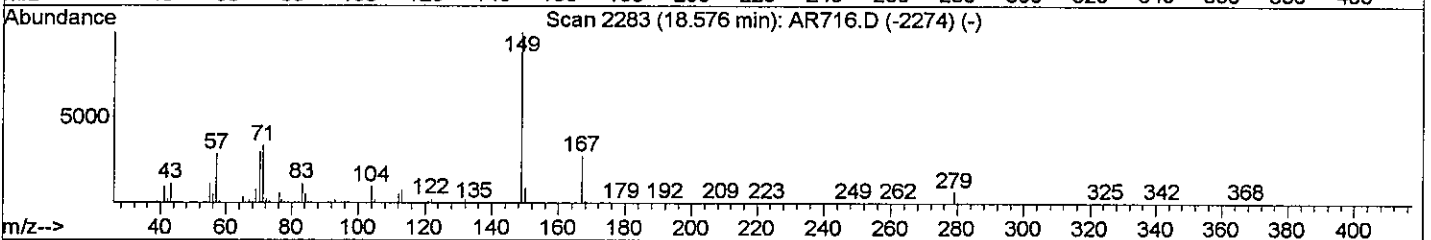
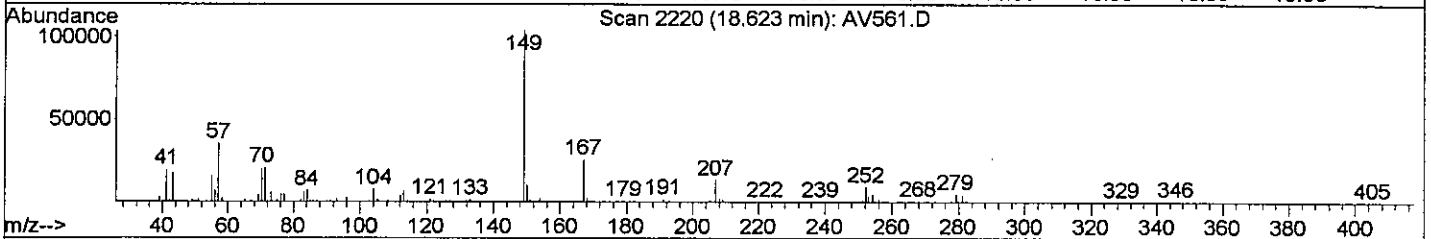
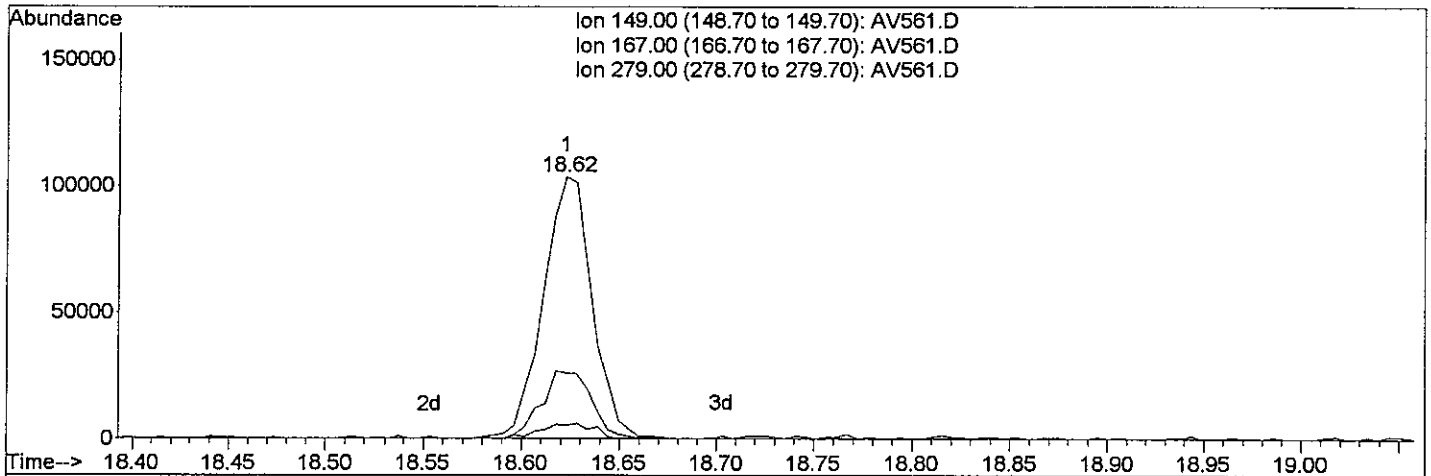
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973C\DATA\101309\AV561.D
 Acq On : 13 Oct 2009 7:03 pm
 Sample : INITIAL CALIBRATION
 Misc : 0.5/1.0 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 9:17 2009

Vial: 5
 Operator: J.Wu
 Inst : 5973C
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973C\METHODS\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:16:25 2009
 Response via : Single Level Calibration



TIC: AV561.D

(30) bis(2-Ethylhexyl)phthalate (T)

18.62min 1.39ppm m

response 179547

Ion	Exp%	Act%
149.00	100	100
167.00	30.40	25.08
279.00	7.40	5.05#
0.00	0.00	0.00

JW 10/14/09

*MJ
H/H*

Quantitation Report (QT Reviewed)

Data File : J:\ACQUDATA\5973C\DATA\101309\AV562.D
 Acq On : 13 Oct 2009 7:40 pm
 Sample : INITIAL CALIBRATION
 Misc : 1.0/2.0 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 09:18:27 2009

Vial: 6
 Operator: J.Wu
 Inst : 5973C
 Multiplr: 1.00

Quant Results File: LVI1013.RES

Quant Method : J:\ACQUDATA\5...\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:18:22 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI1013

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) d4-1,4-Dichlorobenzene	11.17	152	51571	1.00	ppm	0.00
4) d8-Naphthalene	12.42	136	186134	1.00	ppm	0.00
10) d10-Acenaphthene	13.99	164	124224	1.00	ppm	0.00
18) d10-Phenanthrene	15.20	188	154152	1.00	ppm	0.00
26) d12-Chrysene	18.79	240	230744	1.00	ppm	0.00
33) d12-Perylene	22.96	264	197279	1.00	ppm	0.00

System Monitoring Compounds

5) SURR4,NITROBENZENE-D5	11.75	82	92684	0.98	ppm	0.00
Spiked Amount 2.000	Range 22 - 124		Recovery	=	49.00%	
11) SURR5,2-FLUOROBIPHENYL	13.37	172	162980	0.95	ppm	0.00
Spiked Amount 2.000	Range 27 - 114		Recovery	=	47.50%	
28) SURR6,TERPHENYL-D14	16.92	244	145065	0.93	ppm	0.00
Spiked Amount 2.000	Range 23 - 139		Recovery	=	46.50%	

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	6.94	88	189054	1.98	ppm	97
3) Pyridine	7.69	79	119783	1.08	ppm	91
6) Nitrobenzene	11.76	77	102787	1.02	ppm	95
7) Naphthalene	12.44	128	207133	1.05	ppm	93
8) 2-Methylnaphthalene	13.06	142	133325	0.99	ppm	99
9) 1-Methylnaphthalene	13.16	142	132671	1.02	ppm	96
12) Acenaphthylene	13.88	152	213469	0.92	ppm	98
13) Dimethyl phthalate	13.72	163	153715m ₄	0.85	ppm	
14) Acenaphthene	14.02	153	130184	0.91	ppm	99
15) Dibenzofuran	14.14	168	177411	0.98	ppm	93
16) Fluorene	14.40	166	129604	0.94	ppm	89
17) Diethylphthalate	14.26	149	125395m ₄	0.81	ppm	
19) Hexachlorobenzene	14.92	284	37840	0.88	ppm	94
20) Phenanthrene	15.23	178	168894	0.97	ppm	95
21) Anthracene	15.27	178	193907	1.13	ppm	97
22) Carbazole	15.39	167	151280	1.09	ppm	99
23) Octachlorostyrene	16.29	380	7551m ₄	0.97	ppm	
24) Di-n-butylphthalate	15.64	149	250853	0.99	ppm	97
25) Fluoranthene	16.52	202	197525	1.02	ppm	93
27) Pyrene	16.82	202	222914	0.94	ppm	97
29) Butyl benzyl phthalate	17.59	149	149033	0.87	ppm	92
30) bis(2-Ethylhexyl)phthalate	18.62	149	383359	2.04	ppm	97
31) Benzo(a)anthracene	18.75	228	251989	0.99	ppm	93
32) Chrysene	18.84	228	249826	0.96	ppm	97
34) Di-n-octyl phthalate	20.13	149	277175	1.36	ppm	95
35) Benzo(b)Fluoranthene	21.67	252	268402	0.99	ppm	85

(#) = qualifier out of range (m) = manual integration
 AV562.D LVI1013.M Wed Oct 14 09:47:58 2009

JW

Quantitation Report (QT Reviewed)

Data File : J:\ACQUDATA\5973C\DATA\101309\AV562.D Vial: 6
 Acq On : 13 Oct 2009 7:40 pm Operator: J.Wu
 Sample : INITIAL CALIBRATION Inst : 5973C
 Misc : 1.0/2.0 PPM STD 8270.LL Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 09:18:27 2009 Quant Results File: LVI1013.RES

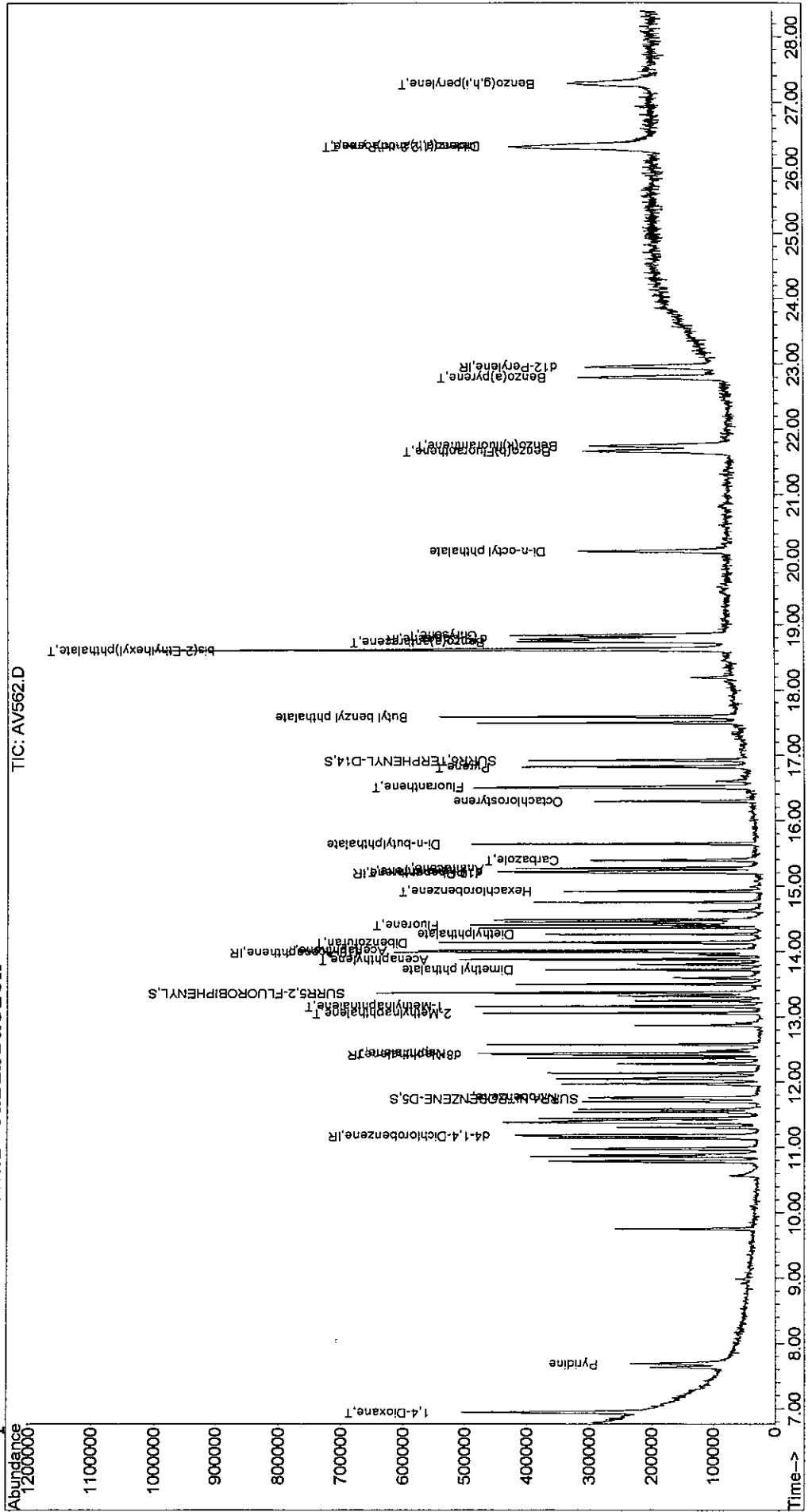
Quant Method : J:\ACQUDATA\5...\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:18:22 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI1013

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
36) Benzo(k)fluoranthene	21.74	252	258331	0.97	ppm	96
37) Benzo(a)pyrene	22.79	252	246445	0.97	ppm	98
38) Indeno(1,2,3-cd)Pyrene	26.32	276	258008m ₁)	0.95	ppm	
39) Dibenz(a,h)anthracene	26.33	278	204333	0.88	ppm	93
40) Benzo(g,h,i)perylene	27.28	276	225917	1.02	ppm	94

Quantitation Report (QT Reviewed)

Data File : J:\ACQDATA\5973C\DATA\101309\AV562.D Vial: 6
 Acq On : 13 Oct 2009 7:40 pm Operator: J.Wu
 Sample : INITIAL CALIBRATION Inst : 5973C
 Misc : 1.0/2.0 PPM STD 8270.LL Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 9:19 2009 Quant Results File: LVII1013.RES

Method : J:\ACQDATA\5973C\METHODS\LVII1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:26:08 2009
 Response via : Initial Calibration



00407

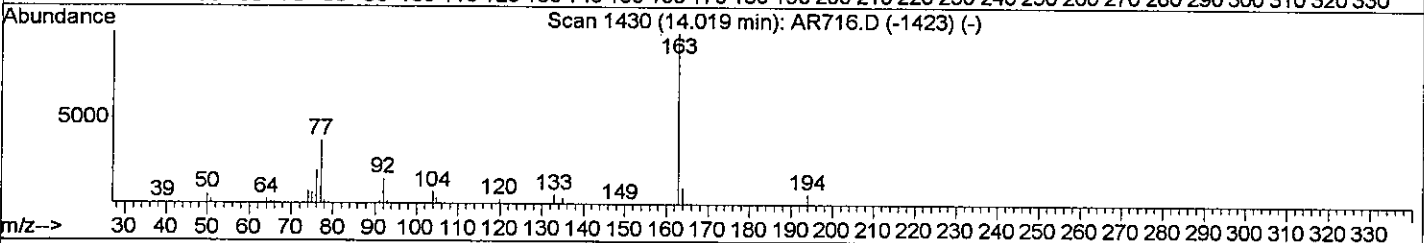
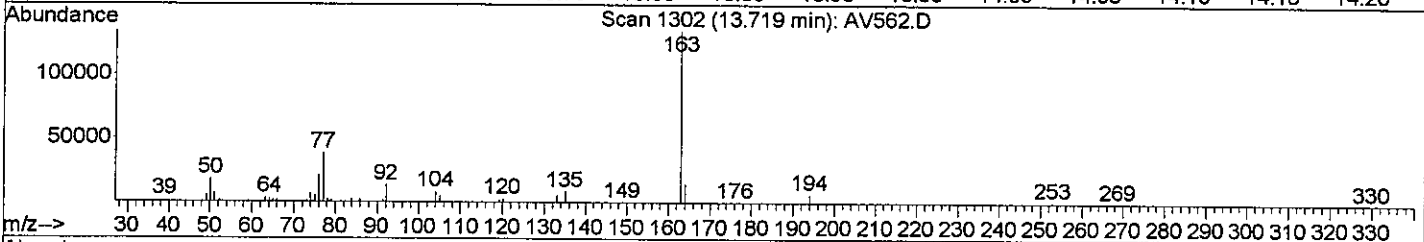
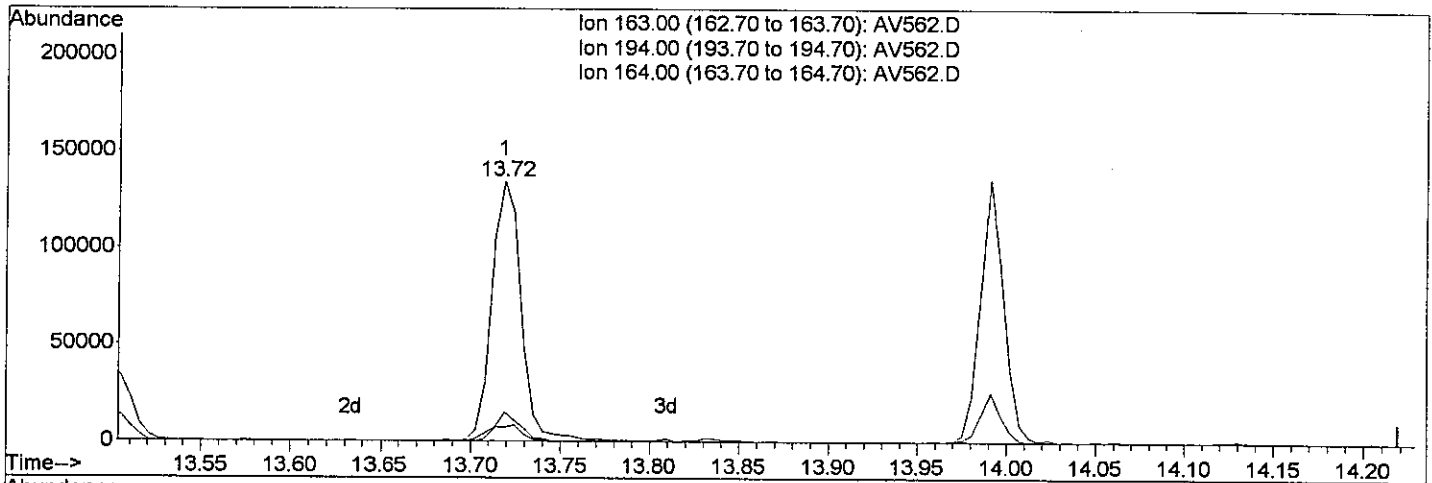
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973C\DATA\101309\AV562.D
 Acq On : 13 Oct 2009 7:40 pm
 Sample : INITIAL CALIBRATION
 Misc : 1.0/2.0 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 9:18 2009

Vial: 6
 Operator: J.Wu
 Inst : 5973C
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973C\METHODS\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:18:22 2009
 Response via : Multiple Level Calibration



TIC: AV562.D

(13) Dimethyl phthalate

13.72min 0.84ppm

response 153272

Ion Exp% Act%

163.00 100 100

194.00 7.70 5.36#

164.00 10.90 11.20

0.00 0.00 0.00

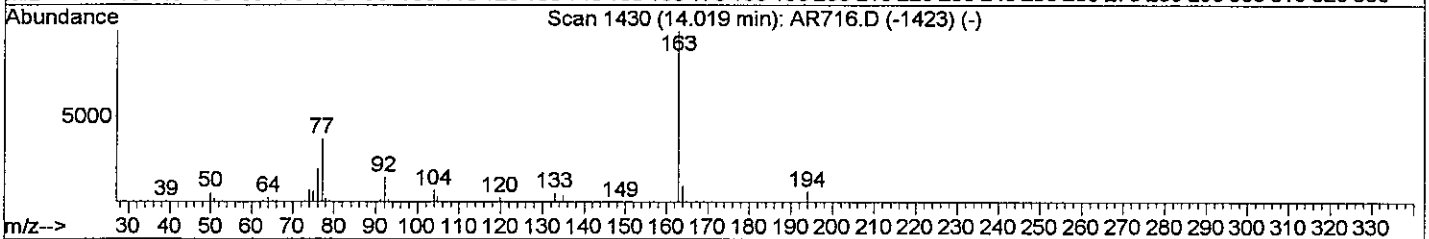
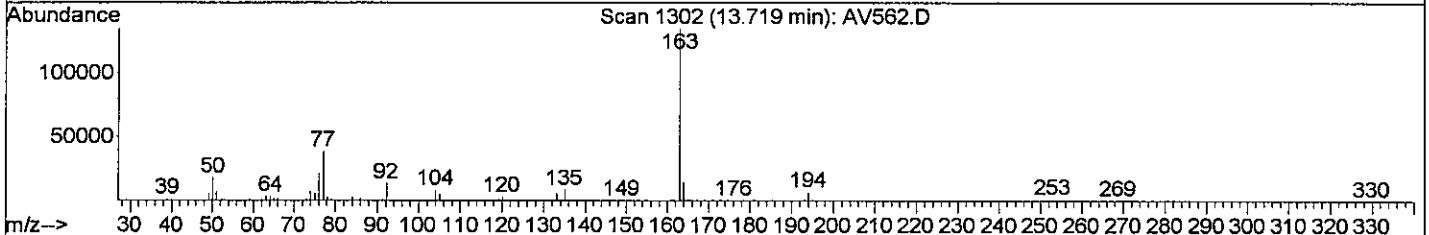
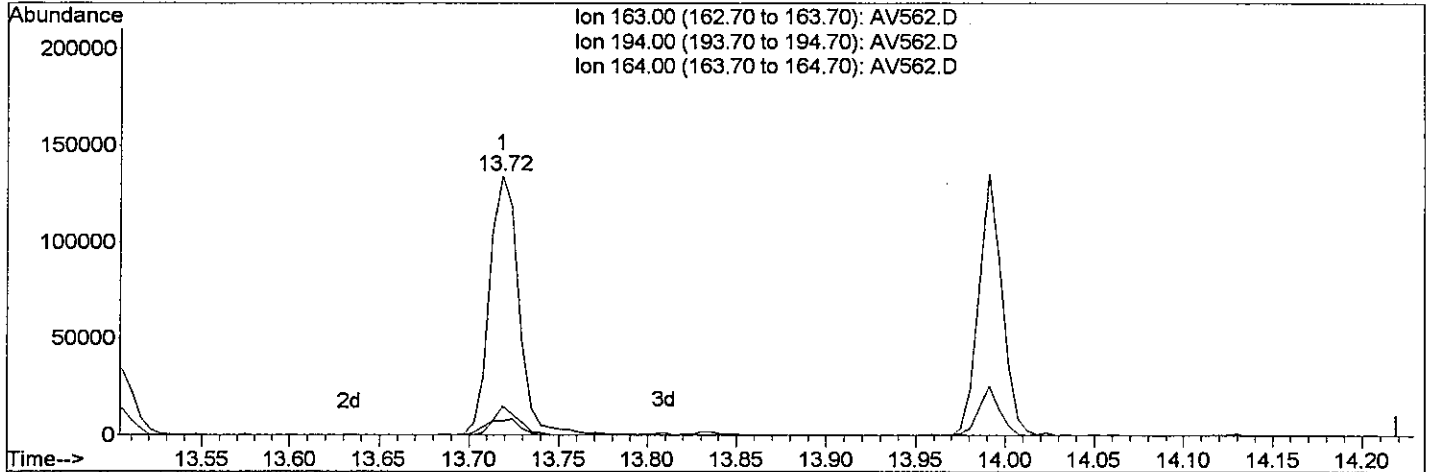
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973C\DATA\101309\AV562.D
 Acq On : 13 Oct 2009 7:40 pm
 Sample : INITIAL CALIBRATION
 Misc : 1.0/2.0 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 9:18 2009

Vial: 6
 Operator: J.Wu
 Inst : 5973C
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973C\METHODS\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:18:22 2009
 Response via : Multiple Level Calibration



TIC: AV562.D

(13) Dimethyl phthalate		
13.72min 0.85ppm m		
response 153715		
Ion	Exp%	Act%
163.00	100	100
194.00	7.70	5.34#
164.00	10.90	11.17
0.00	0.00	0.00

A JW 10/14/09
KW 10/14

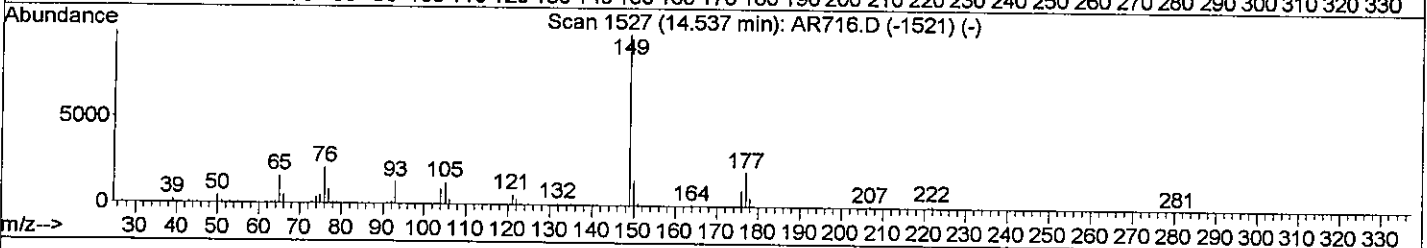
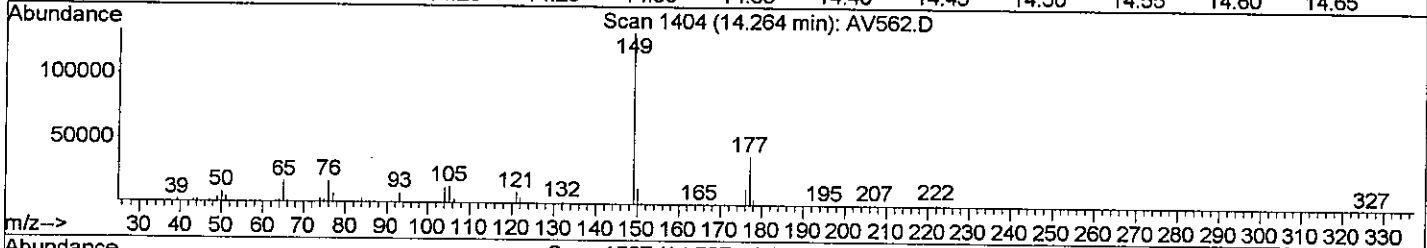
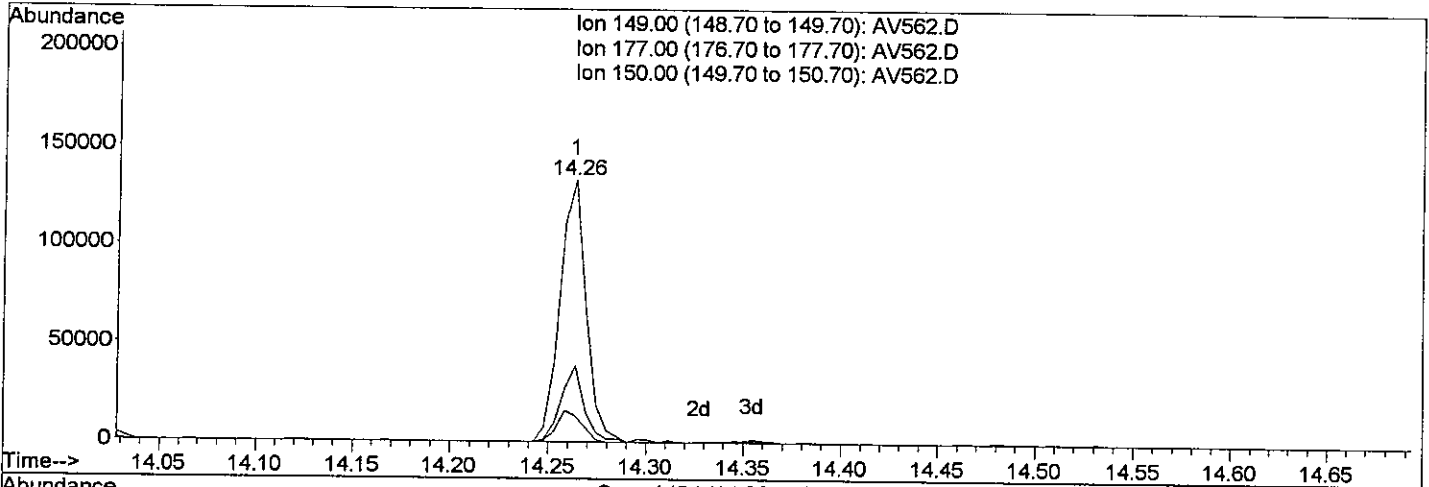
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973C\DATA\101309\AV562.D
 Acq On : 13 Oct 2009 7:40 pm
 Sample : INITIAL CALIBRATION
 Misc : 1.0/2.0 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 9:18 2009

Vial: 6
 Operator: J.Wu
 Inst : 5973C
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973C\METHODS\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:18:22 2009
 Response via : Multiple Level Calibration



TIC: AV562.D

(17) Diethylphthalate

14.26min 0.81ppm

response 125397

Ion	Exp%	Act%
149.00	100	100
177.00	21.50	29.00#
150.00	11.10	10.01
0.00	0.00	0.00

b

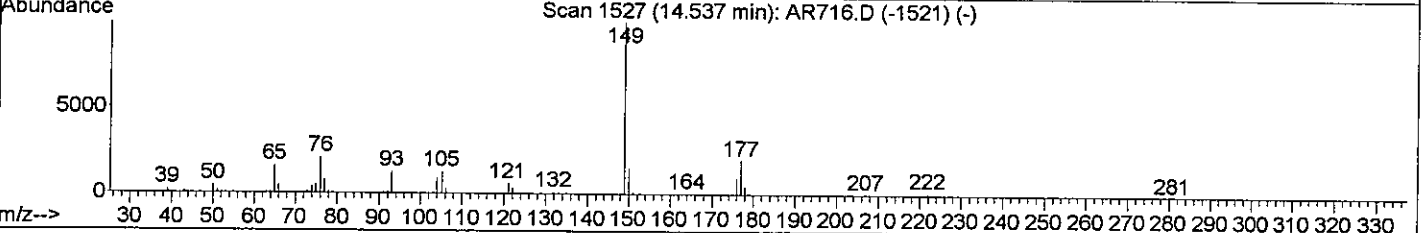
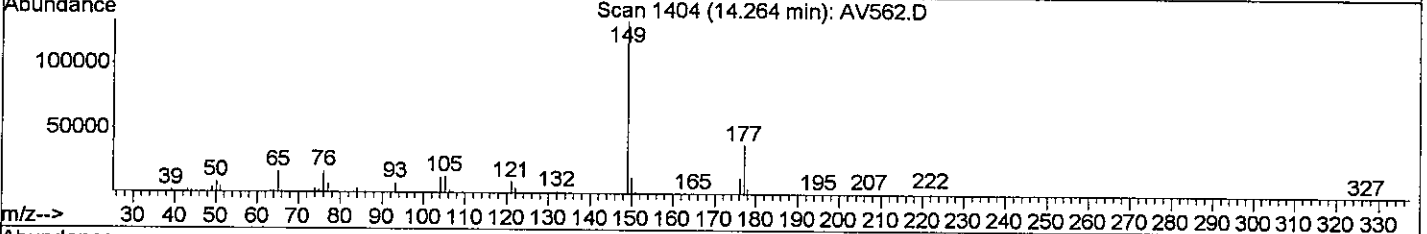
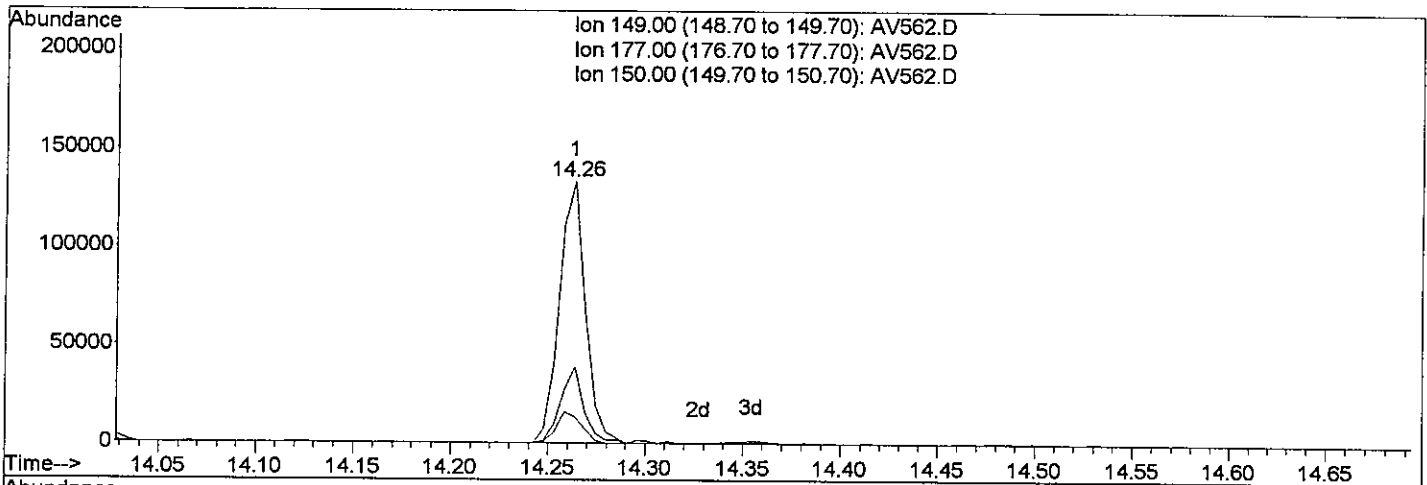
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973C\DATA\101309\AV562.D
 Acq On : 13 Oct 2009 7:40 pm
 Sample : INITIAL CALIBRATION
 Misc : 1.0/2.0 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 9:19 2009

Vial: 6
 Operator: J.Wu
 Inst : 5973C
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973C\METHODS\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:18:22 2009
 Response via : Multiple Level Calibration



TIC: AV562.D

(17) Diethylphthalate

14.26min 0.81ppm m

response 125395

Ion	Exp%	Act%
149.00	100	100
177.00	21.50	29.00#
150.00	11.10	10.01
0.00	0.00	0.00

A JW 10/14/09

WJW 10/14

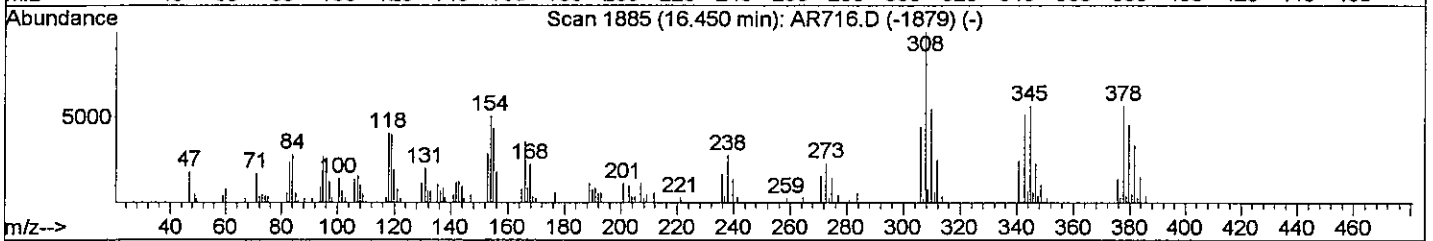
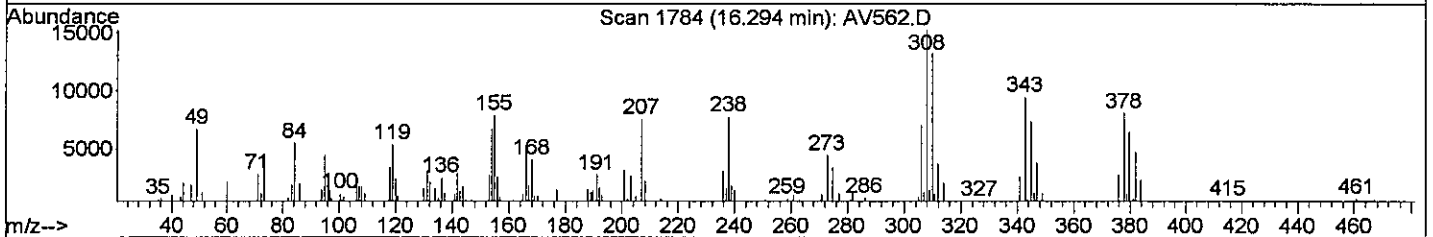
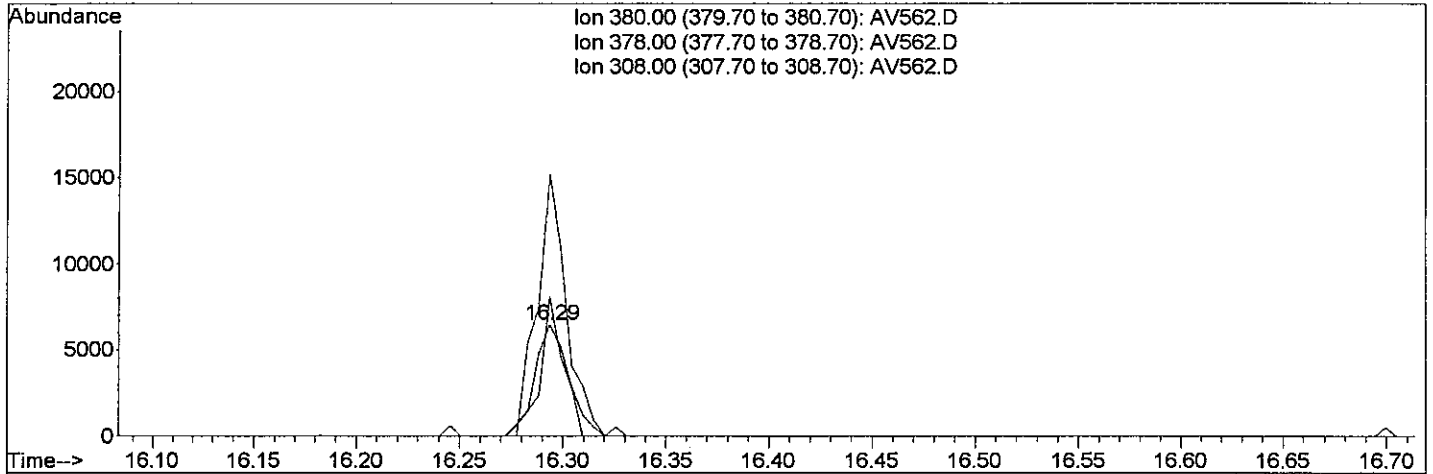
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973C\DATA\101309\AV562.D
 Acq On : 13 Oct 2009 7:40 pm
 Sample : INITIAL CALIBRATION
 Misc : 1.0/2.0 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 9:19 2009

Vial: 6
 Operator: J.Wu
 Inst : 5973C
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973C\METHODS\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:18:22 2009
 Response via : Multiple Level Calibration



TIC: AV562.D

(23) Octachlorostyrene

16.29min 0.97ppm

response 7552

Ion	Exp%	Act%
380.00	100	100
378.00	103.70	143.05#
308.00	220.20	235.57
0.00	0.00	0.00

13

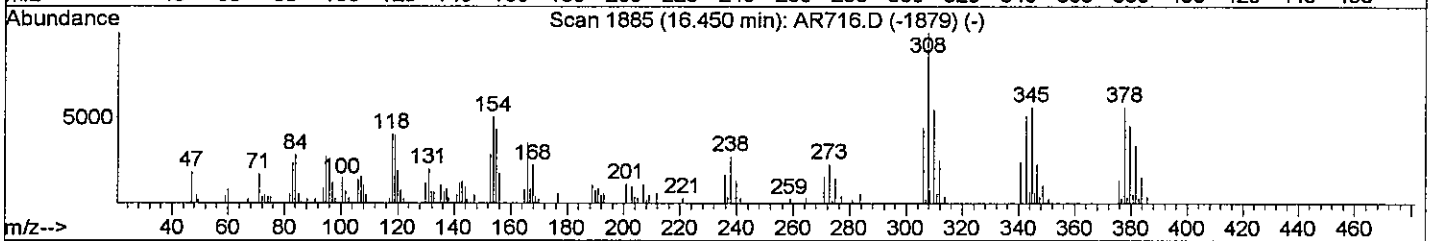
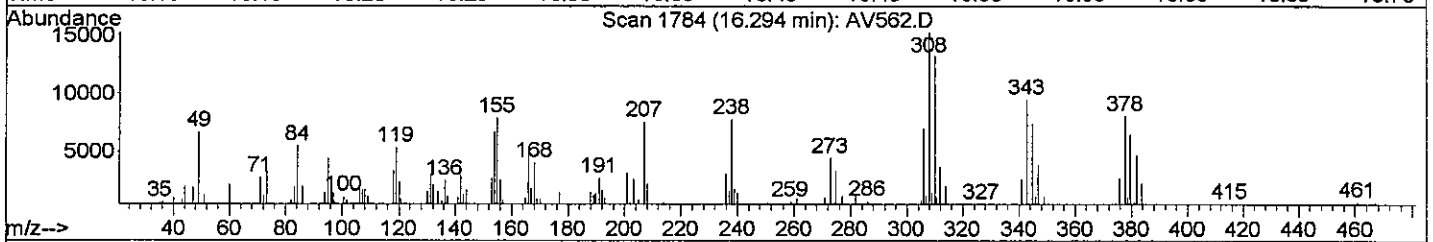
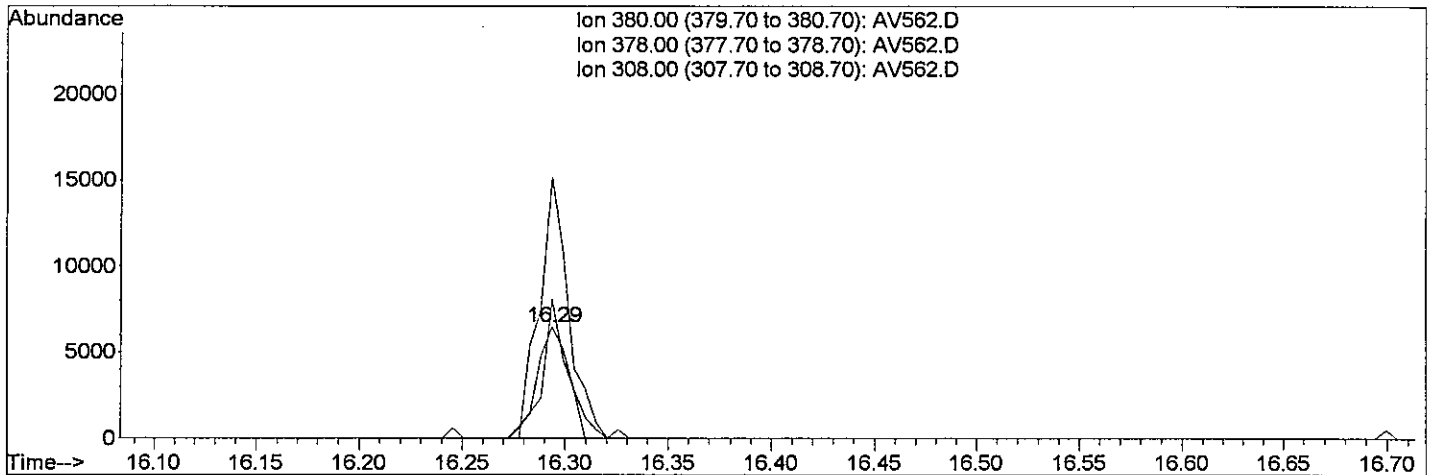
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973C\DATA\101309\AV562.D
 Acq On : 13 Oct 2009 7:40 pm
 Sample : INITIAL CALIBRATION
 Misc : 1.0/2.0 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 9:19 2009

Vial: 6
 Operator: J.Wu
 Inst : 5973C
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973C\METHODS\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:18:22 2009
 Response via : Multiple Level Calibration



TIC: AV562.D

(23) Octachlorostyrene

16.29min 0.97ppm m

response 7551

Ion	Exp%	Act%
380.00	100	100
378.00	103.70	125.36
308.00	220.20	235.57
0.00	0.00	0.00

J.W. 10/14/09

MJ 10/14

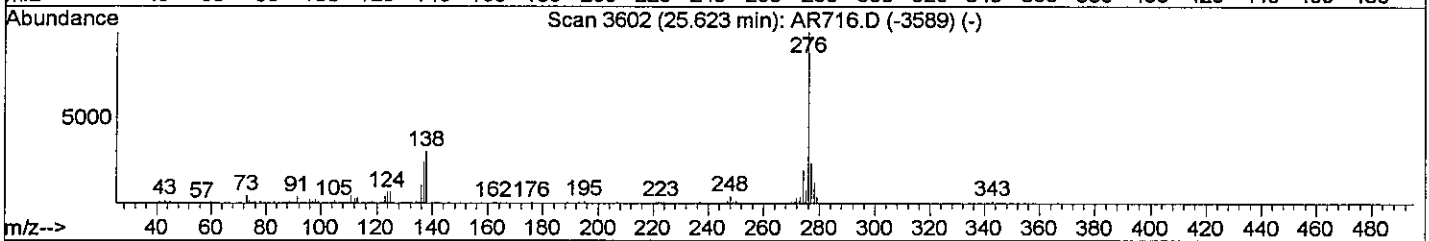
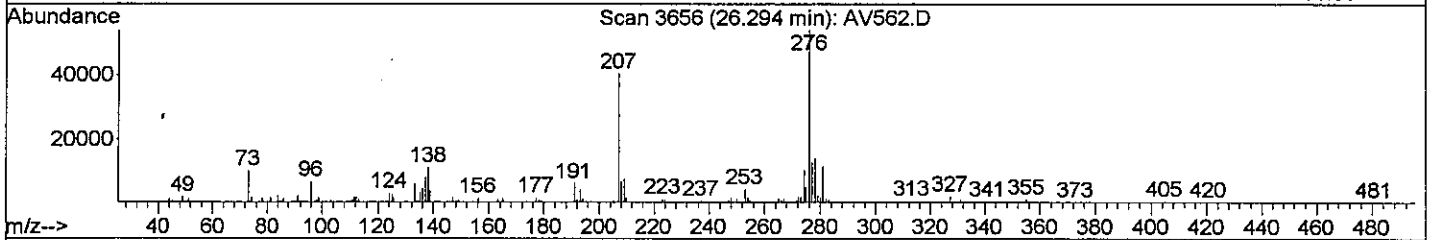
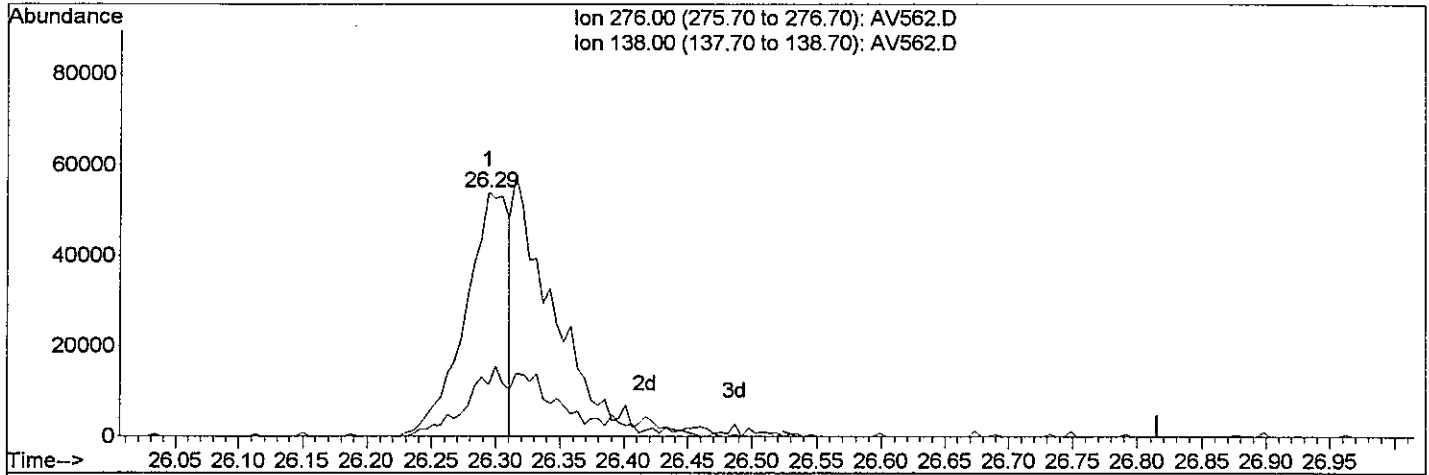
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973C\DATA\101309\AV562.D
 Acq On : 13 Oct 2009 7:40 pm
 Sample : INITIAL CALIBRATION
 Misc : 1.0/2.0 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 9:19 2009

Vial: 6
 Operator: J.Wu
 Inst : 5973C
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973C\METHODS\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:18:22 2009
 Response via : Multiple Level Calibration



TIC: AV562.D

(38) Indeno(1,2,3-cd)Pyrene (T)		
26.29min	0.47ppm	
response	127356	
Ion	Exp%	Act%
276.00	100	100
138.00	30.60	20.94
0.00	0.00	0.00
0.00	0.00	0.00

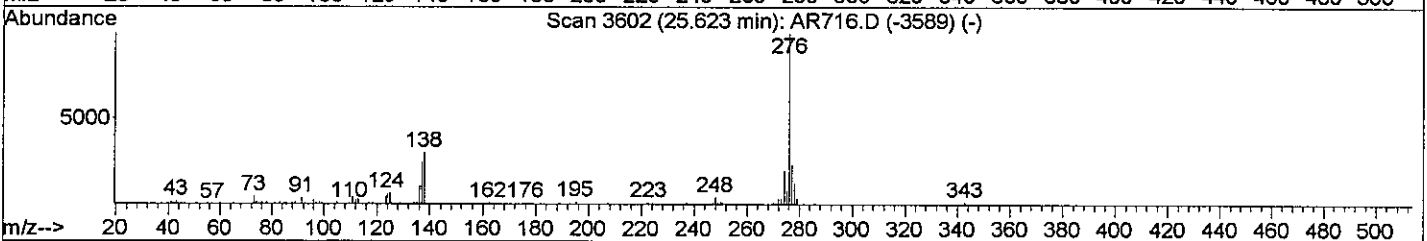
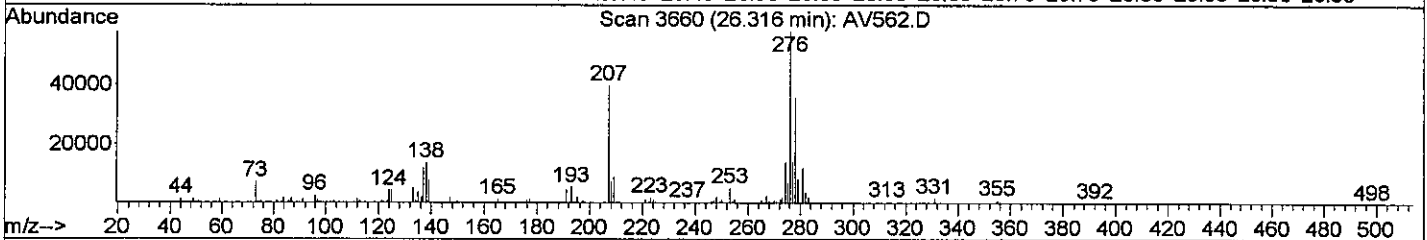
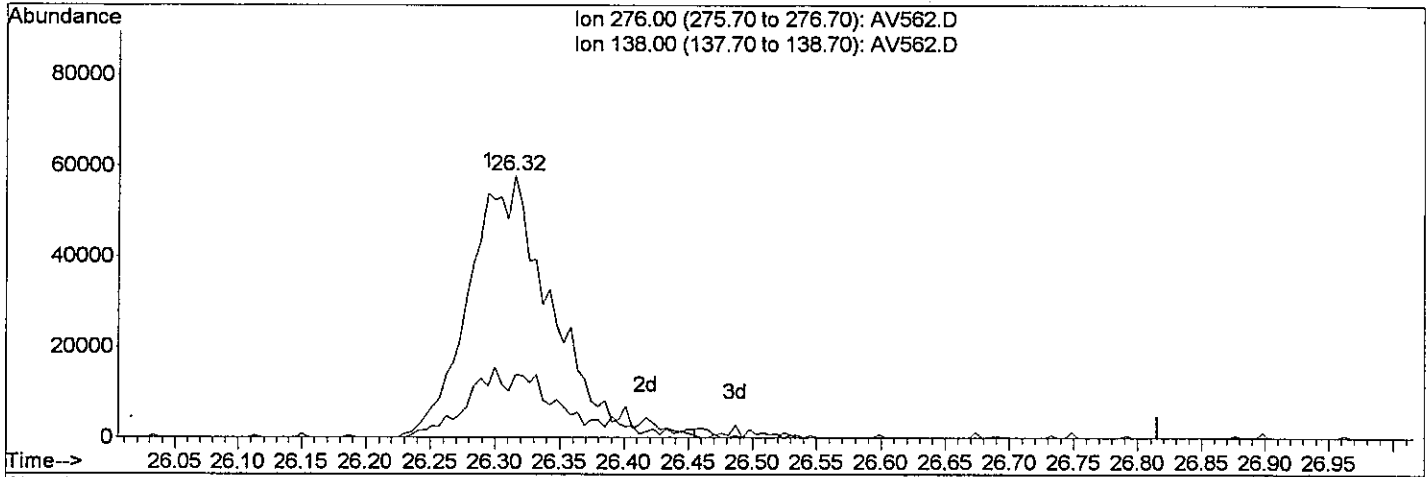
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973C\DATA\101309\AV562.D
 Acq On : 13 Oct 2009 7:40 pm
 Sample : INITIAL CALIBRATION
 Misc : 1.0/2.0 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 9:19 2009

Vial: 6
 Operator: J.Wu
 Inst : 5973C
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973C\METHODS\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:18:22 2009
 Response via : Multiple Level Calibration



TIC: AV562.D

(38) Indeno(1,2,3-cd)Pyrene (T)

26.32min 0.95ppm m

response 258008

Ion	Exp%	Act%
276.00	100	100
138.00	30.60	23.87
0.00	0.00	0.00
0.00	0.00	0.00

A JW 10/14/09
144

Quantitation Report (QT Reviewed)

Data File : J:\ACQUDATA\5973C\DATA\101309\AV563.D Vial: 7
 Acq On : 13 Oct 2009 8:18 pm Operator: J.Wu
 Sample : INITIAL CALIBRATION Inst : 5973C
 Misc : 2.0/4.0 PPM STD 8270.LL Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 09:09:13 2009 Quant Results File: LVI1013.RES

Quant Method : J:\ACQUDATA\5...\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:09:07 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI1013

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	11.17	152	55546	1.00	ppm	0.00
4) d8-Naphthalene	12.42	136	204385	1.00	ppm	0.00
10) d10-Acenaphthene	13.99	164	132463	1.00	ppm	0.00
18) d10-Phenanthrene	15.20	188	169132	1.00	ppm	0.00
26) d12-Chrysene	18.79	240	227912	1.00	ppm	0.00
33) d12-Perylene	22.95	264	207767	1.00	ppm	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
5) SURR4,NITROBENZENE-D5	11.75	82	214396	2.02	ppm	0.00
Spiked Amount	2.000	Range	22 - 124	Recovery	=	101.00%
11) SURR5,2-FLUOROBIPHENYL	13.37	172	365281	1.96	ppm	0.00
Spiked Amount	2.000	Range	27 - 114	Recovery	=	98.00%
28) SURR6,TERPHENYL-D14	16.92	244	320073	2.04	ppm	0.00
Spiked Amount	2.000	Range	23 - 139	Recovery	=	102.00%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	6.94	88	390671	4.08	ppm	100
3) Pyridine	7.68	79	254510	2.16	ppm	100
6) Nitrobenzene	11.76	77	233768	2.11	ppm	100
7) Naphthalene	12.44	128	451149	2.00	ppm	100
8) 2-Methylnaphthalene	13.06	142	297569	2.08	ppm	100
9) 1-Methylnaphthalene	13.16	142	299165	2.07	ppm	100
12) Acenaphthylene	13.88	152	489217	2.00	ppm	100
13) Dimethyl phthalate	13.72	163	368611	1.82	ppm	100
14) Acenaphthene	14.02	153	306838	1.99	ppm	100
15) Dibenzofuran	14.14	168	385102	1.98	ppm	100
16) Fluorene	14.40	166	298750	1.95	ppm	100
17) Diethylphthalate	14.26	149	288722	1.60	ppm	100
19) Hexachlorobenzene	14.92	284	94278	2.06	ppm	100
20) Phenanthrene	15.23	178	391734	2.04	ppm	100
21) Anthracene	15.27	178	393620	2.05	ppm	100
22) Carbazole	15.39	167	318819	2.02	ppm	100
23) Octachlorostyrene	16.29	380	16162	1.59	ppm	100
24) Di-n-butylphthalate	15.64	149	494032	1.74	ppm	100
25) Fluoranthene	16.51	202	423907	2.01	ppm	100
27) Pyrene	16.82	202	451785	1.91	ppm	100
29) Butyl benzyl phthalate	17.59	149	328238	1.93	ppm	100
30) bis(2-Ethylhexyl)phthalate	18.62	149	899268	3.86	ppm	100
31) Benzo(a)anthracene	18.75	228	527812	2.08	ppm	100
32) Chrysene	18.84	228	515821	2.04	ppm	100
34) Di-n-octyl phthalate	20.13	149	697155	2.20	ppm	100
35) Benzo(b)Fluoranthene	21.67	252	585376	2.08	ppm	100

(#) = qualifier out of range (m) = manual integration
 AV563.D LVI1013.M Wed Oct 14 09:48:07 2009

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Quantitation Report (QT Reviewed)

Data File : J:\ACQUDATA\5973C\DATA\101309\AV563.D Vial: 7
 Acq On : 13 Oct 2009 8:18 pm Operator: J.Wu
 Sample : INITIAL CALIBRATION Inst : 5973C
 Misc : 2.0/4.0 PPM STD 8270.LL Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 09:09:13 2009 Quant Results File: LVI1013.RES

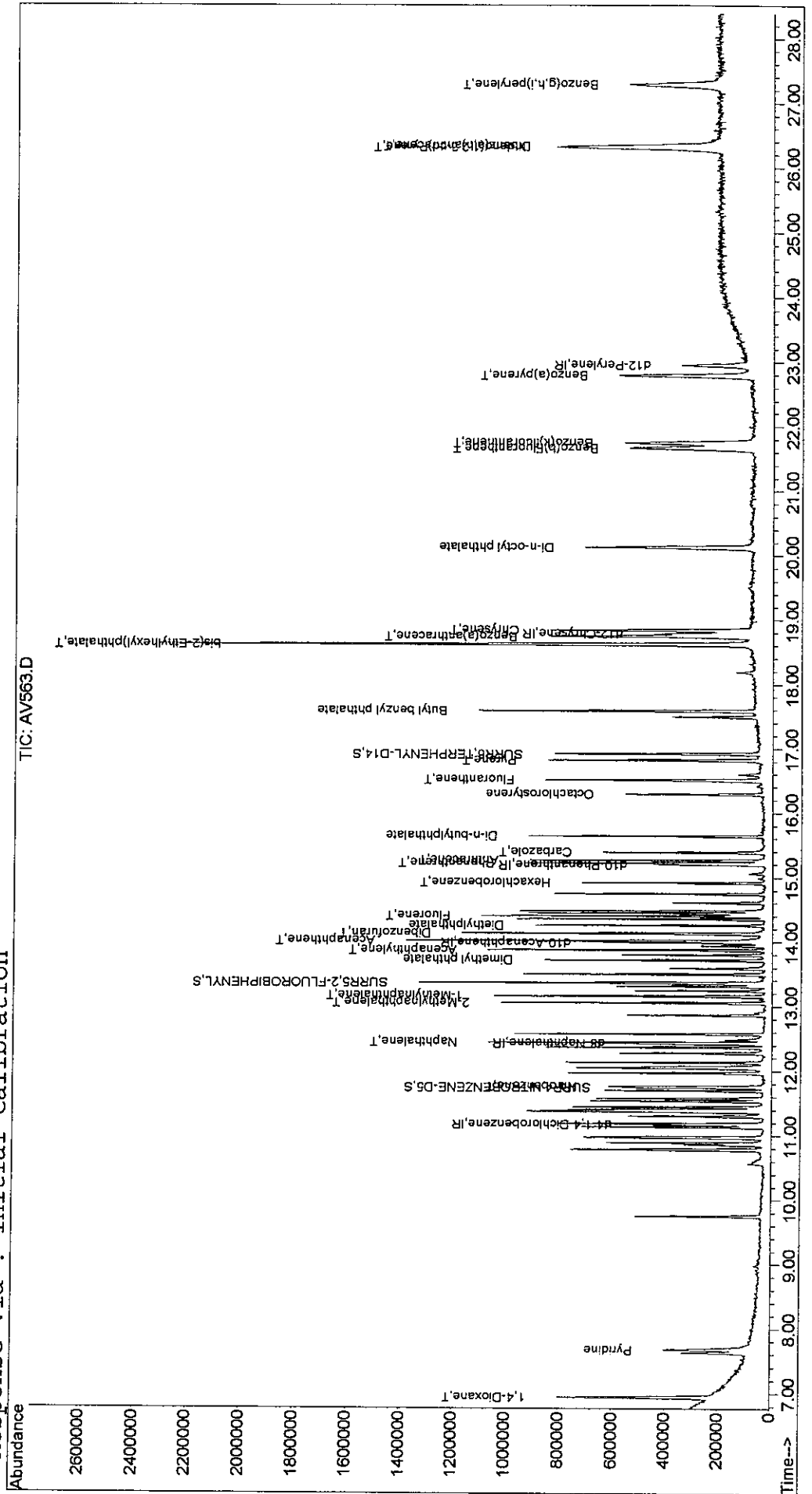
Quant Method : J:\ACQUDATA\5...\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:09:07 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI1013

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
36) Benzo(k)fluoranthene	21.74	252	567333	2.06	ppm	100
37) Benzo(a)pyrene	22.80	252	537967	2.04	ppm	100
38) Indeno(1,2,3-cd)Pyrene	26.32	276	588835	2.05	ppm	100
39) Dibenz(a,h)anthracene	26.33	278	495517	2.03	ppm	100
40) Benzo(g,h,i)perylene	27.29	276	500614	2.14	ppm	100

Quantitation Report (QT Reviewed)

Data File : J:\ACQDATA\5973C\DATA\101309\AV563.D
 Acq On : 13 Oct 2009 8:18 pm Vial: 7
 Sample : INITIAL CALIBRATION Operator: J.Wu
 Misc : 2.0/4.0 PPM STD 8270.LL Inst : 5973C
 MS Integration Params: RTEINT.P Multiplr: 1.00
 Quant Time: Oct 14 9:09 2009 Quant Results File: LVII1013.RES

Method : J:\ACQDATA\5973C\METHODS\LVII1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:26:08 2009
 Response via : Initial Calibration



81400

Quantitation Report (QT Reviewed)

Data File : J:\ACQUDATA\5973C\DATA\101309\AV564.D Vial: 8
 Acq On : 13 Oct 2009 8:56 pm Operator: J.Wu
 Sample : INITIAL CALIBRATION Inst : 5973C
 Misc : 3.0/6.0 PPM STD 8270.LL Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 09:20:08 2009 Quant Results File: LVI1013.RES

Quant Method : J:\ACQUDATA\5...\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:20:01 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI1013

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	11.17	152	59127	1.00	ppm	0.00
4) d8-Naphthalene	12.42	136	236170	1.00	ppm	0.00
10) d10-Acenaphthene	13.99	164	147923	1.00	ppm	0.00
18) d10-Phenanthrene	15.20	188	183761	1.00	ppm	0.00
26) d12-Chrysene	18.79	240	239042	1.00	ppm	0.00
33) d12-Perylene	22.95	264	215795	1.00	ppm	0.00

System Monitoring Compounds

5) SURR4,NITROBENZENE-D5	11.75	82	385633	3.23	ppm	0.00
Spiked Amount	2.000	Range	22 - 124	Recovery	=	161.50%#
11) SURR5,2-FLUOROBIPHENYL	13.37	172	636512	3.12	ppm	0.00
Spiked Amount	2.000	Range	27 - 114	Recovery	=	156.00%#
28) SURR6,TERPHENYL-D14	16.92	244	497654	3.11	ppm	0.00
Spiked Amount	2.000	Range	23 - 139	Recovery	=	155.50%#

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	6.94	88	769616	7.02	ppm	91
3) Pyridine	7.68	79	464038	3.59	ppm	98
6) Nitrobenzene	11.76	77	401969	3.15	ppm	96
7) Naphthalene	12.44	128	782475	3.11	ppm	98
8) 2-Methylnaphthalene	13.06	142	529423	3.07	ppm	98
9) 1-Methylnaphthalene	13.16	142	527705	3.17	ppm	98
12) Acenaphthylene	13.88	152	874476	3.19	ppm	99
13) Dimethyl phthalate	13.72	163	652105	3.06	ppm	96
14) Acenaphthene	14.02	153	537095	3.16	ppm	98
15) Dibenzofuran	14.14	168	656226	3.05	ppm	97
16) Fluorene	14.40	166	522217	3.19	ppm	96
17) Diethylphthalate	14.26	149	532692	2.96	ppm	98
19) Hexachlorobenzene	14.92	284	145632	2.85	ppm	99
20) Phenanthrene	15.23	178	670379	3.23	ppm	98
21) Anthracene	15.27	178	663758	3.22	ppm	98
22) Carbazole	15.39	167	444725	2.73	ppm	95
23) Octachlorostyrene	16.29	380	27782m _v	2.35	ppm	
24) Di-n-butylphthalate	15.64	149	769981	2.60	ppm	98
25) Fluoranthene	16.52	202	703668	3.01	ppm	99
27) Pyrene	16.82	202	749463	3.05	ppm	99
29) Butyl benzyl phthalate	17.59	149	525607	2.89	ppm	94
30) bis(2-Ethylhexyl)phthalate	18.62	149	1551246m _v	5.82	ppm	
31) Benzo(a)anthracene	18.75	228	843883	3.20	ppm	95
32) Chrysene	18.84	228	817978	3.05	ppm	98
34) Di-n-octyl phthalate	20.13	149	1244959	3.20	ppm	97
35) Benzo(b)Fluoranthene	21.67	252	889797	3.02	ppm	89

(#) = qualifier out of range (m) = manual integration

JW

Quantitation Report (QT Reviewed)

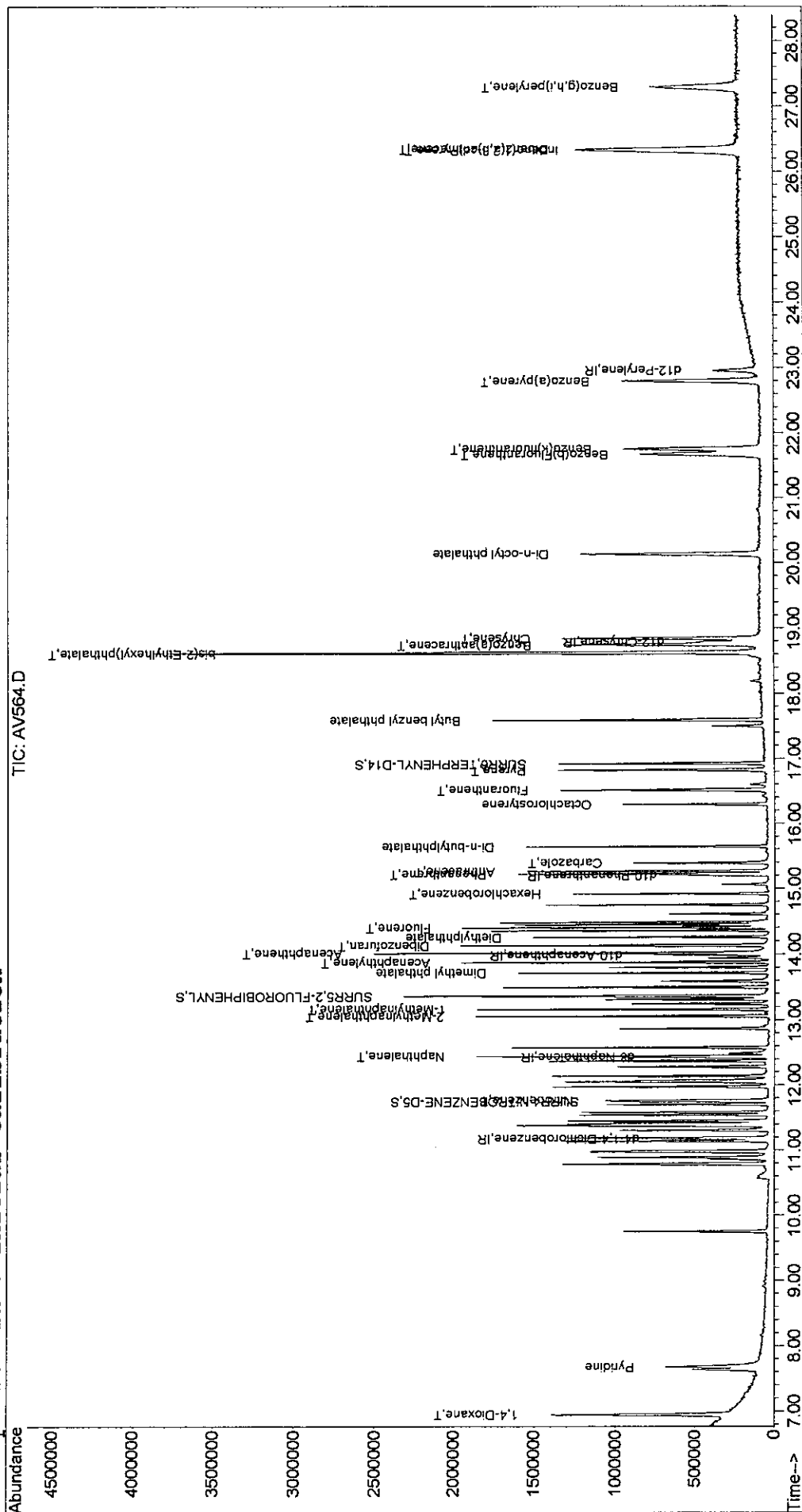
Data File : J:\ACQUDATA\5973C\DATA\101309\AV564.D Vial: 8
 Acq On : 13 Oct 2009 8:56 pm Operator: J.Wu
 Sample : INITIAL CALIBRATION Inst : 5973C
 Misc : 3.0/6.0 PPM STD 8270.LL Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 09:20:08 2009 Quant Results File: LVI1013.RES

Quant Method : J:\ACQUDATA\5...\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:20:01 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI1013

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
36) Benzo(k)fluoranthene	21.75	252	894402	3.07	ppm	89
37) Benzo(a)pyrene	22.79	252	859308	3.10	ppm	97
38) Indeno(1,2,3-cd)Pyrene	26.31	276	935614	3.15	ppm	99
39) Dibenz(a,h)anthracene	26.34	278	778758	3.09	ppm	98
40) Benzo(g,h,i)perylene	27.29	276	797088	3.32	ppm	96

Data File : J:\ACQDATA\5973C\DATA\101309\AV564.D Vial: 8
 Acq On : 13 Oct 2009 8:56 pm Operator: J.Wu
 Sample : INITIAL CALIBRATION Inst : 5973C
 Misc : 3.0/6.0 PPM STD 8270.LL Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 9:21 2009 Quant Results File: LVII1013.RES

Method : J:\ACQDATA\5973C\METHODS\LVII1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:26:08 2009
 Response via : Initial Calibration



124021

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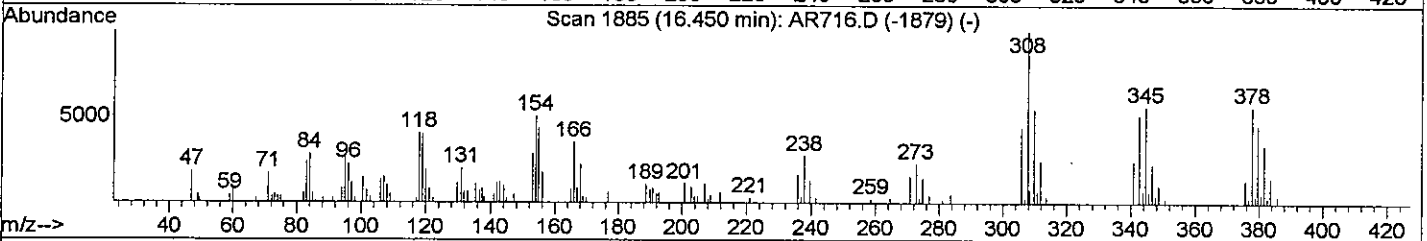
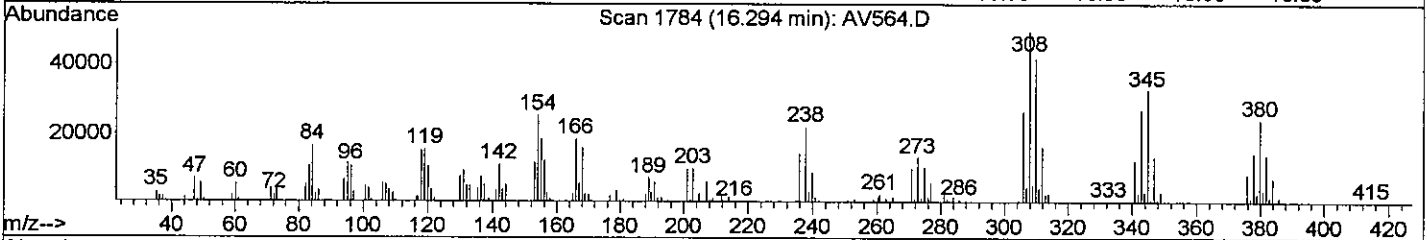
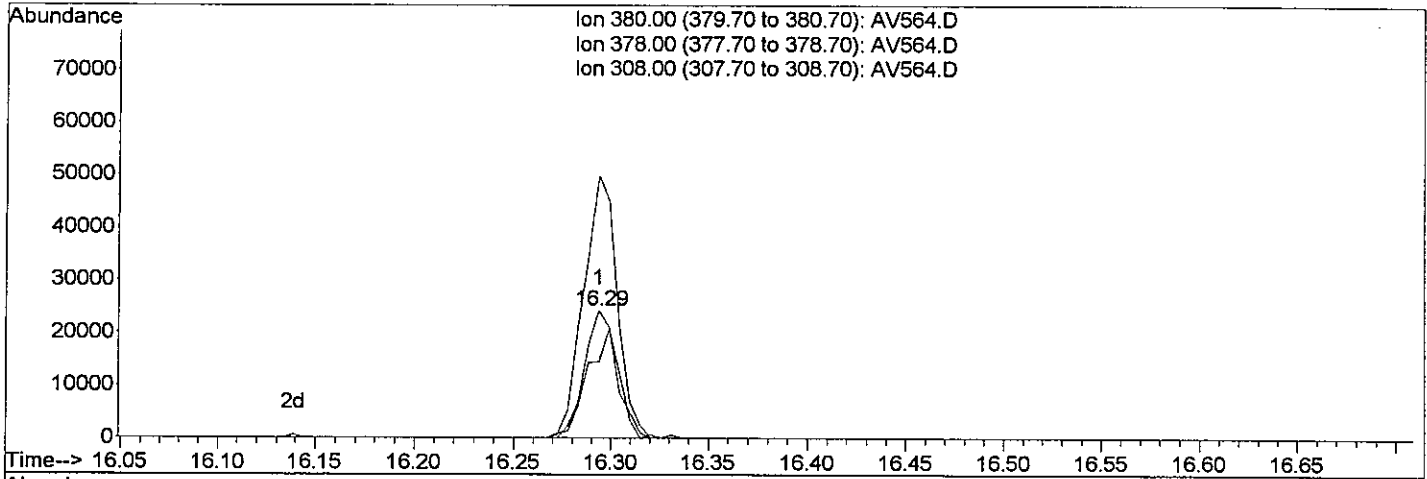
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973C\DATA\101309\AV564.D
 Acq On : 13 Oct 2009 8:56 pm
 Sample : INITIAL CALIBRATION
 Misc : 3.0/6.0 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 9:20 2009

Vial: 8
 Operator: J.Wu
 Inst : 5973C
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973C\METHODS\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:20:01 2009
 Response via : Multiple Level Calibration



TIC: AV564.D

(23) Octachlorostyrene

16.29min 2.35ppm

response 27782

Ion	Exp%	Act%
380.00	100	100
378.00	103.70	59.48#
308.00	220.20	206.01
0.00	0.00	0.00

B

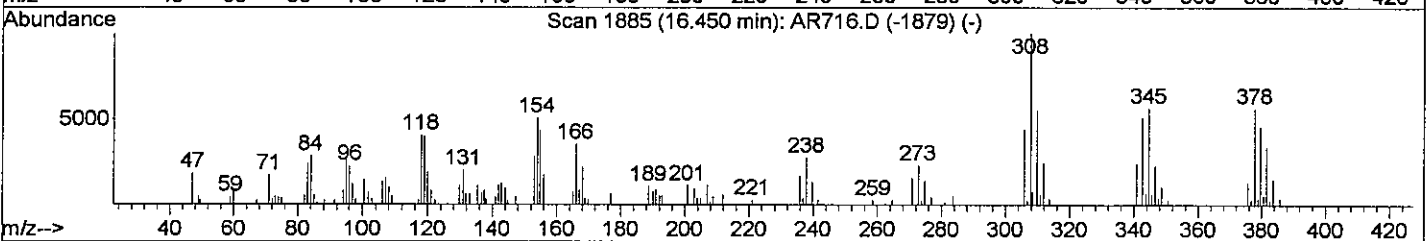
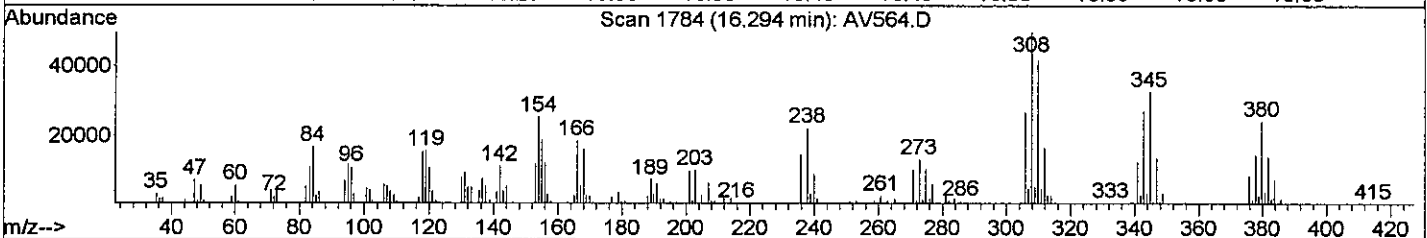
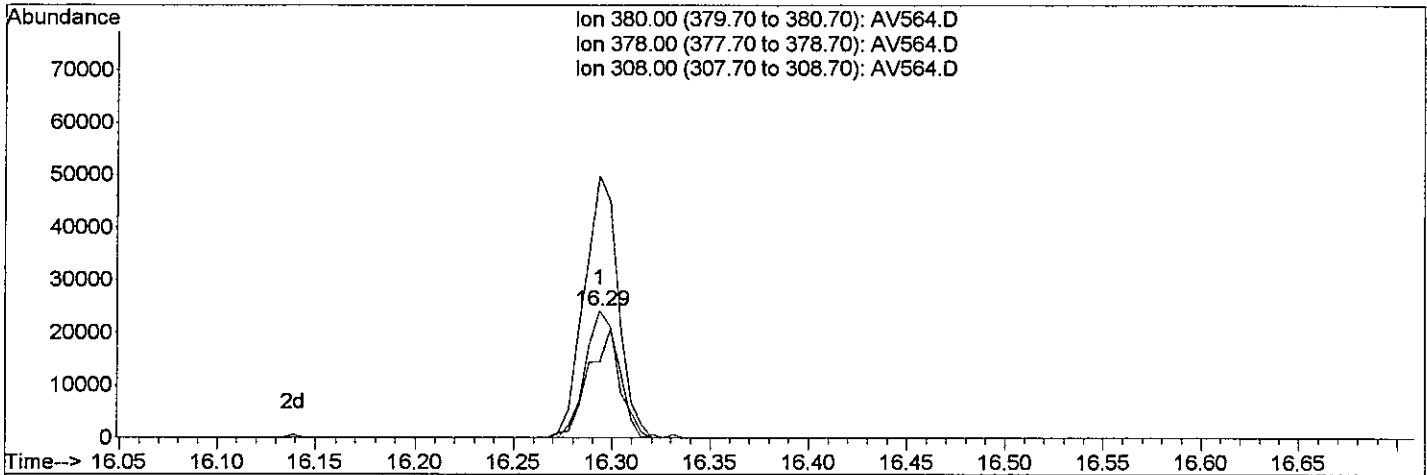
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973C\DATA\101309\AV564.D
 Acq On : 13 Oct 2009 8:56 pm
 Sample : INITIAL CALIBRATION
 Misc : 3.0/6.0 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 9:20 2009

Vial: 8
 Operator: J.Wu
 Inst : 5973C
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973C\METHODS\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:20:01 2009
 Response via : Multiple Level Calibration



TIC: AV564.D

(23) Octachlorostyrene

16.29min 2.35ppm m

response 27782

Ion	Exp%	Act%
380.00	100	100
378.00	103.70	59.48#
308.00	220.20	206.01
0.00	0.00	0.00

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M 10/14

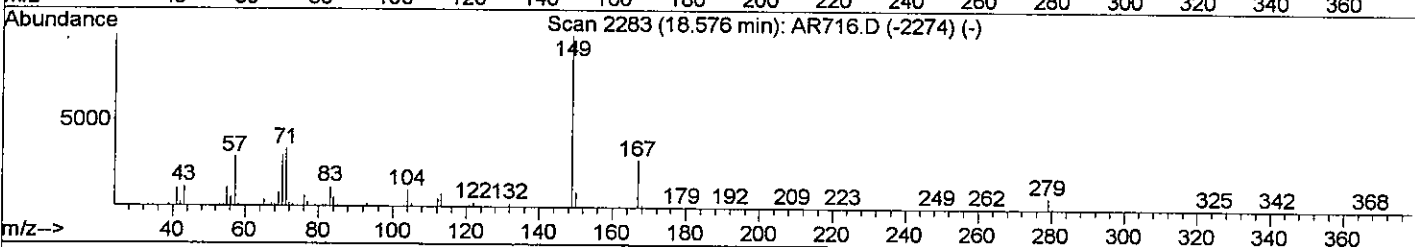
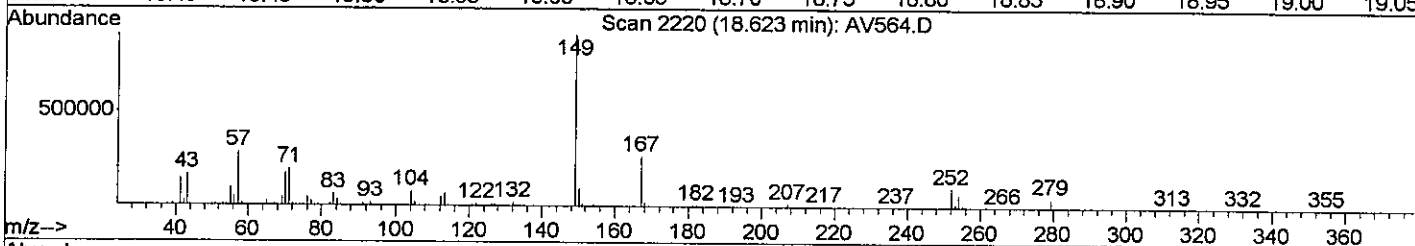
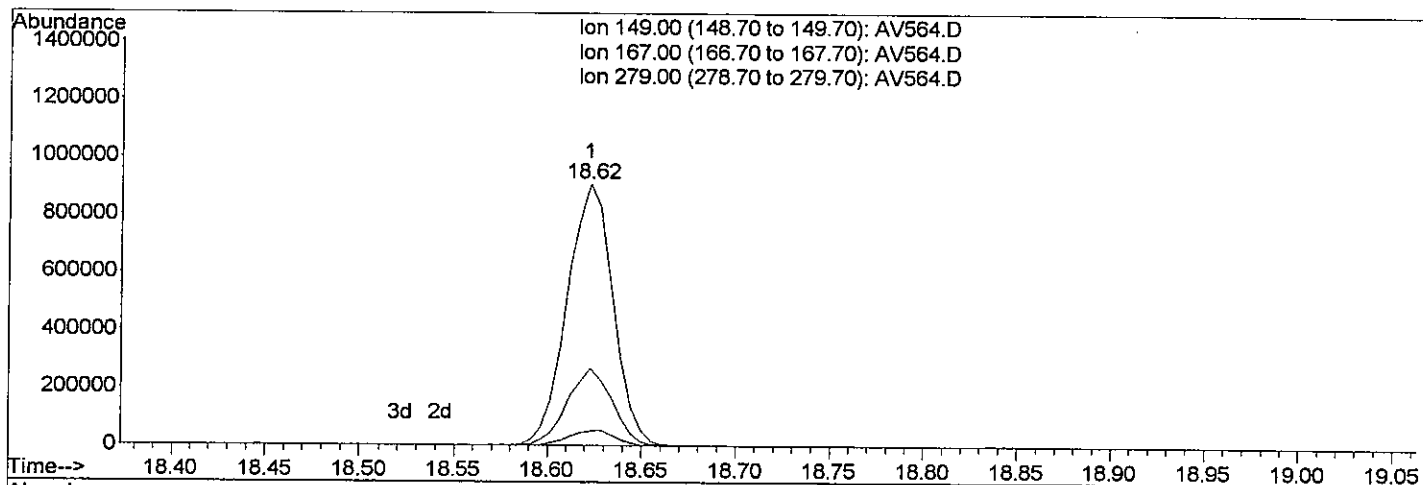
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973C\DATA\101309\AV564.D
 Acq On : 13 Oct 2009 8:56 pm
 Sample : INITIAL CALIBRATION
 Misc : 3.0/6.0 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 9:20 2009

Vial: 8
 Operator: J.Wu
 Inst : 5973C
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973C\METHODS\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:20:01 2009
 Response via : Single Level Calibration



TIC: AV564.D

(30) bis(2-Ethylhexyl)phthalate (T)

18.62min 5.82ppm

response 1551412

Ion	Exp%	Act%
149.00	100	100
167.00	30.40	29.62
279.00	7.40	5.52#
0.00	0.00	0.00

A. J. Wu 10/14/09
 B

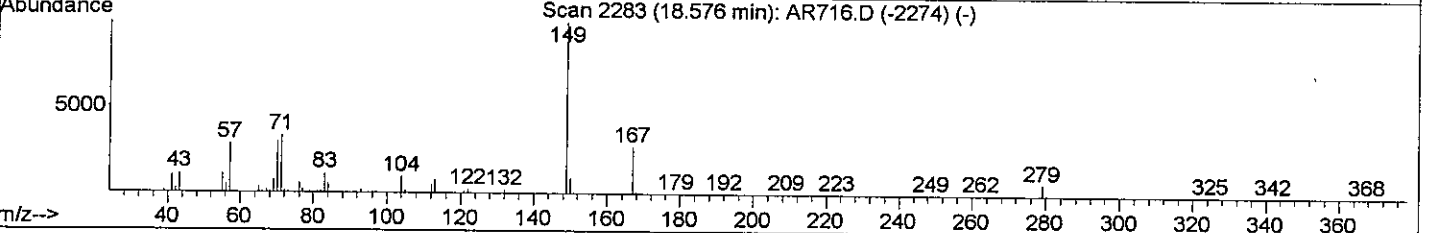
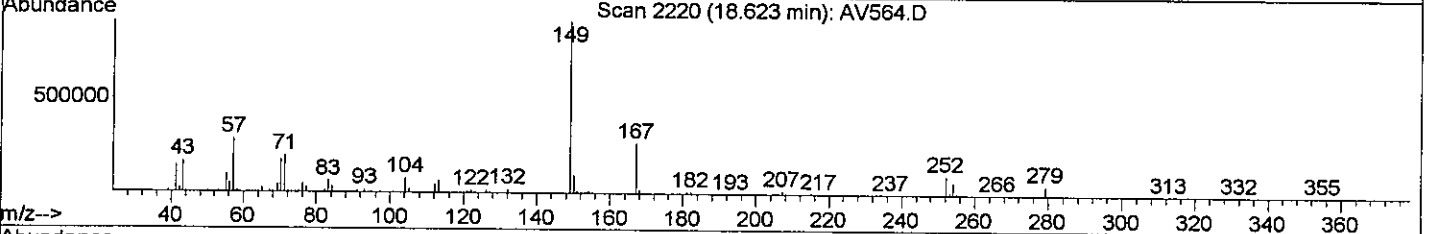
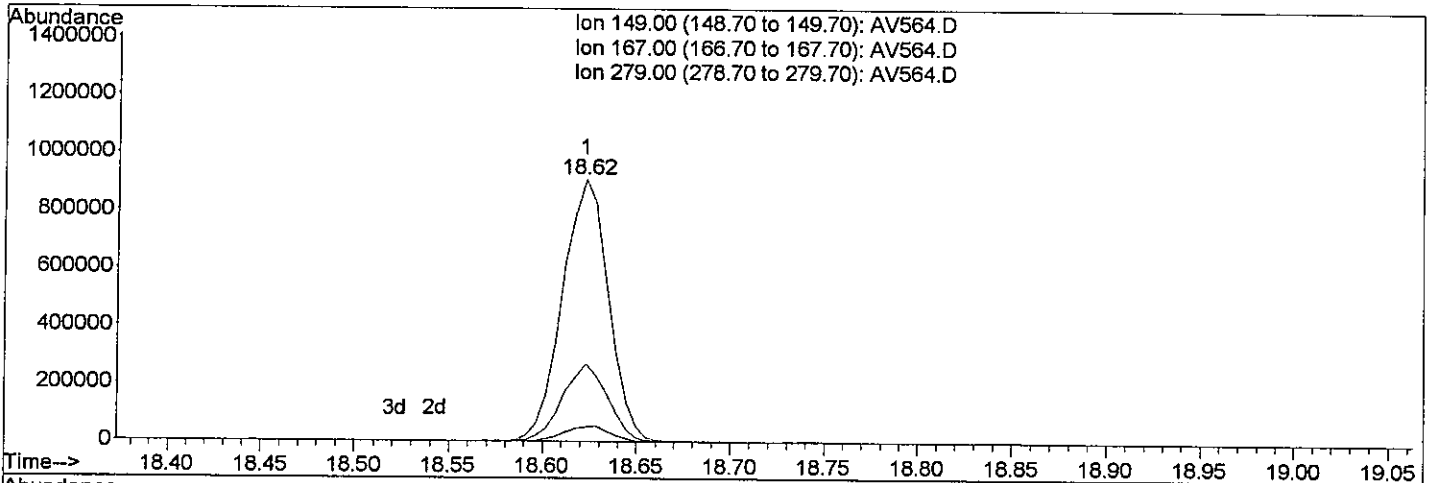
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973C\DATA\101309\AV564.D
 Acq On : 13 Oct 2009 8:56 pm
 Sample : INITIAL CALIBRATION
 Misc : 3.0/6.0 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 9:21 2009

Vial: 8
 Operator: J.Wu
 Inst : 5973C
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973C\METHODS\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:20:01 2009
 Response via : Single Level Calibration



(30) bis(2-Ethylhexyl)phthalate (T)

18.62min 5.82ppm m

response 1551246

Ion	Exp%	Act%
149.00	100	100
167.00	30.40	29.58
279.00	7.40	5.51#
0.00	0.00	0.00

A JW 10/14/09
10/14

Quantitation Report (QT Reviewed)

Data File : J:\ACQUDATA\5973C\DATA\101309\AV565.D Vial: 9
 Acq On : 13 Oct 2009 9:34 pm Operator: J.Wu
 Sample : INITIAL CALIBRATION Inst : 5973C
 Misc : 4.0/8.0 PPM STD 8270.LL Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 09:21:28 2009 Quant Results File: LVI1013.RES

Quant Method : J:\ACQUDATA\5...\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:21:23 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI1013

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	11.17	152	64313	1.00	ppm	0.00
4) d8-Naphthalene	12.43	136	249525	1.00	ppm	0.00
10) d10-Acenaphthene	13.99	164	149618	1.00	ppm	0.00
18) d10-Phenanthrene	15.20	188	188039	1.00	ppm	0.00
26) d12-Chrysene	18.79	240	243513	1.00	ppm	0.00
33) d12-Perylene	22.96	264	220308	1.00	ppm	0.01

System Monitoring Compounds

5) SURR4,NITROBENZENE-D5	11.75	82	528298	4.16	ppm	0.00
Spiked Amount	2.000	Range	22 - 124	Recovery	=	208.00%#
11) SURR5,2-FLUOROBIPHENYL	13.37	172	891280	4.33	ppm	0.00
Spiked Amount	2.000	Range	27 - 114	Recovery	=	216.50%#
28) SURR6,TERPHENYL-D14	16.92	244	661588	4.06	ppm	0.00
Spiked Amount	2.000	Range	23 - 139	Recovery	=	203.00%#

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	6.94	88	1043756	8.39	ppm	96
3) Pyridine	7.67	79	661733	4.51	ppm	97
6) Nitrobenzene	11.76	77	544940	4.02	ppm	98
7) Naphthalene	12.44	128	1124082	4.23	ppm	99
8) 2-Methylnaphthalene	13.06	142	751050	4.12	ppm	99
9) 1-Methylnaphthalene	13.16	142	718229	4.09	ppm	98
12) Acenaphthylene	13.88	152	1203465	4.35	ppm	99
13) Dimethyl phthalate	13.72	163	937933	4.40	ppm	96
14) Acenaphthene	14.02	153	737390	4.29	ppm	96
15) Dibenzofuran	14.14	168	921462	4.26	ppm	99
16) Fluorene	14.40	166	729872	4.43	ppm	98
17) Diethylphthalate	14.26	149	744691	4.12	ppm	96
19) Hexachlorobenzene	14.92	284	209823	4.06	ppm	95
20) Phenanthrene	15.23	178	922380	4.32	ppm	99
21) Anthracene	15.27	178	889985	4.20	ppm	98
22) Carbazole	15.39	167	462025	2.81	ppm	99
23) Octachlorostyrene	16.29	380	40104	3.25	ppm	77
24) Di-n-butylphthalate	15.64	149	1010567	3.41	ppm	98
25) Fluoranthene	16.51	202	955400	3.97	ppm	100
27) Pyrene	16.82	202	995130	3.97	ppm	98
29) Butyl benzyl phthalate	17.59	149	717310	3.90	ppm	99
30) bis(2-Ethylhexyl)phthalate	18.62	149	2129749	7.58	ppm	97
31) Benzo(a)anthracene	18.75	228	1129690	4.20	ppm	98
32) Chrysene	18.84	228	1114454	4.08	ppm	99
34) Di-n-octyl phthalate	20.13	149	1746544	4.07	ppm	97
35) Benzo(b)Fluoranthene	21.68	252	1218411	4.06	ppm	95

(#) = qualifier out of range (m) = manual integration

JW

Quantitation Report (QT Reviewed)

Data File : J:\ACQUDATA\5973C\DATA\101309\AV565.D Vial: 9
 Acq On : 13 Oct 2009 9:34 pm Operator: J.Wu
 Sample : INITIAL CALIBRATION Inst : 5973C
 Misc : 4.0/8.0 PPM STD 8270.LL Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 09:21:28 2009 Quant Results File: LVI1013.RES

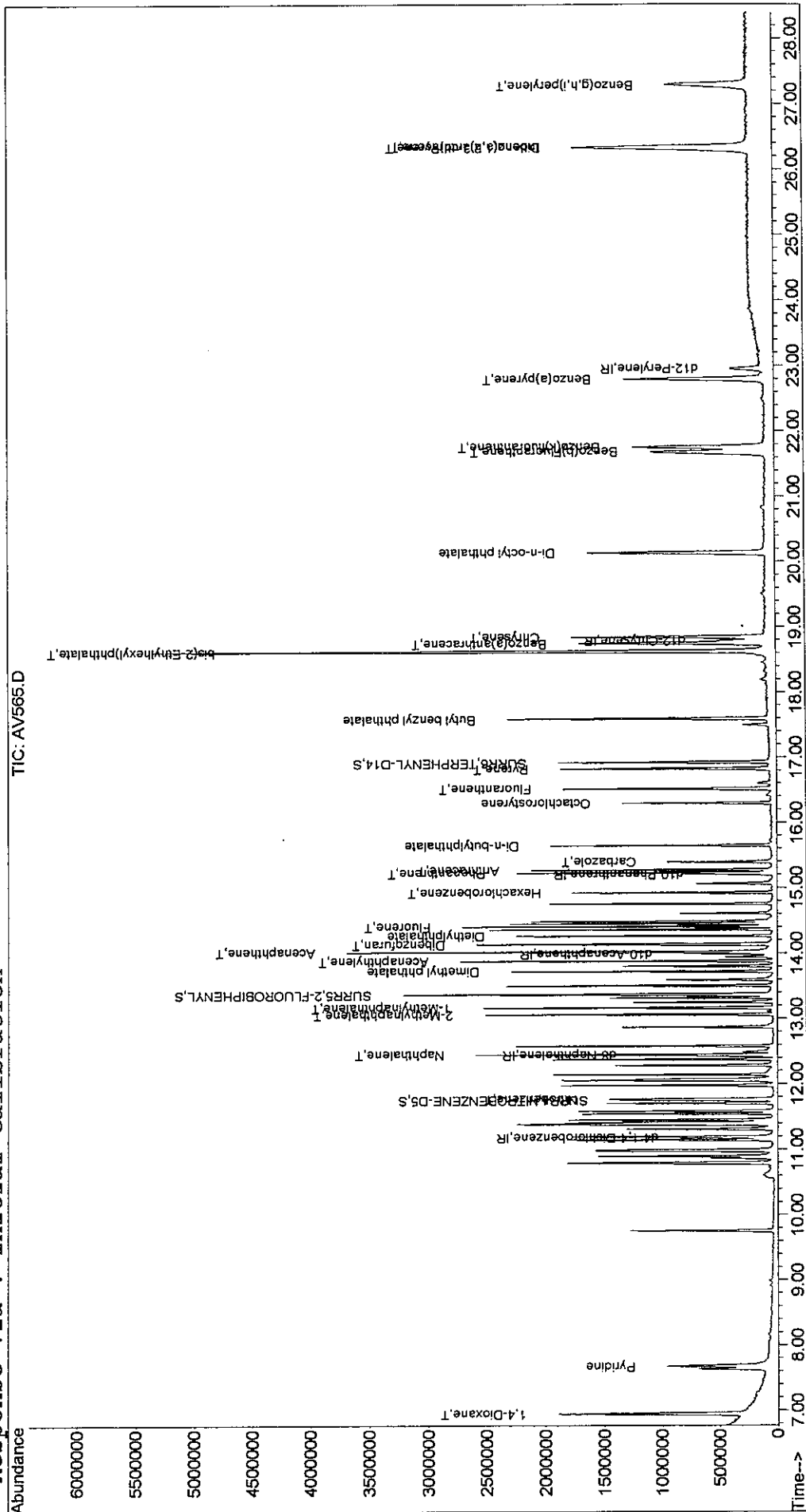
Quant Method : J:\ACQUDATA\5...\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:21:23 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI1013

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
36) Benzo(k)fluoranthene	21.75	252	1232533	4.13	ppm	94
37) Benzo(a)pyrene	22.80	252	1187224	4.18	ppm	96
38) Indeno(1,2,3-cd)Pyrene	26.33	276	1314245	4.34	ppm	100
39) Dibenz(a,h)anthracene	26.34	278	1097493	4.27	ppm	95
40) Benzo(g,h,i)perylene	27.28	276	1016702	4.09	ppm	95

Quantitation Report (QT Reviewed)

Data File : J:\ACQDATA\5973C\DATA\101309\AV565.D Vial: 9
 Acq On : 13 Oct 2009 9:34 pm Operator: J.Wu
 Sample : INITIAL CALIBRATION Inst : 5973C
 Misc : 4.0/8.0 PPM STD 8270.LL Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 9:21 2009 Quant Results File: LVII1013.RES

Method : J:\ACQDATA\5973C\METHODS\LVII1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:26:08 2009
 Response via : Initial Calibration



62400

Quantitation Report (QT Reviewed)

Data File : J:\ACQUDATA\5973C\DATA\101309\AV566.D Vial: 10
 Acq On : 13 Oct 2009 10:11 pm Operator: J.Wu
 Sample : INITIAL CALIBRATION Inst : 5973C
 Misc : 5.0/10.0 PPM STD 8270.LL Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 09:22:34 2009 Quant Results File: LVI1013.RES

Quant Method : J:\ACQUDATA\5...\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:22:26 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI1013

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	11.17	152	67530	1.00	ppm	0.00
4) d8-Naphthalene	12.42	136	255602	1.00	ppm	0.00
10) d10-Acenaphthene	13.99	164	156057	1.00	ppm	0.00
18) d10-Phenanthrene	15.20	188	201698	1.00	ppm	0.00
26) d12-Chrysene	18.78	240	243915	1.00	ppm	0.00
33) d12-Perylene	22.95	264	217875	1.00	ppm	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
5) SURR4,NITROBENZENE-D5	11.75	82	684641	5.24	ppm	0.00
Spiked Amount 2.000	Range 22 - 124		Recovery =	262.00	%#	
11) SURR5,2-FLUOROBIPHENYL	13.37	172	1205062	5.61	ppm	0.00
Spiked Amount 2.000	Range 27 - 114		Recovery =	280.50	%#	
28) SURR6,TERPHENYL-D14	16.92	244	869774	5.34	ppm	0.00
Spiked Amount 2.000	Range 23 - 139		Recovery =	267.00	%#	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	6.94	88	1326190	9.83	ppm	96
3) Pyridine	7.68	79	846348	5.33	ppm	95
6) Nitrobenzene	11.76	77	709137	5.09	ppm	95
7) Naphthalene	12.44	128	1449243	5.31	ppm	97
8) 2-Methylnaphthalene	13.06	142	988909	5.28	ppm	95
9) 1-Methylnaphthalene	13.16	142	948498	5.27	ppm	98
12) Acenaphthylene	13.88	152	1598110	5.54	ppm	99
13) Dimethyl phthalate	13.72	163	1271246	5.72	ppm	97
14) Acenaphthene	14.02	153	982533	5.48	ppm	99
15) Dibenzofuran	14.14	168	1214628	5.36	ppm	98
16) Fluorene	14.40	166	958005	5.54	ppm	95
17) Diethylphthalate	14.26	149	1030078	5.49	ppm	97
19) Hexachlorobenzene	14.92	284	277268	5.07	ppm	92
20) Phenanthrene	15.23	178	1245797	5.41	ppm	99
21) Anthracene	15.27	178	1230686	5.40	ppm	99
22) Carbazole	15.39	167	512226	2.98	ppm	97
23) Octachlorostyrene	16.29	380	56077	4.23	ppm	82
24) Di-n-butylphthalate	15.64	149	1348484	4.34	ppm	99
25) Fluoranthene	16.52	202	1254000	4.86	ppm	97
27) Pyrene	16.82	202	1324231	5.30	ppm	98
29) Butyl benzyl phthalate	17.59	149	868065	4.77	ppm	94
30) bis(2-Ethylhexyl)phthalate	18.63	149	2726196	9.52	ppm	100
31) Benzo(a)anthracene	18.75	228	1446414	5.37	ppm	95
32) Chrysene	18.84	228	1400492	5.10	ppm	98
34) Di-n-octyl phthalate	20.13	149	2321605	5.17	ppm	100
35) Benzo(b)Fluoranthene	21.68	252	1578564	5.31	ppm	96

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\ACQUDATA\5973C\DATA\101309\AV566.D Vial: 10
 Acq On : 13 Oct 2009 10:11 pm Operator: J.Wu
 Sample : INITIAL CALIBRATION Inst : 5973C
 Misc : 5.0/10.0 PPM STD 8270.LL Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 09:22:34 2009 Quant Results File: LVI1013.RES

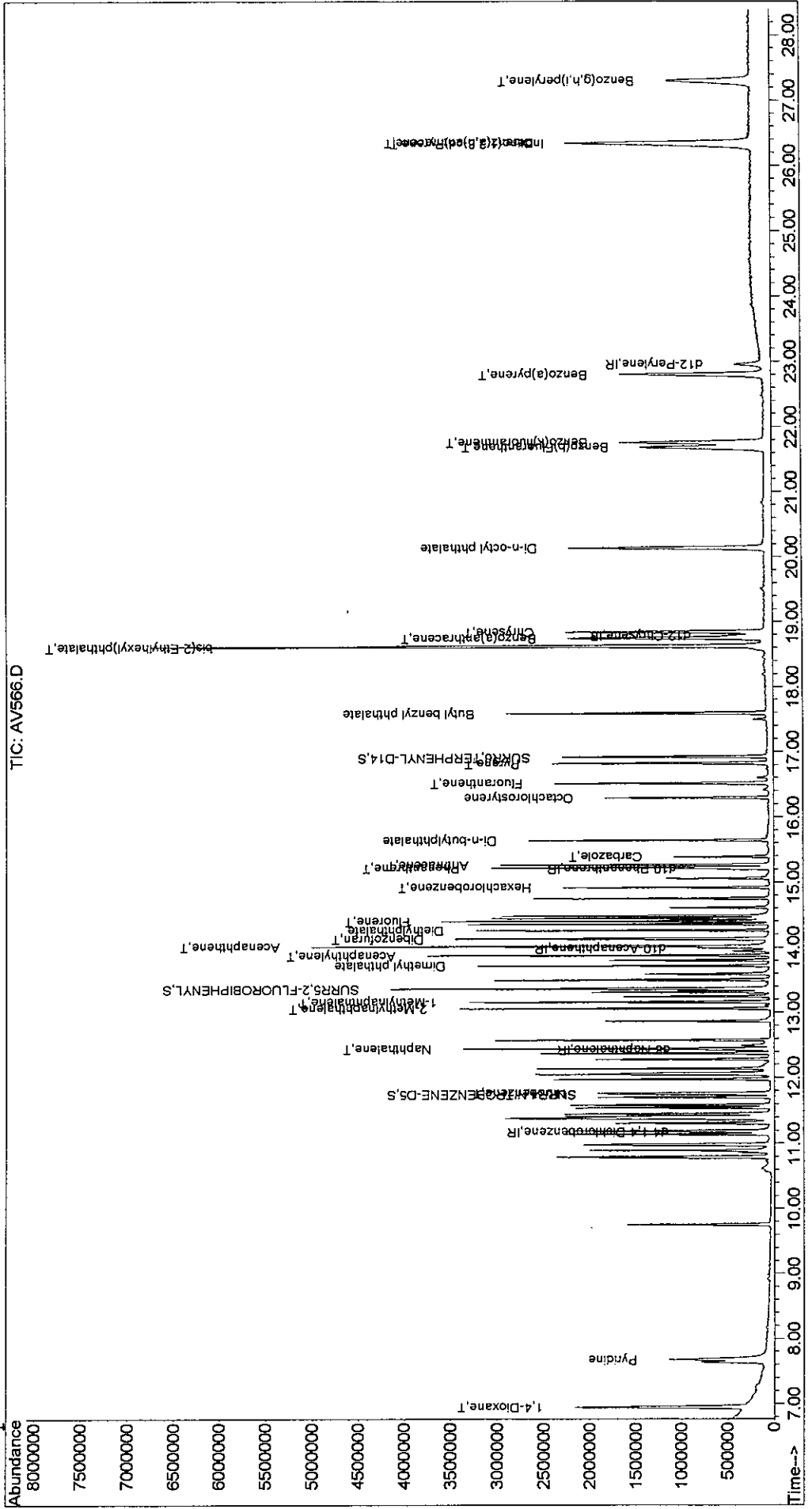
Quant Method : J:\ACQUDATA\5...\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:22:26 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI1013

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
36) Benzo(k)fluoranthene	21.76	252	1627595	5.49	ppm	95
37) Benzo(a)pyrene	22.80	252	1546541	5.49	ppm	96
38) Indeno(1,2,3-cd)Pyrene	26.33	276	1676486	5.56	ppm	99
39) Dibenz(a,h)anthracene	26.34	278	1450495	5.69	ppm	98
40) Benzo(g,h,i)perylene	27.30	276	1320388	5.29	ppm	96

Quantitation Report (QT Reviewed)

Data File : J:\ACQDATA\5973C\DATA\101309\AV566.D Vial: 10
 Acq On : 13 Oct 2009 10:11 pm Operator: J.Wu
 Sample : INITIAL CALIBRATION Inst : 5973C
 Misc : 5.0/10.0 PPM STD 8270.LL Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 9:22 2009 Quant Results File: LV11013.RES

Method : J:\ACQDATA\5973C\METHODS\LV11013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:26:08 2009
 Response via : Initial Calibration



23700

Quantitation Report (QT Reviewed)

Data File : J:\ACQUDATA\5973C\DATA\101309\AV567.D Vial: 11
 Acq On : 13 Oct 2009 10:49 pm Operator: J.Wu
 Sample : INITIAL CALIBRATION Inst : 5973C
 Misc : 10.0/20.0 PPM STD 8270.LL Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 09:23:31 2009 Quant Results File: LVI1013.RES

Quant Method : J:\ACQUDATA\5...\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:23:24 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI1013

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	11.17	152	63059m ⁴	1.00	ppm	0.00
4) d8-Naphthalene	12.42	136	256889	1.00	ppm	0.00
10) d10-Acenaphthene	13.99	164	156377	1.00	ppm	0.00
18) d10-Phenanthrene	15.20	188	213167	1.00	ppm	0.00
26) d12-Chrysene	18.79	240	237033	1.00	ppm	0.00
33) d12-Perylene	22.95	264	220072	1.00	ppm	0.00

System Monitoring Compounds

5) SURR4,NITROBENZENE-D5	11.75	82	1393909	10.63	ppm	0.00
Spiked Amount	2.000	Range	22 - 124	Recovery	=	531.50%#
11) SURR5,2-FLUOROBIPHENYL	13.37	172	2540615	11.71	ppm	0.00
Spiked Amount	2.000	Range	27 - 114	Recovery	=	585.50%#
28) SURR6,TERPHENYL-D14	16.92	244	1826327	11.47	ppm	0.00
Spiked Amount	2.000	Range	23 - 139	Recovery	=	573.50%#

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	6.92	88	2590143	20.33	ppm	96
3) Pyridine	7.66	79	1747394	11.59	ppm	98
6) Nitrobenzene	11.76	77	1443118	10.31	ppm	94
7) Naphthalene	12.44	128	3015573	10.98	ppm	95
8) 2-Methylnaphthalene	13.06	142	2142127	11.35	ppm	97
9) 1-Methylnaphthalene	13.16	142	2043591	11.32	ppm	98
12) Acenaphthylene	13.88	152	3321752	11.46	ppm	95
13) Dimethyl phthalate	13.72	163	2696898	12.13	ppm	99
14) Acenaphthene	14.02	153	2119091	11.76	ppm	98
15) Dibenzofuran	14.14	168	2580981	11.25	ppm	91
16) Fluorene	14.41	166	2072860	11.87	ppm	97
17) Diethylphthalate	14.26	149	2310381	12.32	ppm	95
19) Hexachlorobenzene	14.92	284	604856	10.55	ppm	92
20) Phenanthrene	15.23	178	2689997	11.02	ppm	97
21) Anthracene	15.27	178	2615741	10.81	ppm	95
22) Carbazole	15.39	167	733798	4.03	ppm	96
23) Octachlorostyrene	16.30	380	135765	9.27	ppm	81
24) Di-n-butylphthalate	15.64	149	2995574	9.30	ppm	96
25) Fluoranthene	16.52	202	2738316	10.08	ppm	97
27) Pyrene	16.82	202	2857661	11.88	ppm	99
29) Butyl benzyl phthalate	17.59	149	1682728	9.79	ppm	93
30) bis(2-Ethylhexyl)phthalate	18.63	149	5290608	18.50	ppm	96
31) Benzo(a)anthracene	18.76	228	2933657	11.18	ppm	99
32) Chrysene	18.85	228	2867070	10.74	ppm	99
34) Di-n-octyl phthalate	20.14	149	4767187	9.88	ppm	98
35) Benzo(b)Fluoranthene	21.69	252	3240485	10.70	ppm	91

(#) = qualifier out of range (m) = manual integration

W

Quantitation Report (QT Reviewed)

Data File : J:\ACQUDATA\5973C\DATA\101309\AV567.D Vial: 11
 Acq On : 13 Oct 2009 10:49 pm Operator: J.Wu
 Sample : INITIAL CALIBRATION Inst : 5973C
 Misc : 10.0/20.0 PPM STD 8270.LL Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 09:23:31 2009 Quant Results File: LVI1013.RES

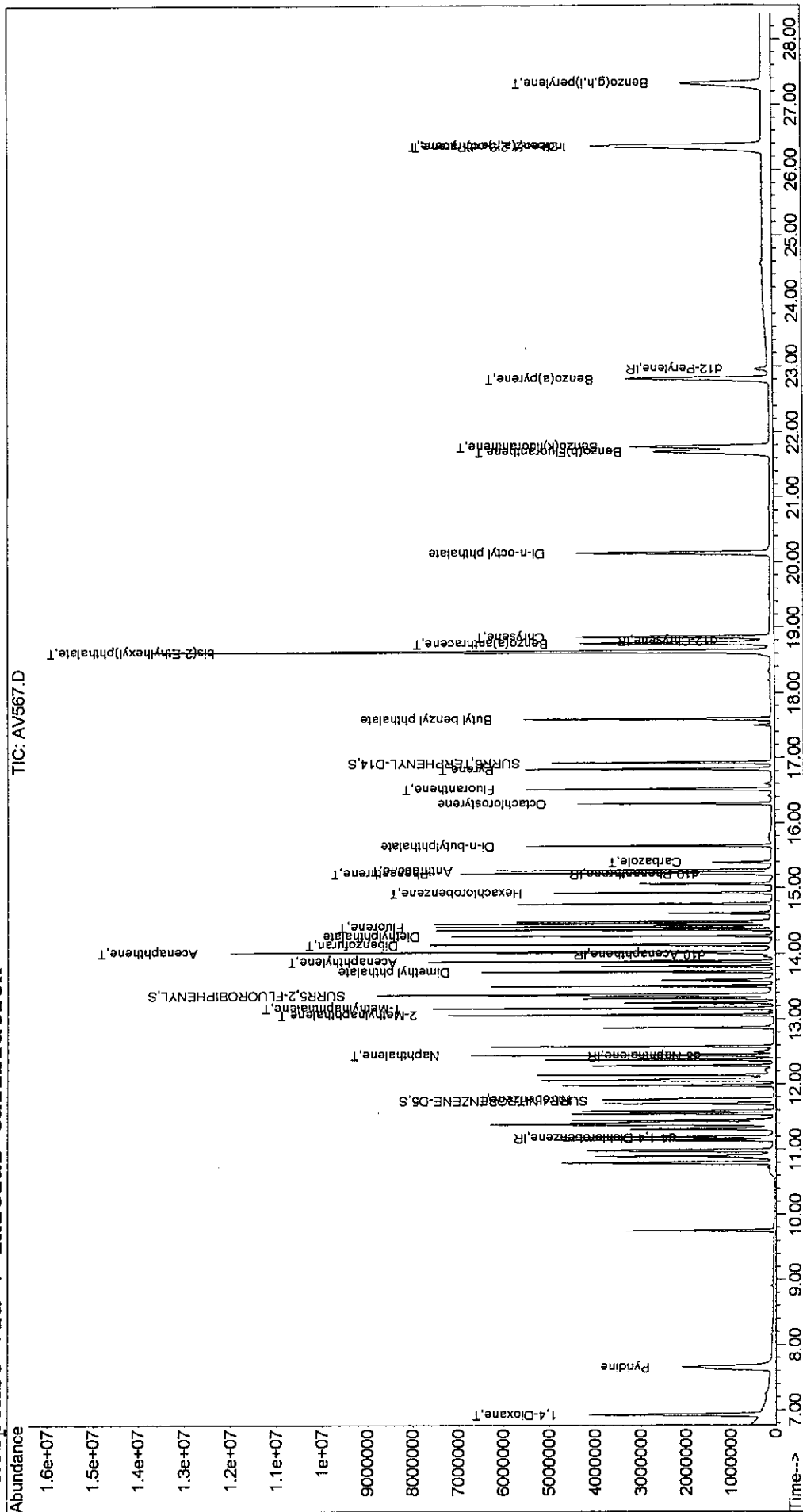
Quant Method : J:\ACQUDATA\5...\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:23:24 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI1013

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
36) Benzo(k)fluoranthene	21.77	252	3207724	10.57	ppm	89
37) Benzo(a)pyrene	22.81	252	3175887	11.06	ppm	97
38) Indeno(1,2,3-cd)Pyrene	26.35	276	3440692	11.17	ppm	95
39) Dibenz(a,h)anthracene	26.37	278	3032088	11.66	ppm	99
40) Benzo(g,h,i)perylene	27.33	276	2736929	10.65	ppm	95

Quantitation Report (QT Reviewed)

Data File : J:\ACQDATA\5973C\DATA\101309\AV567.D Vial: 11
 Acq On : 13 Oct 2009 10:49 pm Operator: J.Wu
 Sample : INITIAL CALIBRATION Inst : 5973C
 Misc : 10.0/20.0 PPM STD 8270.LL Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 9:23 2009 Quant Results File: LVII1013.RES

Method : J:\ACQDATA\5973C\METHODS\LVII1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:24:30 2009
 Response via : Initial Calibration



00435

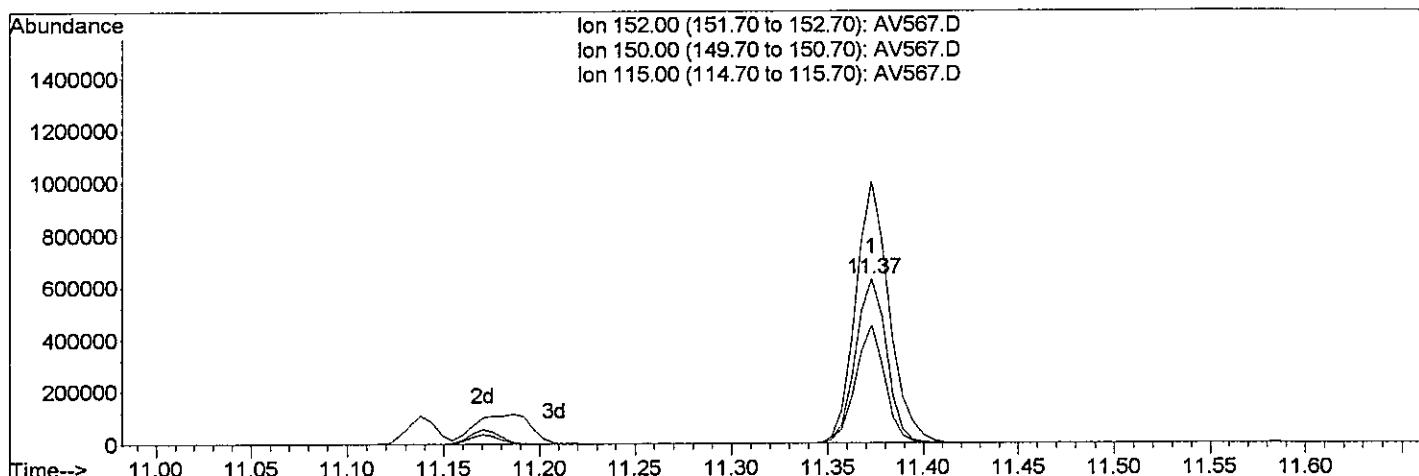
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973C\DATA\101309\AV567.D
 Acq On : 13 Oct 2009 10:49 pm
 Sample : INITIAL CALIBRATION
 Misc : 10.0/20.0 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 9:23 2009

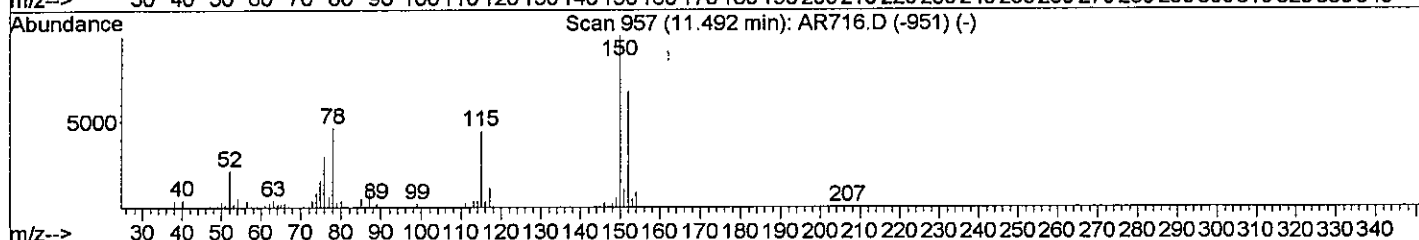
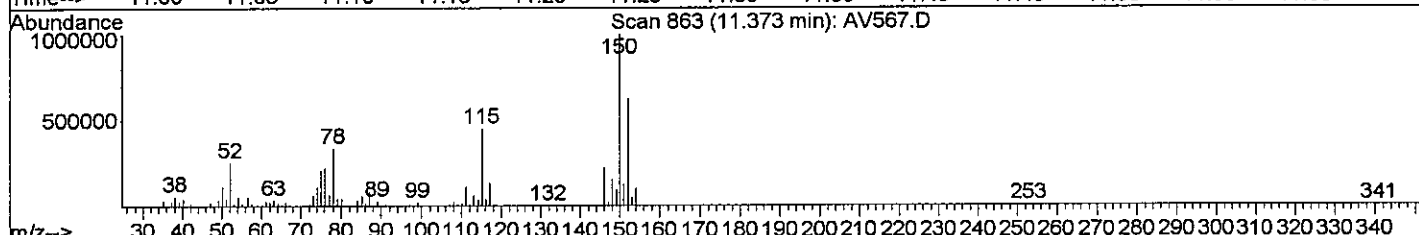
Vial: 11
 Operator: J.Wu
 Inst : 5973C
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973C\METHODS\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:23:24 2009
 Response via : Multiple Level Calibration



Ion 152.00 (151.70 to 152.70): AV567.D
 Ion 150.00 (149.70 to 150.70): AV567.D
 Ion 115.00 (114.70 to 115.70): AV567.D



TIC: AV567.D

(1) d4-1,4-Dichlorobenzene (IR)

11.37min 1.00ppm

response 711441

Ion	Exp%	Act%
152.00	100	100
150.00	143.40	159.24
115.00	60.80	71.83
0.00	0.00	0.00

13

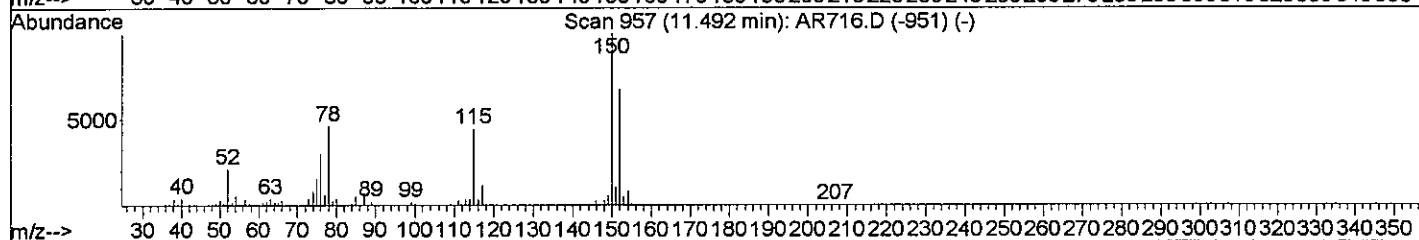
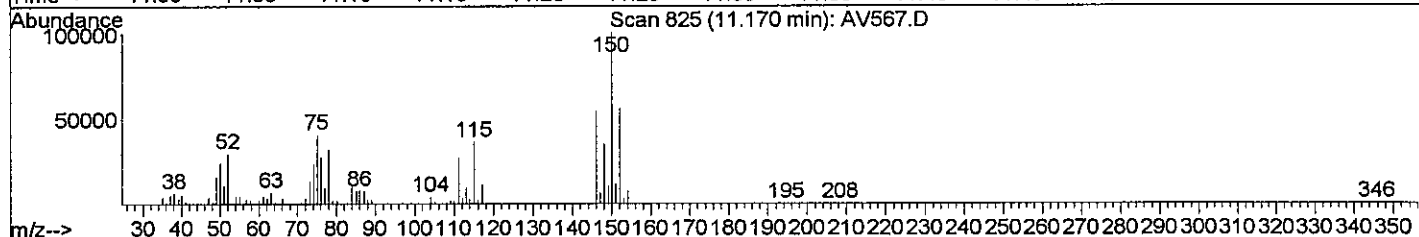
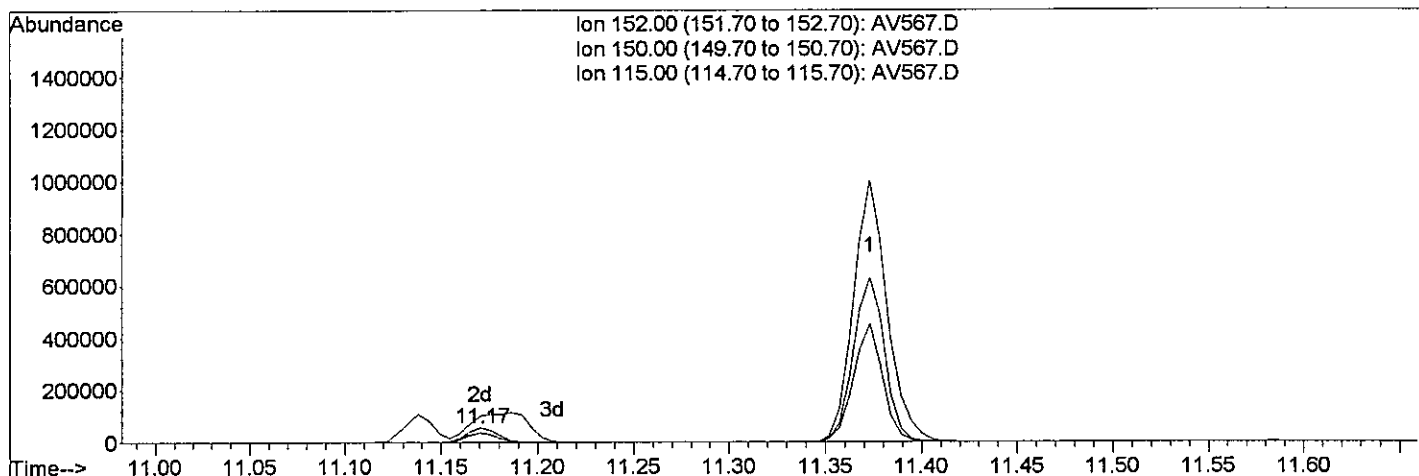
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973C\DATA\101309\AV567.D
 Acq On : 13 Oct 2009 10:49 pm
 Sample : INITIAL CALIBRATION
 Misc : 10.0/20.0 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 9:23 2009

Vial: 11
 Operator: J.Wu
 Inst : 5973C
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973C\METHODS\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:23:24 2009
 Response via : Multiple Level Calibration



TIC: AV567.D

(1) d4-1,4-Dichlorobenzene (IR)

11.17min 1.00ppm m

response 63059

Ion	Exp%	Act%
152.00	100	100
150.00	143.40	179.49
115.00	60.80	65.79
0.00	0.00	0.00

A JW 10/14/09
AW 10/14

Quantitation Report (QT Reviewed)


Data File : J:\ACQUDATA\5973C\DATA\101309\AV558.D Vial: 2
 Acq On : 13 Oct 2009 5:08 pm Operator: J.Wu
 Sample : BLK Inst : 5973C
 Misc : 10/13/2009 1.0 CAS 8270.LL BLK Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 09:37:51 2009 Quant Results File: LVI1013.RES

Quant Method : J:\ACQUDATA\5...\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:26:08 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI1013

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	11.18	152	55933	1.00	ppm	0.00
4) d8-Naphthalene	12.42	136	186355	1.00	ppm	0.00
10) d10-Acenaphthene	14.00	164	111849	1.00	ppm	0.00
18) d10-Phenanthrene	15.22	188	144804	1.00	ppm	0.02
26) d12-Chrysene	18.80	240	199785	1.00	ppm	0.02
33) d12-Perylene	22.97	264	162593	1.00	ppm	0.02

System Monitoring Compounds						
5) SURR4,NITROBENZENE-D5	11.79	82	283	0.00	ppm	0.04
Spiked Amount	2.000	Range	22 - 124	Recovery	=	0.00%#
11) SURR5,2-FLUOROBIPHENYL	13.47	172	197	0.00	ppm	0.10
Spiked Amount	2.000	Range	27 - 114	Recovery	=	0.00%#
28) SURR6,TERPHENYL-D14	16.81	244	175	0.00	ppm	-0.11
Spiked Amount	2.000	Range	23 - 139	Recovery	=	0.00%#

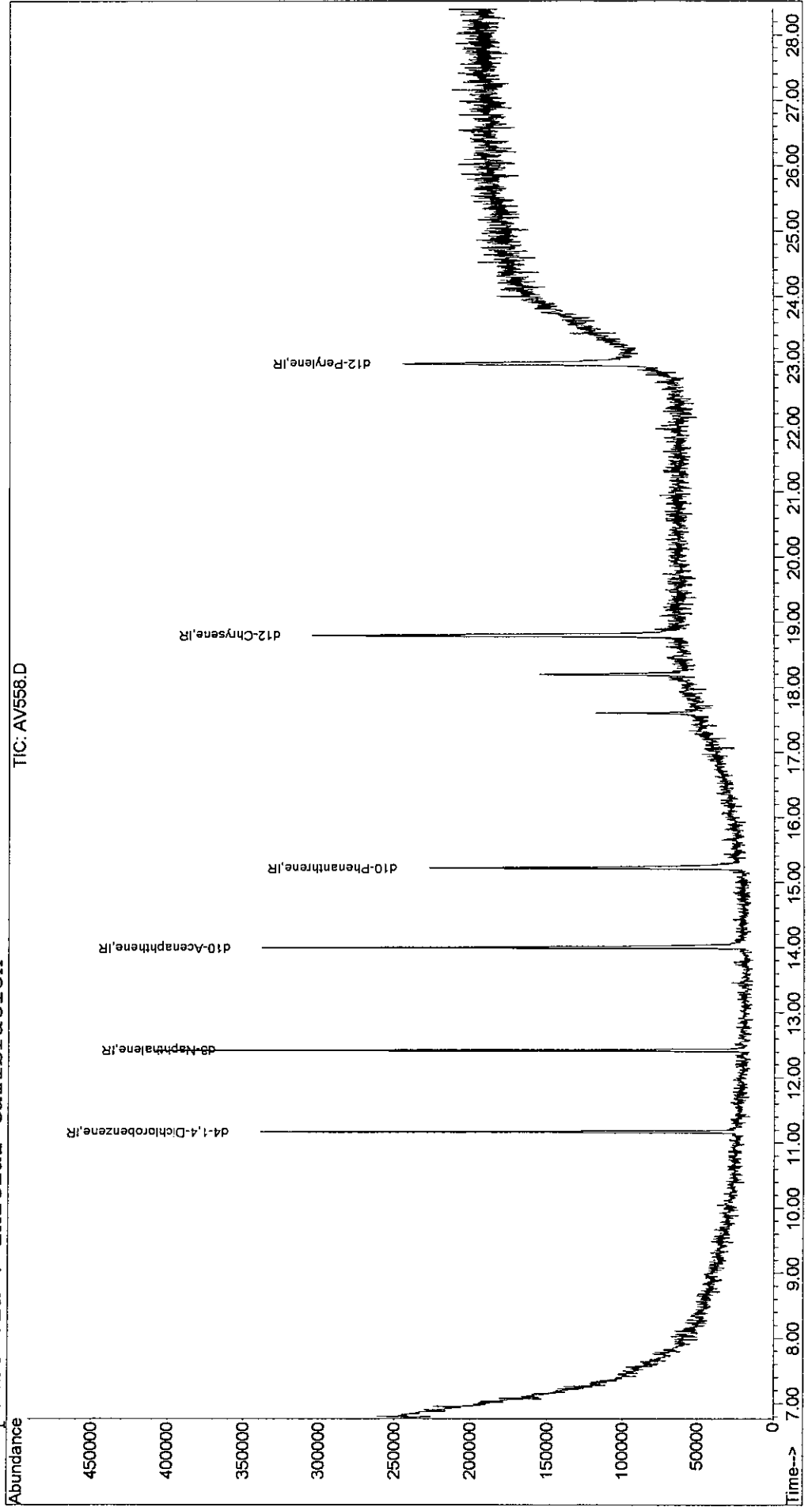
Target Compounds Qvalue


00438

Quantitation Report (QT Reviewed)

Data File : J:\ACQDATA\5973C\DATA\101309\AV558.D Vial: 2
Acq On : 13 Oct 2009 5:08 pm Operator: J.Wu
Sample : BLK Inst : 5973C
Misc : 10/13/2009 1.0 CAS 8270.LL BLK Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 14 9:38 2009 Quant Results File: LVII1013.RES

Method : J:\ACQDATA\5973C\METHODS\LVII1013.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Oct 14 09:26:08 2009
Response via : Initial Calibration



00430

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\5973C\DATA\101309\AV568.D
 Acq On : 13 Oct 2009 11:26 pm
 Sample : ICV 1
 Misc : 2.0 PPM STD 8270.LL ICV 1
 MS Integration Params: RTEINT.P

Vial: 12
 Operator: J.Wu
 Inst : 5973C
 Multiplr: 1.00

Method : J:\ACQUDATA\5973C\METHODS\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:26:08 2009
 Response via : Multiple Level Calibration

34 L.R.
 not used

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	2.059	0.000#	100.0#	0#	-6.94#
3	Pyridine	2.458	2.607	-6.1	119	0.01
4	IR d8-Naphthalene	1.000	1.000	0.0	105	0.00
5	S SURR4, NITROBENZENE-D5	0.512	0.000#	100.0#	0#	-11.75#
6	T Nitrobenzene	0.547	0.545	0.4	100	0.00
7	T Naphthalene	1.075	1.108	-3.1	106	0.00
8	T 2-Methylnaphthalene	0.739	0.765	-3.5	111	0.00
9	T 1-Methylnaphthalene	0.704	0.763	-8.4	110	0.00
10	IR d10-Acenaphthene	1.000	1.000	0.0	99	0.00
11	S SURR5, 2-FLUOROBIPHENYL	1.403	0.000#	100.0#	0#	-13.37#
12	T Acenaphthylene	1.870	1.951	-4.3	105	0.00
13	Dimethyl phthalate	1.429	1.221	14.6	87	0.00
14	T Acenaphthene	1.166	1.136	2.6	97	0.00
15	T Dibenzofuran	1.490	1.503	-0.9	102	0.00
16	T Fluorene	1.132	1.126	0.5	99	0.00
17	Diethylphthalate	1.205	0.971	19.4	88	0.00
18	IR d10-Phenanthrene	1.000	1.000	0.0	96	0.00
19	T Hexachlorobenzene	0.267	0.254	4.9	88	0.00
20	T Phenanthrene	1.153	1.108	3.9	92	0.00
21	T Anthracene	1.146	1.147	-0.1	95	0.00
22	T Carbazole	0.853	0.949	-11.3	97	0.00
23	Octachlorostyrene	0.053	0.047#	11.3	94	0.00
24	Di-n-butylphthalate	1.499	1.192	20.5#	78	0.00
25	T Fluoranthene	1.269	1.249	1.6	96	0.00
26	IR d12-Chrysene	1.000	1.000	0.0	93	0.00
27	T Pyrene	1.002	0.956	4.6	90	0.00
28	S SURR6, TERPHENYL-D14	0.678	0.000#	100.0#	0#	-16.92#
29	Butyl benzyl phthalate	0.710	0.575	19.0	74	0.00
30	T bis(2-Ethylhexyl)phthalate	1.002	0.398	60.3#	38#	0.00
31	T Benzo(a)anthracene	1.111	1.078	3.0	87	0.00
32	T Chrysene	1.129	1.068	5.4	88	0.00
33	IR d12-Perylene	1.000	1.000	0.0	90	0.00
34	Di-n-octyl phthalate	1.881	1.331	29.2#	71	0.00
35	T Benzo(b)Fluoranthene	1.364	1.409	-3.3	90	0.00
36	T Benzo(k)fluoranthene	1.380	1.322	4.2	87	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : J:\ACQUADATA\5973C\DATA\101309\AV568.D Vial: 12
 Acq On : 13 Oct 2009 11:26 pm Operator: J.Wu
 Sample : ICV 1 Inst : 5973C
 Misc : 2.0 PPM STD 8270.LL ICV 1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : J:\ACQUADATA\5973C\METHODS\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:26:08 2009
 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	1.301	1.178	9.5	82	0.00
38 T	Indeno(1,2,3-cd)Pyrene	1.397	1.367	2.1	87	-0.02
39 T	Dibenz(a,h)anthracene	1.182	1.153	2.5	87	0.00
40 T	Benzo(g,h,i)perylene	1.170	1.177	-0.6	88	-0.01

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\5973C\DATA\101309\AV568.D
 Acq On : 13 Oct 2009 11:26 pm
 Sample : ICV 1
 Misc : 2.0 PPM STD 8270.LL ICV 1
 MS Integration Params: RTEINT.P

Vial: 12
 Operator: J.Wu
 Inst : 5973C
 Multiplr: 1.00

Method : J:\ACQUDATA\5973C\METHODS\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:26:08 2009
 Response via : Multiple Level Calibration #34 ml

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	104	0.00
2	T 1,4-Dioxane	4.000	0.000	100.0#	0	-6.94#
3	Pyridine	2.000	2.121	-6.0	119	0.01
4	IR d8-Naphthalene	1.000	1.000	0.0	105	0.00
5	S SURR4,NITROBENZENE-D5	2.000	0.000	100.0#	0	-11.75#
6	T Nitrobenzene	2.000	1.992	0.4	100	0.00
7	T Naphthalene	2.000	2.062	-3.1	106	0.00
8	T 2-Methylnaphthalene	2.000	2.071	-3.6	111	0.00
9	T 1-Methylnaphthalene	2.000	2.167	-8.3	110	0.00
10	IR d10-Acenaphthene	1.000	1.000	0.0	99	0.00
11	S SURR5,2-FLUOROBIPHENYL	2.000	0.000	100.0#	0	-13.37#
12	T Acenaphthylene	2.000	2.087	-4.4	105	0.00
13	Dimethyl phthalate	2.000	1.709	14.5	87	0.00
14	T Acenaphthene	2.000	1.949	2.5	97	0.00
15	T Dibenzofuran	2.000	2.017	-0.8	102	0.00
16	T Fluorene	2.000	1.991	0.4	99	0.00
17	Diethylphthalate	2.000	1.612	19.4	88	0.00
18	IR d10-Phenanthrene	1.000	1.000	0.0	96	0.00
19	T Hexachlorobenzene	2.000	1.904	4.8	88	0.00
20	T Phenanthrene	2.000	1.922	3.9	92	0.00
21	T Anthracene	2.000	2.003	-0.2	95	0.00
22	T Carbazole	2.000	2.225	-11.3	97	0.00
23	Octachlorostyrene	2.000	1.773	11.4	94	0.00
24	Di-n-butylphthalate	2.000	1.591	20.5#	78	0.00
25	T Fluoranthene	2.000	1.969	1.5	96	0.00
26	IR d12-Chrysene	1.000	1.000	0.0	93	0.00
27	T Pyrene	2.000	1.909	4.5	90	0.00
28	S SURR6,TERPHENYL-D14	2.000	0.000	100.0#	0	-16.92#
29	Butyl benzyl phthalate	2.000	1.621	18.9	74	0.00
30	T bis(2-Ethylhexyl)phthalate	4.000	1.590	60.3#	38	0.00
31	T Benzo(a)anthracene	2.000	1.942	2.9	87	0.00
32	T Chrysene	2.000	1.893	5.3	88	0.00
33	IR d12-Perylene	1.000	1.000	0.0	90	0.00
34	Di-n-octyl phthalate	2.000	1.613	19.4	71	0.00
35	T Benzo(b)Fluoranthene	2.000	2.067	-3.4	90	0.00
36	T Benzo(k)fluoranthene	2.000	1.916	4.2	87	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\5973C\DATA\101309\AV568.D Vial: 12
 Acq On : 13 Oct 2009 11:26 pm Operator: J.Wu
 Sample : ICV 1 Inst : 5973C
 Misc : 2.0 PPM STD 8270.LL ICV 1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : J:\ACQUDATA\5973C\METHODS\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:26:08 2009
 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	1.811	9.5	82	0.00
38 T	Indeno(1,2,3-cd)Pyrene	2.000	1.956	2.2	87	-0.02
39 T	Dibenz(a,h)anthracene	2.000	1.952	2.4	87	0.00
40 T	Benzo(g,h,i)perylene	2.000	2.012	-0.6	88	-0.01

Quantitation Report (QT Reviewed)

Data File : J:\ACQUDATA\5973C\DATA\101309\AV568.D
 Acq On : 13 Oct 2009 11:26 pm
 Sample : ICV 1
 Misc : 2.0 PPM STD 8270.LL ICV 1
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 09:34:24 2009

Vial: 12
 Operator: J.Wu
 Inst : 5973C
 Multiplr: 1.00

Quant Results File: LVI1013.RES

Quant Method : J:\ACQUDATA\5...\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:26:08 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI1013

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) d4-1,4-Dichlorobenzene	11.17	152	57987	1.00	ppm	0.00
4) d8-Naphthalene	12.42	136	215512	1.00	ppm	0.00
10) d10-Acenaphthene	13.99	164	131189	1.00	ppm	0.00
18) d10-Phenanthrene	15.20	188	162399	1.00	ppm	0.00
26) d12-Chrysene	18.78	240	212112	1.00	ppm	0.00
33) d12-Perylene	22.96	264	186469	1.00	ppm	0.00

System Monitoring Compounds

5) SURR4, NITROBENZENE-D5	0.00	82	0d	0.00	ppm	
Spiked Amount	2.000	Range 22 - 124	Recovery	=	0.00%#	
11) SURR5, 2-FLUOROBIPHENYL	0.00	172	0d	0.00	ppm	
Spiked Amount	2.000	Range 27 - 114	Recovery	=	0.00%#	
28) SURR6, TERPHENYL-D14	0.00	244	0d	0.00	ppm	
Spiked Amount	2.000	Range 23 - 139	Recovery	=	0.00%#	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
3) Pyridine	7.69	79	302308	2.12	ppm	97
6) Nitrobenzene	11.76	77	234794	1.99	ppm	96
7) Naphthalene	12.44	128	477664	2.06	ppm	100
8) 2-Methylnaphthalene	13.06	142	329698	2.07	ppm	98
9) 1-Methylnaphthalene	13.16	142	328692	2.17	ppm	91
12) Acenaphthylene	13.88	152	511896	2.09	ppm	97
13) Dimethyl phthalate	13.72	163	320347	1.71	ppm	95
14) Acenaphthene	14.02	153	297963	1.95	ppm	96
15) Dibenzofuran	14.14	168	394440	2.02	ppm	92
16) Fluorene	14.40	166	295535	1.99	ppm	97
17) Diethylphthalate	14.26	149	254821	1.61	ppm	99
19) Hexachlorobenzene	14.92	284	82647	1.90	ppm	87
20) Phenanthrene	15.23	178	359999	1.92	ppm	96
21) Anthracene	15.27	178	372559	2.00	ppm	98
22) Carbazole	15.39	167	308352	2.22	ppm	95
23) Octachlorostyrene	16.29	380	15150	1.77	ppm	85
24) Di-n-butylphthalate	15.64	149	387239	1.59	ppm	96
25) Fluoranthene	16.51	202	405576	1.97	ppm	98
27) Pyrene	16.82	202	405687	1.91	ppm	98
29) Butyl benzyl phthalate	17.59	149	243994	1.62	ppm	96
31) Benzo(a)anthracene	18.75	228	457413	1.94	ppm	94
32) Chrysene	18.84	228	453217	1.89	ppm	99
34) Di-n-octyl phthalate	20.13	149	496347	1.61	ppm	98
35) Benzo(b)fluoranthene	21.67	252	525470	2.07	ppm	93
36) Benzo(k)fluoranthene	21.75	252	492892	1.92	ppm	95
37) Benzo(a)pyrene	22.79	252	439278	1.81	ppm	96

(#) = qualifier out of range (m) = manual integration
 AV568.D LVI1013.M Wed Oct 14 09:35:18 2009

WJ

Quantitation Report (QT Reviewed)

Data File : J:\ACQUDATA\5973C\DATA\101309\AV568.D Vial: 12
 Acq On : 13 Oct 2009 11:26 pm Operator: J.Wu
 Sample : ICV 1 Inst : 5973C
 Misc : 2.0 PPM STD 8270.LL ICV 1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 09:34:24 2009 Quant Results File: LVI1013.RES

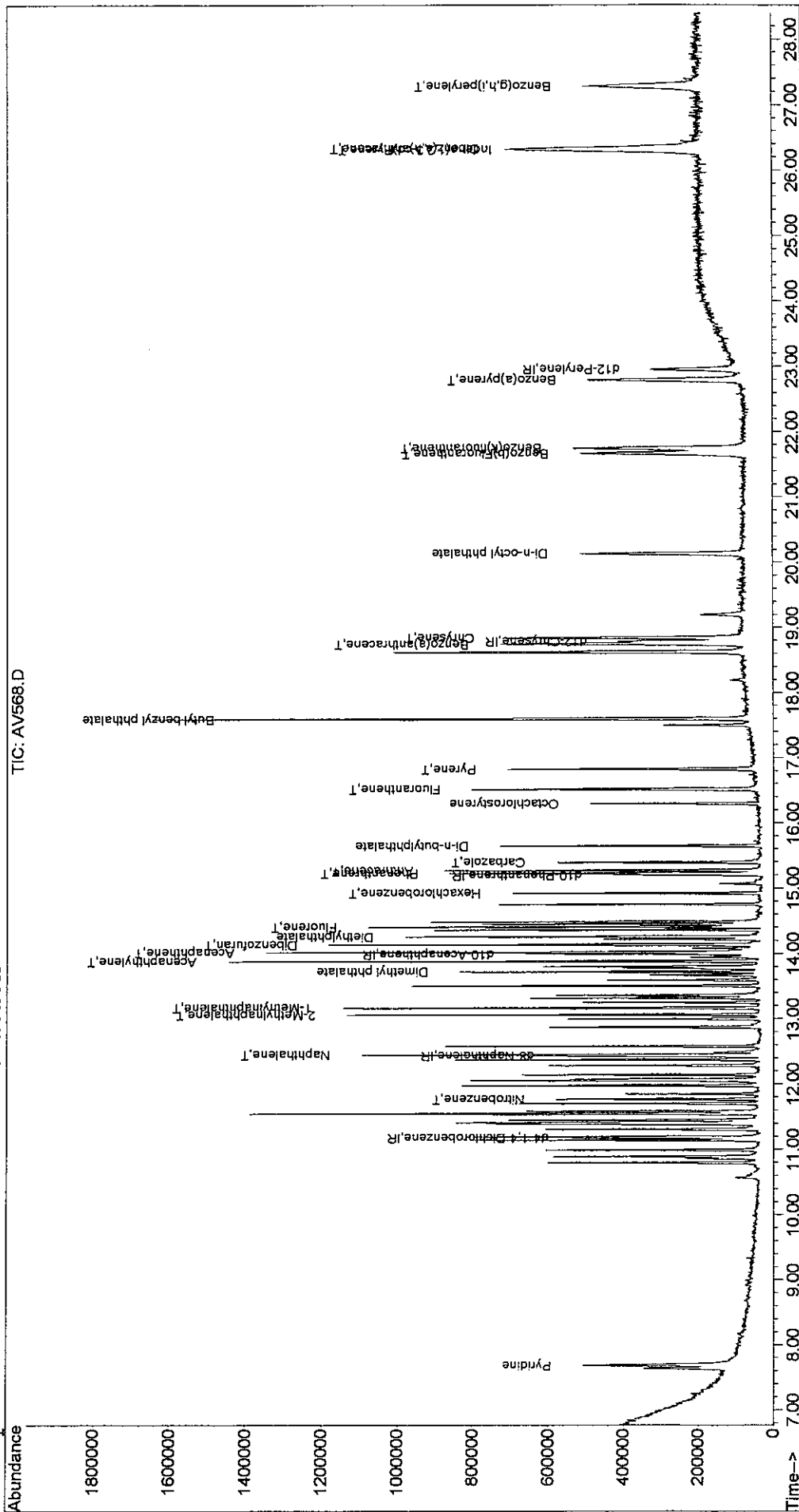
Quant Method : J:\ACQUDATA\5...\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:26:08 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI1013

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) Indeno(1,2,3-cd)Pyrene	26.30	276	509675	1.96	ppm	85
39) Dibenz(a,h)anthracene	26.33	278	430133	1.95	ppm	95
40) Benzo(g,h,i)perylene	27.28	276	438787	2.01	ppm	91

Quantitation Report (QT Reviewed)

Data File : J:\ACQDATA\5973C\DATA\101309\AV568.D Vial: 12
 Acq On : 13 Oct 2009 11:26 pm Operator: J.Wu
 Sample : ICV 1 Inst : 5973C
 Misc : 2.0 PPM STD 8270.LL ICV 1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 9:34 2009 Quant Results File: LVII1013.RES

Method : J:\ACQDATA\5973C\METHODS\LVII1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:26:08 2009
 Response via : Initial Calibration



97409

Evaluate Continuing Calibration Report

Data File : J:\ACQUATA\5973C\DATA\101309\AV569.D
 Acq On : 14 Oct 2009 12:04 am
 Sample : ICV 2
 Misc : 2.0 PPM STD 8270.LL ICV 2
 MS Integration Params: RTEINT.P

Vial: 13
 Operator: J.Wu
 Inst : 5973C
 Multiplr: 1.00

Method : J:\ACQUATA\5973C\METHODS\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:26:08 2009
 Response via : Multiple Level Calibration

for surrogate # 5, 11, 28 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	93	0.00
2 T	1,4-Dioxane	2.059	0.974	52.7#	52	0.00
3	Pyridine	2.458	0.000#	100.0#	0#	-7.68#
4 IR	d8-Naphthalene	1.000	1.000	0.0	95	0.00
5 S	SURR4,NITROBENZENE-D5	0.512	0.547	-6.8	99	0.00
6 T	Nitrobenzene	0.547	0.000#	100.0#	0#	-11.76#
7 T	Naphthalene	1.075	0.000#	100.0#	0#	-12.44#
8 T	2-Methylnaphthalene	0.739	0.000#	100.0#	0#	-13.06#
9 T	1-Methylnaphthalene	0.704	0.000#	100.0#	0#	-13.16#
10 IR	d10-Acenaphthene	1.000	1.000	0.0	82	0.00
11 S	SURR5,2-FLUOROBIPHENYL	1.403	1.569	-11.8	94	0.00
12 T	Acenaphthylene	1.870	0.000#	100.0#	0#	-13.88#
13	Dimethyl phthalate	1.429	0.000#	100.0#	0#	-13.72#
14 T	Acenaphthene	1.166	0.000#	100.0#	0#	-14.02#
15 T	Dibenzofuran	1.490	0.000#	100.0#	0#	-14.14#
16 T	Fluorene	1.132	0.000#	100.0#	0#	-14.40#
17	Diethylphthalate	1.205	0.000#	100.0#	0#	-14.26#
18 IR	d10-Phenanthrene	1.000	1.000	0.0	88	0.00
19 T	Hexachlorobenzene	0.267	0.000#	100.0#	0#	-14.92#
20 T	Phenanthrene	1.153	0.000#	100.0#	0#	-15.23#
21 T	Anthracene	1.146	0.000#	100.0#	0#	-15.27#
22 T	Carbazole	0.853	0.000#	100.0#	0#	-15.39#
23	Octachlorostyrene	0.053	0.000#	100.0#	0#	-16.29#
24	Di-n-butylphthalate	1.499	0.000#	100.0#	0#	-15.64#
25 T	Fluoranthene	1.269	0.000#	100.0#	0#	-16.51#
26 IR	d12-Chrysene	1.000	1.000	0.0	86	0.00
27 T	Pyrene	1.002	0.000#	100.0#	0#	-16.82#
28 S	SURR6,TERPHENYL-D14	0.678	0.802	-18.3	98	0.00
29	Butyl benzyl phthalate	0.710	0.000#	100.0#	0#	-17.59#
30 T	bis(2-Ethylhexyl)phthalate	1.002	0.402	59.9#	35#	0.00
31 T	Benzo(a)anthracene	1.111	0.000#	100.0#	0#	-18.75#
32 T	Chrysene	1.129	0.000#	100.0#	0#	-18.84#
33 IR	d12-Perylene	1.000	1.000	0.0	75	0.01
34	Di-n-octyl phthalate	1.881	0.000#	100.0#	0#	-20.13#
35 T	Benzo(b)Fluoranthene	1.364	0.000#	100.0#	0#	-21.67#
36 T	Benzo(k)fluoranthene	1.380	0.000#	100.0#	0#	-21.74#

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\5973C\DATA\101309\AV569.D Vial: 13
 Acq On : 14 Oct 2009 12:04 am Operator: J.Wu
 Sample : ICV 2 Inst : 5973C
 Misc : 2.0 PPM STD 8270.LL ICV 2 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : J:\ACQUDATA\5973C\METHODS\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:26:08 2009
 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	1.301	0.000#	100.0#	0#	-22.80#
38 T	Indeno(1,2,3-cd)Pyrene	1.397	0.000#	100.0#	0#	-26.32#
39 T	Dibenz(a,h)anthracene	1.182	0.000#	100.0#	0#	-26.33#
40 T	Benzo(g,h,i)perylene	1.170	0.000#	100.0#	0#	-27.29#

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\5973C\DATA\101309\AV569.D
 Acq On : 14 Oct 2009 12:04 am
 Sample : ICV 2
 Misc : 2.0 PPM STD 8270.LL ICV 2
 MS Integration Params: RTEINT.P

Vial: 13
 Operator: J.Wu
 Inst : 5973C
 Multiplr: 1.00

Method : J:\ACQUDATA\5973C\METHODS\LVII1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:26:08 2009
 Response via : Multiple Level Calibration

for # 2, 30 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	101	0.00
2 T	1,4-Dioxane	2.059	1.948	5.4	107	0.00
3	Pyridine	2.458	0.000#	100.0#	0#	-7.68#
4 IR	d8-Naphthalene	1.000	1.000	0.0	104	0.00
5 S	SURR4, NITROBENZENE-D5	0.512	1.095	-113.9#	229#	0.00
6 T	Nitrobenzene	0.547	0.000#	100.0#	0#	-11.76#
7 T	Naphthalene	1.075	0.000#	100.0#	0#	-12.44#
8 T	2-Methylnaphthalene	0.739	0.000#	100.0#	0#	-13.06#
9 T	1-Methylnaphthalene	0.704	0.000#	100.0#	0#	-13.16#
10 IR	d10-Acenaphthene	1.000	1.000	0.0	88	0.00
11 S	SURR5, 2-FLUOROBIPHENYL	1.403	3.138	-123.7#	210#	0.00
12 T	Acenaphthylene	1.870	0.000#	100.0#	0#	-13.88#
13	Dimethyl phthalate	1.429	0.000#	100.0#	0#	-13.72#
14 T	Acenaphthene	1.166	0.000#	100.0#	0#	-14.02#
15 T	Dibenzofuran	1.490	0.000#	100.0#	0#	-14.14#
16 T	Fluorene	1.132	0.000#	100.0#	0#	-14.40#
17	Diethylphthalate	1.205	0.000#	100.0#	0#	-14.26#
18 IR	d10-Phenanthrene	1.000	1.000	0.0	96	0.00
19 T	Hexachlorobenzene	0.267	0.000#	100.0#	0#	-14.92#
20 T	Phenanthrene	1.153	0.000#	100.0#	0#	-15.23#
21 T	Anthracene	1.146	0.000#	100.0#	0#	-15.27#
22 T	Carbazole	0.853	0.000#	100.0#	0#	-15.39#
23	Octachlorostyrene	0.053	0.000#	100.0#	0#	-16.29#
24	Di-n-butylphthalate	1.499	0.000#	100.0#	0#	-15.64#
25 T	Fluoranthene	1.269	0.000#	100.0#	0#	-16.51#
26 IR	d12-Chrysene	1.000	1.000	0.0	85	0.00
27 T	Pyrene	1.002	0.000#	100.0#	0#	-16.82#
28 S	SURR6, TERPHENYL-D14	0.678	1.604	-136.6#	217#	0.00
29	Butyl benzyl phthalate	0.710	0.000#	100.0#	0#	-17.59#
30 T	bis(2-Ethylhexyl)phthalate	1.002	0.803	19.9	82	0.00
31 T	Benzo(a)anthracene	1.111	0.000#	100.0#	0#	-18.75#
32 T	Chrysene	1.129	0.000#	100.0#	0#	-18.84#
33 IR	d12-Perylene	1.000	1.000	0.0	79	0.01
34	Di-n-octyl phthalate	1.881	0.000#	100.0#	0#	-20.13#
35 T	Benzo(b)Fluoranthene	1.364	0.000#	100.0#	0#	-21.67#
36 T	Benzo(k)fluoranthene	1.380	0.000#	100.0#	0#	-21.74#

(#) = Out of Range
 AV569.D LVII1013.M

Wed Oct 14 09:37:44 2009

JW

Page 1

00449

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\5973C\DATA\101309\AV569.D Vial: 13
 Acq On : 14 Oct 2009 12:04 am Operator: J.Wu
 Sample : ICV 2 Inst : 5973C
 Misc : 2.0 PPM STD 8270.LL ICV 2 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : J:\ACQUDATA\5973C\METHODS\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:26:08 2009
 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	1.301	0.000#	100.0#	0#	-22.80#
38 T	Indeno(1,2,3-cd)Pyrene	1.397	0.000#	100.0#	0#	-26.32#
39 T	Dibenz(a,h)anthracene	1.182	0.000#	100.0#	0#	-26.33#
40 T	Benzo(g,h,i)perylene	1.170	0.000#	100.0#	0#	-27.29#

Quantitation Report (QT Reviewed)

Data File : J:\ACQUDATA\5973C\DATA\101309\AV569.D Vial: 13
 Acq On : 14 Oct 2009 12:04 am Operator: J.Wu
 Sample : ICV 2 Inst : 5973C
 Misc : 2.0 PPM STD 8270.LL ICV 2 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 09:36:01 2009 Quant Results File: LVI1013.RES

Quant Method : J:\ACQUDATA\5...\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:26:08 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI1013

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	11.17	152	51861	1.00	ppm	0.00
4) d8-Naphthalene	12.42	136	194167	1.00	ppm	0.00
10) d10-Acenaphthene	13.99	164	109226	1.00	ppm	0.00
18) d10-Phenanthrene	15.21	188	148503	1.00	ppm	0.00
26) d12-Chrysene	18.79	240	196296	1.00	ppm	0.00
33) d12-Perylene	22.96	264	156004	1.00	ppm	0.01

System Monitoring Compounds

5) SURR4,NITROBENZENE-D5	11.75	82	212517	2.14	ppm	0.00
Spiked Amount	2.000	Range	22 - 124	Recovery	=	107.00%
11) SURR5,2-FLUOROBIPHENYL	13.37	172	342801	2.24	ppm	0.00
Spiked Amount	2.000	Range	27 - 114	Recovery	=	112.00%
28) SURR6,TERPHENYL-D14	16.92	244	314820	2.37	ppm	0.00
Spiked Amount	2.000	Range	23 - 139	Recovery	=	118.50%

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	6.94	88	202022	1.89	ppm	99
30) bis(2-Ethylhexyl)phthalate	18.62	149	315425	1.60	ppm	94

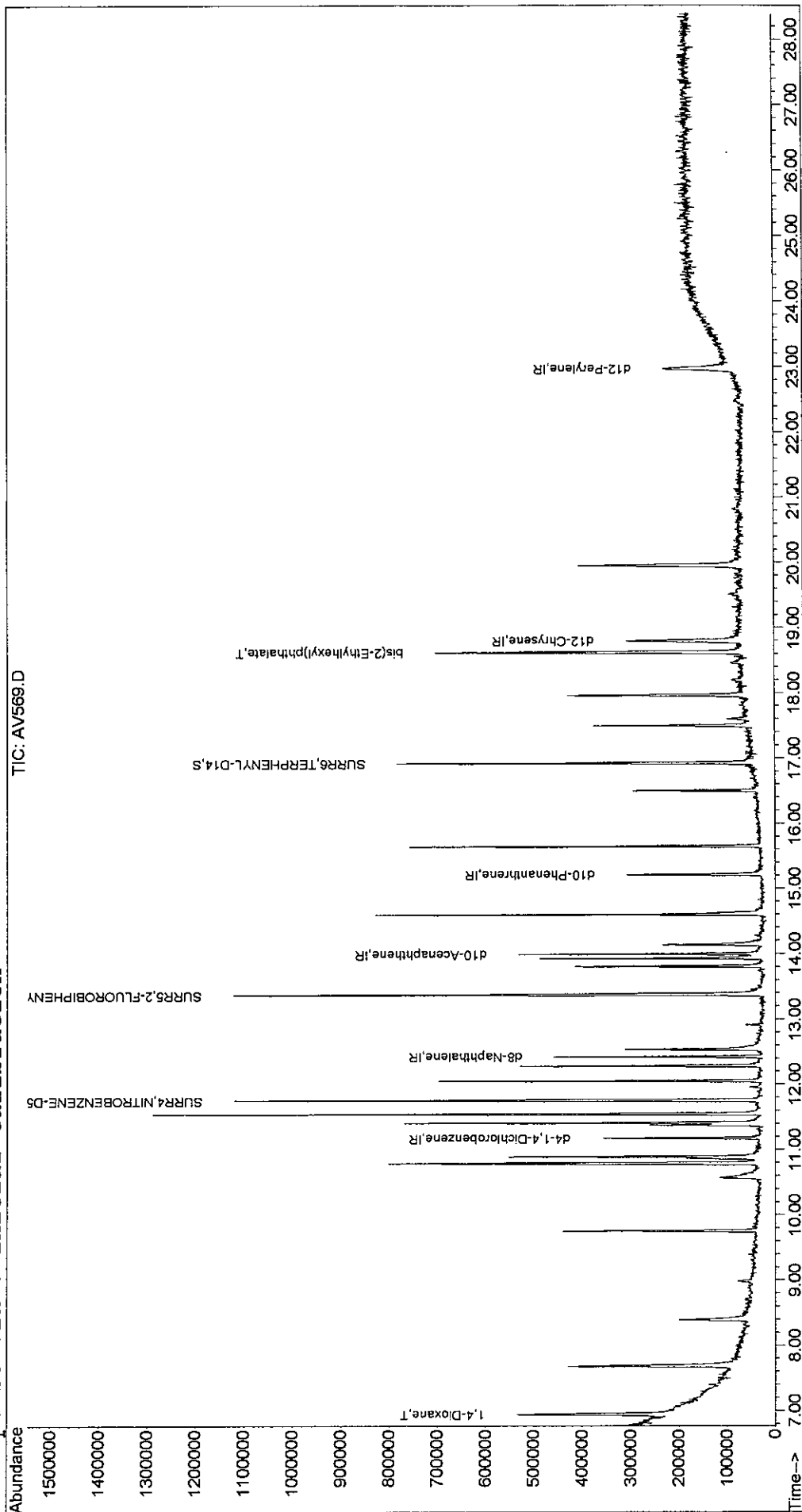
JW

00451

Quantitation Report (QT Reviewed)

Data File : J:\ACQDATA\5973C\DATA\101309\AV569.D Vial: 13
Acq On : 14 Oct 2009 12:04 am Operator: J.Wu
Sample : ICV 2 Inst : 5973C
Misc : 2.0 PPM STD 8270.LL ICV 2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 14 9:36 2009 Quant Results File: LVII1013.RES

Method : J:\ACQDATA\5973C\METHODS\LVII1013.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Oct 14 09:26:08 2009
Response via : Initial Calibration



00452

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\5973B\DATA\100609\DB855.D
 Acq On : 6 Oct 2009 2:21 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

WR: #2

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 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	58	0.00
2	TM 1,4-Dioxane	0.980	0.745	24.0#	50	0.00
3	TM Pyridine	1.325	1.315	0.8	61	-0.02
4	IR d8-Naphthalene	1.000	1.000	0.0	59	0.00
5	S SURR4,NITROBENZENE-D5	0.333	0.349	-4.8	59	0.00
6	TM Nitrobenzene	0.336	0.362	-7.7	58	0.00
7	TM Naphthalene	1.049	1.098	-4.7	59	0.00
8	TM 2-Methylnaphthalene	0.674	0.673	0.1	60	0.00
9	TM 1-Methylnaphthalene	0.626	0.666	-6.4	62	0.00
10	IR d10-Acenaphthene	1.000	1.000	0.0	61	0.00
11	S SURR5,2-FLUOROBIPHENYL	1.345	1.367	-1.6	62	0.00
12	TM Acenaphthylene	1.863	2.052	-10.1	66	0.00
13	TM Dimethyl phthalate	1.471	1.582	-7.5	65	0.00
14	TM Acenaphthene	1.160	1.251	-7.8	66	0.00
15	TM Dibenzofuran	1.546	1.806	-16.8	69	0.00
16	TM Fluorene	1.192	1.432	-20.1#	70	0.00
17	TM Diethylphthalate	1.542	1.666	-8.0	64	0.00
18	IR d10-Phenanthrene	1.000	1.000	0.0	65	0.00
19	TM Hexachlorobenzene	0.239	0.246	-2.9	64	0.00
20	TM Phenanthrene	1.161	1.175	-1.2	63	0.00
21	TM Anthracene	1.085	1.225	-12.9	67	0.00
22	TM Carbazole	0.720	0.809	-12.4	68	0.00
23	TM Octachlorostyrene	0.070	0.073	-4.3	57	0.00
24	TM Di-n-butylphthalate	1.535	1.646	-7.2	61	0.00
25	TM Fluoranthene	1.302	1.265	2.8	59	0.00
26	IR d12-Chrysene	1.000	1.000	0.0	57	0.00
27	TM Pyrene	1.258	1.323	-5.2	58	0.00
28	S SURR6,TERPHENYL-D14	0.792	0.872	-10.1	60	0.00
29	TM Butyl benzyl phthalate	0.677	0.788	-16.4	62	-0.01
30	TM bis(2-Ethylhexyl)phthalate	0.840	1.011	-20.4#	62	-0.01
31	TM Benzo(a)anthracene	1.080	1.164	-7.8	57	0.00
32	TM Chrysene	1.094	1.129	-3.2	56	0.00
33	IR d12-Perylene	1.000	1.000	0.0	57	-0.02
34	TM Di-n-octyl phthalate	1.860	2.341	-25.9#	70	-0.02
35	TM Benzo(b)Fluoranthene	1.447	1.461	-1.0	55	-0.01
36	TM Benzo(k)fluoranthene	1.434	1.471	-2.6	57	-0.01

(#) = Out of Range

N

Evaluate Continuing Calibration Report

Data File : J:\ACQUADATA\5973B\DATA\100609\DB855.D Vial: 1
 Acq On : 6 Oct 2009 2:21 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\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 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 TM	Benzo(a)pyrene	1.274	1.322	-3.8	56	0.00
38 TM	Indeno(1,2,3-cd)Pyrene	1.509	1.518	-0.6	54	-0.01
39 TM	Dibenz(a,h)anthracene	1.250	1.242	0.6	55	-0.02
40 TM	Benzo(g,h,i)perylene	1.278	1.301	-1.8	54	-0.01

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\5973B\DATA\100609\DB855.D
 Acq On : 6 Oct 2009 2:21 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

U: #2

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 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	58	0.00
2	TM 1,4-Dioxane	4.000	3.332	16.7	50	0.00
3	TM Pyridine	2.000	1.984	0.8	61	-0.02
4	IR d8-Naphthalene	1.000	1.000	0.0	59	0.00
5	S SURR4,NITROBENZENE-D5	2.000	2.098	-4.9	59	0.00
6	TM Nitrobenzene	2.000	2.149	-7.5	58	0.00
7	TM Naphthalene	2.000	2.094	-4.7	59	0.00
8	TM 2-Methylnaphthalene	2.000	1.999	0.0	60	0.00
9	TM 1-Methylnaphthalene	2.000	2.126	-6.3	62	0.00
10	IR d10-Acenaphthene	1.000	1.000	0.0	61	0.00
11	S SURR5,2-FLUOROBIPHENYL	2.000	2.034	-1.7	62	0.00
12	TM Acenaphthylene	2.000	2.202	-10.1	66	0.00
13	TM Dimethyl phthalate	2.000	2.151	-7.5	65	0.00
14	TM Acenaphthene	2.000	2.158	-7.9	66	0.00
15	TM Dibenzofuran	2.000	2.336	-16.8	69	0.00
16	TM Fluorene	2.000	2.402	-20.1#	70	0.00
17	TM Diethylphthalate	2.000	2.161	-8.1	64	0.00
18	IR d10-Phenanthrene	1.000	1.000	0.0	65	0.00
19	TM Hexachlorobenzene	2.000	2.061	-3.0	64	0.00
20	TM Phenanthrene	2.000	2.024	-1.2	63	0.00
21	TM Anthracene	2.000	2.258	-12.9	67	0.00
22	TM Carbazole	2.000	2.246	-12.3	68	0.00
23	TM Octachlorostyrene	2.000	2.077	-3.8	57	0.00
24	TM Di-n-butylphthalate	2.000	2.144	-7.2	61	0.00
25	TM Fluoranthene	2.000	1.943	2.8	59	0.00
26	IR d12-Chrysene	1.000	1.000	0.0	57	0.00
27	TM Pyrene	2.000	2.104	-5.2	58	0.00
28	S SURR6,TERPHENYL-D14	2.000	2.201	-10.1	60	0.00
29	TM Butyl benzyl phthalate	2.000	2.329	-16.5	62	-0.01
30	TM bis(2-Ethylhexyl)phthalate	4.000	4.814	-20.4#	62	-0.01
31	TM Benzo(a)anthracene	2.000	2.156	-7.8	57	0.00
32	TM Chrysene	2.000	2.064	-3.2	56	0.00
33	IR d12-Perylene	1.000	1.000	0.0	57	-0.02
34	TM Di-n-octyl phthalate	2.000	2.517	-25.8#	70	-0.02
35	TM Benzo(b)Fluoranthene	2.000	2.020	-1.0	55	-0.01
36	TM Benzo(k)fluoranthene	2.000	2.051	-2.6	57	-0.01

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\5973B\DATA\100609\DB855.D
 Acq On : 6 Oct 2009 2:21 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

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 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	TM Benzo(a)pyrene	2.000	2.075	-3.8	56	0.00
38	TM Indeno(1,2,3-cd)Pyrene	2.000	2.012	-0.6	54	-0.01
39	TM Dibenz(a,h)anthracene	2.000	1.987	0.6	55	-0.02
40	TM Benzo(g,h,i)perylene	2.000	2.036	-1.8	54	-0.01

Data File : J:\ACQUADATA\5973B\DATA\100609\DB855.D
 Acq On : 6 Oct 2009 2:21 pm
 Sample : CALIBRATION CHECK
 Misc : 2.0/4.0 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Oct 6 15:31 2009

Vial: 1
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: LVI0928.RES

Quant Method : J:\ACQUADATA\5...\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI0928

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	10.70	152	67165	1.00	ppm	0.00
4) d8-Naphthalene	11.96	136	258312	1.00	ppm	0.00
10) d10-Acenaphthene	13.56	164	138010	1.00	ppm	0.00
18) d10-Phenanthrene	14.77	188	223640	1.00	ppm	0.00
26) d12-Chrysene	18.11	240	218817	1.00	ppm	0.00
33) d12-Perylene	21.93	264	169615	1.00	ppm	-0.02

System Monitoring Compounds

5) SURR4,NITROBENZENE-D5	11.28	82	180311	2.10	ppm	0.00
Spiked Amount	2.000	Range 22 - 124	Recovery	=	105.00%	
11) SURR5,2-FLUOROBIPHENYL	12.93	172	377351	2.03	ppm	0.00
Spiked Amount	2.000	Range 27 - 114	Recovery	=	101.50%	
28) SURR6,TERPHENYL-D14	16.39	244	381712	2.20	ppm	0.00
Spiked Amount	2.000	Range 23 - 139	Recovery	=	110.00%	

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	6.22	88	200085	3.33	ppm	92
3) Pyridine	6.96	79	176588	1.98	ppm	97
6) Nitrobenzene	11.30	77	186790	2.15	ppm	89
7) Naphthalene	11.98	128	567257	2.09	ppm	98
8) 2-Methylnaphthalene	12.61	142	347892	2.00	ppm	88
9) 1-Methylnaphthalene	12.71	142	343892	2.13	ppm	96
12) Acenaphthylene	13.44	152	566309	2.20	ppm	99
13) Dimethyl phthalate	13.28	163	436604	2.15	ppm	96
14) Acenaphthene	13.59	153	345330	2.16	ppm	95
15) Dibenzofuran	13.73	168	498571	2.34	ppm	96
16) Fluorene	14.02	166	395329	2.40	ppm	98
17) Diethylphthalate	13.87	149	459809	2.16	ppm	97
19) Hexachlorobenzene	14.51	284	109937	2.06	ppm	93
20) Phenanthrene	14.80	178	525587	2.02	ppm	96
21) Anthracene	14.84	178	547703	2.26	ppm	96
22) Carbazole	14.96	167	361830	2.25	ppm	99
23) Octachlorostyrene	15.81	378	32468m	2.08	ppm	
24) Di-n-butylphthalate	15.20	149	736178	2.14	ppm	99
25) Fluoranthene	16.01	202	565736	1.94	ppm	92
27) Pyrene	16.30	202	579180	2.10	ppm	97
29) Butyl benzyl phthalate	17.02	149	344920	2.33	ppm	95
30) bis(2-Ethylhexyl)phthalate	17.96	149	884485	4.81	ppm	98
31) Benzo(a)anthracene	18.07	228	509431	2.16	ppm	99
32) Chrysene	18.16	228	494056	2.06	ppm	96
34) Di-n-octyl phthalate	19.30	149	793993	2.52	ppm	98
35) Benzo(b)Fluoranthene	20.68	252	495590	2.02	ppm	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\ACQUDATA\5973B\DATA\100609\DB855.D
 Acq On : 6 Oct 2009 2:21 pm
 Sample : CALIBRATION CHECK
 Misc : 2.0/4.0 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Oct 6 15:31 2009

Vial: 1
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: LVI0928.RES

Quant Method : J:\ACQUDATA\5...\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI0928

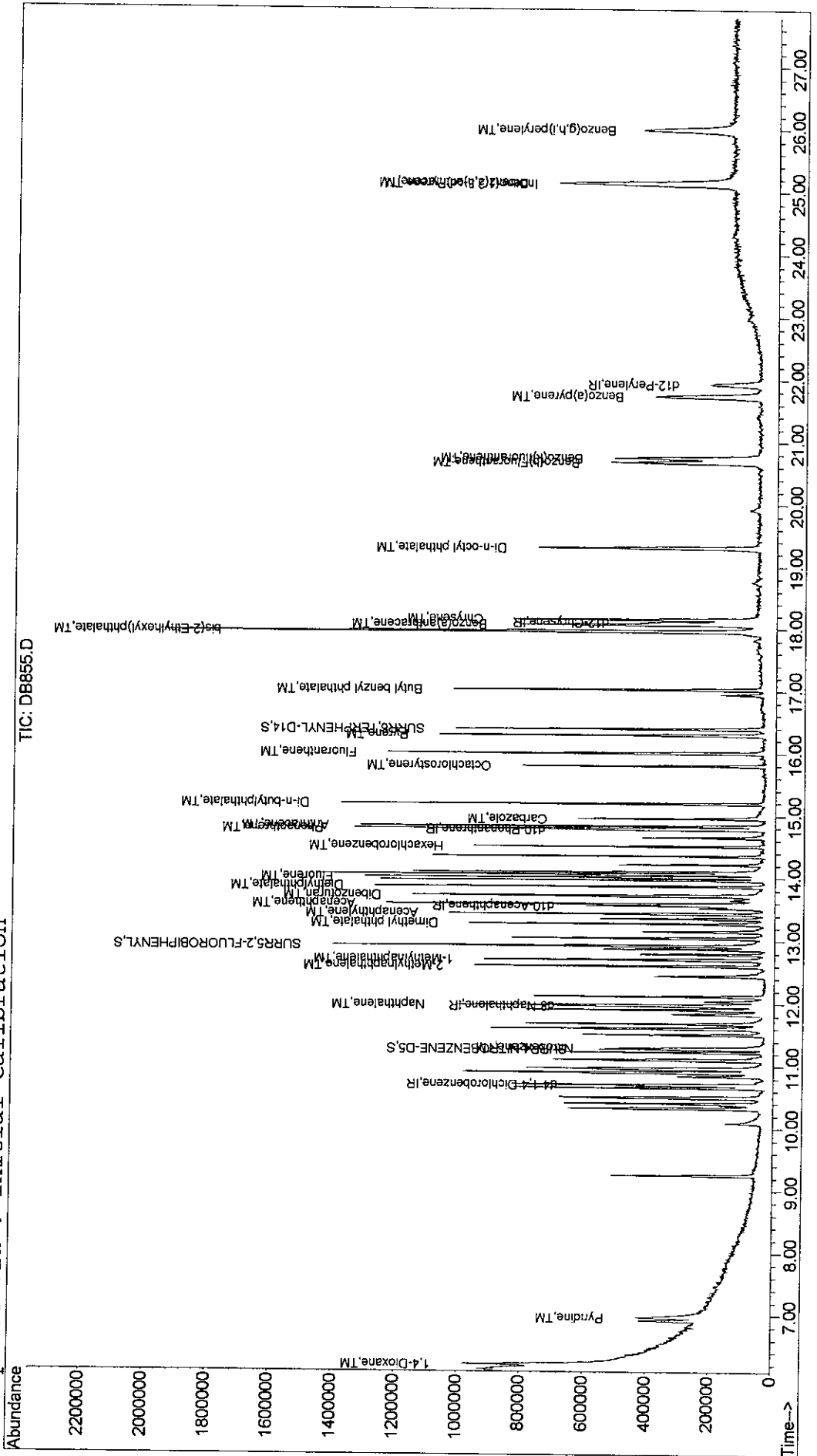
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
36) Benzo(k)fluoranthene	20.75	252	498947	2.05	ppm	95
37) Benzo(a)pyrene	21.74	252	448439	2.08	ppm	94
38) Indeno(1,2,3-cd)Pyrene	25.13	276	514944	2.01	ppm	96
39) Dibenz(a,h)anthracene	25.14	278	421384	1.99	ppm	93
40) Benzo(g,h,i)perylene	26.00	276	441424	2.04	ppm	90

 (#) = qualifier out of range (m) = manual integration
 DB855.D LVI0928.M Tue Oct 06 15:32:07 2009

Quantitation Report

Data File : J:\ACQDATA\5973B\DATA\100609\DB855.D Vial: 1
Acq On : 6 Oct 2009 2:21 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
Quant Time: Oct 6 15:31 2009 Quant Results File: LVI0928.RE5

Method : J:\ACQDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Sep 29 09:53:23 2009
Response via : Initial Calibration



00459

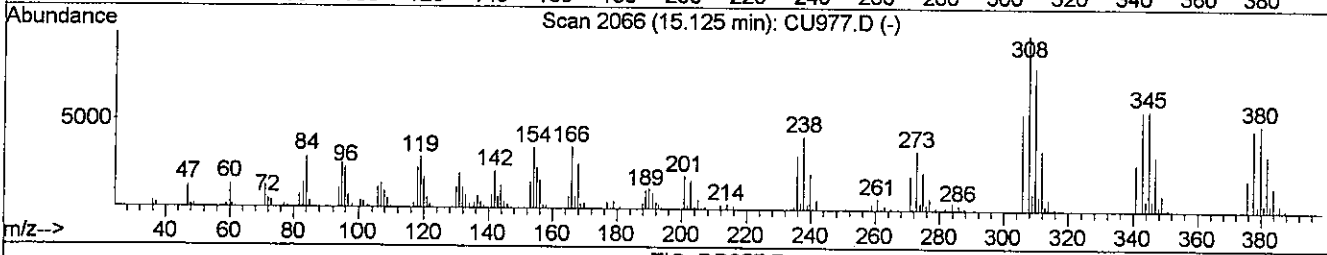
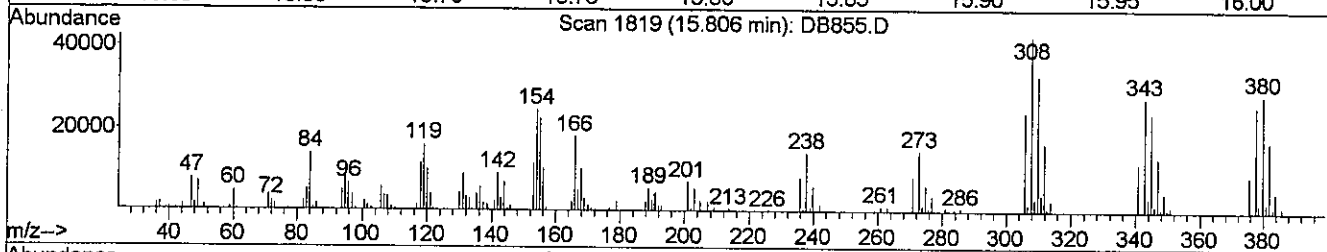
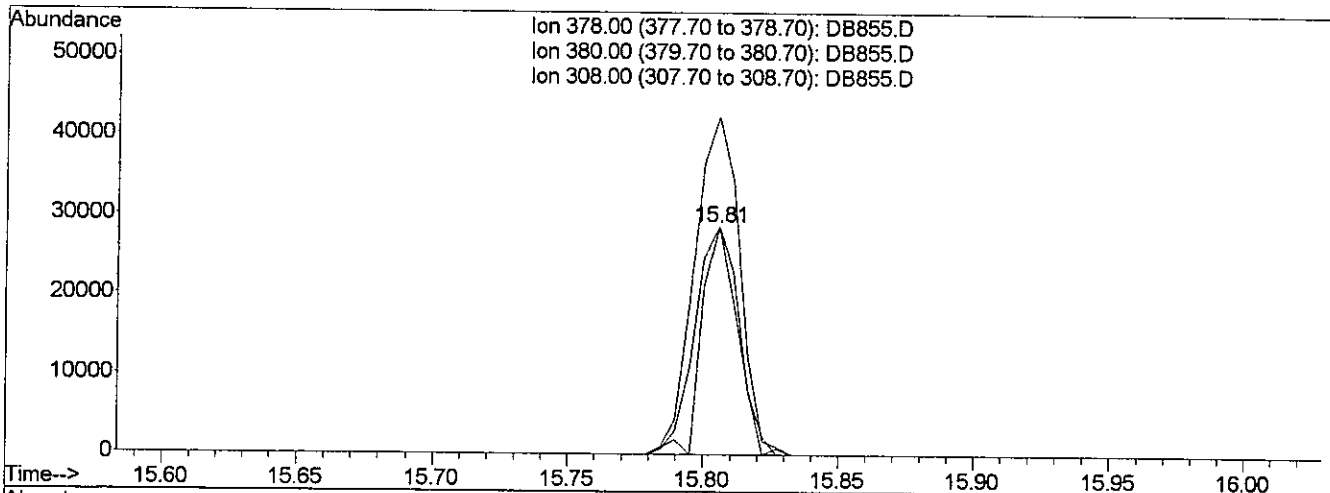
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\100609\DB855.D
 Acq On : 6 Oct 2009 2:21 pm
 Sample : CALIBRATION CHECK
 Misc : 2.0/4.0 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Oct 6 14:49 2009

Vial: 1
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 Response via : Multiple Level Calibration



TIC: DB855.D

(23) Octachlorostyrene (TM)

15.81min 2.08ppm

response 32473

Ion	Exp%	Act%
378.00	100	100
380.00	95.60	109.24
308.00	119.80	160.67#
0.00	0.00	0.00

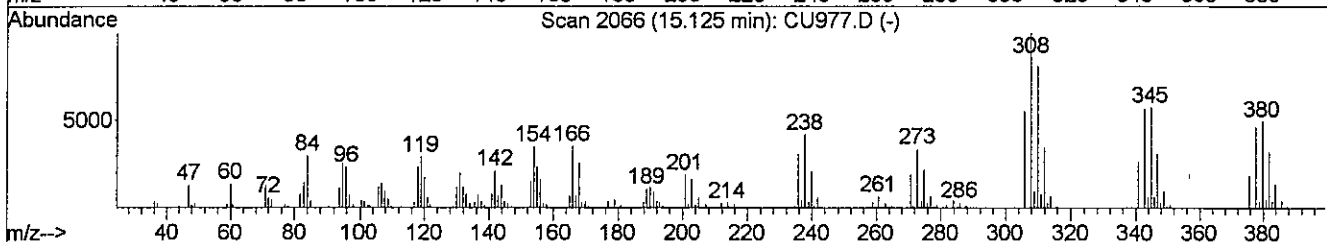
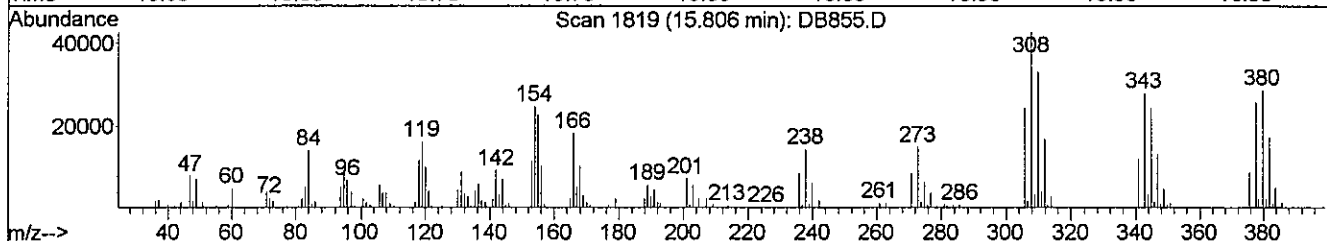
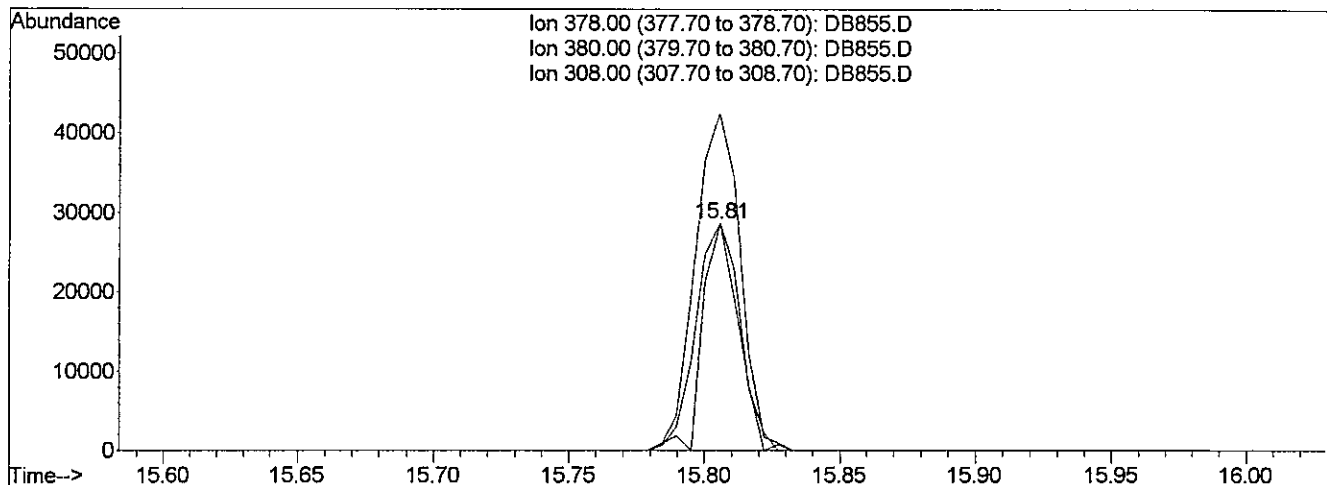
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\100609\DB855.D
 Acq On : 6 Oct 2009 2:21 pm
 Sample : CALIBRATION CHECK
 Misc : 2.0/4.0 PPM STD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Oct 6 15:31 2009

Vial: 1
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 Response via : Multiple Level Calibration



TIC: DB855.D

(23) Octachlorostyrene (TM)

15.81min 2.08ppm m

response 32468

Ion	Exp%	Act%
378.00	100	100
380.00	95.60	109.68
308.00	119.80	162.92#
0.00	0.00	0.00

Handwritten notes:
 YMM 10/7
 A 10/6/09

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\5973B\DATA\101209\DB987.D
 Acq On : 12 Oct 2009 3:17 pm
 Sample : CALIBRATION CHECK
 Misc : 2.0/4.0 PPM TD 8270.LL
 MS Integration Params: RTEINT.P

Vial: 1
 Operator: J.Wu
 Inst : 5973-B
 Multiplr: 1.00

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 Response via : Multiple Level Calibration

#2 R.R.

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	74	0.00
2	TM 1,4-Dioxane	0.980	0.884	9.8	75	0.00
3	TM Pyridine	1.325	1.267	4.4	74	-0.01
4	IR d8-Naphthalene	1.000	1.000	0.0	69	0.00
5	S SURR4,NITROBENZENE-D5	0.333	0.384	-15.3	76	0.00
6	TM Nitrobenzene	0.336	0.354	-5.4	67	0.00
7	TM Naphthalene	1.049	1.102	-5.1	69	0.00
8	TM 2-Methylnaphthalene	0.674	0.687	-1.9	72	0.00
9	TM 1-Methylnaphthalene	0.626	0.638	-1.9	69	0.00
10	IR d10-Acenaphthene	1.000	1.000	0.0	80	0.00
11	S SURR5,2-FLUOROBIPHENYL	1.345	1.263	6.1	76	0.00
12	TM Acenaphthylene	1.863	1.927	-3.4	81	0.00
13	TM Dimethyl phthalate	1.471	1.620	-10.1	87	0.00
14	TM Acenaphthene	1.160	1.176	-1.4	81	0.00
15	TM Dibenzofuran	1.546	1.674	-8.3	84	0.00
16	TM Fluorene	1.192	1.361	-14.2	87	0.00
17	TM Diethylphthalate	1.542	1.698	-10.1	85	0.00
18	IR d10-Phenanthrene	1.000	1.000	0.0	87	0.00
19	TM Hexachlorobenzene	0.239	0.241	-0.8	84	0.00
20	TM Phenanthrene	1.161	1.163	-0.2	84	0.00
21	TM Anthracene	1.085	1.198	-10.4	88	0.00
22	TM Carbazole	0.720	0.935	N.T. -29.9#	105	0.00
23	TM Octachlorostyrene	0.070	0.077	-10.0	80	-0.01
24	TM Di-n-butylphthalate	1.535	1.565	-2.0	78	-0.01
25	TM Fluoranthene	1.302	1.282	1.5	80	0.00
26	IR d12-Chrysene	1.000	1.000	0.0	77	-0.01
27	TM Pyrene	1.258	1.362	-8.3	81	0.00
28	S SURR6,TERPHENYL-D14	0.792	0.891	-12.5	83	0.00
29	TM Butyl benzyl phthalate	0.677	0.731	-8.0	78	-0.02
30	TM bis(2-Ethylhexyl)phthalate	0.840	0.973	-15.8	81	-0.02
31	TM Benzo(a)anthracene	1.080	1.174	-8.7	79	-0.01
32	TM Chrysene	1.094	1.186	-8.4	80	0.00
33	IR d12-Perylene	1.000	1.000	0.0	76	-0.02
34	TM Di-n-octyl phthalate	1.860	2.202	-18.4	87	-0.03
35	TM Benzo(b)Fluoranthene	1.447	1.467	-1.4	73	-0.02
36	TM Benzo(k)fluoranthene	1.434	1.554	-8.4	80	-0.02

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\5973B\DATA\101209\DB987.D Vial: 1
 Acq On : 12 Oct 2009 3:17 pm Operator: J.Wu
 Sample : CALIBRATION CHECK Inst : 5973-B
 Misc : 2.0/4.0 PPM TD 8270.LL Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 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 TM	Benzo(a)pyrene	1.274	1.410	-10.7	79	0.00
38 TM	Indeno(1,2,3-cd)Pyrene	1.509	1.660	-10.0	78	-0.02
39 TM	Dibenz(a,h)anthracene	1.250	1.349	-7.9	80	-0.02
40 TM	Benzo(g,h,i)perylene	1.278	1.506	-17.8	83	-0.02

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\5973B\DATA\101209\DB987.D
 Acq On : 12 Oct 2009 3:17 pm
 Sample : CALIBRATION CHECK
 Misc : 2.0/4.0 PPM TD 8270.LL
 MS Integration Params: RTEINT.P

Vial: 1
 Operator: J.Wu
 Inst : 5973-B
 Multiplr: 1.00

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009 #2 L.R.
 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	74	0.00
2	TM 1,4-Dioxane	4.000	4.017	-0.4	75	0.00
3	TM Pyridine	2.000	1.912	4.4	74	-0.01
4	IR d8-Naphthalene	1.000	1.000	0.0	69	0.00
5	S SURR4,NITROBENZENE-D5	2.000	2.308	-15.4	76	0.00
6	TM Nitrobenzene	2.000	2.107	-5.4	67	0.00
7	TM Naphthalene	2.000	2.101	-5.0	69	0.00
8	TM 2-Methylnaphthalene	2.000	2.040	-2.0	72	0.00
9	TM 1-Methylnaphthalene	2.000	2.036	-1.8	69	0.00
10	IR d10-Acenaphthene	1.000	1.000	0.0	80	0.00
11	S SURR5,2-FLUOROBIPHENYL	2.000	1.878	6.1	76	0.00
12	TM Acenaphthylene	2.000	2.069	-3.4	81	0.00
13	TM Dimethyl phthalate	2.000	2.203	-10.1	87	0.00
14	TM Acenaphthene	2.000	2.028	-1.4	81	0.00
15	TM Dibenzofuran	2.000	2.165	-8.3	84	0.00
16	TM Fluorene	2.000	2.283	-14.1	87	0.00
17	TM Diethylphthalate	2.000	2.203	-10.1	85	0.00
18	IR d10-Phenanthrene	1.000	1.000	0.0	87	0.00
19	TM Hexachlorobenzene	2.000	2.022	-1.1	84	0.00
20	TM Phenanthrene	2.000	2.003	-0.2	84	0.00
21	TM Anthracene	2.000	2.209	-10.5	88	0.00
22	TM Carbazole	2.000	2.596	-29.8#	105	0.00
23	TM Octachlorostyrene	2.000	2.195	-9.7	80	-0.01
24	TM Di-n-butylphthalate	2.000	2.039	-2.0	78	-0.01
25	TM Fluoranthene	2.000	1.970	1.5	80	0.00
26	IR d12-Chrysene	1.000	1.000	0.0	77	-0.01
27	TM Pyrene	2.000	2.166	-8.3	81	0.00
28	S SURR6,TERPHENYL-D14	2.000	2.249	-12.5	83	0.00
29	TM Butyl benzyl phthalate	2.000	2.161	-8.1	78	-0.02
30	TM bis(2-Ethylhexyl)phthalate	4.000	4.634	-15.9	81	-0.02
31	TM Benzo(a)anthracene	2.000	2.173	-8.7	79	-0.01
32	TM Chrysene	2.000	2.168	-8.4	80	0.00
33	IR d12-Perylene	1.000	1.000	0.0	76	-0.02
34	TM Di-n-octyl phthalate	2.000	2.368	-18.4	87	-0.03
35	TM Benzo(b)Fluoranthene	2.000	2.028	-1.4	73	-0.02
36	TM Benzo(k)fluoranthene	2.000	2.167	-8.3	80	-0.02

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\5973B\DATA\101209\DB987.D Vial: 1
 Acq On : 12 Oct 2009 3:17 pm Operator: J.Wu
 Sample : CALIBRATION CHECK Inst : 5973-B
 Misc : 2.0/4.0 PPM TD 8270.LL Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 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 TM	Benzo(a)pyrene	2.000	2.213	-10.7	79	0.00
38 TM	Indeno(1,2,3-cd)Pyrene	2.000	2.200	-10.0	78	-0.02
39 TM	Dibenz(a,h)anthracene	2.000	2.158	-7.9	80	-0.02
40 TM	Benzo(g,h,i)perylene	2.000	2.357	-17.9	83	-0.02

Data File : J:\ACQUDATA\5973B\DATA\101209\DB987.D Vial: 1
 Acq On : 12 Oct 2009 3:17 pm Operator: J.Wu
 Sample : CALIBRATION CHECK Inst : 5973-B
 Misc : 2.0/4.0 PPM TD 8270.LL Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Oct 12 16:23 2009 Quant Results File: LVI0928.RES

Quant Method : J:\ACQUDATA\5...\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI0928

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	10.70	152	84715m _u	1.00	ppm	0.00
4) d8-Naphthalene	11.96	136	303469	1.00	ppm	0.00
10) d10-Acenaphthene	13.56	164	181277	1.00	ppm	0.00
18) d10-Phenanthrene	14.77	188	299750	1.00	ppm	0.00
26) d12-Chrysene	18.10	240	297631	1.00	ppm	-0.01
33) d12-Perylene	21.92	264	225119	1.00	ppm	-0.02

System Monitoring Compounds

5) SURR4,NITROBENZENE-D5	11.28	82	233033	2.31	ppm	0.00
Spiked Amount 2.000	Range 22	- 124	Recovery	=	115.50%	
11) SURR5,2-FLUOROBIPHENYL	12.92	172	457833	1.88	ppm	0.00
Spiked Amount 2.000	Range 27	- 114	Recovery	=	94.00%	
28) SURR6,TERPHENYL-D14	16.39	244	530344	2.25	ppm	0.00
Spiked Amount 2.000	Range 23	- 139	Recovery	=	112.50%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	6.22	88	299673	4.02	ppm	86
3) Pyridine	6.97	79	214610	1.91	ppm	89
6) Nitrobenzene	11.30	77	215143	2.11	ppm	98
7) Naphthalene	11.98	128	668622	2.10	ppm	97
8) 2-Methylnaphthalene	12.61	142	416995	2.04	ppm	93
9) 1-Methylnaphthalene	12.71	142	387024	2.04	ppm	92
12) Acenaphthylene	13.43	152	698638	2.07	ppm	99
13) Dimethyl phthalate	13.28	163	587403	2.20	ppm	97
14) Acenaphthene	13.59	153	426396	2.03	ppm	94
15) Dibenzofuran	13.73	168	607002	2.17	ppm	100
16) Fluorene	14.02	166	493497	2.28	ppm	97
17) Diethylphthalate	13.87	149	615546	2.20	ppm	97
19) Hexachlorobenzene	14.51	284	144589	2.02	ppm	95
20) Phenanthrene	14.80	178	697099	2.00	ppm	95
21) Anthracene	14.84	178	718165	2.21	ppm	98
22) Carbazole	14.96	167	560414	2.60	ppm	97
23) Octachlorostyrene	15.80	378	45984	2.19	ppm	83
24) Di-n-butylphthalate	15.19	149	938039	2.04	ppm	97
25) Fluoranthene	16.01	202	768597	1.97	ppm	93
27) Pyrene	16.30	202	810941	2.17	ppm	98
29) Butyl benzyl phthalate	17.02	149	435282	2.16	ppm	97
30) bis(2-Ethylhexyl)phthalate	17.95	149	1158259	4.63	ppm	98
31) Benzo(a)anthracene	18.06	228	698591	2.17	ppm	97
32) Chrysene	18.15	228	705948	2.17	ppm	97
34) Di-n-octyl phthalate	19.29	149	991564	2.37	ppm	96
35) Benzo(b)Fluoranthene	20.67	252	660502	2.03	ppm	95

(#) = qualifier out of range (m) = manual integration

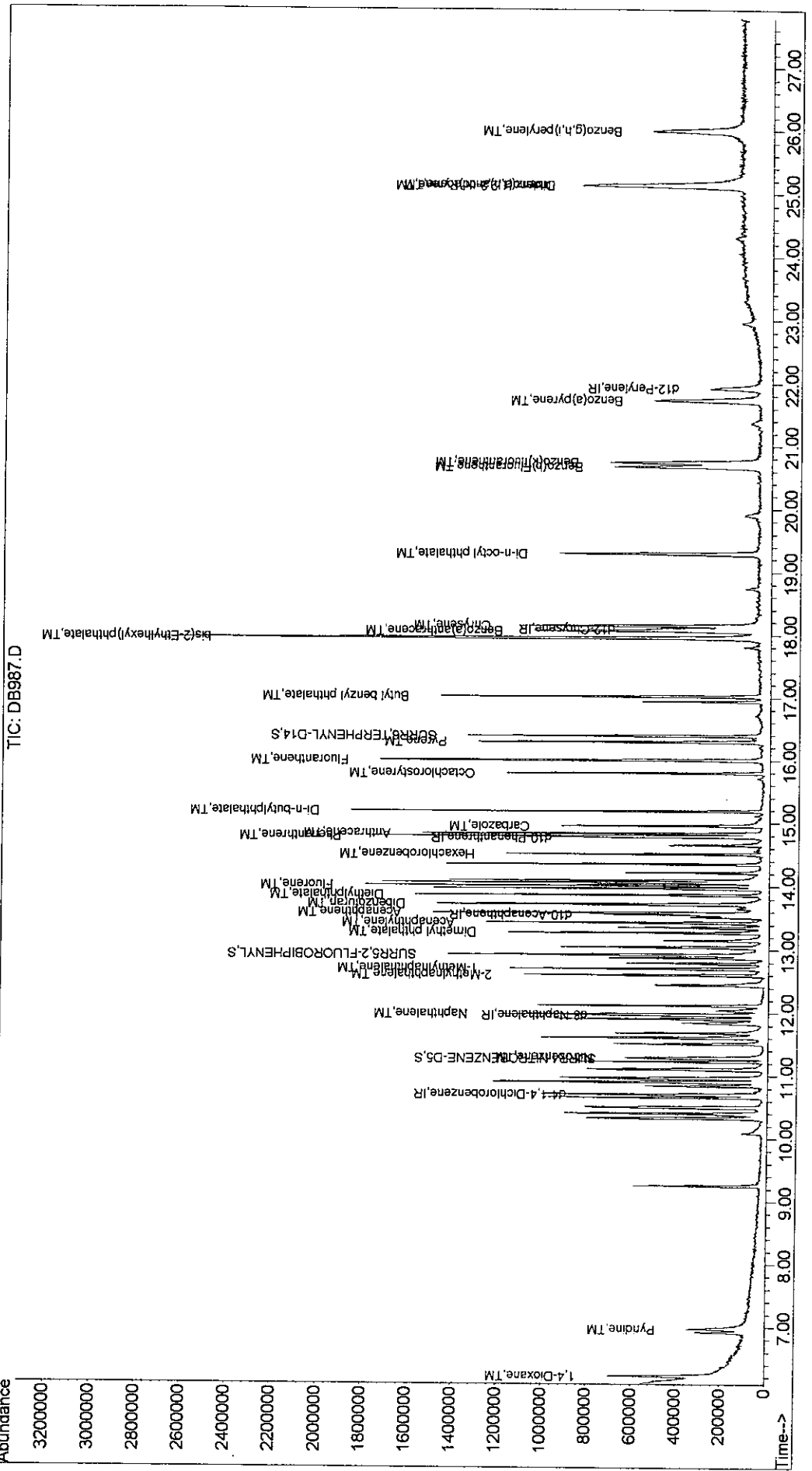
Data File : J:\ACQUDATA\5973B\DATA\101209\DB987.D Vial: 1
 Acq On : 12 Oct 2009 3:17 pm Operator: J.Wu
 Sample : CALIBRATION CHECK Inst : 5973-B
 Misc : 2.0/4.0 PPM TD 8270.LL Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Oct 12 16:23 2009 Quant Results File: LVI0928.RES

Quant Method : J:\ACQUDATA\5...\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI0928

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
36) Benzo(k)fluoranthene	20.74	252	699556	2.17	ppm	92
37) Benzo(a)pyrene	21.73	252	634885	2.21	ppm	94
38) Indeno(1,2,3-cd)Pyrene	25.12	276	747202	2.20	ppm	99
39) Dibenz(a,h)anthracene	25.14	278	607320	2.16	ppm	100
40) Benzo(g,h,i)perylene	25.99	276	678131	2.36	ppm	88

Quantitation Report

Data File : J:\ACQUDATA\5973B\DATA\101209\DB987.D
 Acq On : 12 Oct 2009 3:17 pm
 Sample : CALIBRATION CHECK
 Misc : 2.0/4.0 PPM TD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Oct 12 16:23 2009
 Vial: 1
 Operator: J.Wu
 Inst : 5973-B
 Multiplr: 1.00
 Quant Results File: LVI0928.RES
 Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 Response via : Initial Calibration



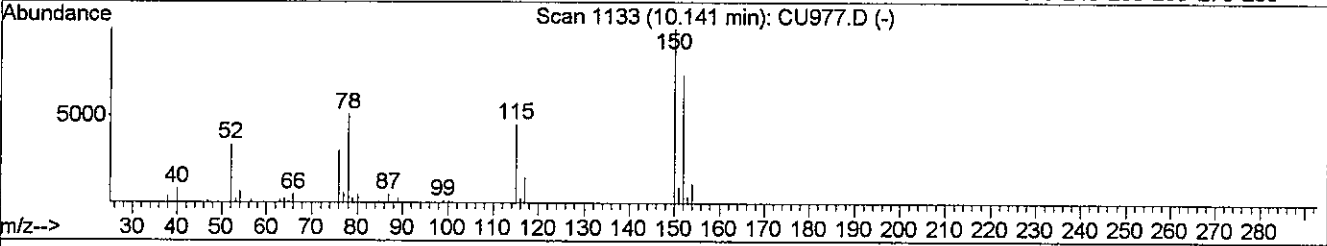
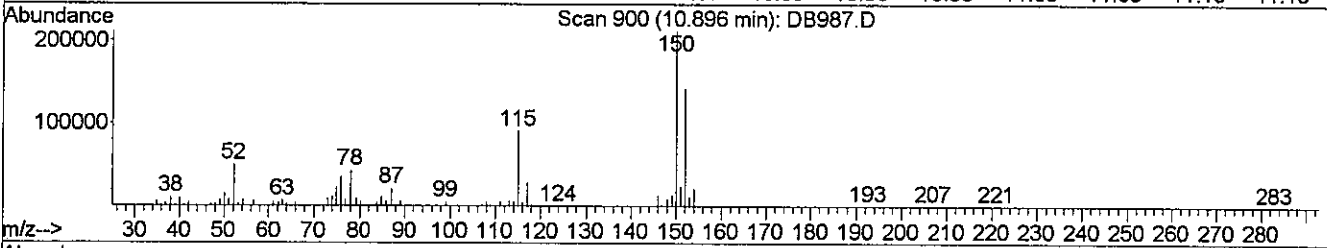
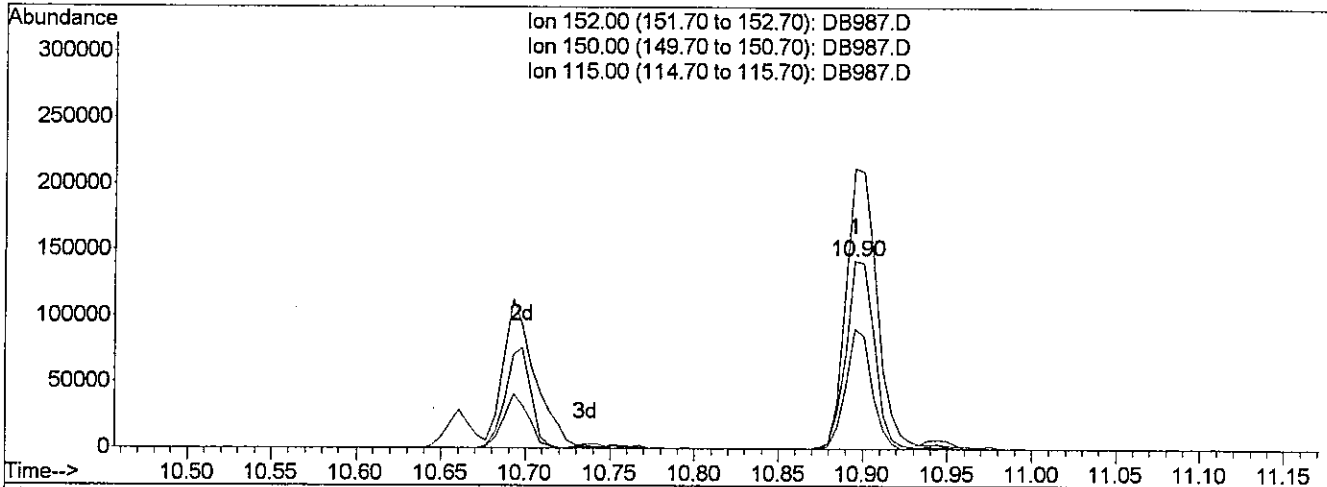
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\101209\DB987.D
 Acq On : 12 Oct 2009 3:17 pm
 Sample : CALIBRATION CHECK
 Misc : 2.0/4.0 PPM TD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Oct 12 15:46 2009

Vial: 1
 Operator: J.Wu
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 Response via : Multiple Level Calibration



TIC: DB987.D

(1) d4-1,4-Dichlorobenzene (IR)

10.90min 1.00ppm

response 163624

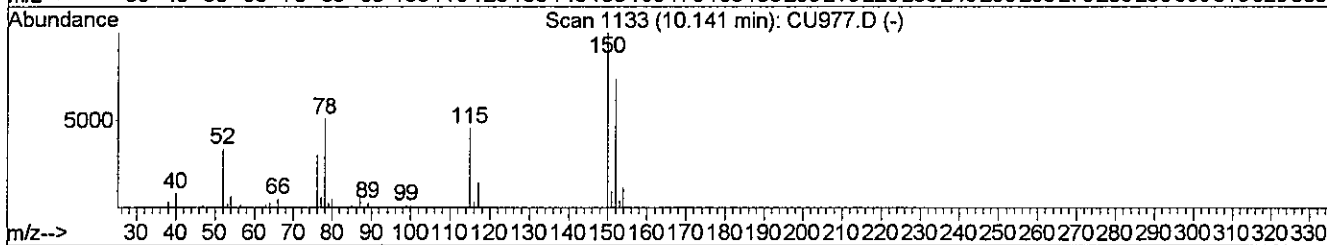
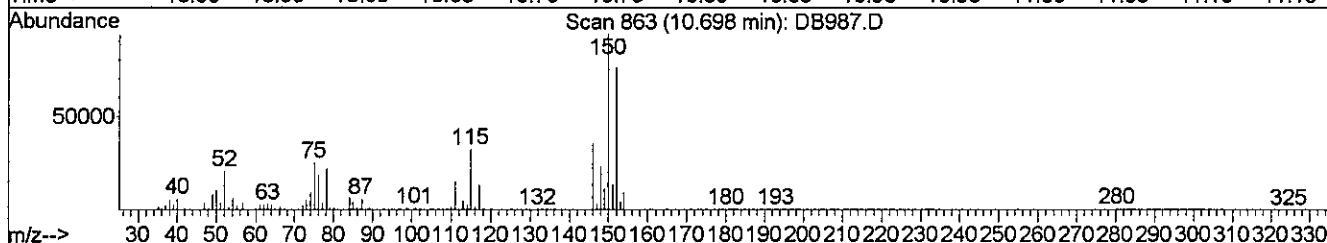
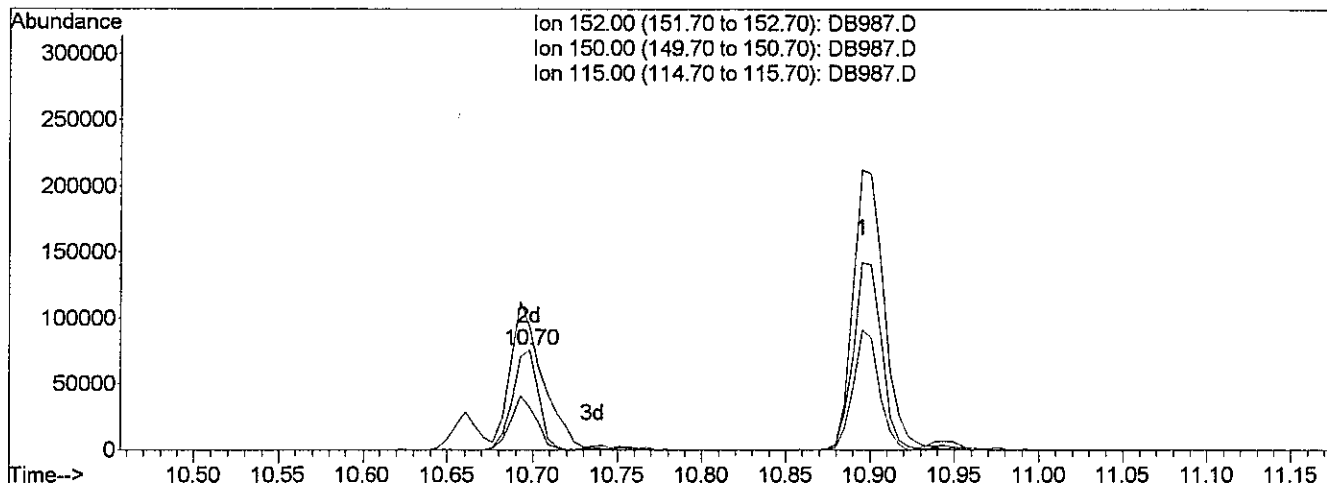
B

Ion	Exp%	Act%
152.00	100	100
150.00	144.30	147.65
115.00	55.70	63.98
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\101209\DB987.D Vial: 1
 Acq On : 12 Oct 2009 3:17 pm Operator: J.Wu
 Sample : CALIBRATION CHECK Inst : 5973-B
 Misc : 2.0/4.0 PPM TD 8270.LL Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Oct 12 16:23 2009 Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 Response via : Multiple Level Calibration



TIC: DB987.D

(1) d4-1,4-Dichlorobenzene (IR)

10.70min 1.00ppm m

response 84715

Ion	Exp%	Act%
152.00	100	100
150.00	144.30	123.43
115.00	55.70	42.80
0.00	0.00	0.00

MW 10/13
A SW 10/14/09

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\5973B\DATA\101309\DC023.D
 Acq On : 13 Oct 2009 5:28 pm
 Sample : CALIBRATION CHECK
 Misc : 2.0/4.0 PPM TD 8270.LL
 MS Integration Params: RTEINT.P

Vial: 1
 Operator: J.Wu
 Inst : 5973-B
 Multiplr: 1.00

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 Response via : Multiple Level Calibration #2 L.R.

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	-0.02
2	TM 1,4-Dioxane	0.980	0.822	16.1	99	-0.03
3	TM Pyridine	1.325	1.075	18.9	89	-0.03
4	IR d8-Naphthalene	1.000	1.000	0.0	101	-0.02
5	S SURR4,NITROBENZENE-D5	0.333	0.373	-12.0	107	-0.02
6	TM Nitrobenzene	0.336	0.360	-7.1	99	-0.02
7	TM Naphthalene	1.049	1.120	-6.8	102	-0.02
8	TM 2-Methylnaphthalene	0.674	0.737	-9.3	112	-0.02
9	TM 1-Methylnaphthalene	0.626	0.689	-10.1	109	-0.01
10	IR d10-Acenaphthene	1.000	1.000	0.0	118	-0.02
11	S SURR5,2-FLUOROBIPHENYL	1.345	1.333	0.9	117	-0.02
12	TM Acenaphthylene	1.863	1.906	-2.3	118	-0.02
13	TM Dimethyl phthalate	1.471	1.573	-6.9	125	-0.02
14	TM Acenaphthene	1.160	1.247	-7.5	127	-0.02
15	TM Dibenzofuran	1.546	1.646	-6.5	121	-0.02
16	TM Fluorene	1.192	1.285	-7.8	121	-0.02
17	TM Diethylphthalate	1.542	1.517	1.6	112	-0.02
18	IR d10-Phenanthrene	1.000	1.000	0.0	102	-0.02
19	TM Hexachlorobenzene	0.239	0.273	-14.2	112	-0.02
20	TM Phenanthrene	1.161	1.200	-3.4	102	-0.02
21	TM Anthracene	1.085	1.244	-14.7	108	-0.02
22	TM Carbazole	0.720	0.826	-14.7	109	-0.01
23	TM Octachlorostyrene	0.070	0.075	-7.1	92	-0.03
24	TM Di-n-butylphthalate	1.535	1.692	-10.2	100	-0.03
25	TM Fluoranthene	1.302	1.308	-0.5	96	-0.03
26	IR d12-Chrysene	1.000	1.000	0.0	90	-0.04
27	TM Pyrene	1.258	1.357	-7.9	94	-0.03
28	S SURR6,TERPHENYL-D14	0.792	0.910	-14.9	99	-0.03
29	TM Butyl benzyl phthalate	0.677	0.823	-21.6#	102	-0.04
30	TM bis(2-Ethylhexyl)phthalate	0.840	1.030	-22.6#	100	-0.05
31	TM Benzo(a)anthracene	1.080	1.211	-12.1	95	-0.04
32	TM Chrysene	1.094	1.193	-9.0	94	-0.03
33	IR d12-Perylene	1.000	1.000	0.0	87	-0.08
34	TM Di-n-octyl phthalate	1.860	2.406	-29.4#	109	-0.07
35	TM Benzo(b)Fluoranthene	1.447	1.574	-8.8	89	-0.07
36	TM Benzo(k)fluoranthene	1.434	1.598	-11.4	94	-0.06

(#) = Out of Range
 DC023.D LVI0928.M

Wed Oct 14 12:41:21 2009

JW

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\5973B\DATA\101309\DC023.D Vial: 1
 Acq On : 13 Oct 2009 5:28 pm Operator: J.Wu
 Sample : CALIBRATION CHECK Inst : 5973-B
 Misc : 2.0/4.0 PPM TD 8270.LL Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 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 TM Benzo(a)pyrene	1.274	1.394	-9.4	89	-0.06
38 TM Indeno(1,2,3-cd)Pyrene	1.509	1.326	12.1	71	-0.08
39 TM Dibenz(a,h)anthracene	1.250	1.161	7.1	78	-0.09
40 TM Benzo(g,h,i)perylene	1.278	1.070	16.3	67	-0.07

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\5973B\DATA\101309\DC023.D
 Acq On : 13 Oct 2009 5:28 pm
 Sample : CALIBRATION CHECK
 Misc : 2.0/4.0 PPM TD 8270.LL
 MS Integration Params: RTEINT.P

Vial: 1
 Operator: J.Wu
 Inst : 5973-B
 Multiplr: 1.00

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 Response via : Multiple Level Calibration

#2 LR .

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	104	-0.02
2	TM 1,4-Dioxane	4.000	3.714	7.2	99	-0.03
3	TM Pyridine	2.000	1.623	18.9	89	-0.03
4	IR d8-Naphthalene	1.000	1.000	0.0	101	-0.02
5	S SURR4,NITROBENZENE-D5	2.000	2.242	-12.1	107	-0.02
6	TM Nitrobenzene	2.000	2.138	-6.9	99	-0.02
7	TM Naphthalene	2.000	2.136	-6.8	102	-0.02
8	TM 2-Methylnaphthalene	2.000	2.189	-9.5	112	-0.02
9	TM 1-Methylnaphthalene	2.000	2.201	-10.1	109	-0.01
10	IR d10-Acenaphthene	1.000	1.000	0.0	118	-0.02
11	S SURR5,2-FLUOROBIPHENYL	2.000	1.983	0.8	117	-0.02
12	TM Acenaphthylene	2.000	2.046	-2.3	118	-0.02
13	TM Dimethyl phthalate	2.000	2.139	-6.9	125	-0.02
14	TM Acenaphthene	2.000	2.150	-7.5	127	-0.02
15	TM Dibenzofuran	2.000	2.129	-6.5	121	-0.02
16	TM Fluorene	2.000	2.155	-7.7	121	-0.02
17	TM Diethylphthalate	2.000	1.968	1.6	112	-0.02
18	IR d10-Phenanthrene	1.000	1.000	0.0	102	-0.02
19	TM Hexachlorobenzene	2.000	2.287	-14.3	112	-0.02
20	TM Phenanthrene	2.000	2.067	-3.4	102	-0.02
21	TM Anthracene	2.000	2.294	-14.7	108	-0.02
22	TM Carbazole	2.000	2.295	-14.7	109	-0.01
23	TM Octachlorostyrene	2.000	2.132	-6.6	92	-0.03
24	TM Di-n-butylphthalate	2.000	2.205	-10.3	100	-0.03
25	TM Fluoranthene	2.000	2.010	-0.5	96	-0.03
26	IR d12-Chrysene	1.000	1.000	0.0	90	-0.04
27	TM Pyrene	2.000	2.158	-7.9	94	-0.03
28	S SURR6,TERPHENYL-D14	2.000	2.296	-14.8	99	-0.03
29	TM Butyl benzyl phthalate	2.000	2.432	-21.6#	102	-0.04
30	TM bis(2-Ethylhexyl)phthalate	4.000	4.906	-22.6#	100	-0.05
31	TM Benzo(a)anthracene	2.000	2.243	-12.1	95	-0.04
32	TM Chrysene	2.000	2.181	-9.1	94	-0.03
33	IR d12-Perylene	1.000	1.000	0.0	87	-0.08
34	TM Di-n-octyl phthalate	2.000	2.587	-29.4#	109	-0.07
35	TM Benzo(b)Fluoranthene	2.000	2.176	-8.8	89	-0.07
36	TM Benzo(k)fluoranthene	2.000	2.229	-11.5	94	-0.06

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\5973B\DATA\101309\DC023.D
 Acq On : 13 Oct 2009 5:28 pm
 Sample : CALIBRATION CHECK
 Misc : 2.0/4.0 PPM TD 8270.LL
 MS Integration Params: RTEINT.P

Vial: 1
 Operator: J.Wu
 Inst : 5973-B
 Multiplr: 1.00

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 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 TM Benzo(a)pyrene	2.000	2.187	-9.3	89	-0.06
38 TM Indeno(1,2,3-cd)Pyrene	2.000	1.758	12.1	71	-0.08
39 TM Dibenz(a,h)anthracene	2.000	1.857	7.2	78	-0.09
40 TM Benzo(g,h,i)perylene	2.000	1.675	16.2	67	-0.07

Data File : J:\ACQUDATA\5973B\DATA\101309\DC023.D
 Acq On : 13 Oct 2009 5:28 pm
 Sample : CALIBRATION CHECK
 Misc : 2.0/4.0 PPM TD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 12:40 2009

Vial: 1
 Operator: J.Wu
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: LVI0928.RES

Quant Method : J:\ACQUDATA\5...\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI0928

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	10.68	152	119419m _w	1.00	ppm	-0.02
4) d8-Naphthalene	11.95	136	441354	1.00	ppm	-0.02
10) d10-Acenaphthene	13.55	164	266804	1.00	ppm	-0.02
18) d10-Phenanthrene	14.76	188	353137	1.00	ppm	-0.02
26) d12-Chrysene	18.07	240	346981	1.00	ppm	-0.04
33) d12-Perylene	21.87	264	256052m _w	1.00	ppm	-0.08

System Monitoring Compounds

5) SURR4,NITROBENZENE-D5	11.26	82	329245	2.24	ppm	-0.02
Spiked Amount	2.000	Range	22 - 124	Recovery	=	112.00%
11) SURR5,2-FLUOROBIPHENYL	12.90	172	711483	1.98	ppm	-0.02
Spiked Amount	2.000	Range	27 - 114	Recovery	=	99.00%
28) SURR6,TERPHENYL-D14	16.37	244	631191	2.30	ppm	-0.03
Spiked Amount	2.000	Range	23 - 139	Recovery	=	115.00%

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	6.19	88	392880	3.71	ppm	100
3) Pyridine	6.95	79	256760	1.62	ppm	89
6) Nitrobenzene	11.28	77	317555	2.14	ppm	99
7) Naphthalene	11.97	128	988952	2.14	ppm	96
8) 2-Methylnaphthalene	12.59	142	650962	2.19	ppm	94
9) 1-Methylnaphthalene	12.70	142	608308	2.20	ppm	93
12) Acenaphthylene	13.42	152	1017030	2.05	ppm	96
13) Dimethyl phthalate	13.26	163	839586	2.14	ppm	96
14) Acenaphthene	13.57	153	665326	2.15	ppm	92
15) Dibenzofuran	13.72	168	878531	2.13	ppm	98
16) Fluorene	14.00	166	685515	2.15	ppm	94
17) Diethylphthalate	13.86	149	809289	1.97	ppm	98
19) Hexachlorobenzene	14.50	284	192663	2.29	ppm	99
20) Phenanthrene	14.78	178	847641	2.07	ppm	98
21) Anthracene	14.82	178	878558	2.29	ppm	99
22) Carbazole	14.94	167	583622	2.29	ppm	98
23) Octachlorostyrene	15.78	378	52628m _w	2.13	ppm	
24) Di-n-butylphthalate	15.17	149	1195263	2.21	ppm	98
25) Fluoranthene	15.99	202	923910	2.01	ppm	98
27) Pyrene	16.28	202	941827	2.16	ppm	95
29) Butyl benzyl phthalate	17.00	149	571049	2.43	ppm	96
30) bis(2-Ethylhexyl)phthalate	17.93	149	1429416	4.91	ppm	96
31) Benzo(a)anthracene	18.04	228	840653	2.24	ppm	95
32) Chrysene	18.12	228	827919	2.18	ppm	96
34) Di-n-octyl phthalate	19.25	149	1232218	2.59	ppm	94
35) Benzo(b)Fluoranthene	20.62	252	806124	2.18	ppm	100

(#) = qualifier out of range (m) = manual integration

Data File : J:\ACQUDATA\5973B\DATA\101309\DC023.D
 Acq On : 13 Oct 2009 5:28 pm
 Sample : CALIBRATION CHECK
 Misc : 2.0/4.0 PPM TD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 12:40 2009

Vial: 1
 Operator: J.Wu
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: LVI0928.RES

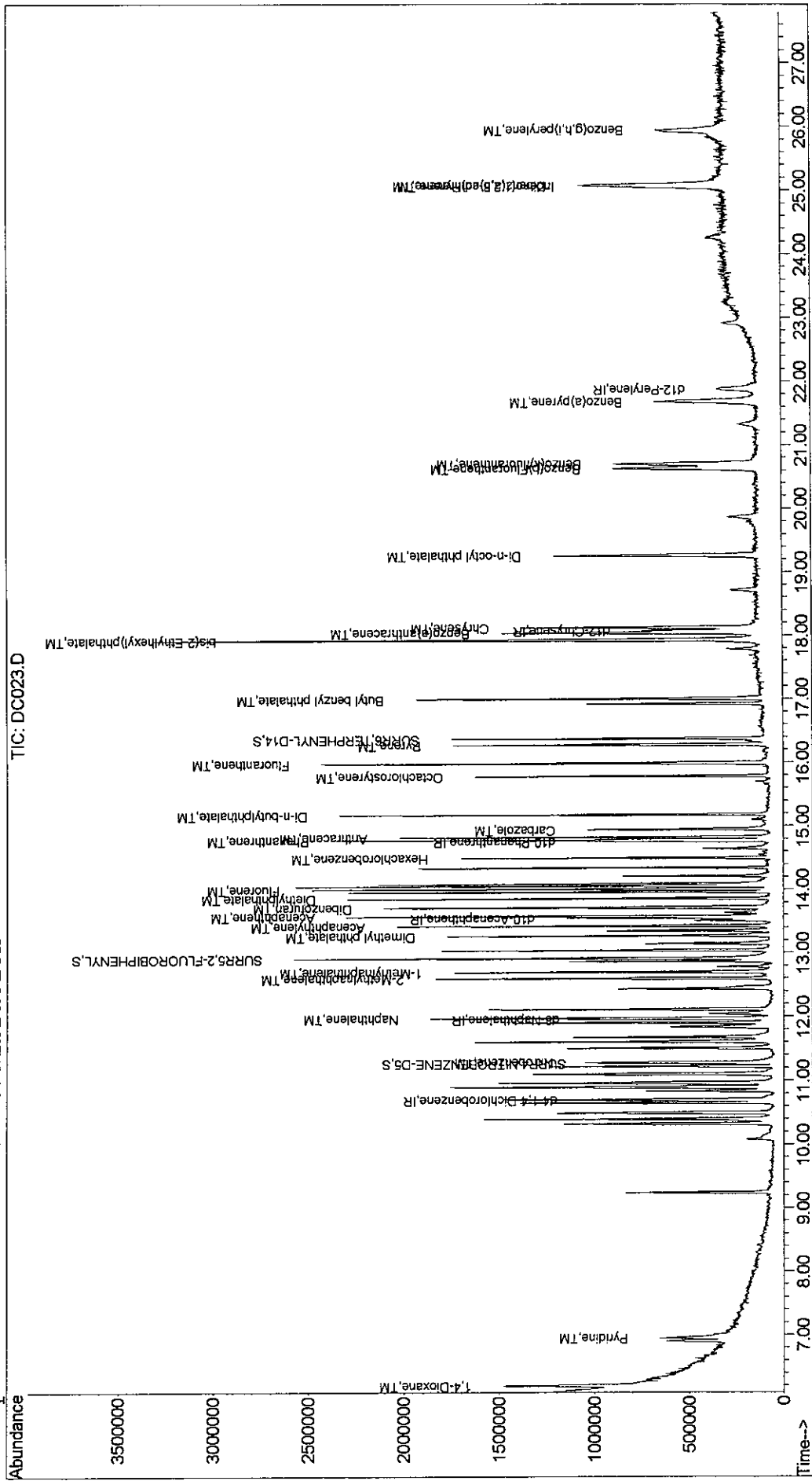
Quant Method : J:\ACQUDATA\5...\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI0928

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
36) Benzo(k)fluoranthene	20.69	252	818331	2.23	ppm	90
37) Benzo(a)pyrene	21.68	252	713652	2.19	ppm	94
38) Indeno(1,2,3-cd)Pyrene	25.06	276	679005	1.76	ppm	98
39) Dibenz(a,h)anthracene	25.07	278	594516	1.86	ppm	94
40) Benzo(g,h,i)perylene	25.94	276	548111	1.67	ppm	89

Quantitation Report

Data File : J:\ACQUDATA\5973B\DATA\101309\DC023.D Vial: 1
Acq On : 13 Oct 2009 5:28 pm Operator: J.Wu
Sample : CALIBRATION CHECK Inst : 5973-B
Misc : 2.0/4.0 PPM ID 8270.LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 14 12:40 2009 Quant Results File: LVI0928.RES

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Sep 29 09:53:23 2009
Response via : Initial Calibration



00477

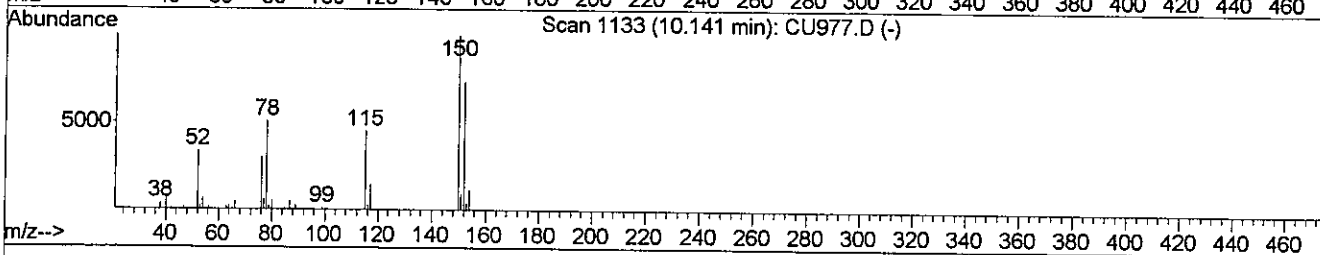
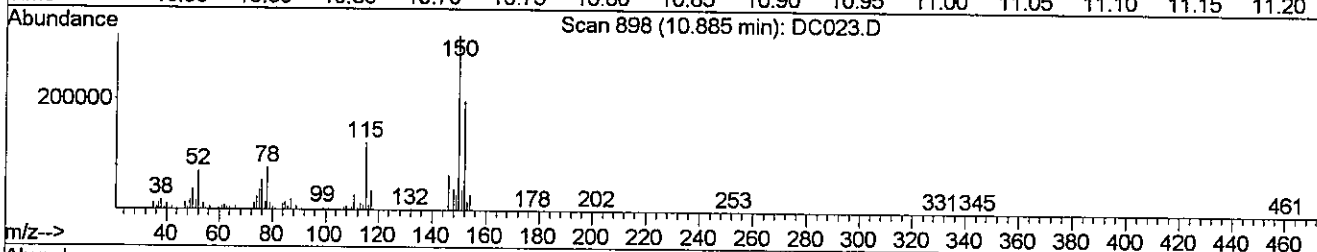
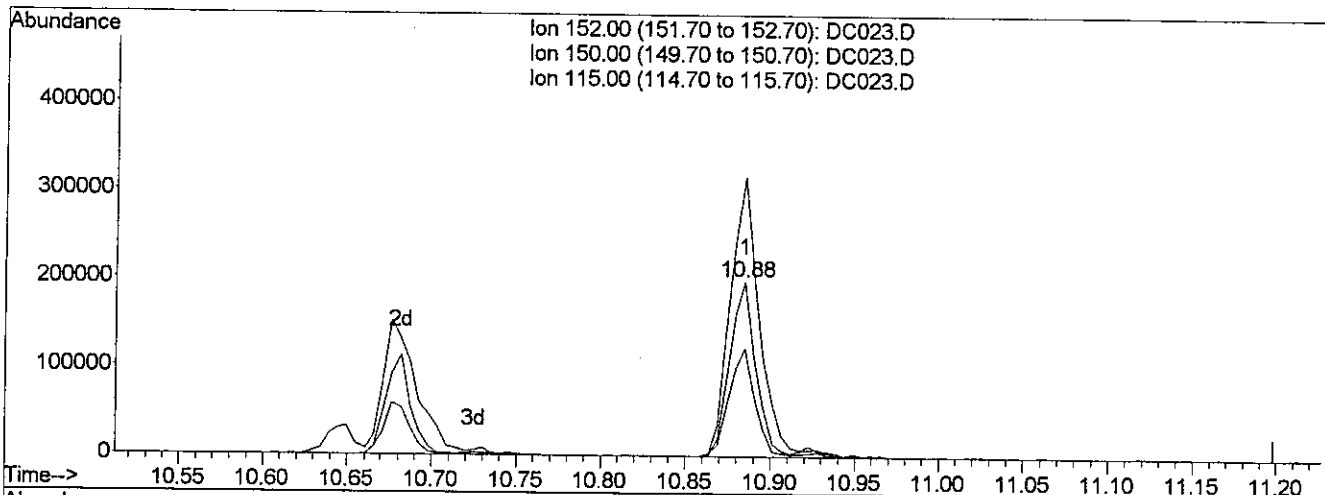
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\101309\DC023.D
 Acq On : 13 Oct 2009 5:28 pm
 Sample : CALIBRATION CHECK
 Misc : 2.0/4.0 PPM TD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Oct 13 17:56 2009

Vial: 1
 Operator: J.Wu
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 Response via : Multiple Level Calibration



TIC: DC023.D

(1) d4-1,4-Dichlorobenzene (IR)

10.88min 1.00ppm

response 212154

Ion	Exp%	Act%
152.00	100	100
150.00	144.30	158.31
115.00	55.70	61.95
0.00	0.00	0.00

B

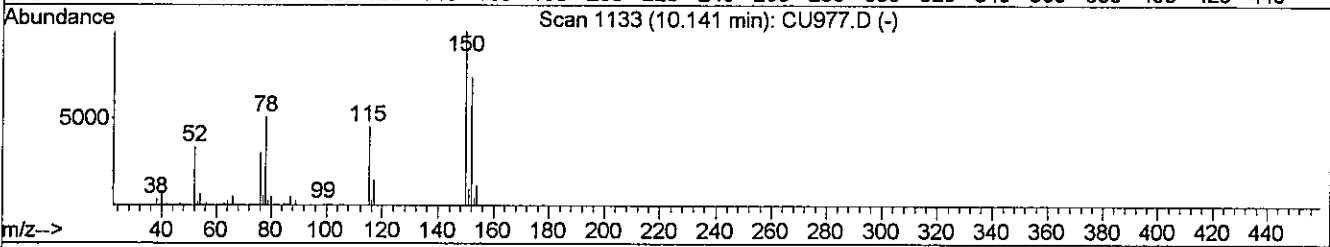
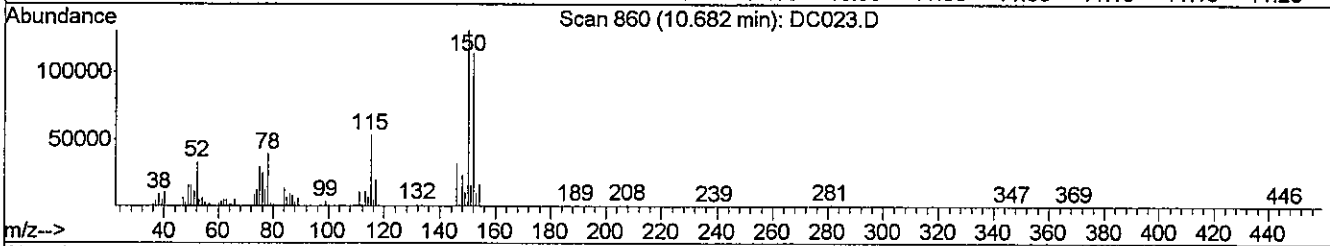
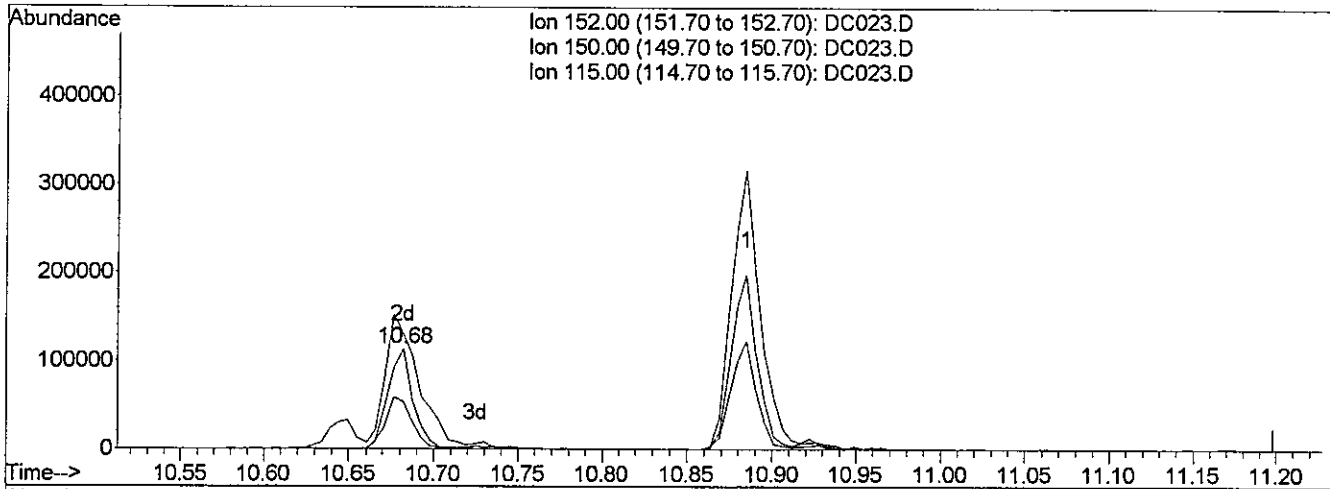
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\101309\DC023.D
 Acq On : 13 Oct 2009 5:28 pm
 Sample : CALIBRATION CHECK
 Misc : 2.0/4.0 PPM TD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 12:39 2009

Vial: 1
 Operator: J.Wu
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 Response via : Multiple Level Calibration



TIC: DC023.D

(1) d4-1,4-Dichlorobenzene (IR)

10.68min 1.00ppm m

response 119419

Ion	Exp%	Act%
152.00	100	100
150.00	144.30	114.90
115.00	55.70	46.93
0.00	0.00	0.00

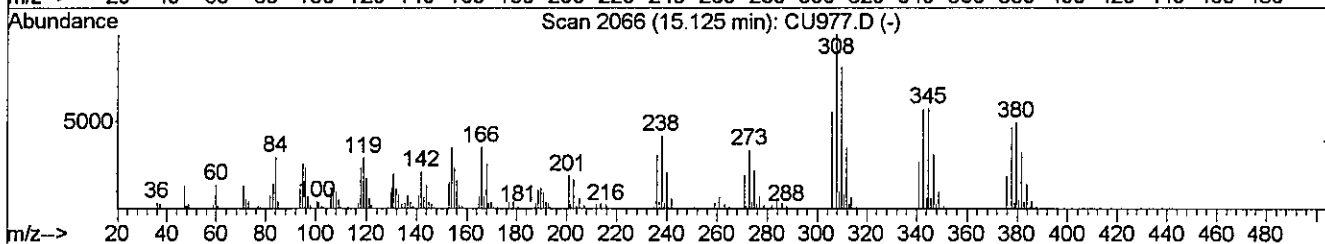
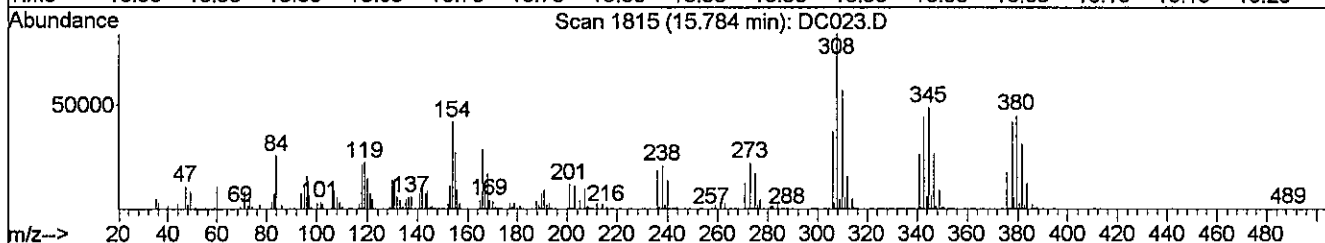
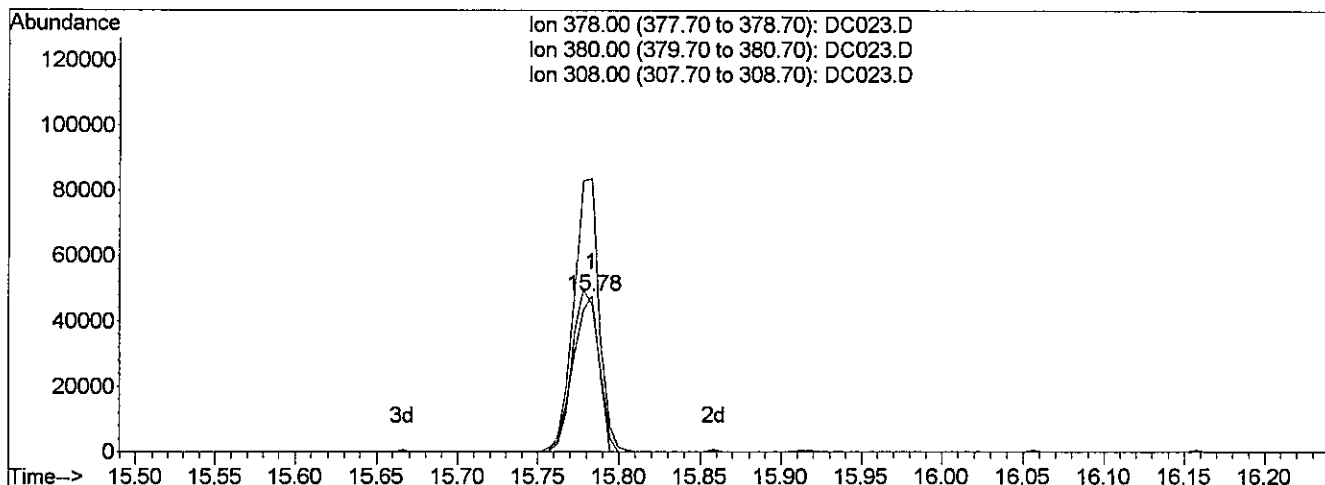
AJW 10/14/09

MW 10/15

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\101309\DC023.D Vial: 1
 Acq On : 13 Oct 2009 5:28 pm Operator: J.Wu
 Sample : CALIBRATION CHECK Inst : 5973-B
 Misc : 2.0/4.0 PPM TD 8270.LL Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 12:39 2009 Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 Response via : Multiple Level Calibration



TIC: DC023.D

(23) Octachlorostyrene (TM)

15.78min 2.13ppm

response 52622

Ion	Exp%	Act%
378.00	100	100
380.00	95.60	101.48
308.00	119.80	185.37#
0.00	0.00	0.00

B

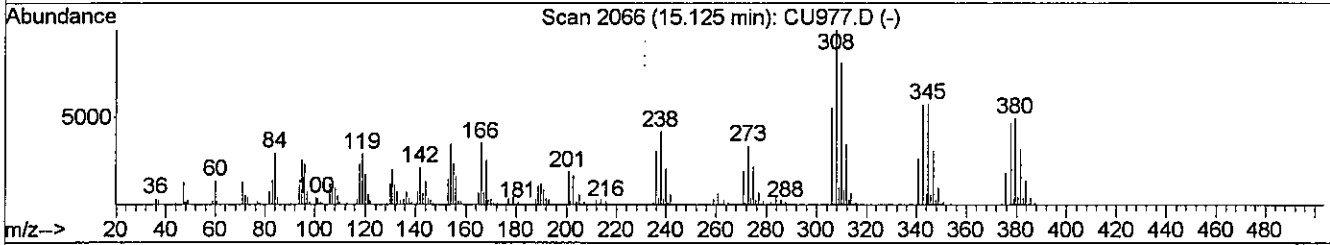
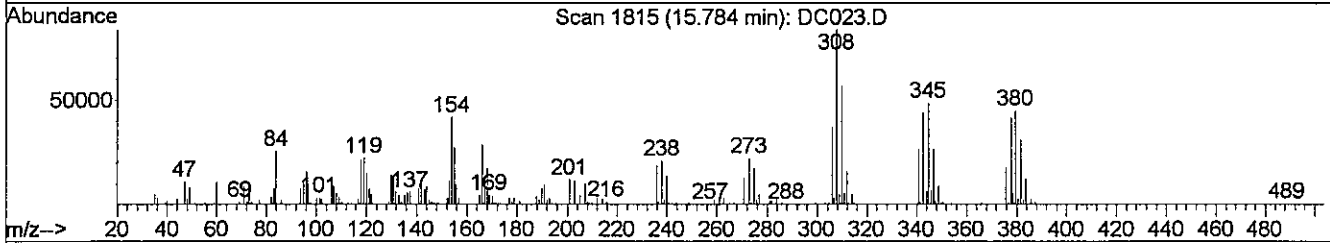
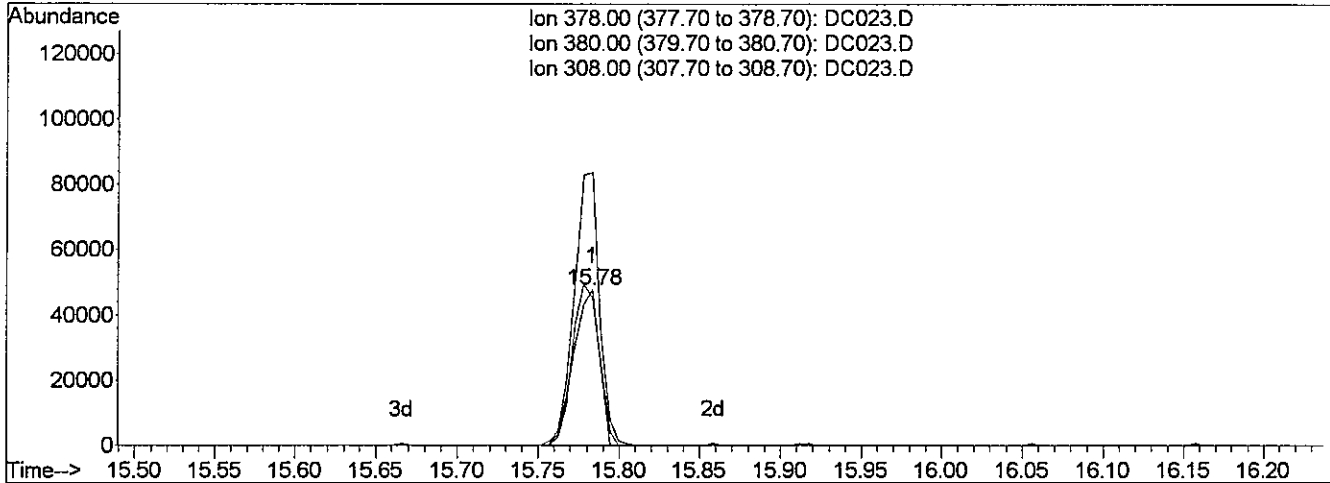
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\101309\DC023.D
 Acq On : 13 Oct 2009 5:28 pm
 Sample : CALIBRATION CHECK
 Misc : 2.0/4.0 PPM TD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 12:39 2009

Vial: 1
 Operator: J.Wu
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 Response via : Multiple Level Calibration



TIC: DC023.D

(23) Octachlorostyrene (TM)

15.78min 2.13ppm m

response 52628

Ion	Exp%	Act%
378.00	100	100
380.00	95.60	107.53
308.00	119.80	199.81#
0.00	0.00	0.00

A JW 10/14/09

MW 10/15

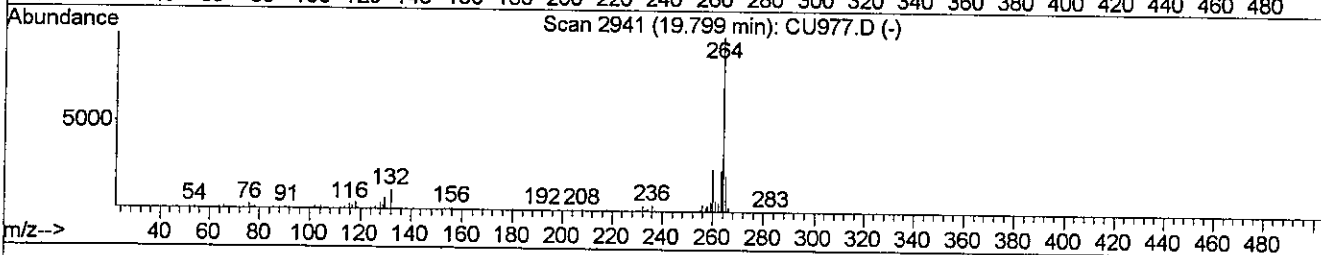
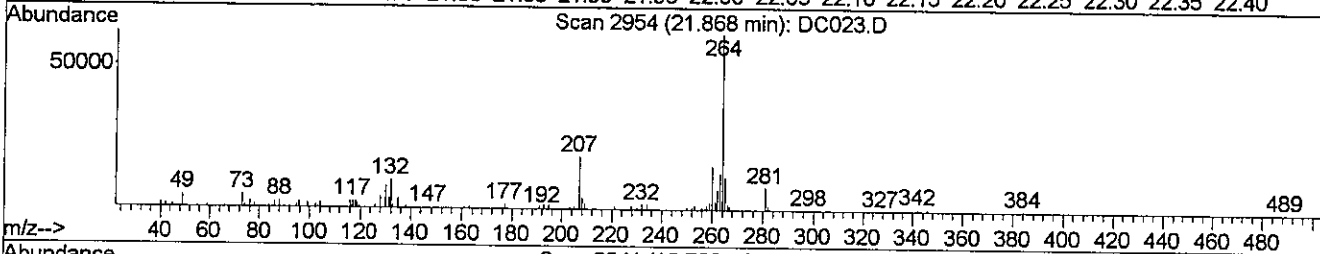
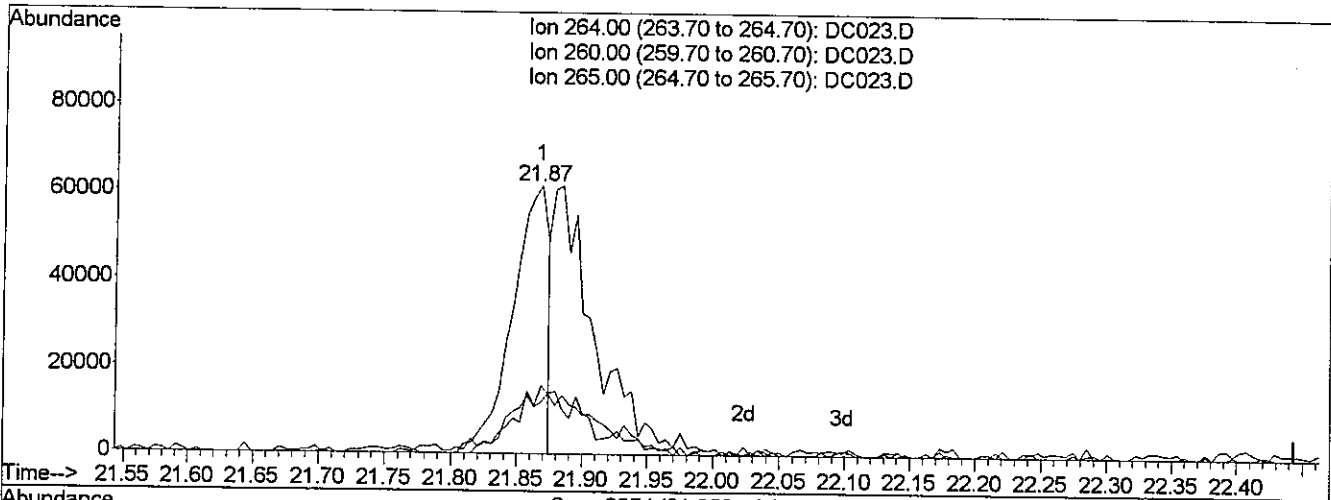
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\101309\DC023.D
 Acq On : 13 Oct 2009 5:28 pm
 Sample : CALIBRATION CHECK
 Misc : 2.0/4.0 PPM TD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 12:39 2009

Vial: 1
 Operator: J.Wu
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 Response via : Multiple Level Calibration



TIC: DC023.D

(33) d12-Perylene (IR)

21.87min 1.00ppm

response 118169

Ion	Exp%	Act%
264.00	100	100
260.00	22.60	24.02
265.00	13.90	12.57
0.00	0.00	0.00

13

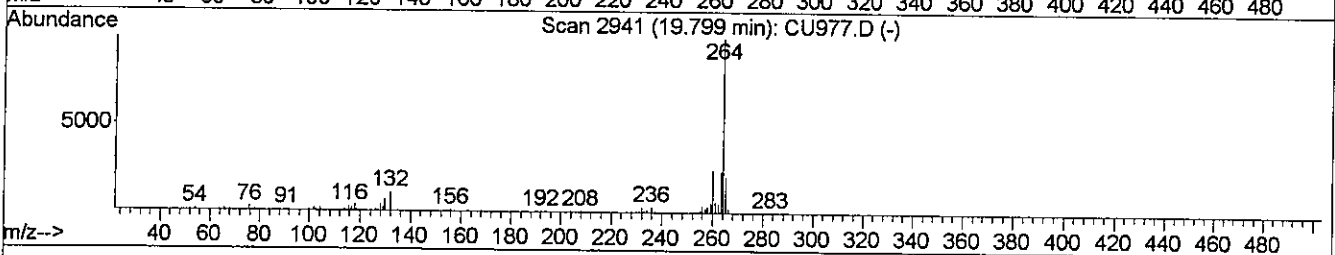
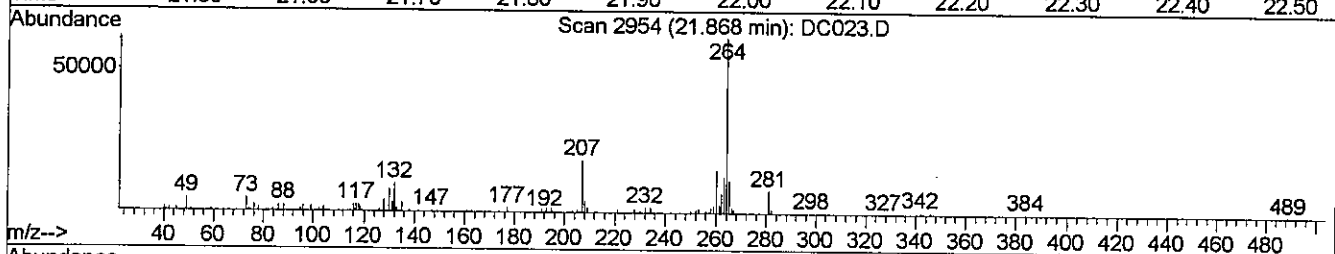
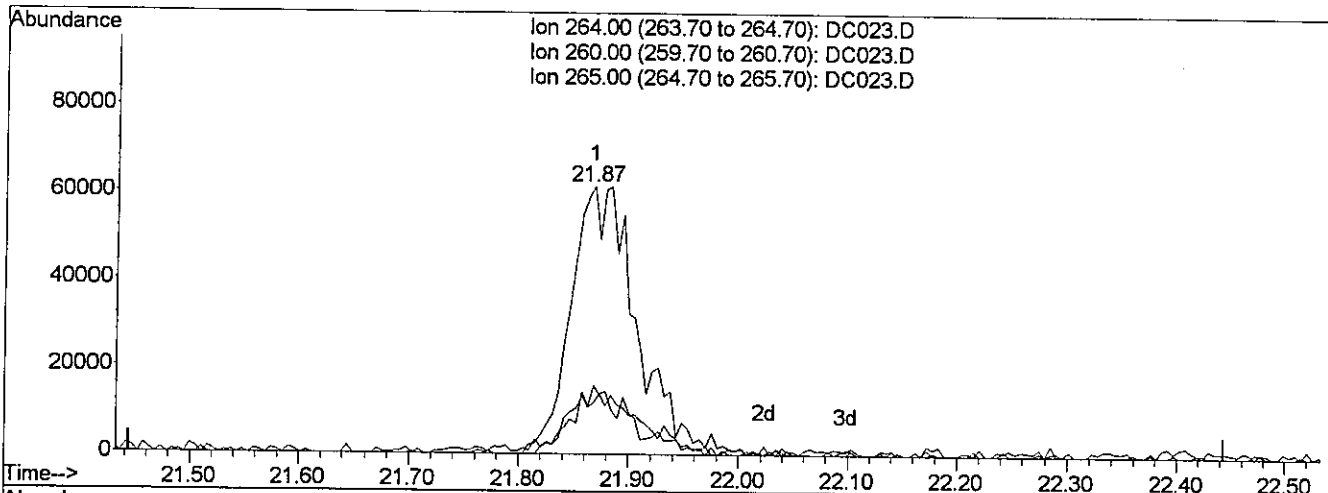
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\101309\DC023.D
 Acq On : 13 Oct 2009 5:28 pm
 Sample : CALIBRATION CHECK
 Misc : 2.0/4.0 PPM TD 8270.LL
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 12:40 2009

Vial: 1
 Operator: J.Wu
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 Response via : Multiple Level Calibration



TIC: DC023.D

(33) d12-Perylene (IR)

21.87min 1.00ppm m

response 256052

Ion	Exp%	Act%
264.00	100	100
260.00	22.60	25.45
265.00	13.90	19.36
0.00	0.00	0.00

A.J. 10/14/09

MP 10/15

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\5973C\DATA\101409\AV571.D Vial: 1
 Acq On : 14 Oct 2009 10:08 am Operator: J.Wu
 Sample : CALIBRATION CHECK Inst : 5973C
 Misc : 2.0/4.0 PPM STD 8270.LL Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : J:\ACQUDATA\5973C\METHODS\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:26:08 2009
 Response via : Multiple Level Calibration # 34 L.R.

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	108	0.00
2 T	1,4-Dioxane	2.059	1.869	9.2	115	0.00
3	Pyridine	2.458	2.394	2.6	113	0.00
4 IR	d8-Naphthalene	1.000	1.000	0.0	107	0.00
5 S	SURR4,NITROBENZENE-D5	0.512	0.559	-9.2	114	0.00
6 T	Nitrobenzene	0.547	0.595	-8.8	111	0.00
7 T	Naphthalene	1.075	1.168	-8.7	113	0.00
8 T	2-Methylnaphthalene	0.739	0.799	-8.1	117	0.00
9 T	1-Methylnaphthalene	0.704	0.801	-13.8	117	0.00
10 IR	d10-Acenaphthene	1.000	1.000	0.0	107	0.00
11 S	SURR5,2-FLUOROBIPHENYL	1.403	1.517	-8.1	118	0.00
12 T	Acenaphthylene	1.870	2.027	-8.4	118	0.00
13	Dimethyl phthalate	1.429	1.479	-3.5	114	0.00
14 T	Acenaphthene	1.166	1.237	-6.1	115	0.00
15 T	Dibenzofuran	1.490	1.569	-5.3	116	0.00
16 T	Fluorene	1.132	1.254	-10.8	119	0.00
17	Diethylphthalate	1.205	1.214	-0.7	120	0.00
18 IR	d10-Phenanthrene	1.000	1.000	0.0	113	0.00
19 T	Hexachlorobenzene	0.267	0.274	-2.6	111	0.00
20 T	Phenanthrene	1.153	1.183	-2.6	115	0.00
21 T	Anthracene	1.146	1.199	-4.6	116	0.00
22 T	Carbazole	0.853	0.827	3.0	99	0.00
23	Octachlorostyrene	0.053	0.052	1.9	123	0.00
24	Di-n-butylphthalate	1.499	1.343	10.4	104	0.00
25 T	Fluoranthene	1.269	1.334	-5.1	120	0.00
26 IR	d12-Chrysene	1.000	1.000	0.0	117	0.00
27 T	Pyrene	1.002	0.960	4.2	113	0.00
28 S	SURR6,TERPHENYL-D14	0.678	0.670	1.2	112	0.00
29	Butyl benzyl phthalate	0.710	0.703	1.0	114	0.00
30 T	bis(2-Ethylhexyl)phthalate	1.002	0.986	1.6	117	0.00
31 T	Benzo(a)anthracene	1.111	1.121	-0.9	113	0.00
32 T	Chrysene	1.129	1.132	-0.3	117	0.00
33 IR	d12-Perylene	1.000	1.000	0.0	115	0.00
34	Di-n-octyl phthalate	1.881	1.744	7.3	119	0.00
35 T	Benzo(b)Fluoranthene	1.364	1.460	-7.0	119	0.00
36 T	Benzo(k)fluoranthene	1.380	1.383	-0.2	116	0.00

(#) = Out of Range
 AV571.D LVI1013.M

Thu Oct 15 09:58:07 2009

JW

Page 1

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Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\5973C\DATA\101409\AV571.D Vial: 1
 Acq On : 14 Oct 2009 10:08 am Operator: J.Wu
 Sample : CALIBRATION CHECK Inst : 5973C
 Misc : 2.0/4.0 PPM STD 8270.LL Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : J:\ACQUDATA\5973C\METHODS\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:26:08 2009
 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	1.301	1.296	0.4	115	0.00
38 T	Indeno(1,2,3-cd)Pyrene	1.397	1.489	-6.6	121	0.00
39 T	Dibenz(a,h)anthracene	1.182	1.229	-4.0	118	0.00
40 T	Benzo(g,h,i)perylene	1.170	1.252	-7.0	119	-0.01

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\5973C\DATA\101409\AV571.D
 Acq On : 14 Oct 2009 10:08 am
 Sample : CALIBRATION CHECK
 Misc : 2.0/4.0 PPM STD 8270.LL
 MS Integration Params: RTEINT.P

Vial: 1
 Operator: J.Wu
 Inst : 5973C
 Multiplr: 1.00

Method : J:\ACQUDATA\5973C\METHODS\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:26:08 2009
 Response via : Multiple Level Calibration #34 L.R.

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	108	0.00
2 T	1,4-Dioxane	4.000	3.631	9.2	115	0.00
3	Pyridine	2.000	1.948	2.6	113	0.00
4 IR	d8-Naphthalene	1.000	1.000	0.0	107	0.00
5 S	SURR4,NITROBENZENE-D5	2.000	2.184	-9.2	114	0.00
6 T	Nitrobenzene	2.000	2.177	-8.9	111	0.00
7 T	Naphthalene	2.000	2.172	-8.6	113	0.00
8 T	2-Methylnaphthalene	2.000	2.164	-8.2	117	0.00
9 T	1-Methylnaphthalene	2.000	2.275	-13.7	117	0.00
10 IR	d10-Acenaphthene	1.000	1.000	0.0	107	0.00
11 S	SURR5,2-FLUOROBIPHENYL	2.000	2.163	-8.1	118	0.00
12 T	Acenaphthylene	2.000	2.168	-8.4	118	0.00
13	Dimethyl phthalate	2.000	2.070	-3.5	114	0.00
14 T	Acenaphthene	2.000	2.123	-6.2	115	0.00
15 T	Dibenzofuran	2.000	2.105	-5.2	116	0.00
16 T	Fluorene	2.000	2.216	-10.8	119	0.00
17	Diethylphthalate	2.000	2.015	-0.8	120	0.00
18 IR	d10-Phenanthrene	1.000	1.000	0.0	113	0.00
19 T	Hexachlorobenzene	2.000	2.053	-2.6	111	0.00
20 T	Phenanthrene	2.000	2.052	-2.6	115	0.00
21 T	Anthracene	2.000	2.092	-4.6	116	0.00
22 T	Carbazole	2.000	1.939	3.0	99	0.00
23	Octachlorostyrene	2.000	1.983	0.8	123	0.00
24	Di-n-butylphthalate	2.000	1.792	10.4	104	0.00
25 T	Fluoranthene	2.000	2.103	-5.2	120	0.00
26 IR	d12-Chrysene	1.000	1.000	0.0	117	0.00
27 T	Pyrene	2.000	1.917	4.1	113	0.00
28 S	SURR6,TERPHENYL-D14	2.000	1.979	1.0	112	0.00
29	Butyl benzyl phthalate	2.000	1.983	0.8	114	0.00
30 T	bis(2-Ethylhexyl)phthalate	4.000	3.937	1.6	117	0.00
31 T	Benzo(a)anthracene	2.000	2.020	-1.0	113	0.00
32 T	Chrysene	2.000	2.005	-0.2	117	0.00
33 IR	d12-Perylene	1.000	1.000	0.0	115	0.00
34	Di-n-octyl phthalate	2.000	1.977	1.1	119	0.00
35 T	Benzo(b)Fluoranthene	2.000	2.141	-7.1	119	0.00
36 T	Benzo(k)fluoranthene	2.000	2.005	-0.2	116	0.00

(#) = Out of Range
 AV571.D LVI1013.M

Thu Oct 15 09:57:52 2009

JW

Evaluate Continuing Calibration Report

Data File : J:\ACQUADATA\5973C\DATA\101409\AV571.D Vial: 1
 Acq On : 14 Oct 2009 10:08 am Operator: J.Wu
 Sample : CALIBRATION CHECK Inst : 5973C
 Misc : 2.0/4.0 PPM STD 8270.LL Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : J:\ACQUADATA\5973C\METHODS\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:26:08 2009
 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	1.993	0.3	115	0.00
38 T	Indeno(1,2,3-cd)Pyrene	2.000	2.131	-6.5	121	0.00
39 T	Dibenz(a,h)anthracene	2.000	2.080	-4.0	118	0.00
40 T	Benzo(g,h,i)perylene	2.000	2.140	-7.0	119	-0.01

Quantitation Report (QT Reviewed)

Data File : J:\ACQUDATA\5973C\DATA\101409\AV571.D Vial: 1
 Acq On : 14 Oct 2009 10:08 am Operator: J.Wu
 Sample : CALIBRATION CHECK Inst : 5973C
 Misc : 2.0/4.0 PPM STD 8270.LL Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 10:37:15 2009 Quant Results File: LVI1013.RES

Quant Method : J:\ACQUDATA\5...\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:26:08 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI1013

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) d4-1,4-Dichlorobenzene	11.17	152	59839	1.00	ppm	0.00
4) d8-Naphthalene	12.42	136	218177	1.00	ppm	0.00
10) d10-Acenaphthene	13.99	164	142099	1.00	ppm	0.00
18) d10-Phenanthrene	15.20	188	190600	1.00	ppm	0.00
26) d12-Chrysene	18.79	240	266232	1.00	ppm	0.00
33) d12-Perylene	22.95	264	238809	1.00	ppm	0.00

System Monitoring Compounds

5) SURR4,NITROBENZENE-D5	11.75	82	244018	2.18	ppm	0.00
Spiked Amount 2.000	Range 22 - 124		Recovery =	109.00%		
11) SURR5,2-FLUOROBIPHENYL	13.37	172	431131	2.16	ppm	0.00
Spiked Amount 2.000	Range 27 - 114		Recovery =	108.00%		
28) SURR6,TERPHENYL-D14	16.92	244	356985	1.98	ppm	0.00
Spiked Amount 2.000	Range 23 - 139		Recovery =	99.00%		

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	6.93	88	447456	3.63	ppm	99
3) Pyridine	7.67	79	286561	1.95	ppm	93
6) Nitrobenzene	11.76	77	259753	2.18	ppm	96
7) Naphthalene	12.44	128	509466	2.17	ppm	97
8) 2-Methylnaphthalene	13.06	142	348750	2.16	ppm	95
9) 1-Methylnaphthalene	13.16	142	349369	2.28	ppm	97
12) Acenaphthylene	13.87	152	576019	2.17	ppm	98
13) Dimethyl phthalate	13.72	163	420317	2.07	ppm	98
14) Acenaphthene	14.02	153	351664	2.12	ppm	92
15) Dibenzofuran	14.14	168	445884	2.11	ppm	96
16) Fluorene	14.40	166	356363	2.22	ppm	99
17) Diethylphthalate	14.26	149	345105	2.02	ppm	95
19) Hexachlorobenzene	14.92	284	104588	2.05	ppm	95
20) Phenanthrene	15.22	178	451101	2.05	ppm	97
21) Anthracene	15.27	178	456873	2.09	ppm	97
22) Carbazole	15.39	167	315364	1.94	ppm	97
23) Octachlorostyrene	16.29	380	19885	1.98	ppm	94
24) Di-n-butylphthalate	15.64	149	512046	1.79	ppm	97
25) Fluoranthene	16.51	202	508546	2.10	ppm	97
27) Pyrene	16.82	202	511247	1.92	ppm	99
29) Butyl benzyl phthalate	17.59	149	374559	1.98	ppm	92
30) bis(2-Ethylhexyl)phthalate	18.62	149	1049891	3.94	ppm	97
31) Benzo(a)anthracene	18.75	228	597109	2.02	ppm	95
32) Chrysene	18.84	228	602611	2.01	ppm	95
34) Di-n-octyl phthalate	20.13	149	832901	1.98	ppm	95
35) Benzo(b)Fluoranthene	21.67	252	697197	2.14	ppm	95

(#) = qualifier out of range (m) = manual integration
 AV571.D LVI1013.M Thu Oct 15 09:57:47 2009

JW

Quantitation Report (QT Reviewed)

Data File : J:\ACQUDATA\5973C\DATA\101409\AV571.D Vial: 1
 Acq On : 14 Oct 2009 10:08 am Operator: J.Wu
 Sample : CALIBRATION CHECK Inst : 5973C
 Misc : 2.0/4.0 PPM STD 8270.LL Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 10:37:15 2009 Quant Results File: LVI1013.RES

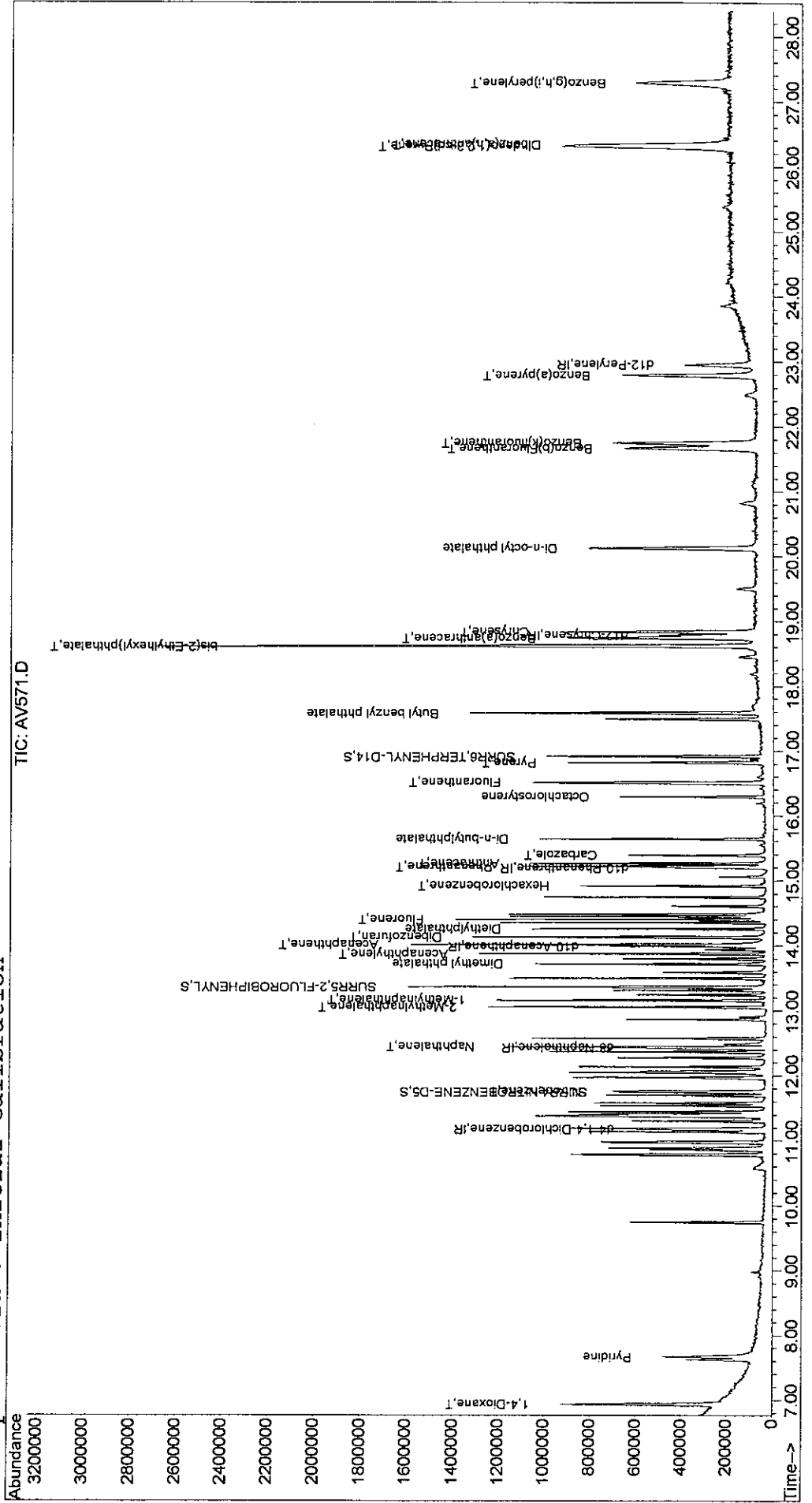
Quant Method : J:\ACQUDATA\5...\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:26:08 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI1013

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
36) Benzo(k)fluoranthene	21.75	252	660477	2.00	ppm	96
37) Benzo(a)pyrene	22.79	252	619042	1.99	ppm	97
38) Indeno(1,2,3-cd)Pyrene	26.31	276	711093	2.13	ppm	93
39) Dibenz(a,h)anthracene	26.33	278	587067	2.08	ppm	97
40) Benzo(g,h,i)perylene	27.28	276	597899	2.14	ppm	98

Quantitation Report (QT Reviewed)

Data File : J:\ACQDATA\5973C\DATA\101409\AV571.D Vial: 1
 Acq On : 14 Oct 2009 10:08 am Operator: J.Wu
 Sample : CALIBRATION CHECK Inst : 5973C
 Misc : 2.0/4.0 PPM STD 8270.LL Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 10:37 2009 Quant Results File: LVII1013.RES

Method : J:\ACQDATA\5973C\METHODS\LVII1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:26:08 2009
 Response via : Initial Calibration



Data File : J:\ACQUADATA\5973B\DATA\092809\DB713.D
 Acq On : 28 Sep 2009 2:28 pm
 Sample : TUNE CHECK
 Misc : 10 ng DFTPP
 MS Integration Params: RTEINT.P
 Quant Time: Sep 28 14:52 2009

Vial: 1
 Operator: J.Wu
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: DFTPPLVI.RES

Quant Method : J:\ACQUADATA\5...\DFTPPLVI.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Mon Sep 28 14:52:21 2009
 Response via : Initial Calibration
 DataAcq Meth : DFTPPLVI

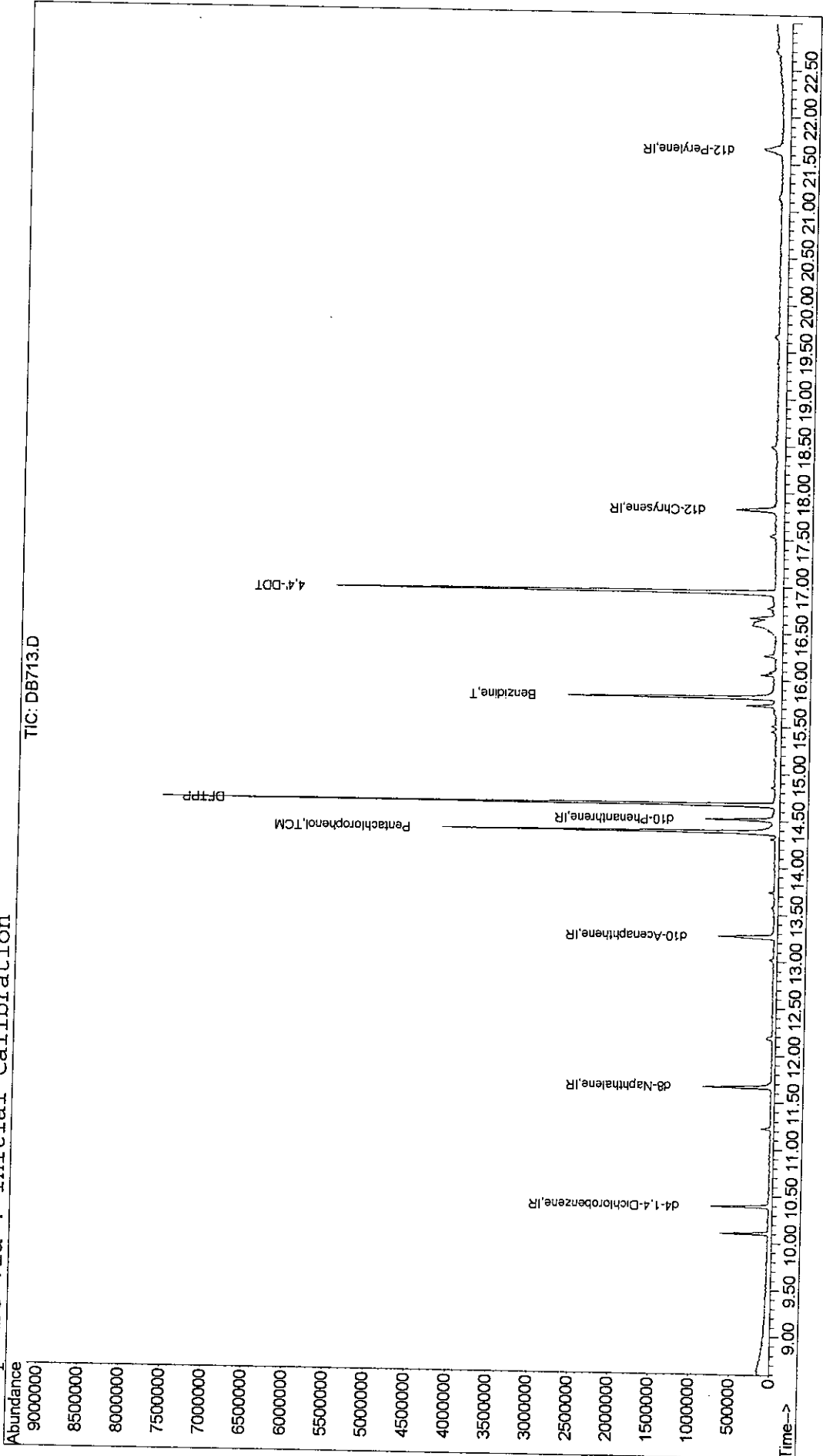
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	10.40	152	140682	1.00	ppb	0.00
2) d8-Naphthalene	11.67	136	521330	1.00	ppb	0.00
3) d10-Acenaphthene	13.27	164	270540	1.00	ppb	0.00
4) d10-Phenanthrene	14.51	188	370716	1.00	ppb	0.00
10) d12-Chrysene	17.82	240	318464	1.00	ppb	0.00
12) d12-Perylene	21.65	264	237287	1.00	ppb	0.00
Target Compounds						
5) Pentachlorophenol	14.38	266	550237	10.00	ppb	Qvalue 100
6) DFTPP	14.67	198	652401	10.00	ppb	100
9) 4,4'-DDT	16.94	235	1259881	10.00	ppb	100
11) Benzidine	15.82	184	1453428	10.00	ppb	100

(#) = qualifier out of range (m) = manual integration
 DB713.D DFTPPLVI.M Tue Sep 29 09:13:41 2009

Quantitation Report

Data File : J:\ACQUDATA\5973B\DATA\092809\DB713.D
Acq On : 28 Sep 2009 2:28 pm Vial: 1
Sample : TUNE CHECK Operator: J.Wu
Misc : 10 ng DFTPP Inst : 5973-B
MS Integration Params: RTEINT.P Multiplr: 1.00
Quant Time: Sep 28 14:52 2009 Quant Results File: DFTPPLVI.RES

Method : J:\ACQUDATA\5973B\METHODS\DFTPPLVI.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Mon Sep 28 14:52:52 2009
Response via : Initial Calibration



00492

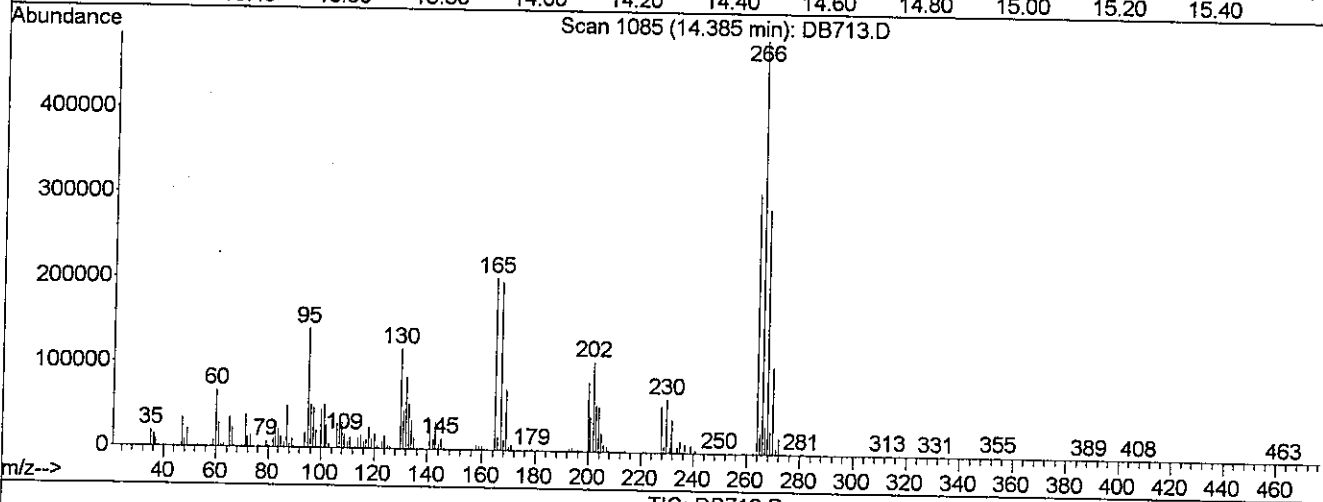
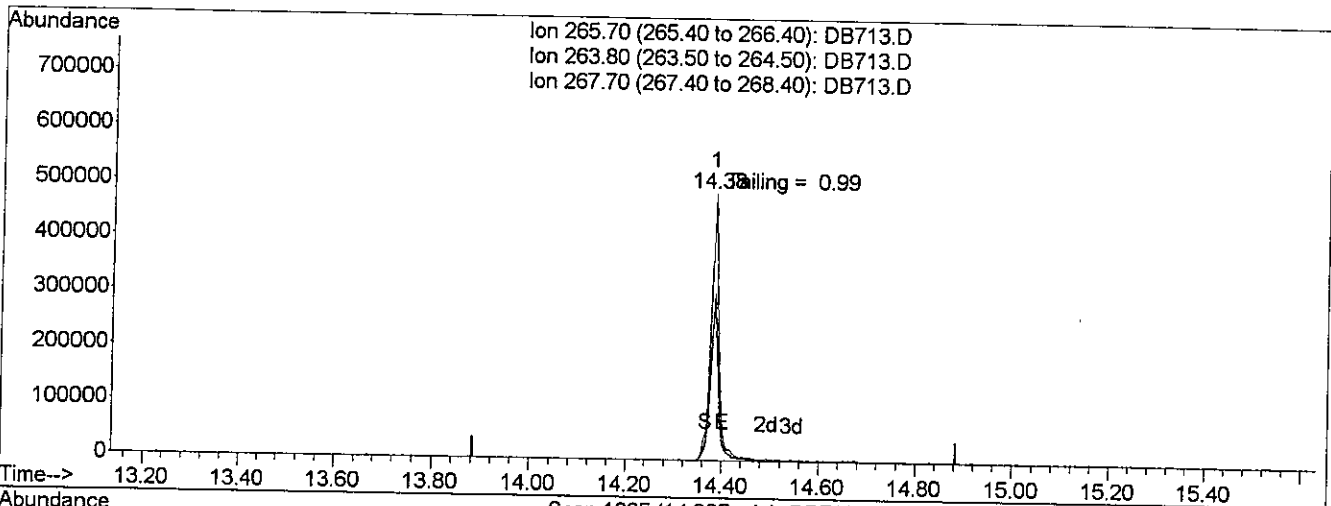
Quantitation Report (Qedit)

Data File : J:\ACQUATA\5973B\DATA\092809\DB713.D
 Acq On : 28 Sep 2009 2:28 pm
 Sample : TUNE CHECK
 Misc : 10 ng DFTPP
 MS Integration Params: RTEINT.P
 Quant Time: Sep 28 14:52 2009

Vial: 1
 Operator: J.Wu
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUATA\5973B\METHODS\DFTPPLVI.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Mon Sep 28 14:52:52 2009
 Response via : Single Level Calibration



TIC: DB713.D

(5) Pentachlorophenol (TCM)

14.38min 10.00ppb

response 550237

Ion	Exp%	Act%
265.70	100	100
263.80	62.70	62.68
267.70	58.90	58.91
0.00	0.00	0.00

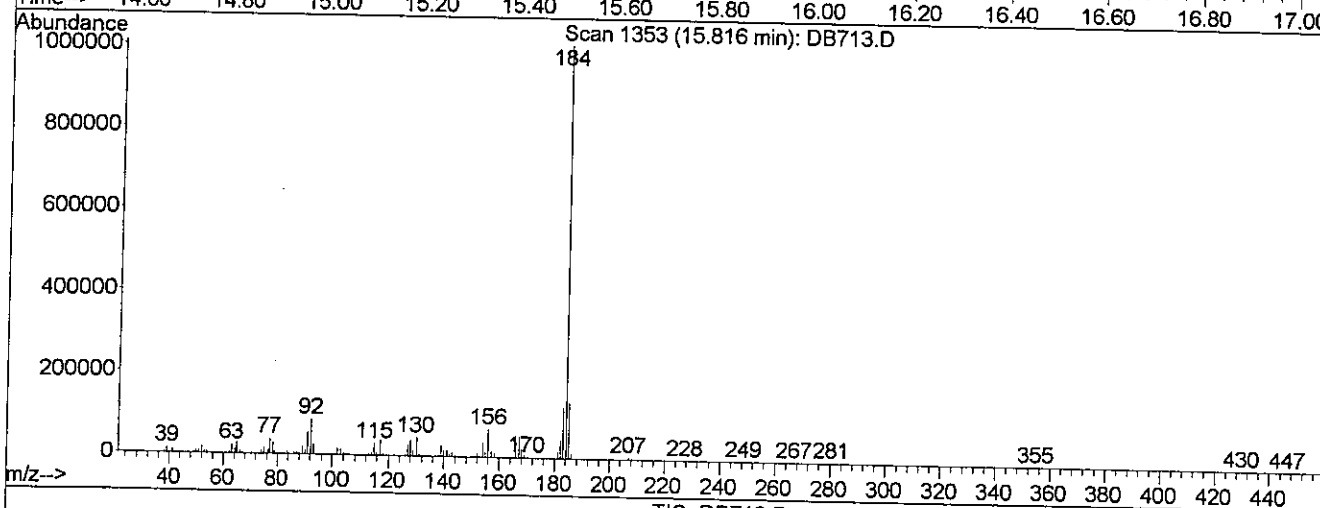
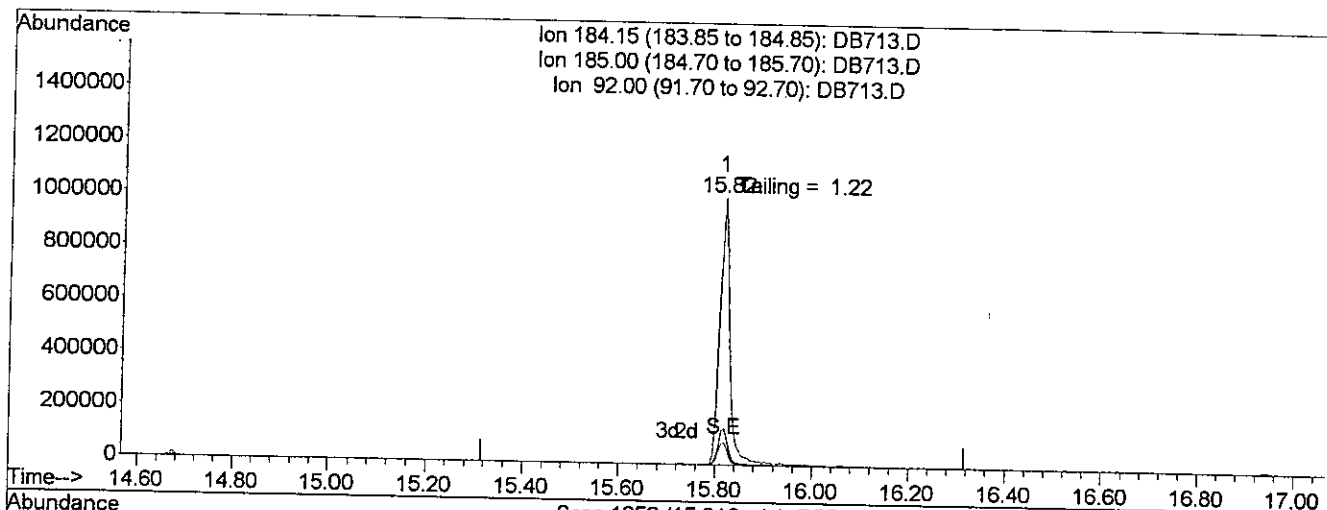
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\092809\DB713.D
 Acq On : 28 Sep 2009 2:28 pm
 Sample : TUNE CHECK
 Misc : 10 ng DFTPP
 MS Integration Params: RTEINT.P
 Quant Time: Sep 28 14:52 2009

Vial: 1
 Operator: J.Wu
 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 Sep 28 14:52:52 2009
 Response via : Single Level Calibration



TIC: DB713.D

(11) Benzidine (T)

15.82min 10.00ppb

response 1453428

Ion	Exp%	Act%
184.15	100	100
185.00	13.60	13.64
92.00	8.60	8.56
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : J:\ACQUDATA\5973C\DATA\101309\AV554.D Vial: 1
 Acq On : 13 Oct 2009 3:13 pm Operator: J.Wu
 Sample : TUNE CHECK Inst : 5973C
 Misc : 10 ng DFTPP Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Oct 13 15:41:48 2009 Quant Results File: TUNEC.RES

Quant Method : J:\ACQUDATA\5973C\METHODS\TUNEC.M (RTE Integrator)
 Title : TUNE CHECK
 Last Update : Thu Oct 08 10:00:27 2009
 Response via : Initial Calibration
 DataAcq Meth : TUNEC

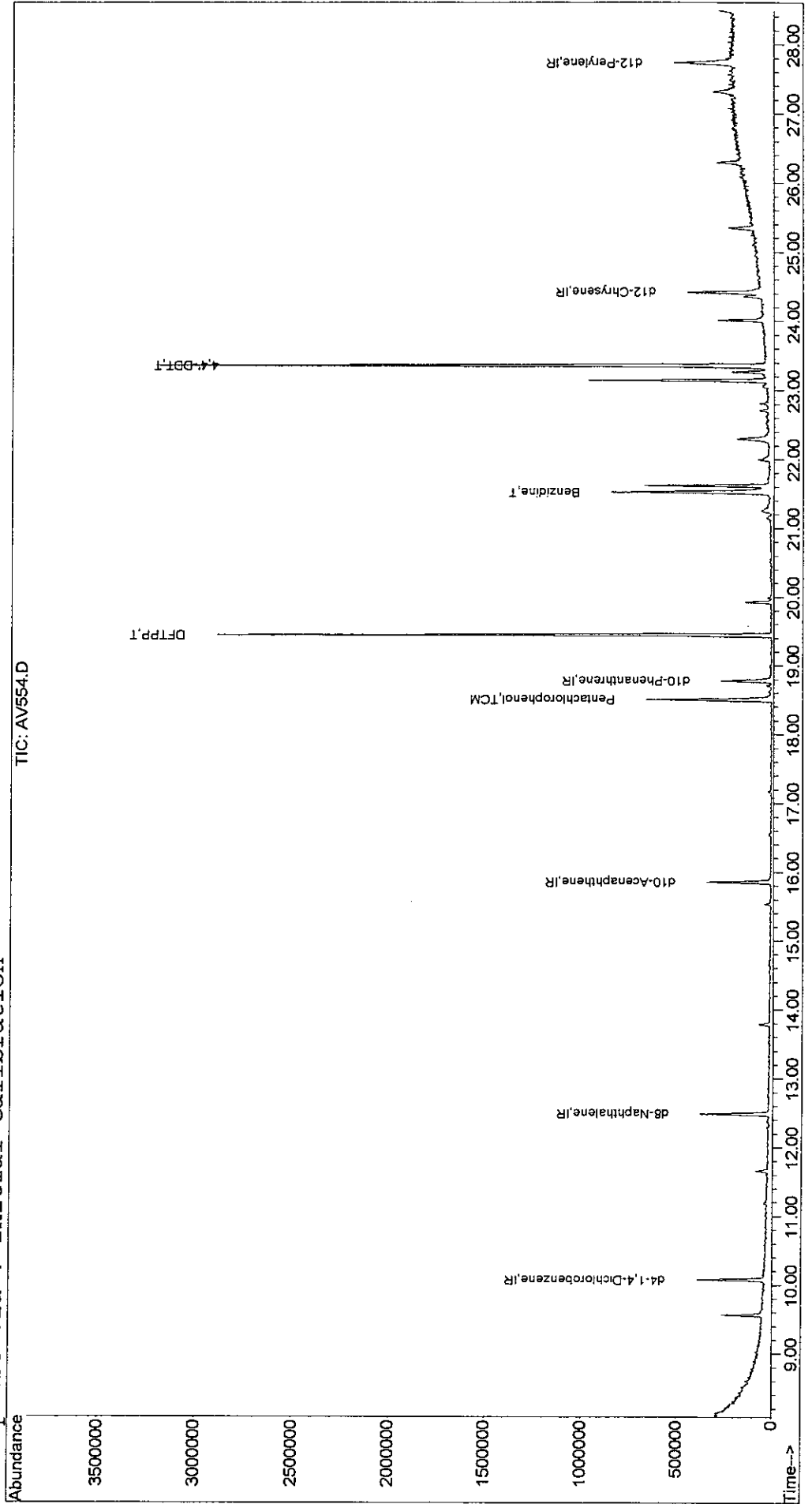
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)	
1) d4-1,4-Dichlorobenzene	10.07	152	79691	1.00	ppm	-0.02	
2) d8-Naphthalene	12.49	136	266988	1.00	ppm	-0.02	
3) d10-Acenaphthene	15.85	164	129629	1.00	ppm	-0.02	
4) d10-Phenanthrene	18.78	188	202280	1.00	ppm	-0.01	
7) d12-Chrysene	24.42	240	262981	1.00	ppm	-0.02	
12) d12-Perylene	27.73	264	235477	1.00	ppm	-0.02	
Target Compounds							Qvalue
5) Pentachlorophenol	18.51	266	142937	6.18	ppm		90
6) DFTPP	19.44	198	414829	12.01	ppm		83
8) Benzidine	21.52	184	692994	7.66	ppm		97
9) 4,4'-DDE	0.00	246	0	N.D.			
10) 4,4'-DDD	0.00	235	0	N.D.			
11) 4,4'-DDT	23.35	235	892045	11.39	ppm		97

TW

Quantitation Report (QT Reviewed)

Data File : J:\ACQDATA\5973C\DATA\101309\AV554.D
Acq On : 13 Oct 2009 3:13 pm Vial: 1
Sample : TUNE CHECK Operator: J.Wu
Misc : 10 ng DFTPP Inst : 5973C
MS Integration Params: RTEINT.P Multiplr: 1.00
Quant Time: Oct 13 15:41 2009 Quant Results File: TUNEC.RES

Method : J:\ACQDATA\5973C\METHODS\TUNEC.M (RTE Integrator)
Title : TUNE CHECK
Last Update : Thu Oct 08 10:00:27 2009
Response via : Initial Calibration



00496

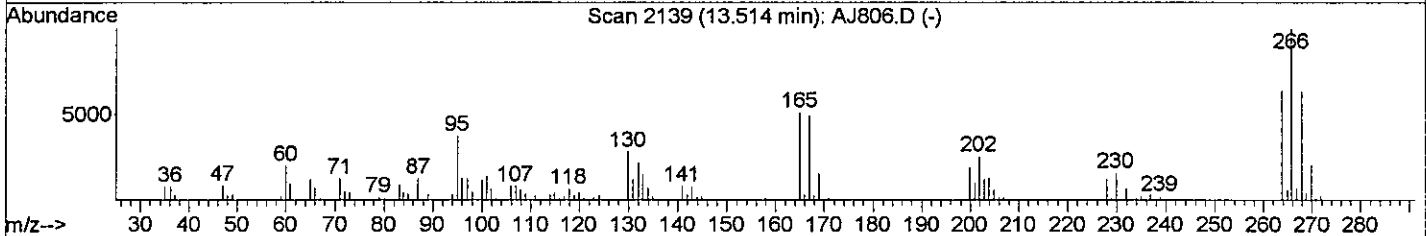
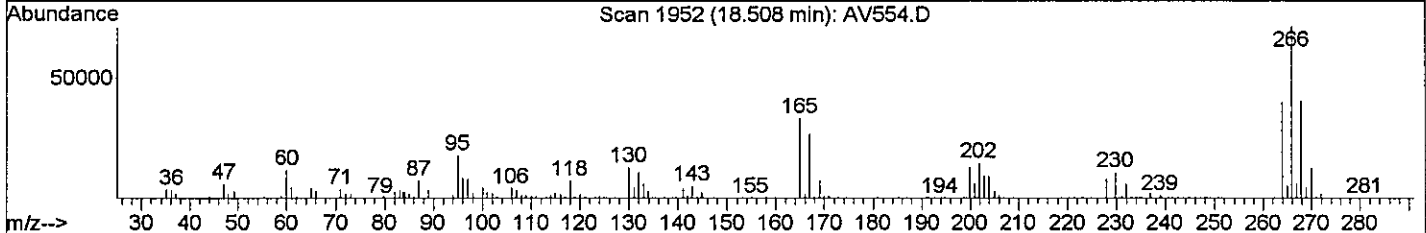
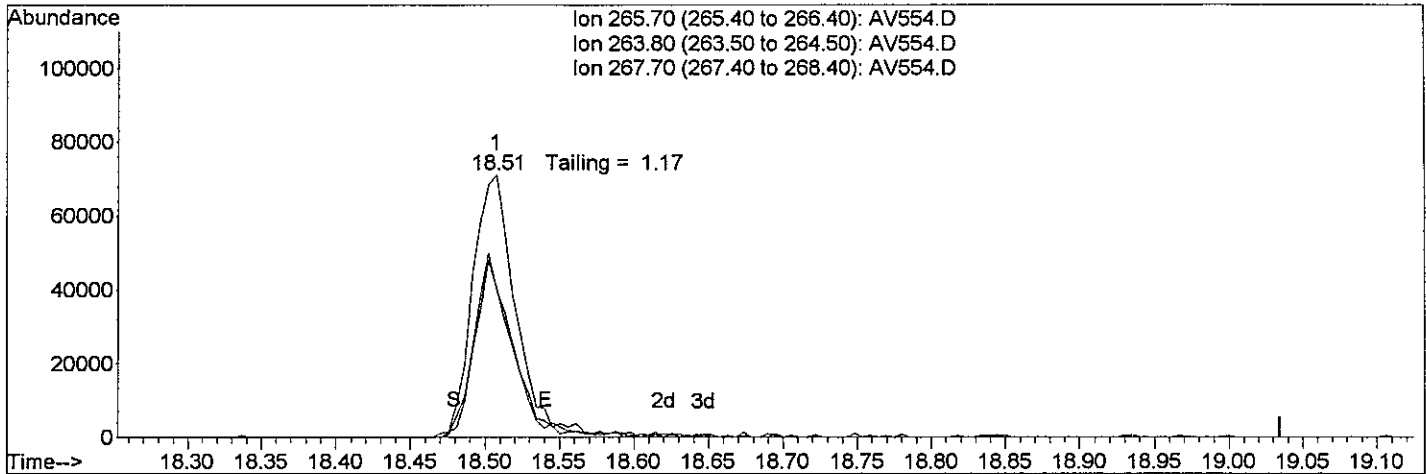
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973C\DATA\101309\AV554.D
 Acq On : 13 Oct 2009 3:13 pm
 Sample : TUNE CHECK
 Misc : 10 ng DFTPP
 MS Integration Params: RTEINT.P
 Quant Time: Oct 13 15:41 2009

Vial: 1
 Operator: J.Wu
 Inst : 5973C
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973C\METHODS\TUNEC.M (RTE Integrator)
 Title : TUNE CHECK
 Last Update : Thu Oct 08 10:00:27 2009
 Response via : Single Level Calibration



TIC: AV554.D

(5) Pentachlorophenol (TCM)

18.51min 6.18ppm

response 142937

Ion	Exp%	Act%
265.70	100	100
263.80	62.50	56.14
267.70	65.60	56.85
0.00	0.00	0.00

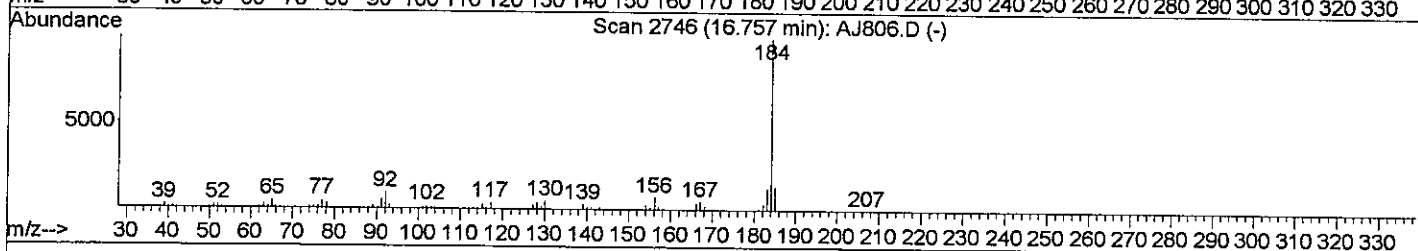
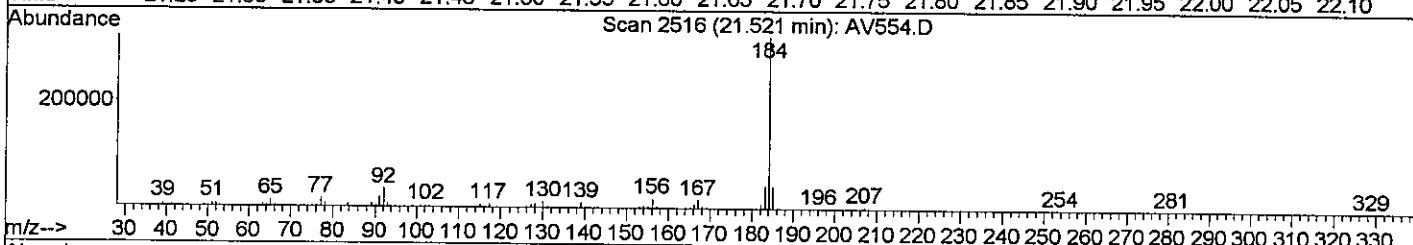
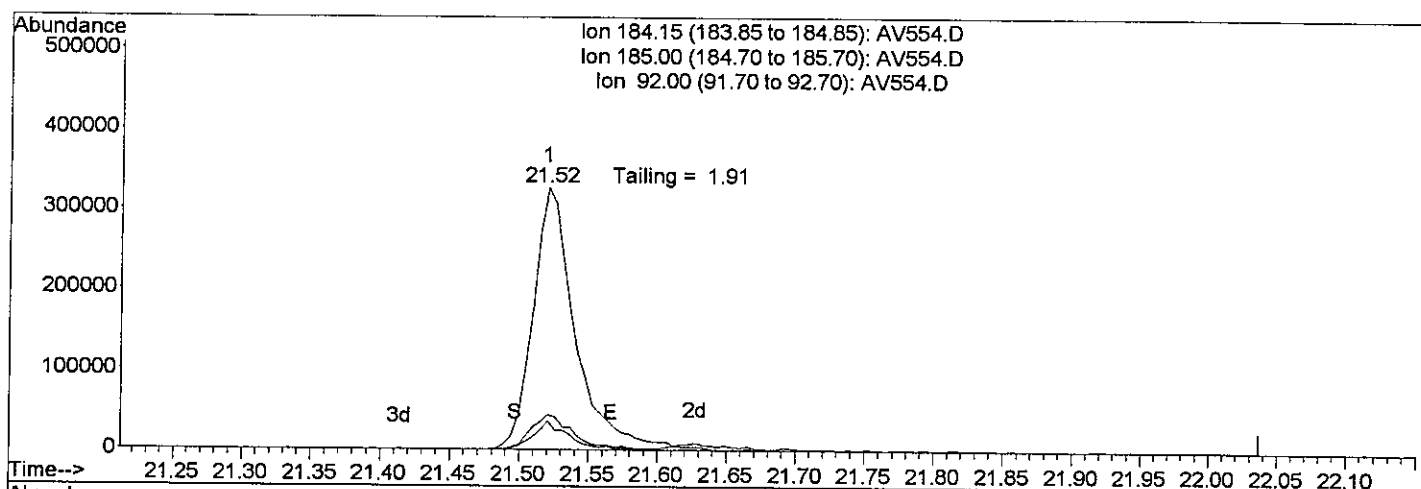
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973C\DATA\101309\AV554.D
 Acq On : 13 Oct 2009 3:13 pm
 Sample : TUNE CHECK
 Misc : 10 ng DFTPP
 MS Integration Params: RTEINT.P
 Quant Time: Oct 13 15:41 2009

Vial: 1
 Operator: J.Wu
 Inst : 5973C
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973C\METHODS\TUNEC.M (RTE Integrator)
 Title : TUNE CHECK
 Last Update : Thu Oct 08 10:00:27 2009
 Response via : Single Level Calibration



TIC: AV554.D

(8) Benzidine (T)

21.52min 7.66ppm

response 692994

Ion	Exp%	Act%
184.15	100	100
185.00	14.30	12.72
92.00	10.40	10.99
0.00	0.00	0.00

Data File : J:\ACQUDATA\5973B\DATA\100609\DB854.D
 Acq On : 6 Oct 2009 1:46 pm
 Sample : TUNE CHECK
 Misc : 10 ng DFTPP
 MS Integration Params: RTEINT.P
 Quant Time: Oct 6 15:34 2009

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 Sep 28 14:52:52 2009
 Response via : Initial Calibration
 DataAcq Meth : DFTPPLVI

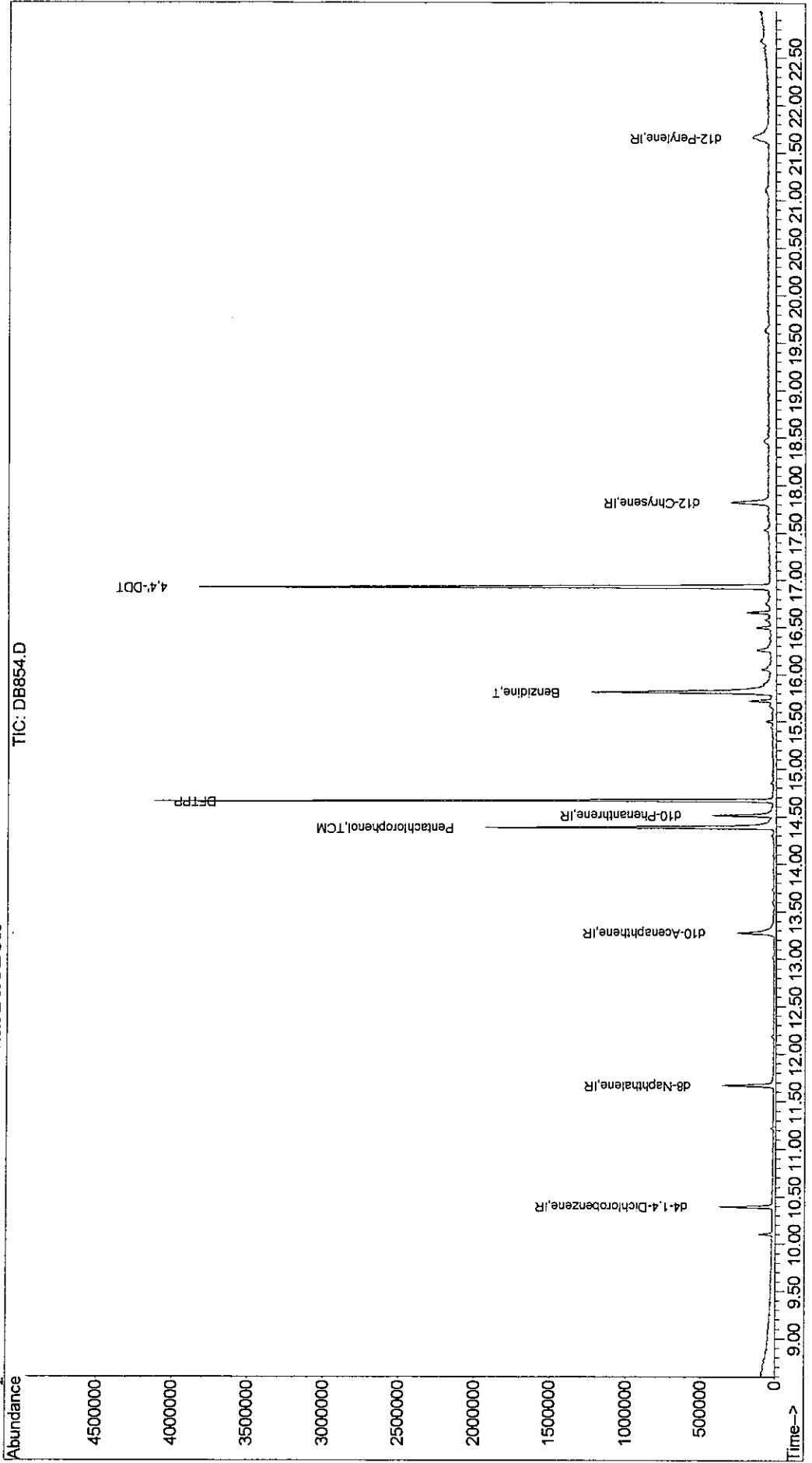
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) d4-1,4-Dichlorobenzene	10.40	152	68222	1.00	ppb	0.00
2) d8-Naphthalene	11.67	136	236967	1.00	ppb	0.00
3) d10-Acenaphthene	13.28	164	140938m	1.00	ppb	0.00
4) d10-Phenanthrene	14.51	188	209350	1.00	ppb	0.00
10) d12-Chrysene	17.82	240	200622	1.00	ppb	0.00
12) d12-Perylene	21.65	264	141653	1.00	ppb	0.00

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
5) Pentachlorophenol	14.39	266	278556	8.96	ppb	96
6) DFTPP	14.67	198	346413	9.40	ppb	92
9) 4,4'-DDT	16.93	235	849342	11.94	ppb	96
11) Benzidine	15.81	184	977649	10.68	ppb	98

Quantitation Report

Data File : J:\ACQDATA\5973B\DATA\100609\DB854.D
Acq On : 6 Oct 2009 1:46 pm Vial: 1
Sample : TUNE CHECK Operator: Z.Miao
Misc : 10 ng DFTPP Inst : 5973-B
MS Integration Params: RTEINT.P Multiplr: 1.00
Quant Time: Oct 6 15:34 2009 Quant Results File: DFTPPLVI.RES

Method : J:\ACQDATA\5973B\METHODS\DFTPPLVI.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Mon Sep 28 14:52:52 2009
Response via : Initial Calibration



00500

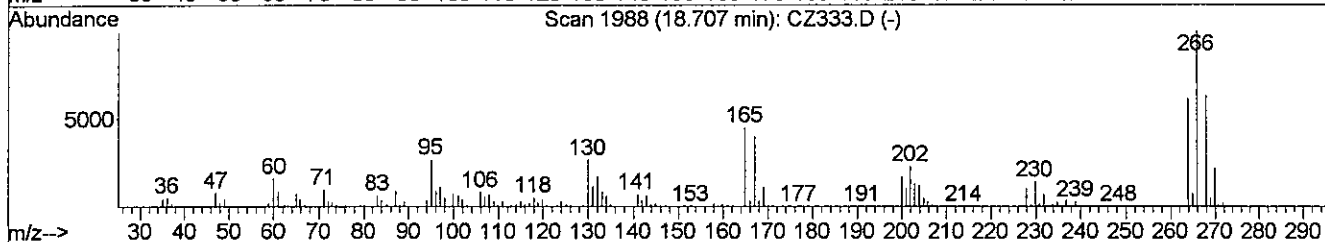
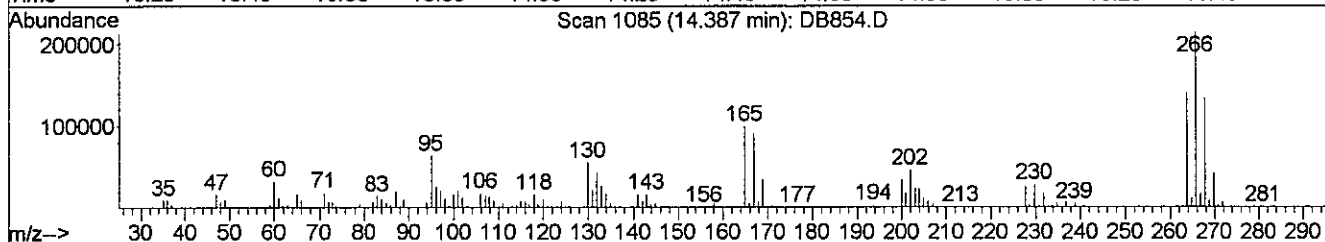
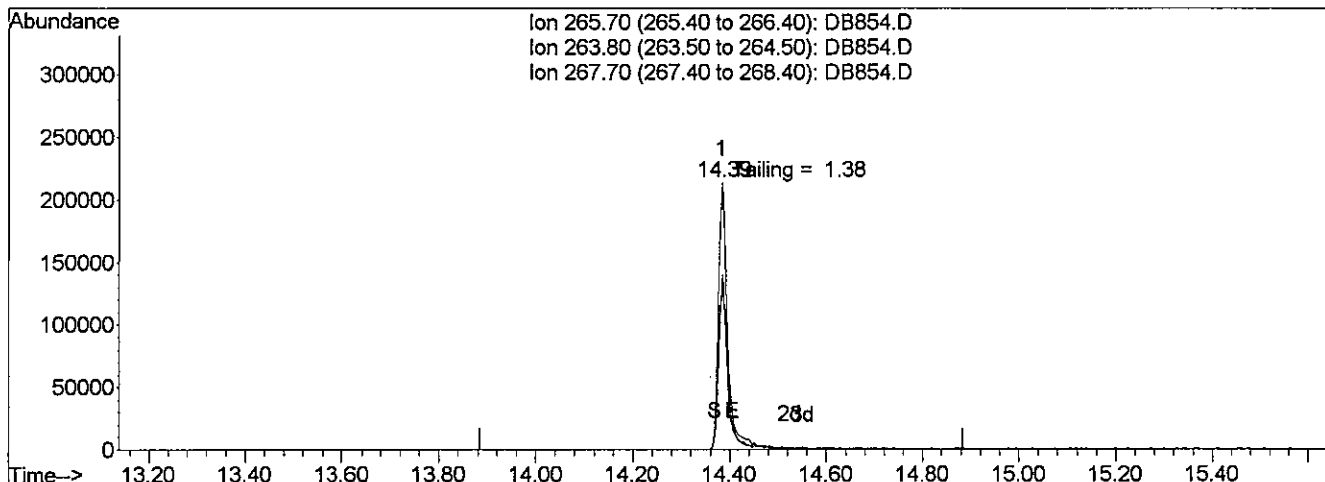
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\100609\DB854.D
 Acq On : 6 Oct 2009 1:46 pm
 Sample : TUNE CHECK
 Misc : 10 ng DFTPP
 MS Integration Params: RTEINT.P
 Quant Time: Oct 6 14:09 2009

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 Sep 28 14:52:52 2009
 Response via : Single Level Calibration



TIC: DB854.D

(5) Pentachlorophenol (TCM)

14.39min 8.96ppb

response 278556

Ion	Exp%	Act%
265.70	100	100
263.80	62.70	65.52
267.70	58.90	62.44
0.00	0.00	0.00

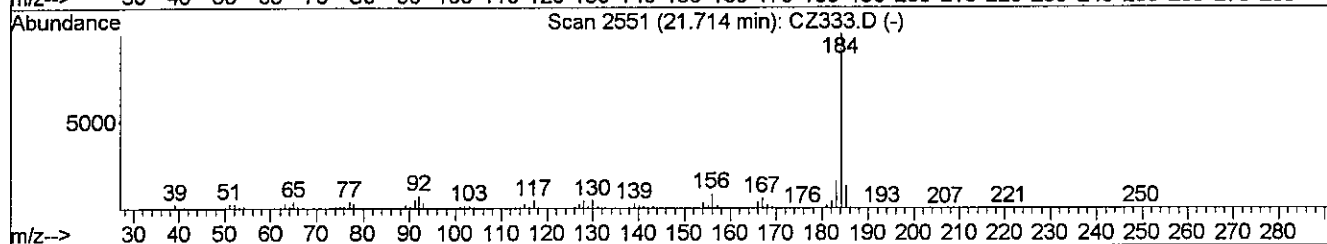
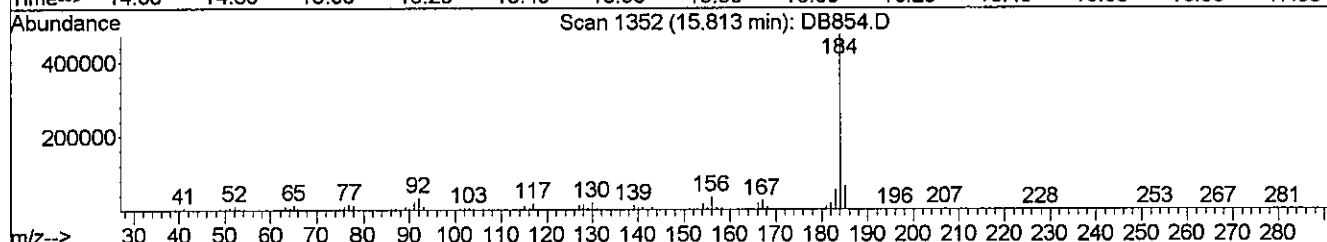
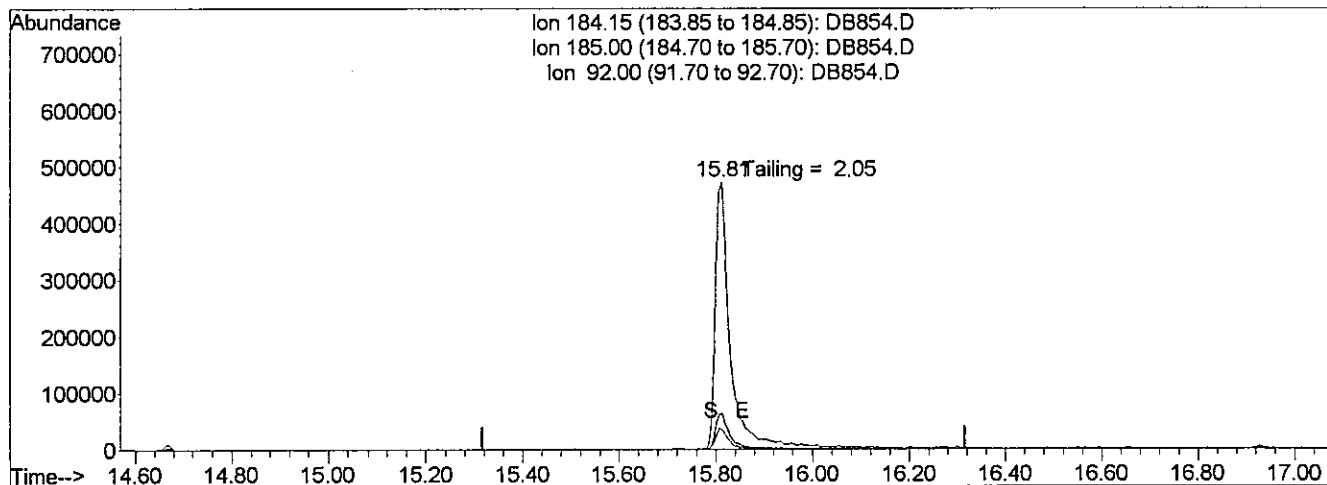
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\100609\DB854.D
 Acq On : 6 Oct 2009 1:46 pm
 Sample : TUNE CHECK
 Misc : 10 ng DFTPP
 MS Integration Params: RTEINT.P
 Quant Time: Oct 6 14:09 2009

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 Sep 28 14:52:52 2009
 Response via : Single Level Calibration



TIC: DB854.D

(11) Benzidine (T)

15.81min 10.68ppb

response 977649

Ion	Exp%	Act%
184.15	100	100
185.00	13.60	13.65
92.00	8.60	7.04
0.00	0.00	0.00

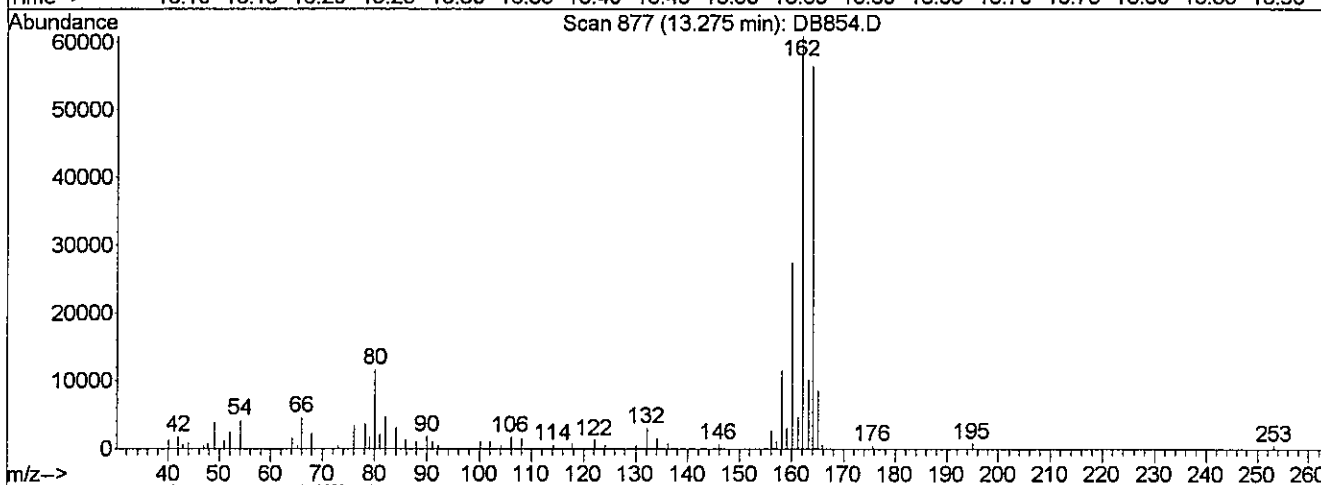
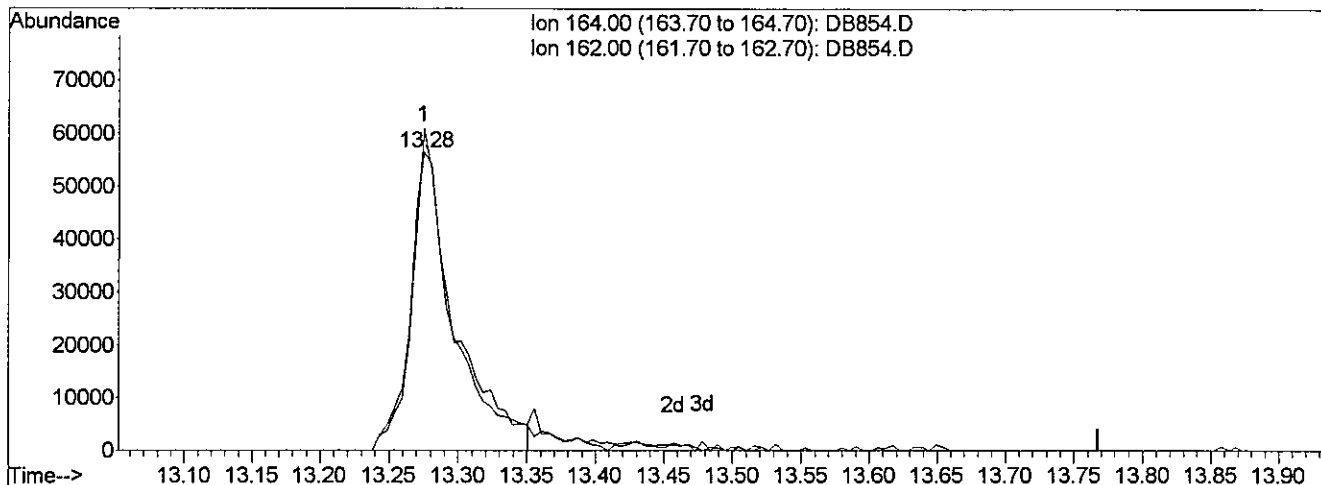
Quantitation Report (Qedit)

Data File : J:\ACQUATA\5973B\DATA\100609\DB854.D
 Acq On : 6 Oct 2009 1:46 pm
 Sample : TUNE CHECK
 Misc : 10 ng DFTPP
 MS Integration Params: RTEINT.P
 Quant Time: Oct 6 15:30 2009

Vial: 1
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUATA\5973B\METHODS\DFTPLVI.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Mon Sep 28 14:52:52 2009
 Response via : Single Level Calibration



TIC: DB854.D

(3) d10-Acenaphthene (IR)

13.28min 1.00ppb

response 129005

Ion	Exp%	Act%
164.00	100	100
162.00	87.30	108.36
0.00	0.00	0.00
0.00	0.00	0.00

M

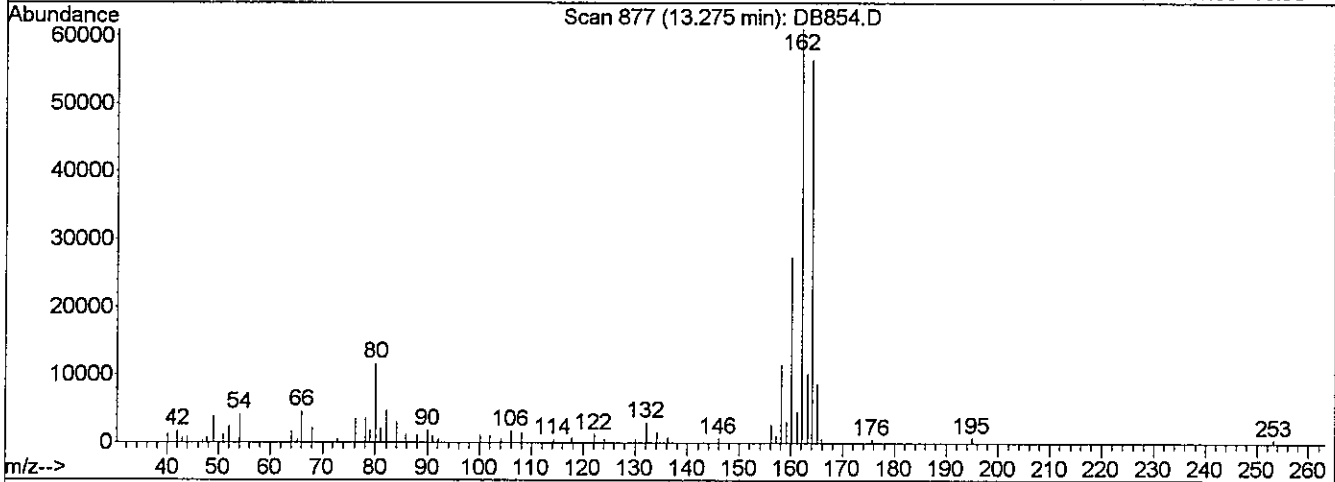
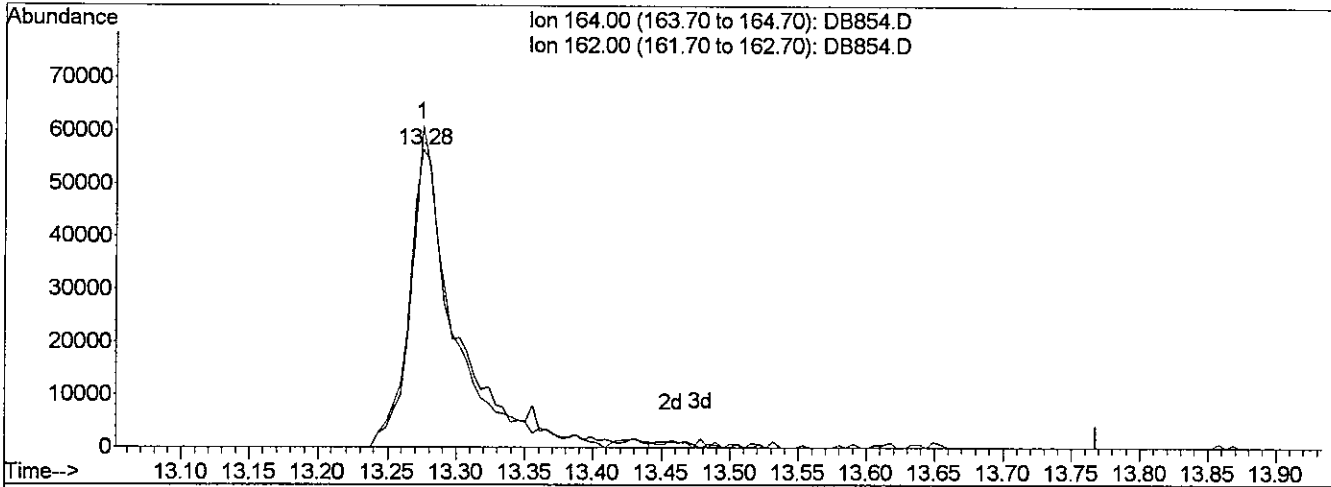
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\100609\DB854.D
Acq On : 6 Oct 2009 1:46 pm
Sample : TUNE CHECK
Misc : 10 ng DFTPP
MS Integration Params: RTEINT.P
Quant Time: Oct 6 15:34 2009

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 Sep 28 14:52:52 2009
Response via : Single Level Calibration



(3) d10-Acenaphthene (IR)

13.28min 1.00ppb m

response 140938

Ion	Exp%	Act%
164.00	100	100
162.00	87.30	107.98
0.00	0.00	0.00
0.00	0.00	0.00

MW 171
Z. Miao 10/7/09

Data File : J:\ACQUDATA\5973B\DATA\101209\DB986.D
 Acq On : 12 Oct 2009 2:40 pm
 Sample : TUNE CHECK
 Misc : 10 ng DFTPP
 MS Integration Params: RTEINT.P
 Quant Time: Oct 12 16:26 2009

Vial: 1
 Operator: J.Wu
 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 Sep 28 14:52:52 2009
 Response via : Initial Calibration
 DataAcq Meth : DFTPPLVI

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	10.39	152	85138	1.00	ppb	0.00
2) d8-Naphthalene	11.67	136	279544	1.00	ppb	0.00
3) d10-Acenaphthene	13.28	164	163268m (m)	1.00	ppb	0.02
4) d10-Phenanthrene	14.51	188	268175	1.00	ppb	0.00
10) d12-Chrysene	17.81	240	280037	1.00	ppb	-0.01
12) d12-Perylene	21.66	264	193511	1.00	ppb	0.01

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
5) Pentachlorophenol	14.38	266	266612	6.70	ppb	97
6) DFTPP	14.66	198	488599	10.35	ppb	98
9) 4,4'-DDT	16.92	235	1236437	13.57	ppb	97
11) Benzidine	15.81	184	1660397	12.99	ppb	97

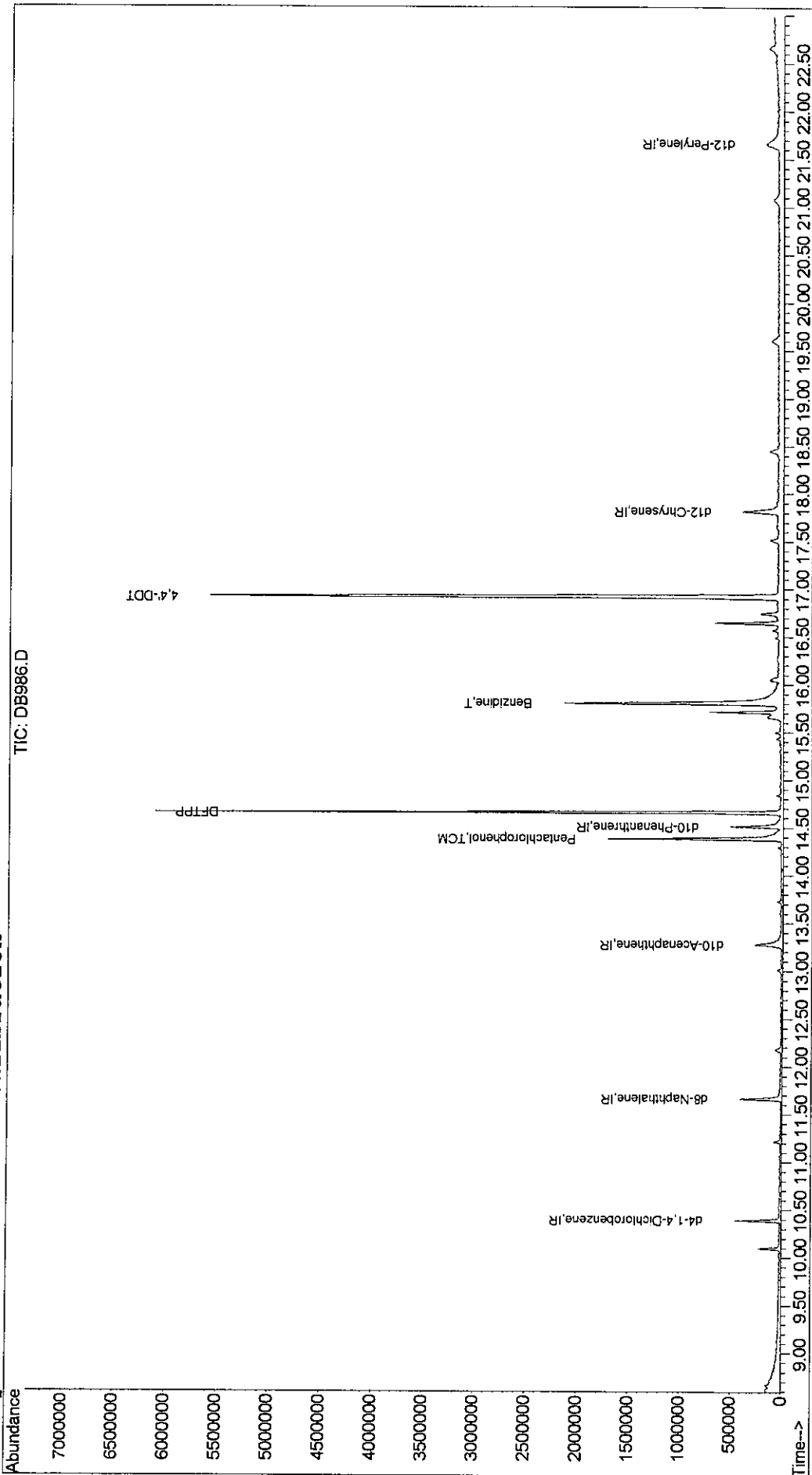
(#) = qualifier out of range (m) = manual integration

J.W.

Quantitation Report

Data File : J:\ACQDATA\5973B\DATA\101209\DB986.D Vial: 1
Acq On : 12 Oct 2009 2:40 pm Operator: J.Wu
Sample : TUNE CHECK Inst : 5973-B
Misc : 10 ng DFTPP Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 12 16:26 2009 Quant Results File: DFTPPLVI.RES

Method : J:\ACQDATA\5973B\METHODS\DFTPPLVI.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Mon Sep 28 14:52:52 2009
Response via : Initial Calibration



00506

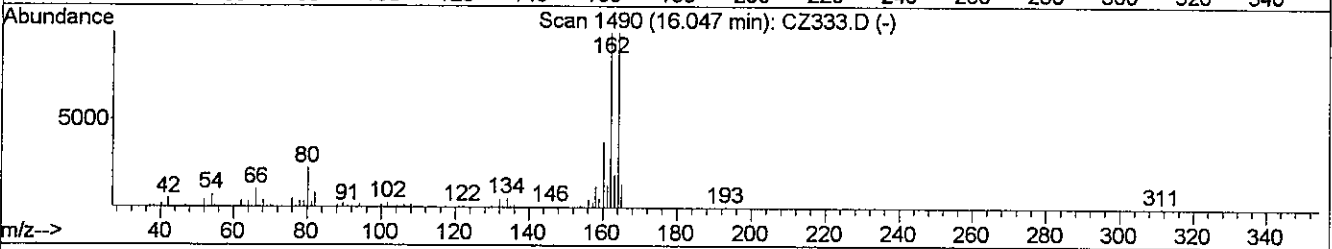
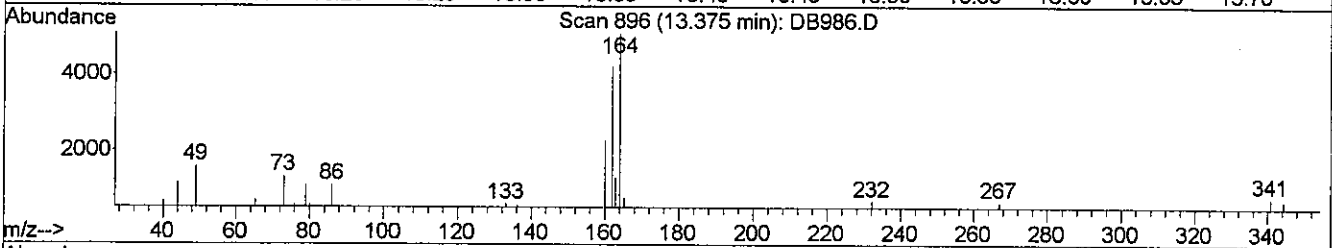
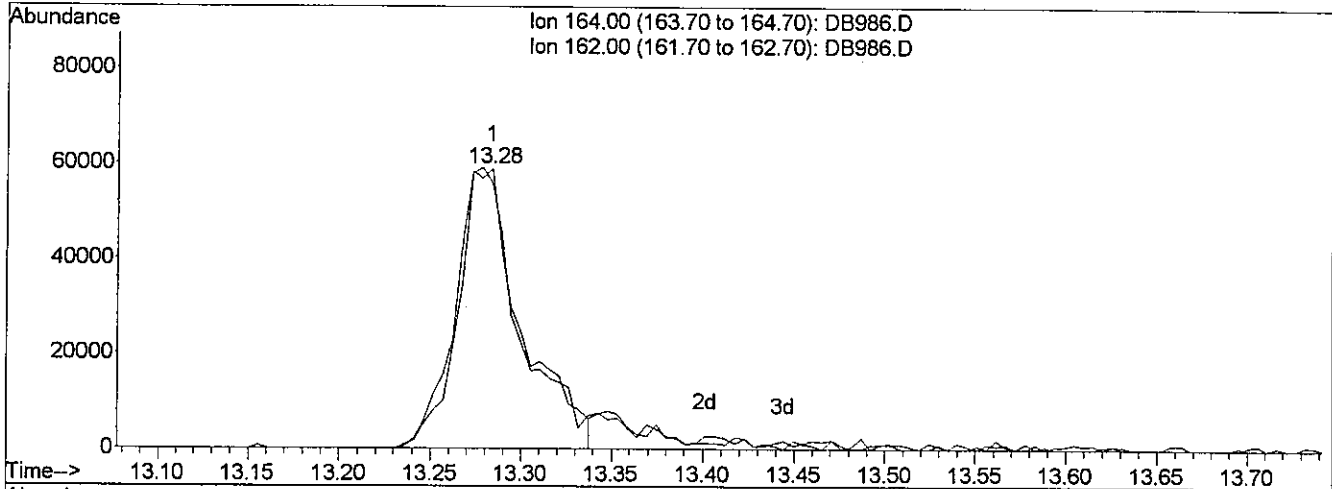
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\101209\DB986.D
 Acq On : 12 Oct 2009 2:40 pm
 Sample : TUNE CHECK
 Misc : 10 ng DFTPP
 MS Integration Params: RTEINT.P
 Quant Time: Oct 12 15:03 2009

Vial: 1
 Operator: J.Wu
 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 Sep 28 14:52:52 2009
 Response via : Single Level Calibration



TIC: DB986.D

(3) d10-Acenaphthene (IR)

13.28min 1.00ppb

response 149112

Ion	Exp%	Act%
164.00	100	100
162.00	87.30	93.82
0.00	0.00	0.00
0.00	0.00	0.00

B

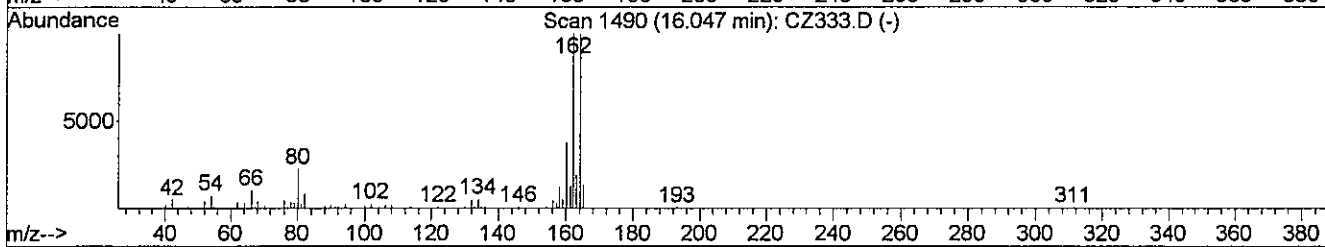
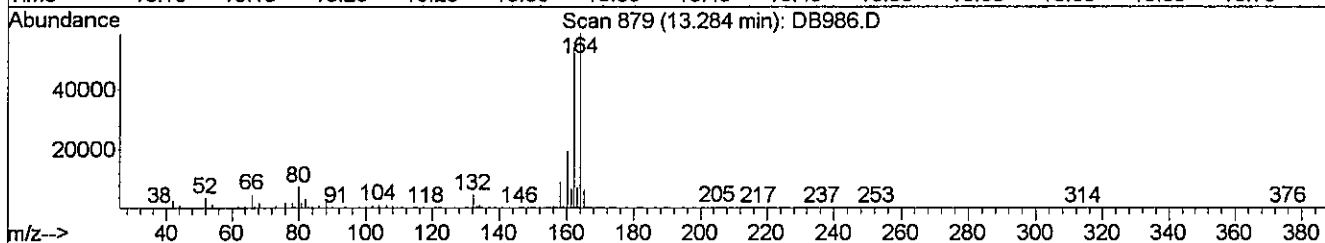
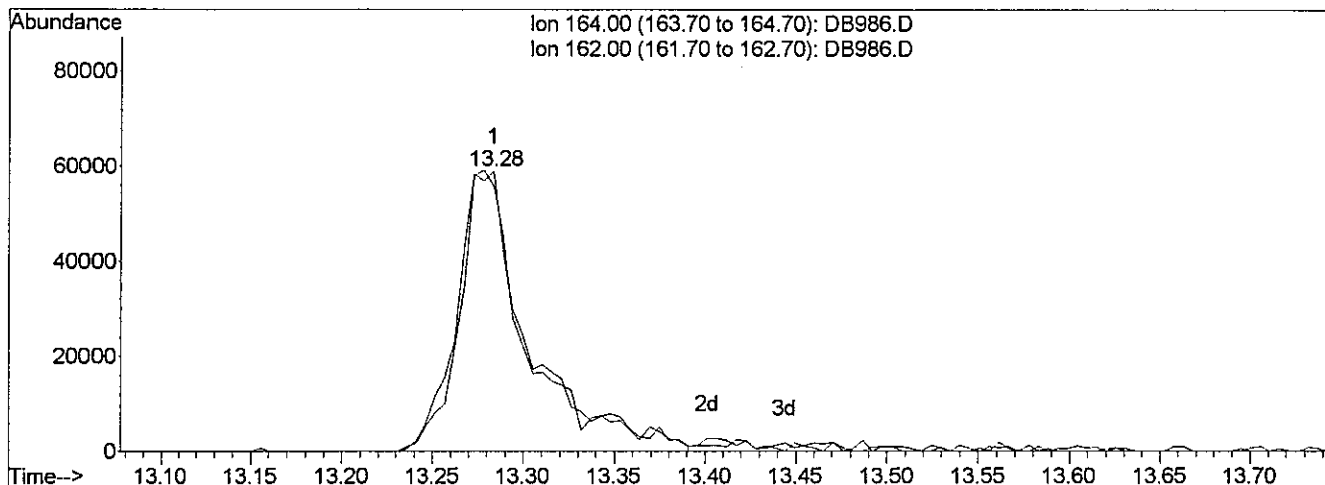
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\101209\DB986.D
 Acq On : 12 Oct 2009 2:40 pm
 Sample : TUNE CHECK
 Misc : 10 ng DFTPP
 MS Integration Params: RTEINT.P
 Quant Time: Oct 12 16:25 2009

Vial: 1
 Operator: J.Wu
 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 Sep 28 14:52:52 2009
 Response via : Single Level Calibration



TIC: DB986.D

(3) d10-Acenaphthene (IR)

13.28min 1.00ppb m

response 163268

Ion	Exp%	Act%
164.00	100	100
162.00	87.30	94.69
0.00	0.00	0.00
0.00	0.00	0.00

mw
10/12
A J 10/12/09

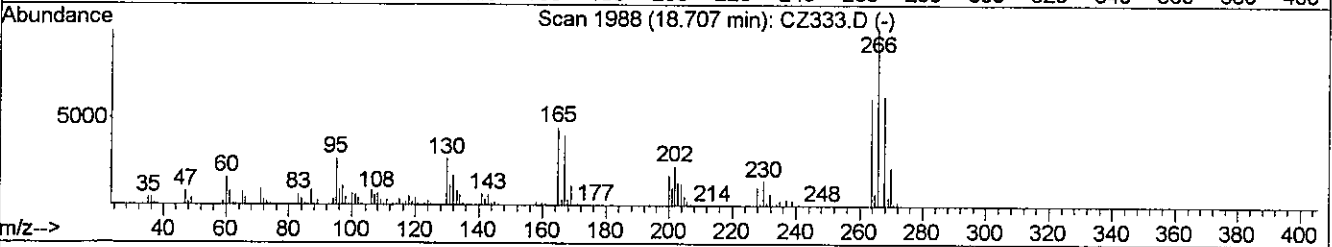
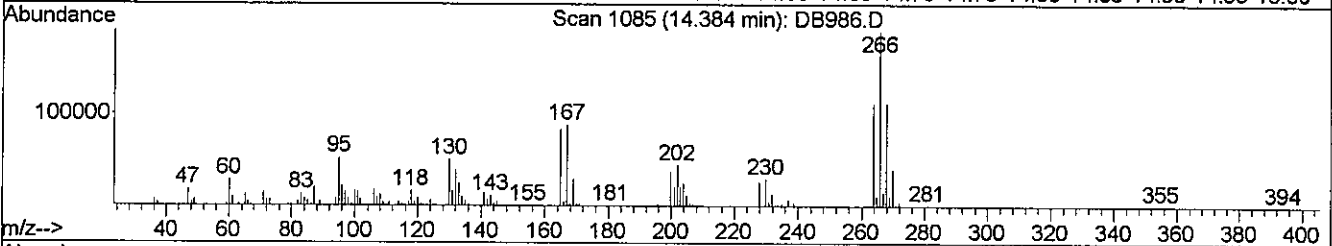
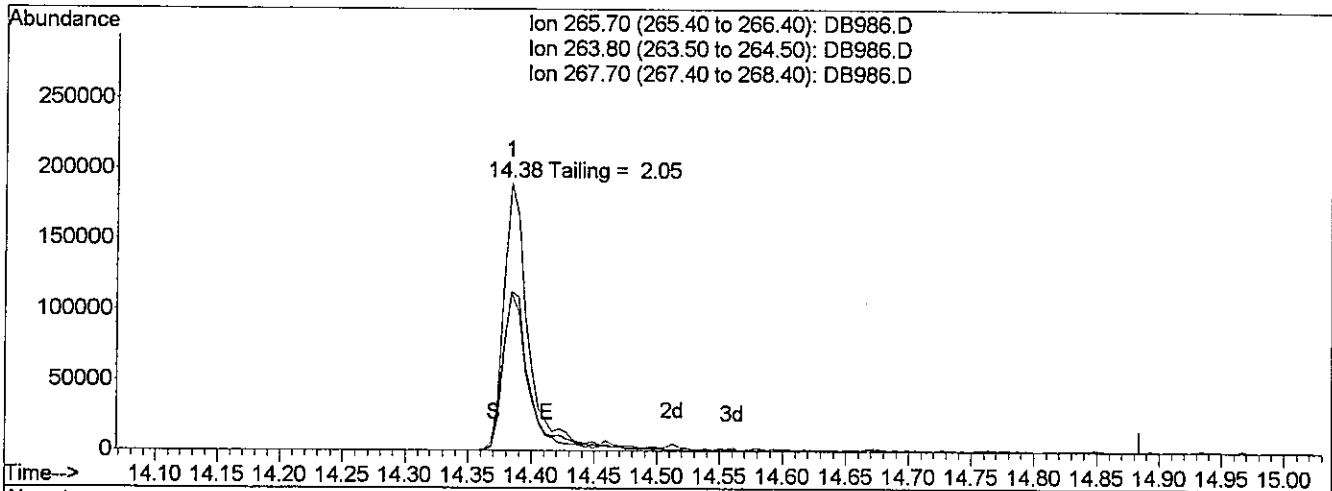
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\101209\DB986.D
 Acq On : 12 Oct 2009 2:40 pm
 Sample : TUNE CHECK
 Misc : 10 ng DFTPP
 MS Integration Params: RTEINT.P
 Quant Time: Oct 12 16:25 2009

Vial: 1
 Operator: J.Wu
 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 Sep 28 14:52:52 2009
 Response via : Single Level Calibration



TIC: DB986.D

(5) Pentachlorophenol (TCM)

14.38min 6.70ppb

response 266612

Ion	Exp%	Act%
265.70	100	100
263.80	62.70	58.34
267.70	58.90	59.26
0.00	0.00	0.00

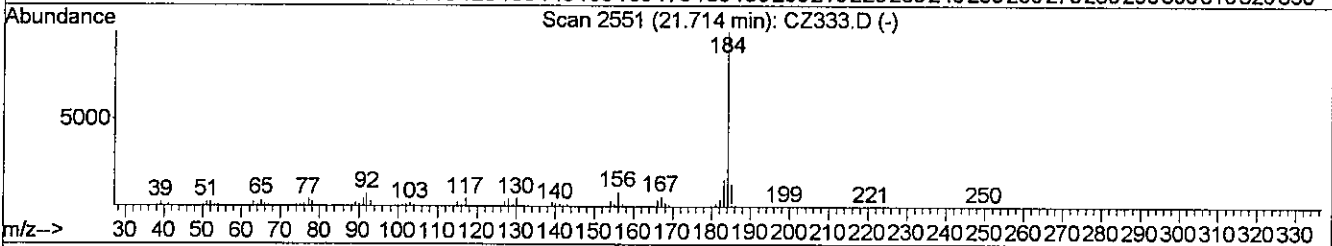
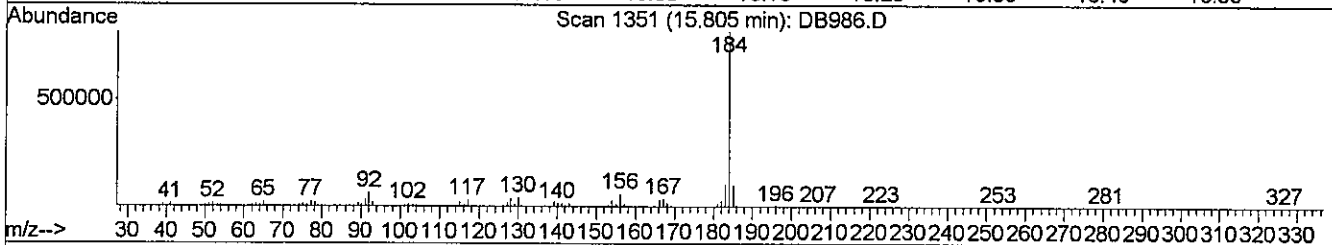
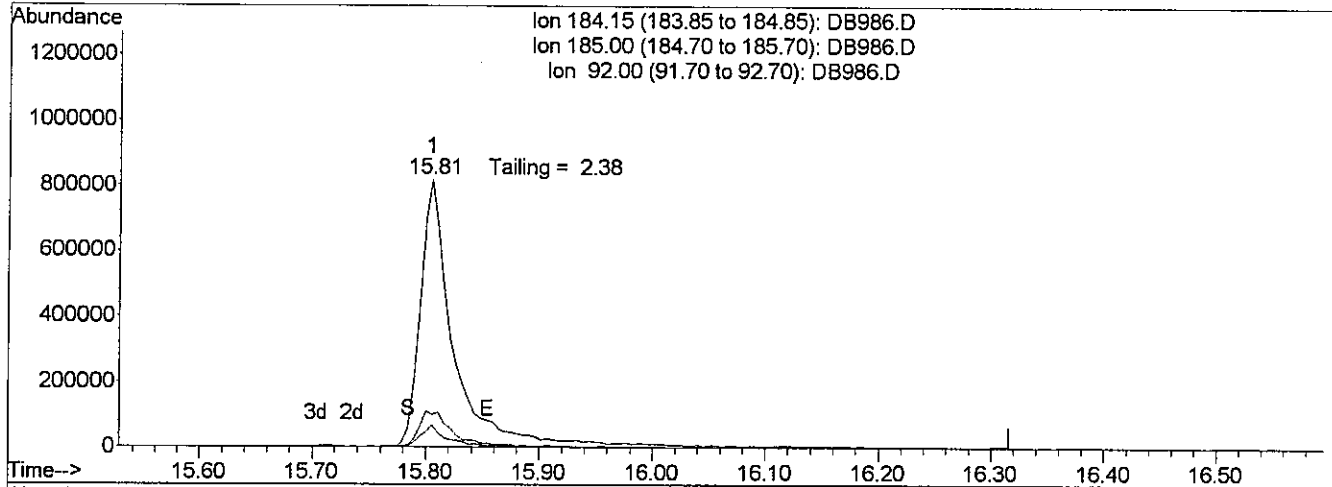
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\101209\DB986.D
 Acq On : 12 Oct 2009 2:40 pm
 Sample : TUNE CHECK
 Misc : 10 ng DFTPP
 MS Integration Params: RTEINT.P
 Quant Time: Oct 12 16:26 2009

Vial: 1
 Operator: J.Wu
 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 Sep 28 14:52:52 2009
 Response via : Single Level Calibration



TIC: DB986.D

(11) Benzidine (T)

15.81min 12.99ppb

response 1660397

Ion	Exp%	Act%
184.15	100	100
185.00	13.60	12.24
92.00	8.60	8.02
0.00	0.00	0.00

Data File : J:\ACQUDATA\5973B\DATA\101309\DC022.D
 Acq On : 13 Oct 2009 4:50 pm
 Sample : TUNE CHECK
 Misc : 10 ng DFTPP
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 12:36 2009

Vial: 1
 Operator: J.Wu
 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 Sep 28 14:52:52 2009
 Response via : Initial Calibration
 DataAcq Meth : DFTPPLVI

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	10.38	152	118905	1.00	ppb	-0.02
2) d8-Naphthalene	11.65	136	404307	1.00	ppb	-0.01
3) d10-Acenaphthene	13.26	164	262823	1.00	ppb	-0.01
4) d10-Phenanthrene	14.49	188	367219	1.00	ppb	-0.02
10) d12-Chrysene	17.79	240	362716	1.00	ppb	-0.04
12) d12-Perylene	21.59	264	257697	1.00	ppb	-0.06

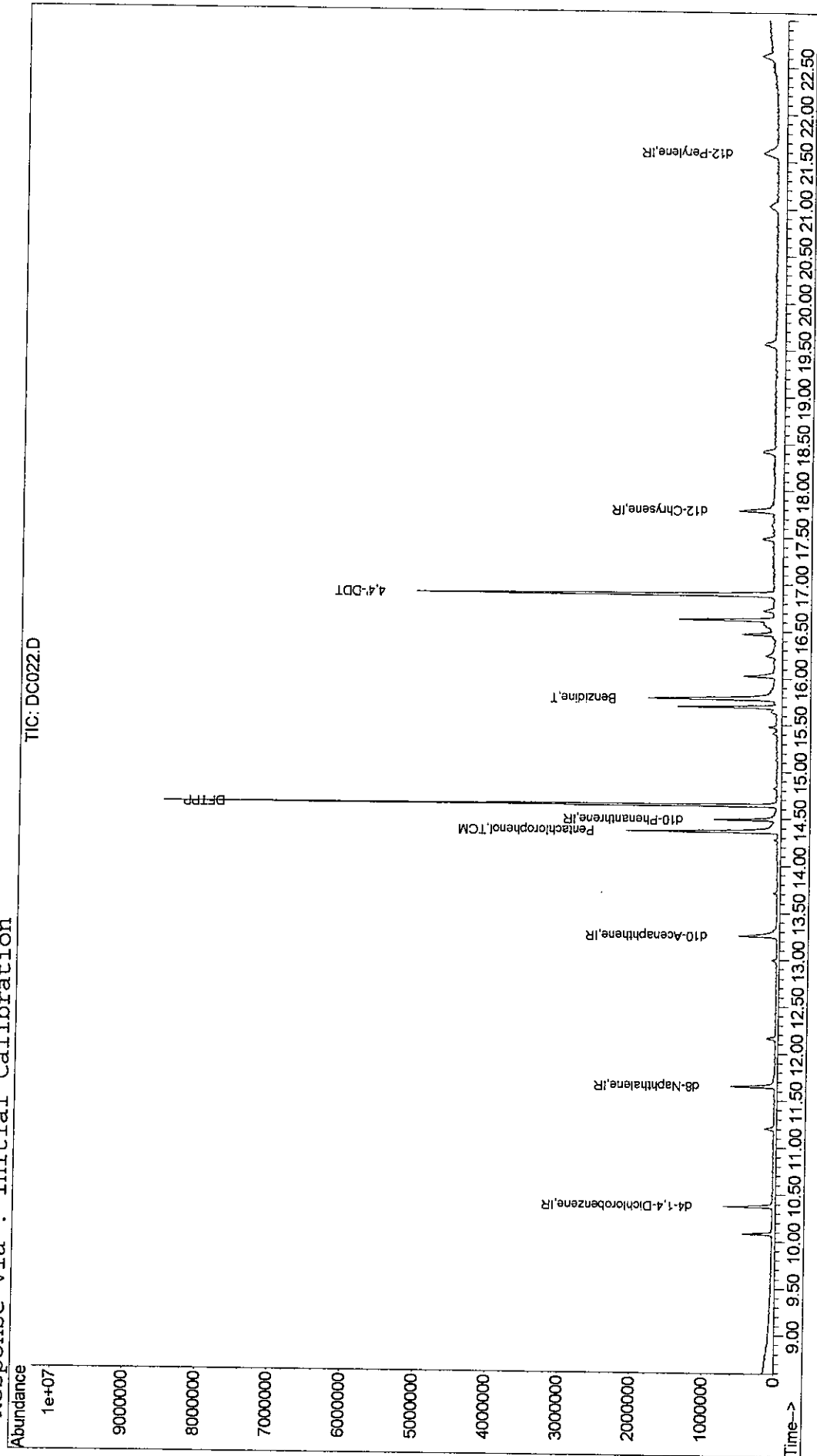
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
5) Pentachlorophenol	14.37	266	325477	5.97	ppb	96
6) DFTPP	14.65	198	640295	9.91	ppb	91
9) 4,4'-DDT	16.90	235	1089397	8.73	ppb	94
11) Benzidine	15.78	184	1225979	7.41	ppb	96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQDATA\5973B\DATA\101309\DC022.D
Acq On : 13 Oct 2009 4:50 pm Vial: 1
Sample : TUNE CHECK Operator: J.Wu
Misc : 10 ng DFIPP Inst : 5973-B
MS Integration Params: RTEINT.P Multiplr: 1.00
Quant Time: Oct 14 12:36 2009 Quant Results File: DFTPPLVI.RES

Method : J:\ACQDATA\5973B\METHODS\DFTPPLVI.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Mon Sep 28 14:52:52 2009
Response via : Initial Calibration



00512

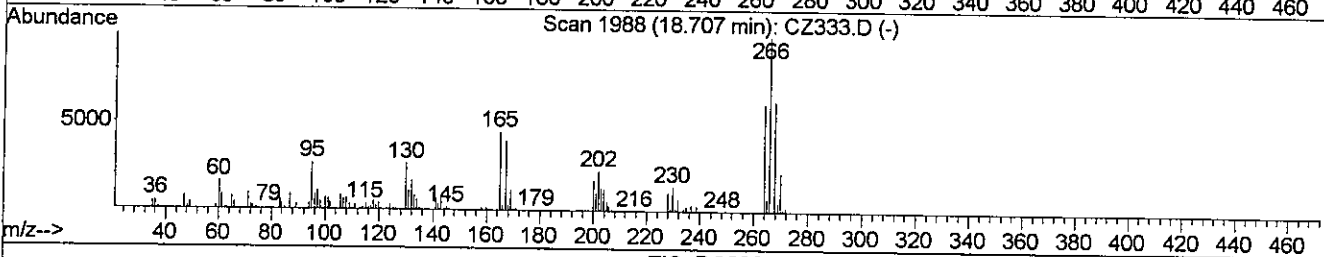
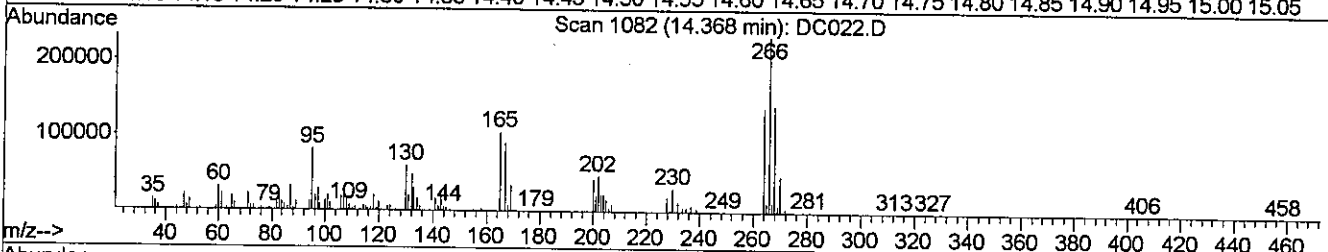
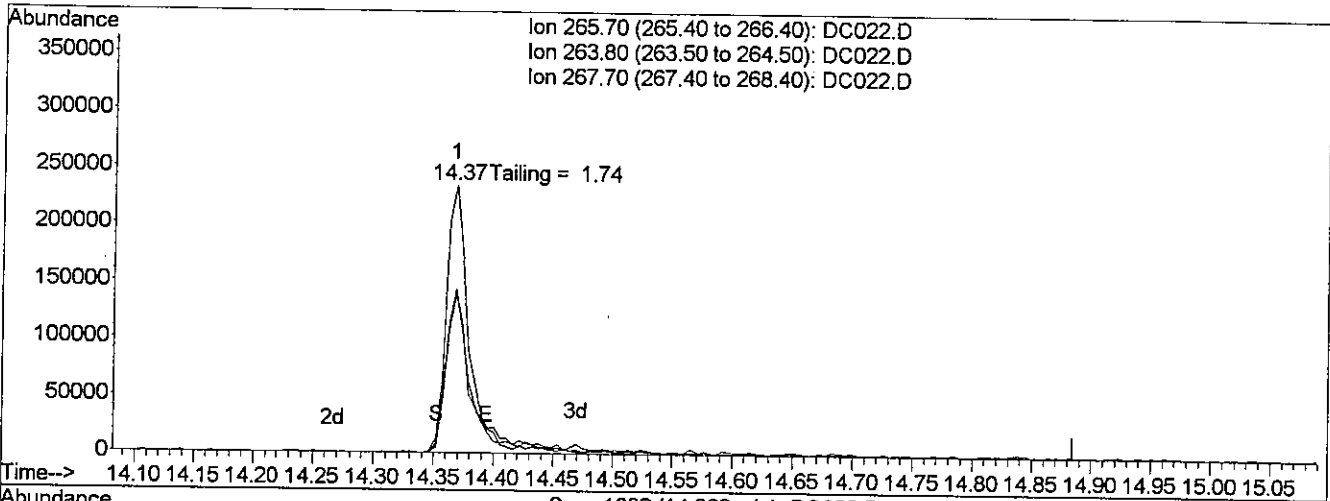
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\101309\DC022.D
 Acq On : 13 Oct 2009 4:50 pm
 Sample : TUNE CHECK
 Misc : 10 ng DFTPP
 MS Integration Params: RTEINT.P
 Quant Time: Oct 13 17:13 2009

Vial: 1
 Operator: J.Wu
 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 Sep 28 14:52:52 2009
 Response via : Single Level Calibration



TIC: DC022.D

(5) Pentachlorophenol (TCM)

14.37min 5.97ppb

response 325477

Ion	Exp%	Act%
265.70	100	100
263.80	62.70	58.93
267.70	58.90	60.59
0.00	0.00	0.00

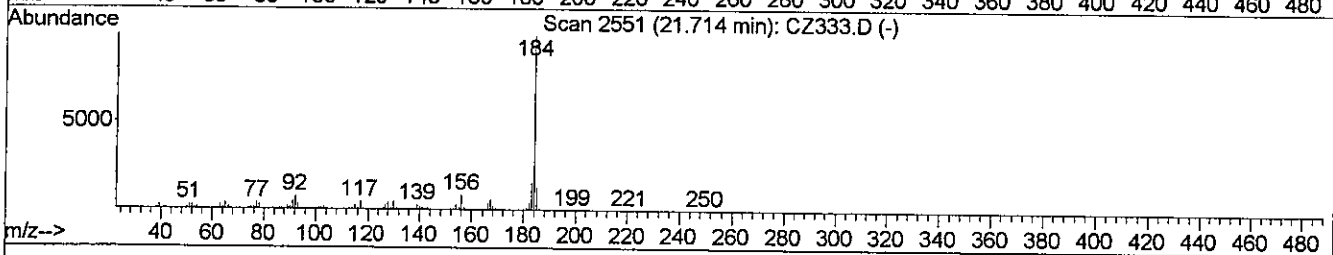
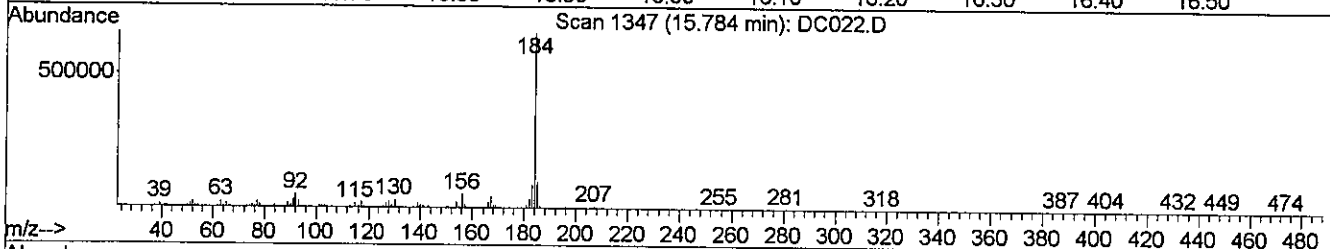
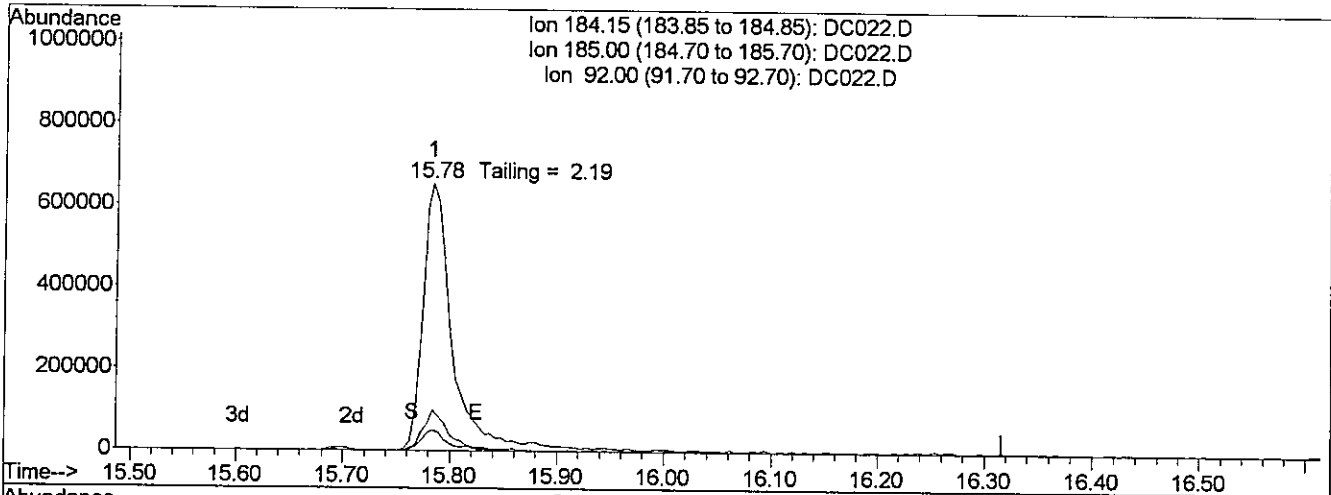
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\101309\DC022.D
 Acq On : 13 Oct 2009 4:50 pm
 Sample : TUNE CHECK
 Misc : 10 ng DFTPP
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 12:36 2009

Vial: 1
 Operator: J.Wu
 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 Sep 28 14:52:52 2009
 Response via : Single Level Calibration



TIC: DC022.D

(11) Benzidine (T)

15.78min 7.41ppb

response 1225979

Ion	Exp%	Act%
184.15	100	100
185.00	13.60	15.22
92.00	8.60	7.54
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : J:\ACQUDATA\5973C\DATA\101409\AV570.D Vial: 1
 Acq On : 14 Oct 2009 9:31 am Operator: J.Wu
 Sample : TUNE CHECK Inst : 5973C
 Misc : 10 ng DFTPP Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 10:00:18 2009 Quant Results File: TUNEC.RES

Quant Method : J:\ACQUDATA\5973C\METHODS\TUNEC.M (RTE Integrator)
 Title : TUNE CHECK
 Last Update : Thu Oct 08 10:00:27 2009
 Response via : Initial Calibration
 DataAcq Meth : TUNEC

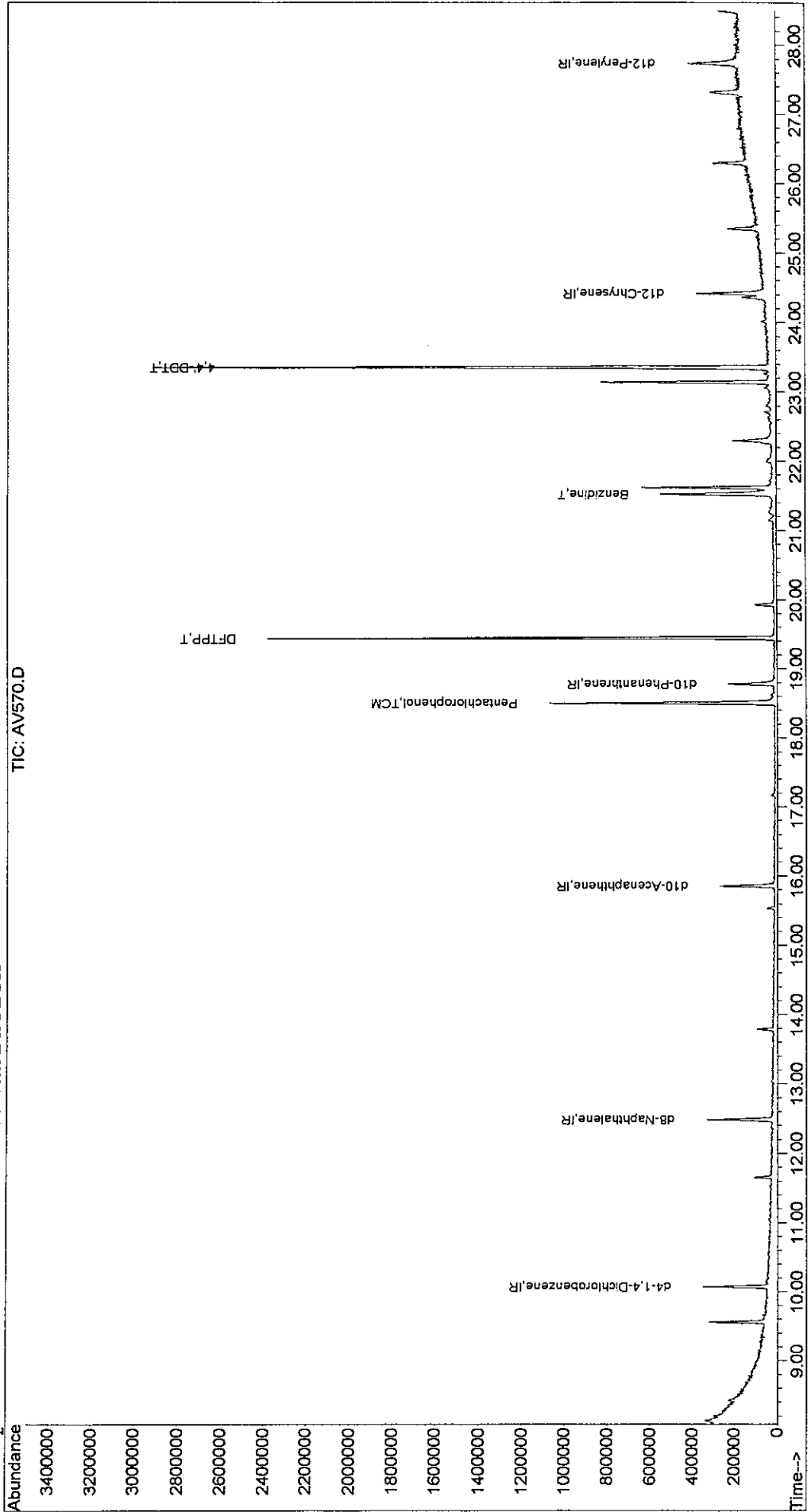
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	10.07	152	69920	1.00	ppm	-0.02
2) d8-Naphthalene	12.48	136	214213	1.00	ppm	-0.03
3) d10-Acenaphthene	15.86	164	107890	1.00	ppm	-0.02
4) d10-Phenanthrene	18.78	188	158095	1.00	ppm	-0.01
7) d12-Chrysene	24.41	240	221786	1.00	ppm	-0.02
12) d12-Perylene	27.73	264	197453	1.00	ppm	-0.03

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
5) Pentachlorophenol	18.50	266	204402	11.32	ppm	90
6) DFTPP	19.44	198	335049	12.42	ppm	79
8) Benzidine	21.52	184	463309	6.07	ppm	93
9) 4,4'-DDE	0.00	246	0	N.D.	d	
10) 4,4'-DDD	0.00	235	0	N.D.		
11) 4,4'-DDT	23.35	235	779413	11.80	ppm	97

Quantitation Report (QT Reviewed)

Data File : J:\ACQDATA\5973C\DATA\101409\AV570.D
 Acq On : 14 Oct 2009 9:31 am Vial: 1
 Sample : TUNE CHECK Operator: J.Wu
 Misc : 10 ng DFTPP Inst : 5973C
 MS Integration Params: RTEINT.P Multiplr: 1.00
 Quant Time: Oct 15 9:56 2009 Quant Results File: TUNEC.RES

Method : J:\ACQDATA\5973C\METHODS\TUNEC.M (RTE Integrator)
 Title : TUNE CHECK
 Last Update : Thu Oct 08 10:00:27 2009
 Response via : Initial Calibration



00516

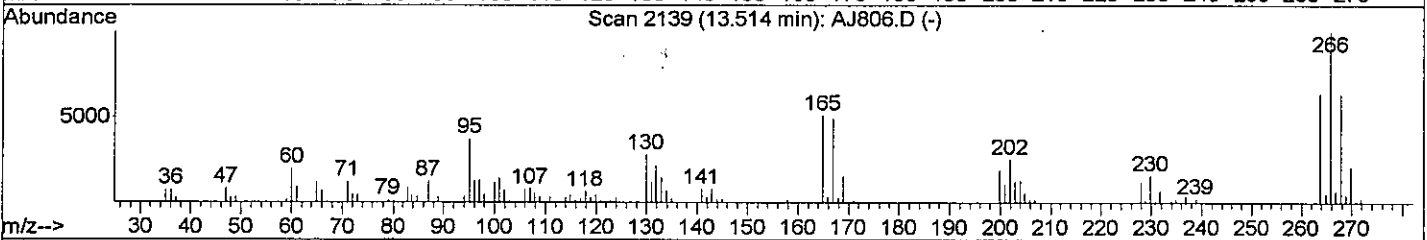
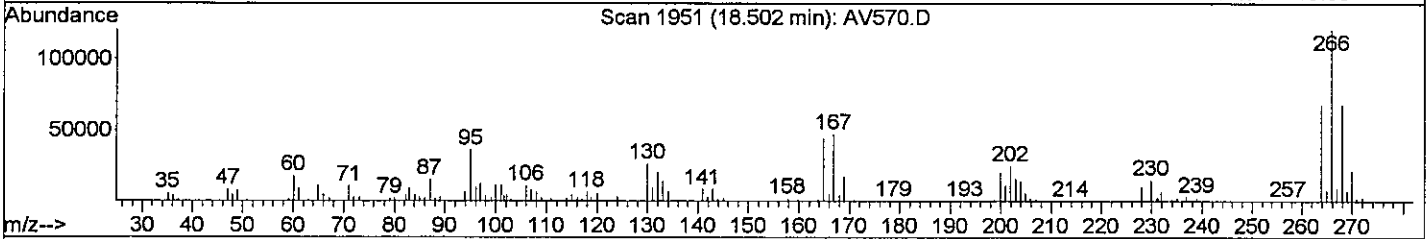
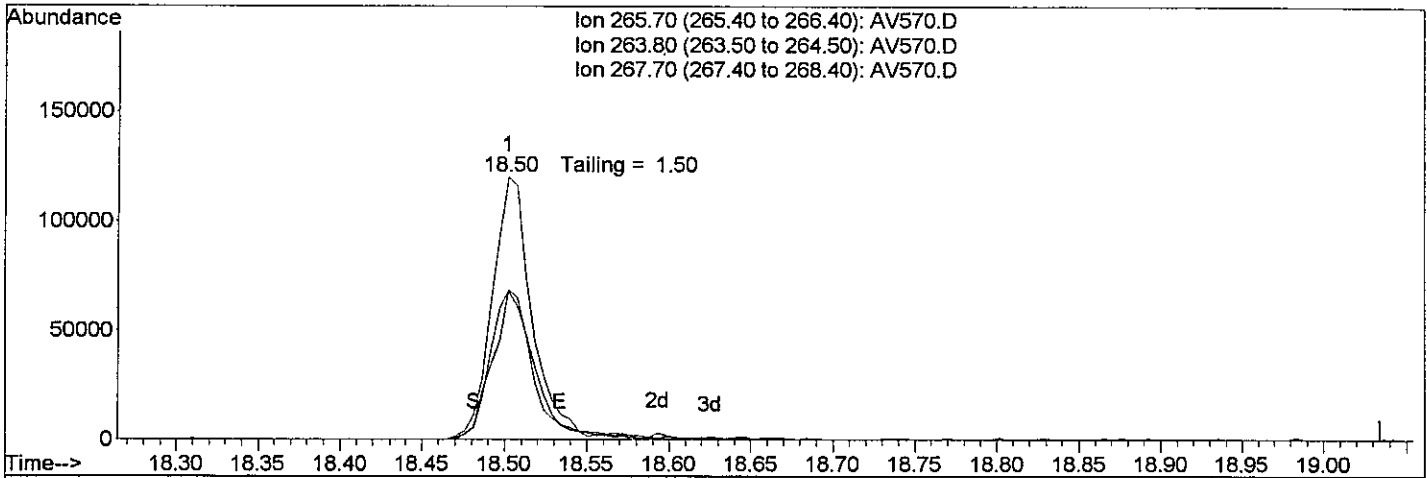
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973C\DATA\101409\AV570.D
 Acq On : 14 Oct 2009 9:31 am
 Sample : TUNE CHECK
 Misc : 10 ng DFTPP
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 10:00 2009

Vial: 1
 Operator: J.Wu
 Inst : 5973C
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973C\METHODS\TUNEC.M (RTE Integrator)
 Title : TUNE CHECK
 Last Update : Thu Oct 08 10:00:27 2009
 Response via : Single Level Calibration



TIC: AV570.D

(5) Pentachlorophenol (TCM)

18.50min 11.32ppm

response 204402

Ion	Exp%	Act%
265.70	100	100
263.80	62.50	56.61
267.70	65.60	56.26
0.00	0.00	0.00

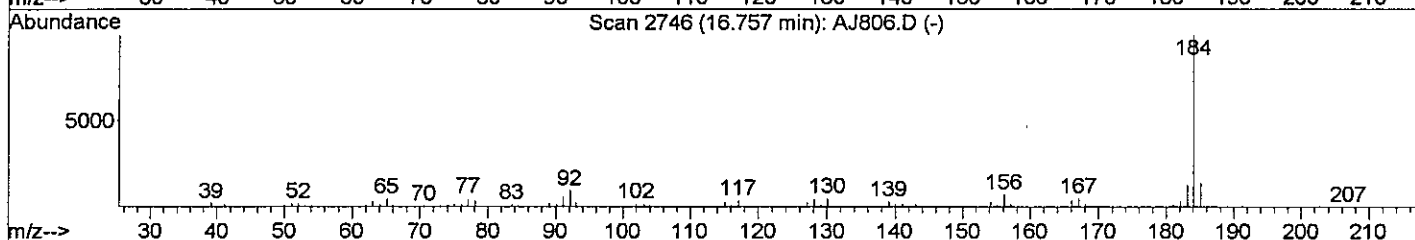
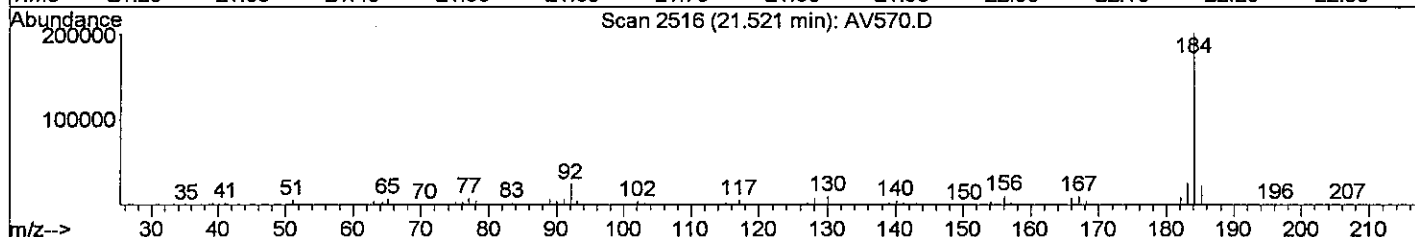
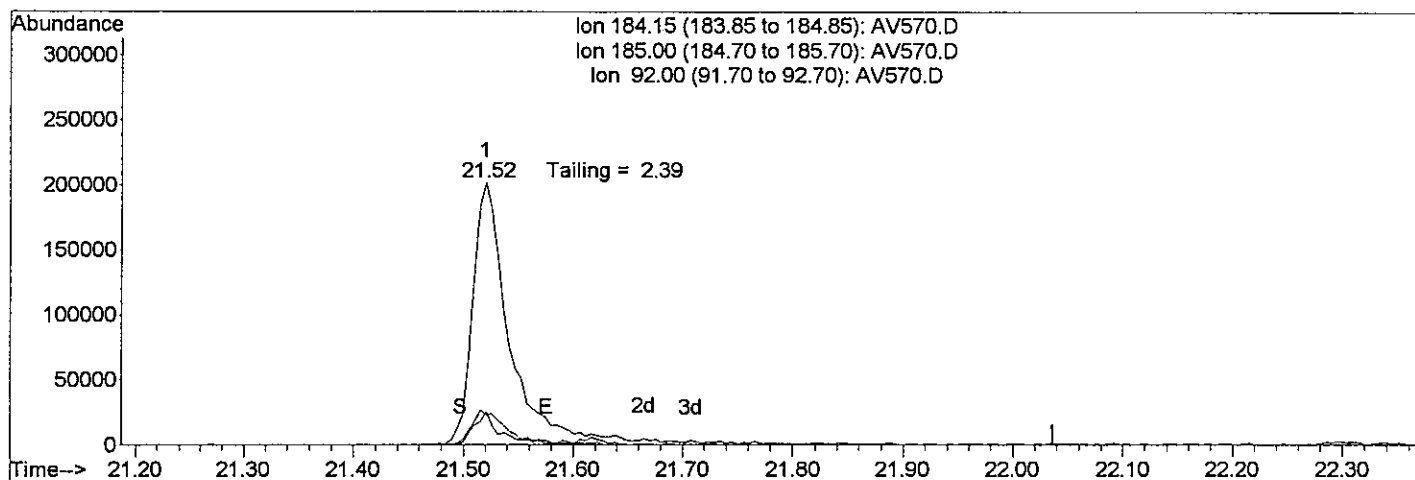
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973C\DATA\101409\AV570.D
 Acq On : 14 Oct 2009 9:31 am
 Sample : TUNE CHECK
 Misc : 10 ng DFTPP
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 10:00 2009

Vial: 1
 Operator: J.Wu
 Inst : 5973C
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973C\METHODS\TUNEC.M (RTE Integrator)
 Title : TUNE CHECK
 Last Update : Thu Oct 08 10:00:27 2009
 Response via : Single Level Calibration



TIC: AV570.D

(8) Benzidine (T)

21.52min 6.07ppm

response 463309

Ion	Exp%	Act%
184.15	100	100
185.00	14.30	10.97
92.00	10.40	12.62
0.00	0.00	0.00

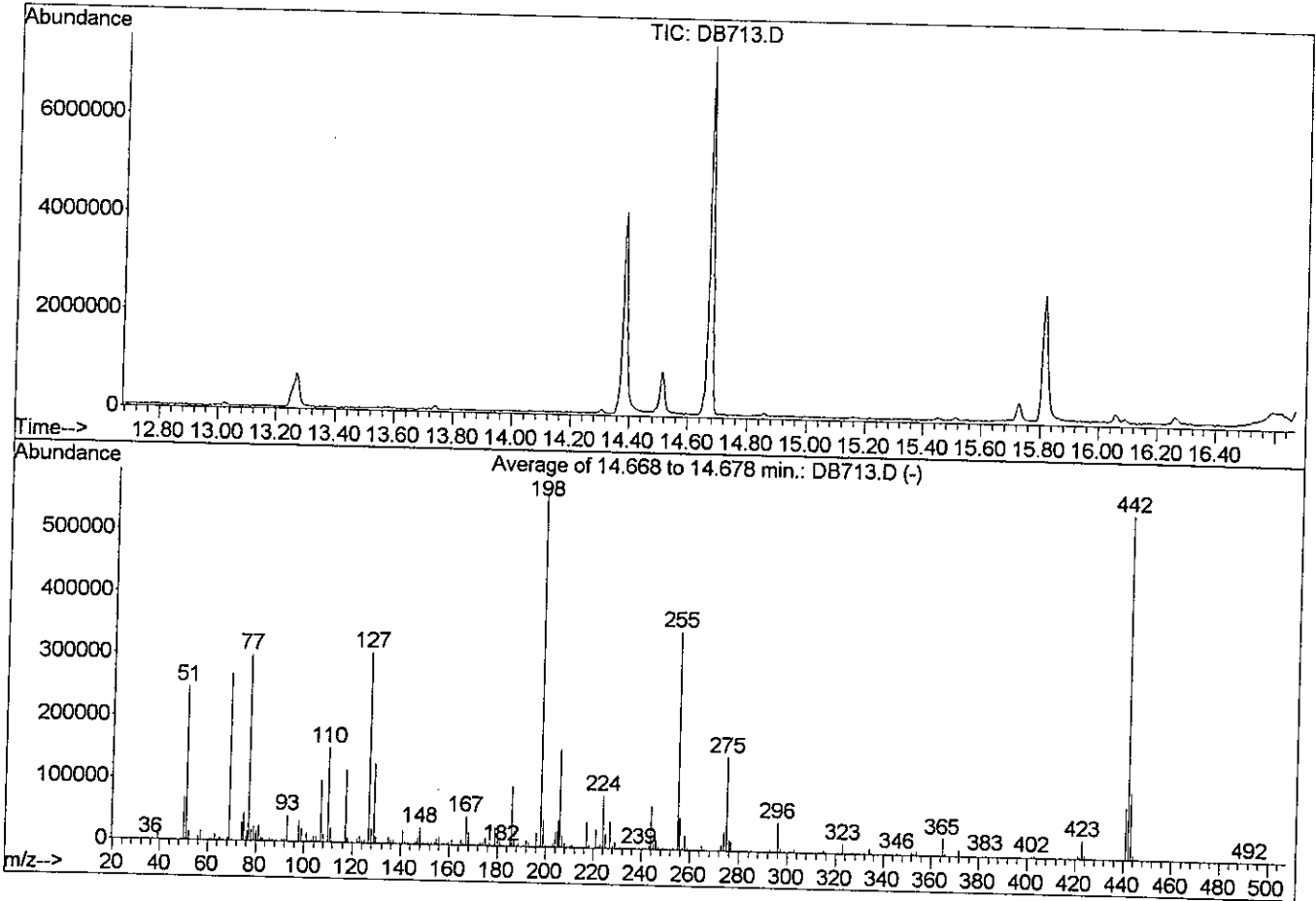
SEMIVOLATILE ORGANICS

RAW QC DATA

DFTPP

Data File : J:\ACQUDATA\5973B\DATA\092809\DB713.D
 Acq On : 28 Sep 2009 2:28 pm
 Sample : TUNE CHECK
 Misc : 10 ng DFTPP
 MS Integration Params: RTEINT.P
 Method : J:\ACQUDATA\5973B\METHODS\DFTPLVI.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS

Vial: 1
 Operator: J.Wu
 Inst : 5973-B
 Multiplr: 1.00



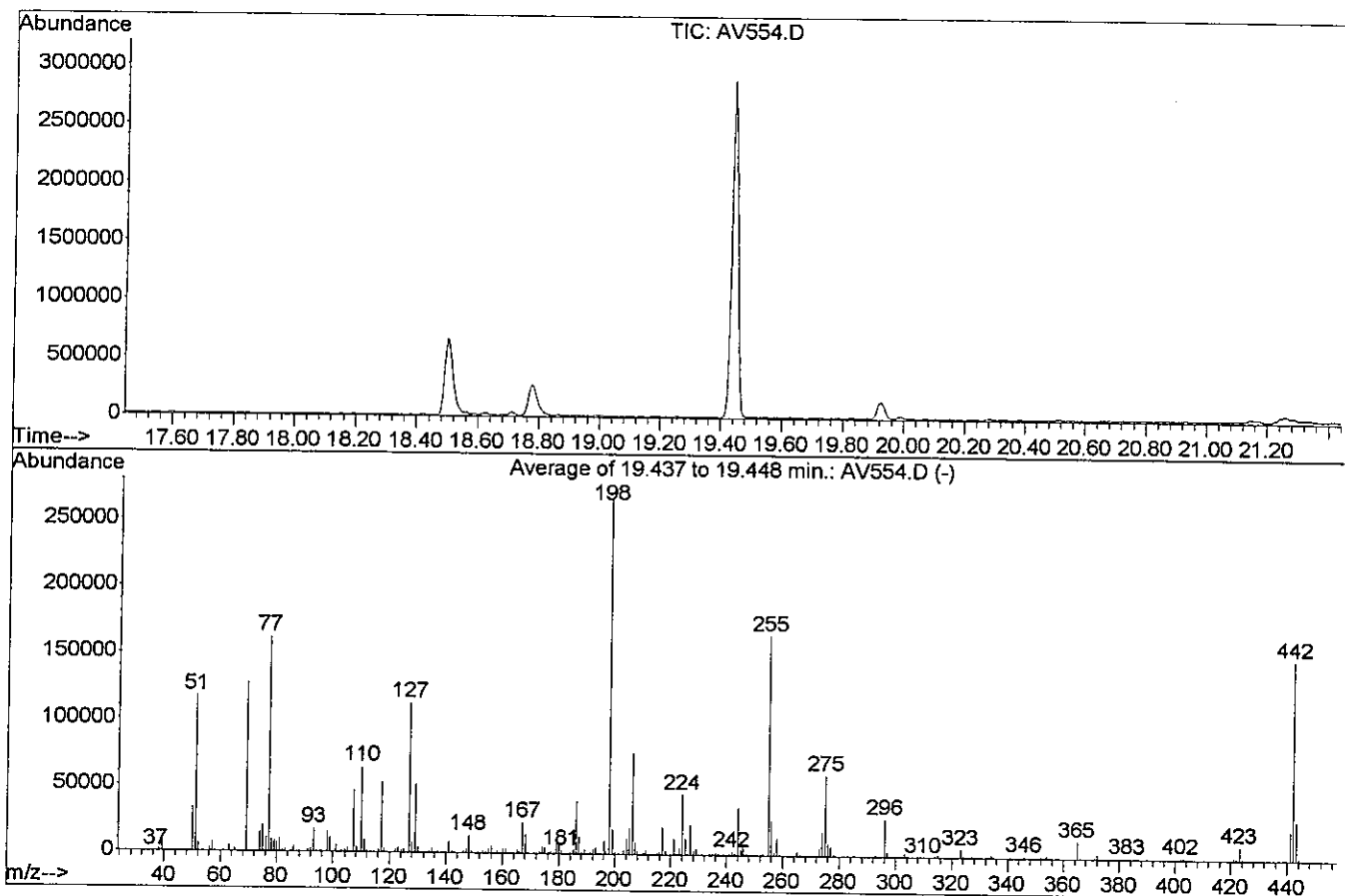
AutoFind: Scans 1138, 1139, 1140; Background Corrected with Scan 1130

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	43.5	247401	PASS
68	69	0.00	2	1.8	4817	PASS
69	198	0.00	100	47.5	269894	PASS
70	69	0.00	2	0.4	1039	PASS
127	198	40	60	53.9	306645	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	568448	PASS
199	198	5	9	7.7	43971	PASS
275	198	10	30	26.5	150845	PASS
365	198	1	100	4.8	27436	PASS
441	443	0.01	100	77.7	83955	PASS
442	198	40	100	97.3	553259	PASS
443	442	17	23	19.5	108035	PASS

DFTPP

Data File : J:\ACQUDATA\5973C\DATA\101309\AV554.D
 Acq On : 13 Oct 2009 3:13 pm
 Sample : TUNE CHECK
 Misc : 10 ng DFTPP
 MS Integration Params: RTEINT.P
 Method : J:\ACQUDATA\5973C\METHODS\TUNEC.M (RTE Integrator)
 Title : TUNE CHECK

Vial: 1
 Operator: J.Wu
 Inst : 5973C
 Multiplr: 1.00



AutoFind: Scans 2126, 2127, 2128; Background Corrected with Scan 2118

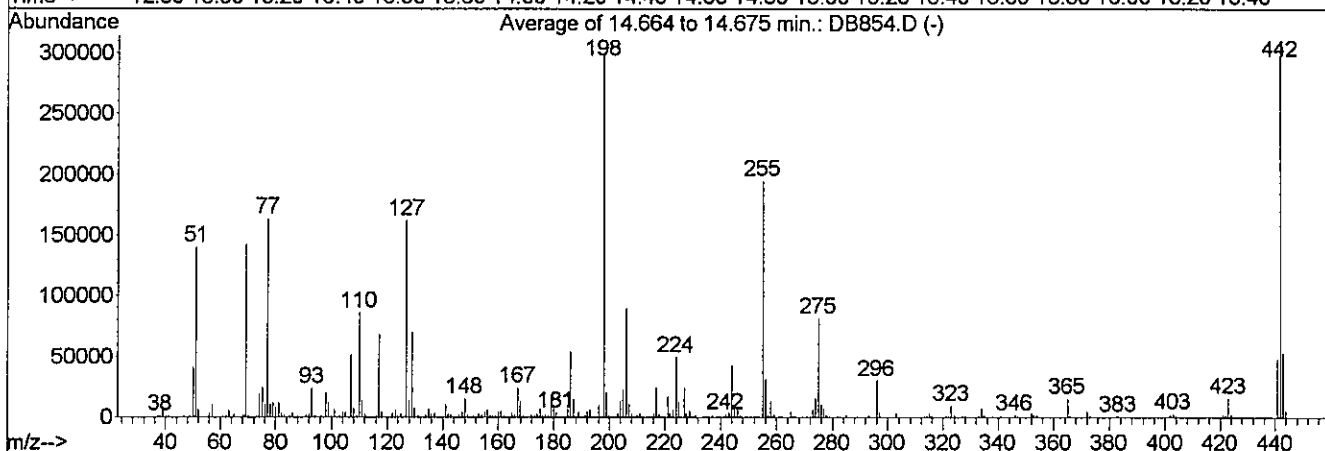
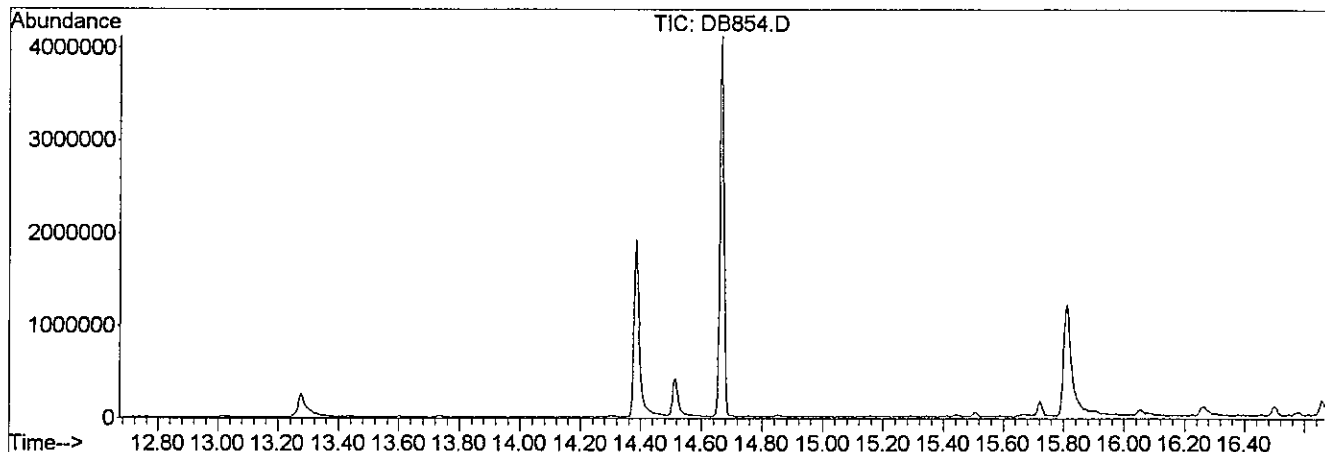
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	43.8	117304	PASS
68	69	0.00	2	0.8	979	PASS
69	198	0.00	100	47.6	127373	PASS
70	69	0.00	2	0.1	166	PASS
127	198	40	60	42.2	112936	PASS
197	198	0.00	1	0.7	1963	PASS
198	198	100	100	100.0	267797	PASS
199	198	5	9	6.9	18535	PASS
275	198	10	30	22.7	60920	PASS
365	198	1	100	4.8	12940	PASS
441	443	0.01	100	74.5	22259	PASS
442	198	40	100	56.1	150293	PASS
443	442	17	23	19.9	29874	PASS

JW

DFTPP

Data File : J:\ACQUDATA\5973B\DATA\100609\DB854.D
 Acq On : 6 Oct 2009 1:46 pm
 Sample : TUNE CHECK
 Misc : 10 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

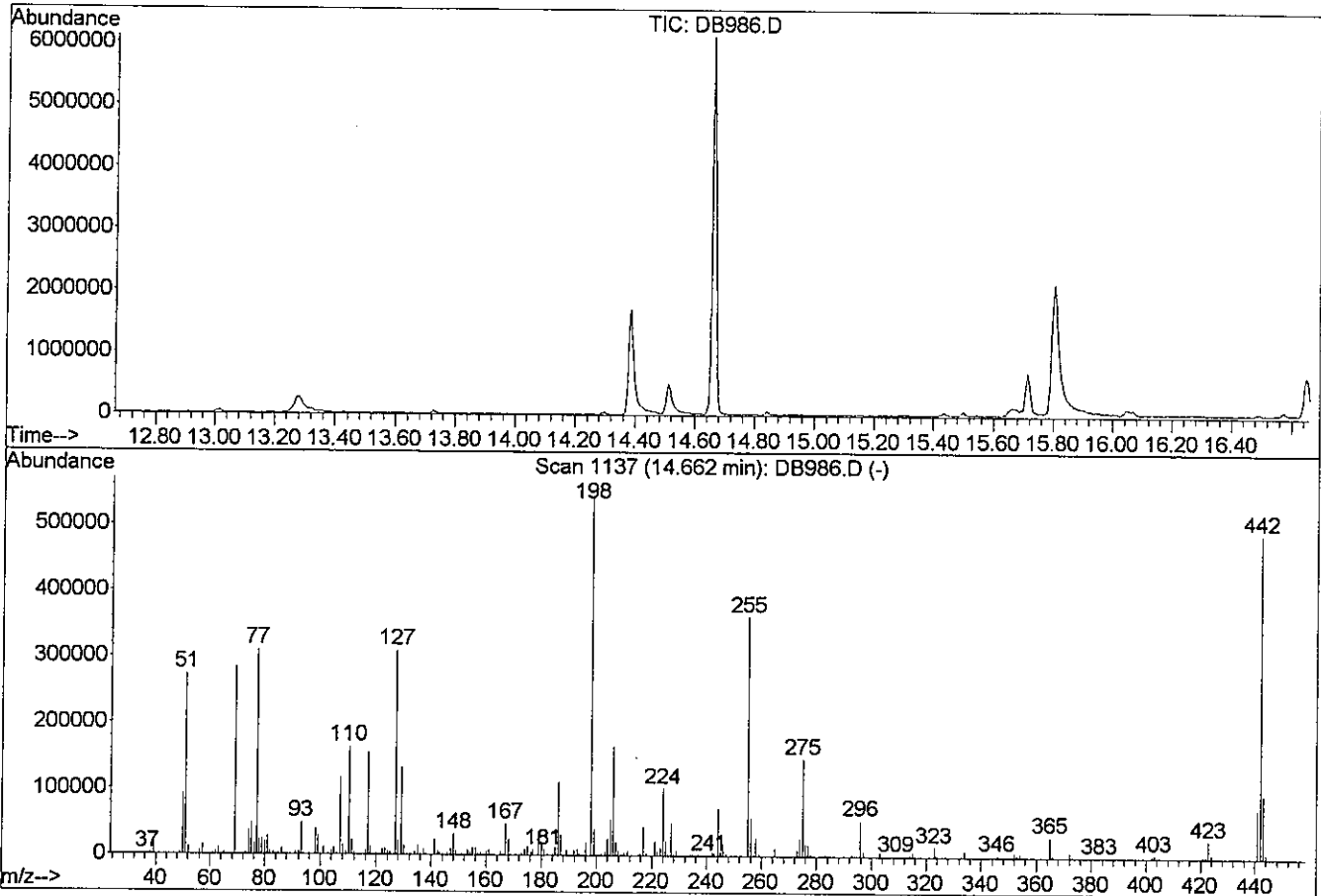


AutoFind: Scans 1137, 1138, 1139; Background Corrected with Scan 1130

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	46.7	140067	PASS
68	69	0.00	2	1.7	2410	PASS
69	198	0.00	100	47.7	142947	PASS
70	69	0.00	2	0.7	1019	PASS
127	198	40	60	54.2	162320	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	299627	PASS
199	198	5	9	6.8	20372	PASS
275	198	10	30	27.1	81323	PASS
365	198	1	100	5.1	15253	PASS
441	443	0.01	100	90.3	48219	PASS
442	198	40	100	99.9	299477	PASS
443	442	17	23	17.8	53376	PASS

DFTPP

Data File : J:\ACQUDATA\5973B\DATA\101209\DB986.D Vial: 1
 Acq On : 12 Oct 2009 2:40 pm Operator: J.Wu
 Sample : TUNE CHECK Inst : 5973-B
 Misc : 10 ng DFTPP Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Method : J:\ACQUDATA\5973B\METHODS\DFTPLVI.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS



Spectrum Information: Scan 1137

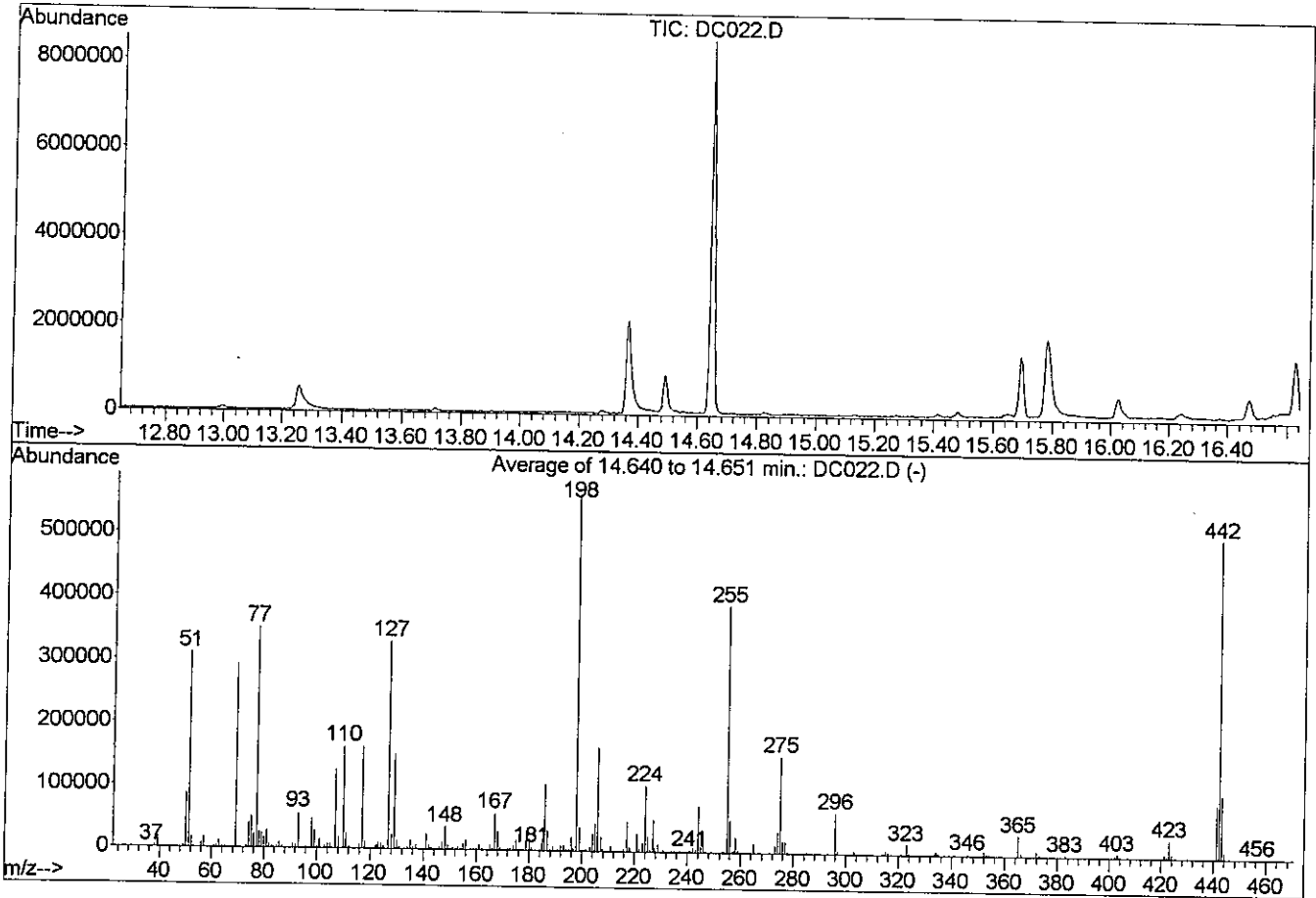
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	50.4	274026	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	52.4	284885	PASS
70	69	0.00	2	0.7	1929	PASS
127	198	40	60	56.9	309452	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	544066	PASS
199	198	5	9	7.5	40912	PASS
275	198	10	30	27.3	148352	PASS
365	198	1	100	5.9	32072	PASS
441	443	0.01	100	77.1	73880	PASS
442	198	40	100	90.0	489472	PASS
443	442	17	23	19.6	95768	PASS

JW

DFTPP

Data File : J:\ACQUDATA\5973B\DATA\101309\DC022.D
 Acq On : 13 Oct 2009 4:50 pm
 Sample : TUNE CHECK
 Misc : 10 ng DFTPP
 MS Integration Params: RTEINT.P
 Method : J:\ACQUDATA\5973B\METHODS\DFTPLVI.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS

Vial: 1
 Operator: J.Wu
 Inst : 5973-B
 Multiplr: 1.00



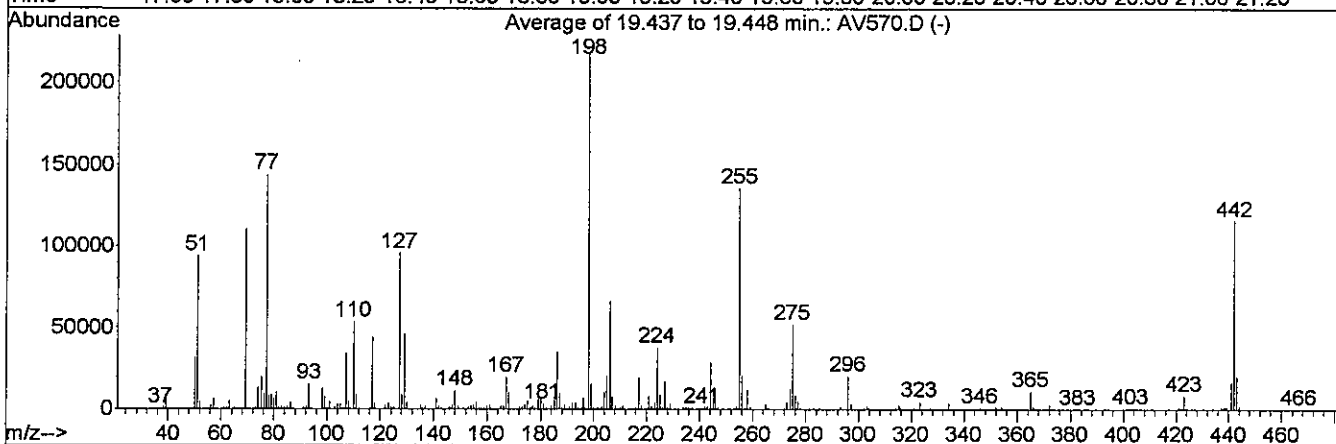
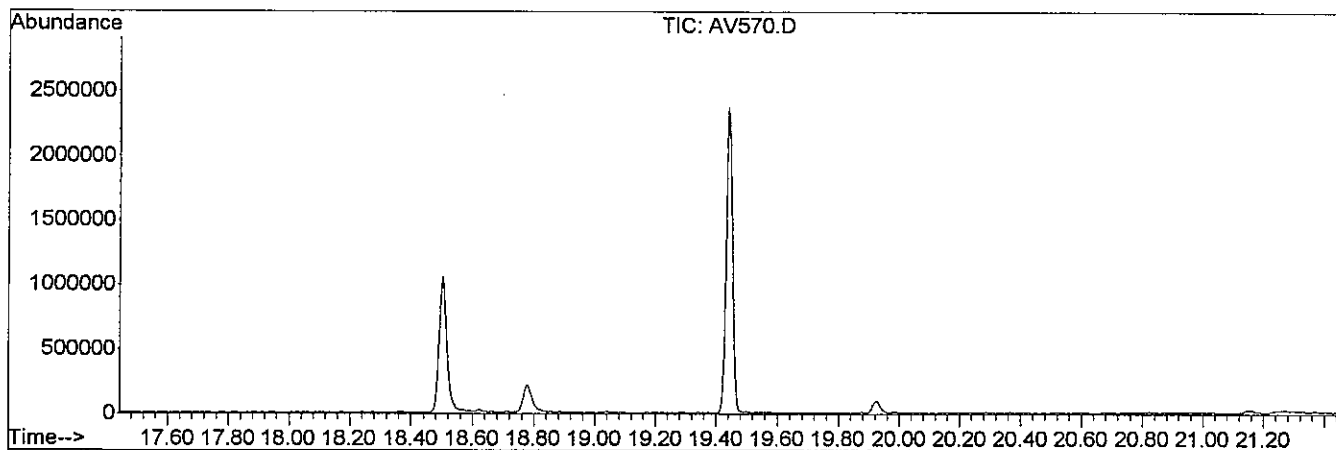
AutoFind: Scans 1133, 1134, 1135; Background Corrected with Scan 1126

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	54.9	310251	PASS
68	69	0.00	2	0.2	508	PASS
69	198	0.00	100	51.8	292443	PASS
70	69	0.00	2	0.5	1447	PASS
127	198	40	60	58.4	330112	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	564949	PASS
199	198	5	9	6.7	37835	PASS
275	198	10	30	27.2	153672	PASS
365	198	1	100	5.7	32369	PASS
441	443	0.01	100	84.2	84779	PASS
442	198	40	100	89.4	505067	PASS
443	442	17	23	19.9	100709	PASS

DFTPP

Data File : J:\ACQUDATA\5973C\DATA\101409\AV570.D
 Acq On : 14 Oct 2009 9:31 am
 Sample : TUNE CHECK
 Misc : 10 ng DFTPP
 MS Integration Params: RTEINT.P
 Method : J:\ACQUDATA\5973C\METHODS\TUNEC.M (RTE Integrator)
 Title : TUNE CHECK

Vial: 1
 Operator: J.Wu
 Inst : 5973C
 Multiplr: 1.00



AutoFind: Scans 2126, 2127, 2128; Background Corrected with Scan 2118

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	43.1	94243	PASS
68	69	0.00	2	1.0	1118	PASS
69	198	0.00	100	50.8	111053	PASS
70	69	0.00	2	0.8	911	PASS
127	198	40	60	43.9	95837	PASS
197	198	0.00	1	0.5	1130	PASS
198	198	100	100	100.0	218432	PASS
199	198	5	9	7.1	15459	PASS
275	198	10	30	23.7	51770	PASS
365	198	1	100	4.9	10806	PASS
441	443	0.01	100	83.3	16832	PASS
442	198	40	100	53.0	115733	PASS
443	442	17	23	17.5	20200	PASS

JW

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ0909469-01

Service Request: R0905636
Date Collected: NA
Date Received: NA
Units: µg/L
Basis: NA

Low Level Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis		Note
								Lot	Lot	
2-Methylnaphthalene	0.048	U	0.20	0.048	1	10/ 5/09	10/6/09 15:02	97551	173710	
Acenaphthene	0.053	U	0.20	0.053	1	10/ 5/09	10/6/09 15:02	97551	173710	
Acenaphthylene	0.076	U	0.20	0.076	1	10/ 5/09	10/6/09 15:02	97551	173710	
Anthracene	0.041	U	0.20	0.041	1	10/ 5/09	10/6/09 15:02	97551	173710	
Benz(a)anthracene	0.041	U	0.20	0.041	1	10/ 5/09	10/6/09 15:02	97551	173710	
Benzo(a)pyrene	0.042	U	0.20	0.042	1	10/ 5/09	10/6/09 15:02	97551	173710	
Benzo(b)fluoranthene	0.027	U	0.20	0.027	1	10/ 5/09	10/6/09 15:02	97551	173710	
Benzo(g,h,i)perylene	0.030	U	0.20	0.030	1	10/ 5/09	10/6/09 15:02	97551	173710	
Benzo(k)fluoranthene	0.029	U	0.20	0.029	1	10/ 5/09	10/6/09 15:02	97551	173710	
Bis(2-ethylhexyl) Phthalate	0.25	J	5.0	0.23	1	10/ 5/09	10/6/09 15:02	97551	173710	
Butyl Benzyl Phthalate	0.11	U	5.0	0.11	1	10/ 5/09	10/6/09 15:02	97551	173710	
Chrysene	0.029	U	0.20	0.029	1	10/ 5/09	10/6/09 15:02	97551	173710	
Di-n-butyl Phthalate	0.76	U	5.0	0.76	1	10/ 5/09	10/6/09 15:02	97551	173710	
Di-n-octyl Phthalate	0.041	U	5.0	0.041	1	10/ 5/09	10/6/09 15:02	97551	173710	
Dibenz(a,h)anthracene	0.046	U	0.20	0.046	1	10/ 5/09	10/6/09 15:02	97551	173710	
Diethyl Phthalate	0.20	U	5.0	0.20	1	10/ 5/09	10/6/09 15:02	97551	173710	
Dimethyl Phthalate	0.044	U	5.0	0.044	1	10/ 5/09	10/6/09 15:02	97551	173710	
Fluoranthene	0.040	U	0.20	0.040	1	10/ 5/09	10/6/09 15:02	97551	173710	
Fluorene	0.055	U	0.20	0.055	1	10/ 5/09	10/6/09 15:02	97551	173710	
Hexachlorobenzene	0.035	U	0.20	0.035	1	10/ 5/09	10/6/09 15:02	97551	173710	
Indeno(1,2,3-cd)pyrene	0.049	U	0.20	0.049	1	10/ 5/09	10/6/09 15:02	97551	173710	
Naphthalene	0.14	U	0.20	0.14	1	10/ 5/09	10/6/09 15:02	97551	173710	
Nitrobenzene	0.046	U	0.20	0.046	1	10/ 5/09	10/6/09 15:02	97551	173710	
Phenanthrene	0.062	U	0.20	0.062	1	10/ 5/09	10/6/09 15:02	97551	173710	
Pyrene	0.029	U	0.20	0.029	1	10/ 5/09	10/6/09 15:02	97551	173710	
Pyridine	0.89	U	2.0	0.89	1	10/ 5/09	10/6/09 15:02	97551	173710	
1,4-Dioxane	0.13	U	2.0	0.13	1	10/ 5/09	10/6/09 15:02	97551	173710	
Octachlorostyrene	0.13	U	0.20	0.13	1	10/ 5/09	10/6/09 15:02	97551	173710	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ0909469-01

Service Request: R0905636
Date Collected: NA
Date Received: NA
Units: Percent
Basis: NA

Low Level Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
2-Fluorobiphenyl	67	45-135	10/6/09 15:02		
Nitrobenzene-d5	90	45-135	10/6/09 15:02		
Terphenyl-d14	106	45-135	10/6/09 15:02		

Comments: _____

Data File : J:\ACQUDATA\5973B\DATA\100609\DB856.D Vial: 2
 Acq On : 6 Oct 2009 3:02 pm Operator: Z.Miao
 Sample : RQ0909469-01|1.0 ~~RQ0909471~~ 01 R00909471-01 Inst : 5973-B
 Misc : 10/05/2009 1.0 8270.LL BLK Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Oct 7 9:32 2009 Quant Results File: LVI0928.RES

Quant Method : J:\ACQUDATA\5...\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI0928

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	10.70	152	66031	1.00	ppm	0.00
4) d8-Naphthalene	11.96	136	264287	1.00	ppm	0.00
10) d10-Acenaphthene	13.57	164	162559	1.00	ppm	0.00
18) d10-Phenanthrene	14.78	188	228330	1.00	ppm	0.00
26) d12-Chrysene	18.11	240	212806	1.00	ppm	0.00
33) d12-Perylene	21.94	264	164872	1.00	ppm	0.00

System Monitoring Compounds

5) SURR4,NITROBENZENE-D5	11.28	82	157470	1.79	ppm	0.00
Spiked Amount	2.000	Range	22 - 124	Recovery	=	89.50%
11) SURR5,2-FLUOROBIPHENYL	12.93	172	293851	1.34	ppm	0.00
Spiked Amount	2.000	Range	27 - 114	Recovery	=	67.00%
28) SURR6,TERPHENYL-D14	16.39	244	355991	2.11	ppm	0.00
Spiked Amount	2.000	Range	23 - 139	Recovery	=	105.50%

Target Compounds

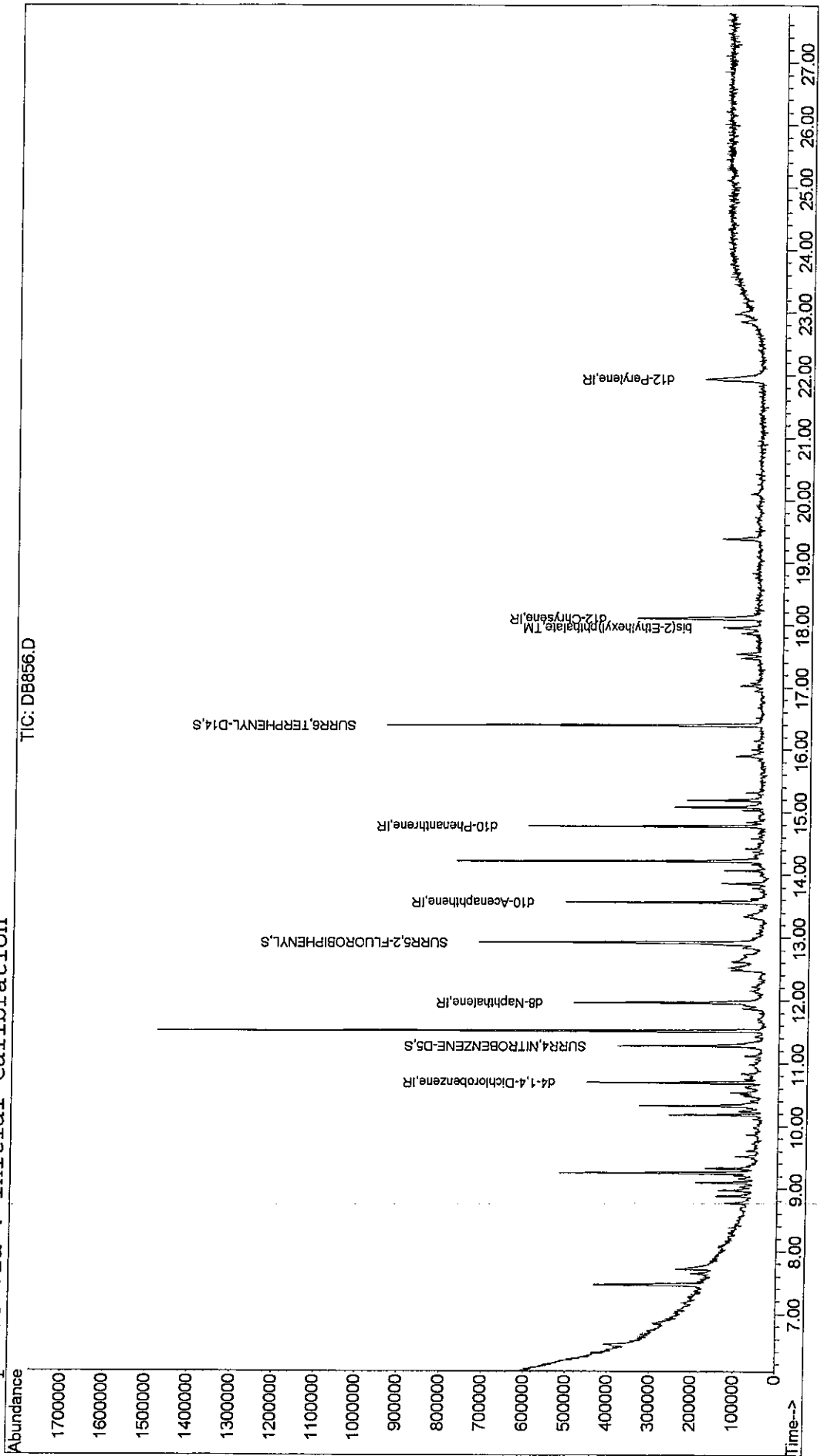
30) bis(2-Ethylhexyl)phthalate	17.96	149	44339	0.25	ppm	Qvalue 95
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Z.Miao
 Page 1
 00528

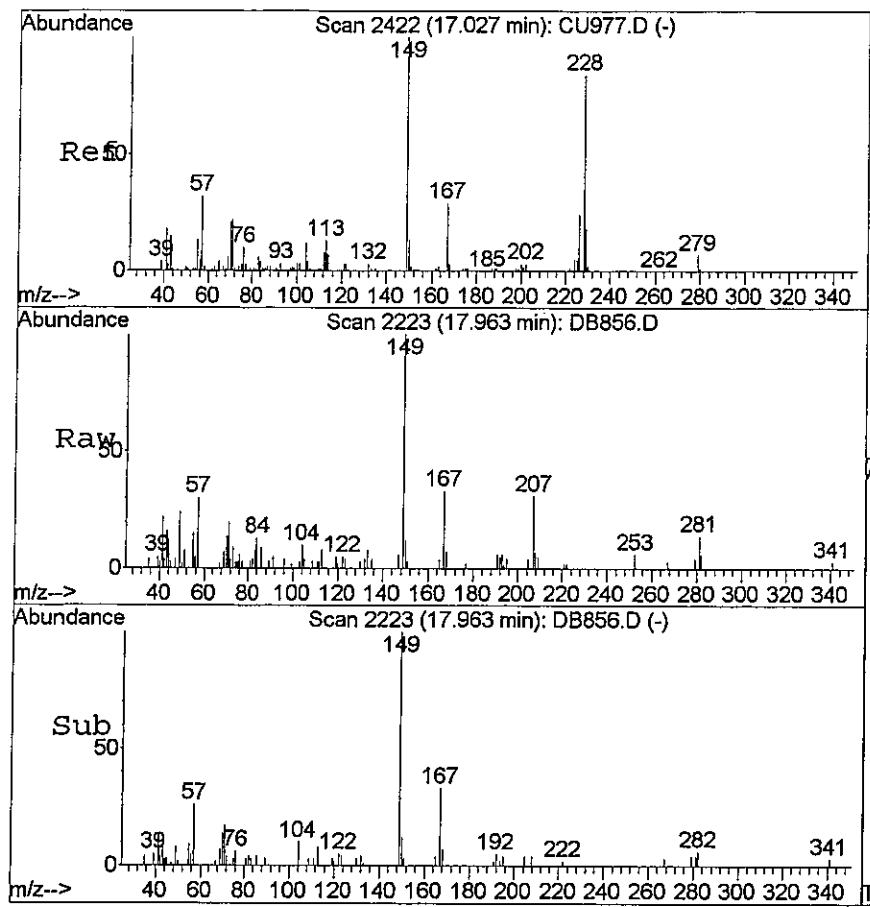
Quantitation Report

Data File : J:\ACQDATA\5973B\DATA\100609\DB856.D Vial: 2
Acq On : 6 Oct 2009 3:02 pm Operator: Z.Miao
Sample : RQ0909469-01|1.0 Inst : 5973-B
Misc : 10/05/2009 1.0 8270.LL BLK Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 7 9:32 2009 Quant Results File: LVI0928.RES

Method : J:\ACQDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Sep 29 09:53:23 2009
Response via : Initial Calibration

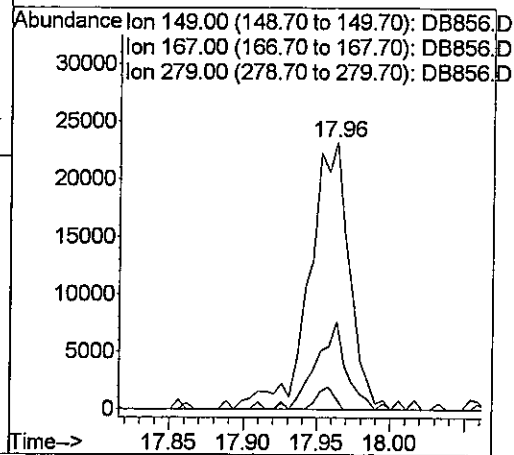


00529



#30
 bis(2-Ethylhexyl)phthalate
 Concen: 0.25 ppm
 RT: 17.96 min Scan# 2223
 Delta R.T. -0.01 min
 Lab File: DB856.D
 Acq: 6 Oct 2009 3:02 pm

Tgt Ion	Resp	Lower	Upper
149	44339		
167	32.7	10.9	50.9
279	4.3	0.0	27.7



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ0909469-01

Service Request: R0905636
Date Collected: NA
Date Received: NA
Units: µg/L
Basis: NA

Low Level Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis		
								Lot	Lot	Note
2-Methylnaphthalene	0.048	U	0.20	0.048	1	10/ 5/09	10/14/09 10:46	97551	174916	
Acenaphthene	0.053	U	0.20	0.053	1	10/ 5/09	10/14/09 10:46	97551	174916	
Acenaphthylene	0.076	U	0.20	0.076	1	10/ 5/09	10/14/09 10:46	97551	174916	
Anthracene	0.041	U	0.20	0.041	1	10/ 5/09	10/14/09 10:46	97551	174916	
Benz(a)anthracene	0.041	U	0.20	0.041	1	10/ 5/09	10/14/09 10:46	97551	174916	
Benzo(a)pyrene	0.042	U	0.20	0.042	1	10/ 5/09	10/14/09 10:46	97551	174916	
Benzo(b)fluoranthene	0.027	U	0.20	0.027	1	10/ 5/09	10/14/09 10:46	97551	174916	
Benzo(g,h,i)perylene	0.030	U	0.20	0.030	1	10/ 5/09	10/14/09 10:46	97551	174916	
Benzo(k)fluoranthene	0.029	U	0.20	0.029	1	10/ 5/09	10/14/09 10:46	97551	174916	
Bis(2-ethylhexyl) Phthalate	0.23	U	5.0	0.23	1	10/ 5/09	10/14/09 10:46	97551	174916	
Butyl Benzyl Phthalate	0.11	U	5.0	0.11	1	10/ 5/09	10/14/09 10:46	97551	174916	
Chrysene	0.029	U	0.20	0.029	1	10/ 5/09	10/14/09 10:46	97551	174916	
Di-n-butyl Phthalate	0.76	U	5.0	0.76	1	10/ 5/09	10/14/09 10:46	97551	174916	
Di-n-octyl Phthalate	0.041	U	5.0	0.041	1	10/ 5/09	10/14/09 10:46	97551	174916	
Dibenz(a,h)anthracene	0.046	U	0.20	0.046	1	10/ 5/09	10/14/09 10:46	97551	174916	
Diethyl Phthalate	0.20	U	5.0	0.20	1	10/ 5/09	10/14/09 10:46	97551	174916	
Dimethyl Phthalate	0.044	U	5.0	0.044	1	10/ 5/09	10/14/09 10:46	97551	174916	
Fluoranthene	0.040	U	0.20	0.040	1	10/ 5/09	10/14/09 10:46	97551	174916	
Fluorene	0.055	U	0.20	0.055	1	10/ 5/09	10/14/09 10:46	97551	174916	
Hexachlorobenzene	0.035	U	0.20	0.035	1	10/ 5/09	10/14/09 10:46	97551	174916	
Indeno(1,2,3-cd)pyrene	0.049	U	0.20	0.049	1	10/ 5/09	10/14/09 10:46	97551	174916	
Naphthalene	0.14	U	0.20	0.14	1	10/ 5/09	10/14/09 10:46	97551	174916	
Nitrobenzene	0.046	U	0.20	0.046	1	10/ 5/09	10/14/09 10:46	97551	174916	
Phenanthrene	0.062	U	0.20	0.062	1	10/ 5/09	10/14/09 10:46	97551	174916	
Pyrene	0.029	U	0.20	0.029	1	10/ 5/09	10/14/09 10:46	97551	174916	
Pyridine	0.89	U	2.0	0.89	1	10/ 5/09	10/14/09 10:46	97551	174916	
1,4-Dioxane	0.13	U	2.0	0.13	1	10/ 5/09	10/14/09 10:46	97551	174916	
Octachlorostyrene	0.13	U	0.20	0.13	1	10/ 5/09	10/14/09 10:46	97551	174916	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ0909469-01

Service Request: R0905636
Date Collected: NA
Date Received: NA
Units: Percent
Basis: NA

Low Level Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
2-Fluorobiphenyl	82	45-135	10/14/09 10:46		
Nitrobenzene-d5	88	45-135	10/14/09 10:46		
Terphenyl-d14	99	45-135	10/14/09 10:46		

Comments: _____

Quantitation Report (QT Reviewed)

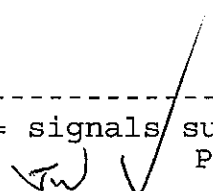
Data File : J:\ACQUDATA\5973C\DATA\101409\AV572.D Vial: 2
 Acq On : 14 Oct 2009 10:46 am Operator: J.Wu
 Sample : RQ0909469-01|1.0 ✓ Inst : 5973C
 Misc : 10/05/2009 1.0 Northgate 8270.LL BLK (C) Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Oct 14 11:14:56 2009 Quant Results File: LVI1013.RES

Quant Method : J:\ACQUDATA\5...\LVI1013.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Wed Oct 14 09:26:08 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI1013

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	11.17	152	75634	1.00	ppm	0.00
4) d8-Naphthalene	12.42	136	276562	1.00	ppm	0.00
10) d10-Acenaphthene	13.99	164	156093	1.00	ppm	0.00
18) d10-Phenanthrene	15.20	188	220755	1.00	ppm	0.00
26) d12-Chrysene	18.79	240	270926	1.00	ppm	0.00
33) d12-Perylene	22.95	264	221354	1.00	ppm	0.00

System Monitoring Compounds						
5) SURR4,NITROBENZENE-D5	11.75	82	247523	1.75	ppm	0.00
Spiked Amount	2.000	Range	22 - 124	Recovery	=	87.50%
11) SURR5,2-FLUOROBIPHENYL	13.37	172	357565	1.63	ppm	0.00
Spiked Amount	2.000	Range	27 - 114	Recovery	=	81.50%
28) SURR6,TERPHENYL-D14	16.92	244	361654	1.97	ppm	0.00
Spiked Amount	2.000	Range	23 - 139	Recovery	=	98.50%

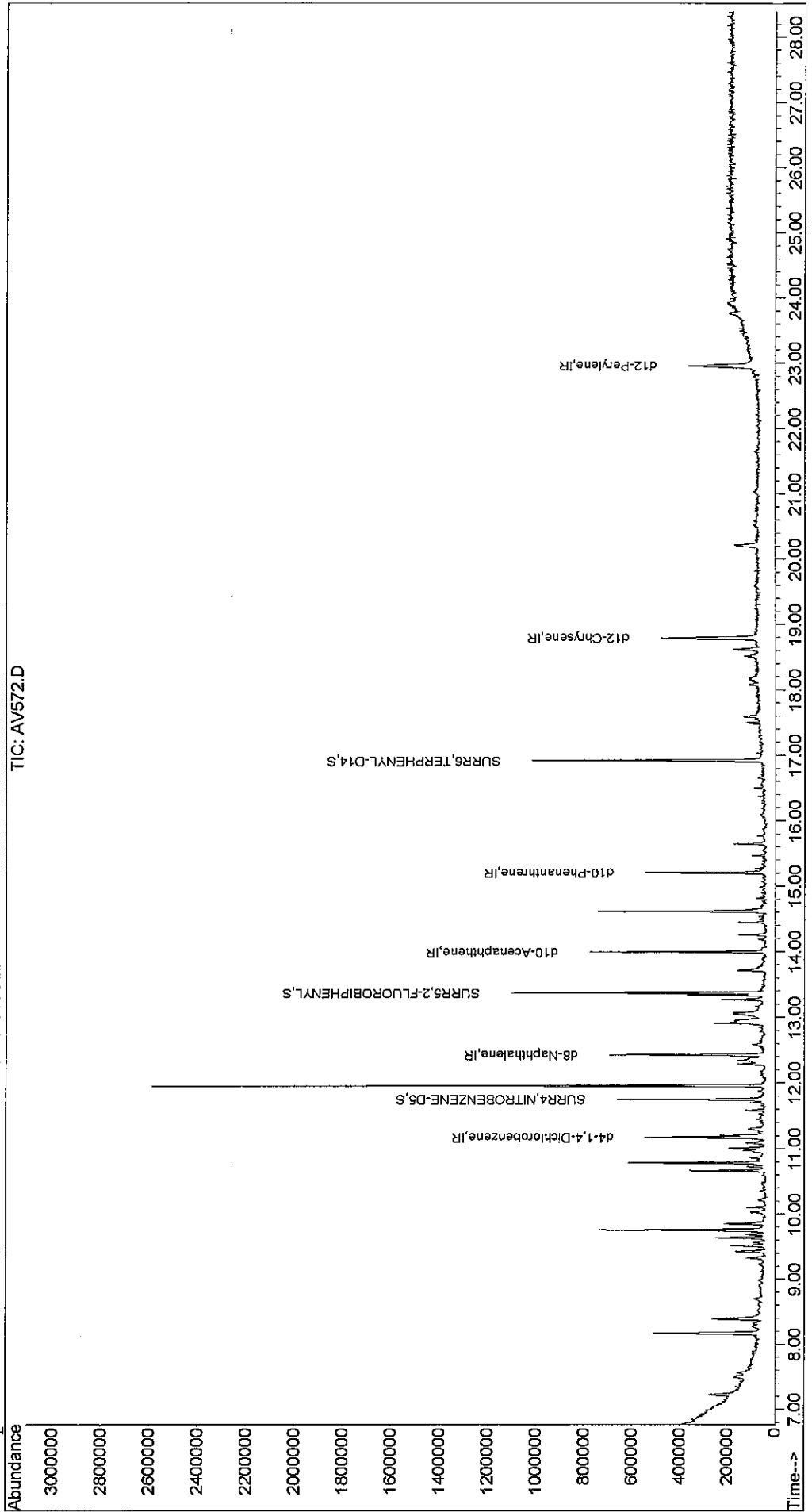
Target Compounds Qvalue


00533

Quantitation Report (QT Reviewed)

Data File : J:\ACQDATA\5973C\DATA\101409\AV572.D
Acq On : 14 Oct 2009 10:46 am Vial: 2
Sample : RQ0909469-01|1.0 Operator: J.Wu
Misc : 10/05/2009 1.0 Northgate 8270.LL BLK (C) Multiplr: 1.00 Inst : 5973C
MS Integration Params: RTEINT.P
Quant Time: Oct 15 10:05 2009 Quant Results File: LVII1013.RES

Method : J:\ACQDATA\5973C\METHODS\LVII1013.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Oct 14 09:26:08 2009
Response via : Initial Calibration



00534

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ0909715-01

Service Request: R0905636
Date Collected: NA
Date Received: NA
Units: µg/L
Basis: NA

Low Level Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis		
								Lot	Lot	Note
2-Methylnaphthalene	0.048	U	0.20	0.048	1	10/ 9/09	10/13/09 00:21	97951	174480	
Acenaphthene	0.053	U	0.20	0.053	1	10/ 9/09	10/13/09 00:21	97951	174480	
Acenaphthylene	0.076	U	0.20	0.076	1	10/ 9/09	10/13/09 00:21	97951	174480	
Anthracene	0.041	U	0.20	0.041	1	10/ 9/09	10/13/09 00:21	97951	174480	
Benz(a)anthracene	0.041	U	0.20	0.041	1	10/ 9/09	10/13/09 00:21	97951	174480	
Benzo(a)pyrene	0.042	U	0.20	0.042	1	10/ 9/09	10/13/09 00:21	97951	174480	
Benzo(b)fluoranthene	0.027	U	0.20	0.027	1	10/ 9/09	10/13/09 00:21	97951	174480	
Benzo(g,h,i)perylene	0.030	U	0.20	0.030	1	10/ 9/09	10/13/09 00:21	97951	174480	
Benzo(k)fluoranthene	0.029	U	0.20	0.029	1	10/ 9/09	10/13/09 00:21	97951	174480	
Bis(2-ethylhexyl) Phthalate	1.4	J	5.0	0.23	1	10/ 9/09	10/13/09 00:21	97951	174480	
Butyl Benzyl Phthalate	0.11	U	5.0	0.11	1	10/ 9/09	10/13/09 00:21	97951	174480	
Chrysene	0.029	U	0.20	0.029	1	10/ 9/09	10/13/09 00:21	97951	174480	
Di-n-butyl Phthalate	0.76	U	5.0	0.76	1	10/ 9/09	10/13/09 00:21	97951	174480	
Di-n-octyl Phthalate	0.041	U	5.0	0.041	1	10/ 9/09	10/13/09 00:21	97951	174480	
Dibenz(a,h)anthracene	0.046	U	0.20	0.046	1	10/ 9/09	10/13/09 00:21	97951	174480	
Diethyl Phthalate	0.20	U	5.0	0.20	1	10/ 9/09	10/13/09 00:21	97951	174480	
Dimethyl Phthalate	0.044	U	5.0	0.044	1	10/ 9/09	10/13/09 00:21	97951	174480	
Fluoranthene	0.040	U	0.20	0.040	1	10/ 9/09	10/13/09 00:21	97951	174480	
Fluorene	0.055	U	0.20	0.055	1	10/ 9/09	10/13/09 00:21	97951	174480	
Hexachlorobenzene	0.035	U	0.20	0.035	1	10/ 9/09	10/13/09 00:21	97951	174480	
Indeno(1,2,3-cd)pyrene	0.049	U	0.20	0.049	1	10/ 9/09	10/13/09 00:21	97951	174480	
Naphthalene	0.14	U	0.20	0.14	1	10/ 9/09	10/13/09 00:21	97951	174480	
Nitrobenzene	0.046	U	0.20	0.046	1	10/ 9/09	10/13/09 00:21	97951	174480	
Phenanthrene	0.062	U	0.20	0.062	1	10/ 9/09	10/13/09 00:21	97951	174480	
Pyrene	0.029	U	0.20	0.029	1	10/ 9/09	10/13/09 00:21	97951	174480	
Pyridine	0.89	U	2.0	0.89	1	10/ 9/09	10/13/09 00:21	97951	174480	
1,4-Dioxane	0.13	U	2.0	0.13	1	10/ 9/09	10/13/09 00:21	97951	174480	
Octachlorostyrene	0.13	U	0.20	0.13	1	10/ 9/09	10/13/09 00:21	97951	174480	

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ0909715-01

Service Request: R0905636
Date Collected: NA
Date Received: NA
Units: Percent
Basis: NA

Low Level Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
2-Fluorobiphenyl	73	45-135	10/13/09 00:21		
Nitrobenzene-d5	74	45-135	10/13/09 00:21		
Terphenyl-d14	100	45-135	10/13/09 00:21		

Comments: _____

Data File : J:\ACQUDATA\5973B\DATA\101209\DC001.D
 Acq On : 13 Oct 2009 12:21 am
 Sample : RQ0909715-01|1.0 ✓
 Misc : 10/09/2009 1.0 Northgate 8270.LL BLK
 MS Integration Params: RTEINT.P
 Quant Time: Oct 13 10:03 2009

Vial: 14
 Operator: J.Wu
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: LVI0928.RES

Quant Method : J:\ACQUDATA\5...\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI0928

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	10.70	152	65234	1.00	ppm	0.00
4) d8-Naphthalene	11.97	136	255297	1.00	ppm	0.00
10) d10-Acenaphthene	13.57	164	159951	1.00	ppm	0.00
18) d10-Phenanthrene	14.78	188	225322	1.00	ppm	0.00
26) d12-Chrysene	18.11	240	230252	1.00	ppm	0.00
33) d12-Perylene	21.94	264	178251	1.00	ppm	0.00

System Monitoring Compounds

5) SURR4,NITROBENZENE-D5	11.29	82	126062	1.48	ppm	0.00
Spiked Amount	2.000	Range	22 - 124	Recovery	=	74.00%
11) SURR5,2-FLUOROBIPHENYL	12.93	172	312366	1.45	ppm	0.00
Spiked Amount	2.000	Range	27 - 114	Recovery	=	72.50%
28) SURR6,TERPHENYL-D14	16.39	244	364265	2.00	ppm	0.00
Spiked Amount	2.000	Range	23 - 139	Recovery	=	100.00%

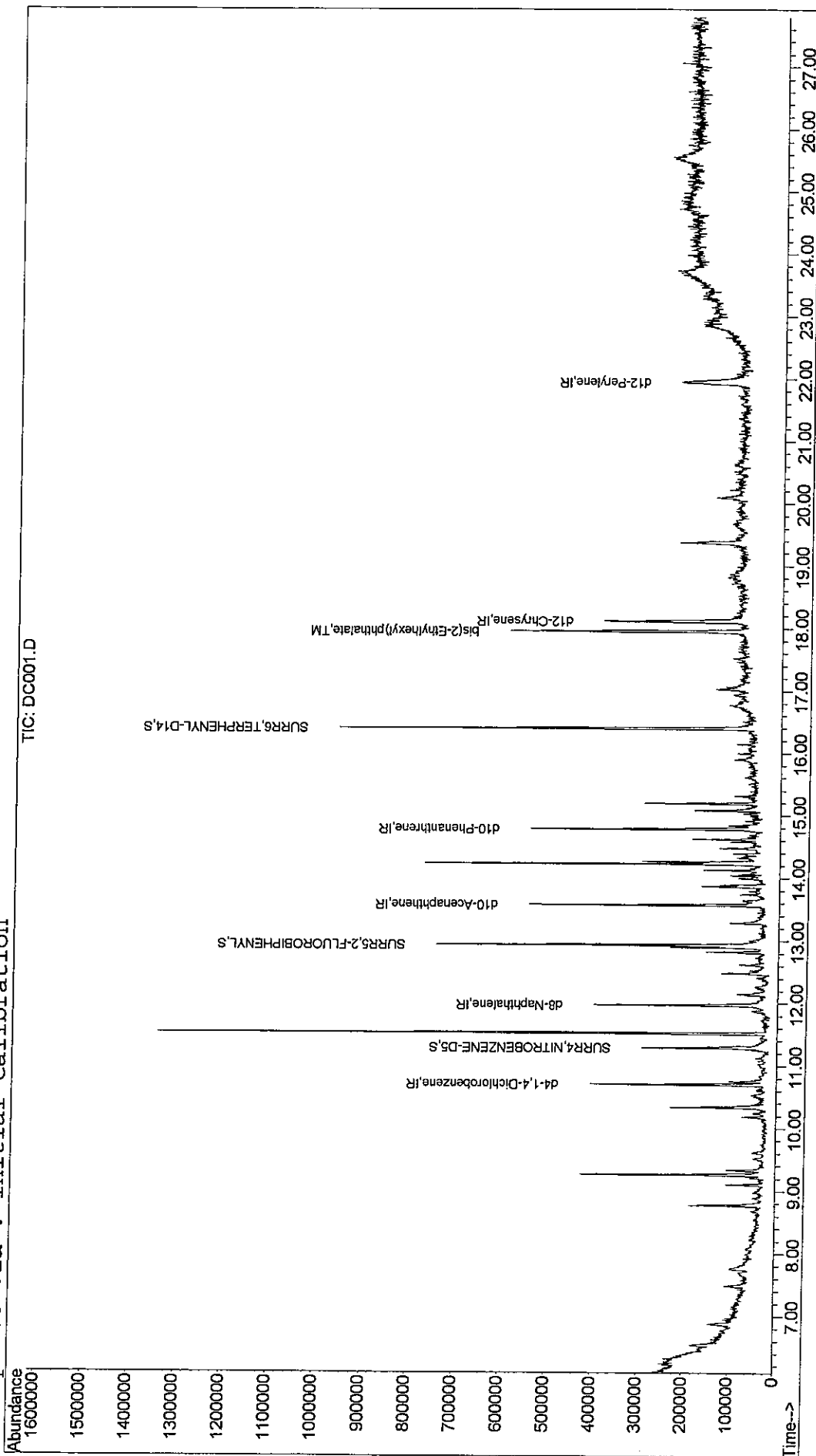
Target Compounds

30) bis(2-Ethylhexyl)phthalate	17.95	149	265414	1.37	ppm	Qvalue 94
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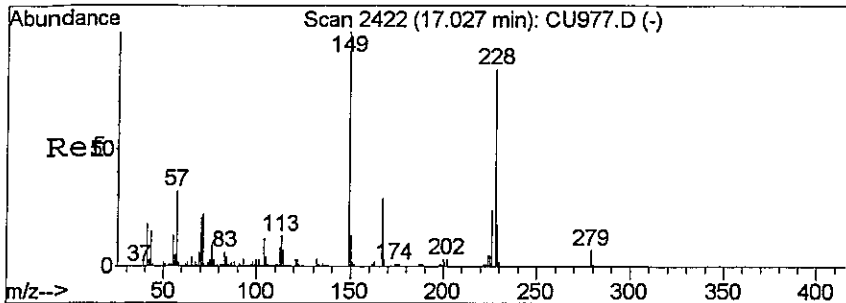
Quantitation Report

Data File : J:\ACQDATA\5973B\DATA\101209\DC001.D Vial: 14
Acq On : 13 Oct 2009 12:21 am Operator: J.Wu
Sample : RQ0909715-01|1.0 Inst : 5973-B
Misc : 10/09/2009 1.0 Northgate 8270.LL BLK Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 13 10:03 2009 Quant Results File: LVI0928.RES

Method : J:\ACQDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Sep 29 09:53:23 2009
Response via : Initial Calibration

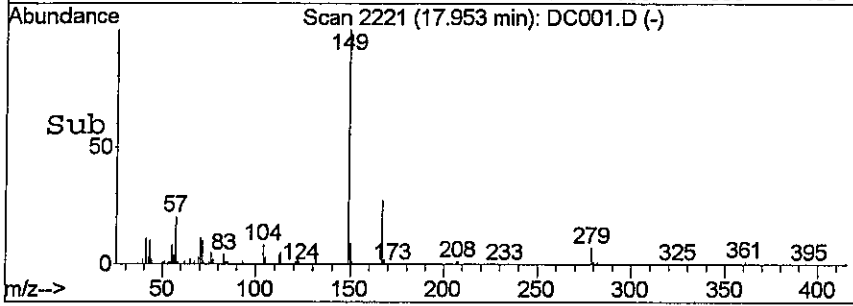
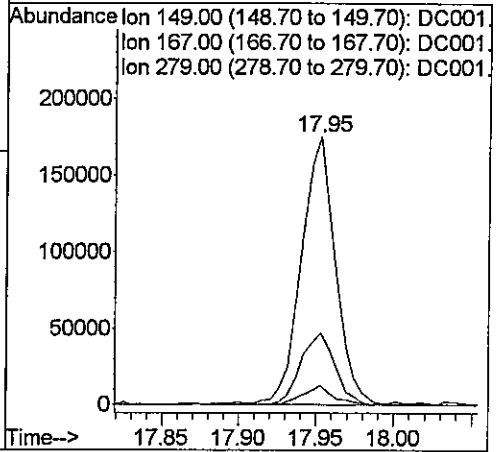
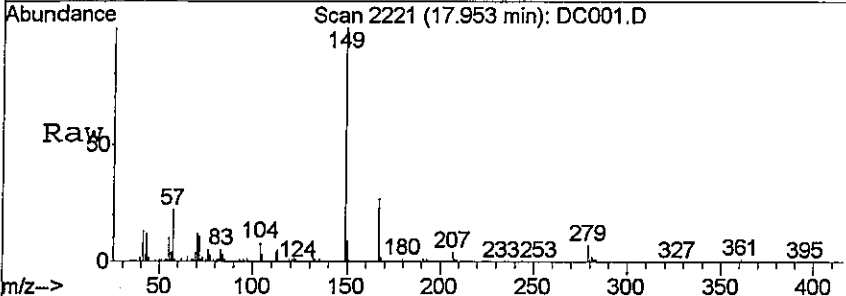


00538



#30
 bis(2-Ethylhexyl)phthalate
 Concen: 1.37 ppm
 RT: 17.95 min Scan# 2221
 Delta R.T. -0.02 min
 Lab File: DC001.D
 Acq: 13 Oct 2009 12:21 am

Tgt Ion	Ratio	Lower	Upper
149	100		
167	26.9	10.9	50.9
279	7.4	0.0	27.7



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: Lab Control Sample
Lab Code: RQ0909469-02

Service Request: R0905636
Date Collected: NA
Date Received: NA
Units: µg/L
Basis: NA

Low Level Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis		
								Lot	Lot	Note
2-Methylnaphthalene	3.33		0.20	0.048	1	10/ 5/09	10/6/09 15:43	97551	173710	
Acenaphthene	3.37		0.20	0.053	1	10/ 5/09	10/6/09 15:43	97551	173710	
Acenaphthylene	3.34		0.20	0.076	1	10/ 5/09	10/6/09 15:43	97551	173710	
Anthracene	3.73		0.20	0.041	1	10/ 5/09	10/6/09 15:43	97551	173710	
Benz(a)anthracene	3.84		0.20	0.041	1	10/ 5/09	10/6/09 15:43	97551	173710	
Benzo(a)pyrene	3.32		0.20	0.042	1	10/ 5/09	10/6/09 15:43	97551	173710	
Benzo(b)fluoranthene	3.70		0.20	0.027	1	10/ 5/09	10/6/09 15:43	97551	173710	
Benzo(g,h,i)perylene	3.83		0.20	0.030	1	10/ 5/09	10/6/09 15:43	97551	173710	
Benzo(k)fluoranthene	3.77		0.20	0.029	1	10/ 5/09	10/6/09 15:43	97551	173710	
Bis(2-ethylhexyl) Phthalate	4.16	J	5.0	0.23	1	10/ 5/09	10/6/09 15:43	97551	173710	
Butyl Benzyl Phthalate	3.70	J	5.0	0.11	1	10/ 5/09	10/6/09 15:43	97551	173710	
Chrysene	3.63		0.20	0.029	1	10/ 5/09	10/6/09 15:43	97551	173710	
Di-n-butyl Phthalate	4.01	J	5.0	0.76	1	10/ 5/09	10/6/09 15:43	97551	173710	
Di-n-octyl Phthalate	3.80	J	5.0	0.041	1	10/ 5/09	10/6/09 15:43	97551	173710	
Dibenz(a,h)anthracene	3.93		0.20	0.046	1	10/ 5/09	10/6/09 15:43	97551	173710	
Diethyl Phthalate	3.26	J	5.0	0.20	1	10/ 5/09	10/6/09 15:43	97551	173710	
Dimethyl Phthalate	3.10	J	5.0	0.044	1	10/ 5/09	10/6/09 15:43	97551	173710	
Fluoranthene	3.45		0.20	0.040	1	10/ 5/09	10/6/09 15:43	97551	173710	
Fluorene	3.72		0.20	0.055	1	10/ 5/09	10/6/09 15:43	97551	173710	
Hexachlorobenzene	3.38		0.20	0.035	1	10/ 5/09	10/6/09 15:43	97551	173710	
Indeno(1,2,3-cd)pyrene	3.81		0.20	0.049	1	10/ 5/09	10/6/09 15:43	97551	173710	
Naphthalene	3.08		0.20	0.14	1	10/ 5/09	10/6/09 15:43	97551	173710	
Nitrobenzene	3.33		0.20	0.046	1	10/ 5/09	10/6/09 15:43	97551	173710	
Phenanthrene	3.53		0.20	0.062	1	10/ 5/09	10/6/09 15:43	97551	173710	
Pyrene	3.66		0.20	0.029	1	10/ 5/09	10/6/09 15:43	97551	173710	
Pyridine	0.820		2.0	0.89	1	10/ 5/09	10/6/09 15:43	97551	173710	
1,4-Dioxane	1.63	J	2.0	0.13	1	10/ 5/09	10/6/09 15:43	97551	173710	
Octachlorostyrene	2.84		0.20	0.13	1	10/ 5/09	10/6/09 15:43	97551	173710	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: Lab Control Sample
Lab Code: RQ0909469-02

Service Request: R0905636
Date Collected: NA
Date Received: NA
Units: Percent
Basis: NA

Low Level Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
2-Fluorobiphenyl	72	45-135	10/6/09 15:43		
Nitrobenzene-d5	88	45-135	10/6/09 15:43		
Terphenyl-d14	100	45-135	10/6/09 15:43		

Comments: _____

Data File : J:\ACQUDATA\5973B\DATA\100609\DB857.D
 Acq On : 6 Oct 2009 3:43 pm
 Sample : RQ0909469-02|1.0 / RQ0909471-02
 Misc : 10/05/2009 1.0 8270.LL LCS
 MS Integration Params: RTEINT.P
 Quant Time: Oct 7 9:33 2009

Vial: 3
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: LVI0928.RES

Quant Method : J:\ACQUDATA\5...\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI0928

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	10.69	152	70131	1.00	ppm	0.00
4) d8-Naphthalene	11.96	136	263773	1.00	ppm	0.00
10) d10-Acenaphthene	13.56	164	157935	1.00	ppm	0.00
18) d10-Phenanthrene	14.78	188	239420	1.00	ppm	0.00
26) d12-Chrysene	18.10	240	238980	1.00	ppm	0.00
33) d12-Perylene	21.93	264	184615	1.00	ppm	-0.02

System Monitoring Compounds

5) SURR4,NITROBENZENE-D5	11.28	82	154174	1.76	ppm	0.00
Spiked Amount	2.000	Range	22 - 124	Recovery	=	88.00%
11) SURR5,2-FLUOROBIPHENYL	12.92	172	304813	1.44	ppm	0.00
Spiked Amount	2.000	Range	27 - 114	Recovery	=	72.00%
28) SURR6,TERPHENYL-D14	16.39	244	377387	1.99	ppm	0.00
Spiked Amount	2.000	Range	23 - 139	Recovery	=	99.50%

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	6.23	88	111720	1.63	ppm	99
3) Pyridine	7.00	79	76215	0.82	ppm	83
6) Nitrobenzene	11.30	77	295552	3.33	ppm	87
7) Naphthalene	11.98	128	850952	3.08	ppm	97
8) 2-Methylnaphthalene	12.61	142	592274	3.33	ppm	90
9) 1-Methylnaphthalene	12.71	142	582400	3.53	ppm	95
12) Acenaphthylene	13.43	152	981784	3.34	ppm	99
13) Dimethyl phthalate	13.28	163	720030	3.10	ppm	98
14) Acenaphthene	13.59	153	617510	3.37	ppm	98
15) Dibenzofuran	13.73	168	875855	3.59	ppm	98
16) Fluorene	14.02	166	700556	3.72	ppm	100
17) Diethylphthalate	13.87	149	793506	3.26	ppm	99
19) Hexachlorobenzene	14.51	284	193220	3.38	ppm	89
20) Phenanthrene	14.80	178	981477	3.53	ppm	95
21) Anthracene	14.84	178	969534	3.73	ppm	100
22) Carbazole	14.96	167	491886	2.85	ppm	95
23) Octachlorostyrene	15.81	378	47588m	2.84	ppm	
24) Di-n-butylphthalate	15.20	149	1475428	4.01	ppm	98
25) Fluoranthene	16.01	202	1076508	3.45	ppm	94
27) Pyrene	16.30	202	1099444	3.66	ppm	97
29) Butyl benzyl phthalate	17.03	149	598036	3.70	ppm	99
30) bis(2-Ethylhexyl)phthalate	17.96	149	833874	4.16	ppm	97
31) Benzo(a)anthracene	18.08	228	990025	3.84	ppm	98
32) Chrysene	18.16	228	949759	3.63	ppm	96
34) Di-n-octyl phthalate	19.31	149	1303732	3.80	ppm	98
35) Benzo(b)Fluoranthene	20.69	252	989418	3.70	ppm	98

(#) = qualifier out of range (m) = manual integration

Data File : J:\ACQUDATA\5973B\DATA\100609\DB857.D
Acq On : 6 Oct 2009 3:43 pm
Sample : RQ0909469-02|1.0
Misc : 10/05/2009 1.0 8270.LL LCS
MS Integration Params: RTEINT.P
Quant Time: Oct 7 9:33 2009

Vial: 3
Operator: Z.Miao
Inst : 5973-B
Multiplr: 1.00

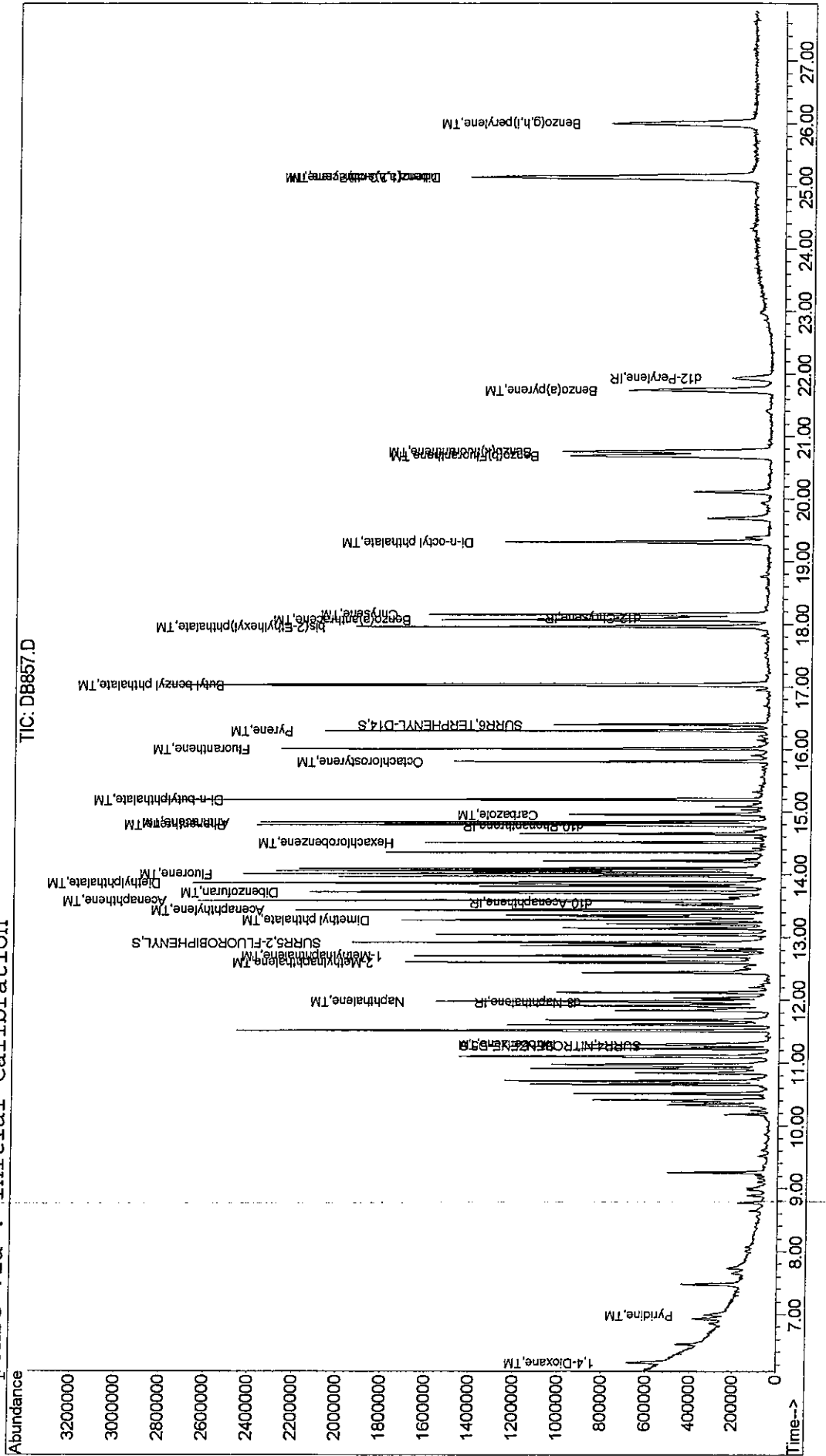
Quant Results File: LVI0928.RES

Quant Method : J:\ACQUDATA\5...\LVI0928.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Sep 29 09:53:23 2009
Response via : Initial Calibration
DataAcq Meth : LVI0928

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
36) Benzo(k)fluoranthene	20.75	252	998904	3.77	ppm	99
37) Benzo(a)pyrene	21.74	252	781981	3.32	ppm	98
38) Indeno(1,2,3-cd)Pyrene	25.14	276	1061896	3.81	ppm	89
39) Dibenz(a,h)anthracene	25.15	278	908236	3.93	ppm	93
40) Benzo(g,h,i)perylene	26.00	276	903700	3.83	ppm	96

Quantitation Report

Data File : J:\ACQDATA\5973B\DATA\100609\DB857.D Vial: 3
 Acq On : 6 Oct 2009 3:43 pm Operator: Z.Miao
 Sample : RQ0909469-02|1.0 Inst : 5973-B
 Misc : 10/05/2009 1.0 8270.LL LCS Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Oct 7 9:33 2009 Quant Results File: LVI0928.RES
 Method : J:\ACQDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 Response via : Initial Calibration



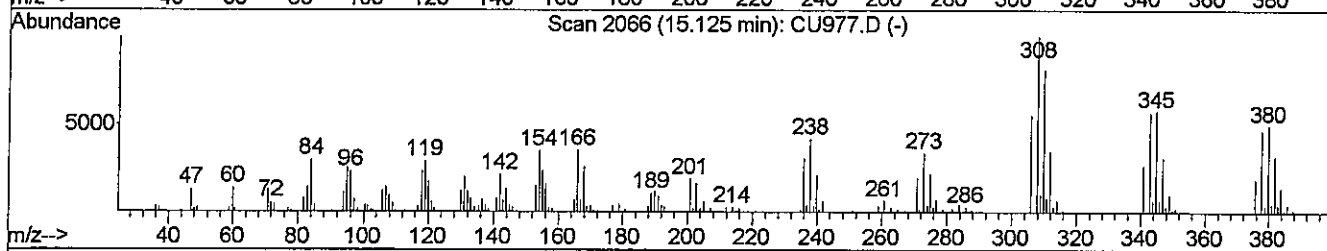
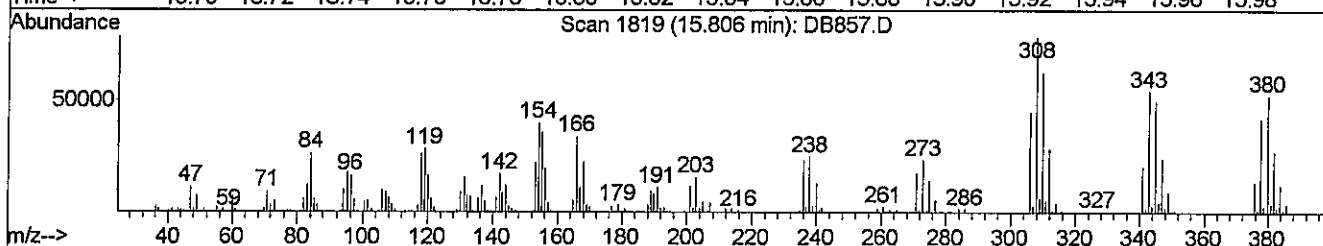
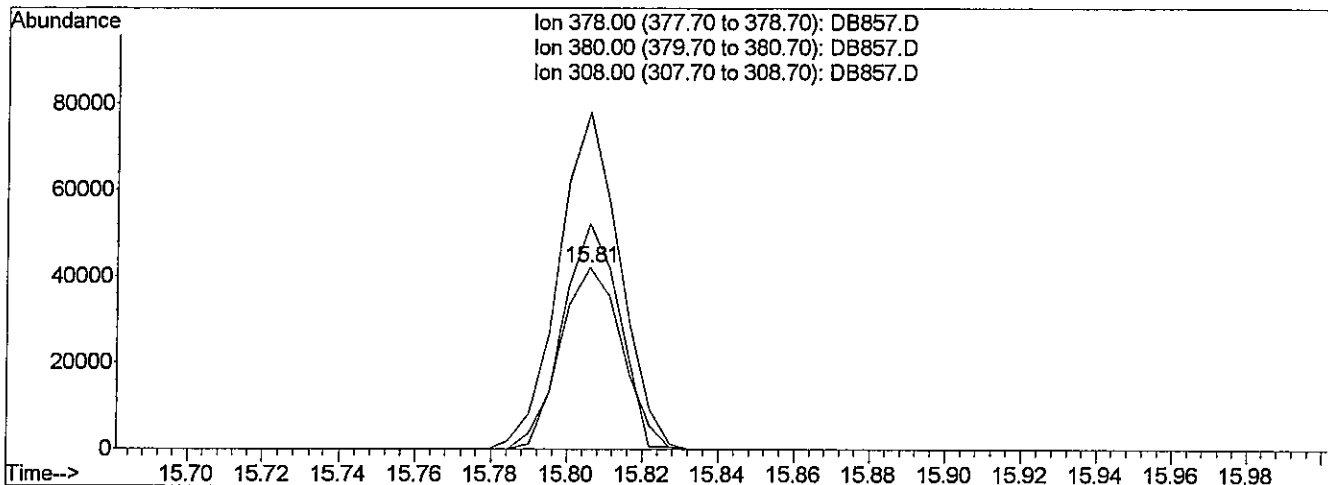
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\100609\DB857.D
 Acq On : 6 Oct 2009 3:43 pm
 Sample : RQ0909469-02|1.0
 Misc : 10/05/2009 1.0 8270.LL LCS
 MS Integration Params: RTEINT.P
 Quant Time: Oct 6 16:11 2009

Vial: 3
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 Response via : Multiple Level Calibration



TIC: DB857.D

(23) Octachlorostyrene (TM)

15.81min 2.84ppm

response 47588

Ion	Exp%	Act%
378.00	100	100
380.00	95.60	124.33#
308.00	119.80	172.21#
0.00	0.00	0.00

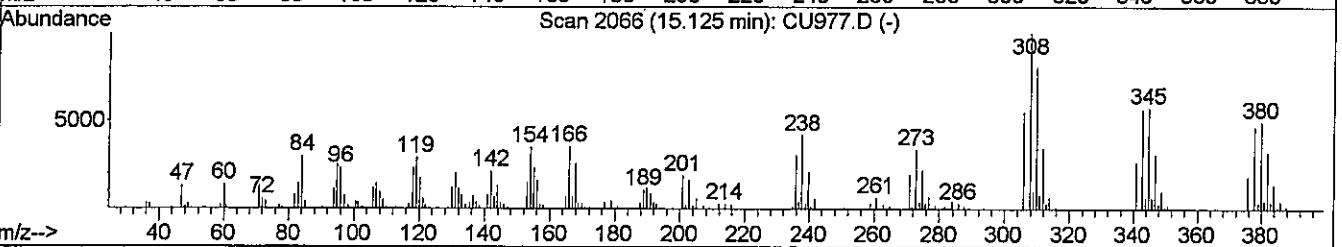
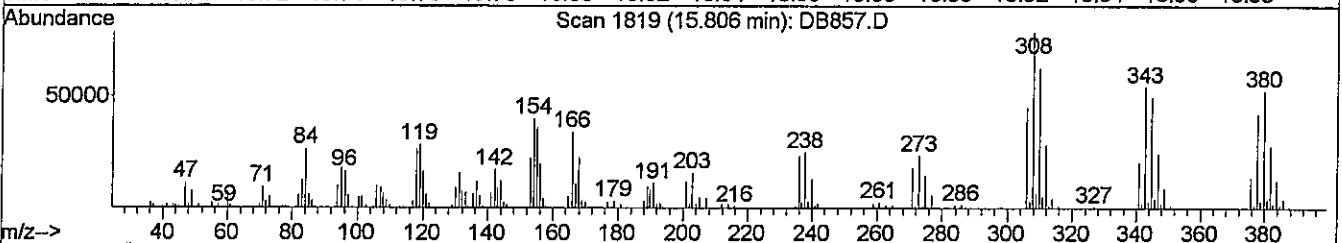
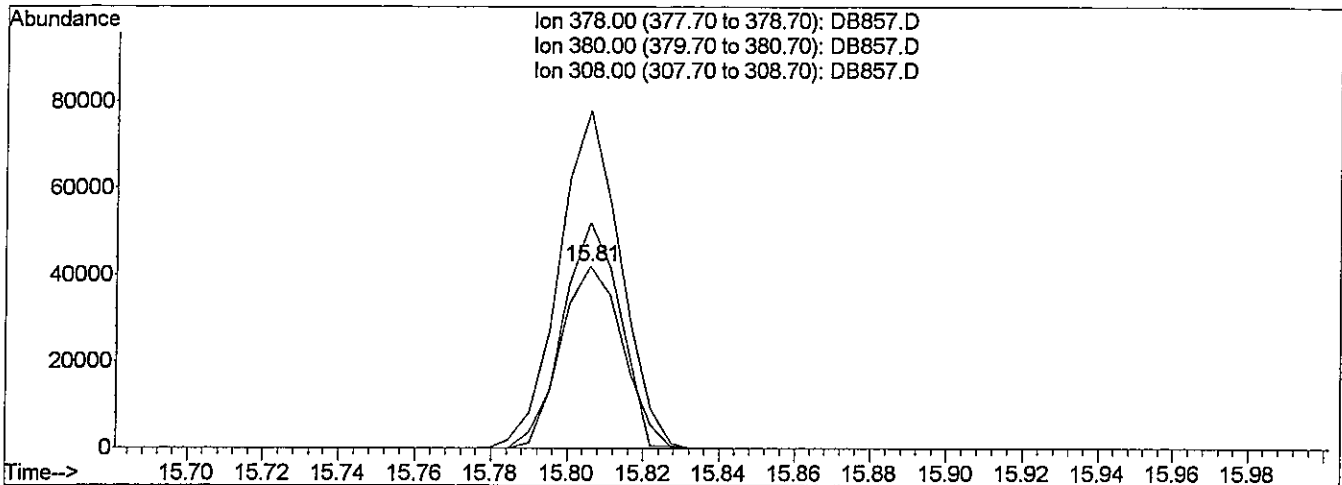
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\100609\DB857.D
 Acq On : 6 Oct 2009 3:43 pm
 Sample : RQ0909469-02|1.0
 Misc : 10/05/2009 1.0 8270.LL LCS
 MS Integration Params: RTEINT.P
 Quant Time: Oct 7 9:33 2009

Vial: 3
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 Response via : Multiple Level Calibration



TIC: DB857.D

(23) Octachlorostyrene (TM)

15.81min 2.84ppm m

response 47588

Ion	Exp%	Act%
378.00	100	100
380.00	95.60	124.19
308.00	119.80	185.66#
0.00	0.00	0.00

Handwritten notes:
 2/22/10/7
 A 10/7/09

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
 Project: Tronox LLC Henderson/2027.001
 Sample Matrix: Water
 Sample Name: Lab Control Sample Dup
 Lab Code: RQ0909469-03

Service Request: R0905636
 Date Collected: NA
 Date Received: NA
 Units: µg/L
 Basis: NA

Low Level Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
 Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
2-Methylnaphthalene	3.10		0.20	0.048	1	10/ 5/09	10/6/09 16:24	97551	173710	
Acenaphthene	3.38		0.20	0.053	1	10/ 5/09	10/6/09 16:24	97551	173710	
Acenaphthylene	3.40		0.20	0.076	1	10/ 5/09	10/6/09 16:24	97551	173710	
Anthracene	3.55		0.20	0.041	1	10/ 5/09	10/6/09 16:24	97551	173710	
Benz(a)anthracene	3.87		0.20	0.041	1	10/ 5/09	10/6/09 16:24	97551	173710	
Benzo(a)pyrene	3.30		0.20	0.042	1	10/ 5/09	10/6/09 16:24	97551	173710	
Benzo(b)fluoranthene	3.79		0.20	0.027	1	10/ 5/09	10/6/09 16:24	97551	173710	
Benzo(g,h,i)perylene	3.69		0.20	0.030	1	10/ 5/09	10/6/09 16:24	97551	173710	
Benzo(k)fluoranthene	3.53		0.20	0.029	1	10/ 5/09	10/6/09 16:24	97551	173710	
Bis(2-ethylhexyl) Phthalate	4.17	J	5.0	0.23	1	10/ 5/09	10/6/09 16:24	97551	173710	
Butyl Benzyl Phthalate	3.71	J	5.0	0.11	1	10/ 5/09	10/6/09 16:24	97551	173710	
Chrysene	3.61		0.20	0.029	1	10/ 5/09	10/6/09 16:24	97551	173710	
Di-n-butyl Phthalate	3.55	J	5.0	0.76	1	10/ 5/09	10/6/09 16:24	97551	173710	
Di-n-octyl Phthalate	3.69	J	5.0	0.041	1	10/ 5/09	10/6/09 16:24	97551	173710	
Dibenz(a,h)anthracene	3.80		0.20	0.046	1	10/ 5/09	10/6/09 16:24	97551	173710	
Diethyl Phthalate	3.22	J	5.0	0.20	1	10/ 5/09	10/6/09 16:24	97551	173710	
Dimethyl Phthalate	3.05	J	5.0	0.044	1	10/ 5/09	10/6/09 16:24	97551	173710	
Fluoranthene	3.17		0.20	0.040	1	10/ 5/09	10/6/09 16:24	97551	173710	
Fluorene	3.77		0.20	0.055	1	10/ 5/09	10/6/09 16:24	97551	173710	
Hexachlorobenzene	3.00		0.20	0.035	1	10/ 5/09	10/6/09 16:24	97551	173710	
Indeno(1,2,3-cd)pyrene	3.78		0.20	0.049	1	10/ 5/09	10/6/09 16:24	97551	173710	
Naphthalene	2.99		0.20	0.14	1	10/ 5/09	10/6/09 16:24	97551	173710	
Nitrobenzene	3.27		0.20	0.046	1	10/ 5/09	10/6/09 16:24	97551	173710	
Phenanthrene	3.23		0.20	0.062	1	10/ 5/09	10/6/09 16:24	97551	173710	
Pyrene	3.60		0.20	0.029	1	10/ 5/09	10/6/09 16:24	97551	173710	
Pyridine	0.940	J	2.0	0.89	1	10/ 5/09	10/6/09 16:24	97551	173710	
1,4-Dioxane	1.64	J	2.0	0.13	1	10/ 5/09	10/6/09 16:24	97551	173710	
Octachlorostyrene	2.71		0.20	0.13	1	10/ 5/09	10/6/09 16:24	97551	173710	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: Lab Control Sample Dup
Lab Code: RQ0909469-03

Service Request: R0905636
Date Collected: NA
Date Received: NA
Units: Percent
Basis: NA

Low Level Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
2-Fluorobiphenyl	73	45-135	10/6/09 16:24		
Nitrobenzene-d5	80	45-135	10/6/09 16:24		
Terphenyl-d14	95	45-135	10/6/09 16:24		

Comments: _____

Data File : J:\ACQUDATA\5973B\DATA\100609\DB858.D
 Acq On : 6 Oct 2009 4:24 pm
 Sample : RQ0909469-03 | 1.0 / RQ0909471-03
 Misc : 10/05/2009 1.0 8270.LL LCSD
 MS Integration Params: RTEINT.P
 Quant Time: Oct 7 9:35 2009

Vial: 4
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: LVI0928.RES

Quant Method : J:\ACQUDATA\5...\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI0928

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	10.70	152	72785	1.00	ppm	0.00
4) d8-Naphthalene	11.96	136	282076	1.00	ppm	0.00
10) d10-Acenaphthene	13.56	164	159478	1.00	ppm	0.00
18) d10-Phenanthrene	14.78	188	261658	1.00	ppm	0.00
26) d12-Chrysene	18.11	240	240831	1.00	ppm	0.00
33) d12-Perylene	21.92	264	188059	1.00	ppm	-0.02

System Monitoring Compounds

5) SURR4,NITROBENZENE-D5	11.28	82	150282	1.60	ppm	0.00
Spiked Amount	2.000	Range	22 - 124	Recovery	=	80.00%
11) SURR5,2-FLUOROBIPHENYL	12.93	172	312352	1.46	ppm	0.00
Spiked Amount	2.000	Range	27 - 114	Recovery	=	73.00%
28) SURR6,TERPHENYL-D14	16.40	244	362861	1.90	ppm	0.00
Spiked Amount	2.000	Range	23 - 139	Recovery	=	95.00%

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	6.23	88	116621	1.64	ppm	96
3) Pyridine	6.98	79	90902	0.94	ppm	98
6) Nitrobenzene	11.30	77	310318	3.27	ppm	89
7) Naphthalene	11.99	128	883244	2.99	ppm	96
8) 2-Methylnaphthalene	12.60	142	588931	3.10	ppm	92
9) 1-Methylnaphthalene	12.71	142	574803	3.25	ppm	96
12) Acenaphthylene	13.44	152	1010003	3.40	ppm	98
13) Dimethyl phthalate	13.28	163	714610	3.05	ppm	98
14) Acenaphthene	13.59	153	624258	3.38	ppm	97
15) Dibenzofuran	13.73	168	903738	3.66	ppm	96
16) Fluorene	14.02	166	717149	3.77	ppm	97
17) Diethylphthalate	13.87	149	792704	3.22	ppm	98
19) Hexachlorobenzene	14.52	284	187285	3.00	ppm	97
20) Phenanthrene	14.80	178	980557	3.23	ppm	97
21) Anthracene	14.84	178	1006806	3.55	ppm	98
22) Carbazole	14.96	167	534272	2.83	ppm	96
23) Octachlorostyrene	15.80	378	49519m	2.71	ppm	
24) Di-n-butylphthalate	15.20	149	1427101	3.55	ppm	99
25) Fluoranthene	16.01	202	1078255	3.17	ppm	97
27) Pyrene	16.30	202	1090174	3.60	ppm	97
29) Butyl benzyl phthalate	17.03	149	604991	3.71	ppm	99
30) bis(2-Ethylhexyl)phthalate	17.96	149	842890	4.17	ppm	95
31) Benzo(a)anthracene	18.07	228	1005693	3.87	ppm	99
32) Chrysene	18.16	228	951080	3.61	ppm	99
34) Di-n-octyl phthalate	19.31	149	1290083	3.69	ppm	98
35) Benzo(b)Fluoranthene	20.69	252	1031308	3.79	ppm	97

(#) = qualifier out of range (m) = manual integration
 DB858.D LVI0928.M Wed Oct 07 09:35:34 2009

Data File : J:\ACQUDATA\5973B\DATA\100609\DB858.D
 Acq On : 6 Oct 2009 4:24 pm
 Sample : RQ0909469-03|1.0
 Misc : 10/05/2009 1.0 8270.LL LCSD
 MS Integration Params: RTEINT.P
 Quant Time: Oct 7 9:35 2009

Vial: 4
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: LVI0928.RES

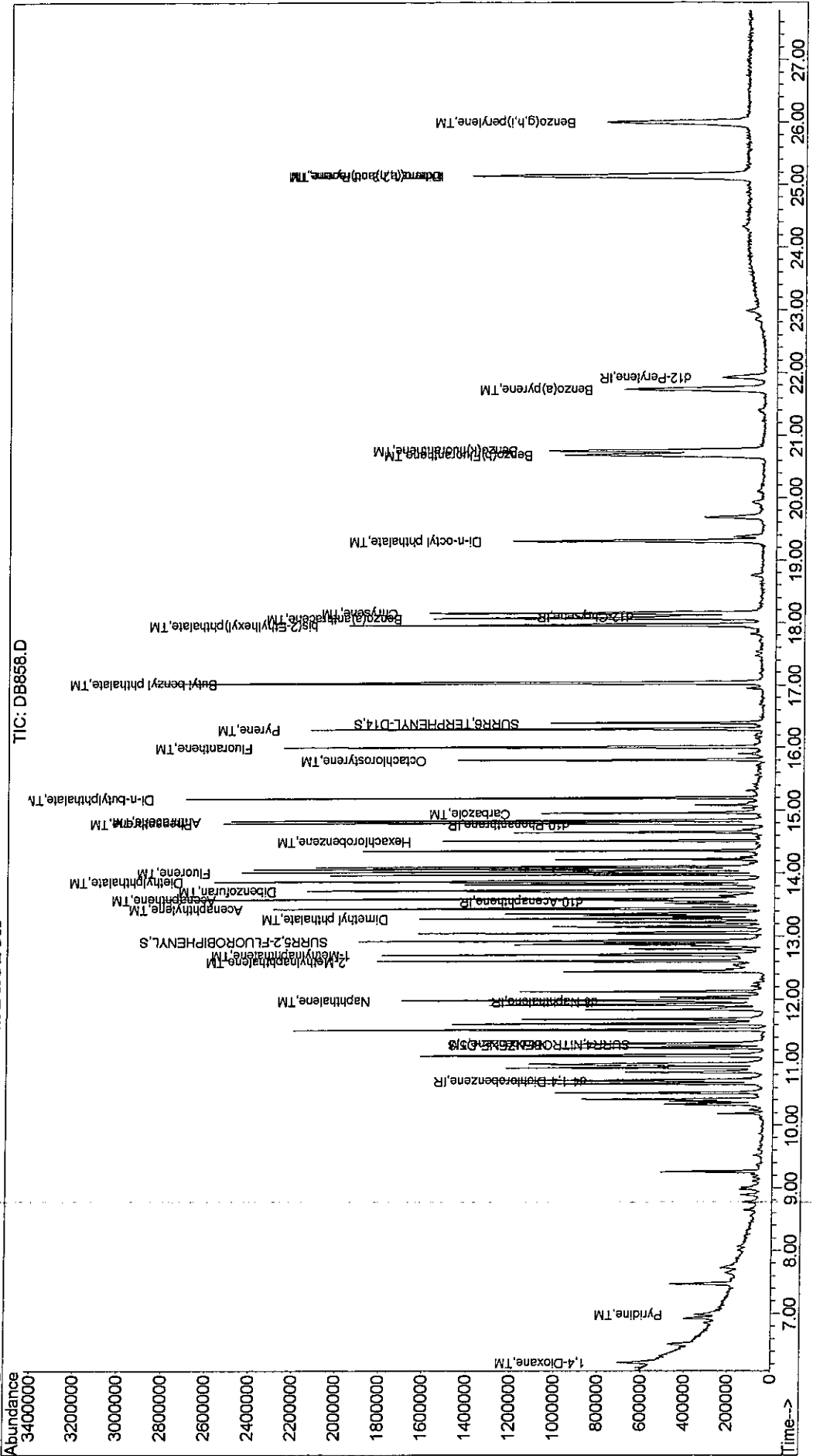
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 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI0928

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
36) Benzo(k)fluoranthene	20.76	252	952967	3.53	ppm	96
37) Benzo(a)pyrene	21.73	252	789793	3.30	ppm	97
38) Indeno(1,2,3-cd)Pyrene	25.14	276	1073725	3.78	ppm	87
39) Dibenz(a,h)anthracene	25.15	278	892479	3.80	ppm	93
40) Benzo(g,h,i)perylene	26.00	276	887759	3.69	ppm	94

Quantitation Report

Data File : J:\ACQDATA\5973B\DATA\100609\DB858.D Vial: 4
 Acq On : 6 Oct 2009 4:24 pm Operator: Z.Miao
 Sample : RQ0909469-03|1.0 Inst : 5973-B
 Misc : 10/05/2009 1.0 8270.LL LCSD Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Oct 7 9:35 2009 Quant Results File: LVI0928.RES

Method : J:\ACQDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 Response via : Initial Calibration



00551

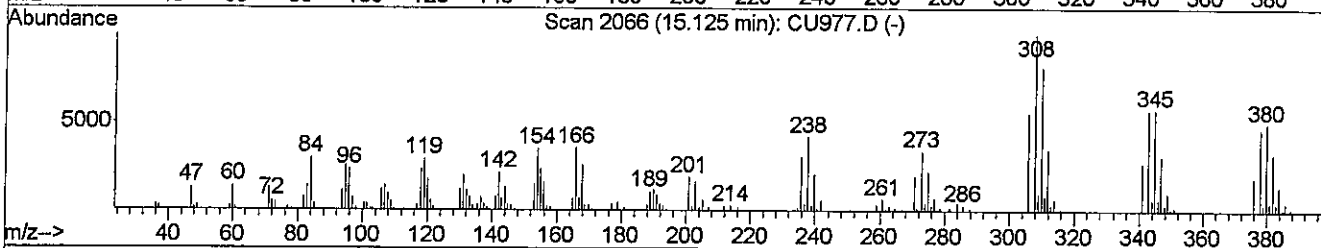
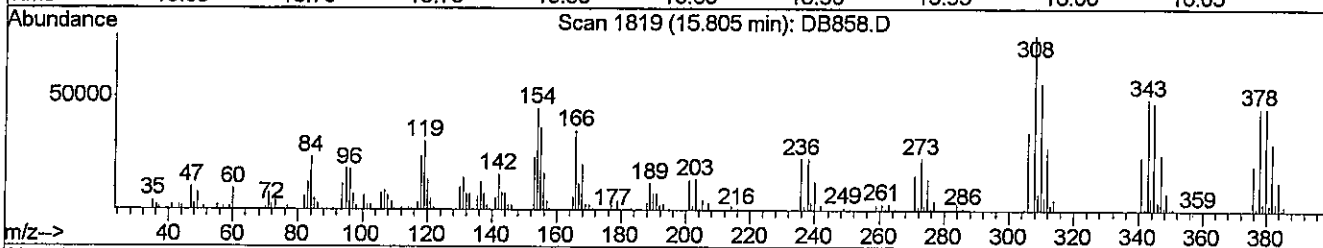
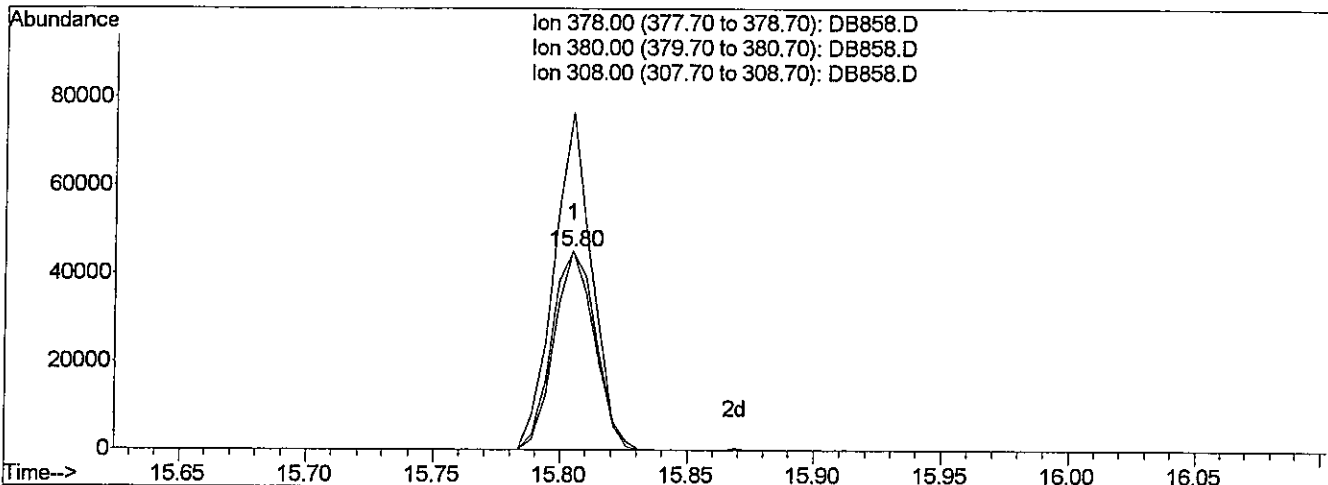
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\100609\DB858.D
 Acq On : 6 Oct 2009 4:24 pm
 Sample : RQ0909469-03|1.0
 Misc : 10/05/2009 1.0 8270.LL LCSD
 MS Integration Params: RTEINT.P
 Quant Time: Oct 6 16:52 2009

Vial: 4
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 Response via : Multiple Level Calibration



TIC: DB858.D

(23) Octachlorostyrene (TM)

15.80min 2.71ppm

response 49513

Ion	Exp%	Act%
378.00	100	100
380.00	95.60	98.41
308.00	119.80	156.09#
0.00	0.00	0.00



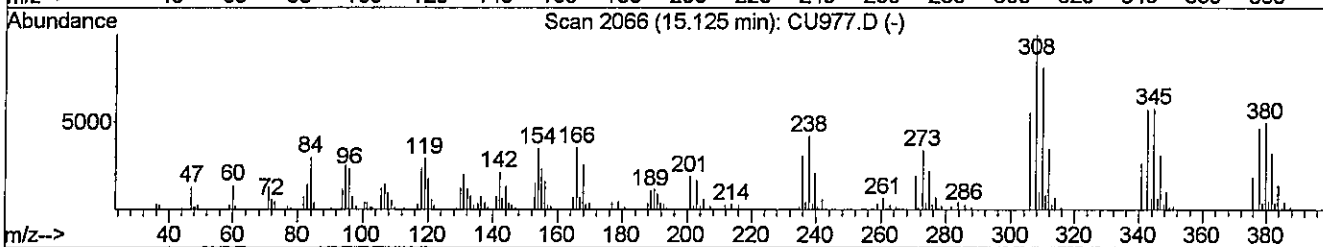
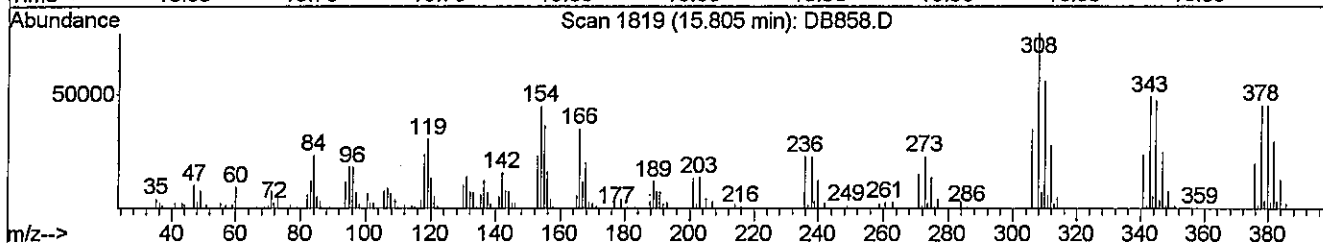
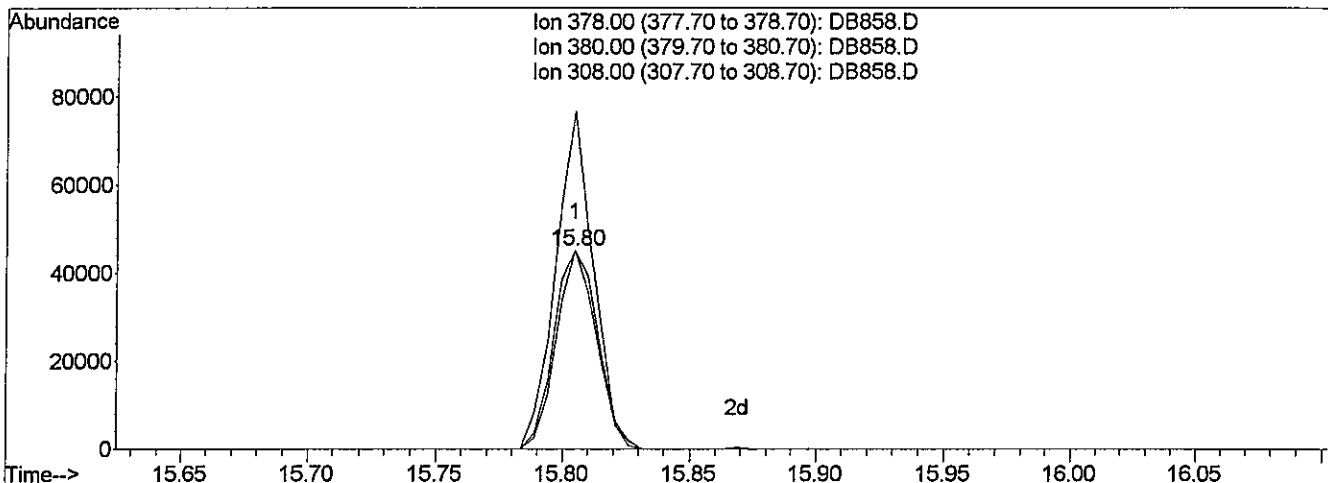
Quantitation Report (Qedit)

Data File : J:\ACQUATA\5973B\DATA\100609\DB858.D
 Acq On : 6 Oct 2009 4:24 pm
 Sample : RQ0909469-03|1.0
 Misc : 10/05/2009 1.0 8270.LL LCSD
 MS Integration Params: RTEINT.P
 Quant Time: Oct 7 9:35 2009

Vial: 4
 Operator: Z.Miao
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 Response via : Multiple Level Calibration



TIC: DB858.D

(23) Octachlorostyrene (TM)

15.80min 2.71ppm m

response 49519

Ion	Exp%	Act%
378.00	100	100
380.00	95.60	99.95
308.00	119.80	169.95#
0.00	0.00	0.00

A 10/7/09
WZJ

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: Lab Control Sample
Lab Code: RQ0909715-02

Service Request: R0905636
Date Collected: NA
Date Received: NA
Units: µg/L
Basis: NA

Low Level Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
2-Methylnaphthalene	3.48		0.20	0.048	1	10/ 9/09	10/13/09 01:02	97951	174480	
Acenaphthene	3.48		0.20	0.053	1	10/ 9/09	10/13/09 01:02	97951	174480	
Acenaphthylene	3.52		0.20	0.076	1	10/ 9/09	10/13/09 01:02	97951	174480	
Anthracene	3.64		0.20	0.041	1	10/ 9/09	10/13/09 01:02	97951	174480	
Benz(a)anthracene	3.91		0.20	0.041	1	10/ 9/09	10/13/09 01:02	97951	174480	
Benzo(a)pyrene	3.08		0.20	0.042	1	10/ 9/09	10/13/09 01:02	97951	174480	
Benzo(b)fluoranthene	3.37		0.20	0.027	1	10/ 9/09	10/13/09 01:02	97951	174480	
Benzo(g,h,i)perylene	3.68		0.20	0.030	1	10/ 9/09	10/13/09 01:02	97951	174480	
Benzo(k)fluoranthene	3.32		0.20	0.029	1	10/ 9/09	10/13/09 01:02	97951	174480	
Bis(2-ethylhexyl) Phthalate	4.03	J	5.0	0.23	1	10/ 9/09	10/13/09 01:02	97951	174480	
Butyl Benzyl Phthalate	3.55	J	5.0	0.11	1	10/ 9/09	10/13/09 01:02	97951	174480	
Chrysene	3.64		0.20	0.029	1	10/ 9/09	10/13/09 01:02	97951	174480	
Di-n-butyl Phthalate	3.61	J	5.0	0.76	1	10/ 9/09	10/13/09 01:02	97951	174480	
Di-n-octyl Phthalate	3.32	J	5.0	0.041	1	10/ 9/09	10/13/09 01:02	97951	174480	
Dibenz(a,h)anthracene	3.69		0.20	0.046	1	10/ 9/09	10/13/09 01:02	97951	174480	
Diethyl Phthalate	3.40	J	5.0	0.20	1	10/ 9/09	10/13/09 01:02	97951	174480	
Dimethyl Phthalate	3.36	J	5.0	0.044	1	10/ 9/09	10/13/09 01:02	97951	174480	
Fluoranthene	3.33		0.20	0.040	1	10/ 9/09	10/13/09 01:02	97951	174480	
Fluorene	3.88		0.20	0.055	1	10/ 9/09	10/13/09 01:02	97951	174480	
Hexachlorobenzene	3.50		0.20	0.035	1	10/ 9/09	10/13/09 01:02	97951	174480	
Indeno(1,2,3-cd)pyrene	3.74		0.20	0.049	1	10/ 9/09	10/13/09 01:02	97951	174480	
Naphthalene	3.16		0.20	0.14	1	10/ 9/09	10/13/09 01:02	97951	174480	
Nitrobenzene	3.17		0.20	0.046	1	10/ 9/09	10/13/09 01:02	97951	174480	
Phenanthrene	3.37		0.20	0.062	1	10/ 9/09	10/13/09 01:02	97951	174480	
Pyrene	3.58		0.20	0.029	1	10/ 9/09	10/13/09 01:02	97951	174480	
Pyridine	0.700		2.0	0.89	1	10/ 9/09	10/13/09 01:02	97951	174480	
1,4-Dioxane	1.84	J	2.0	0.13	1	10/ 9/09	10/13/09 01:02	97951	174480	
Octachlorostyrene	2.50		0.20	0.13	1	10/ 9/09	10/13/09 01:02	97951	174480	

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: Lab Control Sample
Lab Code: RQ0909715-02

Service Request: R0905636
Date Collected: NA
Date Received: NA
Units: Percent
Basis: NA

Low Level Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
2-Fluorobiphenyl	77	45-135	10/13/09 01:02		
Nitrobenzene-d5	81	45-135	10/13/09 01:02		
Terphenyl-d14	103	45-135	10/13/09 01:02		

Comments:

Data File : J:\ACQUDATA\5973B\DATA\101209\DC002.D
 Acq On : 13 Oct 2009 1:02 am
 Sample : RQ0909715-02|1.0
 Misc : 10/09/2009 1.0 Northgate 8270.LL LCS
 MS Integration Params: RTEINT.P
 Quant Time: Oct 13 1:30 2009

Vial: 15
 Operator: J.Wu
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: LVI0928.RES

Quant Method : J:\ACQUDATA\5...\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI0928

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	10.70	152	66585	1.00	ppm	0.00
4) d8-Naphthalene	11.96	136	270263	1.00	ppm	0.00
10) d10-Acenaphthene	13.56	164	166958	1.00	ppm	0.00
18) d10-Phenanthrene	14.78	188	258060	1.00	ppm	0.00
26) d12-Chrysene	18.11	240	250928	1.00	ppm	0.00
33) d12-Perylene	21.92	264	215499	1.00	ppm	-0.02
System Monitoring Compounds						
5) SURR4,NITROBENZENE-D5	11.28	82	145951	1.62	ppm	0.00
Spiked Amount	2.000	Range	22 - 124	Recovery	=	81.00%
11) SURR5,2-FLUOROBIPHENYL	12.92	172	345009	1.54	ppm	0.00
Spiked Amount	2.000	Range	27 - 114	Recovery	=	77.00%
28) SURR6,TERPHENYL-D14	16.39	244	409448	2.06	ppm	0.00
Spiked Amount	2.000	Range	23 - 139	Recovery	=	103.00%
Target Compounds						
2) 1,4-Dioxane	6.23	88	117295	1.84	ppm	Qvalue 87
3) Pyridine	6.99	79	61806	0.70	ppm	89
6) Nitrobenzene	11.29	77	288190	3.17	ppm	90
7) Naphthalene	11.98	128	895609	3.16	ppm	99
8) 2-Methylnaphthalene	12.60	142	633205	3.48	ppm	94
9) 1-Methylnaphthalene	12.71	142	622501	3.68	ppm	97
12) Acenaphthylene	13.44	152	1093903	3.52	ppm	99
13) Dimethyl phthalate	13.28	163	824606	3.36	ppm	96
14) Acenaphthene	13.59	153	673637	3.48	ppm	97
15) Dibenzofuran	13.72	168	960423	3.72	ppm	97
16) Fluorene	14.02	166	772982	3.88	ppm	97
17) Diethylphthalate	13.87	149	876026	3.40	ppm	98
19) Hexachlorobenzene	14.52	284	215637	3.50	ppm	90
20) Phenanthrene	14.80	178	1008503	3.37	ppm	95
21) Anthracene	14.84	178	1017494	3.64	ppm	99
22) Carbazole	14.96	167	784942	4.22	ppm	99
23) Octachlorostyrene	15.80	378	45120	2.50	ppm	79
24) Di-n-butylphthalate	15.19	149	1431352	3.61	ppm	99
25) Fluoranthene	16.01	202	1117289	3.33	ppm	95
27) Pyrene	16.29	202	1129423	3.58	ppm	98
29) Butyl benzyl phthalate	17.02	149	603733	3.55	ppm	99
30) bis(2-Ethylhexyl)phthalate	17.95	149	849716	4.03	ppm	95
31) Benzo(a)anthracene	18.07	228	1058901	3.91	ppm	99
32) Chrysene	18.15	228	999457	3.64	ppm	98
34) Di-n-octyl phthalate	19.30	149	1331889	3.32	ppm	97
35) Benzo(b)Fluoranthene	20.68	252	1049223	3.37	ppm	99

(#) = qualifier out of range (m) = manual integration
 DC002.D LVI0928.M Tue Oct 13 10:37:07 2009

JW

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Quantitation Report (QT Reviewed)

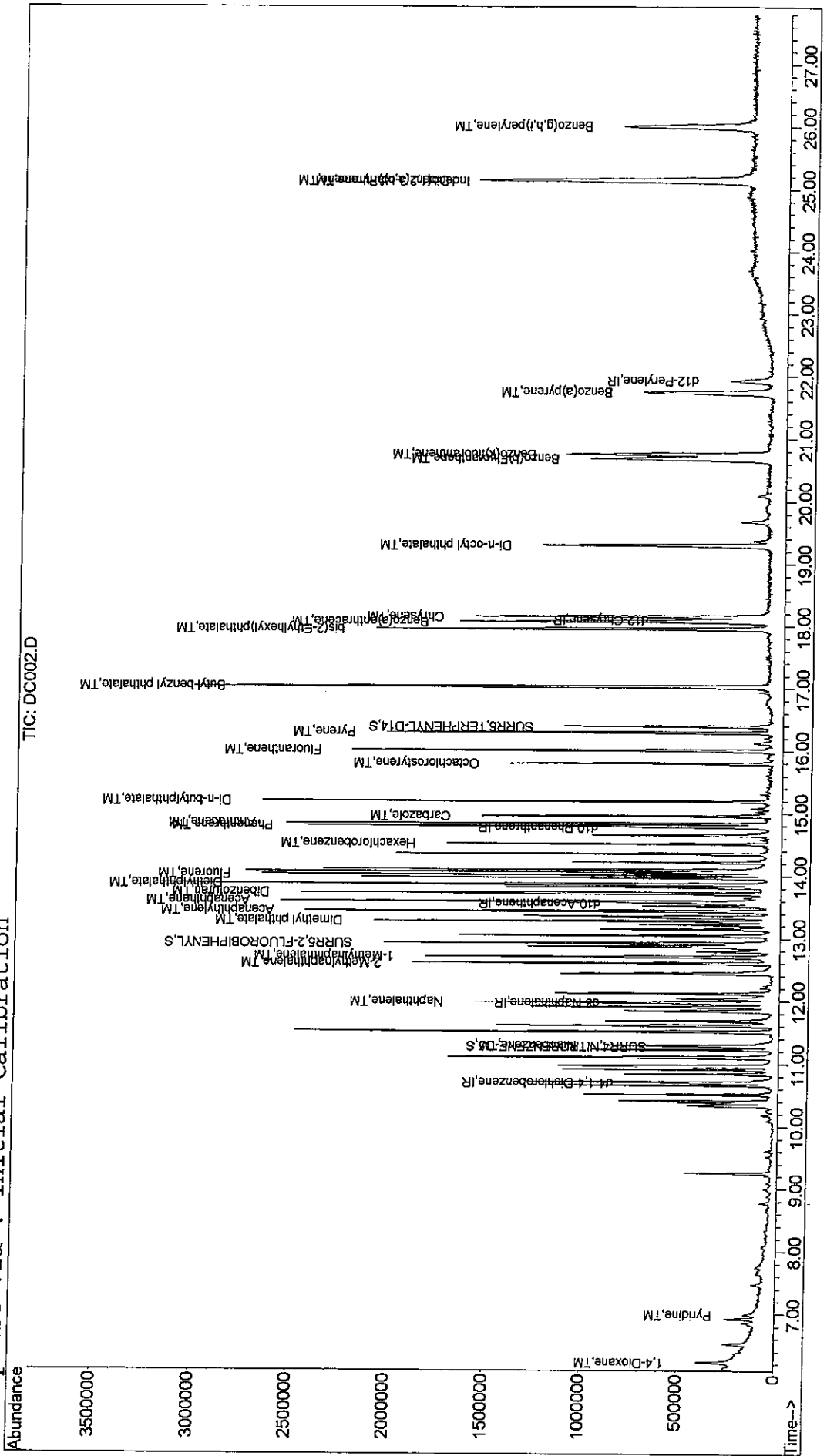
Data File : J:\ACQUADATA\5973B\DATA\101209\DC002.D Vial: 15
 Acq On : 13 Oct 2009 1:02 am Operator: J.Wu
 Sample : RQ0909715-02|1.0 Inst : 5973-B
 Misc : 10/09/2009 1.0 Northgate 8270.LL LCS Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Oct 13 1:30 2009 Quant Results File: LVI0928.RES

Quant Method : J:\ACQUADATA\5...\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI0928

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
36) Benzo(k)fluoranthene	20.75	252	1026140	3.32	ppm	96
37) Benzo(a)pyrene	21.74	252	846230	3.08	ppm	96
38) Indeno(1,2,3-cd)Pyrene	25.12	276	1216952	3.74	ppm	99
39) Dibenz(a,h)anthracene	25.14	278	994008	3.69	ppm	95
40) Benzo(g,h,i)perylene	26.00	276	1012305	3.68	ppm	90

Quantitation Report

Data File : J:\ACQDATA\5973B\DATA\101209\DC002.D Vial: 15
Acq On : 13 Oct 2009 1:02 am Operator: J.Wu
Sample : RQ0909715-02|1.0 Inst : 5973-B
Misc : 10/09/2009 1.0 Northgate 8270.LL LCS Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 13 1:30 2009 Quant Results File: LVI0928.RES
Method : J:\ACQDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Tue Sep 29 09:53:23 2009
Response via : Initial Calibration



00558

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: Lab Control Sample Dup
Lab Code: RQ0909715-03

Service Request: R0905636
Date Collected: NA
Date Received: NA
Units: µg/L
Basis: NA

Low Level Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
2-Methylnaphthalene	3.43		0.20	0.048	1	10/ 9/09	10/13/09 01:43	97951	174480	
Acenaphthene	3.47		0.20	0.053	1	10/ 9/09	10/13/09 01:43	97951	174480	
Acenaphthylene	3.48		0.20	0.076	1	10/ 9/09	10/13/09 01:43	97951	174480	
Anthracene	3.76		0.20	0.041	1	10/ 9/09	10/13/09 01:43	97951	174480	
Benz(a)anthracene	3.95		0.20	0.041	1	10/ 9/09	10/13/09 01:43	97951	174480	
Benzo(a)pyrene	3.40		0.20	0.042	1	10/ 9/09	10/13/09 01:43	97951	174480	
Benzo(b)fluoranthene	3.78		0.20	0.027	1	10/ 9/09	10/13/09 01:43	97951	174480	
Benzo(g,h,i)perylene	3.93		0.20	0.030	1	10/ 9/09	10/13/09 01:43	97951	174480	
Benzo(k)fluoranthene	3.68		0.20	0.029	1	10/ 9/09	10/13/09 01:43	97951	174480	
Bis(2-ethylhexyl) Phthalate	4.06	J	5.0	0.23	1	10/ 9/09	10/13/09 01:43	97951	174480	
Butyl Benzyl Phthalate	3.55	J	5.0	0.11	1	10/ 9/09	10/13/09 01:43	97951	174480	
Chrysene	3.75		0.20	0.029	1	10/ 9/09	10/13/09 01:43	97951	174480	
Di-n-butyl Phthalate	3.69	J	5.0	0.76	1	10/ 9/09	10/13/09 01:43	97951	174480	
Di-n-octyl Phthalate	3.66	J	5.0	0.041	1	10/ 9/09	10/13/09 01:43	97951	174480	
Dibenz(a,h)anthracene	4.07		0.20	0.046	1	10/ 9/09	10/13/09 01:43	97951	174480	
Diethyl Phthalate	3.28	J	5.0	0.20	1	10/ 9/09	10/13/09 01:43	97951	174480	
Dimethyl Phthalate	3.41	J	5.0	0.044	1	10/ 9/09	10/13/09 01:43	97951	174480	
Fluoranthene	3.57		0.20	0.040	1	10/ 9/09	10/13/09 01:43	97951	174480	
Fluorene	3.72		0.20	0.055	1	10/ 9/09	10/13/09 01:43	97951	174480	
Hexachlorobenzene	3.64		0.20	0.035	1	10/ 9/09	10/13/09 01:43	97951	174480	
Indeno(1,2,3-cd)pyrene	3.92		0.20	0.049	1	10/ 9/09	10/13/09 01:43	97951	174480	
Naphthalene	3.14		0.20	0.14	1	10/ 9/09	10/13/09 01:43	97951	174480	
Nitrobenzene	3.21		0.20	0.046	1	10/ 9/09	10/13/09 01:43	97951	174480	
Phenanthrene	3.55		0.20	0.062	1	10/ 9/09	10/13/09 01:43	97951	174480	
Pyrene	3.66		0.20	0.029	1	10/ 9/09	10/13/09 01:43	97951	174480	
Pyridine	0.650		2.0	0.89	1	10/ 9/09	10/13/09 01:43	97951	174480	
1,4-Dioxane	1.80	J	2.0	0.13	1	10/ 9/09	10/13/09 01:43	97951	174480	
Octachlorostyrene	2.88		0.20	0.13	1	10/ 9/09	10/13/09 01:43	97951	174480	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: Lab Control Sample Dup
Lab Code: RQ0909715-03

Service Request: R0905636
Date Collected: NA
Date Received: NA
Units: Percent
Basis: NA

Low Level Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
2-Fluorobiphenyl	78	45-135	10/13/09 01:43		
Nitrobenzene-d5	88	45-135	10/13/09 01:43		
Terphenyl-d14	103	45-135	10/13/09 01:43		

Comments: _____

Data File : J:\ACQUDATA\5973B\DATA\101209\DC003.D
 Acq On : 13 Oct 2009 1:43 am
 Sample : RQ0909715-03|1.0 ✓
 Misc : 10/09/2009 1.0 Northgate 8270.LL LCSD
 MS Integration Params: RTEINT.P
 Quant Time: Oct 13 10:38 2009

Vial: 16
 Operator: J.Wu
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: LVI0928.RES

Quant Method : J:\ACQUDATA\5...\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI0928

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) d4-1,4-Dichlorobenzene	10.69	152	65524	1.00	ppm	0.00
4) d8-Naphthalene	11.96	136	270487	1.00	ppm	0.00
10) d10-Acenaphthene	13.56	164	163534	1.00	ppm	0.00
18) d10-Phenanthrene	14.77	188	234864	1.00	ppm	0.00
26) d12-Chrysene	18.10	240	241942	1.00	ppm	0.00
33) d12-Perylene	21.93	264	191429	1.00	ppm	-0.01

System Monitoring Compounds

5) SURR4,NITROBENZENE-D5	11.28	82	158312	1.76	ppm	0.00
Spiked Amount	2.000	Range	22 - 124	Recovery	=	88.00%
11) SURR5,2-FLUOROBIPHENYL	12.92	172	342766	1.56	ppm	0.00
Spiked Amount	2.000	Range	27 - 114	Recovery	=	78.00%
28) SURR6,TERPHENYL-D14	16.39	244	394055	2.06	ppm	0.00
Spiked Amount	2.000	Range	23 - 139	Recovery	=	103.00%

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	6.23	88	113260	1.80	ppm	91
3) Pyridine	6.99	79	56642	0.65	ppm	96
6) Nitrobenzene	11.30	77	292012	3.21	ppm	94
7) Naphthalene	11.98	128	890720	3.14	ppm	97
8) 2-Methylnaphthalene	12.61	142	624498	3.43	ppm	93
9) 1-Methylnaphthalene	12.71	142	621111	3.67	ppm	95
12) Acenaphthylene	13.43	152	1060609	3.48	ppm	96
13) Dimethyl phthalate	13.28	163	821064	3.41	ppm	99
14) Acenaphthene	13.59	153	658396	3.47	ppm	96
15) Dibenzofuran	13.73	168	954588	3.77	ppm	100
16) Fluorene	14.02	166	726310	3.72	ppm	99
17) Diethylphthalate	13.87	149	826456	3.28	ppm	97
19) Hexachlorobenzene	14.51	284	203868	3.64	ppm	95
20) Phenanthrene	14.80	178	969105	3.55	ppm	97
21) Anthracene	14.84	178	958010	3.76	ppm	100
22) Carbazole	14.96	167	771253	4.56	ppm	98
23) Octachlorostyrene	15.80	378	47266m	2.88	ppm	
24) Di-n-butylphthalate	15.19	149	1331605	3.69	ppm	98
25) Fluoranthene	16.01	202	1092361	3.57	ppm	97
27) Pyrene	16.30	202	1113961	3.66	ppm	95
29) Butyl benzyl phthalate	17.02	149	581581	3.55	ppm	98
30) bis(2-Ethylhexyl)phthalate	17.95	149	825398	4.06	ppm	93
31) Benzo(a)anthracene	18.07	228	1031271	3.95	ppm	99
32) Chrysene	18.15	228	993382	3.75	ppm	96
34) Di-n-octyl phthalate	19.29	149	1302889	3.66	ppm	98
35) Benzo(b)Fluoranthene	20.69	252	1047231	3.78	ppm	98

(#) = qualifier out of range (m) = manual integration
 DC003.D LVI0928.M Tue Oct 13 10:38:46 2009

JW ✓ Page 1

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Data File : J:\ACQUDATA\5973B\DATA\101209\DC003.D Vial: 16
 Acq On : 13 Oct 2009 1:43 am Operator: J.Wu
 Sample : RQ0909715-03|1.0 Inst : 5973-B
 Misc : 10/09/2009 1.0 Northgate 8270.LL LCSD Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Oct 13 10:38 2009 Quant Results File: LVI0928.RES

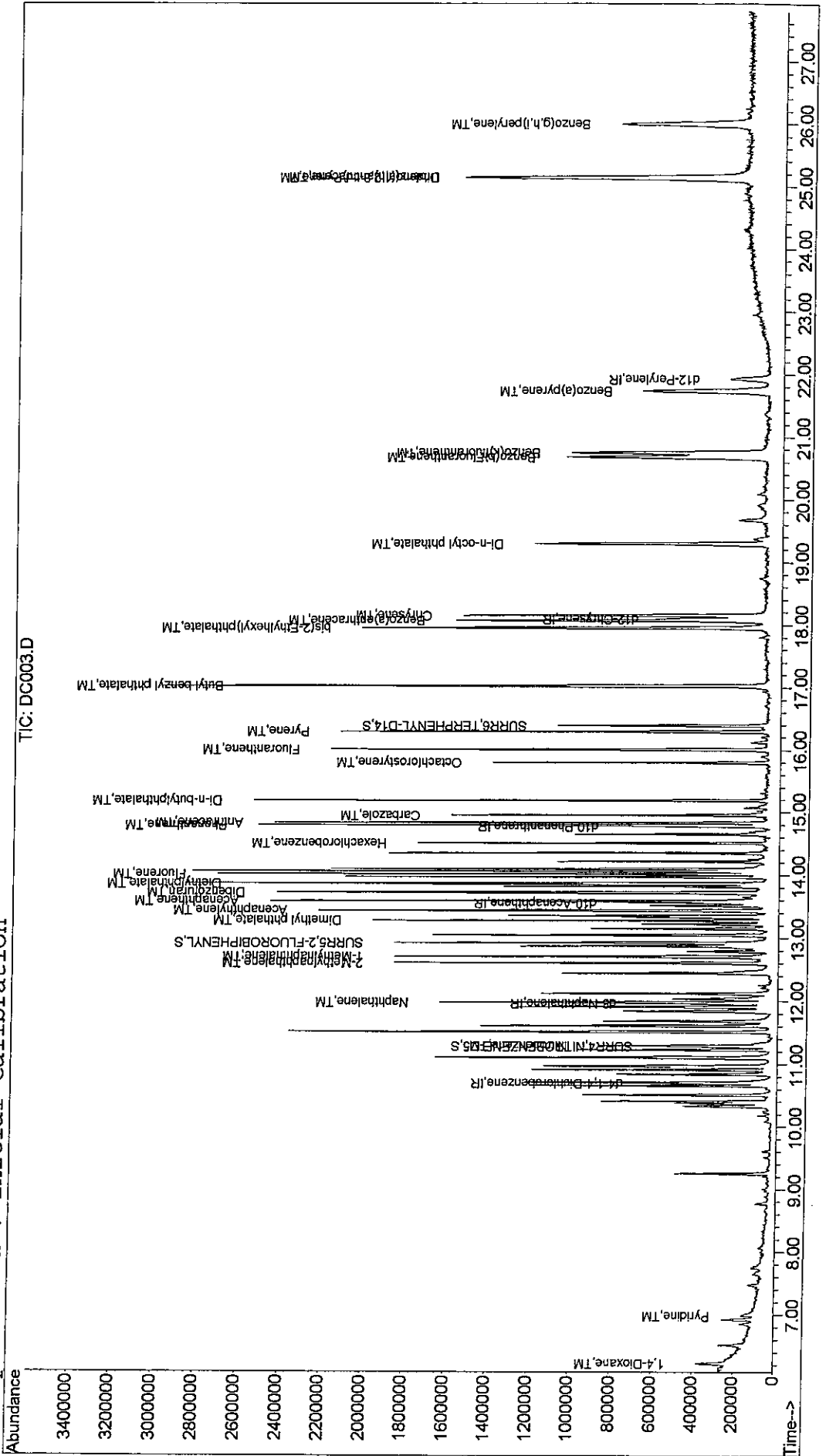
Quant Method : J:\ACQUDATA\5...\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 Response via : Initial Calibration
 DataAcq Meth : LVI0928

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
36) Benzo(k)fluoranthene	20.75	252	1011237	3.68	ppm	95
37) Benzo(a)pyrene	21.74	252	829387	3.40	ppm	93
38) Indeno(1,2,3-cd)Pyrene	25.14	276	1133212	3.92	ppm	96
39) Dibenz(a,h)anthracene	25.15	278	974704	4.07	ppm	92
40) Benzo(g,h,i)perylene	26.00	276	961791	3.93	ppm	90

Quantitation Report

Data File : J:\ACQDATA\5973B\DATA\101209\DC003.D Vial: 16
 Acq On : 13 Oct 2009 1:43 am Operator: J.Wu
 Sample : RQ0909715-03|1.0 Inst : 5973-B
 Misc : 10/09/2009 1.0 Northgate 8270.LL LCSD Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Oct 13 10:38 2009 Quant Results File: LVI0928.RES

Method : J:\ACQDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 Response via : Initial Calibration



00563

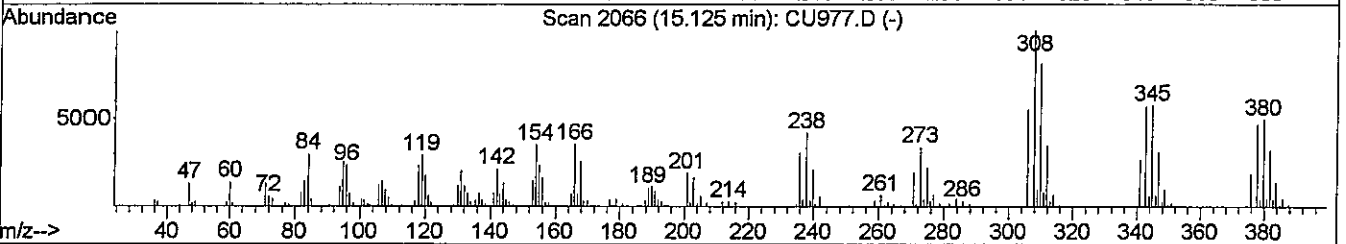
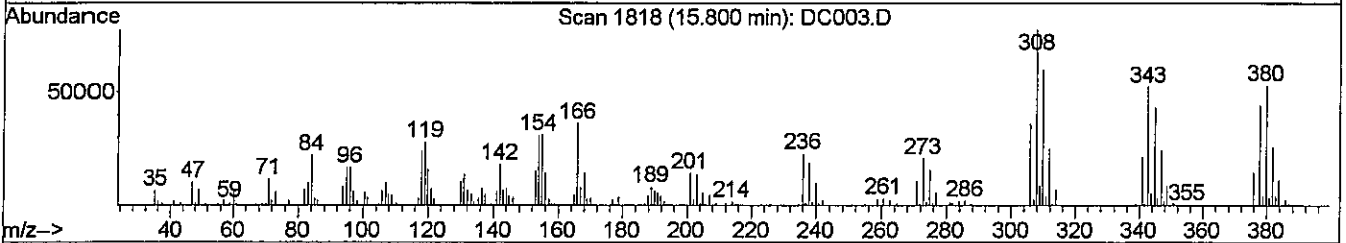
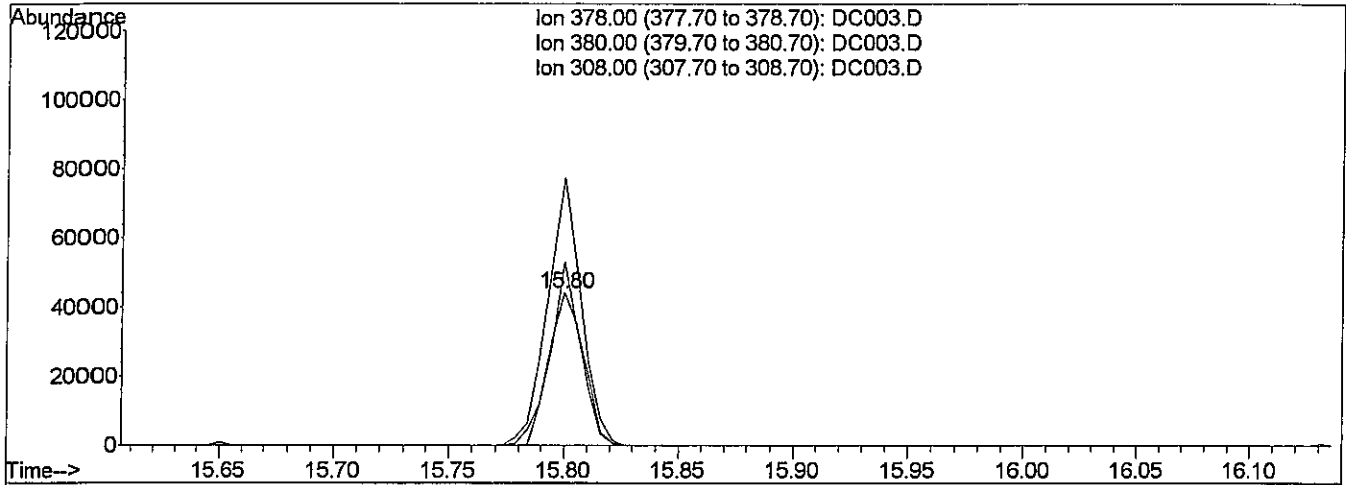
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\101209\DC003.D
 Acq On : 13 Oct 2009 1:43 am
 Sample : RQ0909715-03|1.0
 Misc : 10/09/2009 1.0 Northgate 8270.LL LCSD
 MS Integration Params: RTEINT.P
 Quant Time: Oct 13 2:11 2009

Vial: 16
 Operator: J.Wu
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 Response via : Multiple Level Calibration



TIC: DC003.D

(23) Octachlorostyrene (TM)

15.80min 2.88ppm

response 47269

B

Ion	Exp%	Act%
378.00	100	100
380.00	95.60	116.57
308.00	119.80	159.17#
0.00	0.00	0.00

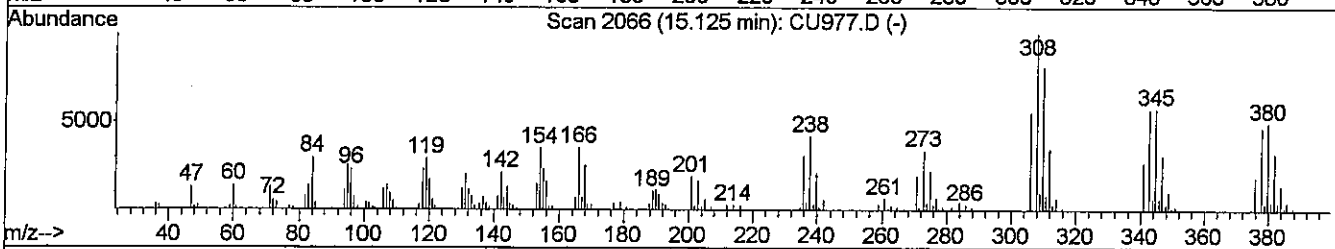
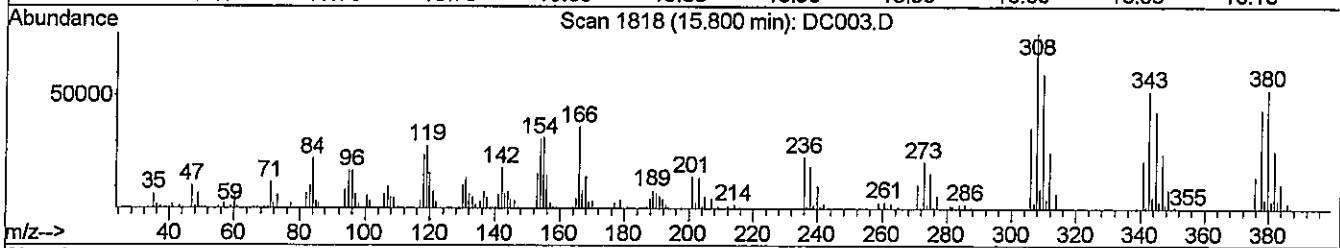
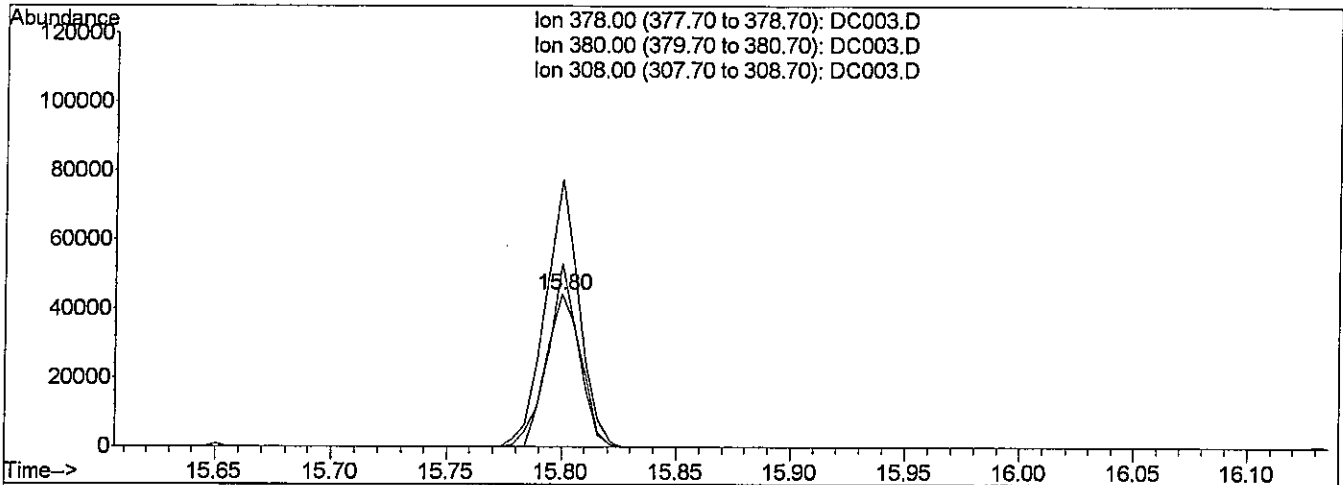
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\5973B\DATA\101209\DC003.D
 Acq On : 13 Oct 2009 1:43 am
 Sample : RQ0909715-03|1.0
 Misc : 10/09/2009 1.0 Northgate 8270.LL LCSD
 MS Integration Params: RTEINT.P
 Quant Time: Oct 13 10:38 2009

Vial: 16
 Operator: J.Wu
 Inst : 5973-B
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\ACQUDATA\5973B\METHODS\LVI0928.M (RTE Integrator)
 Title : 8270 BNA ANALYSIS
 Last Update : Tue Sep 29 09:53:23 2009
 Response via : Multiple Level Calibration



TIC: DC003.D

(23) Octachlorostyrene (TM)

15.80min 2.88ppm m

response 47266

Ion	Exp%	Act%
378.00	100	100
380.00	95.60	120.16
308.00	119.80	175.68#
0.00	0.00	0.00

A J (10/13/09)

*Wu
10/13*

Preparation Information Benchsheet

Prep Run#: 97551
 Team: Semivoa GCMS/DMURPHY
 Prep WorkFlow: OrgExtLLAq(7)
 Prep Method: EPA 3510C
 Status: Prepped
 Prep Date/Time: 10/5/09 10:48 AM

#	Lab Code	Client ID	B#	Amt. Ext	Method /Test	pH	AE	BN	Final Vol	Sample Desc. (Initial/Final)	SpikeAmt./Inv. ID	Comments
1	RQ0909469-01	MB		1000mL	8270C/SVO_LL	6	x	x	1.00mL	clear-colorless	1.0000 mL/12419	
2	RQ0909469-02	LCS		1000mL	8270C/SVO_LL	6	x	x	1.00mL	clear-colorless	1.0000 mL/12338; 1.0000 mL/12393; 1.0000 mL/12419	
3	RQ0909469-03	D LCS		1000mL	8270C/SVO_LL	6	x	x	1.00mL	clear-colorless	1.0000 mL/12338; 1.0000 mL/12393; 1.0000 mL/12419	
4	R0905539-001	EB092909-SO1A4	08	1060mL	8270C/SVO_LL	6	x	x	1.00mL	clear-colorless	1.0000 mL/12419	
5	R0905539-002	EB092909-SO2A4	08	1060mL	8270C/SVO_LL	6	x	x	1.00mL	clear-colorless	1.0000 mL/12419	
6	R0905567-001	EB093009-SO1A4	07	1060mL	8270C/SVO_LL	6	x	x	1.00mL	clear-colorless	1.0000 mL/12419	
7	R0905635-001	EB100209-SO1A4	09	1060mL	8270C/SVO_LL	6	x	x	1.00mL	clear-colorless	1.0000 mL/12419	
8	R0905636-001	PB100209-A2	08	1060mL	8270C/SVO_LL	6	x	x	1.00mL	clear-colorless	1.0000 mL/12419	
9	R0905636-002	M-76B	07	1060mL	8270C/SVO_LL	7	x	x	1.00mL	yellow-clear	1.0000 mL/12419	SHV
10	R0905636-003	M-7609B	07	1060mL	8270C/SVO_LL	7	x	x	1.00mL	yellow-clear	1.0000 mL/12419	SHV

Spiking Solutions
 Name: 8270 LVI LCS Spike 4ppm Inventory ID 12338 Logbook Ref:
 Name: 8270 LVI 1,4-Dioxane LCS Spike 5ppm Inventory ID 12393 Logbook Ref:
 Name: 8270 LVI Surrogate 2/4 ug/mL Inventory ID 12419 Logbook Ref:

Preparation Materials
 Eppendorf Pipette Repeater EXT #3 (12431)
 Dichloromethane (Methylene Chloride) 99.9% MeCl2 (12104)
 2mL Graduated Vials (12267)
 Sodium Hydroxide 50% NaOH 0-344-42-V (10543)
 Sulfuric Acid, 50% H2SO4 (12364)
 Prepared Sodium Sulfate Na2SO4 (12441)

Preparation Steps
 Step: Extraction Step: Final Volume
 Started: 10/5/09 10:48 Started: 10/6/09 12:25
 Finished: 10/5/09 15:30 Finished: 10/6/09 12:25
 By: DMURPHY By: GLAFORCE

Comments: _____
 Reviewed By: Meghan Pappas Date: 10/6/09
 Spike Witness: DCURRAN Date: 10/6/09
 Relinquished By: _____ Date: _____
 Received By: _____ Date: _____
 Extracts Examined: Yes No

Preparation Information Benchsheet

Prep Run#: 97951 **Prep WorkFlow: OrgExLLAq(7)** **Status: Prepped**
Team: Semivoa GCMS/DMURPHY **Prep Method: EPA 3510C** **Prep Date/Time: 10/9/09 08:34 AM**

#	Lab Code	Client ID	B#	Amt. Ext	Method / Test	pH	AE	BN	Final Vol	Sample Desc. (Initial/Final)	SpikeAmt./Inv. ID	Comments
1	RQ0909715-01	MB		1000mL	8270C/SVO_LL	6	x	x	1.00mL	clear-colorless	1.0000 mL/12419	
2	RQ0909715-02	LCS		1000mL	8270C/SVO_LL	6	x	x	1.00mL	clear-colorless	1.0000 mL/12393; 1.0000 mL/12419; 1.0000 mL/12584	
3	RQ0909715-03	DLCS		1000mL	8270C/SVO_LL	6	x	x	1.00mL	clear-colorless	1.0000 mL/12393; 1.0000 mL/12419; 1.0000 mL/12584	
4	R0905635-012	EB100509-SO1A4	05	1060mL	8270C/SVO_LL	6	x	x	1.00mL	clear-colorless	1.0000 mL/12419	
5	R0905636-006*	MC-94B	08	1060mL	8270C/SVO_LL <i>Northgate</i>	6	x	x	1.00mL	clear-colorless	1.0000 mL/12419	SM
6	R0905673-001	P0910021052 ST-4-690	02	920mL	8270C/SVO_LL	6	x	x	1.00mL	clear-colorless	1.0000 mL/12419	
7	R0905693-001	EB100609-SO1A4	06	1060mL	8270C/SVO_LL	6	x	x	1.00mL	clear-colorless	1.0000 mL/12419	
8	R0905753-001	P0910051020 ST-1-473	02	1000mL	8270C/SVO_LL	6	x	x	1.00mL	clear-colorless	1.0000 mL/12419	
9	R0905753-002	P0910051355 ST-1-541	02	1000mL	8270C/SVO_LL	6	x	x	1.00mL	clear-colorless	1.0000 mL/12419	

Spiking Solutions

Name: 8270 LVI 1,4-Dioxane LCS Spike 5ppm **Inventory ID 12393** **Logbook Ref:**
Name: 8270 LVI Surrogate 2/4 ug/mL **Inventory ID 12419** **Logbook Ref:**
Name: 8270 LVI LCS Spike 4ppm **Inventory ID 12584** **Logbook Ref:**

Preparation Materials

Eppendorf Pipette Repeater **EXT #3 (12431)**
Dichloromethane (Methylene Chloride) 99.9% MeCl2 **(12407)**
2mL Graduated Vials **(12267)**
Sulfuric Acid, 50% H2SO4 **(12364)**
Prepared Sodium Sulfate Na2SO4 **(12543)**

Preparation Steps

Step: Extraction **Step: Concentration**
Started: 10/9/09 08:34 **Started: 10/12/09 09:00**
Finished: 10/9/09 15:30 **Finished: 10/12/09 11:40**
By: DMURPHY **By: GLAFORCE**

Comments:

Reviewed By: W. J. Dea **Date:** 10/12/09 **Spike Witness:** GLAFORCE **Date:** 10/12/09
Chain of Custody
Relinquished By: _____ **Date:** _____ **Extracts Examined:** Yes _____ No _____
Received By: _____ **Date:** _____

10 µL 100 PPM STD to 1.0 mL 0-618-139A
0-618-137C

9/28/09 Tune Check 10 µg BPTPP Tuned in.
10 PPM.

10 PPM

2 Blk

0-618-13903 SSTD 0.1/^{0.2} PPM LUI 0928 AM

E 4	SSTD	0.2/0.4 PPM
F 5		0.5/1.0 PPM
G 6		1.0/2.0 PPM
H 7		2.0/4.0 PPM
I 8		3.0/6.0 PPM
J 9		4.0/8.0 PPM
K 10		5.0/10.0 PPM
L 11		10.0/20.0 PPM

0-618-150D 12 ICU #1

0-618 150E 13 ICU #2

DB 713	YT	2:28 PM
14	-	
DB 715	-	
DB 716	Ym	
17	YS	
18	YS	
19	YS	
20	YS	
21	YS	
22	YS	
23	YS	
24	YS	
25	YS	
26	YC	
CB 727	YC	

Zm

0-618-151D
10 mL 100ppm STD TO HOME

0-618-151B

5973-B

10/6/09 Tune check 10 ng VRTTP DETPLVI.m
Calibration check 2.0/4.0ppm LV10928.m

R0905539 2 ~~XXXXXXXXXX~~ R0909469-01 BULL 8270LL 10/5/09 W

(R0905636) 3 ~~XXXXXXXXXX~~ R0909469-02 LLS R-5567 } LL

4 ~~XXXXXXXXXX~~ R0909469-03 LLS R-5635 }

5 5539-001 R-5636 }

6 5539-002 R-5434 SPLP.

R0905567 7 ~~XXXXXXXXXX~~ 5567-001

R0905402 8 ~~XXXXXXXXXX~~ 5402-017 X0 8270LL 9/5/09 S.O.L

9 5402-018

10 5402-019

11 5402-020

12 5402-021

R0905539 13 ~~XXXXXXXXXX~~ 5539-001 8270LL 10/5/09 W

14 5539-002

R0905567 15 ~~XXXXXXXXXX~~ 5567-001 8270LL 10/5/09 W

R0905635 16 ~~XXXXXXXXXX~~ 5635-001 8270LL 10/5/09 W

R0905636 17 ~~XXXXXXXXXX~~ 5636-001 8270LL 10/5/09 W

18 5636-002

19 5636-003

R0905434 20 Northgate 5434-002 8270 SPLP 10/5/09 W

21 Chelan

DB 854 Y 1146pm

DB 855 YC #347.

56 Ym

57 YC #2,3d

58 YC

59 Not run

60 Not run

61 Not run

62 No Rpt Y4

63 Y

64 Y

65 Y

66 Y

67 Y ^{2ml to 10?} ~~NO~~ ^{200 @ 15}

68 ~~NO~~ ^{hit for #34} _{not correct}

69 Y _{for #34}

DB 870 Y

71 Y

72 Y

73 No #2 hit.

DB 874 Y 1107 AM

DB 881

DB 855

6.7165

2.58312

1.38018

2.23640

2.18817

1.69615

Zm

Run # 174480

10 out of 100 ppm (STD CO-618-152H) to 1.0 ml.

5973-B

10/12/09 Tune check 10ng DFAPP DFAPP/LVI.M
 Tune check 10ng DFAPP DFAPP/LVI.M
 Calibration check 2.0/4.0 ppm LVI 0728.M
 Tune check 10ng DFAPP DFAPP/LVI.M
 1 Calibration 2.0/4.0 ppm LVI 0728.M

DB 983 — fuel broken.
 DB 984 YT
 DB 985 Field
 DB 986 YT 2:40
 DB 987 YC

R0905567 2 ~~XXXXXXXXXX~~ R0905567-01311.0 820.LL 10/11/09 soil
 R0905539 3 ~~XXXXXXXXXX~~ R0905539-0221 1/2 820.LL 10/15/09 soil
 R0905567 4 ~~XXXXXXXXXX~~ R0905567-0021 1/2 820.LL 10/15/09 soil
 5 5567-0031 1/2 } very dark.
 6 5567-0071 1/2
 7 5567-0141 1.0
 8 5567-0151 1.0
 9 5567-0181 1.0
 10 5569-0191 1.0
 11 5569-0201 1.0
 12 5569-0211 1.0
 13 5569-0221 1.0

DB 988 Y
 DB 989 Y
 DB 990 Y
 991 No. 256.447 %
 992 Y
 993 Y
 994 Y
 995 Y
 996 Y
 997 Y

R0905635 14 ~~XXXXXXXXXX~~ R09097715-0111.0 820.LL 10/9/09 water
 (R0905636) 15 9715-0211.0 LLS (R0905636 Nontopside
 16 9715-0311.0 LLS (R0905673 NASA
 17 water R0905635-01211.0 (R0905693 Nontopside
 18 ↓ (R0905783) NASA

DC 001 Y/M
 002 Y/Q #2,3U
 DC 003 Y/Q #2,3U
 DC 004 Y 2:24
 DC 012 —

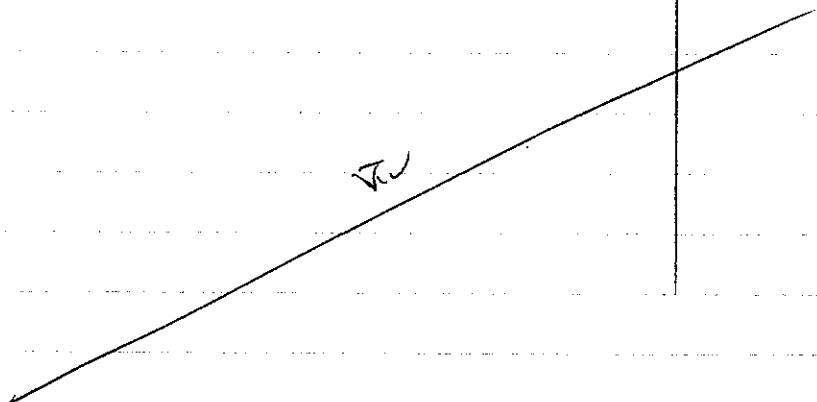
DB 987
 10.90 84715
 11.96 303469
 13.56 181277
 14.77 299750
 18.10 297631
 21.92 225119

TW

Run # 174762 10.0L of 100ppm 1STD(0-618-153B) to 1.0ml

Time	Time check	long DFTTP	DFTPLVI.M	DC 015	Field
	Time check	long DFTTP	DFTPLVI.M	DC022	YT 4:50
1	Calibration check	2.0/4.0 ppm	LVI 0928.M	DC023	YC
R0905567 2	XXXXXXXXXX	R0905567-003/1.0	820.14 10/5/09 soil	DC024	Y
R0905636 3	XXXXXXXXXX	R0905636-006/1.0	820.14 10/9/09 water	DC025	Y
R0905693 4	XXXXXXXXXX	R0905693-001/1.0	820.14 10/9/09 water	DC026	Y
R0905635 5	XXXXXXXXXX	R0909716-01/1.0	820.14 10/9/09 soil	DC027	YM
6		9716-02/1.0	LES only	028	YR #24,30f
7		9716-03/1.0	LES	029	YR #30f
8		R0905635-007/1.0		030	Y
9		5635-008/1.0		031	Y
10		5635-009/1.0		032	Y
11		5635-013/1.0		033	Y
12		5635-014/1.0		034	Y
13		5635-015/1.0		035	Y
14		R0909716-06/1.0	015MS	036	YR some computer
15		9716-07/1.0	015MSD	037	YR #30f
16		R0905635-016/1.0		038	Y
17		5635-018/1.0		DC039	Y 4:33
18	Concl			DC040	-

Time	DC023
10.68	119419
11.95	441354
13.55	266804
14.76	353137
18.07	346981
21.87	256052



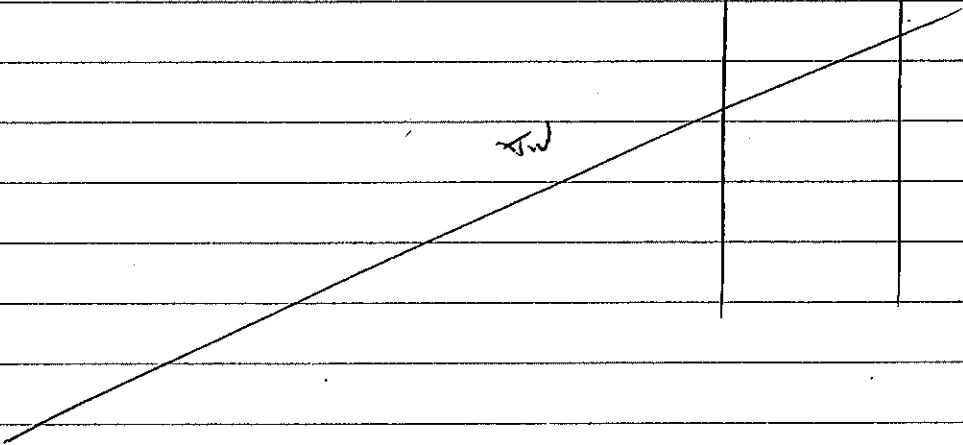
[5973-C]

10/12/09	Tune check	10ng DFT100	Tune.cm	AV 539	YT
1	Calibrat check	2.0/4.0 ppm	LV11008.m	AV 540	Final
2	check			AV 542	-
	Tune check	10ng DFT100	Tune.cm	AV 543	
10/13/09	Tune check	10ng DFT100	Tune.cm	AV 554	YT 3:13
1	Calibrat check	2.0/4.0 ppm	LV11008.m	AV 555	Final
2	PK			556	558 YM
0-618-119D3	Initial calibration	0.1/0.2 ppm	LV11013.m	AV 557	559 YS
E4		0.2/0.4		558	560 YS
F5		0.5/1.0		559	561 YS
G6		1.0/2.0		560	562 YS
H7		2.0/4.0		561	563 YS
I8		3.0/6.0		562	564 YS
J9		4.0/8.0		563	565 YS
K10		5.0/10.0		564	566 YS
L11		10.0/20.0		AV 565	567 Y
0-618-112J12	ZCV1	2.0		566	568 YC
0-618-116E13	ZCV2	2.0		AV 567	569 YC 12:04

AV 563

- 11.17 55546
- 12.42 204385
- 13.99 132463
- 15.20 169132
- 18.79 227912
- 22.95 207767

TW



10ml of 100ppm ISTD(0-618-1524) to 1.0ml

Time	Time conc	Long DT	Time cm	AV	Y/T
10/14/09	Calibrate conc	2.0/4.0ppm	LU11013.M	AV570	Y T 9:31
R0905636	██████ (R)	R0909469-01/1.0 BK	8270.LL 10/1/09 water	AV571	Y C
3	██████	R0905636-003/1.0		AV572	Y M
R0905524	██████	R0905524-009/1.0	8270.LL 10/1/09 50i	AV573	Y
5		5524-010		574	Y
6		5524-011		575	Y
7		5524-012		576	Y
8		5524-013		577	Y
9		5524-014		578	Y
10		5524-015		579	Y
11		5524-016		580	Y
12		5524-017		581	Y
13		5524-018		582	Y
14		5524-019		583	Y
15		5524-020		584	Y
R0905753	██████ (R)	R0909715-01/1.0 BK	8270.LL 10/9/09 water	AV 585	Y
17		R0905753-001/1.0		586	Y M
18		5753-002/1.0		587	Y
R0905673	██████	R0905673-001/1.0	8270.LL 10/9/09 water	AV 588	Y 9:02
20	check			AV 589	No out of window
				AV 592	—

AV571

11.17	59839
12.42	218177
13.99	142099
15.20	190600
18.79	266232
22.95	238809

PESTICIDES
QC SUMMARY

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water

Service Request: R0905636
Date Analyzed: 10/ 8/09

**Lab Control Sample Summary
 Organochlorine Pesticides by Gas Chromatography**

Analytical Method: 8081A
Prep Method: EPA 3510C

Units: µg/L
Basis: NA

Extraction Lot: 97635

Analyte Name	Lab Control Sample RQ0909548-02			Duplicate Lab Control Sample RQ0909548-03			% Rec Limits	RPD	RPD Limit
	Result	Expected	% Rec	Result	Expected	% Rec			
4,4'-DDD	0.177	0.200	88	0.191	0.200	95	50 - 130	7	30
4,4'-DDE	0.171	0.200	85	0.183	0.200	92	50 - 130	7	30
4,4'-DDT	0.169	0.200	84	0.180	0.200	90	50 - 130	7	30
Aldrin	0.150	0.200	75	0.160	0.200	80	50 - 130	7	30
Dieldrin	0.184	0.200	92	0.197	0.200	99	50 - 130	7	30
Endosulfan I	0.187	0.200	93	0.206	0.200	103	50 - 130	10	30
Endosulfan II	0.173	0.200	87	0.187	0.200	93	50 - 130	8	30
Endosulfan Sulfate	0.169	0.200	84	0.181	0.200	91	50 - 130	7	30
Endrin	0.187	0.200	93	0.201	0.200	101	50 - 130	7	30
Endrin Aldehyde	0.160	0.200	80	0.165	0.200	83	50 - 130	3	30
Endrin Ketone	0.181	0.200	91	0.191	0.200	96	50 - 130	6	30
Heptachlor	0.179	0.200	89	0.184	0.200	92	50 - 130	3	30
Heptachlor Epoxide	0.176	0.200	88	0.193	0.200	97	50 - 130	9	30
Hexachlorobenzene	0.444	0.500	89	0.423	0.500	85	50 - 130	5	30
Methoxychlor	1.03	1.00	103	1.09	1.00	109	50 - 130	6	30
alpha-BHC	0.188	0.200	94	0.177	0.200	88	50 - 130	6	30
alpha-Chlordane	0.173	0.200	87	0.189	0.200	94	50 - 130	8	30
beta-BHC	0.167	0.200	83	0.183	0.200	91	50 - 130	9	30
delta-BHC	0.160	0.200	80	0.169	0.200	84	50 - 130	6	30
gamma-BHC (Lindane)	0.183	0.200	92	0.184	0.200	92	50 - 130	0	30
gamma-Chlordane	0.179	0.200	90	0.194	0.200	97	50 - 130	8	30

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water

Service Request: R0905636
Date Analyzed: 10/29/09

**Lab Control Sample Summary
 Organochlorine Pesticides by Gas Chromatography**

Analytical Method: 8081A
Prep Method: EPA 3510C

Units: µg/L
Basis: NA

Extraction Lot: 98167

Analyte Name	Lab Control Sample RQ0909854-02			Duplicate Lab Control Sample RQ0909854-03			% Rec Limits	RPD	RPD Limit
	Result	Expected	% Rec	Result	Expected	% Rec			
4,4'-DDD	0.185	0.200	93	0.195	0.200	98	50 - 130	5	30
4,4'-DDE	0.178	0.200	89	0.184	0.200	92	50 - 130	3	30
4,4'-DDT	0.180	0.200	90	0.189	0.200	94	50 - 130	5	30
Aldrin	0.153	0.200	77	0.157	0.200	79	50 - 130	3	30
Dieldrin	0.195	0.200	97	0.199	0.200	100	50 - 130	2	30
Endosulfan I	0.192	0.200	96	0.198	0.200	99	50 - 130	3	30
Endosulfan II	0.186	0.200	93	0.192	0.200	96	50 - 130	3	30
Endosulfan Sulfate	0.176	0.200	88	0.185	0.200	92	50 - 130	5	30
Endrin	0.178	0.200	89	0.188	0.200	94	50 - 130	5	30
Endrin Aldehyde	0.161	0.200	80	0.160	0.200	80	50 - 130	0	30
Endrin Ketone	0.197	0.200	98	0.208	0.200	104	50 - 130	6	30
Heptachlor	0.170	0.200	85	0.175	0.200	87	50 - 130	3	30
Heptachlor Epoxide	0.180	0.200	90	0.184	0.200	92	50 - 130	2	30
Hexachlorobenzene	0.411	0.500	82	0.422	0.500	84	50 - 130	3	30
Methoxychlor	1.07	1.00	107	1.12	1.00	112	50 - 130	5	30
alpha-BHC	0.176	0.200	88	0.182	0.200	91	50 - 130	3	30
alpha-Chlordane	0.174	0.200	87	0.180	0.200	90	50 - 130	3	30
beta-BHC	0.179	0.200	90	0.184	0.200	92	50 - 130	3	30
delta-BHC	0.156	0.200	78	0.161	0.200	80	50 - 130	3	30
gamma-BHC (Lindane)	0.178	0.200	89	0.184	0.200	92	50 - 130	3	30
gamma-Chlordane	0.177	0.200	89	0.184	0.200	92	50 - 130	4	30

Comments: _____

Method Blank Summary

Lab Name: Columbia Analytical Services **Contract:** NORTHGATE
Lab Code: 10145 **Case.No.:** R0905636 **SAS No.:** _____ **SDG No.:** PB100209-A2
Lab Sample ID RQ0909548-01|1. **Lab File ID:** FC753.D
Matrix: WATER **Level:** (low/med)
Date extracted: 10/06/09 **Extraction:** (Sepf/Cont/Sonc) Sepf
Date analyzed: (1) 10/8/2009 **Date analyzed:** (2) 10/8/2009
Time analyzed: (1) 9:07 **Time analyzed:** (2) 9:07
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	RQ0909548-02 1.0	10/8/2009	10/8/2009
PBLK1MSD	RQ0909548-03 1.0	10/8/2009	10/8/2009
PB100209-A2	R0905636-001 1.0	10/8/2009	10/8/2009
M-76B	R0905636-002 1.0	10/8/2009	10/8/2009
M-76009B	R0905636-003 1.0	10/8/2009	10/8/2009

Method Blank Summary

Lab Name: Columbia Analytical Services **Contract:** NORTHGATE
Lab Code: 10145 **Case.No.:** R0905636 **SAS No.:** _____ **SDG No.:** PB100209-A2
Lab Sample ID RQ0909854-01|1. **Lab File ID:** FD147.D
Matrix: WATER **Level:** *(low/med)*
Date extracted: 10/13/09 **Extraction:** *(Sepf/Cont/Sonc)* Sepf
Date analyzed: *(1)* 10/29/2009 **Date analyzed:** *(2)* 10/29/2009
Time analyzed: *(1)* 12:26 **Time analyzed:** *(2)* 12:26
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>
PB100209-A2 HE	R0905636-001 1.0	10/28/2009	10/28/2009
PBLK2MS	RQ0909854-02 1.0	10/29/2009	10/29/2009
PBLK2MSD	RQ0909854-03 1.0	10/29/2009	10/29/2009
MC-94B	R0905636-006 2.0	10/29/2009	10/29/2009

PESTICIDES
SAMPLE DATA

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: PB100209-A2
Lab Code: R0905636-001

Service Request: R0905636
Date Collected: 10/ 2/09 1111
Date Received: 10/ 3/09
Units: µg/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analytical Method: 8081A
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis		Note
								Lot	Lot	
4,4'-DDD	0.050	U	0.094	0.050	1	10/ 6/09	10/8/09 13:19	97635	174100	
4,4'-DDE	0.050	U	0.094	0.050	1	10/ 6/09	10/8/09 13:19	97635	174100	
4,4'-DDT	0.050	U	0.094	0.050	1	10/ 6/09	10/8/09 13:19	97635	174100	
Aldrin	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 13:19	97635	174100	
Chlordane	0.13	U	0.24	0.13	1	10/ 6/09	10/8/09 13:19	97635	174100	
Dieldrin	0.050	U	0.094	0.050	1	10/ 6/09	10/8/09 13:19	97635	174100	
Endosulfan I	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 13:19	97635	174100	
Endosulfan II	0.050	U	0.094	0.050	1	10/ 6/09	10/8/09 13:19	97635	174100	
Endosulfan Sulfate	0.050	U	0.094	0.050	1	10/ 6/09	10/8/09 13:19	97635	174100	
Endrin	0.050	U	0.094	0.050	1	10/ 6/09	10/8/09 13:19	97635	174100	
Endrin Aldehyde	0.050	U	0.094	0.050	1	10/ 6/09	10/8/09 13:19	97635	174100	
Endrin Ketone	0.050	U	0.094	0.050	1	10/ 6/09	10/8/09 13:19	97635	174100	
Heptachlor	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 13:19	97635	174100	
Heptachlor Epoxide	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 13:19	97635	174100	
Hexachlorobenzene	0.028	U	0.047	0.028	1	10/ 6/09	10/8/09 13:19	97635	174100	
Methoxychlor	0.25	U	0.47	0.25	1	10/ 6/09	10/8/09 13:19	97635	174100	
Toxaphene	0.50	U	0.94	0.50	1	10/ 6/09	10/8/09 13:19	97635	174100	
alpha-BHC	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 13:19	97635	174100	
alpha-Chlordane	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 13:19	97635	174100	
beta-BHC	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 13:19	97635	174100	
delta-BHC	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 13:19	97635	174100	
gamma-BHC (Lindane)	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 13:19	97635	174100	
gamma-Chlordane	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 13:19	97635	174100	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
Decachlorobiphenyl	39	*	40-140	10/8/09 13:19	
Tetrachloro-m-xylene	74		40-140	10/8/09 13:19	

Comments:

Data Path : J:\ACQUDATA\6890D\DATA\100809\
 Data File : FC760.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 08 Oct 2009 1:19 pm
 Operator : M.PEDRO
 Sample : R0905636-001|1.0
 Misc : 10/06/09 106 8081
 ALS Vial : 43 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 09 10:52:41 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Fri Oct 09 10:50:59 2009
 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	9.20	9.14	1703.1E6	5715.0E6	74.359	69.533
Spiked Amount	100.000	Range	30 - 150	Recovery	= 74.36%	69.53%
25) S SURR2,Decachloro	17.31	17.61	726.7E6	1889.3E6	38.741	38.574
Spiked Amount	100.000	Range	30 - 150	Recovery	= 38.74%	38.57%
Target Compounds						
2) TC HEXACHLOROBENZEN	9.90	9.96	11536570	63341600	0.372	0.602 #
3) tc alpha-BHC	0.00	10.20	0	6870296	N.D.	0.057 #
4) tcm gamma-BHC (L	0.00	10.76	0	2752327	N.D.	0.026 #
5) tcm Heptachlor	0.00	11.44	0	23757696	N.D.	0.241 #
6) tcm Aldrin	0.00	11.90	0	4743301	N.D.	0.053 #
7) tc beta-BHC	0.00	10.91	0	9085209	N.D.	0.203 #
8) tc delta-BHC	0.00	11.38	0	9769178	N.D.	0.098 #
9) tc Heptachlor E	12.82	12.74	115.2E6	20303520	4.525	0.261 #
11) tc gamma-Chlord	0.00	13.01	0	54433072	N.D.	0.683 #
12) tc alpha-Chlord	13.18	0.00	2615507	0	0.106	N.D. #
13) tc 4,4'-DDE	13.29	13.45	17483194	23648929	0.737	0.331 #
14) tcm Dieldrin	13.71	13.64	5959020	23069303	0.237	0.316 #
15) tcm Endrin	0.00	14.11	0	5373721	N.D.	0.084 #
17) tc beta-Endosul	0.00	14.42	0	11319216	N.D.	0.185 #
19) tcm 4,4'-DDT	0.00	14.72	0	16391556	N.D.	0.269 #
20) tc Endrin Aldeh	0.00	14.90	0	40255425	N.D.	0.873 #
21) tc Endosulfan S	0.00	15.27	0	3750628	N.D.	0.068 #
22) tc Methoxychlor	0.00	15.66	0	46797	N.D.	0.002 #
24) tc Endrin Keton	0.00	16.07	0	1656882	N.D.	0.028 #
26) L8C Toxaphene	14.52	14.56	7629930	4217329	8.345	1.376 #
28) L8C Toxaphene {3}	0.00	15.07	0	2493025	N.D.	2.031 #
29) L8C Toxaphene {4}	0.00	16.24	0	1308255	N.D.	1.009 #
30) L8C Toxaphene {5}	16.25	16.52	13258849	27119411	29.219	22.396
Sum Toxaphene			20888779	35138020	37.564	26.812
Average Toxaphene					18.782	6.703

Data Path : J:\ACQUDATA\6890D\DATA\100809\
 Data File : FC760.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 08 Oct 2009 1:19 pm
 Operator : M.PEDRO
 Sample : R0905636-001|1.0
 Misc : 10/06/09 106 8081
 ALS Vial : 43 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 09 10:52:41 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Fri Oct 09 10:50:59 2009
 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

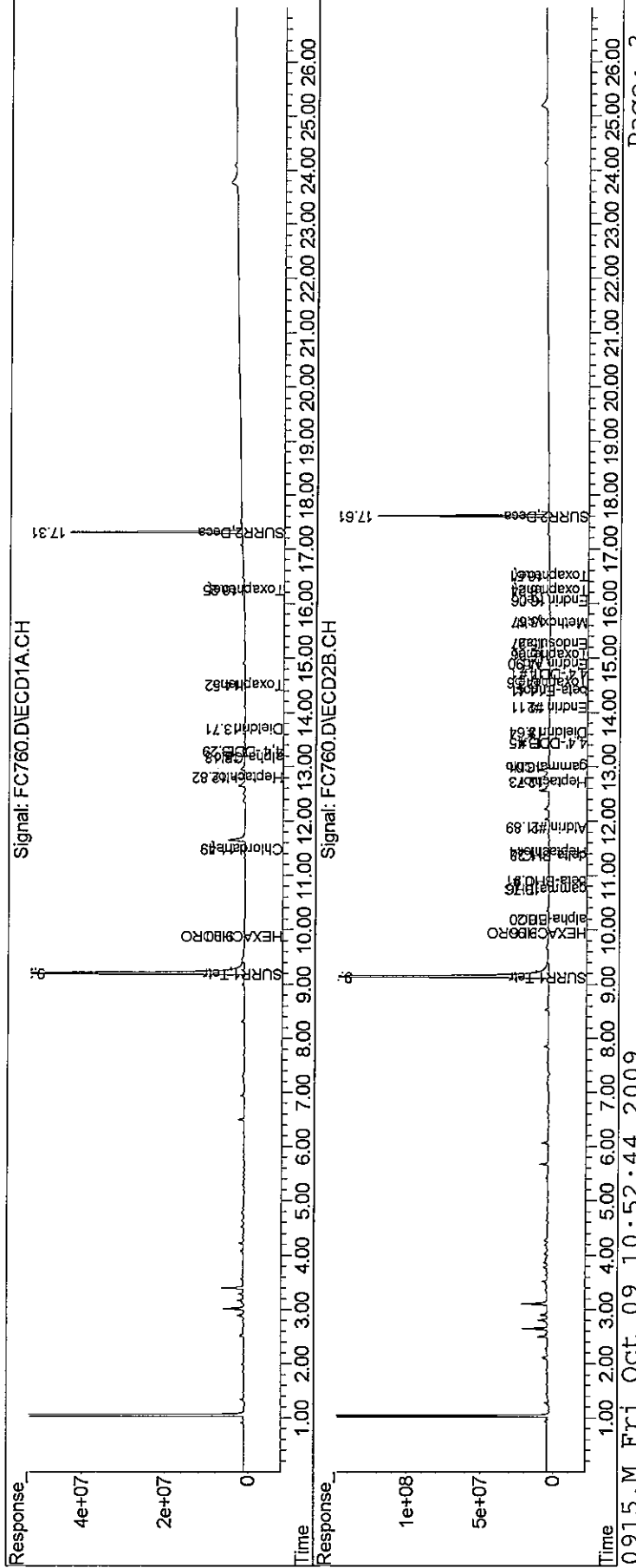
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
32) L9C Chlordane{2}	11.49	0.00	6026593	0	14.805	N.D. #
Sum Chlordane			6026593	0	14.805	N.D.
Average Chlordane					14.805	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\100809\
 Data File : FC760.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 08 Oct 2009 1:19 pm
 Operator : M.PEDRO
 Sample : R0905636-001|1.0
 Misc : 10/06/09 106 8081
 ALS Vial : 43 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 09 10:52:41 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Fri Oct 09 10:50:59 2009
 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



00183

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: PB100209-A2
Lab Code: R0905636-001
Run Type: Reanalysis

Service Request: R0905636
Date Collected: 10/ 2/09 1111
Date Received: 10/ 3/09

Units: µg/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analytical Method: 8081A
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis		Note
								Lot	Lot	
4,4'-DDD	0.050	U	0.094	0.050	1	10/13/09	10/28/09 05:06	98167	176909	
4,4'-DDE	0.050	U	0.094	0.050	1	10/13/09	10/28/09 05:06	98167	176909	
4,4'-DDT	0.050	U	0.094	0.050	1	10/13/09	10/28/09 05:06	98167	176909	
Aldrin	0.025	U	0.047	0.025	1	10/13/09	10/28/09 05:06	98167	176909	
Chlordane	0.13	U	0.24	0.13	1	10/13/09	10/28/09 05:06	98167	176909	
Dieldrin	0.050	U	0.094	0.050	1	10/13/09	10/28/09 05:06	98167	176909	
Endosulfan I	0.025	U	0.047	0.025	1	10/13/09	10/28/09 05:06	98167	176909	
Endosulfan II	0.050	U	0.094	0.050	1	10/13/09	10/28/09 05:06	98167	176909	
Endosulfan Sulfate	0.050	U	0.094	0.050	1	10/13/09	10/28/09 05:06	98167	176909	
Endrin	0.050	U	0.094	0.050	1	10/13/09	10/28/09 05:06	98167	176909	
Endrin Aldehyde	0.050	U	0.094	0.050	1	10/13/09	10/28/09 05:06	98167	176909	
Endrin Ketone	0.050	U	0.094	0.050	1	10/13/09	10/28/09 05:06	98167	176909	
Heptachlor	0.025	U	0.047	0.025	1	10/13/09	10/28/09 05:06	98167	176909	
Heptachlor Epoxide	0.025	U	0.047	0.025	1	10/13/09	10/28/09 05:06	98167	176909	
Hexachlorobenzene	0.028	U	0.047	0.028	1	10/13/09	10/28/09 05:06	98167	176909	
Methoxychlor	0.25	U	0.47	0.25	1	10/13/09	10/28/09 05:06	98167	176909	
Toxaphene	0.50	U	0.94	0.50	1	10/13/09	10/28/09 05:06	98167	176909	
alpha-BHC	0.025	U	0.047	0.025	1	10/13/09	10/28/09 05:06	98167	176909	
alpha-Chlordane	0.025	U	0.047	0.025	1	10/13/09	10/28/09 05:06	98167	176909	
beta-BHC	0.025	U	0.047	0.025	1	10/13/09	10/28/09 05:06	98167	176909	
delta-BHC	0.025	U	0.047	0.025	1	10/13/09	10/28/09 05:06	98167	176909	
gamma-BHC (Lindane)	0.025	U	0.047	0.025	1	10/13/09	10/28/09 05:06	98167	176909	
gamma-Chlordane	0.025	U	0.047	0.025	1	10/13/09	10/28/09 05:06	98167	176909	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
Decachlorobiphenyl	47	40-140	10/28/09 05:06		
Tetrachloro-m-xylene	98	40-140	10/28/09 05:06		

Comments:

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD094.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 28 Oct 2009 5:06 am
 Operator : M.PEDRO
 Sample : R0905636-001|1.0 RE
 Misc : 10/13/09 106 8081
 ALS Vial : 37 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 28 11:01:42 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 08:32:24 2009
 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	9.18	9.36	2339.3E6	6405.1E6	98.492	91.740
Spiked Amount	100.000	Range 30 - 150	Recovery =		98.49%	91.74%
25) S SURR2,Decachloro	17.28	17.91	941.4E6	2014.5E6	46.709	46.630
Spiked Amount	100.000	Range 30 - 150	Recovery =		46.71%	46.63%
Target Compounds						
2) TC HEXACHLORO BENZEN	9.87	10.17	6061339	27383736	0.191	0.293 #
3) tc alpha-BHC	0.00	10.43	0	14403413	N.D.	0.140 #
4) tcm gamma-BHC (L	0.00	11.00	0	8609105	N.D.	0.093 #
5) tcm Heptachlor	11.45	11.65	9422989	56732292	0.288	0.647 #
6) tcm Aldrin	0.00	12.14	0	30593671	N.D.	0.375 #
7) tc beta-BHC	10.84	11.15	4064838	7829661	0.297	0.193 #
8) tc delta-BHC	11.10	11.60	4421988	19770137	0.134	0.216 #
9) tc Heptachlor E	12.77	0.00	181.9E6	0	6.594	N.D. #
10) tc alpha-Endosu	0.00	13.57	0	22956894	N.D.	0.384 #
11) tc gamma-Chlord	12.94	13.25	60339947	55073417	2.194	0.769 #
13) tc 4,4'-DDE	13.25	13.71	37057981	27230682	1.401	0.409 #
14) tcm Dieldrin	0.00	13.96	0	44586443	N.D.	0.674 #
15) tcm Endrin	0.00	14.38	0	31944389	N.D.	0.560 #
16) tc KEPONE	14.08	14.57	39746792	56452635	4.095	2.452 #
17) tc beta-Endosul	0.00	14.70	0	45940413	N.D.	0.824 #
19) tcm 4,4'-DDT	0.00	15.00	0	79757076	N.D.	1.459 #
20) tc Endrin Aldeh	15.00	15.22	9547366	47032496	0.524	1.079 #
24) tc Endrin Keton	0.00	16.35	0	24588542	N.D.	0.466 #
27) L8C Toxaphene {2}	0.00	14.91	0	21840772	N.D.	15.454 #
28) L8C Toxaphene {3}	0.00	15.22	0	47032496	N.D.	14.881 #
30) L8C Toxaphene {5}	0.00	16.73	0	13936783	N.D.	11.919 #
Sum Toxaphene			0	82810052	N.D.	42.253
Average Toxaphene					0.000	14.084
31) L9C Chlordane	11.32	11.47	5491317	12905718	30.587	22.805 #
32) L9C Chlordane {2}	11.45	11.65	9422989	56732292	21.882	44.273 #

up
10/28

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD094.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 28 Oct 2009 5:06 am
 Operator : M.PEDRO
 Sample : R0905636-001|1.0
 Misc : 10/13/09 106 8081
 ALS Vial : 37 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 28 11:01:42 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 08:32:24 2009
 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

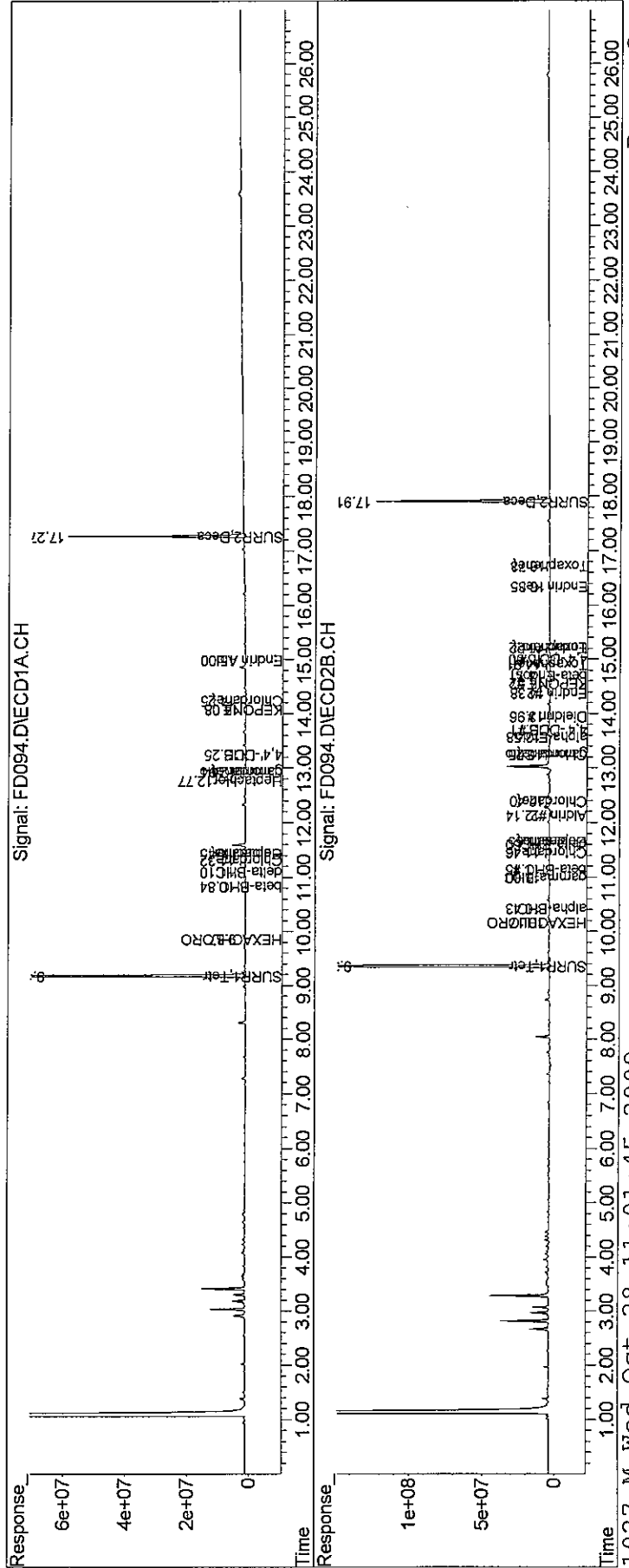
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
33) L9C Chlordane{3}	0.00	12.40	0	48937455	N.D.	30.542 #
34) L9C Chlordane{4}	12.94	13.25	60339947	55073417	18.798	7.014 #
35) L9C Chlordane{5}	14.25	0.00	10946536	0	9.059	N.D. #
Sum Chlordane			86200789	173.6E6	80.326	104.635
Average Chlordane					20.082	26.159

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD094.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 28 Oct 2009 5:06 am
 Operator : M.PEDRO
 Sample : R0905636-001|1.0
 Misc : 10/13/09 106 8081
 ALS Vial : 37 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 28 11:01:42 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 08:32:24 2009
 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



00587

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: M-76B
Lab Code: R0905636-002

Service Request: R0905636
Date Collected: 10/ 2/09 1155
Date Received: 10/ 3/09

Units: µg/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analytical Method: 8081A
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis		
								Lot	Lot	Note
4,4'-DDD	0.050	U	0.094	0.050	1	10/ 6/09	10/8/09 13:54	97635	174100	
4,4'-DDE	0.050	U	0.094	0.050	1	10/ 6/09	10/8/09 13:54	97635	174100	
4,4'-DDT	0.050	U	0.094	0.050	1	10/ 6/09	10/8/09 13:54	97635	174100	
Aldrin	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 13:54	97635	174100	
Chlordane	0.13	U	0.24	0.13	1	10/ 6/09	10/8/09 13:54	97635	174100	
Dieldrin	0.050	U	0.094	0.050	1	10/ 6/09	10/8/09 13:54	97635	174100	
Endosulfan I	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 13:54	97635	174100	
Endosulfan II	0.050	U	0.094	0.050	1	10/ 6/09	10/8/09 13:54	97635	174100	
Endosulfan Sulfate	0.050	U	0.094	0.050	1	10/ 6/09	10/8/09 13:54	97635	174100	
Endrin	0.050	U	0.094	0.050	1	10/ 6/09	10/8/09 13:54	97635	174100	
Endrin Aldchde	0.050	U	0.094	0.050	1	10/ 6/09	10/8/09 13:54	97635	174100	
Endrin Ketone	0.050	U	0.094	0.050	1	10/ 6/09	10/8/09 13:54	97635	174100	
Heptachlor	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 13:54	97635	174100	
Heptachlor Epoxide	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 13:54	97635	174100	
Hexachlorobenzene	0.033	U	0.047	0.033	1	10/ 6/09	10/8/09 13:54	97635	174100	
Methoxychlor	0.25	U	0.47	0.25	1	10/ 6/09	10/8/09 13:54	97635	174100	
Toxaphene	0.50	U	0.94	0.50	1	10/ 6/09	10/8/09 13:54	97635	174100	
alpha-BHC	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 13:54	97635	174100	
alpha-Chlordane	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 13:54	97635	174100	
beta-BHC	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 13:54	97635	174100	
delta-BHC	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 13:54	97635	174100	
gamma-BHC (Lindane)	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 13:54	97635	174100	
gamma-Chlordane	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 13:54	97635	174100	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
Decachlorobiphenyl	84	40-140	10/8/09 13:54		
Tetrachloro-m-xylene	84	40-140	10/8/09 13:54		

Comments:

Data Path : J:\ACQUDATA\6890D\DATA\100809\
 Data File : FC761.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 08 Oct 2009 1:54 pm
 Operator : M.PEDRO
 Sample : R0905636-002|1.0
 Misc : 10/06/09 106 8081
 ALS Vial : 44 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 09 10:52:46 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Fri Oct 09 10:50:59 2009
 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

1) S SURR1,Tetrac	9.20	9.14	1926.7E6	6299.7E6	84.124	76.648
Spiked Amount	100.000	Range	30 - 150	Recovery	=	84.12%
25) S SURR2,Decachloro	17.31	17.61	1569.8E6	4122.7E6	83.684	84.174
Spiked Amount	100.000	Range	30 - 150	Recovery	=	83.68%

Target Compounds

2) TC HEXACHLOROENZEN	9.90	9.96	7514540	24619859	0.242	0.234
3) tc alpha-BHC	0.00	10.20	0	10206725	N.D.	0.085 #
4) tcm gamma-BHC (L	0.00	10.76	0	11173254	N.D.	0.107 #
5) tcm Heptachlor	11.48	11.44	8340217	16656018	0.269	0.169 #
6) tcm Aldrin	0.00	11.90	0	10081384	N.D.	0.112 #
7) tc beta-BHC	0.00	10.93	0	10170426	N.D.	0.227 #
8) tc delta-BHC	0.00	11.38	0	13106414	N.D.	0.131 #
9) tc Heptachlor E	0.00	12.73	0	18528537	N.D.	0.238 #
11) tc gamma-Chlord	0.00	13.00	0	24632412	N.D.	0.434 #
13) tc 4,4'-DDE	13.29	13.45	6191531	10133329	0.261	0.142 #
14) tcm Dieldrin	13.71	13.65	6810894	23719196	0.271	0.325
15) tcm Endrin	0.00	14.11	0	6855459	N.D.	0.108 #
17) tc beta-Endosul	0.00	14.42	0	12779468	N.D.	0.209 #
19) tcm 4,4'-DDT	0.00	14.72	0	21456824	N.D.	0.353 #
21) tc Endosulfan S	0.00	15.31	0	12238036	N.D.	0.221 #
24) tc Endrin Keton	0.00	16.05	0	1881405	N.D.	0.032 #
26) L8C Toxaphene	14.52	0.00	12020571	0	13.147	N.D. #
27) L8C Toxaphene{2}	0.00	14.94	0	328.7E6	N.D.	96.060 #
29) L8C Toxaphene{4}	0.00	16.24	0	2572442	N.D.	1.983 #
30) L8C Toxaphene{5}	16.25	16.51	12268777	29171251	27.037	24.090
Sum Toxaphene			24289348	360.5E6	40.184	122.133
Average Toxaphene					20.092	40.711
32) L9C Chlordane{2}	11.48	0.00	8340217	0	20.489	N.D. #
35) L9C Chlordane{5}	0.00	14.55	0	9248923	N.D.	2.591 #
Sum Chlordane			8340217	9248923	20.489	2.591

Data Path : J:\ACQUDATA\6890D\DATA\100809\
 Data File : FC761.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 08 Oct 2009 1:54 pm
 Operator : M.PEDRO
 Sample : R0905636-002|1.0
 Misc : 10/06/09 106 8081
 ALS Vial : 44 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 09 10:52:46 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Fri Oct 09 10:50:59 2009
 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

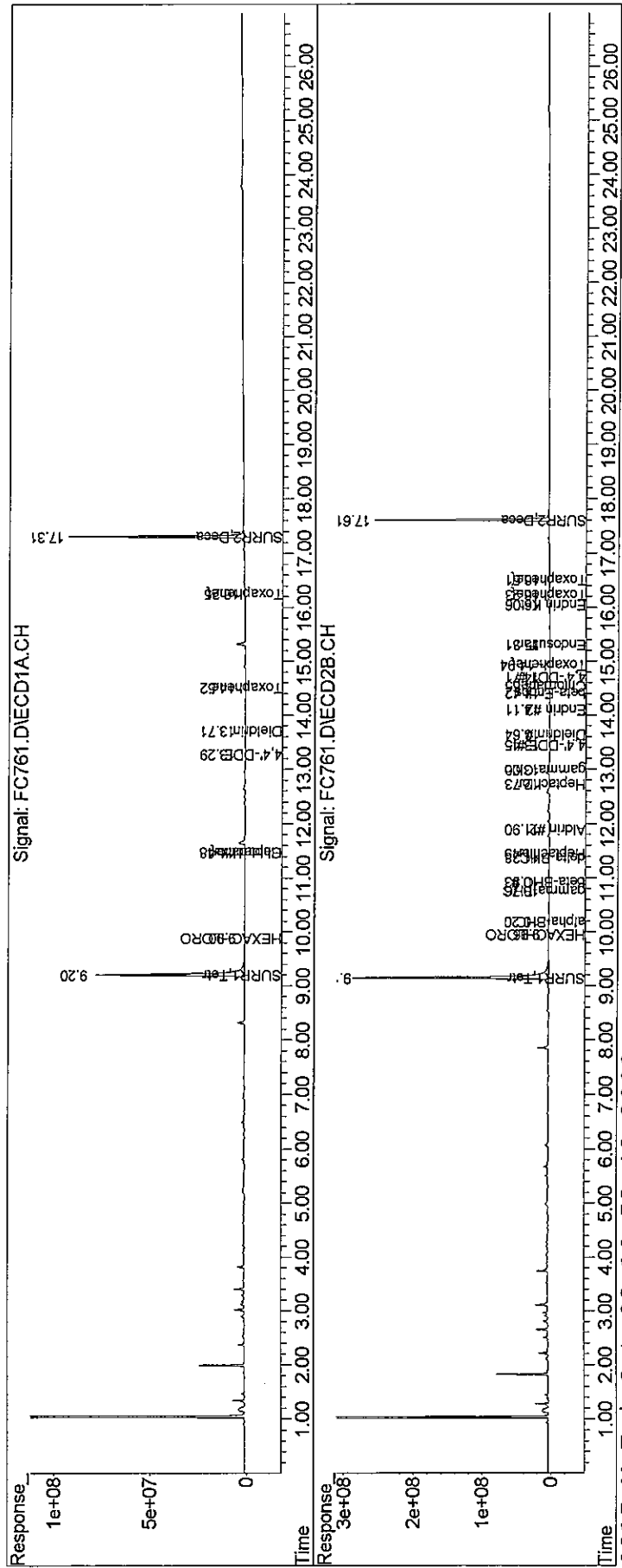
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
Average Chlordane					20.489	2.591

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQDATA\6890D\DATA\100809\
Data File : FC761.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Oct 2009 1:54 pm
Operator : M.PEDRO
Sample : R0905636-002|1.0
Misc : 10/06/09 106 8081
ALS Vial : 44 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 09 10:52:46 2009
Quant Method : J:\ACQDATA\6890D\METHODS\80810915.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Fri Oct 09 10:50:59 2009
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



80591

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: M-76009B
Lab Code: R0905636-003

Service Request: R0905636
Date Collected: 10/ 2/09 1155
Date Received: 10/ 3/09
Units: µg/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analytical Method: 8081A
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis	
								Lot	Lot Note
4,4'-DDD	0.050	U	0.094	0.050	1	10/ 6/09	10/8/09 14:30	97635	174100
4,4'-DDE	0.050	U	0.094	0.050	1	10/ 6/09	10/8/09 14:30	97635	174100
4,4'-DDT	0.050	U	0.094	0.050	1	10/ 6/09	10/8/09 14:30	97635	174100
Aldrin	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 14:30	97635	174100
Chlordane	0.13	U	0.24	0.13	1	10/ 6/09	10/8/09 14:30	97635	174100
Dieldrin	0.050	U	0.094	0.050	1	10/ 6/09	10/8/09 14:30	97635	174100
Endosulfan I	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 14:30	97635	174100
Endosulfan II	0.050	U	0.094	0.050	1	10/ 6/09	10/8/09 14:30	97635	174100
Endosulfan Sulfate	0.050	U	0.094	0.050	1	10/ 6/09	10/8/09 14:30	97635	174100
Endrin	0.050	U	0.094	0.050	1	10/ 6/09	10/8/09 14:30	97635	174100
Endrin Aldehyde	0.050	U	0.094	0.050	1	10/ 6/09	10/8/09 14:30	97635	174100
Endrin Ketone	0.050	U	0.094	0.050	1	10/ 6/09	10/8/09 14:30	97635	174100
Heptachlor	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 14:30	97635	174100
Heptachlor Epoxide	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 14:30	97635	174100
Hexachlorobenzene	0.028	U	0.047	0.028	1	10/ 6/09	10/8/09 14:30	97635	174100
Methoxychlor	0.25	U	0.47	0.25	1	10/ 6/09	10/8/09 14:30	97635	174100
Toxaphene	0.50	U	0.94	0.50	1	10/ 6/09	10/8/09 14:30	97635	174100
alpha-BHC	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 14:30	97635	174100
alpha-Chlordane	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 14:30	97635	174100
beta-BHC	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 14:30	97635	174100
delta-BHC	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 14:30	97635	174100
gamma-BHC (Lindane)	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 14:30	97635	174100
gamma-Chlordane	0.025	U	0.047	0.025	1	10/ 6/09	10/8/09 14:30	97635	174100

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
Decachlorobiphenyl	87	40-140	10/8/09 14:30		
Tetrachloro-m-xylene	84	40-140	10/8/09 14:30		

Comments:

Data Path : J:\ACQUDATA\6890D\DATA\100809\
 Data File : FC762.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 08 Oct 2009 2:30 pm
 Operator : M.PEDRO
 Sample : R0905636-003|1.0
 Misc : 10/06/09 106 8081
 ALS Vial : 45 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 09 10:52:51 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Fri Oct 09 10:50:59 2009
 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	9.21	9.14	1916.7E6	6302.0E6	83.689	76.676
Spiked Amount	100.000	Range	30 - 150	Recovery	=	83.69% 76.68%
25) S SURR2,Decachloro	17.31	17.61	1620.8E6	4238.5E6	86.398	86.538
Spiked Amount	100.000	Range	30 - 150	Recovery	=	86.40% 86.54%
Target Compounds						
2) TC HEXACHLORO BENZEN	9.90	9.96	5304511	25322350	0.171	0.241 #
3) tc alpha-BHC	0.00	10.20	0	11650040	N.D.	0.097 #
4) tcm gamma-BHC (L	0.00	10.77	0	4271269	N.D.	0.041 #
6) tcm Aldrin	0.00	11.90	0	2152392	N.D.	0.024 #
7) tc beta-BHC	0.00	10.93	0	11406893	N.D.	0.254 #
8) tc delta-BHC	0.00	11.38	0	8407596	N.D.	0.084 #
9) tc Heptachlor E	0.00	12.73	0	17636117	N.D.	0.226 #
11) tc gamma-Chlord	0.00	13.00	0	34323408	N.D.	0.430 #
13) tc 4,4'-DDE	13.29	13.45	4236518	8944103	0.179	0.125 #
14) tcm Dieldrin	13.71	13.65	4967485	18548984	0.198	0.254 #
15) tcm Endrin	0.00	14.12	0	7193376	N.D.	0.113 #
17) tc beta-Endosul	0.00	14.42	0	10543960	N.D.	0.173 #
19) tcm 4,4'-DDT	0.00	14.72	0	15795833	N.D.	0.260 #
21) tc Endosulfan S	0.00	15.31	0	16556860	N.D.	0.299 #
24) tc Endrin Keton	0.00	16.06	0	2705957	N.D.	0.046 #
26) L8C Toxaphene	14.52	0.00	6166171	0	6.744	N.D. #
27) L8C Toxaphene{2}	0.00	14.94	0	301.4E6	N.D.	88.068 #
30) L8C Toxaphene{5}	16.25	16.51	15243176	30298894	33.592	25.021 #
Sum Toxaphene			21409347	331.7E6	40.336	113.090
Average Toxaphene					20.168	56.545
32) L9C Chlordane{2}	11.48	11.47	6010176	10177091	14.765	7.114 #
35) L9C Chlordane{5}	0.00	14.54	0	7868578	N.D.	2.204 #
Sum Chlordane			6010176	18045669	14.765	9.318
Average Chlordane					14.765	4.659

Data Path : J:\ACQUDATA\6890D\DATA\100809\
 Data File : FC762.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 08 Oct 2009 2:30 pm
 Operator : M.PEDRO
 Sample : R0905636-003|1.0
 Misc : 10/06/09 106 8081
 ALS Vial : 45 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 09 10:52:51 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Fri Oct 09 10:50:59 2009
 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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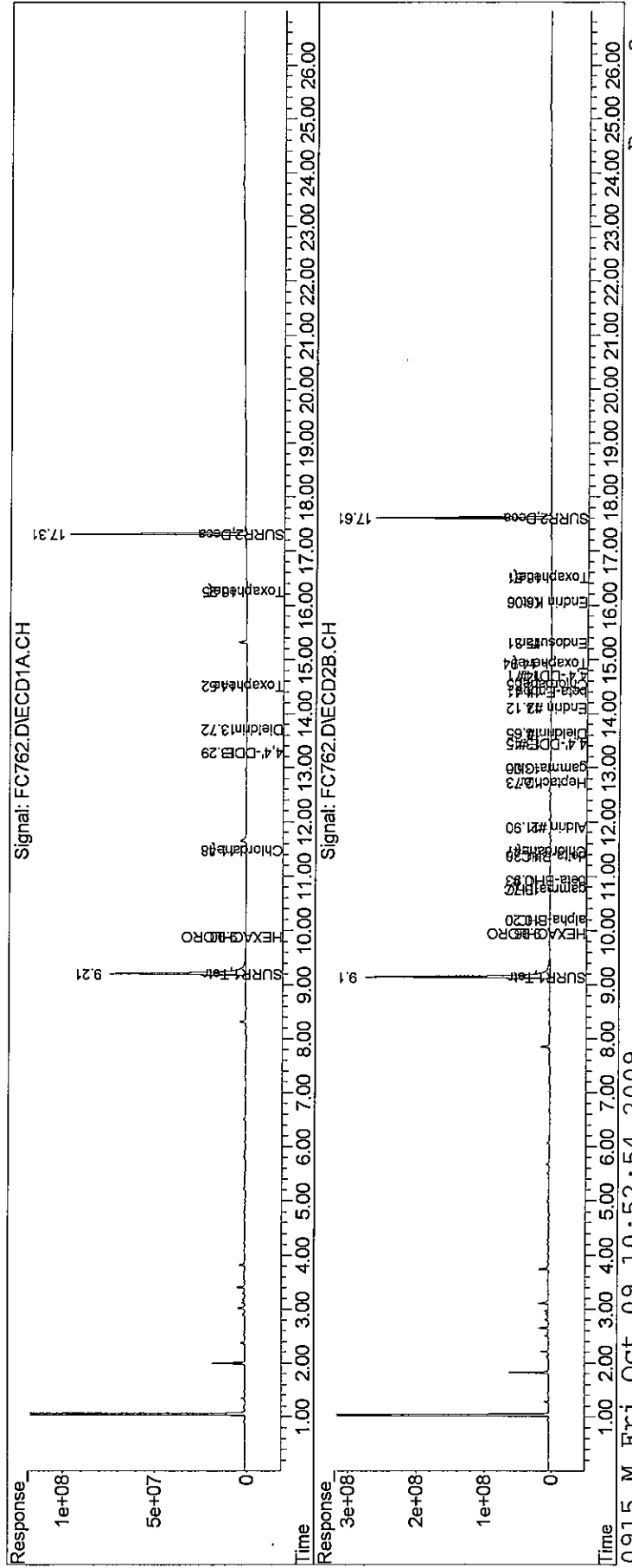
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : J:\ACQUDATA\6890D\DATA\100809\
Data File : FC762.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Oct 2009 2:30 pm
Operator : M.PEDRO
Sample : R0905636-003|1.0
Misc : 10/06/09 106 8081
ALS Vial : 45 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 09 10:52:51 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Fri Oct 09 10:50:59 2009
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



00595

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: MC-94B
Lab Code: R0905636-006

Service Request: R0905636
Date Collected: 10/ 7/09 1045
Date Received: 10/ 8/09
Units: µg/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analytical Method: 8081A
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis		
								Lot	Lot	Note
4,4'-DDD	0.050	U	0.094	0.050	1	10/13/09	10/28/09 05:41	98167	176909	
4,4'-DDE	0.050	U	0.094	0.050	1	10/13/09	10/28/09 05:41	98167	176909	
4,4'-DDT	0.050	U	0.094	0.050	1	10/13/09	10/28/09 05:41	98167	176909	
Aldrin	0.025	U	0.047	0.025	1	10/13/09	10/28/09 05:41	98167	176909	
Chlordane	0.13	U	0.24	0.13	1	10/13/09	10/28/09 05:41	98167	176909	
Dieldrin	0.050	U	0.094	0.050	1	10/13/09	10/28/09 05:41	98167	176909	
Endosulfan I	0.025	U	0.047	0.025	1	10/13/09	10/28/09 05:41	98167	176909	
Endosulfan II	0.050	U	0.094	0.050	1	10/13/09	10/28/09 05:41	98167	176909	
Endosulfan Sulfate	0.050	U	0.094	0.050	1	10/13/09	10/28/09 05:41	98167	176909	
Endrin	0.050	U	0.094	0.050	1	10/13/09	10/28/09 05:41	98167	176909	
Endrin Aldehyde	0.050	U	0.094	0.050	1	10/13/09	10/28/09 05:41	98167	176909	
Endrin Ketone	0.050	U	0.094	0.050	1	10/13/09	10/28/09 05:41	98167	176909	
Heptachlor	0.025	U	0.047	0.025	1	10/13/09	10/28/09 05:41	98167	176909	
Heptachlor Epoxide	0.025	U	0.047	0.025	1	10/13/09	10/28/09 05:41	98167	176909	
Hexachlorobenzene	0.028	U	0.047	0.028	1	10/13/09	10/28/09 05:41	98167	176909	
Methoxychlor	0.25	U	0.47	0.25	1	10/13/09	10/28/09 05:41	98167	176909	
Toxaphene	0.50	U	0.94	0.50	1	10/13/09	10/28/09 05:41	98167	176909	
alpha-BHC	0.33		0.047	0.025	1	10/13/09	10/28/09 05:41	98167	176909	
alpha-Chlordane	0.025	U	0.047	0.025	1	10/13/09	10/28/09 05:41	98167	176909	
beta-BHC	1.1	E	0.047	0.025	1	10/13/09	10/28/09 05:41	98167	176909	
delta-BHC	0.41		0.047	0.025	1	10/13/09	10/28/09 05:41	98167	176909	
gamma-BHC (Lindane)	0.034	J	0.047	0.025	1	10/13/09	10/28/09 05:41	98167	176909	
gamma-Chlordane	0.025	U	0.047	0.025	1	10/13/09	10/28/09 05:41	98167	176909	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
Decachlorobiphenyl	113	40-140	10/28/09 05:41		
Tetrachloro-m-xylene	88	40-140	10/28/09 05:41		

Comments:

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD095.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 28 Oct 2009 5:41 am
 Operator : M.PEDRO
 Sample : R0905636-006|1.0
 Misc : 10/13/09 106 8081
 ALS Vial : 38 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 28 13:23:18 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 08:32:24 2009
 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	9.18	9.36	2089.8E6	5541.1E6	87.985	79.366
Spiked Amount	100.000	Range	30 - 150	Recovery	= 87.98%	79.37%
25) S SURR2,Decachloro	17.28	17.91	2272.8E6	4728.1E6	112.768	109.444
Spiked Amount	100.000	Range	30 - 150	Recovery	= 112.77%	109.44%
Target Compounds						
3) tc alpha-BHC	10.17	10.43	1293.2E6	3378.4E6	35.339	32.779
4) tcm gamma-BHC (L	10.69	11.01	110.8E6	336.4E6	3.372m	3.649
6) tcm Aldrin	11.90	12.17	27015133	137.6E6	0.887	1.686 #
7) tc beta-BHC	10.84	11.15	1514.7E6	4631.6E6	110.562	114.295
8) tc delta-BHC	11.11	11.60	1443.9E6	3790.8E6	43.823	41.478
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

NP
12/3

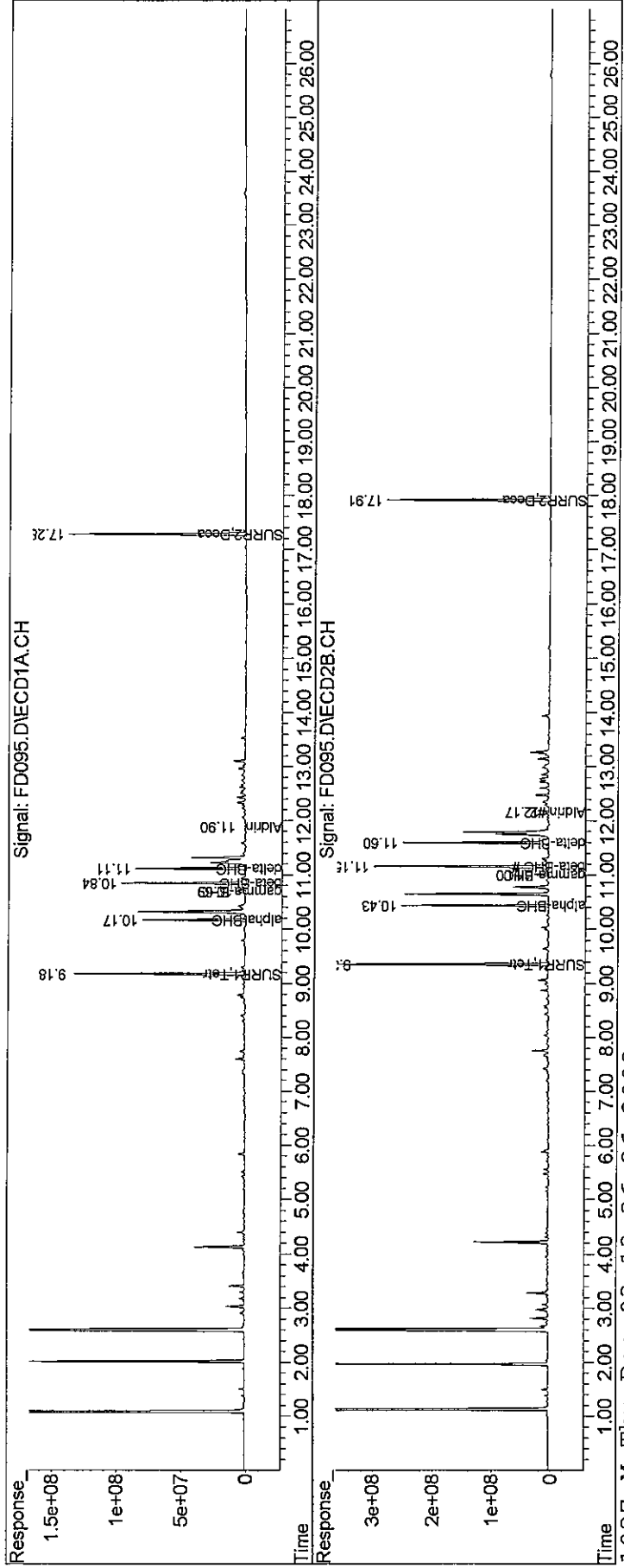
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\ACQUDATA\6890D\DATA\102709\
Data File : FD095.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Oct 2009 5:41 am
Operator : M.PEDRO
Sample : R0905636-006|1.0
Misc : 10/13/09 106 8081
ALS Vial : 38 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 28 13:23:18 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Oct 28 08:32:24 2009
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



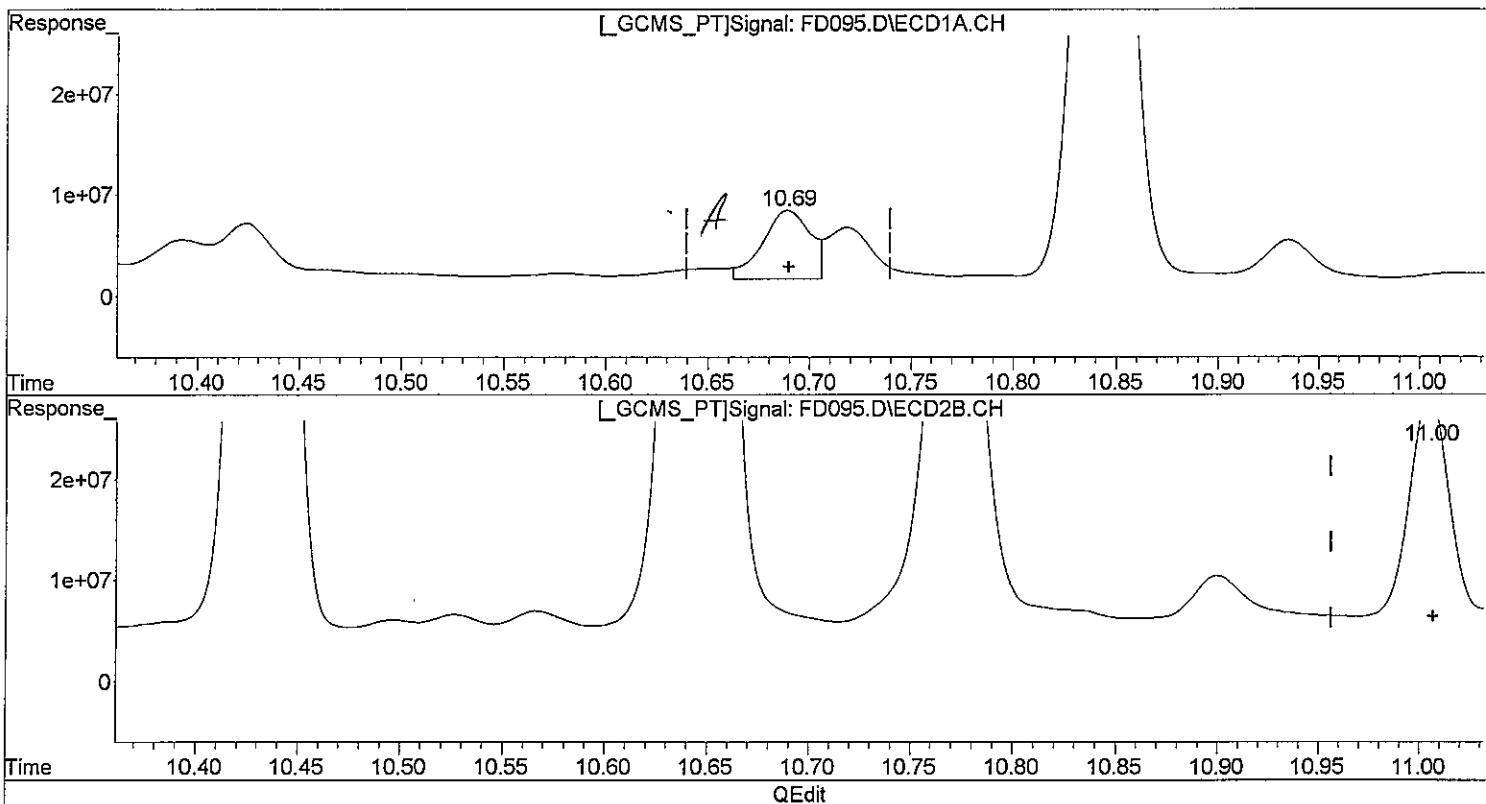
00598

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\102709\
Data File : FD095.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Oct 2009 5:41 am
Operator : M.PEDRO
Sample : R0905636-006|1.0
Misc : 10/13/09 106 8081
ALS Vial : 38 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 28 13:23:18 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Oct 28 08:32:24 2009
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



(4) gamma-BHC (L (tcm)
10.69min 3.372ug/l m
response 110818276

mp 12/3

mw 12/3

(4) gamma-BHC (L #2 (tcm)
11.01min 3.649ug/l
response 336386237

(+) = Expected Retention Time

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: MC-94B
Lab Code: R0905636-006
Run Type: Dilution

Service Request: R0905636
Date Collected: 10/ 7/09 1045
Date Received: 10/ 8/09
Units: µg/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analytical Method: 8081A
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis	
								Lot	Lot Note
4,4'-DDD	0.10	U	0.19	0.10	2	10/13/09	10/29/09 15:24	98167	177168
4,4'-DDE	0.10	U	0.19	0.10	2	10/13/09	10/29/09 15:24	98167	177168
4,4'-DDT	0.10	U	0.19	0.10	2	10/13/09	10/29/09 15:24	98167	177168
Aldrin	0.050	U	0.094	0.050	2	10/13/09	10/29/09 15:24	98167	177168
Chlordane	0.25	U	0.47	0.25	2	10/13/09	10/29/09 15:24	98167	177168
Dieldrin	0.10	U	0.19	0.10	2	10/13/09	10/29/09 15:24	98167	177168
Endosulfan I	0.050	U	0.094	0.050	2	10/13/09	10/29/09 15:24	98167	177168
Endosulfan II	0.10	U	0.19	0.10	2	10/13/09	10/29/09 15:24	98167	177168
Endosulfan Sulfate	0.10	U	0.19	0.10	2	10/13/09	10/29/09 15:24	98167	177168
Endrin	0.10	U	0.19	0.10	2	10/13/09	10/29/09 15:24	98167	177168
Endrin Aldehyde	0.10	U	0.19	0.10	2	10/13/09	10/29/09 15:24	98167	177168
Endrin Ketone	0.10	U	0.19	0.10	2	10/13/09	10/29/09 15:24	98167	177168
Heptachlor	0.050	U	0.094	0.050	2	10/13/09	10/29/09 15:24	98167	177168
Heptachlor Epoxide	0.050	U	0.094	0.050	2	10/13/09	10/29/09 15:24	98167	177168
Hexachlorobenzene	0.055	U	0.094	0.055	2	10/13/09	10/29/09 15:24	98167	177168
Methoxychlor	0.50	U	0.94	0.50	2	10/13/09	10/29/09 15:24	98167	177168
Toxaphene	1.0	U	1.9	1.0	2	10/13/09	10/29/09 15:24	98167	177168
alpha-BHC	0.25	D	0.094	0.050	2	10/13/09	10/29/09 15:24	98167	177168
alpha-Chlordane	0.050	U	0.094	0.050	2	10/13/09	10/29/09 15:24	98167	177168
beta-BHC	0.87	D	0.094	0.050	2	10/13/09	10/29/09 15:24	98167	177168
delta-BHC	0.32	D	0.094	0.050	2	10/13/09	10/29/09 15:24	98167	177168
gamma-BHC (Lindane)	0.050	U	0.094	0.050	2	10/13/09	10/29/09 15:24	98167	177168
gamma-Chlordane	0.050	U	0.094	0.050	2	10/13/09	10/29/09 15:24	98167	177168

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
Decachlorobiphenyl	90	40-140	10/29/09 15:24		
Tetrachloro-m-xylene	69	40-140	10/29/09 15:24		

Comments:

Data Path : J:\ACQUADATA\6890D\DATA\102709\
 Data File : FD152.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 29 Oct 2009 3:24 pm
 Operator : M.PEDRO
 Sample : R0905636-006|2.0
 Misc : 10/13/09 3.0 8081
 ALS Vial : 95 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 30 10:11:11 2009
 Quant Method : J:\ACQUADATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 08:32:24 2009
 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	9.18	9.36	817.8E6	2307.8E6	34.431	33.055
Spiked Amount	100.000	Range 30 - 150	Recovery =		34.43%	33.06%
25) S SURR2,Decachloro	17.27	17.91	908.3E6	1931.8E6	45.067	44.716
Spiked Amount	100.000	Range 30 - 150	Recovery =		45.07%	44.72%
Target Compounds						
3) tc alpha-BHC	10.17	10.43	488.5E6	1321.4E6	13.350	12.821
7) tc beta-BHC	10.84	11.15	595.6E6	1870.5E6	43.474	46.158
8) tc delta-BHC	11.11	11.60	547.4E6	1556.2E6	16.615	17.028
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

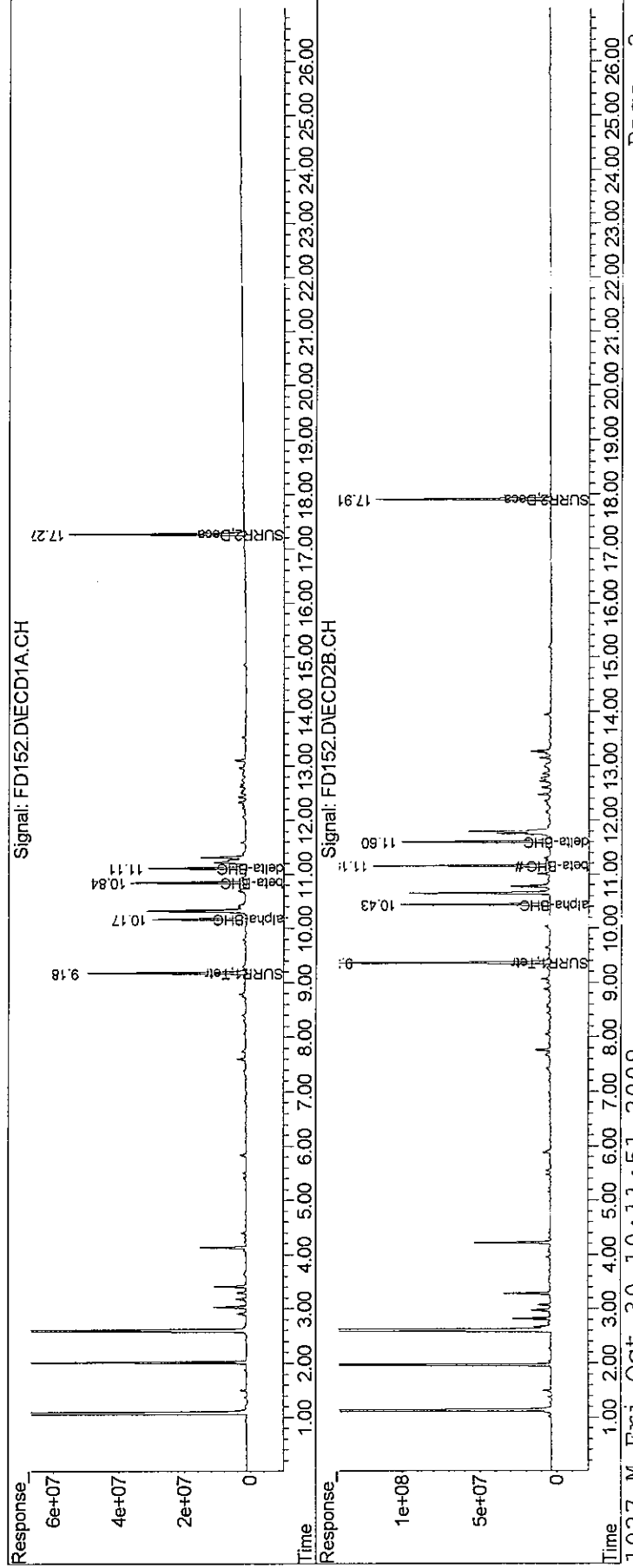
mp 10/30

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD152.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 29 Oct 2009 3:24 pm
 Operator : M.PEDRO
 Sample : R0905636-006|2.0
 Misc : 10/13/09 3.0 8081
 ALS Vial : 95 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 30 10:11:11 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 08:32:24 2009
 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



00602

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD152.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 29 Oct 2009 3:24 pm
 Operator : M.PEDRO
 Sample : R0905636-006|2.0
 Misc : 10/13/09 3.0 8081
 ALS Vial : 95 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 30 07:38:48 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 08:32:24 2009
 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	9.18	9.36	817.8E6	2307.8E6	34.431	33.055
Spiked Amount	100.000	Range 30 - 150	Recovery =		34.43%	33.06%
25) S SURR2,Decachloro	17.27	17.91	908.3E6	1931.8E6	45.067	44.716
Spiked Amount	100.000	Range 30 - 150	Recovery =		45.07%	44.72%
Target Compounds						
2) TC HEXACHLORO BENZEN	9.86	10.17	14808583	44346244	0.467	0.475
3) tc alpha-BHC	10.17	10.43	488.5E6	1321.4E6	13.350	12.821
4) tcm gamma-BHC (L	10.69	11.00	65431173	138.7E6	1.991	1.505
6) tcm Aldrin	11.89	12.17	12898502	65554604	0.423	0.803 #
7) tc beta-BHC	10.84	11.15	595.6E6	1870.5E6	43.474	46.158
8) tc delta-BHC	11.11	11.60	547.4E6	1556.2E6	16.615	17.028
9) tc Heptachlor E	0.00	12.99	0	115.0E6	N.D.	1.614 #
10) tc alpha-Endosu	13.36	13.58	8393101	47687575	0.344	0.797 #
11) tc gamma-Chlord	12.97	13.27	60842874	298.0E6	2.213	4.160 #
12) tc alpha-Chlord	0.00	13.47	0	39554373	N.D.	0.576 #
13) tc 4,4'-DDE	13.25	13.71	11827357	18382411	0.447	0.276 #
14) tcm Dieldrin	13.68	13.94	23213928	126.2E6	0.849	1.907 #
15) tcm Endrin	14.02	14.40	8850843	25208499	0.363	0.442
16) tc KEPONE	14.07	0.00	13585316	0	1.400	N.D. #
17) tc beta-Endosul	0.00	14.70	0	7237302	N.D.	0.130 #
19) tcm 4,4'-DDT	0.00	15.01	0	16463969	N.D.	0.301 #
20) tc Endrin Aldeh	0.00	15.22	0	20632858	N.D.	0.473 #
21) tc Endosulfan S	0.00	15.60	0	8315540	N.D.	0.166 #
22) tc Methoxychlor	0.00	15.96	0	3419813	N.D.	0.147 #
24) tc Endrin Keton	0.00	16.37	0	5757622	N.D.	0.109 #
28) L8C Toxaphene{3}	0.00	15.22	0	20632858	N.D.	6.528 #
29) L8C Toxaphene{4}	0.00	15.60	0	8315540	N.D.	6.124 #
30) L8C Toxaphene{5}	16.21	16.72	8042852	3243211	15.056	2.774 #
Sum Toxaphene			8042852	32191609	15.056	15.426
Average Toxaphene					15.056	5.142

Original

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD152.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 29 Oct 2009 3:24 pm
 Operator : M.PEDRO
 Sample : R0905636-006|2.0
 Misc : 10/13/09 3.0 8081
 ALS Vial : 95 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 30 07:38:48 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 08:32:24 2009
 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	11.32	11.46	269.7E6	26110495	1502.234	46.139 #
33) L9C Chlordane{3}	0.00	12.40	0	27334300	N.D.	17.059 #
34) L9C Chlordane{4}	12.97	13.27	60842874	298.0E6	18.954	37.955 #
35) L9C Chlordane{5}	14.26	0.00	12933437	0	10.703	N.D. #
Sum Chlordane			343.5E6	351.5E6	1531.892	101.154
Average Chlordane					510.631	33.718

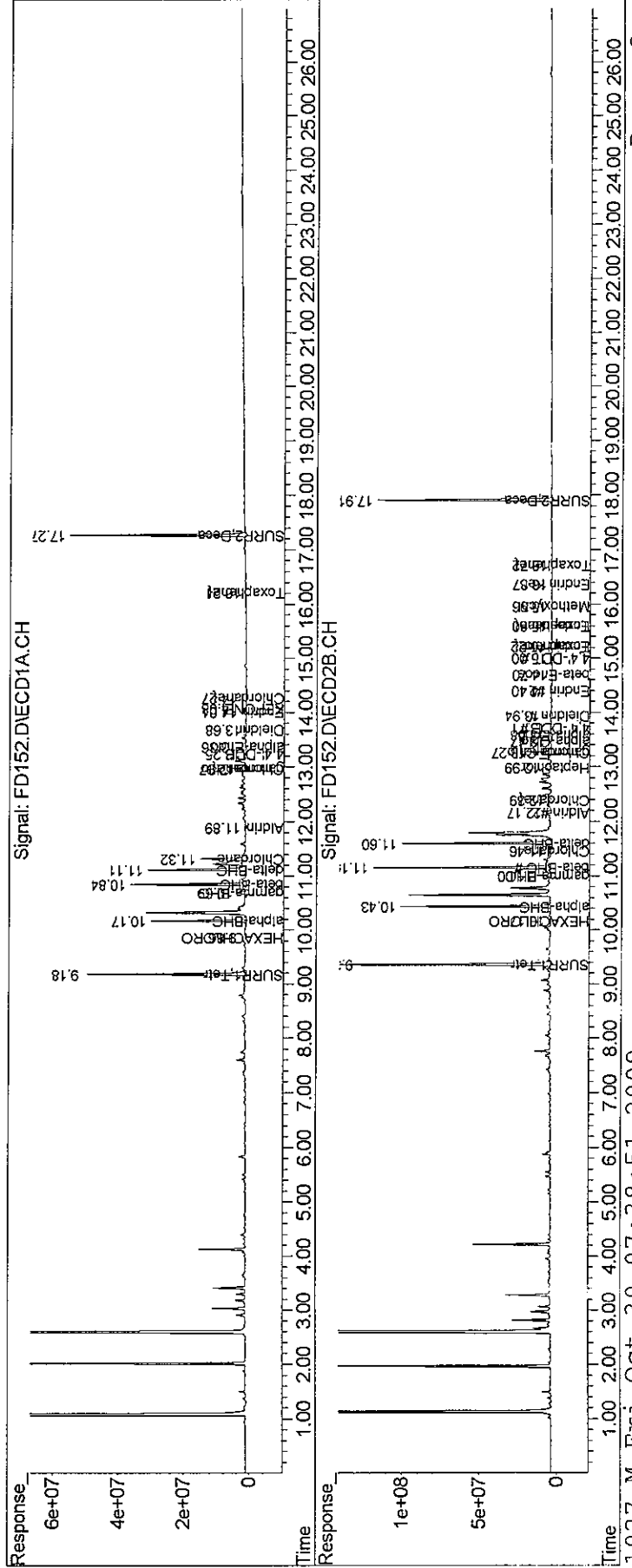
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD152.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 29 Oct 2009 3:24 pm
 Operator : M.PEDRO
 Sample : R0905636-006|2.0
 Misc : 10/13/09 3.0 8081
 ALS Vial : 95 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 30 07:38:48 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 08:32:24 2009
 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



00605

PESTICIDES
STANDARDS DATA

Pesticide Initial Calibration of Multicomponent Analytes

Lab Name: Columbia Analytical Services Client: NORTHGATE
 Lab Code: 10145 Case.No.: R0905636 SAS No.: _____ SDG No.: PB100209-A2
 Instrument ID: 6890D Date Analyzed: 9/15/2009

GC Column(1) <u>STx-CLP</u> (ID): <u>0.32mm 30</u>				GC Column(2) <u>STx-CLPII</u> (ID): <u>0.32mm 30</u>		
Compound	RT	RT Window		RT	RT Window	
		From	To		From	To
SURR1,Tetrac	9.22	9.17	9.27	9.18	9.13	9.23
HEXACHLOROBEN	9.91	9.84	9.98	10.00	9.93	10.07
alpha-BHC	10.21	10.16	10.26	10.25	10.20	10.30
gamma-BHC (L	10.73	10.68	10.78	10.81	10.76	10.86
Heptachlor	11.48	11.43	11.53	11.48	11.43	11.53
Aldrin	11.93	11.88	11.98	11.95	11.90	12.00
beta-BHC	10.89	10.84	10.94	10.97	10.92	11.02
delta-BHC	11.17	11.12	11.22	11.41	11.36	11.46
Heptachlor E	12.83	12.76	12.90	12.78	12.71	12.85
alpha-Endosu	13.40	13.33	13.47	13.33	13.26	13.40
gamma-Chlord	13.02	12.95	13.09	13.05	12.98	13.12
alpha-Chlord	13.21	13.14	13.28	13.26	13.19	13.33
4,4'-DDE	13.33	13.26	13.40	13.51	13.44	13.58
Dieldrin	13.75	13.68	13.82	13.72	13.65	13.79
Endrin	14.09	14.02	14.16	14.16	14.09	14.23
KEPONE	14.19	14.12	14.26	14.39	14.32	14.46
beta-Endosul	14.42	14.35	14.49	14.46	14.39	14.53
4,4'-DDD	14.18	14.11	14.25	14.32	14.25	14.39
4,4'-DDT	14.58	14.51	14.65	14.77	14.70	14.84
Endrin Aldeh	15.04	14.97	15.11	14.95	14.88	15.02
Endosulfan S	15.69	15.62	15.76	15.36	15.29	15.43
Methoxychlor	15.28	15.21	15.35	15.75	15.68	15.82
FAMPHUR	16.02	15.95	16.09	15.53	15.46	15.60
Endrin Keton	16.09	16.02	16.16	16.12	16.05	16.19
SURR2,Decachlorobip	17.35	17.25	17.45	17.67	17.57	17.77
Toxaphene	14.50	14.43	14.57	14.58	14.51	14.65
Toxaphene	14.59	14.52	14.66	14.96	14.89	15.03
Toxaphene	15.19	15.12	15.26	15.05	14.98	15.12

Pesticide Initial Calibration of Multicomponent Analytes

Lab Name: Columbia Analytical Services *Client:* NORTHGATE
Lab Code: 10145 *Case.No.:* R0905636 *SAS No.:* _____ *SDG No.:* PB100209-A2
Instrument ID: 6890D *Date Analyzed:* 9/15/2009

GC Column(1) STx-CLP (*ID*): 0.32mm 30 | *GC Column(2)* STx-CLPII (*ID*): 0.32mm 30

<i>Compound</i>	<i>RT</i>	<i>RT Window</i>		<i>RT</i>	<i>RT Window</i>	
		<i>From</i>	<i>To</i>		<i>From</i>	<i>To</i>
Toxaphene	16.06	15.99	16.13	16.26	16.19	16.33
Toxaphene	16.26	16.19	16.33	16.50	16.43	16.57
Chlordane	11.36	11.29	11.43	11.26	11.19	11.33
Chlordane	11.48	11.41	11.55	11.48	11.41	11.55
Chlordane	12.15	12.08	12.22	12.18	12.11	12.25
Chlordane	13.02	12.95	13.09	13.05	12.98	13.12
Chlordane	14.32	14.25	14.39	14.53	14.46	14.60

Response Factor Report 6890D

Method Path : J:\ACQUADATA\6890D\METHODS\
 Method File : 80810915.M
 Title : 608/8081A PESTICIDES
 Last Update : Wed Sep 16 08:52:41 2009
 Response Via : Initial Calibration

Calibration Files

1 =FC408.D 2 =FC407.D 3 =FC406.D
 4 =FC405.D 5 =FC404.D

Compound	1	2	3	4	5	Avg	%RSD
1) S SURR1,Tetrac	2.384	2.337	2.309	2.222	2.200	2.290	E7 3.39
2) TC HEXACHLOROBENZENE	3.136	3.084	3.095	3.047	3.153	3.103	E7 1.35
3) tc alpha-BHC	3.913	3.787	3.665	3.391	3.223	3.596	E7 7.90
4) tcm gamma-BHC (L	3.423	3.291	3.201	2.964	2.895	3.155	E7 7.02
5) tcm Heptachlor	3.086	3.149	3.164	3.060	3.050	3.102	E7 1.68
6) tcm Aldrin	2.924	2.941	2.864	2.779	2.658	2.833	E7 4.11
7) tc beta-BHC	1.362	1.333	1.310	1.293	1.300	1.319	E7 2.12
8) TC delta-BHC	3.404	3.272	3.082	2.817	2.614	3.038	E7 10.66
9) tc Heptachlor E	2.551	2.590	2.558	2.533	2.495	2.545	E7 1.36
10) tc alpha-Endosu	2.302	2.304	2.303	2.213	2.241	2.273	E7 1.88
11) tc gamma-Chlord	2.695	2.667	2.569	2.488	2.414	2.566	E7 4.61
12) tc alpha-Chlord	2.584	2.534	2.459	2.405	2.356	2.468	E7 3.77
13) tc 4,4'-DDE	2.489	2.484	2.409	2.301	2.178	2.372	E7 5.59
14) tcm Dieldrin	2.537	2.575	2.592	2.451	2.414	2.514	E7 3.09
15) tcm Endrin	2.271	2.300	2.311	2.192	2.163	2.247	E7 2.94
16) tc KEPONE						0.000	-1.00
17) tc beta-Endosul	2.148	2.177	2.146	2.113	2.064	2.130	E7 2.03
18) tc 4,4'-DDD	2.020	1.982	1.941	1.764	1.774	1.896	E7 6.30
19) tcm 4,4'-DDT	2.278	2.258	2.213	2.056	2.038	2.169	E7 5.23
20) tc Endrin Aldeh	1.676	1.684	1.647	1.609	1.586	1.640	E7 2.57
21) tc Endosulfan S	1.952	1.947	1.903	1.862	1.835	1.900	E7 2.70
22) tc Methoxychlor	9.573	9.729	9.894	9.662	9.882	9.748	E6 1.43
23) tc FAMPHUR						0.000	-1.00
24) tc Endrin Keton	2.215	2.213	2.176	2.116	2.066	2.157	E7 3.00
25) S SURR2,Decachlorobiphe	1.856	1.833	1.916	1.818	1.956	1.876	E7 3.11
26) L8C Toxaphene	9.750	9.579	9.227	8.710	8.450	9.143	E5 6.08
27) L8C Toxaphene {2}	6.922	6.815	6.583	6.286	6.071	6.535	E5 5.45
28) L8C Toxaphene {3}	5.652	5.518	5.226	4.862	4.586	5.169	E5 8.61
29) L8C Toxaphene {4}	6.173	6.038	5.753	5.388	5.132	5.697	E5 7.65
30) L8C Toxaphene {5}	4.993	4.825	4.588	4.251	4.032	4.538	E5 8.75
31) L9C Chlordane	1.779	1.730	1.678	1.672	1.525	1.677	E5 5.67
32) L9C Chlordane {2}	4.362	4.184	4.012	4.053	3.742	4.071	E5 5.62
33) L9C Chlordane {3}	5.881	5.846	5.982	6.217	5.782	5.942	E5 2.86
34) L9C Chlordane {4}	3.281	3.148	2.991	2.930	2.551	2.980	E6 9.27
35) L9C Chlordane {5}	1.295	1.226	1.167	1.160	1.040	1.178	E6 8.01

Signal #2 Calibration Files

1 =FC408.D 2 =FC407.D 3 =FC406.D
 4 =FC405.D 5 =FC404.D

Compound	1	2	3	4	5	Avg	%RSD
1) S SURR1,Tetrac	7.743	7.957	8.179	8.452	8.764	8.219	E7 4.90
2) TC HEXACHLOROBENZENE	0.998	1.020	1.053	1.064	1.127	1.052	E8 4.70
3) tc alpha-BHC	1.194	1.208	1.216	1.184	1.194	1.199	E8 1.05
4) tcm gamma-BHC (L	1.023	1.038	1.060	1.044	1.045	1.042	E8 1.29

Response Factor Report 6890D

Method Path : J:\ACQUADATA\6890D\METHODS\
 Method File : 80810915.M
 Title : 608/8081A PESTICIDES
 Last Update : Wed Sep 16 08:52:41 2009
 Response Via : Initial Calibration

Calibration Files

1 =FC408.D 2 =FC407.D 3 =FC406.D
 4 =FC405.D 5 =FC404.D

Compound	1	2	3	4	5	Avg		%RSD
5) tcm Heptachlor	0.903	0.959	1.004	1.010	1.052	0.986	E8	5.75
6) tcm Aldrin	8.623	8.995	9.045	9.341	9.158	9.032	E7	2.93
7) tc beta-BHC	4.256	4.307	4.361	4.772	4.735	4.486	E7	5.51
8) tc delta-BHC	1.005	1.009	0.997	1.049	0.938	1.000	E8	3.99
9) tc Heptachlor E	7.275	7.665	7.829	8.042	8.134	7.789	E7	4.38
10) tc alpha-Endosu	6.526	6.774	7.010	6.961	7.216	6.898	E7	3.78
11) tc gamma-Chlord	7.869	8.002	7.975	8.012	8.015	7.975	E7	0.77
12) tc alpha-Chlord	7.436	7.599	7.533	7.616	7.633	7.563	E7	1.07
13) tc 4,4'-DDE	6.963	7.180	7.141	7.301	7.123	7.142	E7	1.70
14) tcm Dieldrin	6.862	7.165	7.441	7.531	7.463	7.292	E7	3.81
15) tcm Endrin	6.068	6.309	6.501	6.499	6.486	6.373	E7	2.96
16) tc KEPONE						0.000		-1.00
17) tc beta-Endosul	5.825	6.059	6.167	6.227	6.281	6.112	E7	2.95
18) tc 4,4'-DDD	5.481	5.514	5.537	5.443	5.439	5.483	E7	0.79
19) tcm 4,4'-DDT	6.063	6.144	6.176	6.018	6.024	6.085	E7	1.18
20) tc Endrin Aldeh	4.429	4.577	4.609	4.775	4.669	4.612	E7	2.75
21) tc Endosulfan S	5.403	5.555	5.539	5.574	5.590	5.532	E7	1.35
22) tc Methoxychlor	2.526	2.630	2.698	2.636	2.719	2.642	E7	2.85
23) tc FAMPHUR						0.000		-1.00
24) tc Endrin Keton	5.783	5.897	5.883	5.877	5.840	5.856	E7	0.79
25) S SURR2,Decachlorobiphe	4.818	4.797	4.906	4.826	5.142	4.898	E7	2.91
26) L8C Toxaphene	3.095	3.116	3.075	3.030	3.004	3.064	E6	1.51
27) L8C Toxaphene {2}	3.460	3.481	3.422	3.370	3.376	3.422	E6	1.45
28) L8C Toxaphene {3}	1.257	1.227	1.221	1.207	1.224	1.227	E6	1.49
29) L8C Toxaphene {4}	1.330	1.318	1.288	1.258	1.291	1.297	E6	2.18
30) L8C Toxaphene {5}	1.298	1.274	1.220	1.156	1.107	1.211	E6	6.59
31) L9C Chlordane	6.596	6.649	6.809	6.872	6.846	6.754	E5	1.84
32) L9C Chlordane {2}	1.437	1.425	1.434	1.461	1.396	1.431	E6	1.65
33) L9C Chlordane {3}	1.712	1.753	1.835	1.895	1.906	1.820	E6	4.70
34) L9C Chlordane {4}	8.806	8.725	8.628	8.566	8.164	8.578	E6	2.90
35) L9C Chlordane {5}	3.711	3.611	3.553	3.566	3.406	3.569	E6	3.09

(#) = Out of Range

Data Path : J:\ACQUDATA\6890D\DATA\091509\
 Data File : FC404.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 15 Sep 2009 2:20 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: Sep 16 08:31:04 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Sep 16 08:27:07 2009
 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

1) S	SURR1,Tetrac	9.23	9.19	110.0E6	438.2E6	4.698	5.822
	Spiked Amount	100.000	Range 30 - 150	Recovery =		4.70%#	5.82%#
25) S	SURR2,Decachloro	17.35	17.68	195.6E6	514.2E6	11.305	12.109
	Spiked Amount	100.000	Range 30 - 150	Recovery =		11.31%#	12.11%#

Target Compounds

2) TC	HEXACHLOROBENZEN	9.92	10.00	157.6E6	563.7E6	4.924	5.725
3) tc	alpha-BHC	10.21	10.25	161.2E6	597.2E6	4.504	5.486
4) tcm	gamma-BHC (L	10.73	10.81	144.8E6	522.6E6	4.509	5.585
5) tcm	Heptachlor	11.48	11.48	152.5E6	526.1E6	5.022	5.930
10) tc	alpha-Endosu	13.41	13.33	112.1E6	360.8E6	5.142	6.026
14) tcm	Dieldrin	13.75	13.72	241.4E6	746.3E6	9.926	11.483
15) tcm	Endrin	14.09	14.16	216.3E6	648.6E6	9.558	10.933
18) tc	4,4'-DDD	14.18	14.32	177.4E6	543.9E6	9.404	10.894
19) tcm	4,4'-DDT	14.59	14.77	203.8E6	602.4E6	9.760	11.298
22) tc	Methoxychlor	15.28	15.75	494.1E6	1359.5E6	49.837	54.561
	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

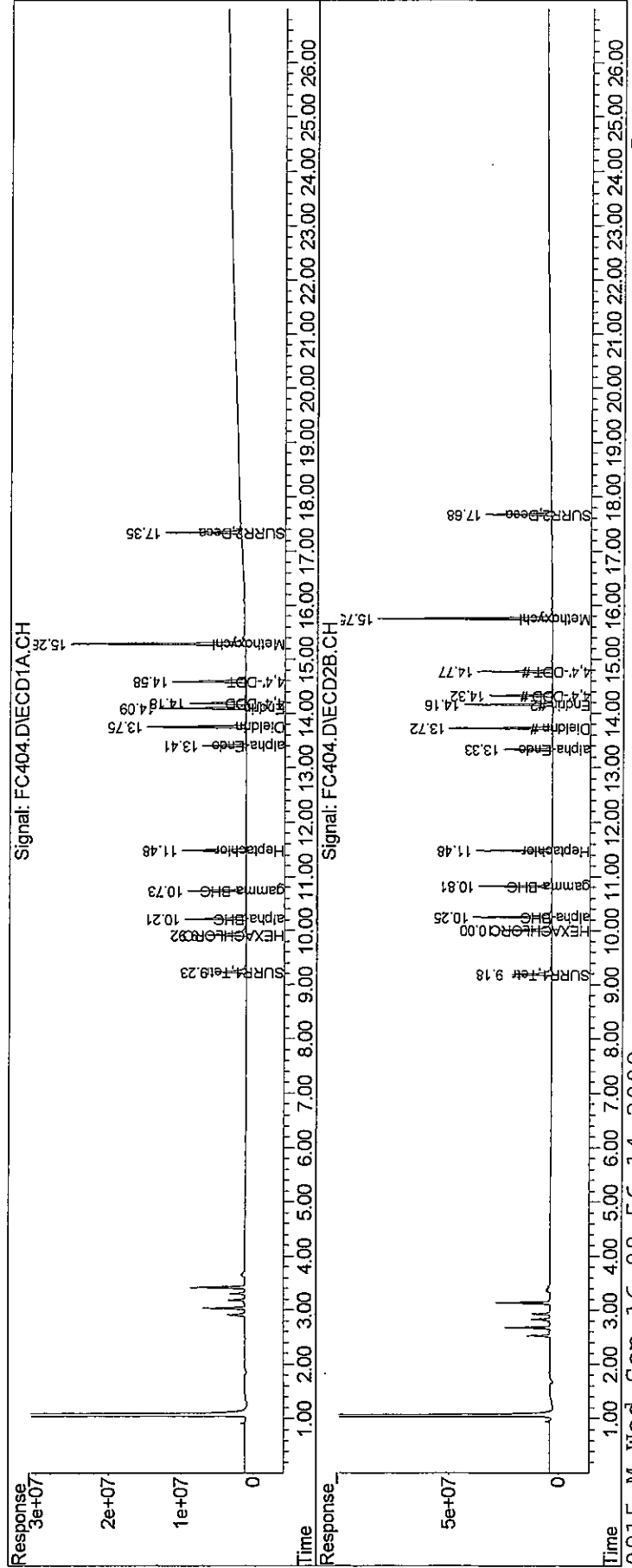
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\ACQUDATA\6890D\DATA\091509\
 Data File : FC404.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 15 Sep 2009 2:20 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: Sep 16 08:31:04 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Sep 16 08:27:07 2009
 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



00612

Data Path : J:\ACQUADATA\6890D\DATA\091509\
 Data File : FC405.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 15 Sep 2009 2:56 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: Sep 16 08:32:33 2009
 Quant Method : J:\ACQUADATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Sep 16 08:27:07 2009
 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

1) S SURR1,Tetrac	9.23	9.18	222.2E6	845.2E6	9.492	11.229
Spiked Amount	100.000	Range	30 - 150	Recovery =	9.49%#	11.23%#
25) S SURR2,Decachloro	17.35	17.67	363.6E6	965.1E6	21.013	22.726
Spiked Amount	100.000	Range	30 - 150	Recovery =	21.01%#	22.73%#

Target Compounds

2) TC HEXACHLORO BENZEN	9.92	10.00	304.7E6	1064.2E6	9.519	10.810
3) tc alpha-BHC	10.21	10.25	339.1E6	1184.4E6	9.479	10.879
4) tcm gamma-BHC (L)	10.73	10.81	296.4E6	1043.8E6	9.232	11.154
5) tcm Heptachlor	11.48	11.48	306.0E6	1010.5E6	10.081	11.390
10) tc alpha-Endosu	13.40	13.33	221.3E6	696.1E6	10.157	11.626
14) tcm Dieldrin	13.75	13.72	490.3E6	1506.2E6	20.157	23.176
15) tcm Endrin	14.09	14.16	438.5E6	1299.9E6	19.373	21.913
18) tc 4,4'-DDD	14.18	14.32	352.9E6	1088.5E6	18.710	21.802
19) tcm 4,4'-DDT	14.58	14.77	411.3E6	1203.5E6	19.697	22.574
22) tc Methoxychlor	15.28	15.75	966.2E6	2635.6E6	97.451	105.776m
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

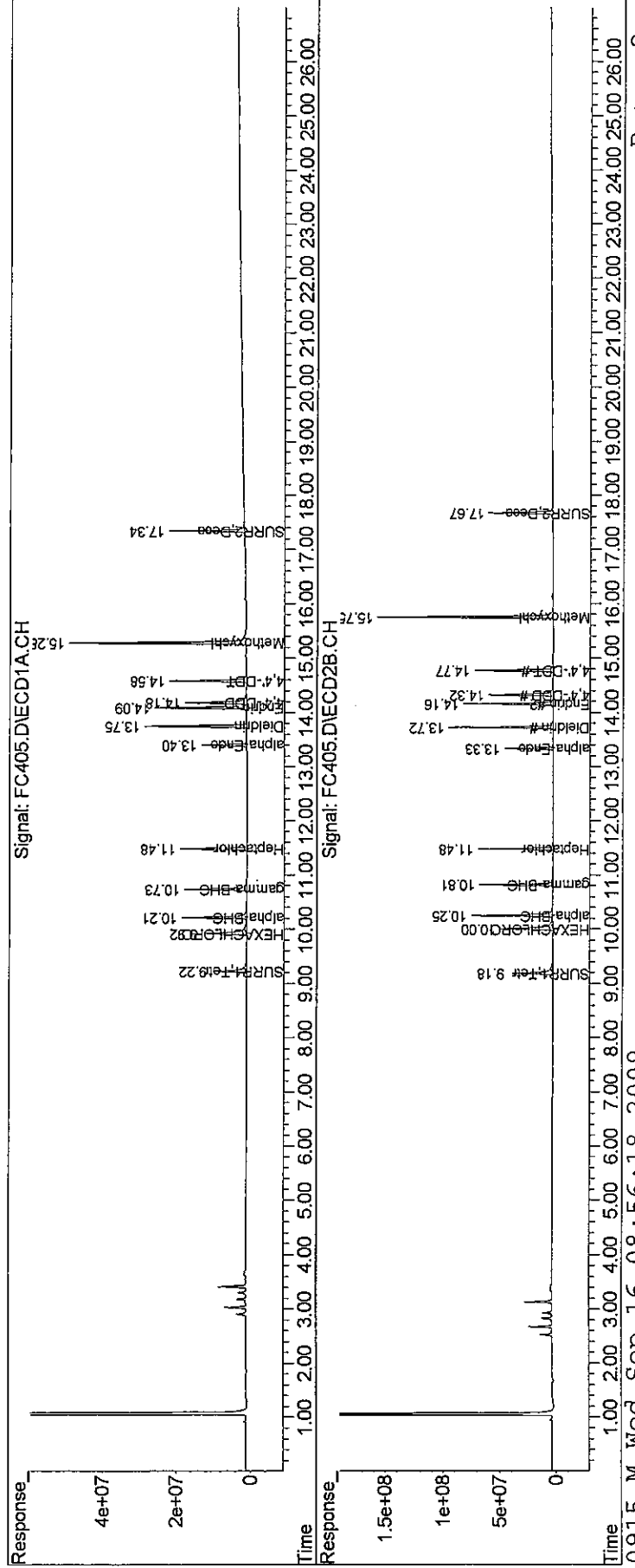
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\ACQUDATA\6890D\DATA\091509\
Data File : FC405.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 15 Sep 2009 2:56 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: Sep 16 08:32:33 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Sep 16 08:27:07 2009
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



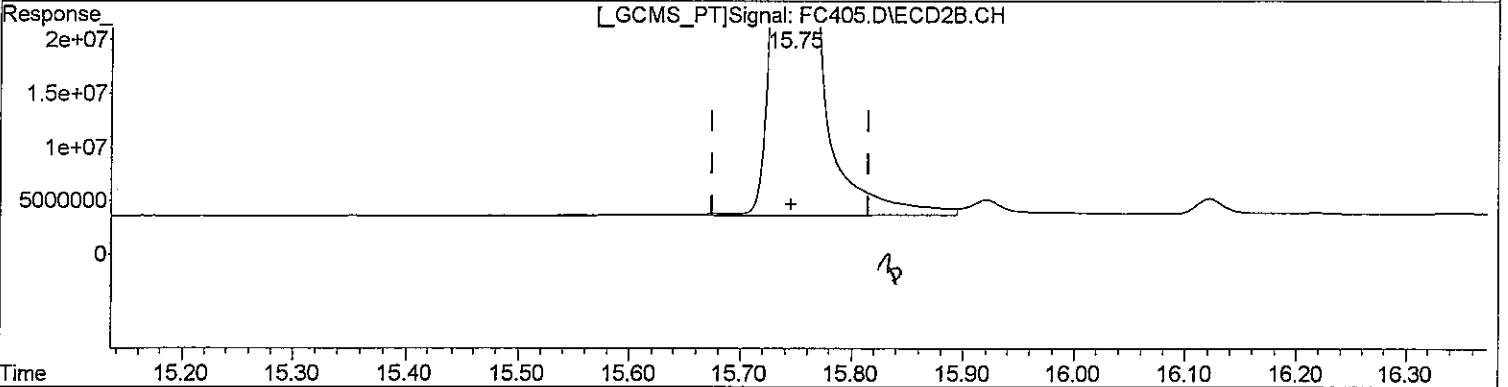
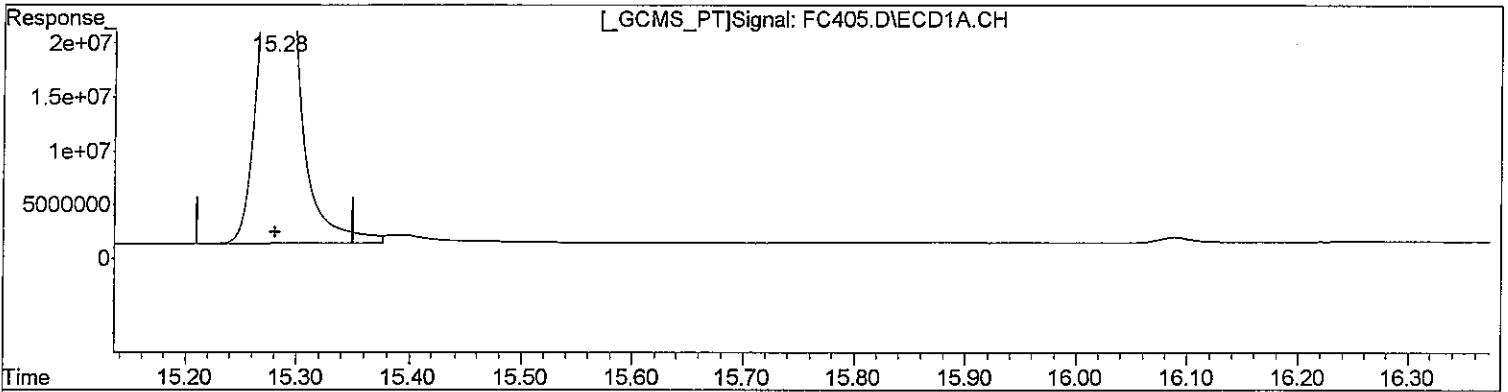
00614

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\091509\
Data File : FC405.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 15 Sep 2009 2:56 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: Sep 16 08:27:58 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Sep 16 08:27:07 2009
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

(22) Methoxychlor (tc)
15.28min 97.451ug/l
response 966160002

(22) Methoxychlor #2 (tc)
15.75min 106.849ug/l
response 2662335669

Handwritten signature

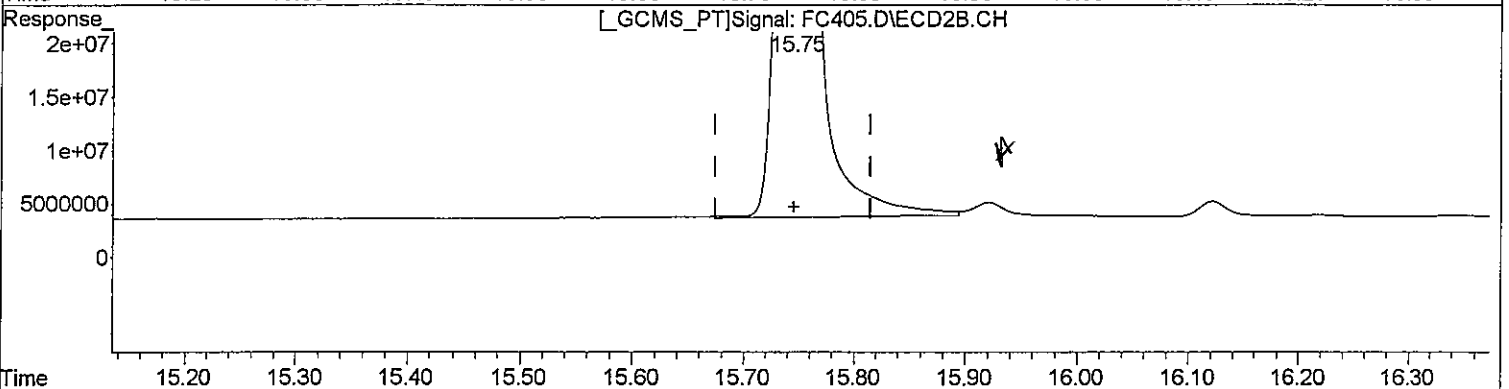
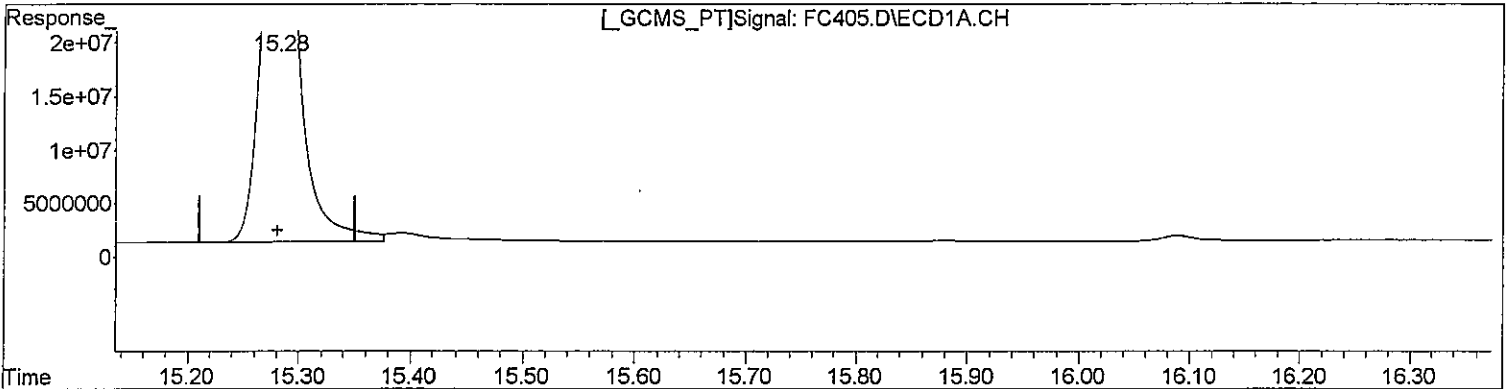
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\091509\
Data File : FC405.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 15 Sep 2009 2:56 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: Sep 16 08:27:58 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Sep 16 08:27:07 2009
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

(22) Methoxychlor (tc)
15.28min 97.451ug/l
response 966160002

(22) Methoxychlor #2 (tc)
15.75min 105.776ug/l m
response 2635595768

MP
9/16

MP
9/16

(+) = Expected Retention Time

Data Path : J:\ACQUADATA\6890D\DATA\091509\
 Data File : FC406.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 15 Sep 2009 3:32 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: Sep 16 08:33:20 2009
 Quant Method : J:\ACQUADATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Sep 16 08:27:07 2009
 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	9.22	9.18	461.9E6	1635.8E6	19.728	21.733
Spiked Amount	100.000	Range	30 - 150	Recovery =	19.73%#	21.73%#
25) S SURR2,Decachloro	17.34	17.67	766.3E6	1962.5E6	44.283	46.214
Spiked Amount	100.000	Range	30 - 150	Recovery =	44.28%	46.21%
Target Compounds						
2) TC HEXACHLORO BENZEN	9.91	10.00	618.9E6	2106.3E6	19.333	21.395
3) tc alpha-BHC	10.21	10.24	733.0E6	2432.4E6	20.487	22.343
4) tcm gamma-BHC (L	10.73	10.81	640.1E6	2120.9E6	19.937	22.665
5) tcm Heptachlor	11.48	11.48	632.9E6	2008.0E6	20.846	22.634
10) tc alpha-Endosu	13.40	13.33	460.7E6	1402.1E6	21.138	23.417
14) tcm Dieldrin	13.75	13.72	1036.7E6	2976.5E6	42.621	45.800
15) tcm Endrin	14.09	14.16	924.4E6	2600.5E6	40.842	43.839
18) tc 4,4'-DDD	14.18	14.32	776.4E6	2214.7E6	41.164	44.360
19) tcm 4,4'-DDT	14.58	14.77	885.2E6	2470.3E6	42.393	46.335
22) tc Methoxychlor	15.28	15.75	1978.8E6	5395.5E6	199.588	216.541
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

MR 9/16

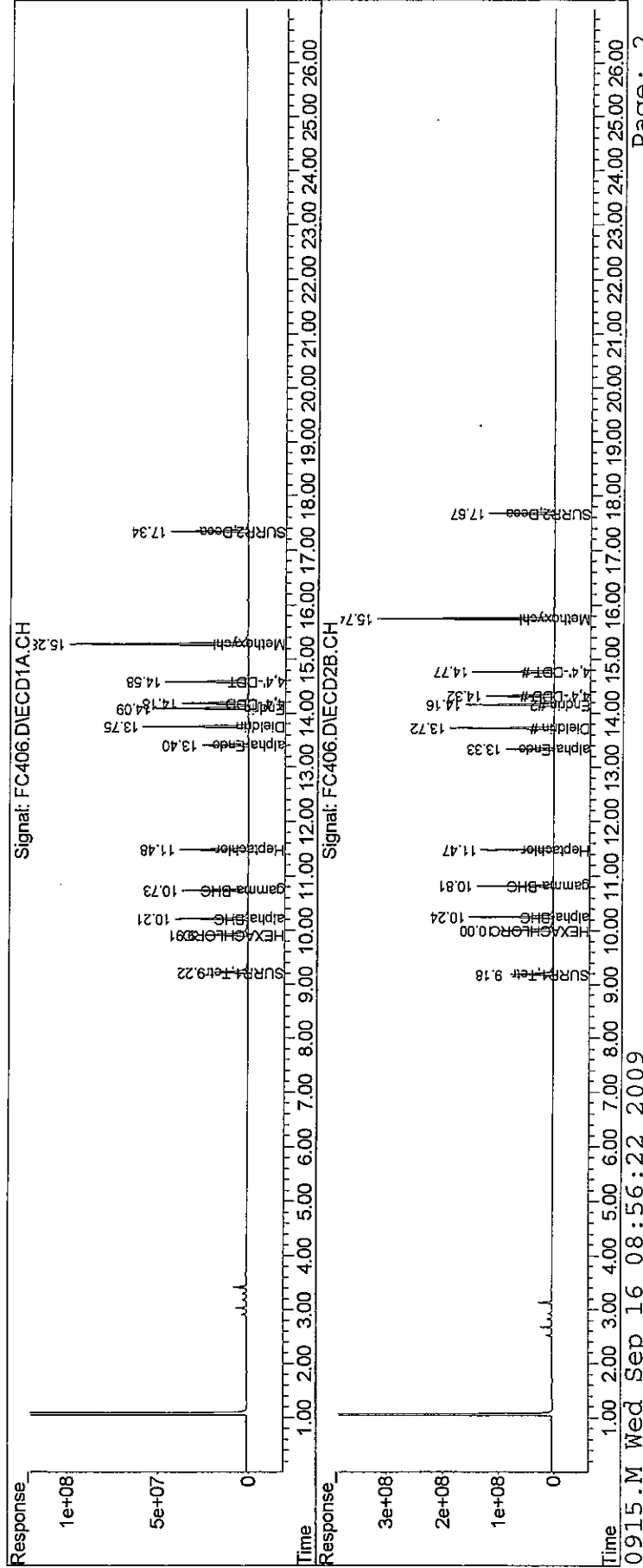
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\ACQUDATA\6890D\DATA\091509\
Data File : FC406.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 15 Sep 2009 3:32 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: Sep 16 08:33:20 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
Quant Title : 608/8081A PESTICIDES
Quant Update : Wed Sep 16 08:27:07 2009
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



00618

Data Path : J:\ACQUDATA\6890D\DATA\091509\
 Data File : FC407.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 15 Sep 2009 4:08 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: Sep 16 08:34:12 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Sep 16 08:27:07 2009
 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

1) S	SURR1,Tetrac	9.22	9.18	934.6E6	3182.9E6	39.921	42.287
	Spiked Amount	100.000	Range 30 - 150	Recovery =		39.92%	42.29%
25) S	SURR2,Decachloro	17.35	17.67	1466.3E6	3837.5E6	84.730	90.365
	Spiked Amount	100.000	Range 30 - 150	Recovery =		84.73%	90.36%

Target Compounds

2) TC	HEXACHLOROBENZEN	9.91	10.00	1233.7E6	4078.7E6	38.537	41.430
3) tc	alpha-BHC	10.21	10.24	1514.8E6	4831.5E6	42.337	44.380
4) tcm	gamma-BHC (L	10.73	10.81	1316.6E6	4152.6E6	41.007	44.375
5) tcm	Heptachlor	11.48	11.47	1259.5E6	3835.9E6	41.488	43.237
10) tc	alpha-Endosu	13.40	13.33	921.6E6	2709.7E6	42.286	45.255
14) tcm	Dieldrin	13.75	13.72	2059.7E6	5732.0E6	84.680	88.200
15) tcm	Endrin	14.09	14.16	1839.8E6	5047.2E6	81.292	85.085
18) tc	4,4'-DDD	14.18	14.32	1585.7E6	4411.0E6	84.080	88.350
19) tcm	4,4'-DDT	14.58	14.77	1806.2E6	4915.3E6	86.502	92.196
22) tc	Methoxychlor	15.28	15.75	3891.7E6	10520.7E6	392.527	422.234
	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

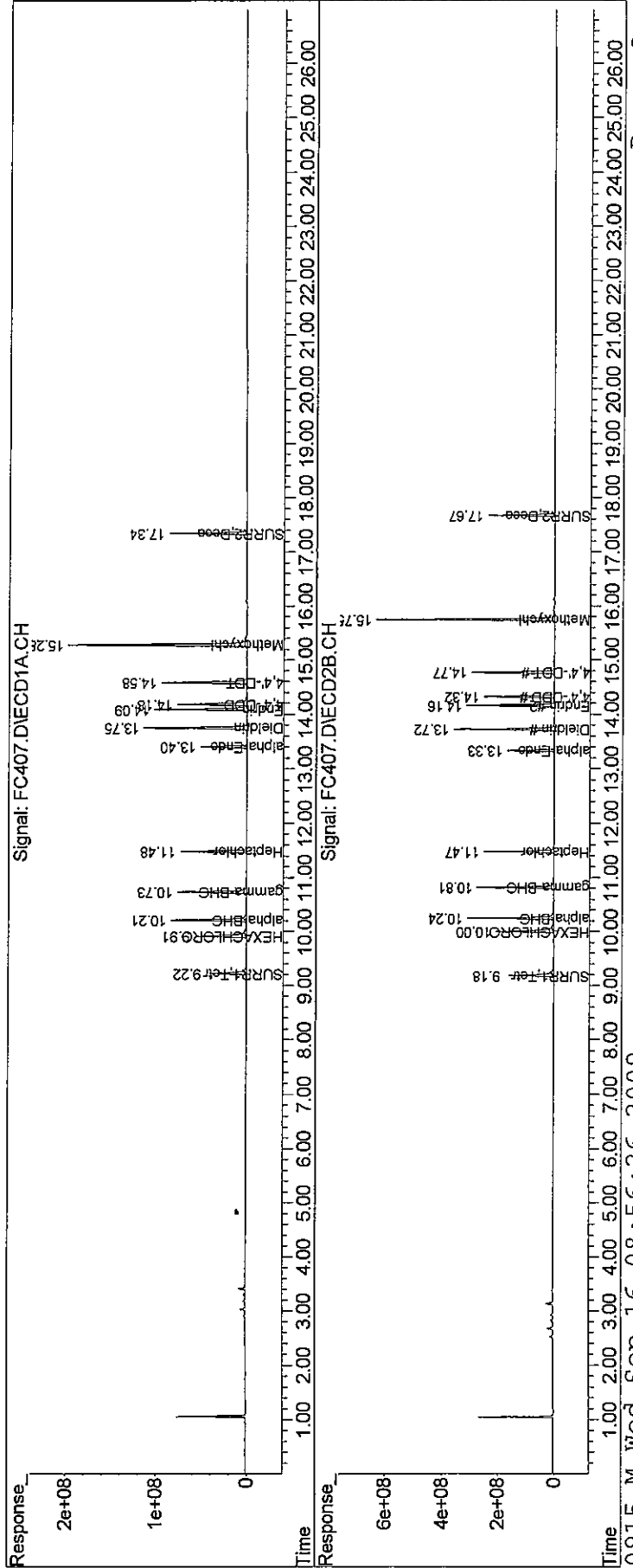
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\ACQUDATA\6890D\DATA\091509\
 Data File : FC407.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 15 Sep 2009 4:08 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: Sep 16 08:34:12 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Sep 16 08:27:07 2009
 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



00620

Data Path : J:\ACQUDATA\6890D\DATA\091509\
 Data File : FC408.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 15 Sep 2009 4:44 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: Sep 16 08:35:18 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Sep 16 08:27:07 2009
 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

1) S	SURR1,Tetrac	9.22	9.18	1907.0E6	6194.5E6	81.452	82.298
	Spiked Amount	100.000	Range 30 - 150	Recovery =		81.45%	82.30%
25) S	SURR2,Decachloro	17.34	17.67	2970.1E6	7709.4E6	171.629	181.542
	Spiked Amount	100.000	Range 30 - 150	Recovery =		171.63%#	181.54%#

Target Compounds

2) TC	HEXACHLOROBENZEN	9.91	10.00	2508.8E6	7982.3E6	78.364	81.081
3) tc	alpha-BHC	10.21	10.24	3130.4E6	9555.4E6	87.492	87.771
4) tcm	gamma-BHC (L	10.73	10.81	2738.1E6	8185.9E6	85.280	87.475
5) tcm	Heptachlor	11.48	11.48	2468.4E6	7226.8E6	81.308	81.458
10) tc	alpha-Endosu	13.40	13.33	1841.7E6	5220.9E6	84.509	87.195
14) tcm	Dieldrin	13.75	13.72	4060.0E6	10979.6E6	166.917	168.949
15) tcm	Endrin	14.09	14.16	3634.0E6	9709.0E6	160.566	163.672
18) tc	4,4'-DDD	14.18	14.32	3232.2E6	8770.1E6	171.377	175.662
19) tcm	4,4'-DDT	14.58	14.77	3644.5E6	9700.4E6	174.537	181.948
22) tc	Methoxychlor	15.28	15.74	7658.4E6	20208.7E6	772.455	811.049
	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

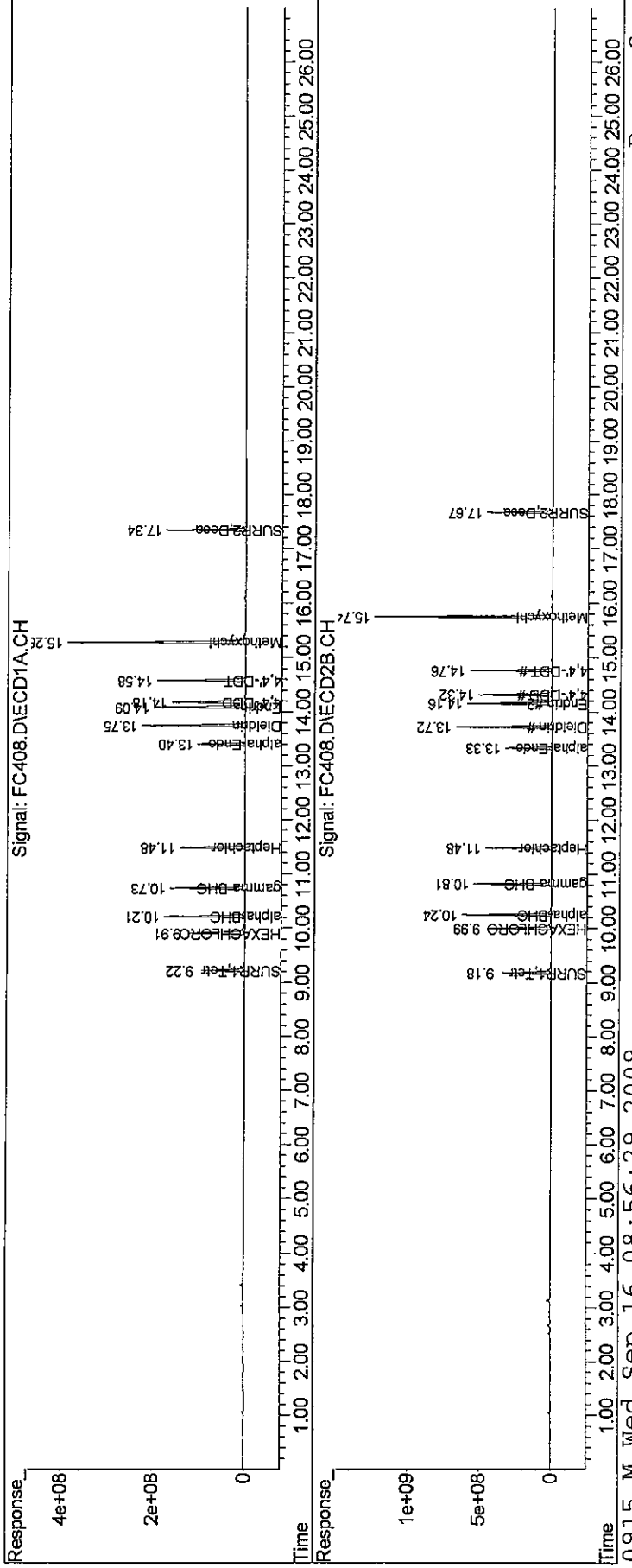
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\ACQUDATA\6890D\DATA\091509\
Data File : FC408.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 15 Sep 2009 4:44 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: Sep 16 08:35:18 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Sep 16 08:27:07 2009
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



00522

Quantitation Report (QT Reviewed)

Data Path : J:\ACQUADATA\6890D\DATA\091509\
 Data File : FC409.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 15 Sep 2009 5:20 pm
 Operator : M.PEDRO
 Sample : INDB L
 Misc : INITIAL CAL
 ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Sep 16 08:35:52 2009
 Quant Method : J:\ACQUADATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Sep 16 08:27:07 2009
 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	9.23	9.19	110.0E6	427.3E6	4.700	5.677 <i>mf</i>
Spiked Amount	100.000	Range 30 - 150	Recovery =	4.70%#	5.68%#	
25) S SURR2,Decachloro	17.35	17.67	191.2E6	509.3E6	11.051	11.992
Spiked Amount	100.000	Range 30 - 150	Recovery =	11.05%#	11.99%#	
Target Compounds						
6) tcm Aldrin	11.93	11.95	132.9E6	457.9E6	4.815	5.679
7) tc beta-BHC	10.90	10.97	64986164	236.8E6	4.865	5.909
8) tc delta-BHC	11.17	11.41	130.7E6	468.8E6	4.103	5.040
9) tc Heptachlor E	12.83	12.78	124.8E6	406.7E6	5.030	6.037
11) tc gamma-Chlord	13.02	13.05	120.7E6	400.7E6	4.867	5.778
12) tc alpha-Chlord	13.21	13.26	117.8E6	381.7E6	5.051	5.807
13) tc 4,4'-DDE	13.33	13.51	217.8E6	712.3E6	9.096	11.151
17) tc beta-Endosul	14.42	14.46	206.4E6	628.1E6	10.376	11.710
20) tc Endrin Aldeh	15.04	14.95	158.6E6	466.9E6	10.046	11.399
21) tc Endosulfan S	15.69	15.36	183.5E6	559.0E6	9.885	11.406
24) tc Endrin Keton	16.09	16.12	206.6E6	584.0E6	9.774	11.101
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

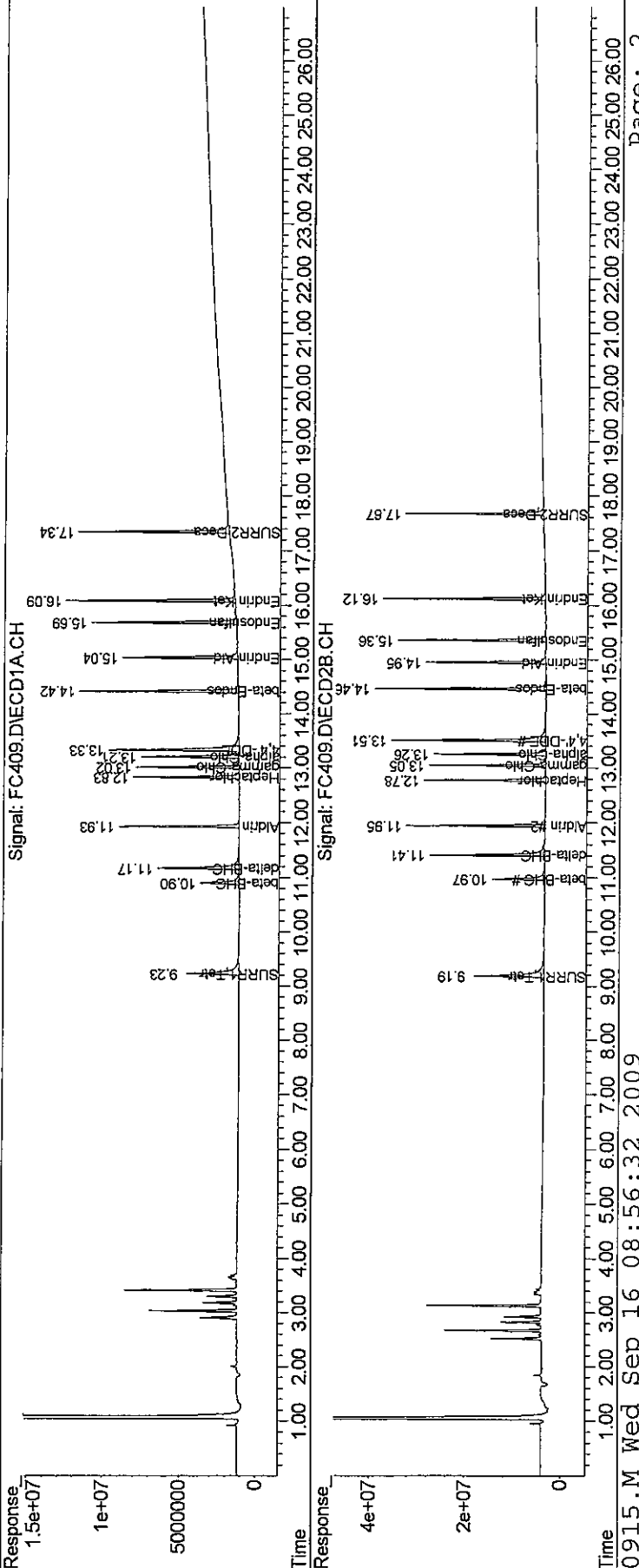
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\ACQUDATA\6890D\DATA\091509\
Data File : FC409.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 15 Sep 2009 5:20 pm
Operator : M.PEDRO
Sample : INDB L
Misc : INITIAL CAL
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 16 08:35:52 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
Quant Title : 608/8081A PESTICIDES
Quant Update : Wed Sep 16 08:27:07 2009
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



00624

Data Path : J:\ACQUDATA\6890D\DATA\091509\
 Data File : FC410.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 15 Sep 2009 5:56 pm
 Operator : M.PEDRO
 Sample : INDEML
 Misc : INITIAL CAL
 ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Sep 16 08:36:35 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Sep 16 08:27:07 2009
 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	9.23	9.19	225.8E6	869.1E6	9.644	11.547
Spiked Amount	100.000	Range 30 - 150	Recovery =		9.64%#	11.55%#
25) S SURR2,Decachloro	17.35	17.67	400.6E6	1009.8E6	23.147	23.778
Spiked Amount	100.000	Range 30 - 150	Recovery =		23.15%#	23.78%#
Target Compounds						
6) tcm Aldrin	11.93	11.95	277.9E6	934.1E6	10.068	11.584
7) tc beta-BHC	10.90	10.97	129.3E6	477.2E6	9.682	11.909
8) tc delta-BHC	11.17	11.41	281.7E6	1048.6E6	8.845	11.273 #
9) tc Heptachlor E	12.83	12.78	253.3E6	804.2E6	10.210	11.938
11) tc gamma-Chlord	13.02	13.05	248.8E6	801.2E6	10.034	11.553
12) tc alpha-Chlord	13.21	13.26	240.5E6	761.6E6	10.313	11.588
13) tc 4,4'-DDE	13.33	13.51	460.3E6	1460.1E6	19.227	22.857
17) tc beta-Endosul	14.42	14.46	422.6E6	1245.5E6	21.248	23.220
20) tc Endrin Aldeh	15.04	14.95	321.8E6	955.0E6	20.380	23.317
21) tc Endosulfan S	15.69	15.36	372.5E6	1114.9E6	20.060	22.750
24) tc Endrin Keton	16.09	16.12	423.3E6	1175.5E6	20.021	22.342
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

*Wys
9/16*

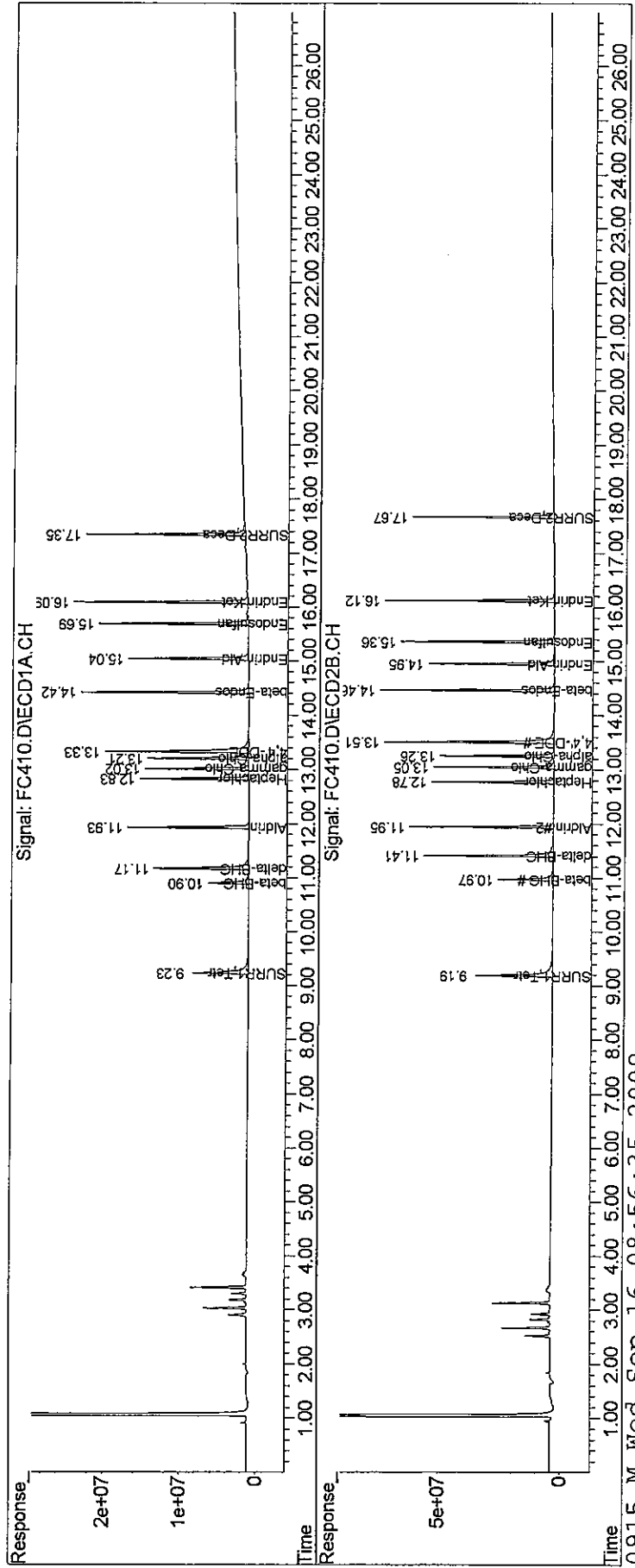
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\ACQUDATA\6890D\DATA\091509\
Data File : FC410.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 15 Sep 2009 5:56 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: Sep 16 08:36:35 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Sep 16 08:27:07 2009
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



00626

Data Path : J:\ACQUDATA\6890D\DATA\091509\
 Data File : FC411.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 15 Sep 2009 6:32 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: Sep 16 08:38:24 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Sep 16 08:27:07 2009
 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	9.23	9.19	460.4E6	1697.4E6	19.664	22.551
Spiked Amount	100.000	Range	30 - 150	Recovery	= 19.66%#	22.55%#
25) S SURR2,Decachloro	17.34	17.67	747.9E6	1969.8E6	43.219	46.385
Spiked Amount	100.000	Range	30 - 150	Recovery	= 43.22%	46.38%
Target Compounds						
6) tcm Aldrin	11.93	11.95	572.9E6	1809.0E6	20.754	22.434
7) tc beta-BHC	10.90	10.97	261.9E6	872.1E6	19.610	21.765
8) tc delta-BHC	11.17	11.41	616.4E6	1994.8E6	19.350	21.444
9) tc Heptachlor E	12.83	12.78	511.7E6	1565.7E6	20.628	23.241
11) tc gamma-Chlord	13.02	13.05	513.8E6	1595.0E6	20.722	22.999
12) tc alpha-Chlord	13.21	13.26	491.8E6	1506.6E6	21.090	22.922
13) tc 4,4'-DDE	13.33	13.51	963.6E6	2856.4E6	40.254	44.715
17) tc beta-Endosul	14.42	14.46	858.4E6	2466.9E6	43.155	45.991
20) tc Endrin Aldeh	15.04	14.95	658.8E6	1843.4E6	41.719	45.008
21) tc Endosulfan S	15.69	15.36	761.2E6	2215.5E6	40.993	45.210
24) tc Endrin Keton	16.09	16.12	870.2E6	2353.2E6	41.165	44.728
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

*MVP
9/16*

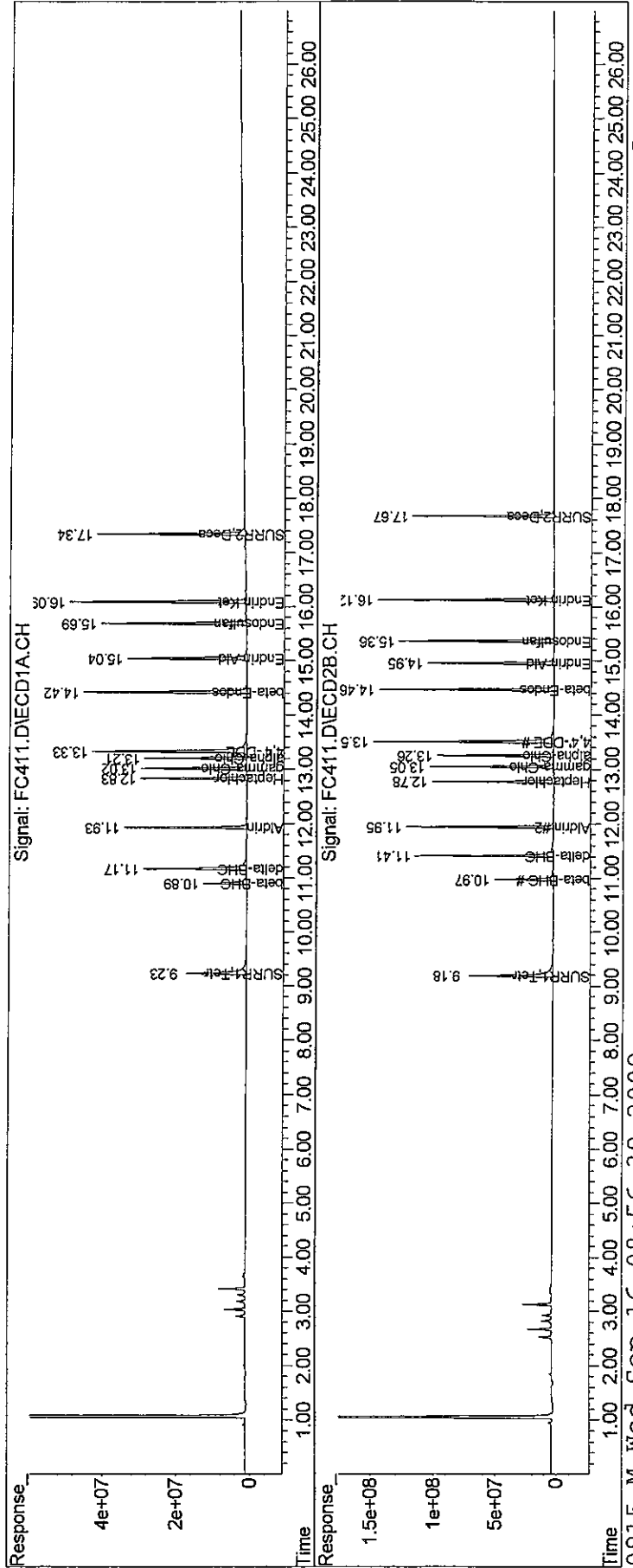
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\ACQUDATA\6890D\DATA\091509\
Data File : FC411.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 15 Sep 2009 6:32 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: Sep 16 08:38:24 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Sep 16 08:27:07 2009
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



00628

Data Path : J:\ACQUDATA\6890D\DATA\091509\
 Data File : FC412.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 15 Sep 2009 7:08 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: Sep 16 08:39:08 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Sep 16 08:27:07 2009
 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

1) S	SURR1,Tetrac	9.22	9.18	942.7E6	3338.0E6	40.265	44.347
	Spiked Amount	100.000	Range 30 - 150	Recovery =		40.27%	44.35%
25) S	SURR2,Decachloro	17.35	17.67	1515.9E6	3951.2E6	87.597	93.042
	Spiked Amount	100.000	Range 30 - 150	Recovery =		87.60%	93.04%

Target Compounds

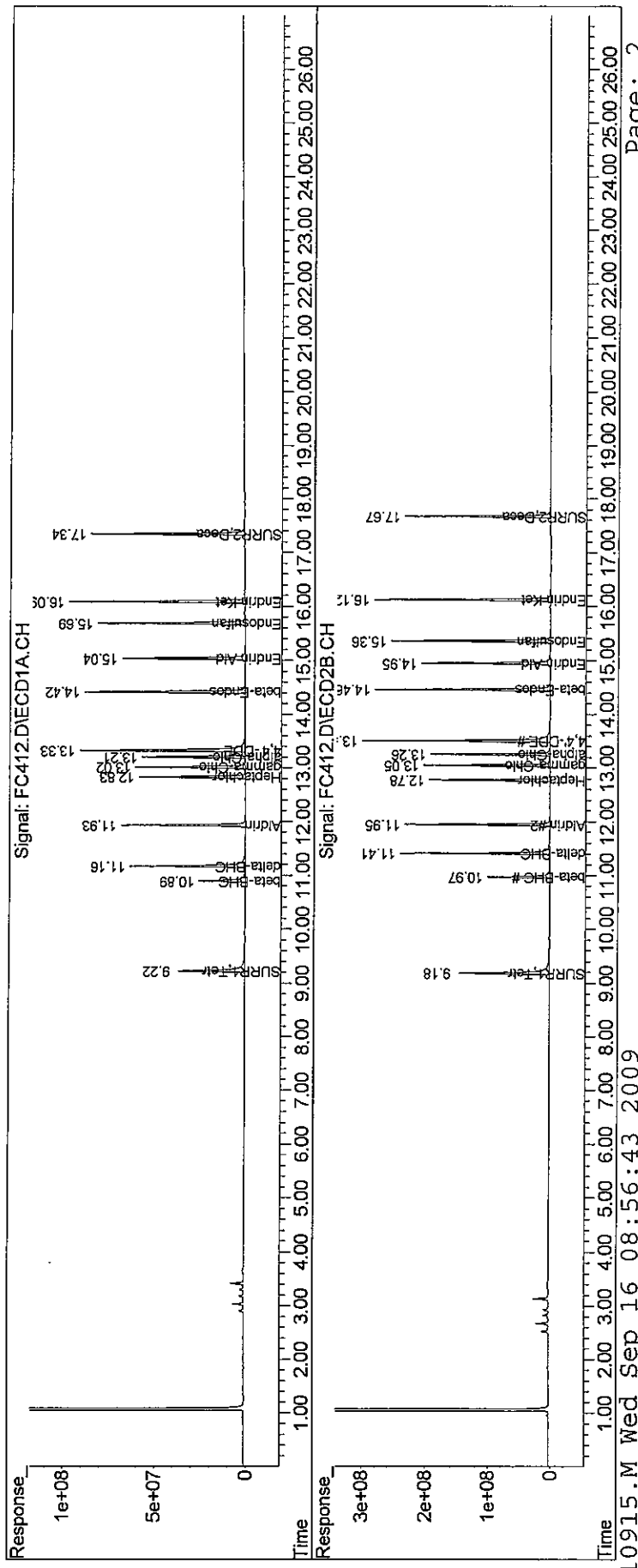
6) tcm	Aldrin	11.93	11.95	1176.3E6	3598.1E6	42.617	44.621
7) tc	beta-BHC	10.89	10.97	533.1E6	1722.6E6	39.912	42.991
8) tc	delta-BHC	11.17	11.41	1308.9E6	4037.8E6	41.090	43.406
9) tc	Heptachlor E	12.83	12.78	1035.8E6	3065.9E6	41.757	45.509
11) tc	gamma-Chlord	13.02	13.05	1066.6E6	3200.9E6	43.014	46.156
12) tc	alpha-Chlord	13.21	13.26	1013.7E6	3039.7E6	43.473	46.248
13) tc	4,4'-DDE	13.33	13.51	1987.0E6	5744.1E6	83.002	89.922
17) tc	beta-Endosul	14.42	14.46	1741.7E6	4847.2E6	87.564	90.367
20) tc	Endrin Aldeh	15.04	14.95	1347.3E6	3661.6E6	85.321	89.401
21) tc	Endosulfan S	15.69	15.36	1557.7E6	4444.0E6	83.892	90.686
24) tc	Endrin Keton	16.09	16.12	1770.3E6	4717.9E6	83.741	89.674
	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\091509\
Data File : FC412.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 15 Sep 2009 7:08 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: Sep 16 08:39:08 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
Quant Title : 608/8081A PESTICIDES
Quant Update : Wed Sep 16 08:27:07 2009
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



00630

Data Path : J:\ACQUDATA\6890D\DATA\091509\
 Data File : FC413.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 15 Sep 2009 7:44 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: Sep 16 08:40:00 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Sep 16 08:27:07 2009
 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

1) S	SURR1,Tetrac	9.22	9.18	1921.5E6	6474.3E6	82.075	86.015
	Spiked Amount	100.000	Range 30 - 150	Recovery =		82.08%	86.02%
25) S	SURR2,Decachloro	17.34	17.67	3033.2E6	7822.8E6	175.277	184.211
	Spiked Amount	100.000	Range 30 - 150	Recovery =		175.28%#	184.21%#

Target Compounds

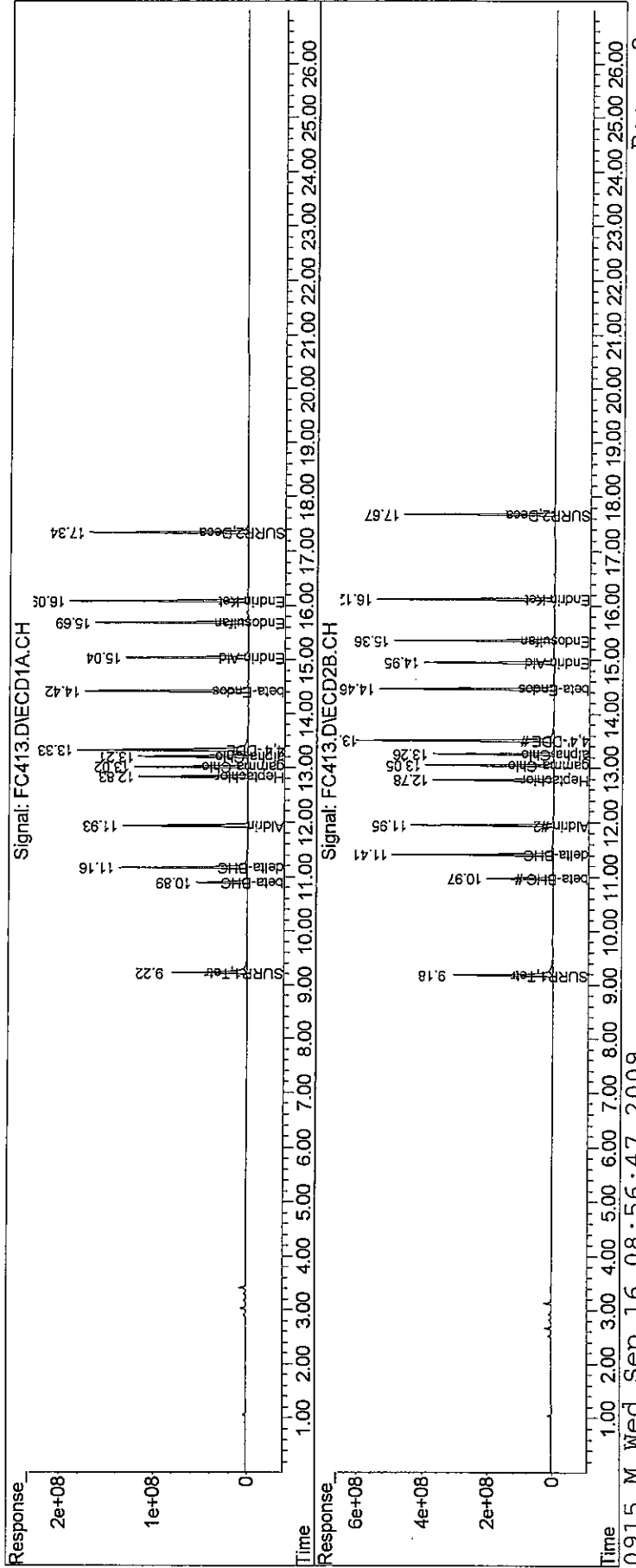
6) tcm	Aldrin	11.93	11.95	2339.3E6	6898.3E6	84.749	85.549
7) tc	beta-BHC	10.89	10.97	1089.4E6	3404.9E6	81.553	84.974
8) tc	delta-BHC	11.16	11.41	2723.3E6	8038.9E6	85.494	86.418
9) tc	Heptachlor E	12.83	12.78	2040.7E6	5819.6E6	82.267	86.385
11) tc	gamma-Chlord	13.02	13.05	2155.7E6	6295.3E6	86.934	90.776
12) tc	alpha-Chlord	13.21	13.26	2067.6E6	5948.4E6	88.670	90.502
13) tc	4,4'-DDE	13.33	13.51	3982.5E6	11140.5E6	166.359	174.400
17) tc	beta-Endosul	14.42	14.46	3436.4E6	9320.3E6	172.763	173.761
20) tc	Endrin Aldeh	15.04	14.95	2681.0E6	7086.7E6	169.787	173.027
21) tc	Endosulfan S	15.69	15.36	3122.8E6	8644.0E6	168.184	176.392
24) tc	Endrin Keton	16.09	16.12	3543.4E6	9252.9E6	167.614	175.871
	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\091509\
 Data File : FC413.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 15 Sep 2009 7:44 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: Sep 16 08:40:00 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Sep 16 08:27:07 2009
 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



00632

Data Path : J:\ACQUDATA\6890D\DATA\091509\
 Data File : FC414.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 15 Sep 2009 8:20 pm
 Operator : M.PEDRO
 Sample : TOX L
 Misc : INITIAL CAL
 ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Sep 16 08:40:56 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Sep 16 08:27:07 2009
 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

1) S SURR1,Tetrac	9.23	9.19	444.5E6	1659.5E6	18.986	22.048	<i>up 9/16</i>
Spiked Amount	100.000	Range	30 - 150	Recovery =	18.99%#	22.05%#	
25) S SURR2,Decachloro	17.34	17.67	382.4E6	996.1E6	22.095	23.456	
Spiked Amount	100.000	Range	30 - 150	Recovery =	22.09%#	23.46%#	

Target Compounds

26) L8C Toxaphene	14.51	14.58	84498804	300.4E6	184.007	162.667	
27) L8C Toxaphene {2}	14.59	14.96	60706302	337.6E6	168.176	308.645	#
28) L8C Toxaphene {3}	15.19	15.06	45858758	122.4E6	60.636	59.566	
29) L8C Toxaphene {4}	16.06	16.26	51318034	129.1E6	54.118	68.903	#
30) L8C Toxaphene {5}	16.26	16.50	40319386	110.7E6	55.400	54.773	
Sum Toxaphene			282.7E6	1000.2E6	522.337	654.554	
Average Toxaphene					104.467	130.911	
Sum Chlordane			0	0	N.D.	N.D.	
Average Chlordane					0.000	0.000	

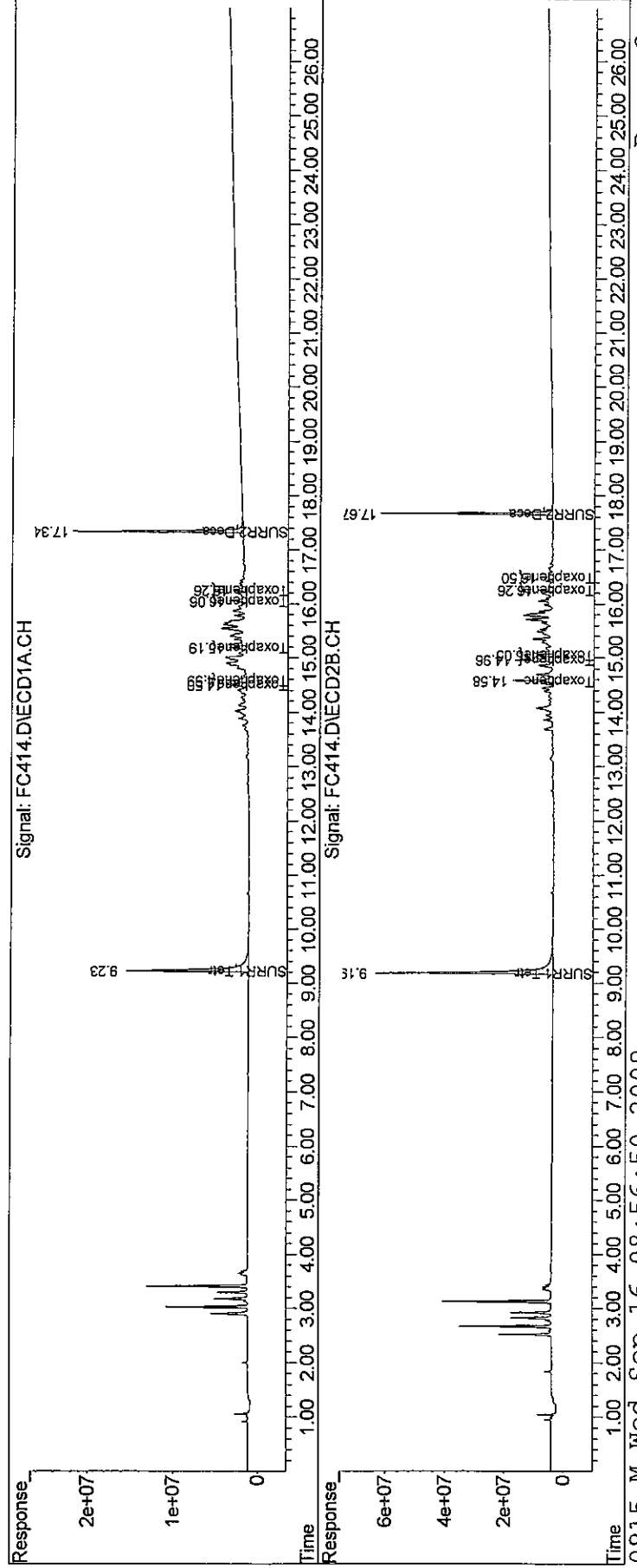
 (f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\ACQUDATA\6890D\DATA\091509\
Data File : FC414.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 15 Sep 2009 8:20 pm
Operator : M.PEDRO
Sample : TOX L
Misc : INITIAL CAL
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 16 08:40:56 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Sep 16 08:27:07 2009
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



00634

Data Path : J:\ACQUDATA\6890D\DATA\091509\
 Data File : FC415.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 15 Sep 2009 8:56 pm
 Operator : M.PEDRO
 Sample : TOX ML
 Misc : INITIAL CAL
 ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Sep 16 08:41:34 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Sep 16 08:27:07 2009
 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

1) S	SURR1,Tetrac	9.23	9.18	881.6E6	3189.4E6	37.654	42.373
	Spiked Amount	100.000	Range 30 - 150	Recovery =		37.65%	42.37%
25) S	SURR2,Decachloro	17.34	17.67	727.7E6	1904.0E6	42.052	44.835
	Spiked Amount	100.000	Range 30 - 150	Recovery =		42.05%	44.84%

Target Compounds

26) L8C	Toxaphene	14.50	14.58	217.7E6	757.6E6	474.176	410.276
27) L8C	Toxaphene { 2 }	14.59	14.96	157.2E6	842.5E6	435.383	770.241 #
28) L8C	Toxaphene { 3 }	15.19	15.05	121.5E6	301.8E6	160.711	146.873
29) L8C	Toxaphene { 4 }	16.06	16.26	134.7E6	314.5E6	142.061	167.822
30) L8C	Toxaphene { 5 }	16.26	16.50	106.3E6	289.1E6	146.009	143.065
	Sum Toxaphene			737.4E6	2505.5E6	1358.340	1638.276
	Average Toxaphene					271.668	327.655
	Sum Chlordane			0	0	N.D.	N.D.
	Average Chlordane					0.000	0.000

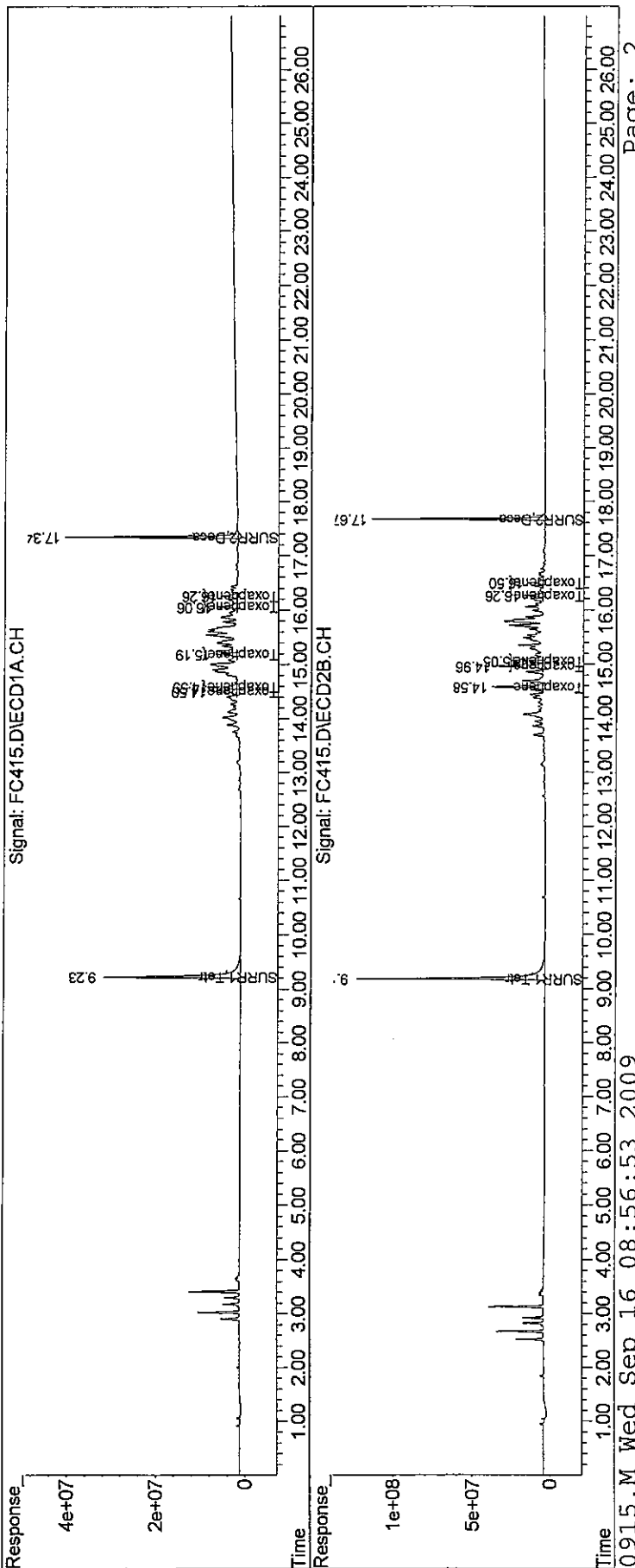
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\ACQUDATA\6890D\DATA\091509\
Data File : FC415.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 15 Sep 2009 8:56 pm
Operator : M.PEDRO
Sample : TOX ML
Misc : INITIAL CAL
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 16 08:41:34 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Sep 16 08:27:07 2009
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



00635

Data Path : J:\ACQUDATA\6890D\DATA\091509\
 Data File : FC416.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 15 Sep 2009 9:32 pm
 Operator : M.PEDRO
 Sample : TOX M
 Misc : INITIAL CAL
 ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Sep 16 08:42:01 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Sep 16 08:27:07 2009
 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

1) S SURR1,Tetrac	9.22	9.18	1333.0E6	4630.7E6	56.935	61.522
Spiked Amount	100.000	Range	30 - 150	Recovery	=	56.94%
25) S SURR2,Decachloro	17.34	17.67	1088.6E6	2818.2E6	62.907	66.363
Spiked Amount	100.000	Range	30 - 150	Recovery	=	62.91%

Target Compounds

26) L8C Toxaphene	14.50	14.58	461.4E6	1537.7E6	1004.684	832.751
27) L8C Toxaphene {2}	14.59	14.96	329.1E6	1711.2E6	911.841	1564.357 #
28) L8C Toxaphene {3}	15.19	15.05	261.3E6	610.5E6	345.504	297.103
29) L8C Toxaphene {4}	16.06	16.26	287.6E6	643.9E6	303.327	343.600
30) L8C Toxaphene {5}	16.26	16.49	229.4E6	609.8E6	315.206	301.812
Sum Toxaphene			1568.9E6	5113.1E6	2880.563	3339.622
Average Toxaphene					576.113	667.924

Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000

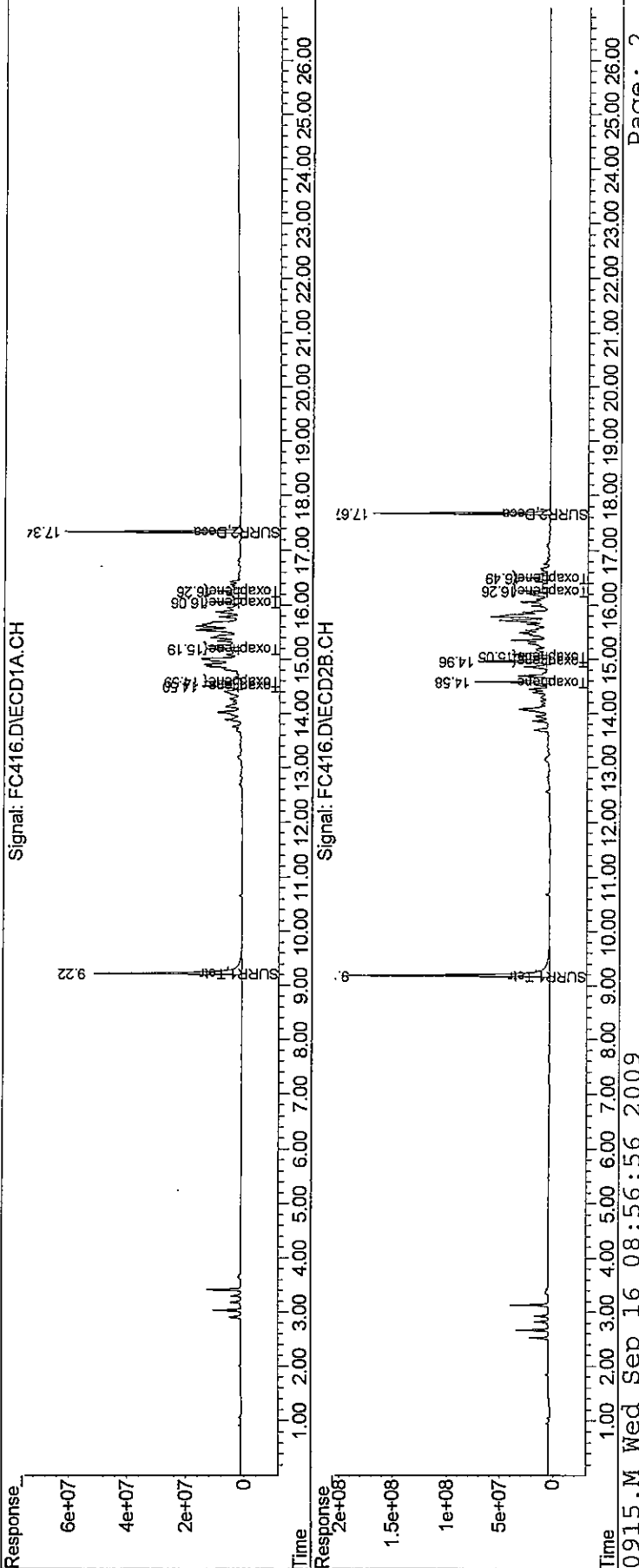
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\ACQUDATA\6890D\DATA\091509\
Data File : FC416.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 15 Sep 2009 9:32 pm
Operator : M.PEDRO
Sample : TOX M
Misc : INITIAL CAL
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 16 08:42:01 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Sep 16 08:27:07 2009
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



00638

Data Path : J:\ACQUDATA\6890D\DATA\091509\
 Data File : FC417.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 15 Sep 2009 10:08 pm
 Operator : M.PEDRO
 Sample : TOX MH
 Misc : INITIAL CAL
 ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Sep 16 08:42:27 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Sep 16 08:27:07 2009
 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

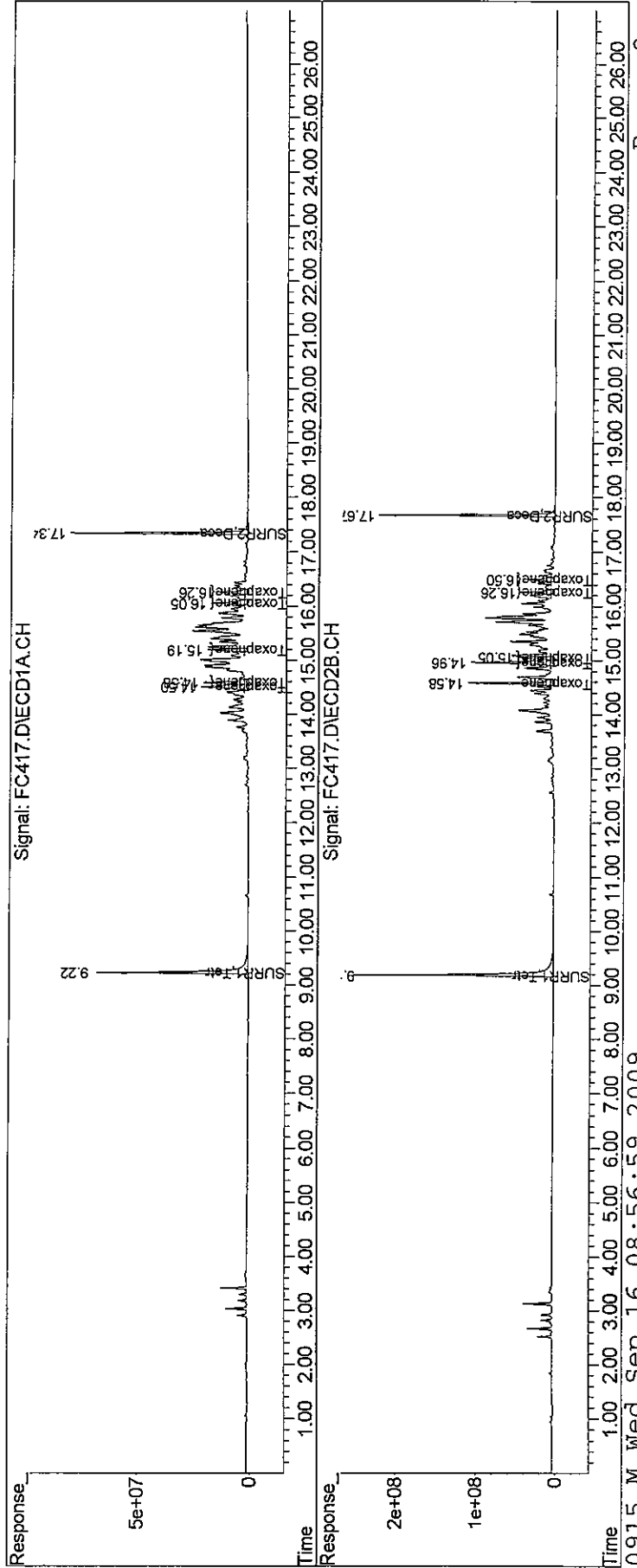
System Monitoring Compounds						
1) S SURR1,Tetrac	9.22	9.18	1802.4E6	6200.3E6	76.984	82.376
Spiked Amount	100.000	Range 30 - 150	Recovery =		76.98%	82.38%
25) S SURR2,Decachloro	17.34	17.67	1473.9E6	3797.5E6	85.169	89.424
Spiked Amount	100.000	Range 30 - 150	Recovery =		85.17%	89.42%
Target Compounds						
26) L8C Toxaphene	14.50	14.58	718.5E6	2337.4E6	1564.534	1265.801
27) L8C Toxaphene {2}	14.58	14.96	511.1E6	2611.0E6	1415.936	2386.986 #
28) L8C Toxaphene {3}	15.19	15.05	413.8E6	920.2E6	547.169	447.841
29) L8C Toxaphene {4}	16.06	16.26	452.8E6	988.6E6	477.537	527.540
30) L8C Toxaphene {5}	16.26	16.50	361.9E6	955.4E6	497.237	472.855
Sum Toxaphene			2458.1E6	7812.7E6	4502.414	5101.023
Average Toxaphene					900.483	1020.205
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\091509\
Data File : FC417.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 15 Sep 2009 10:08 pm
Operator : M.PEDRO
Sample : TOX MH
Misc : INITIAL CAL
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 16 08:42:27 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Sep 16 08:27:07 2009
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



00640

Quantitation Report (QT Reviewed)

Data Path : J:\ACQUADATA\6890D\DATA\091509\
 Data File : FC418.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 15 Sep 2009 10:44 pm
 Operator : M.PEDRO
 Sample : TOX H
 Misc : INITIAL CAL
 ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Sep 16 08:42:59 2009
 Quant Method : J:\ACQUADATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Sep 16 08:27:07 2009
 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

1) S	SURR1,Tetrac	9.22	9.18	2258.2E6	7597.0E6	96.454	100.932 <i>Wf</i>
	Spiked Amount	100.000	Range 30 - 150	Recovery =	96.45%	100.93%	100.93% <i>qms</i>
25) S	SURR2,Decachloro	17.34	17.67	1851.2E6	4713.4E6	106.975	110.992
	Spiked Amount	100.000	Range 30 - 150	Recovery =	106.97%	110.99%	

Target Compounds

26) L8C	Toxaphene	14.50	14.58	975.0E6	3094.7E6	2123.247	1675.933
27) L8C	Toxaphene {2}	14.58	14.96	692.2E6	3460.4E6	1917.554	3163.468 #
28) L8C	Toxaphene {3}	15.19	15.05	565.2E6	1257.1E6	747.328	611.796
29) L8C	Toxaphene {4}	16.06	16.26	617.3E6	1330.3E6	650.953	709.833
30) L8C	Toxaphene {5}	16.26	16.49	499.3E6	1298.2E6	686.055	642.495
	Sum Toxaphene			3349.0E6	10440.6E6	6125.137	6803.525
	Average Toxaphene					1225.027	1360.705

	Sum Chlordane			0	0	N.D.	N.D.
	Average Chlordane					0.000	0.000

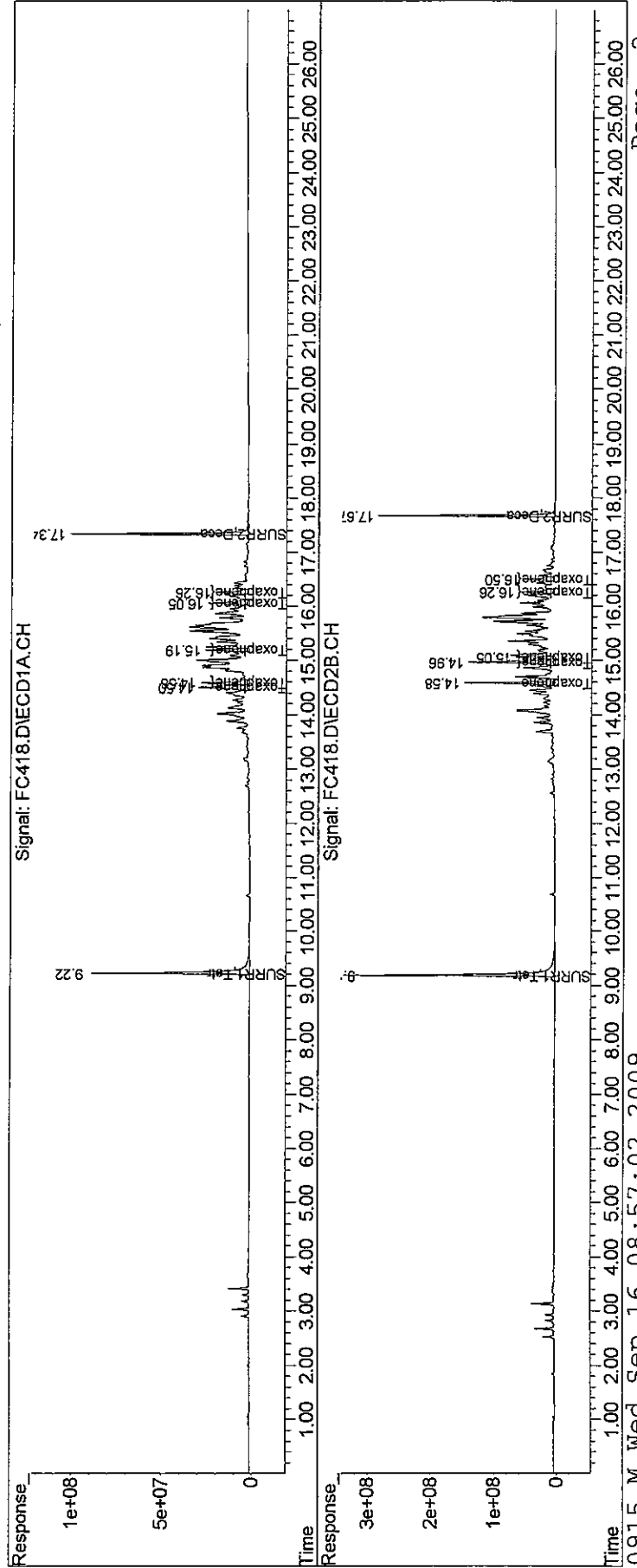
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\ACQUDATA\6890D\DATA\091509\
Data File : FC418.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 15 Sep 2009 10:44 pm
Operator : M.PEDRO
Sample : TOX H
Misc : INITIAL CAL
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 16 08:42:59 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Sep 16 08:27:07 2009
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



00642

Data Path : J:\ACQUDATA\6890D\DATA\091509\
 Data File : FC419.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 15 Sep 2009 11:20 pm
 Operator : M.PEDRO
 Sample : CHLOR L
 Misc : INITIAL CAL
 ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Sep 16 08:43:36 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Sep 16 08:27:07 2009
 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	9.23	9.19	426.0E6	1556.2E6	18.195	20.675 ^{wp}
Spiked Amount	100.000	Range 30 - 150	Recovery =		18.20%#	20.68%#
25) S SURR2,Decachloro	17.34	17.67	359.5E6	976.3E6	20.776	22.990
Spiked Amount	100.000	Range 30 - 150	Recovery =		20.78%#	22.99%#
Target Compounds						
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000
31) L9C Chlordane	11.36	11.26	3812892	17114264	3.978	5.488 #
32) L9C Chlordane {2}	11.48	11.48	9355744	34893288	6.874	8.068
33) L9C Chlordane {3}	12.15	12.18	14455639	47646910	11.808	14.156
34) L9C Chlordane {4}	13.02	13.05	63773540	204.1E6	19.314	23.018
35) L9C Chlordane {5}	14.32	14.53	25987876	85150161	25.400	28.490
Sum Chlordane			117.4E6	388.9E6	67.374	79.221
Average Chlordane					13.475	15.844

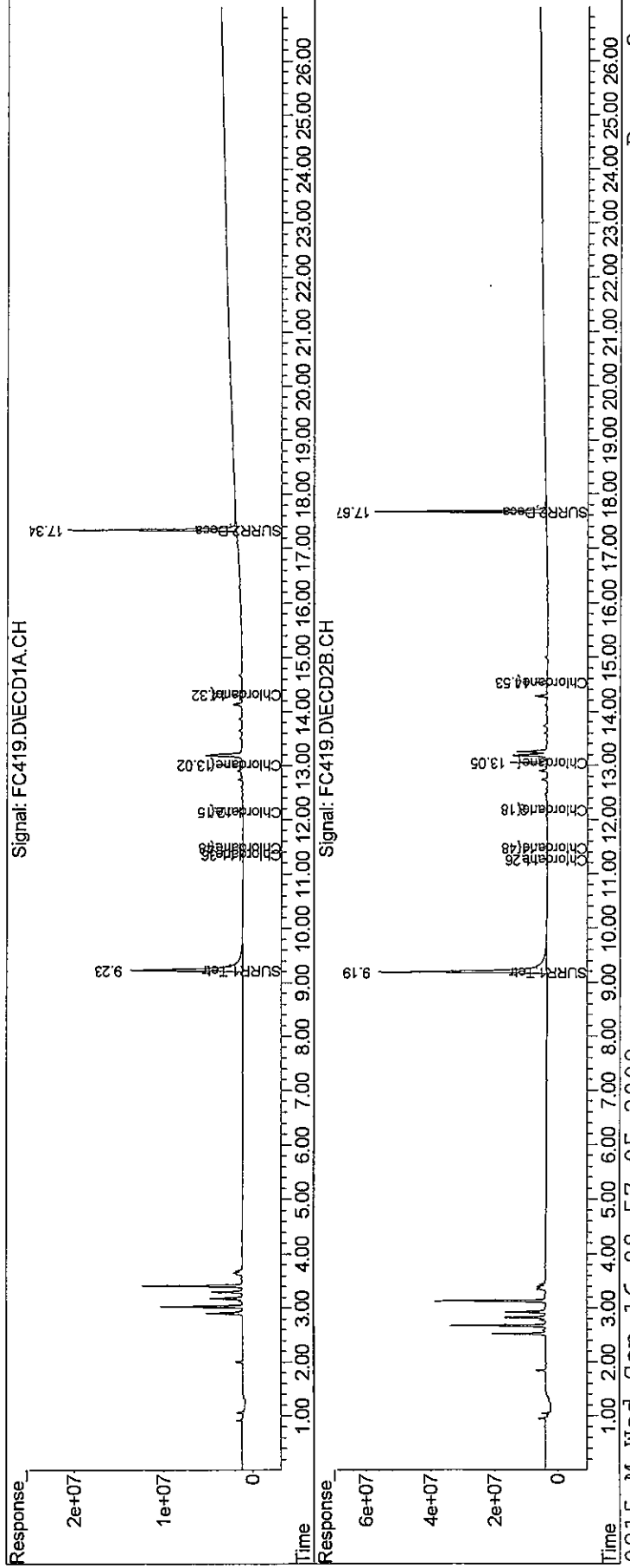
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\ACQUDATA\6890D\DATA\091509\
Data File : FC419.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 15 Sep 2009 11:20 pm
Operator : M.PEDRO
Sample : CHLOR L
Misc : INITIAL CAL
ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 16 08:43:36 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Sep 16 08:27:07 2009
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



090644

Data Path : J:\ACQUADATA\6890D\DATA\091509\
 Data File : FC420.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 15 Sep 2009 11:56 pm
 Operator : M.PEDRO
 Sample : CHLOR ML
 Misc : INITIAL CAL
 ALS Vial : 19 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Sep 16 08:44:06 2009
 Quant Method : J:\ACQUADATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Sep 16 08:27:07 2009
 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	9.23	9.18	868.6E6	3099.9E6	37.100	41.184
Spiked Amount	100.000	Range	30 - 150	Recovery	=	37.10%
25) S SURR2,Decachloro	17.34	17.67	712.1E6	1910.7E6	41.148	44.993
Spiked Amount	100.000	Range	30 - 150	Recovery	=	41.15%
Target Compounds						
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000
31) L9C Chlordane	11.36	11.26	8362009	34359694	8.725	11.018 #
32) L9C Chlordane {2}	11.48	11.48	20265698	73061772	14.890	16.894
33) L9C Chlordane {3}	12.15	12.18	31084994	94748009	25.391	28.151
34) L9C Chlordane {4}	13.02	13.05	146.5E6	428.3E6	44.372	48.305
35) L9C Chlordane {5}	14.32	14.53	58004671	178.3E6	56.693	59.658
Sum Chlordane			264.2E6	808.8E6	150.070	164.026
Average Chlordane					30.014	32.805

ug/l

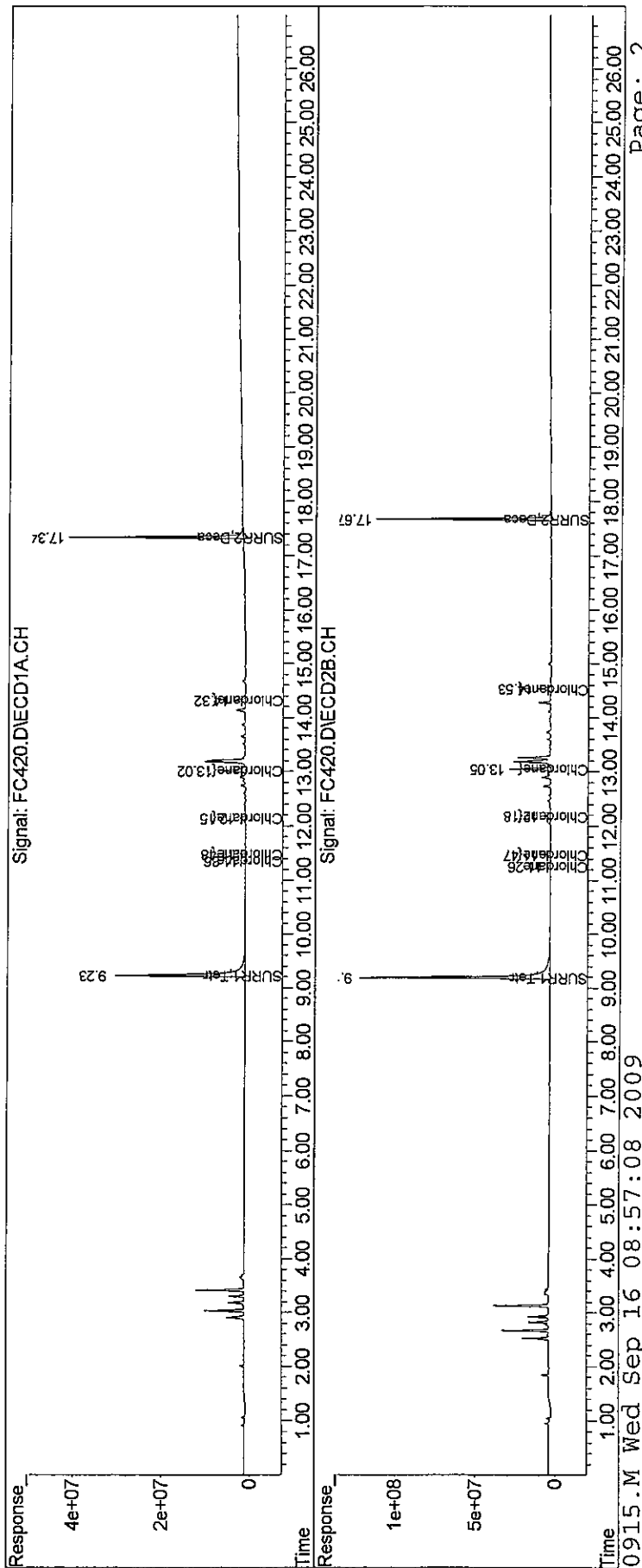
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\ACQUDATA\6890D\DATA\091509\
Data File : FC420.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 15 Sep 2009 11:56 pm
Operator : M.PEDRO
Sample : CHLOR ML
Misc : INITIAL CAL
ALS Vial : 19 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 16 08:44:06 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
Quant Title : 608/8081A PESTICIDES
Quant Update : Wed Sep 16 08:27:07 2009
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



00646

Data Path : J:\ACQUDATA\6890D\DATA\091509\
 Data File : FC421.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 16 Sep 2009 12:32 am
 Operator : M.PEDRO
 Sample : CHLOR M
 Misc : INITIAL CAL
 ALS Vial : 20 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Sep 16 08:44:30 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Sep 16 08:27:07 2009
 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

1) S SURR1,Tetrac	9.23	9.18	1321.2E6	4571.6E6	56.433	60.737
Spiked Amount	100.000	Range	30 - 150	Recovery	=	56.43% 60.74%
25) S SURR2,Decachloro	17.34	17.67	1069.6E6	2854.4E6	61.807	67.214
Spiked Amount	100.000	Range	30 - 150	Recovery	=	61.81% 67.21%

Target Compounds

Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

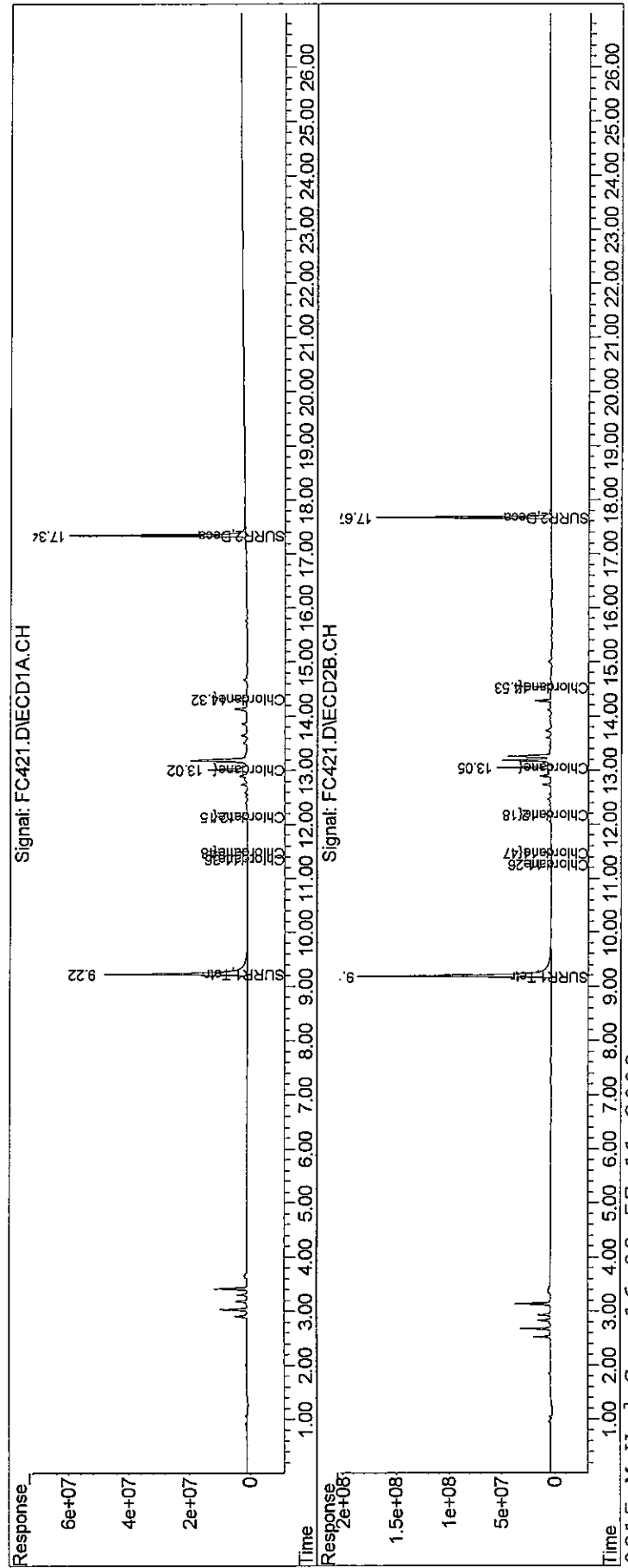
31) L9C Chlordane	11.36	11.26	16779952	68085954	17.507	21.833
32) L9C Chlordane {2}	11.48	11.48	40121928	143.4E6	29.478	33.170
33) L9C Chlordane {3}	12.15	12.18	59818141	183.5E6	48.860	54.530
34) L9C Chlordane {4}	13.02	13.05	299.1E6	862.8E6	90.577	97.307
35) L9C Chlordane {5}	14.32	14.53	116.7E6	355.3E6	114.078	118.889
Sum Chlordane			532.5E6	1613.2E6	300.501	325.728
Average Chlordane					60.100	65.146

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\091509\
Data File : FC421.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Sep 2009 12:32 am
Operator : M.PEDRO
Sample : CHLOR M
Misc : INITIAL CAL
ALS Vial : 20 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 16 08:44:30 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
Quant Title : 608/8081A PESTICIDES
Quant Update : Wed Sep 16 08:27:07 2009
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



00648

Data Path : J:\ACQUDATA\6890D\DATA\091509\
 Data File : FC422.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 16 Sep 2009 1:08 am
 Operator : M.PEDRO
 Sample : CHLOR MH
 Misc : INITIAL CAL
 ALS Vial : 21 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Sep 16 08:44:58 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Sep 16 08:27:07 2009
 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	9.22	9.18	1799.5E6	6153.9E6	76.861	81.758
Spiked Amount	100.000	Range	30 - 150	Recovery	= 76.86%	81.76%
25) S SURR2,Decachloro	17.34	17.67	1449.2E6	3765.9E6	83.741	88.678
Spiked Amount	100.000	Range	30 - 150	Recovery	= 83.74%	88.68%
Target Compounds						
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000
31) L9C Chlordane	11.36	11.26	43242348	166.2E6	45.117	53.301
32) L9C Chlordane{2}	11.48	11.47	104.6E6	356.3E6	76.843	82.376
33) L9C Chlordane{3}	12.15	12.18	146.2E6	438.3E6	119.383	130.211
34) L9C Chlordane{4}	13.02	13.05	787.1E6	2181.3E6	238.383	245.997
35) L9C Chlordane{5}	14.32	14.53	306.4E6	902.7E6	299.506	302.027
Sum Chlordane			1387.5E6	4044.7E6	779.232	813.912
Average Chlordane					155.846	162.782

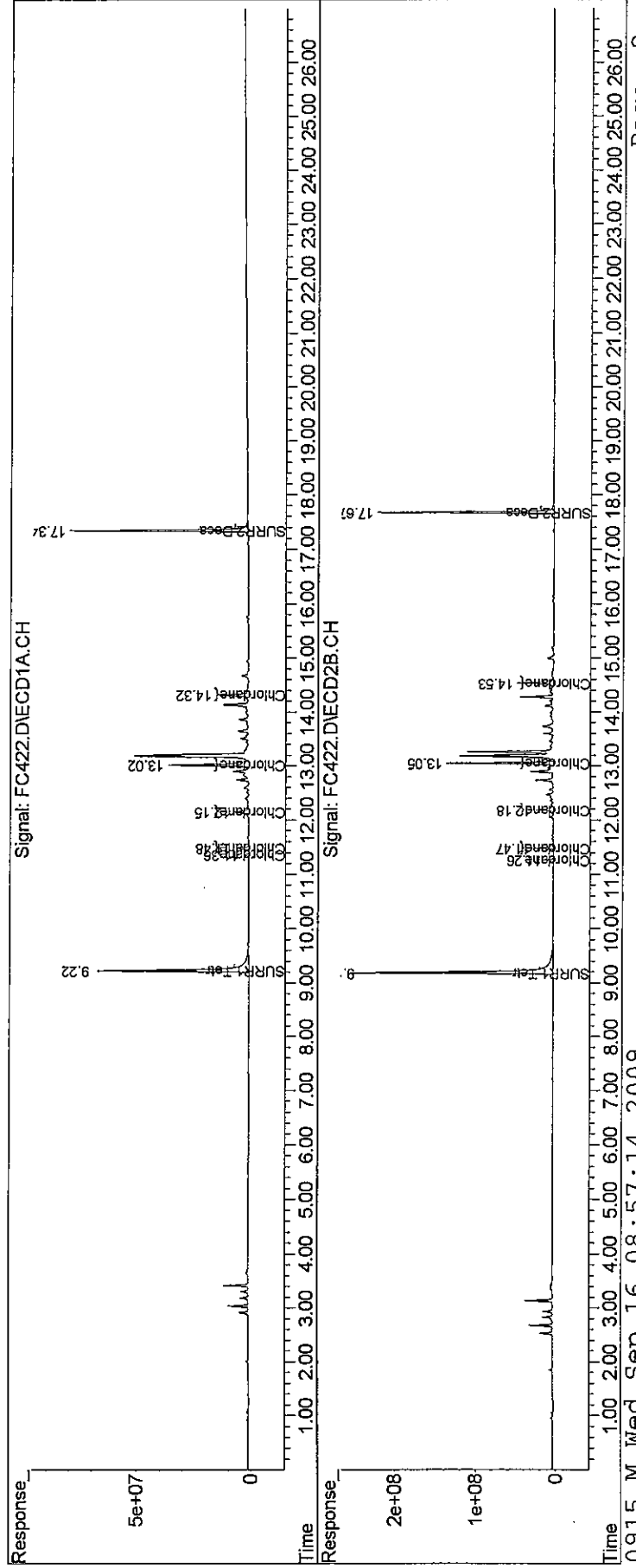
*my
9/16*

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\091509\
 Data File : FC422.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 16 Sep 2009 1:08 am
 Operator : M.PEDRO
 Sample : CHLOR MH
 Misc : INITIAL CAL
 ALS Vial : 21 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Sep 16 08:44:58 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Sep 16 08:27:07 2009
 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



00650

Data Path : J:\ACQUDATA\6890D\DATA\091509\
 Data File : FC423.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 16 Sep 2009 1:44 am
 Operator : M.PEDRO
 Sample : CHLOR H
 Misc : INITIAL CAL
 ALS Vial : 22 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Sep 16 08:45:27 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Sep 16 08:27:07 2009
 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

1) S	SURR1,Tetrac	9.22	9.18	2256.5E6	7536.7E6	96.383	100.130
	Spiked Amount	100.000	Range 30 - 150	Recovery =		96.38%	100.13%
25) S	SURR2,Decachloro	17.34	17.67	1820.4E6	4710.7E6	105.193	110.927
	Spiked Amount	100.000	Range 30 - 150	Recovery =		105.19%	110.93%

Target Compounds

Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

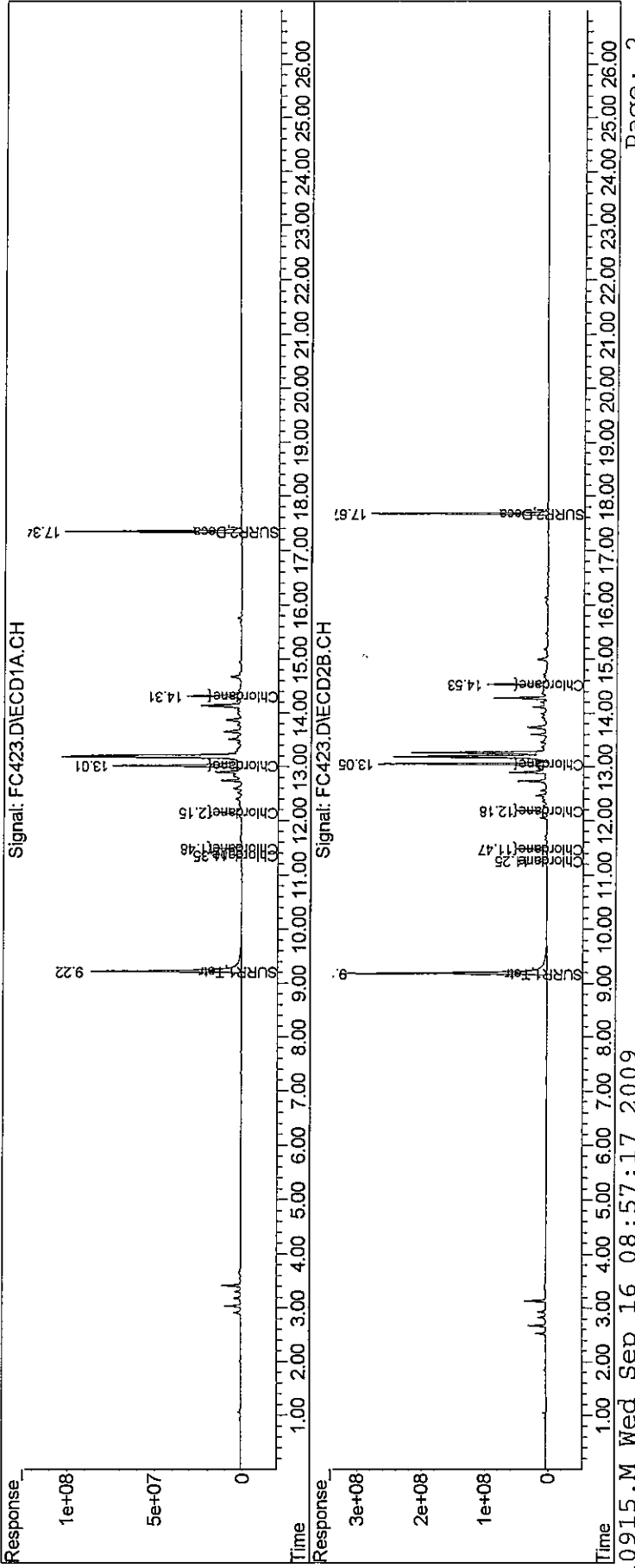
31) L9C	Chlordane	11.36	11.26	88930603	329.8E6	92.786	105.752
32) L9C	Chlordane { 2 }	11.48	11.47	218.1E6	718.3E6	160.231	166.091
33) L9C	Chlordane { 3 }	12.15	12.18	294.1E6	856.2E6	240.197	254.387
34) L9C	Chlordane { 4 }	13.02	13.05	1640.3E6	4402.8E6	496.773	496.535
35) L9C	Chlordane { 5 }	14.32	14.53	647.5E6	1855.6E6	632.897	620.872
	Sum Chlordane			2888.9E6	8162.7E6	1622.884	1643.637
	Average Chlordane					324.577	328.727

 (f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQDATA\6890D\DATA\091509\
Data File : FC423.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Sep 2009 1:44 am
Operator : M.PEDRO
Sample : CHLOR H
Misc : INITIAL CAL
ALS Vial : 22 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 16 08:45:27 2009
Quant Method : J:\ACQDATA\6890D\METHODS\80810915.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Sep 16 08:27:07 2009
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



00652

Evaluate Continuing Calibration Report

Data Path : J:\ACQUADATA\6890D\DATA\091509\
 Data File : FC424.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 16 Sep 2009 2:19 am
 Operator : M.PEDRO
 Sample : PEST ICV
 Misc : INITIAL CAL
 ALS Vial : 23 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Sep 16 10:01:10 2009
 Quant Method : J:\ACQUADATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Sep 16 08:52:41 2009
 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	35.959	34.432 E6	4.2	94	0.00
4 tcm gamma-BHC (L	31.548	31.601 E6	-0.2	99	0.00
5 tcm Heptachlor	31.017	32.422 E6	-4.5	102	0.00
6 tcm Aldrin	28.333	28.309 E6	0.1	99	0.00
7 tc beta-BHC	13.195	13.655 E6	-3.5	104	0.00
8 TC delta-BHC	30.378	31.691 E6	-4.3	103	0.00
9 tc Heptachlor E	25.454	25.394 E6	0.2	99	0.00
10 tc alpha-Endosu	22.728	26.724 E6	-17.6#	116	0.00
11 tc gamma-Chlord	25.665	25.885 E6	-0.9	101	0.00
12 tc alpha-Chlord	24.676	24.155 E6	2.1	98	0.00
13 tc 4,4'-DDE	23.721	21.168 E6	10.8	88	0.00
14 tcm Dieldrin	25.139	25.563 E6	-1.7	99	0.00
15 tcm Endrin	22.475	21.538 E6	4.2	93	0.00
16 tc KEPONE	0.000	503195.055	0.0	0#	0.00
17 tc beta-Endosul	21.295	18.968 E6	10.9	88	0.00
18 tc 4,4'-DDD	18.962	18.870 E6	0.5	97	0.00
19 tcm 4,4'-DDT	21.686	23.099 E6	-6.5	104	0.00
20 tc Endrin Aldeh	16.404	16.570 E6	-1.0	101	0.00
21 tc Endosulfan S	18.999	18.954 E6	0.2	100	0.00
22 tc Methoxychlor	9.748	10.210 E6	-4.7	103	0.00
24 tc Endrin Keton	21.571	22.416 E6	-3.9	103	0.00

Signal #2

3 tc alpha-BHC	119.945	116.038 E6	3.3	95	0.00
4 tcm gamma-BHC (L	104.217	104.693 E6	-0.5	99	0.00
5 tcm Heptachlor	98.580	106.950 E6	-8.5	107	0.00
6 tcm Aldrin	90.325	90.743 E6	-0.5	100	0.00
7 tc beta-BHC	44.860	46.479 E6	-3.6	107	0.00
8 tc delta-BHC	99.959	91.197 E6	8.8	91	0.00

Evaluate Continuing Calibration Report

Data Path : J:\ACQUDATA\6890D\DATA\091509\
 Data File : FC424.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 16 Sep 2009 2:19 am
 Operator : M.PEDRO
 Sample : PEST ICV
 Misc : INITIAL CAL
 ALS Vial : 23 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Sep 16 10:01:10 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Sep 16 08:52:41 2009
 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)
9 tc Heptachlor E	77.889	78.372 E6	-0.6	100	0.00
10 tc alpha-Endosu	68.977	71.714 E6	-4.0	102	0.00
11 tc gamma-Chlord	79.746	80.266 E6	-0.7	101	0.00
12 tc alpha-Chlord	75.634	72.205 E6	4.5	96	0.00
13 tc 4,4'-DDE	71.416	70.486 E6	1.3	99	0.00
14 tcm Dieldrin	72.924	75.746 E6	-3.9	102	0.00
15 tcm Endrin	63.727	61.833 E6	3.0	95	0.00
17 tc beta-Endosul	61.120	57.017 E6	6.7	92	0.00
18 tc 4,4'-DDD	54.827	54.621 E6	0.4	99	0.00
19 tcm 4,4'-DDT	60.848	65.108 E6	-7.0	105	0.00
20 tc Endrin Aldeh	46.117	47.394 E6	-2.8	103	0.00
21 tc Endosulfan S	55.321	55.258 E6	0.1	100	0.00
22 tc Methoxychlor	26.417	27.139 E6	-2.7	101	0.00
24 tc Endrin Keton	58.563	61.120 E6	-4.4	104	0.00

Evaluate Continuing Calibration Report - Not Found

1 S SURR1,Tetrac	22.903	0.000 E6	100.0#	0#	-9.22#
2 TC HEXACHLOROBENZENE	31.030	0.000 E6	100.0#	0#	-9.91#
23 tc FAMPHUR	0.000	0.000	0.0	0#	-16.02#
25 S SURR2,Decachlorobiphenyl	18.759	0.000 E6	100.0#	0#	-17.35#
26 L8C Toxaphene	914.338	0.000 E3	100.0#	0#	-14.50#
27 L8C Toxaphene{2}	653.531	0.000 E3	100.0#	0#	-14.59#
28 L8C Toxaphene{3}	516.866	0.000 E3	100.0#	0#	-15.19#
29 L8C Toxaphene{4}	569.668	0.000 E3	100.0#	0#	-16.06#
30 L8C Toxaphene{5}	453.772	0.000 E3	100.0#	0#	-16.26#
31 L9C Chlordane	167.677	0.000 E3	100.0#	0#	-11.36#
32 L9C Chlordane{2}	407.057	0.000 E3	100.0#	0#	-11.48#
33 L9C Chlordane{3}	594.173	0.000 E3	100.0#	0#	-12.15#
34 L9C Chlordane{4}	2.980	0.000 E6	100.0#	0#	-13.02#

Data Path : J:\ACQUADATA\6890D\DATA\091509\
 Data File : FC424.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 16 Sep 2009 2:19 am
 Operator : M.PEDRO
 Sample : PEST ICV
 Misc : INITIAL CAL
 ALS Vial : 23 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Sep 16 10:01:10 2009
 Quant Method : J:\ACQUADATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Sep 16 08:52:41 2009
 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

3) tc alpha-BHC	10.21	10.25	688.6E6	2320.8E6	19.151	19.349
4) tcm gamma-BHC (L	10.73	10.81	632.0E6	2093.9E6	20.034	20.091
5) tcm Heptachlor	11.48	11.47	648.4E6	2139.0E6	20.906	21.698
6) tcm Aldrin	11.93	11.94	566.2E6	1814.9E6	19.983	20.093
7) tc beta-BHC	10.90	10.97	273.1E6	929.6E6	20.697	20.722
8) tc delta-BHC	11.17	11.41	633.8E6	1823.9E6	20.864	18.247
9) tc Heptachlor E	12.83	12.78	507.9E6	1567.4E6	19.953	20.124
10) tc alpha-Endosu	13.40	13.33	534.5E6	1434.3E6	23.516m	20.793
11) tc gamma-Chlord	13.02	13.05	517.7E6	1605.3E6	20.172	20.130
12) tc alpha-Chlord	13.21	13.26	483.1E6	1444.1E6	19.577	19.093
13) tc 4,4'-DDE	13.33	13.51	846.7E6	2819.5E6	35.695	39.479
14) tcm Dieldrin	13.75	13.72	1022.5E6	3029.8E6	40.674	41.548
15) tcm Endrin	14.09	14.15	861.5E6	2473.3E6	38.333	38.811
17) tc beta-Endosul	14.42	14.46	758.7E6	2280.7E6	35.628	37.315
18) tc 4,4'-DDD	14.18	14.32	754.8E6	2184.9E6	39.805	39.850
19) tcm 4,4'-DDT	14.58	14.77	924.0E6	2604.3E6	42.607	42.801
20) tc Endrin Aldeh	15.04	14.95	662.8E6	1895.7E6	40.404	41.107
21) tc Endosulfan S	15.69	15.36	758.1E6	2210.3E6	39.904	39.955
22) tc Methoxychlor	15.28	15.74	2042.1E6	5427.9E6	209.488	205.467
24) tc Endrin Keton	16.09	16.12	896.6E6	2444.8E6	41.567	41.747
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

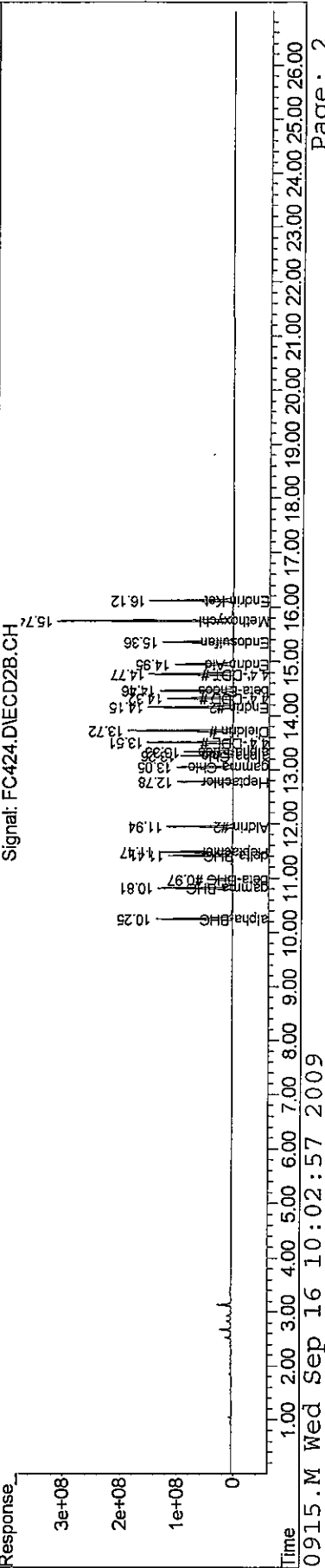
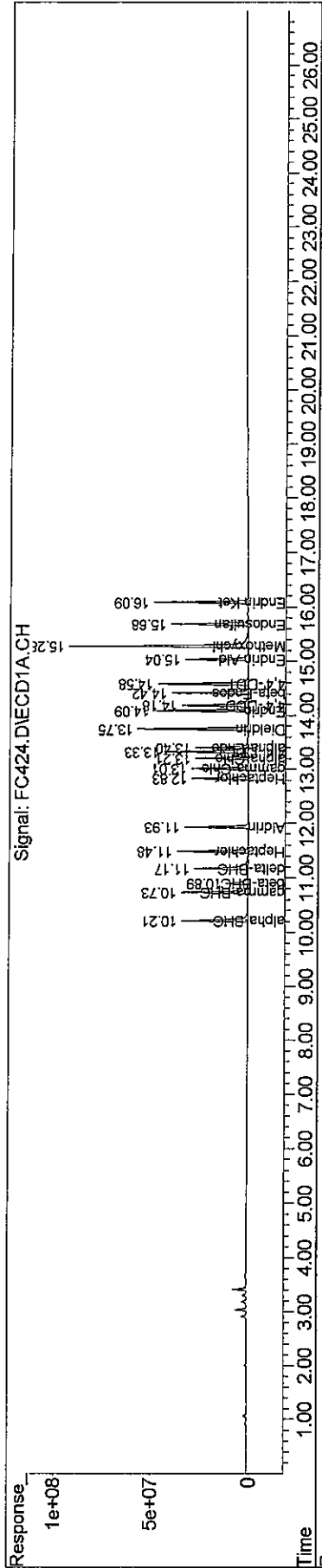
*mlp
9/16*

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\091509\
 Data File : FC424.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 16 Sep 2009 2:19 am
 Operator : M.PEDRO
 Sample : PEST ICV
 Misc : INITIAL CAL
 ALS Vial : 23 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Sep 16 10:01:10 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Sep 16 08:52:41 2009
 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



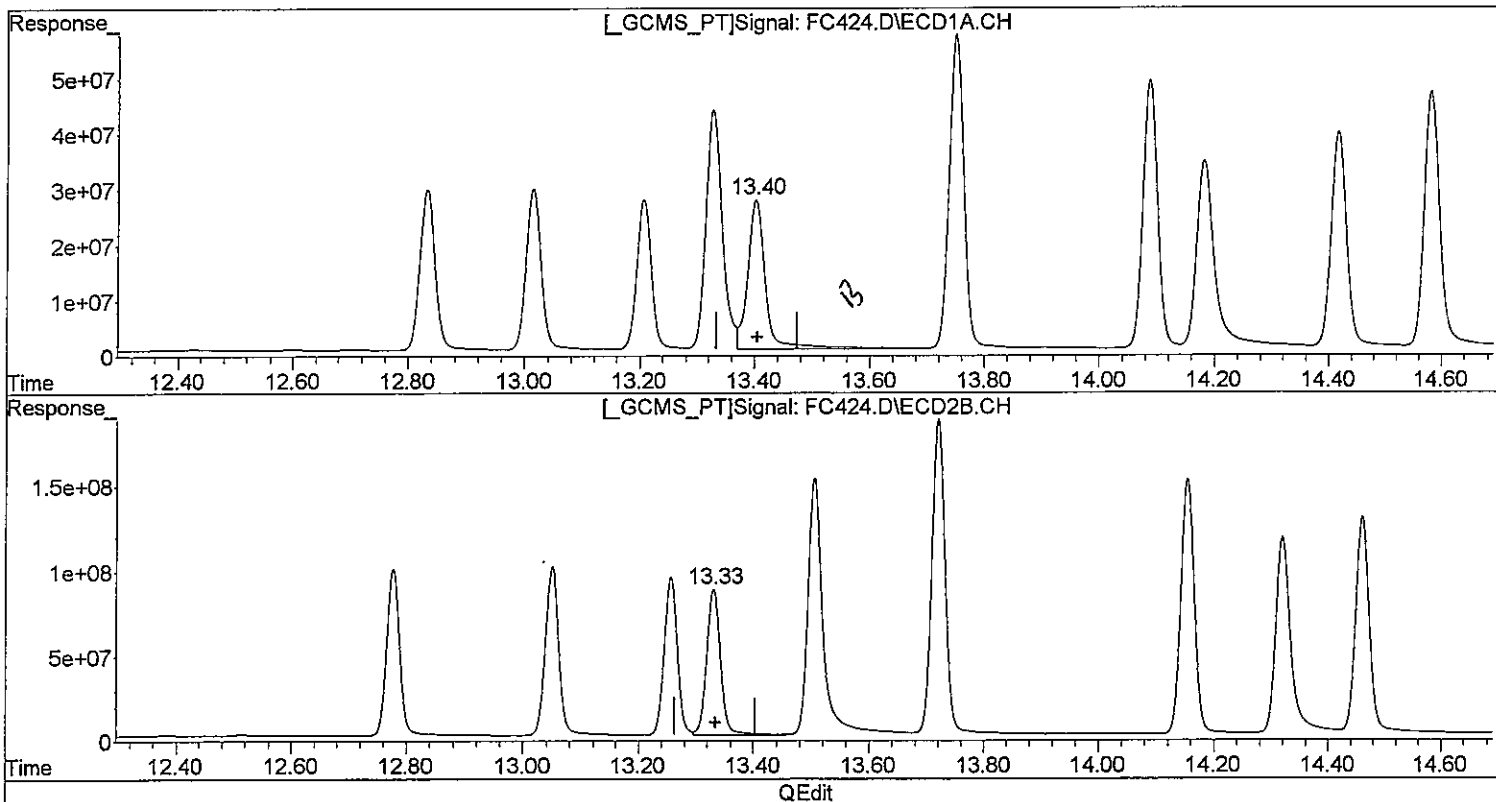
00656

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\091509\
Data File : FC424.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Sep 2009 2:19 am
Operator : M.PEDRO
Sample : PEST ICV
Misc : INITIAL CAL
ALS Vial : 23 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 16 09:59:32 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Sep 16 08:52:41 2009
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



(10) alpha-Endosu (tc)
13.40min 25.311ug/l
response 575273713

(10) alpha-Endosu #2 (tc)
13.33min 20.793ug/l
response 1434276618

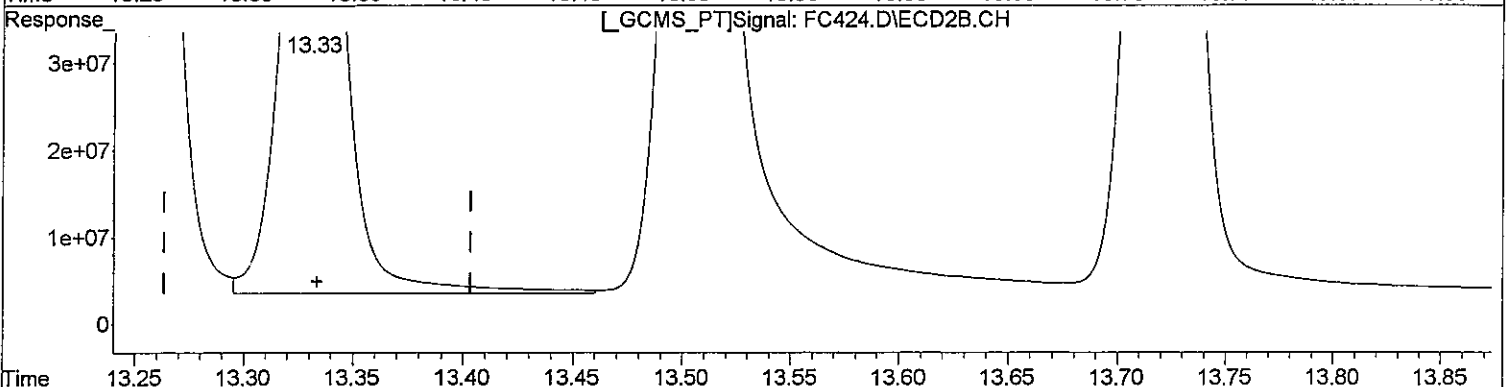
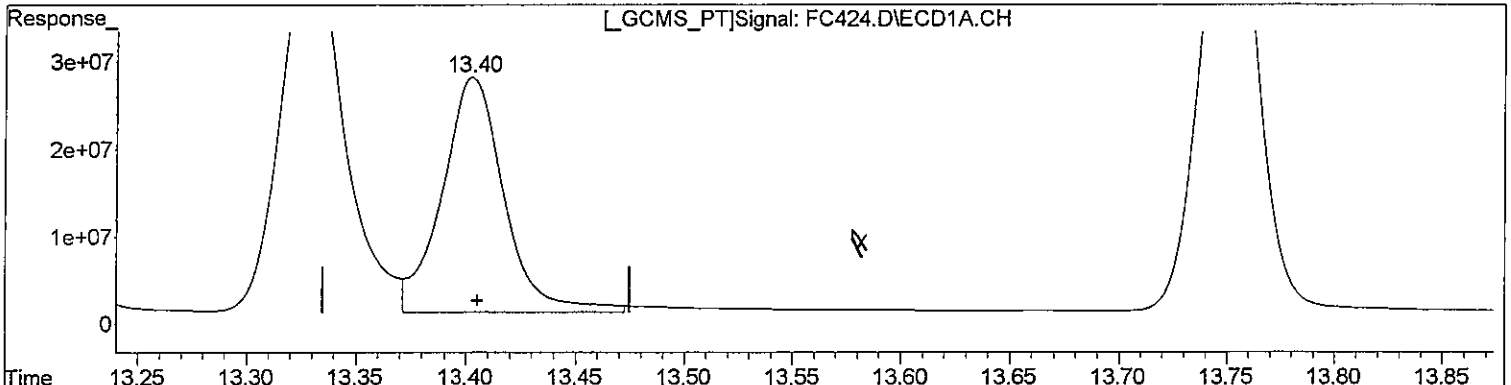
Handwritten signature

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\091509\
Data File : FC424.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Sep 2009 2:19 am
Operator : M.PEDRO
Sample : PEST ICV
Misc : INITIAL CAL
ALS Vial : 23 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 16 09:59:32 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Sep 16 08:52:41 2009
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

(10) alpha-Endosu (tc)
13.40min 23.516ug/l m
response 534474936

MWP
9/16

(10) alpha-Endosu #2 (tc)
13.33min 20.793ug/l
response 1434276618

MWP
9/16

Evaluate Continuing Calibration Report

Data Path : J:\ACQUDATA\6890D\DATA\091609\
 Data File : FC436.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 16 Sep 2009 9:30 am
 Operator : M.PEDRO
 Sample : TOX ICV
 Misc : INITIAL CAL
 ALS Vial : 24 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Sep 16 10:28:00 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Sep 16 08:52:41 2009
 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	914.338	946.033 E3	-3.5	103	0.00
27 L8C Toxaphene{2}	653.531	661.578 E3	-1.2	100	0.00
28 L8C Toxaphene{3}	516.866	527.124 E3	-2.0	101	0.00
29 L8C Toxaphene{4}	569.668	577.807 E3	-1.4	100	0.00
30 L8C Toxaphene{5}	453.772	455.287 E3	-0.3	99	0.00

Signal #2

26 L8C Toxaphene	3.064	3.156 E6	-3.0	103	0.00
27 L8C Toxaphene{2}	3.422	3.518 E6	-2.8	103	0.00
28 L8C Toxaphene{3}	1.227	1.254 E6	-2.2	103	0.00
29 L8C Toxaphene{4}	1.297	1.340 E6	-3.3	104	0.00
30 L8C Toxaphene{5}	1.211	1.306 E6	-7.8	107	0.00

Evaluate Continuing Calibration Report - Not Found

1 S SURR1, Tetrac	22.903	0.000 E6	100.0#	0#	-9.22#
2 TC HEXACHLORO BENZENE	31.030	0.000 E6	100.0#	0#	-9.91#
3 tc alpha-BHC	35.959	0.000 E6	100.0#	0#	-10.21#
4 tcm gamma-BHC (L	31.548	0.000 E6	100.0#	0#	-10.73#
5 tcm Heptachlor	31.017	0.000 E6	100.0#	0#	-11.48#
6 tcm Aldrin	28.333	0.000 E6	100.0#	0#	-11.93#
7 tc beta-BHC	13.195	0.000 E6	100.0#	0#	-10.89#
8 TC delta-BHC	30.378	0.000 E6	100.0#	0#	-11.17#
9 tc Heptachlor E	25.454	0.000 E6	100.0#	0#	-12.83#
10 tc alpha-Endosu	22.728	0.000 E6	100.0#	0#	-13.40#
11 tc gamma-Chlord	25.665	0.000 E6	100.0#	0#	-13.02#
12 tc alpha-Chlord	24.676	0.000 E6	100.0#	0#	-13.21#
13 tc 4,4'-DDE	23.721	0.000 E6	100.0#	0#	-13.33#
14 tcm Dieldrin	25.139	0.000 E6	100.0#	0#	-13.75#

Data Path : J:\ACQUDATA\6890D\DATA\091609\
 Data File : FC436.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 16 Sep 2009 9:30 am
 Operator : M.PEDRO
 Sample : TOX ICV
 Misc : INITIAL CAL
 ALS Vial : 24 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Sep 16 10:28:00 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Sep 16 08:52:41 2009
 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

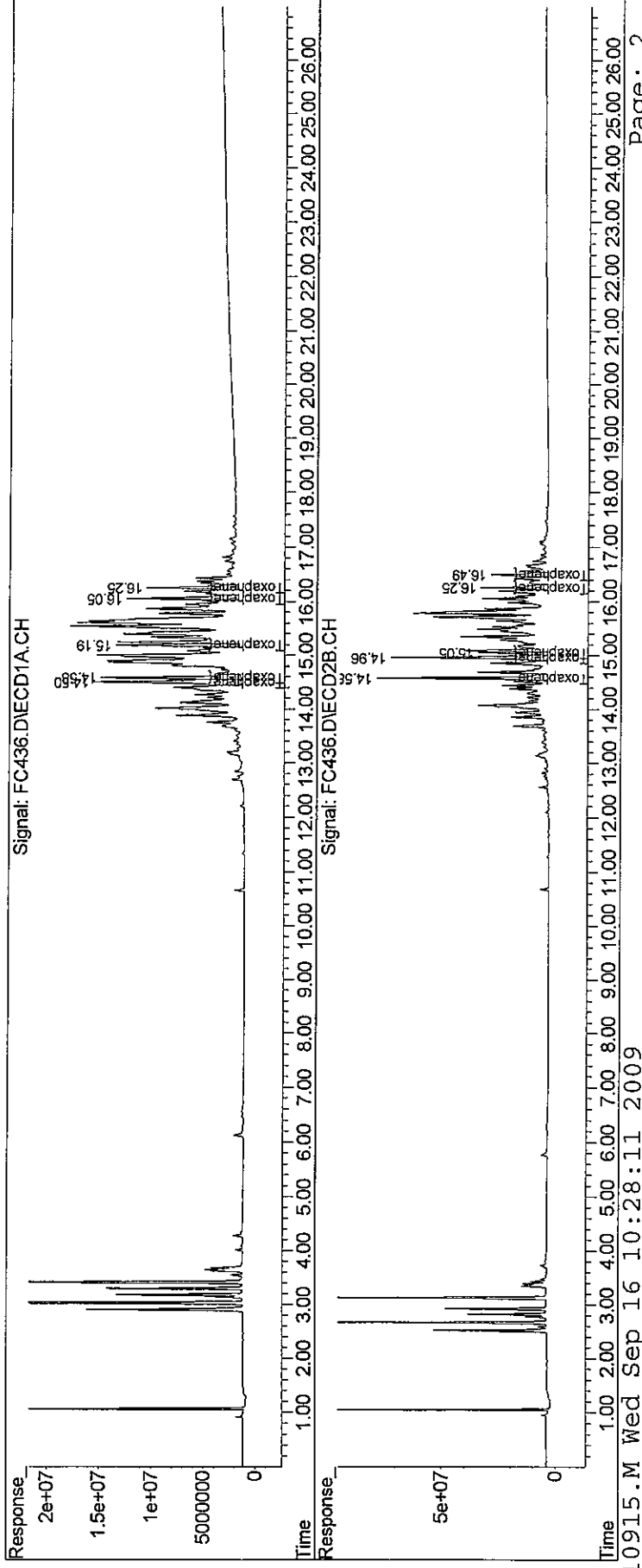
Target Compounds

26) L8C Toxaphene	14.50	14.58	473.0E6	1577.8E6	517.332	514.924
27) L8C Toxaphene{2}	14.58	14.96	330.8E6	1759.2E6	506.156	514.081
28) L8C Toxaphene{3}	15.19	15.05	263.6E6	626.8E6	509.923	510.716
29) L8C Toxaphene{4}	16.05	16.25	288.9E6	670.0E6	507.144	516.488
30) L8C Toxaphene{5}	16.25	16.49	227.6E6	653.0E6	501.669	539.250
Sum Toxaphene			1583.9E6	5286.7E6	2542.225	2595.459
Average Toxaphene					508.445	519.092
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\091609\
Data File : FC436.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Sep 2009 9:30 am
Operator : M.PEDRO
Sample : TOX ICV
Misc : INITIAL CAL
ALS Vial : 24 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 16 10:28:00 2009
Quant Method : J:\ACQDATA\6890D\METHODS\80810915.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Sep 16 08:52:41 2009
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



00661

Evaluate Continuing Calibration Report

Data Path : J:\ACQUADATA\6890D\DATA\091609\
 Data File : FC437.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 16 Sep 2009 10:06 am
 Operator : M.PEDRO
 Sample : CHLOR ICV
 Misc : INITIAL CAL
 ALS Vial : 25 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Sep 16 10:46:33 2009
 Quant Method : J:\ACQUADATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Sep 16 08:52:41 2009
 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	167.677	181.358 E3	-8.2	108	0.00
32 L9C Chlordane{2}	407.057	432.497 E3	-6.2	108	0.00
33 L9C Chlordane{3}	594.173	642.786 E3	-8.2	107	0.00
34 L9C Chlordane{4}	2.980	3.208 E6	-7.7	107	0.00
35 L9C Chlordane{5}	1.178	1.254 E6	-6.5	107	0.00

Signal #2

31 L9C Chlordane	675.411	728.151 E3	-7.8	107	0.00
32 L9C Chlordane{2}	1.431	1.560 E6	-9.0	109	0.00
33 L9C Chlordane{3}	1.820	1.964 E6	-7.9	107	0.00
34 L9C Chlordane{4}	8.578	9.334 E6	-8.8	108	0.00
35 L9C Chlordane{5}	3.569	3.845 E6	-7.7	108	0.00

Evaluate Continuing Calibration Report - Not Finds

1 S SURR1,Tetrac	22.903	0.000 E6	100.0#	0#	-9.22#
2 TC HEXACHLORO BENZENE	31.030	0.000 E6	100.0#	0#	-9.91#
3 tc alpha-BHC	35.959	0.000 E6	100.0#	0#	-10.21#
4 tcm gamma-BHC (L	31.548	0.000 E6	100.0#	0#	-10.73#
5 tcm Heptachlor	31.017	0.000 E6	100.0#	0#	-11.48#
6 tcm Aldrin	28.333	0.000 E6	100.0#	0#	-11.93#
7 tc beta-BHC	13.195	0.000 E6	100.0#	0#	-10.89#
8 TC delta-BHC	30.378	0.000 E6	100.0#	0#	-11.17#
9 tc Heptachlor E	25.454	0.000 E6	100.0#	0#	-12.83#
10 tc alpha-Endosu	22.728	0.000 E6	100.0#	0#	-13.40#
11 tc gamma-Chlord	25.665	0.000 E6	100.0#	0#	-13.02#
12 tc alpha-Chlord	24.676	0.000 E6	100.0#	0#	-13.21#
13 tc 4,4'-DDE	23.721	0.000 E6	100.0#	0#	-13.33#
14 tcm Dieldrin	25.139	0.000 E6	100.0#	0#	-13.75#

Data Path : J:\ACQUADATA\6890D\DATA\091609\
 Data File : FC437.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 16 Sep 2009 10:06 am
 Operator : M.PEDRO
 Sample : CHLOR ICV
 Misc : INITIAL CAL
 ALS Vial : 25 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Sep 16 10:46:33 2009
 Quant Method : J:\ACQUADATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Sep 16 08:52:41 2009
 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

Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

31) L9C Chlordane	11.35	11.25	18135752	72815078	108.159	107.809
32) L9C Chlordane {2}	11.48	11.47	43249721	156.0E6	106.250	109.032
33) L9C Chlordane {3}	12.15	12.18	64278644	196.4E6	108.182	107.885
34) L9C Chlordane {4}	13.01	13.05	320.8E6	933.4E6	107.630	108.817
35) L9C Chlordane {5}	14.31	14.53	125.4E6	384.5E6	106.534	107.719
Sum Chlordane			571.9E6	1743.1E6	536.754	541.262
Average Chlordane					107.351	108.252

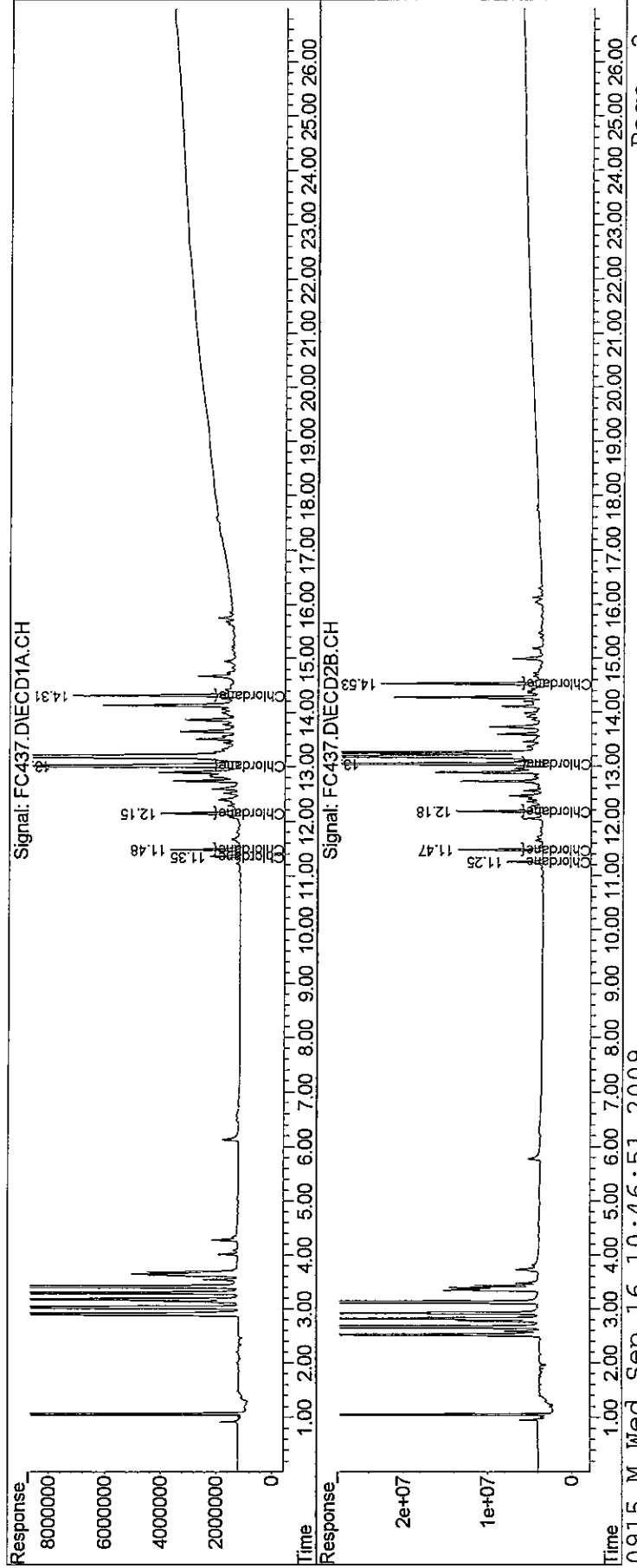
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\ACQDATA\6890D\DATA\091609\
Data File : FC437.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Sep 2009 10:06 am
Operator : M.PEDRO
Sample : CHLOR ICV
Misc : INITIAL CAL
ALS Vial : 25 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 16 10:46:33 2009
Quant Method : J:\ACQDATA\6890D\METHODS\80810915.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Sep 16 08:52:41 2009
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



00064

Pesticide Initial Calibration of Multicomponent Analytes

Lab Name: Columbia Analytical Services Client: NORTHGATE
 Lab Code: 10145 Case.No.: R0905636 SAS No.: _____ SDG No.: PB100209-A2
 Instrument ID: 6890D Date Analyzed: 10/27/2009

GC Column(1) <u>STx-CLP</u> (ID): <u>0.32mm 30</u>				GC Column(2) <u>STx-CLPII</u> (ID): <u>0.32mm 30</u>		
Compound	RT	RT Window		RT	RT Window	
		From	To		From	To
SURR1,Tetrac	9.18	9.13	9.23	9.36	9.31	9.41
HEXACHLOROBEN	9.86	9.79	9.93	10.18	10.11	10.25
alpha-BHC	10.17	10.12	10.22	10.43	10.38	10.48
gamma-BHC (L	10.69	10.64	10.74	11.01	10.96	11.06
Heptachlor	11.43	11.38	11.48	11.67	11.62	11.72
Aldrin	11.88	11.83	11.93	12.15	12.10	12.20
beta-BHC	10.84	10.79	10.89	11.15	11.10	11.20
delta-BHC	11.11	11.06	11.16	11.60	11.55	11.65
Heptachlor E	12.78	12.71	12.85	12.99	12.92	13.06
alpha-Endosu	13.35	13.28	13.42	13.56	13.49	13.63
gamma-Chlord	12.96	12.89	13.03	13.26	13.19	13.33
alpha-Chlord	13.15	13.08	13.22	13.48	13.41	13.55
4,4'-DDE	13.27	13.20	13.34	13.71	13.64	13.78
Dieldrin	13.69	13.62	13.76	13.95	13.88	14.02
Endrin	14.03	13.96	14.10	14.40	14.33	14.47
KEPONE	14.09	14.02	14.16	14.56	14.49	14.63
beta-Endosul	14.36	14.29	14.43	14.70	14.63	14.77
4,4'-DDD	14.12	14.05	14.19	14.54	14.47	14.61
4,4'-DDT	14.52	14.45	14.59	15.00	14.93	15.07
Endrin Aldeh	14.98	14.91	15.05	15.20	15.13	15.27
Endosulfan S	15.62	15.55	15.69	15.61	15.54	15.68
Methoxychlor	15.21	15.14	15.28	15.97	15.90	16.04
FAMPHUR	15.92	15.85	15.99	15.70	15.63	15.77
Endrin Keton	16.02	15.95	16.09	16.37	16.30	16.44
SURR2,Decachlorobip	17.28	17.18	17.38	17.91	17.81	18.01
Toxaphene	14.44	14.37	14.51	14.83	14.76	14.90
Toxaphene	14.52	14.45	14.59	14.93	14.86	15.00
Toxaphene	15.12	15.05	15.19	15.21	15.14	15.28

Pesticide Initial Calibration of Multicomponent Analytes

Lab Name: Columbia Analytical Services *Client:* NORTHGATE
Lab Code: 10145 *Case.No.:* R0905636 *SAS No.:* _____ *SDG No.:* PB100209-A2
Instrument ID: 6890D *Date Analyzed:* 10/27/2009

GC Column(1) STx-CLP (*ID*): 0.32mm 30 | *GC Column(2)* STx-CLPII (*ID*): 0.32mm 30

<i>Compound</i>	<i>RT</i>	<i>RT Window</i>		<i>RT</i>	<i>RT Window</i>	
		<i>From</i>	<i>To</i>		<i>From</i>	<i>To</i>
Toxaphene	15.99	15.92	16.06	15.60	15.53	15.67
Toxaphene	16.19	16.12	16.26	16.73	16.66	16.80
Chlordane	11.31	11.24	11.38	11.45	11.38	11.52
Chlordane	11.43	11.36	11.50	11.67	11.60	11.74
Chlordane	12.10	12.03	12.17	12.38	12.31	12.45
Chlordane	12.96	12.89	13.03	13.26	13.19	13.33
Chlordane	14.25	14.18	14.32	14.77	14.70	14.84

Response Factor Report 6890D

Method Path : J:\ACQUADATA\6890D\METHODS\
 Method File : 80811027.M
 Title : 608/8081A PESTICIDES
 Last Update : Wed Oct 28 08:32:24 2009
 Response Via : Initial Calibration

Calibration Files

1 =FD064.D 2 =FD063.D 3 =FD062.D
 4 =FD061.D 5 =FD060.D

Compound	1	2	3	4	5	Avg	%RSD
1) S SURR1,Tetrac	2.473	2.442	2.460	2.233	2.266	2.375	E7 4.86
2) TC HEXACHLORO BENZENE	3.260	3.221	3.265	3.020	3.091	3.171	E7 3.47
3) tc alpha-BHC	3.967	3.872	3.826	3.371	3.261	3.659	E7 8.74
4) tcm gamma-BHC (L	3.543	3.449	3.427	3.029	2.983	3.286	E7 7.91
5) tcm Heptachlor	3.393	3.391	3.414	3.075	3.081	3.271	E7 5.39
6) tcm Aldrin	3.111	3.480	3.059	2.869	2.719	3.047	E7 9.43
7) tc beta-BHC	1.388	1.517	1.342	1.301	1.303	1.370	E7 6.54
8) TC delta-BHC	3.480	3.787	3.323	3.068	2.816	3.295	E7 11.34
9) tc Heptachlor E	2.766	3.043	2.759	2.640	2.583	2.758	E7 6.42
10) tc alpha-Endosu	2.568	2.526	2.534	2.283	2.290	2.440	E7 5.78
11) tc gamma-Chlord	2.834	3.115	2.729	2.581	2.489	2.750	E7 8.86
12) tc alpha-Chlord	2.688	2.753	2.572	2.483	2.371	2.573	E7 5.97
13) tc 4,4'-DDE	2.681	2.977	2.666	2.514	2.388	2.645	E7 8.35
14) tcm Dieldrin	2.844	2.844	2.888	2.576	2.520	2.734	E7 6.30
15) tcm Endrin	2.536	2.511	2.572	2.284	2.296	2.440	E7 5.67
16) tc KEPONE	0.911	0.954	0.972	1.038	0.978	0.971	E7 4.75
17) tc beta-Endosul	2.318	2.589	2.296	2.201	2.133	2.308	E7 7.55
18) tc 4,4'-DDD	2.239	2.200	2.198	1.926	1.963	2.105	E7 7.05
19) tcm 4,4'-DDT	2.484	2.448	2.445	2.162	2.154	2.339	E7 7.08
20) tc Endrin Aldeh	1.857	2.017	1.793	1.750	1.702	1.824	E7 6.71
21) tc Endosulfan S	2.121	2.410	2.107	2.012	1.968	2.123	E7 8.12
22) tc Methoxychlor	1.073	1.099	1.141	1.055	1.074	1.088	E7 3.07
23) tc FAMPHUR	1.638	1.642	1.652	1.749	1.556	1.647	E7 4.16
24) tc Endrin Keton	2.338	2.593	2.392	2.297	2.254	2.375	E7 5.57
25) S SURR2,Decachlorobiphe	2.071	2.033	2.081	1.908	1.984	2.015	E7 3.52
26) L8C Toxaphene	1.051	1.040	0.982	0.922	0.987	0.996	E6 5.18
27) L8C Toxaphene {2}	7.223	7.136	6.733	6.335	6.761	6.838	E5 5.21
28) L8C Toxaphene {3}	6.184	6.122	5.693	5.249	5.446	5.739	E5 7.15
29) L8C Toxaphene {4}	6.816	6.731	6.296	5.815	6.190	6.370	E5 6.45
30) L8C Toxaphene {5}	5.754	5.674	5.264	4.876	5.144	5.342	E5 6.89
31) L9C Chlordane	1.931	1.779	1.775	1.810	1.682	1.795	E5 5.00
32) L9C Chlordane {2}	4.790	4.311	4.200	4.221	4.009	4.306	E5 6.78
33) L9C Chlordane {3}	6.549	6.106	6.147	6.360	6.247	6.282	E5 2.84
34) L9C Chlordane {4}	3.708	3.330	3.116	3.038	2.858	3.210	E6 10.16
35) L9C Chlordane {5}	1.437	1.264	1.188	1.081	1.072	1.208	E6 12.45

Signal #2 Calibration Files

1 =FD064.D 2 =FD063.D 3 =FD062.D
 4 =FD061.D 5 =FD060.D

Compound	1	2	3	4	5	Avg	%RSD
1) S SURR1,Tetrac	6.779	6.952	7.250	6.827	7.101	6.982	E7 2.80
2) TC HEXACHLORO BENZENE	9.037	9.195	9.597	9.165	9.667	9.332	E7 3.01
3) tc alpha-BHC	1.042	1.051	1.076	0.989	0.996	1.031	E8 3.61
4) tcm gamma-BHC (L	9.266	9.336	9.578	8.829	9.078	9.217	E7 3.05

Response Factor Report 6890D

Method Path : J:\ACQUADATA\6890D\METHODS\
 Method File : 80811027.M
 Title : 608/8081A PESTICIDES
 Last Update : Wed Oct 28 08:32:24 2009
 Response Via : Initial Calibration

Calibration Files

1 =FD064.D 2 =FD063.D 3 =FD062.D
 4 =FD061.D 5 =FD060.D

Compound	1	2	3	4	5	Avg	%RSD
5) tcm Heptachlor	8.394	8.719	9.154	8.575	8.985	8.766	E7 3.50
6) tcm Aldrin	7.721	8.917	8.251	8.096	7.810	8.159	E7 5.81
7) tc beta-BHC	3.820	4.285	4.008	3.972	4.177	4.052	E7 4.48
8) tc delta-BHC	9.025	9.648	9.263	8.977	8.783	9.139	E7 3.63
9) tc Heptachlor E	6.608	7.636	7.151	7.055	7.185	7.127	E7 5.14
10) tc alpha-Endosu	6.012	6.044	6.325	5.828	5.710	5.984	E7 3.92
11) tc gamma-Chlord	6.950	7.542	7.203	6.989	7.132	7.163	E7 3.29
12) tc alpha-Chlord	6.617	7.323	6.858	6.755	6.787	6.868	E7 3.92
13) tc 4,4'-DDE	6.291	7.246	6.677	6.515	6.524	6.651	E7 5.42
14) tcm Dieldrin	6.547	6.741	6.918	6.402	6.470	6.616	E7 3.20
15) tcm Endrin	5.630	5.706	6.006	5.531	5.671	5.709	E7 3.13
16) tc KEPONE	2.082	2.216	2.299	2.498	2.418	2.303	E7 7.14
17) tc beta-Endosul	5.254	6.045	5.590	5.496	5.492	5.575	E7 5.20
18) tc 4,4'-DDD	5.156	5.222	5.349	4.911	5.054	5.138	E7 3.24
19) tcm 4,4'-DDT	5.563	5.565	5.692	5.188	5.323	5.466	E7 3.75
20) tc Endrin Aldeh	4.139	4.712	4.319	4.284	4.337	4.358	E7 4.88
21) tc Endosulfan S	4.836	5.323	5.063	4.923	4.964	5.022	E7 3.73
22) tc Methoxychlor	2.224	2.314	2.435	2.287	2.377	2.327	E7 3.50
23) tc FAMPHUR	3.508	3.384	3.513	3.877	3.678	3.592	E7 5.30
24) tc Endrin Keton	5.112	5.834	5.262	5.115	5.060	5.276	E7 6.07
25) S SURR2,Decachlorobiphe	4.292	4.307	4.445	4.261	4.295	4.320	E7 1.67
26) L8C Toxaphene	2.871	2.700	2.617	2.556	2.939	2.737	E6 5.98
27) L8C Toxaphene {2}	1.423	1.420	1.369	1.340	1.515	1.413	E6 4.73
28) L8C Toxaphene {3}	3.219	3.214	3.101	3.026	3.243	3.161	E6 2.95
29) L8C Toxaphene {4}	1.377	1.371	1.324	1.287	1.431	1.358	E6 4.05
30) L8C Toxaphene {5}	1.222	1.211	1.154	1.098	1.161	1.169	E6 4.28
31) L9C Chlordane	5.916	5.454	5.637	5.676	5.613	5.659	E5 2.94
32) L9C Chlordane {2}	1.368	1.261	1.259	1.274	1.245	1.281	E6 3.87
33) L9C Chlordane {3}	1.644	1.549	1.582	1.635	1.602	1.602	E6 2.43
34) L9C Chlordane {4}	8.577	7.983	7.788	7.680	7.230	7.852	E6 6.25
35) L9C Chlordane {5}	3.605	3.250	3.114	3.057	2.916	3.188	E6 8.21

(#) = Out of Range

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD060.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 27 Oct 2009 8:58 am
 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: Oct 28 08:01:04 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Mon Oct 26 09:02:08 2009
 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

1) S	SURR1,Tetrac	9.18	9.36	113.3E6	355.1E6	5.106	4.460
	Spiked Amount	100.000	Range 30 - 150	Recovery =		5.11%#	4.46%#
25) S	SURR2,Decachloro	17.28	17.91	198.4E6	429.5E6	10.280m	8.782m
	Spiked Amount	100.000	Range 30 - 150	Recovery =		10.28%#	8.78%#

Target Compounds

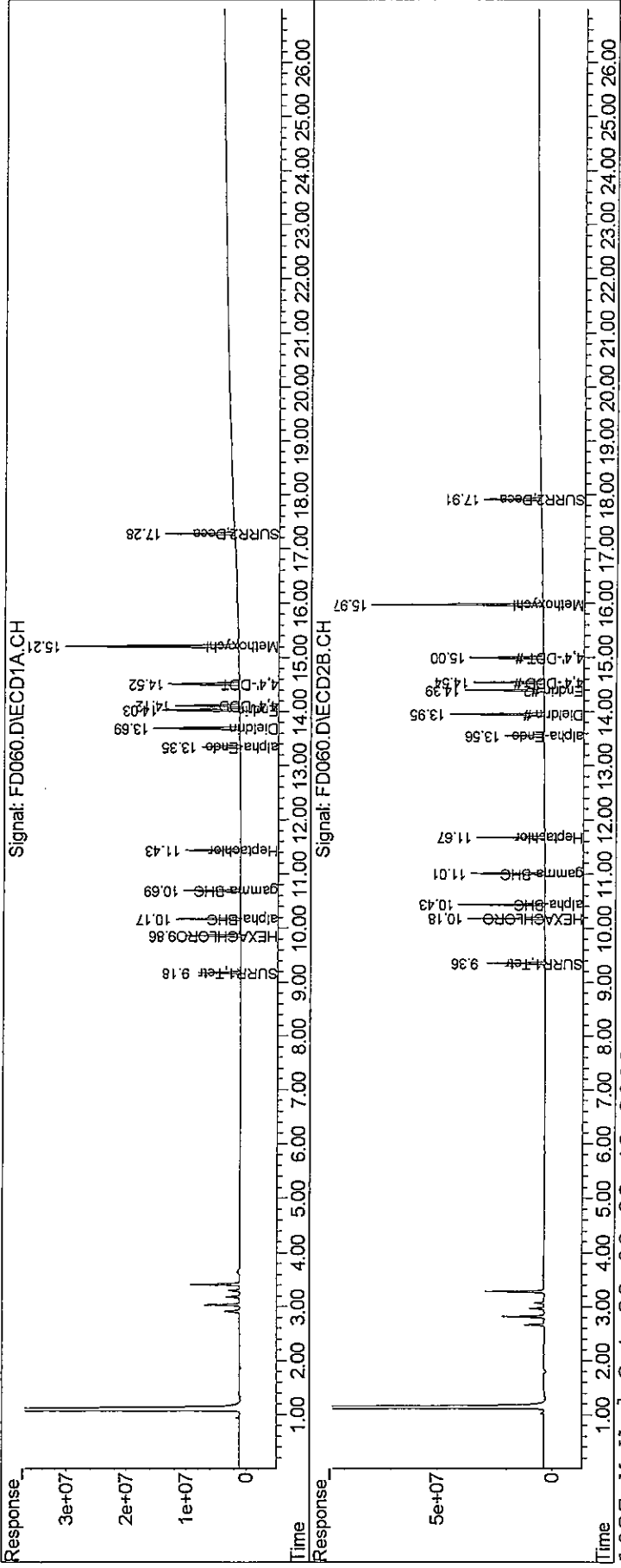
2) TC	HEXACHLOROBENZEN	9.86	10.18	154.6E6	483.4E6	5.241	4.554
3) tc	alpha-BHC	10.17	10.43	163.0E6	497.8E6	4.705	4.222
4) tcm	gamma-BHC (L	10.69	11.01	149.2E6	453.9E6	4.943	4.440
5) tcm	Heptachlor	11.43	11.67	154.0E6	449.2E6	4.900	4.611
10) tc	alpha-Endosu	13.35	13.56	114.5E6	285.5E6	4.887	4.104
14) tcm	Dieldrin	13.70	13.95	252.0E6	647.0E6	9.715	8.717
15) tcm	Endrin	14.03	14.39	229.6E6	567.1E6	9.558	8.476
18) tc	4,4'-DDD	14.12	14.54	196.3E6	505.4E6	10.336	9.058
19) tcm	4,4'-DDT	14.52	15.00	215.4E6	532.3E6	9.813	8.748
22) tc	Methoxychlor	15.21	15.97	537.0E6	1188.3E6	52.180	44.064
	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\102709\
Data File : FD060.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 27 Oct 2009 8:58 am
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: Oct 28 08:01:04 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Mon Oct 26 09:02:08 2009
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



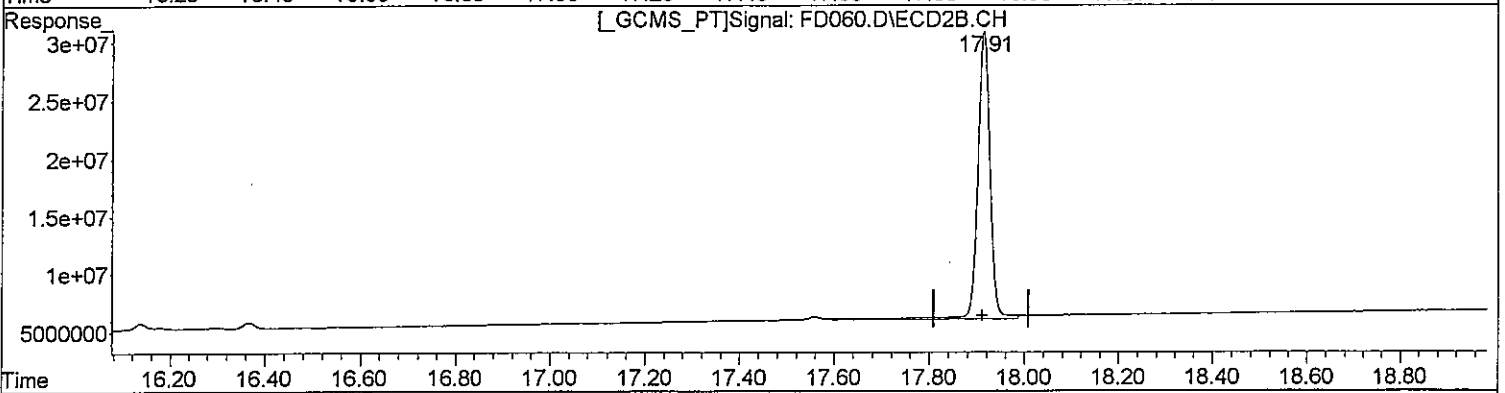
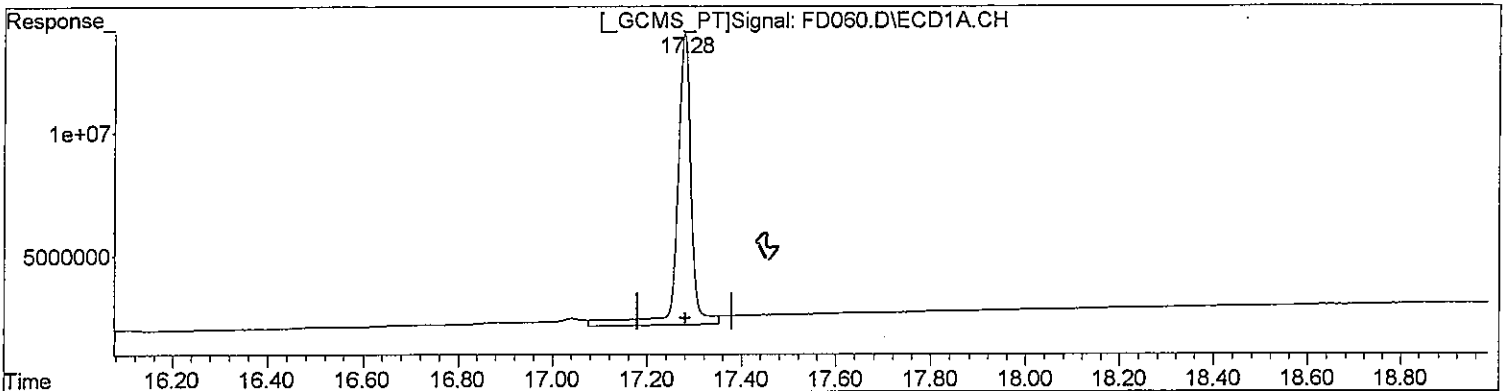
00670

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\102709\
Data File : FD060.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 27 Oct 2009 8:58 am
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: Oct 28 07:57:15 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Mon Oct 26 09:02:08 2009
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

(25) SURR2,Decachlorobiphenyl (S)
17.28min 12.527ug/l
response 241747041

Baseline

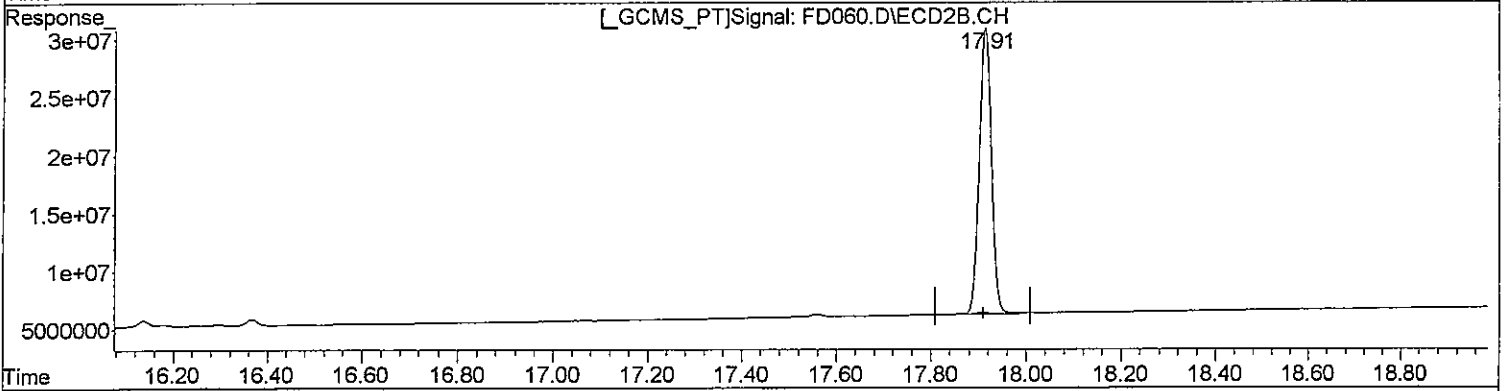
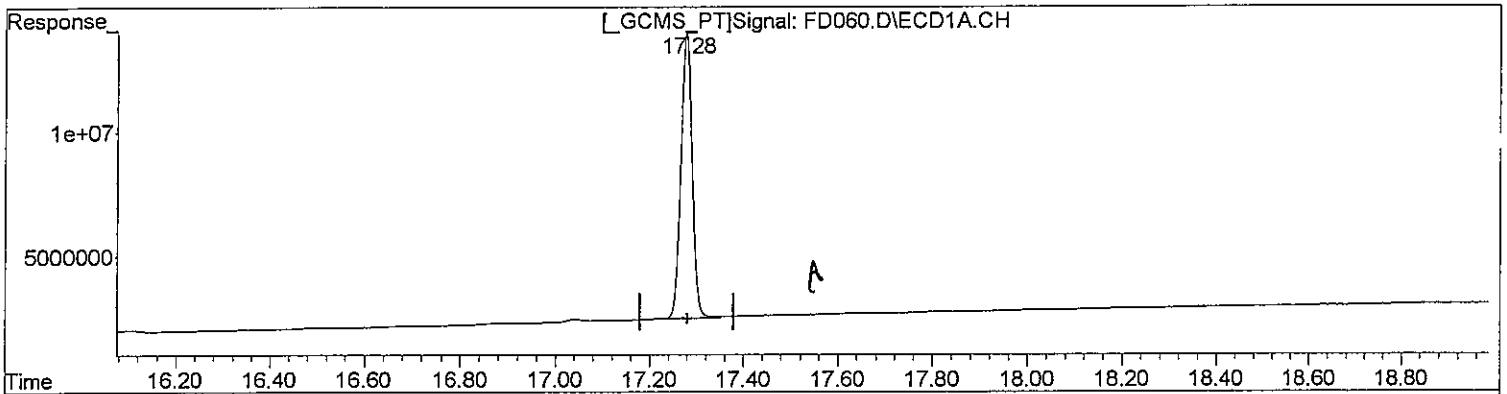
(25) SURR2,Decachlorobiphenyl #2 (S)
17.91min 9.431ug/l
response 461221281

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\102709\
Data File : FD060.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 27 Oct 2009 8:58 am
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: Oct 28 07:57:15 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Mon Oct 26 09:02:08 2009
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

(25) SURR2,Decachlorobiphenyl (S)
17.28min 10.280ug/l m
response 198378454

*MW
10/28*

(25) SURR2,Decachlorobiphenyl #2 (S)
17.91min 8.782ug/l m
response 429509186

*MW
4/11*

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD061.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 27 Oct 2009 9:33 am
 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: Oct 28 08:30:49 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 07:56:41 2009
 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

1) S	SURR1,Tetrac	9.18	9.36	223.3E6	682.7E6	10.063	8.576
	Spiked Amount	100.000	Range 30 - 150	Recovery =		10.06%#	8.58%#
25) S	SURR2,Decachloro	17.28	17.91	381.7E6	852.3E6	19.778m	17.427
	Spiked Amount	100.000	Range 30 - 150	Recovery =		19.78%#	17.43%#

Target Compounds

2) TC	HEXACHLORO BENZEN	9.86	10.18	302.0E6	916.5E6	10.240	8.635
3) tc	alpha-BHC	10.17	10.43	337.1E6	989.1E6	9.731	8.388
4) tcm	gamma-BHC (L)	10.69	11.01	302.9E6	882.9E6	10.037	8.637
5) tcm	Heptachlor	11.43	11.67	307.5E6	857.5E6	9.784	8.802
10) tc	alpha-Endosu	13.35	13.56	228.3E6	582.8E6	9.745	8.379
14) tcm	Dieldrin	13.69	13.95	515.3E6	1280.5E6	19.869	17.251
15) tcm	Endrin	14.03	14.40	456.9E6	1106.3E6	19.019	16.534
18) tc	4,4'-DDD	14.12	14.54	385.1E6	982.1E6	20.278	17.602
19) tcm	4,4'-DDT	14.52	15.00	432.3E6	1037.7E6	19.692	17.056
22) tc	Methoxychlor	15.21	15.97	1054.6E6	2286.6E6	102.486	84.790
	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

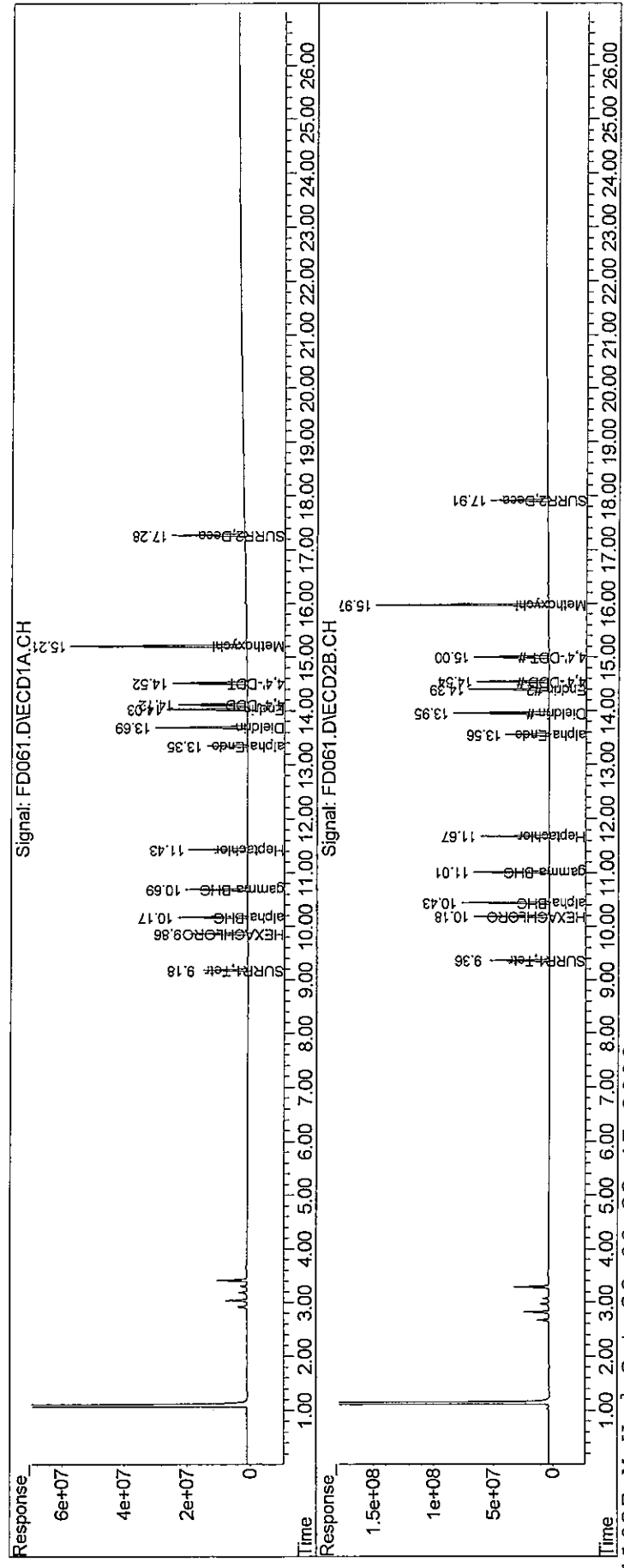
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD061.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 27 Oct 2009 9:33 am
 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: Oct 28 08:30:49 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 07:56:41 2009
 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



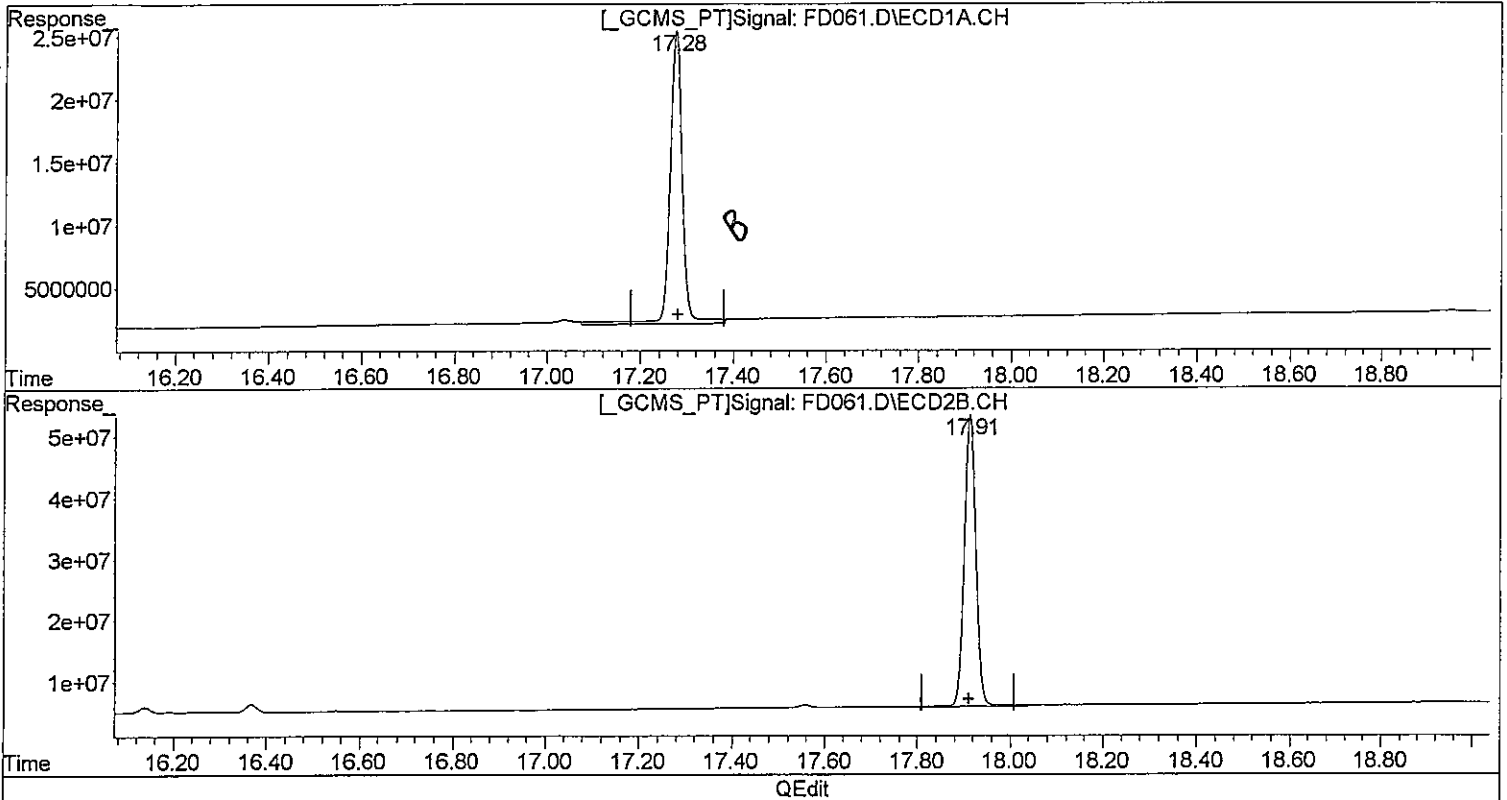
00674

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\102709\
Data File : FD061.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 27 Oct 2009 9:33 am
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: Oct 28 07:57:21 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Oct 28 07:56:41 2009
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)
17.28min 22.218ug/l
response 428768192

(25) SURRE2,Decachlorobiphenyl #2 (S)
17.91min 17.427ug/l
response 852265214

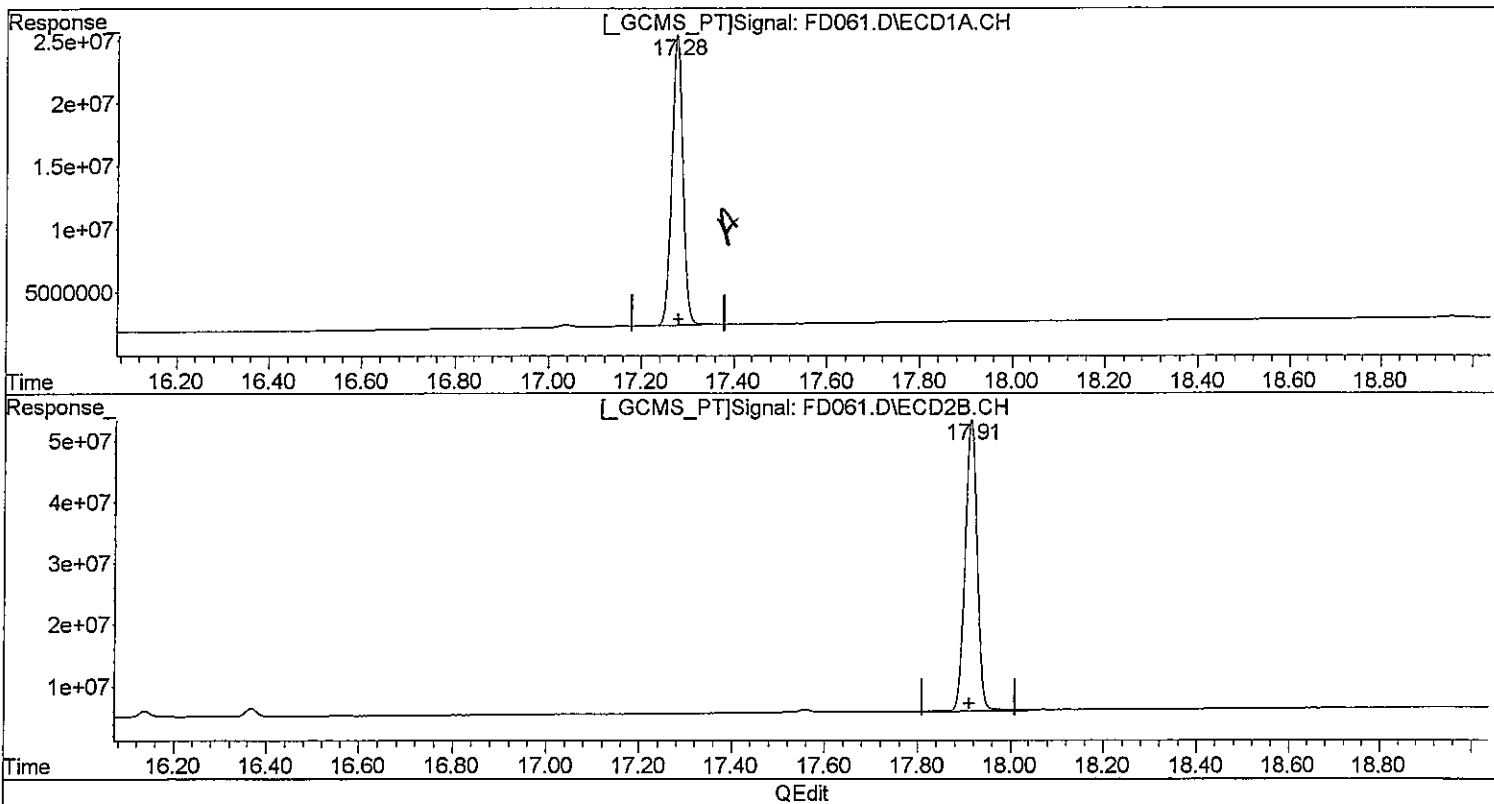
Basela

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\102709\
Data File : FD061.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 27 Oct 2009 9:33 am
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: Oct 28 07:57:21 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Oct 28 07:56:41 2009
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)
17.28min 19.778ug/l m
response 381684879

(25) SURR2,Decachlorobiphenyl #2 (S)
17.91min 17.427ug/l
response 852265214

(+) = Expected Retention Time

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD062.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 27 Oct 2009 10:09 am
 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: Oct 28 08:09:40 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 07:56:41 2009
 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

1) S	SURR1,Tetrac	9.18	9.36	492.1E6	1450.1E6	22.171	18.217
	Spiked Amount	100.000	Range 30 - 150	Recovery =		22.17%#	18.22%#
25) S	SURR2,Decachloro	17.28	17.91	832.5E6	1778.2E6	43.137m	36.359m
	Spiked Amount	100.000	Range 30 - 150	Recovery =		43.14%	36.36%

Target Compounds

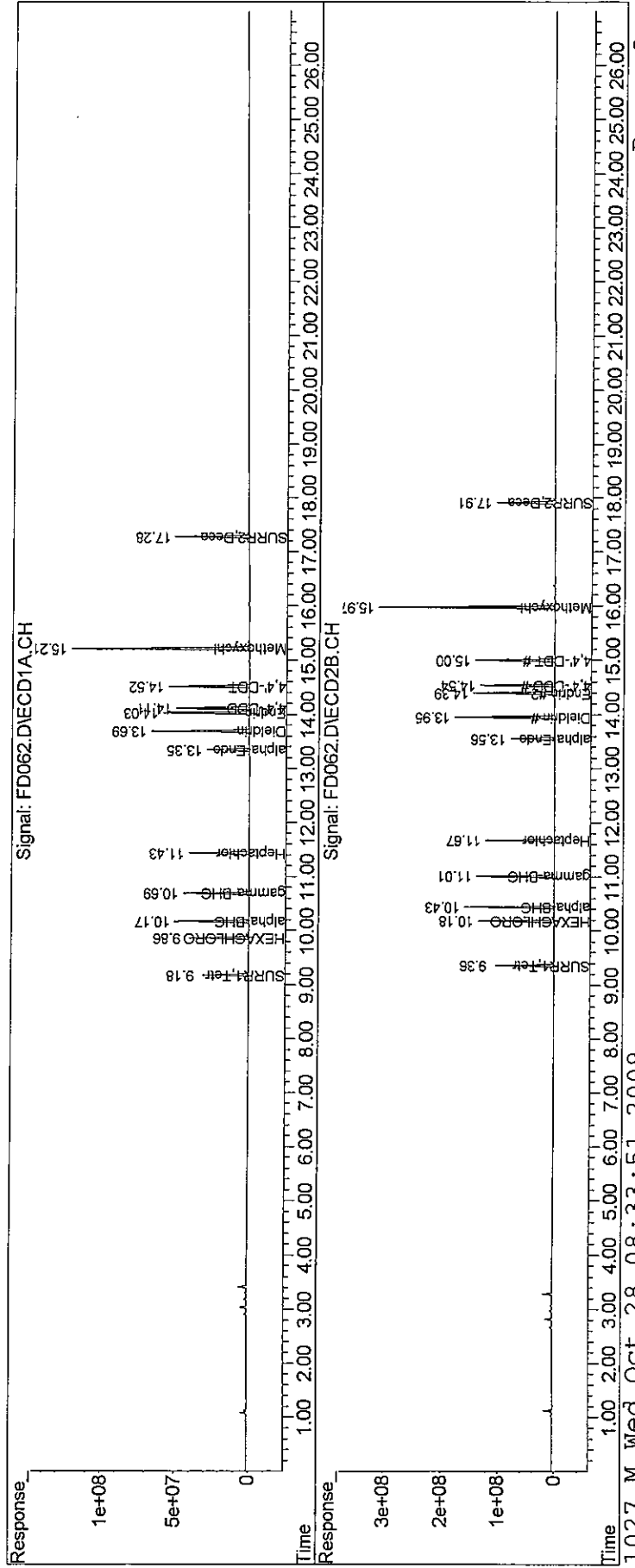
2) TC	HEXACHLOROENZEN	9.86	10.18	653.0E6	1919.5E6	22.141	18.084
3) tc	alpha-BHC	10.17	10.43	765.2E6	2151.5E6	22.086	18.246
4) tcm	gamma-BHC (L	10.69	11.01	685.4E6	1915.7E6	22.713	18.739
5) tcm	Heptachlor	11.43	11.67	682.8E6	1830.9E6	21.723	18.792
10) tc	alpha-Endosu	13.35	13.56	506.8E6	1264.9E6	21.629	18.184
14) tcm	Dieldrin	13.69	13.95	1155.2E6	2767.3E6	44.543	37.283
15) tcm	Endrin	14.03	14.40	1028.8E6	2402.5E6	42.825	35.908
18) tc	4,4'-DDD	14.11	14.54	879.1E6	2139.6E6	46.288	38.348
19) tcm	4,4'-DDT	14.52	15.00	977.9E6	2276.8E6	44.543	37.422
22) tc	Methoxychlor	15.21	15.97	2282.4E6	4870.1E6	221.793	180.591
	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\102709\
 Data File : FD062.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 27 Oct 2009 10:09 am
 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: Oct 28 08:09:40 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 07:56:41 2009
 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



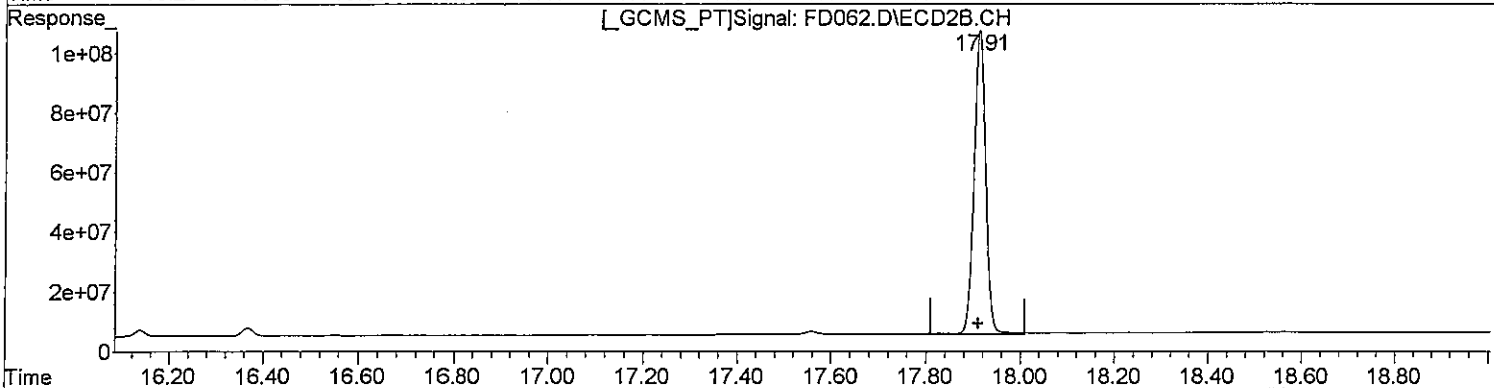
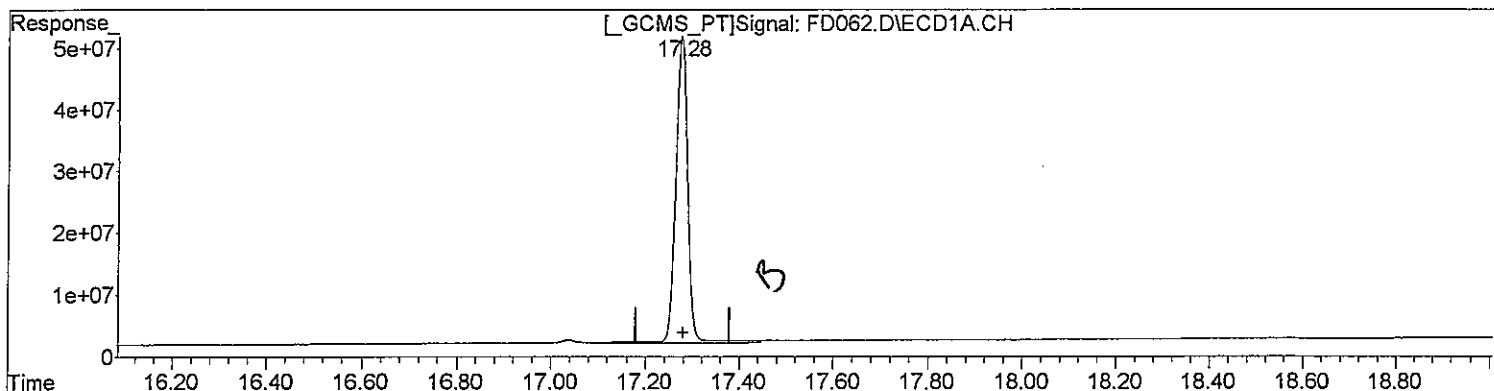
00578

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\102709\
Data File : FD062.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 27 Oct 2009 10:09 am
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: Oct 28 07:57:26 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Oct 28 07:56:41 2009
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

(25) SURR2,Decachlorobiphenyl (S)
17.28min 45.580ug/l
response 879604895

base

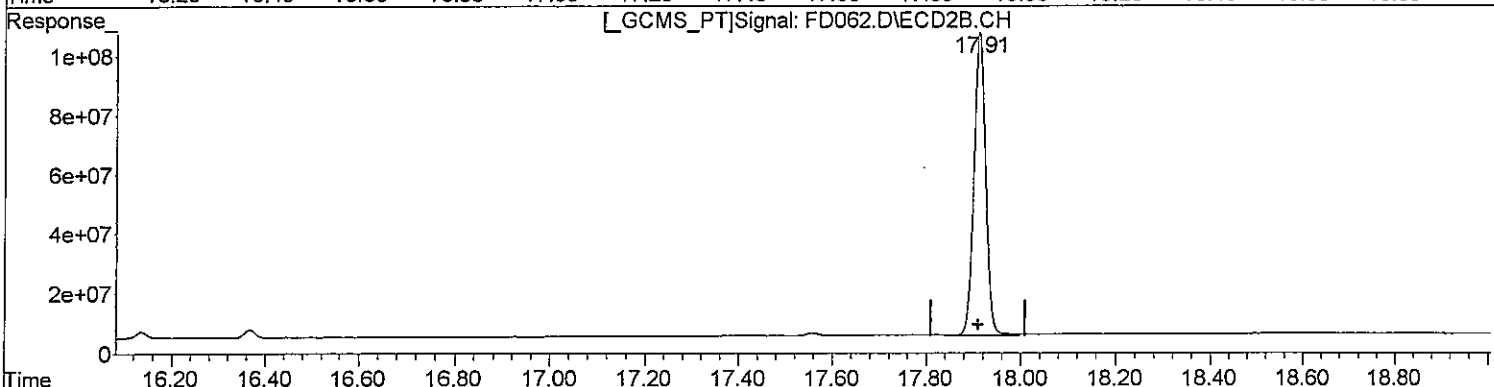
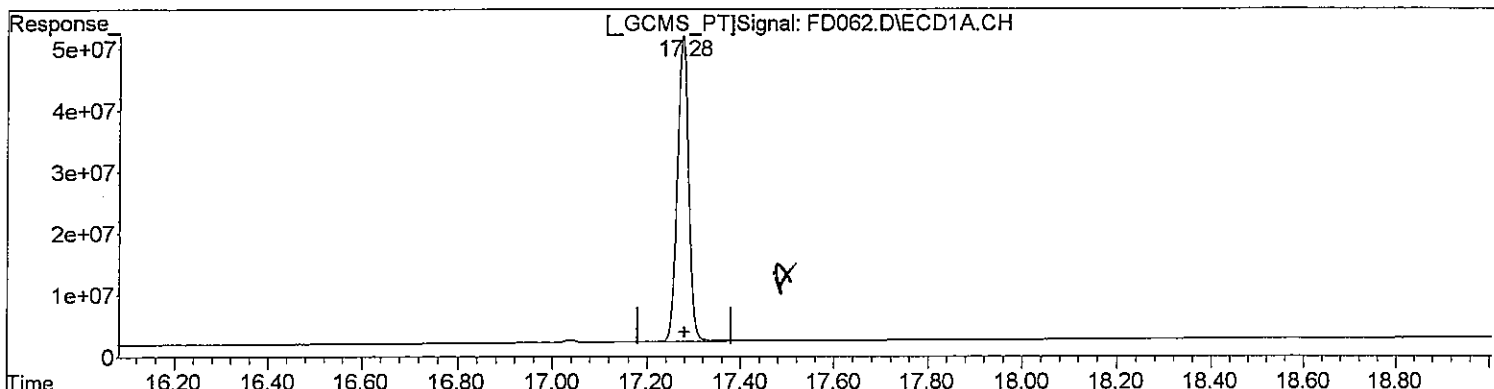
(25) SURR2,Decachlorobiphenyl #2 (S)
17.91min 36.439ug/l
response 1782090353

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\102709\
Data File : FD062.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 27 Oct 2009 10:09 am
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: Oct 28 07:57:26 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Oct 28 07:56:41 2009
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

(25) SURR2,Decachlorobiphenyl (S)
17.28min 43.137ug/l m
response 832461985

*WJ
10/28*

(25) SURR2,Decachlorobiphenyl #2 (S)
17.91min 36.359ug/l m
response 1778171155

*WJ
10/28*

(+) = Expected Retention Time

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD063.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 27 Oct 2009 10:44 am
 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: Oct 28 08:10:14 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 07:56:41 2009
 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

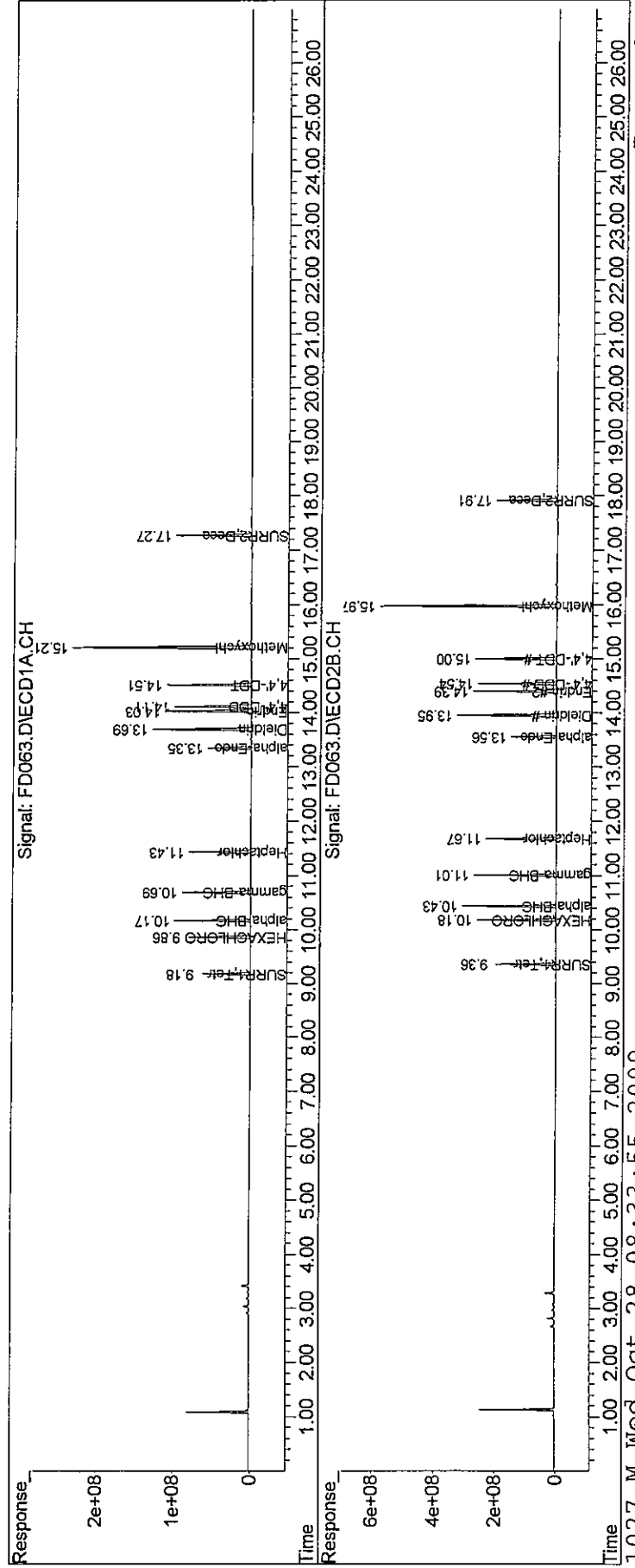
System Monitoring Compounds						
1) S SURR1,Tetrac	9.18	9.36	976.8E6	2780.6E6	44.010	34.932
Spiked Amount	100.000	Range	30 - 150	Recovery	=	44.01% 34.93%
25) S SURR2,Decachloro	17.27	17.91	1626.8E6	3445.3E6	84.297	70.447
Spiked Amount	100.000	Range	30 - 150	Recovery	=	84.30% 70.45%
Target Compounds						
2) TC HEXACHLORO BENZEN	9.86	10.18	1288.4E6	3678.0E6	43.687	34.653
3) tc alpha-BHC	10.17	10.43	1548.8E6	4205.5E6	44.700	35.666
4) tcm gamma-BHC (L	10.69	11.01	1379.5E6	3734.3E6	45.713	36.528
5) tcm Heptachlor	11.43	11.67	1356.5E6	3487.4E6	43.155	35.795
10) tc alpha-Endosu	13.35	13.56	1010.3E6	2417.6E6	43.118	34.755
14) tcm Dieldrin	13.69	13.95	2275.2E6	5392.7E6	87.726	72.653
15) tcm Endrin	14.03	14.40	2008.7E6	4565.0E6	83.619	68.229
18) tc 4,4'-DDD	14.11	14.54	1760.4E6	4177.7E6	92.690	74.875
19) tcm 4,4'-DDT	14.52	15.00	1958.4E6	4452.4E6	89.202	73.180
22) tc Methoxychlor	15.21	15.97	4394.9E6	9257.3E6	427.083	343.270
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\102709\
 Data File : FD063.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 27 Oct 2009 10:44 am
 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: Oct 28 08:10:14 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 07:56:41 2009
 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



00082

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD064.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 27 Oct 2009 11:20 am
 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: Oct 28 08:11:04 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 07:56:41 2009
 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

1) S	SURR1, Tetrac	9.18	9.36	1978.6E6	5423.5E6	89.146	68.133
	Spiked Amount	100.000	Range 30 - 150	Recovery =		89.15%	68.13%
25) S	SURR2, Decachloro	17.28	17.91	3312.9E6	6867.2E6	171.666	140.415
	Spiked Amount	100.000	Range 30 - 150	Recovery =		171.67%#	140.41%

Target Compounds

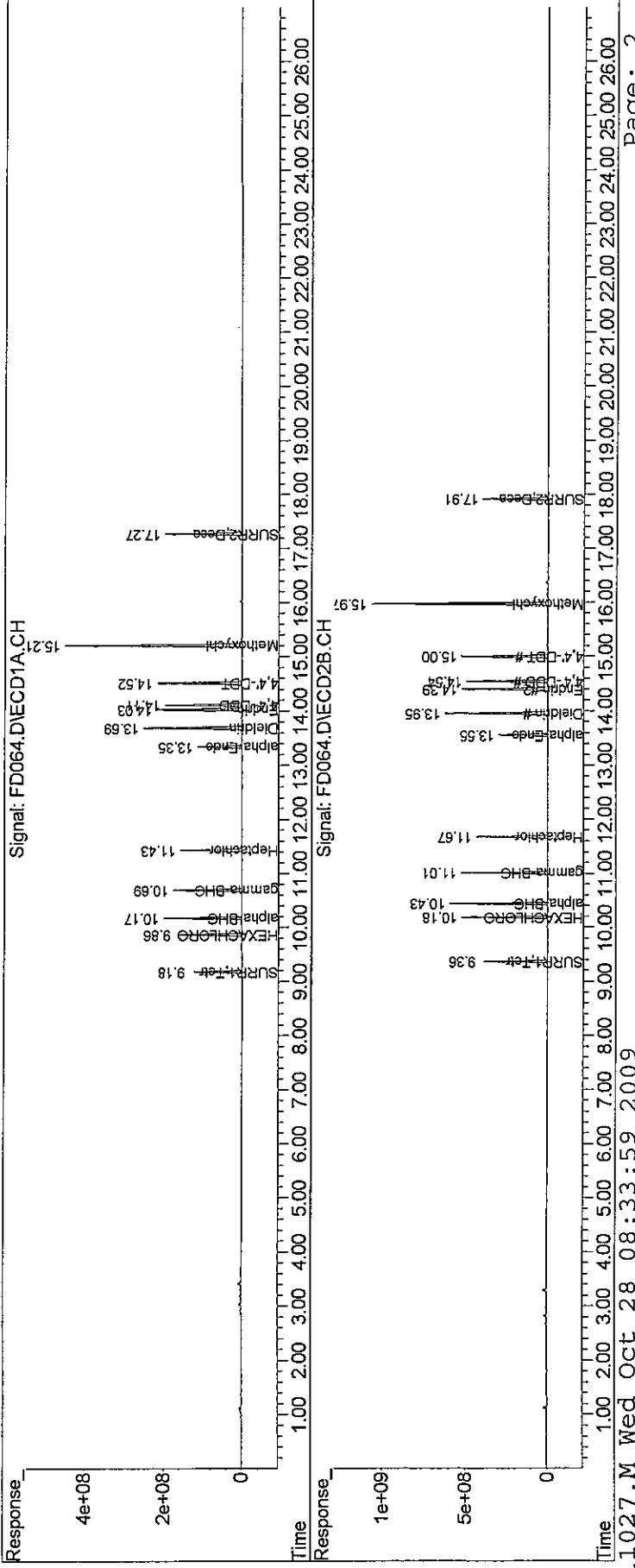
2) TC	HEXACHLOROBENZEN	9.86	10.18	2607.9E6	7229.6E6	88.431	68.115
3) tc	alpha-BHC	10.17	10.43	3173.4E6	8332.5E6	91.588	70.667
4) tcm	gamma-BHC (L	10.69	11.01	2834.4E6	7412.7E6	93.927	72.510
5) tcm	Heptachlor	11.43	11.67	2714.2E6	6715.4E6	86.348	68.927
10) tc	alpha-Endosu	13.35	13.56	2054.3E6	4809.3E6	87.670	69.139
14) tcm	Dieldrin	13.69	13.95	4549.6E6	10475.0E6	175.423	141.125
15) tcm	Endrin	14.03	14.40	4058.0E6	9007.9E6	168.928	134.632
18) tc	4,4'-DDD	14.11	14.54	3582.9E6	8249.6E6	188.655	147.853
19) tcm	4,4'-DDT	14.52	15.00	3974.5E6	8900.0E6	181.030	146.281
22) tc	Methoxychlor	15.21	15.97	8585.6E6	17790.0E6	834.329	659.673
	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\102709\
 Data File : FD064.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 27 Oct 2009 11:20 am
 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: Oct 28 08:11:04 2009
 Quant Method : J:\ACQDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 07:56:41 2009
 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



00684

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD065.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 27 Oct 2009 11:55 am
 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: Oct 28 08:12:15 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 07:56:41 2009
 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

1) S SURR1,Tetrac	9.18	9.36	114.5E6	368.8E6	5.157	4.633
Spiked Amount	100.000	Range 30 - 150	Recovery =		5.16%#	4.63%#
25) S SURR2,Decachloro	17.27	17.91	205.0E6	467.0E6	10.625m	9.549
Spiked Amount	100.000	Range 30 - 150	Recovery =		10.63%#	9.55%#

Target Compounds

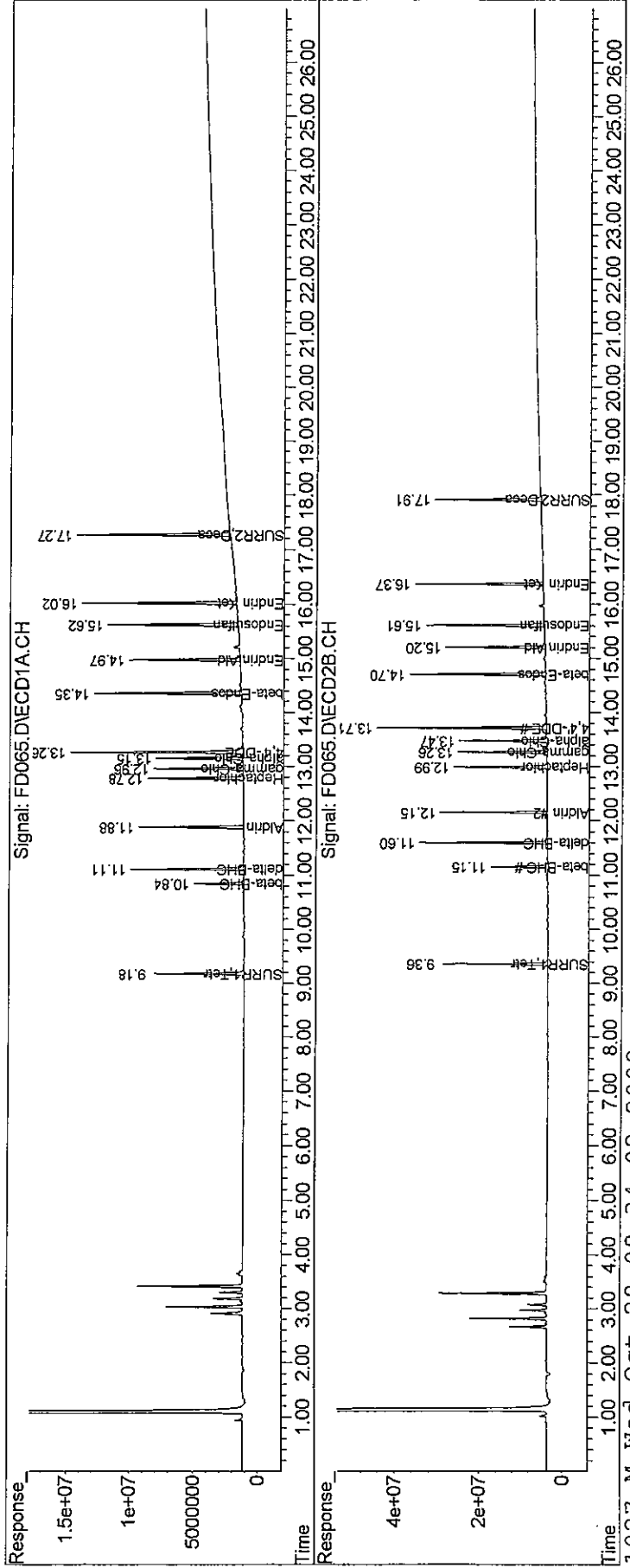
6) tcm Aldrin	11.88	12.15	135.9E6	390.5E6	4.747	4.329
7) tc beta-BHC	10.84	11.16	65126276	208.8E6	5.193	4.642
8) tc delta-BHC	11.11	11.60	140.8E6	439.1E6	4.962	4.705
9) tc Heptachlor E	12.78	12.99	129.2E6	359.3E6	4.981	4.521
11) tc gamma-Chlord	12.96	13.26	124.5E6	356.6E6	4.815	4.492
12) tc alpha-Chlord	13.15	13.47	118.6E6	339.3E6	4.770	4.516
13) tc 4,4'-DDE	13.26	13.71	238.8E6	652.4E6	10.130	8.872
17) tc beta-Endosul	14.36	14.70	213.3E6	549.2E6	9.709	8.727
20) tc Endrin Aldeh	14.97	15.20	170.2E6	433.7E6	9.961	9.132
21) tc Endosulfan S	15.62	15.61	196.8E6	496.4E6	10.131	8.934
24) tc Endrin Keton	16.02	16.37	225.4E6	506.0E6	10.135	8.422
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\102709\
 Data File : FD065.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 27 Oct 2009 11:55 am
 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: Oct 28 08:12:15 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 07:56:41 2009
 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



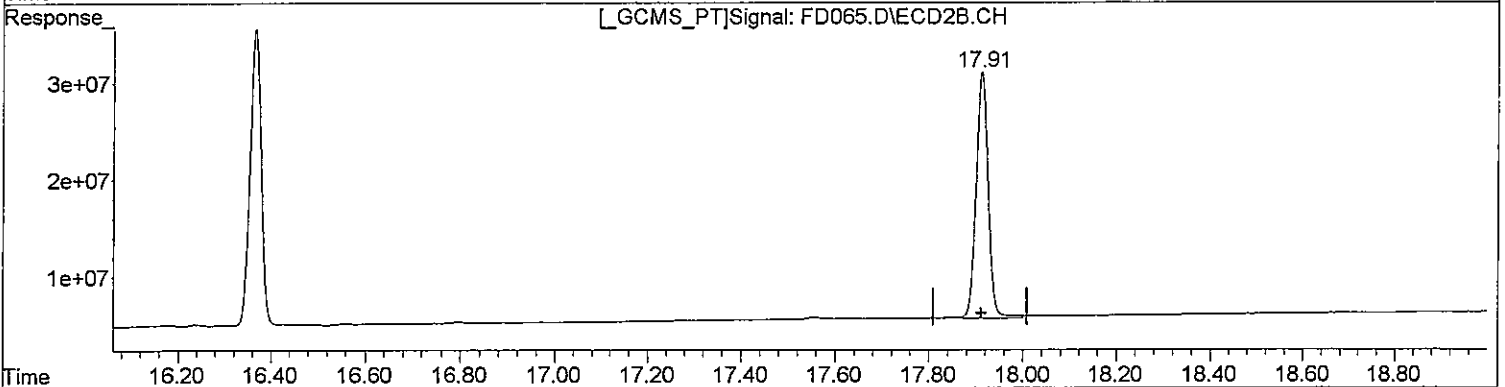
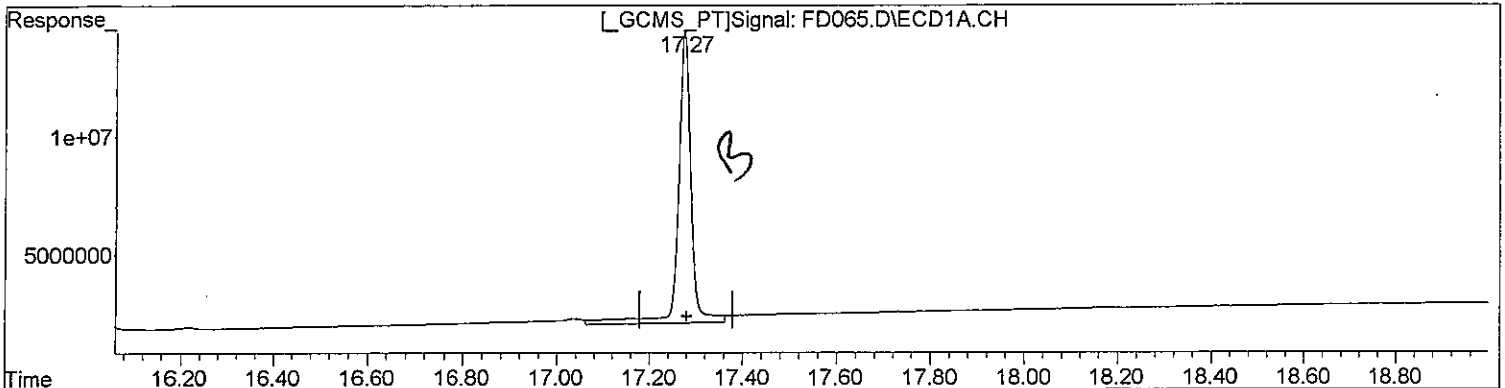
00586

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\102709\
Data File : FD065.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 27 Oct 2009 11:55 am
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: Oct 28 07:57:42 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Oct 28 07:56:41 2009
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)
17.27min 12.614ug/l
response 243422692

Base

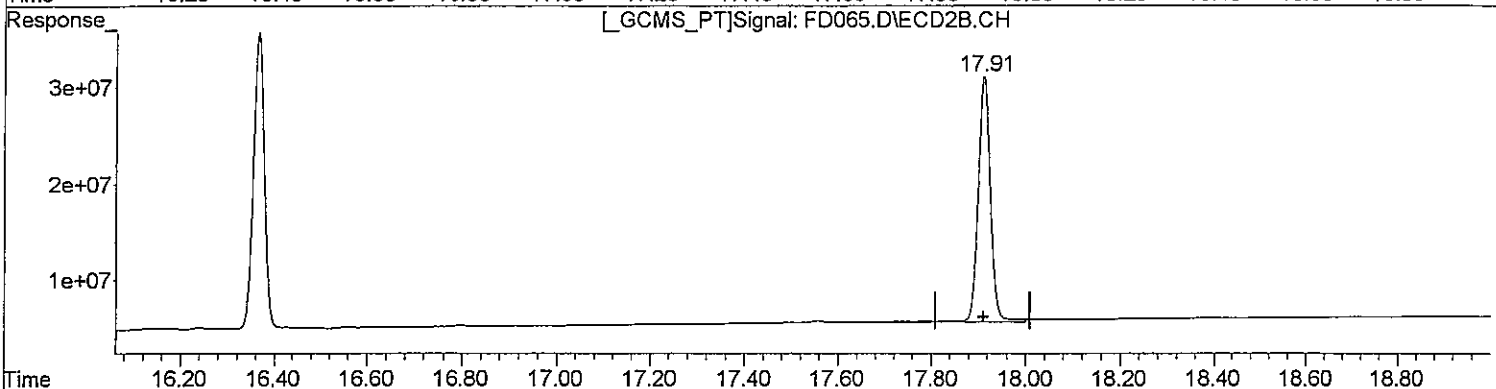
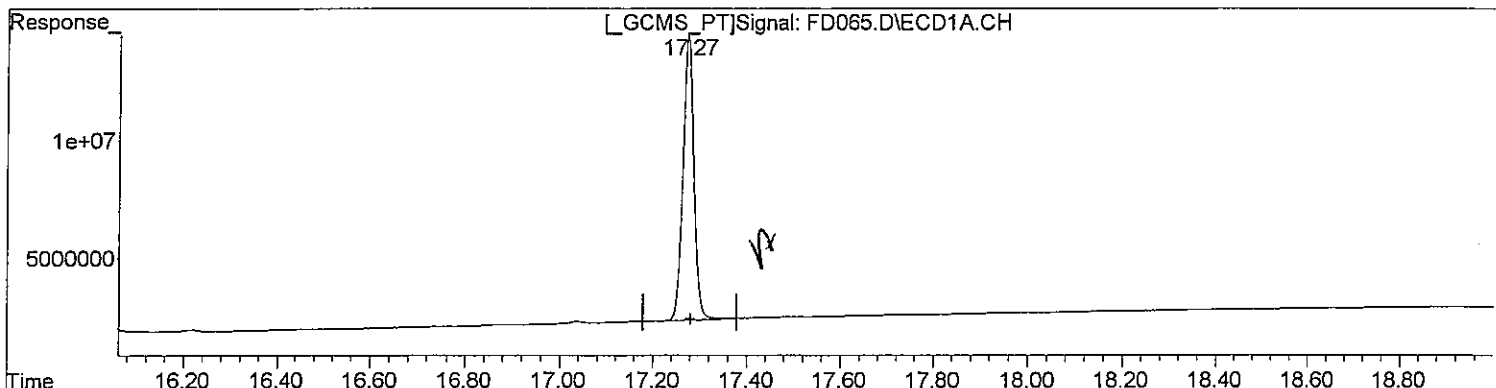
(25) SURR2,Decachlorobiphenyl #2 (S)
17.91min 9.549ug/l
response 466986056

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\102709\
Data File : FD065.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 27 Oct 2009 11:55 am
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: Oct 28 07:57:42 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Oct 28 07:56:41 2009
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

(25) SURR2,Decachlorobiphenyl (S)
17.27min 10.625ug/l m
response 205034344

VMW
10/28

(25) SURR2,Decachlorobiphenyl #2 (S)
17.91min 9.549ug/l
response 466986056

wp
10/28

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD066.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 27 Oct 2009 12:31 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: Oct 28 08:13:49 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 07:56:41 2009
 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

1) S	SURR1,Tetrac	9.18	9.36	232.8E6	732.8E6	10.487	9.206
	Spiked Amount	100.000	Range 30 - 150	Recovery =		10.49%#	9.21%#
25) S	SURR2,Decachloro	17.27	17.91	399.7E6	886.9E6	20.710m	18.134
	Spiked Amount	100.000	Range 30 - 150	Recovery =		20.71%#	18.13%#

Target Compounds

6) tc	Aldrin	11.88	12.15	286.9E6	809.6E6	10.019	8.976
7) tc	beta-BHC	10.84	11.15	130.1E6	397.2E6	10.372	8.828
8) tc	delta-BHC	11.11	11.60	306.8E6	897.7E6	10.814	9.617
9) tc	Heptachlor E	12.78	12.99	264.0E6	705.5E6	10.181	8.878
11) tc	gamma-Chlord	12.96	13.26	258.1E6	698.9E6	9.985	8.805
12) tc	alpha-Chlord	13.15	13.47	248.3E6	675.5E6	9.988	8.991
13) tc	4,4'-DDE	13.26	13.71	502.8E6	1303.0E6	21.330	17.719
17) tc	beta-Endosul	14.36	14.70	440.2E6	1099.2E6	20.036	17.468
20) tc	Endrin Aldeh	14.97	15.20	349.9E6	856.7E6	20.478	18.040
21) tc	Endosulfan S	15.62	15.61	402.4E6	984.7E6	20.711	17.723
24) tc	Endrin Keton	16.02	16.37	459.3E6	1023.0E6	20.653	17.029
	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

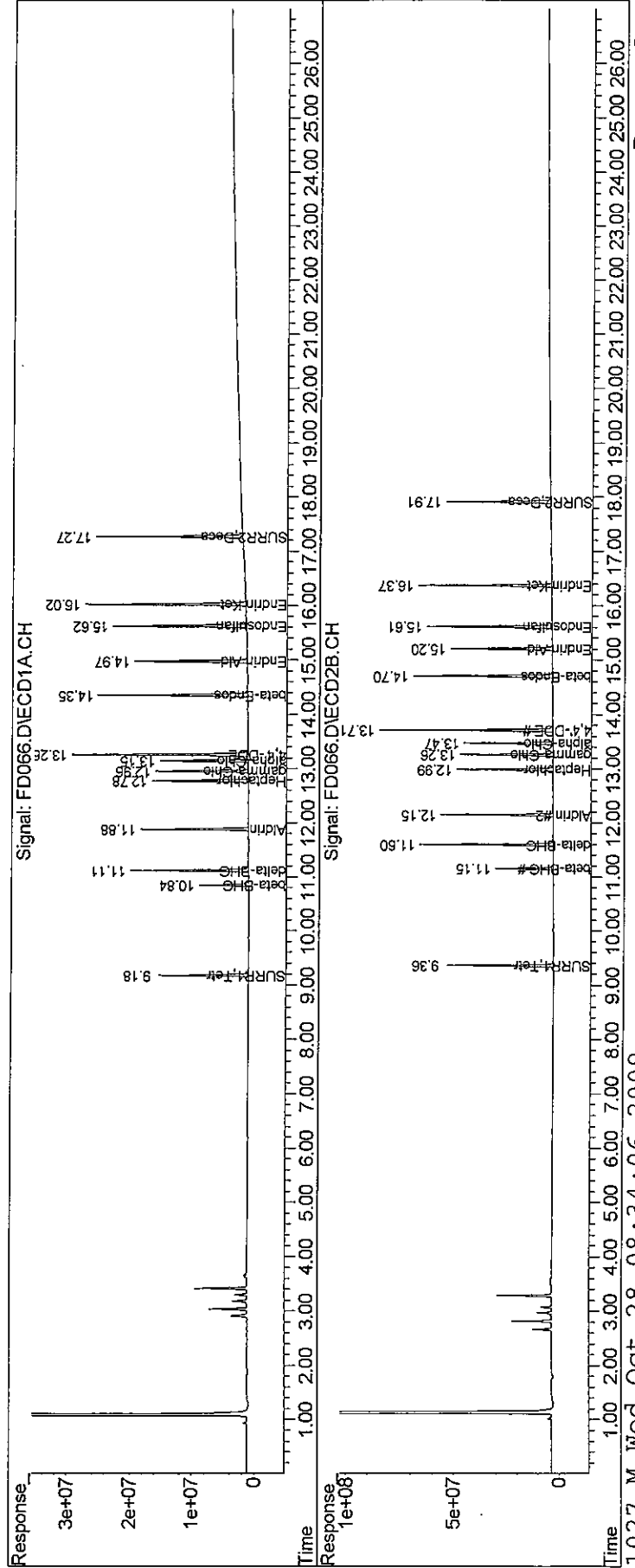
 (f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD066.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 27 Oct 2009 12:31 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: Oct 28 08:13:49 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 07:56:41 2009
 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



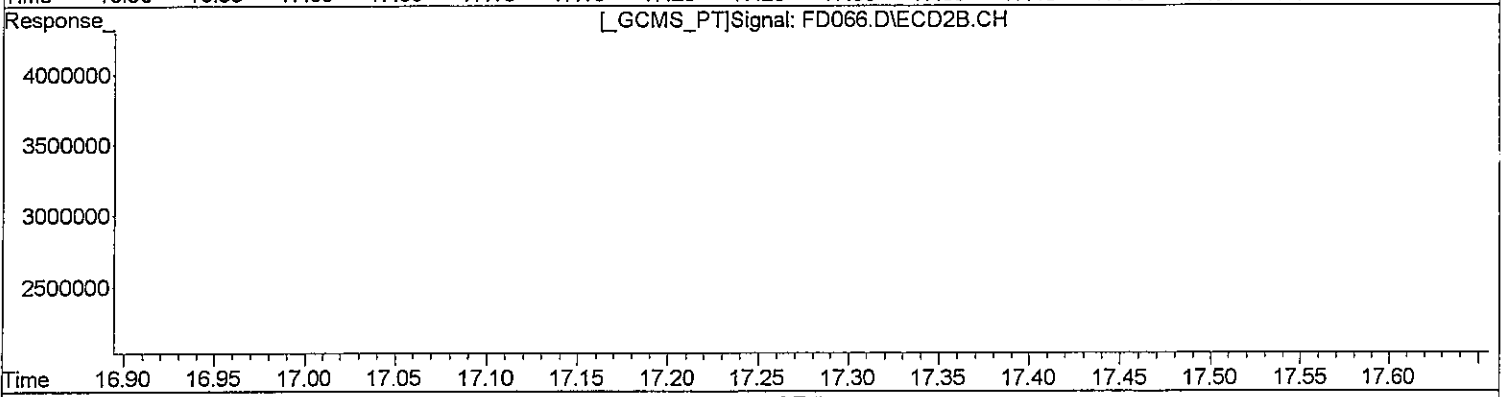
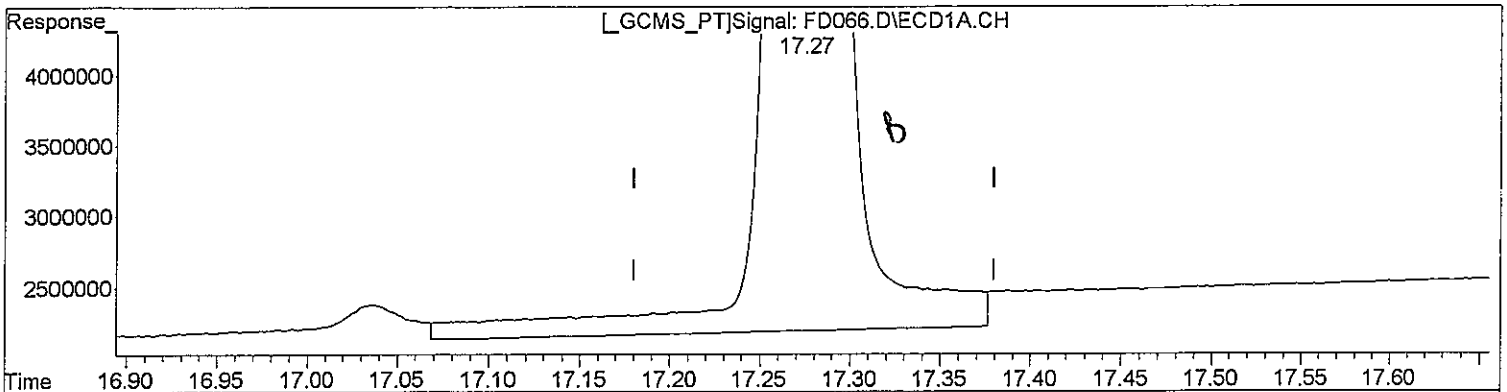
00690

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\102709\
Data File : FD066.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 27 Oct 2009 12:31 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: Oct 28 07:57:47 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Oct 28 07:56:41 2009
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

(25) SURR2,Decachlorobiphenyl (S)
17.27min 22.200ug/l
response 428414119

Handwritten signature

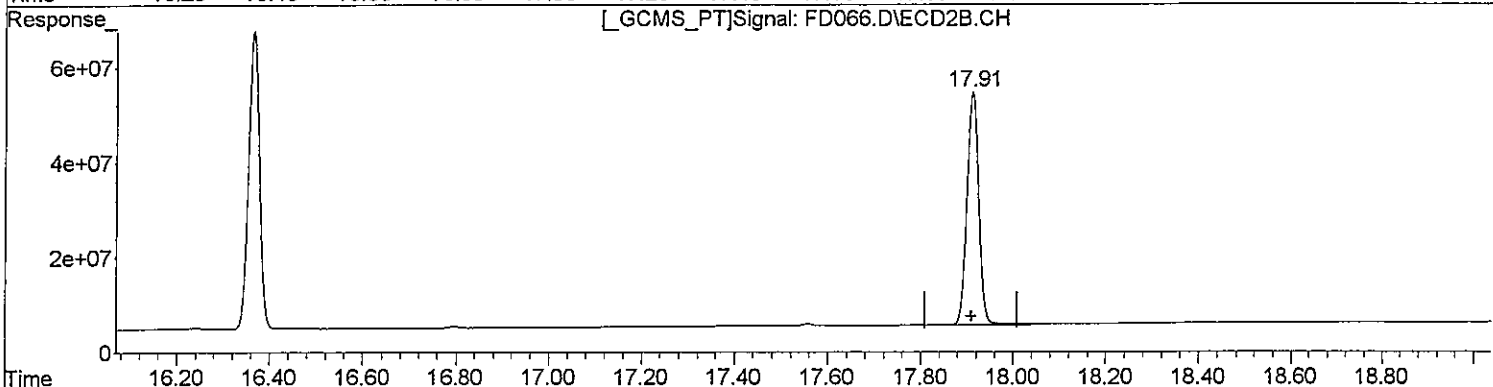
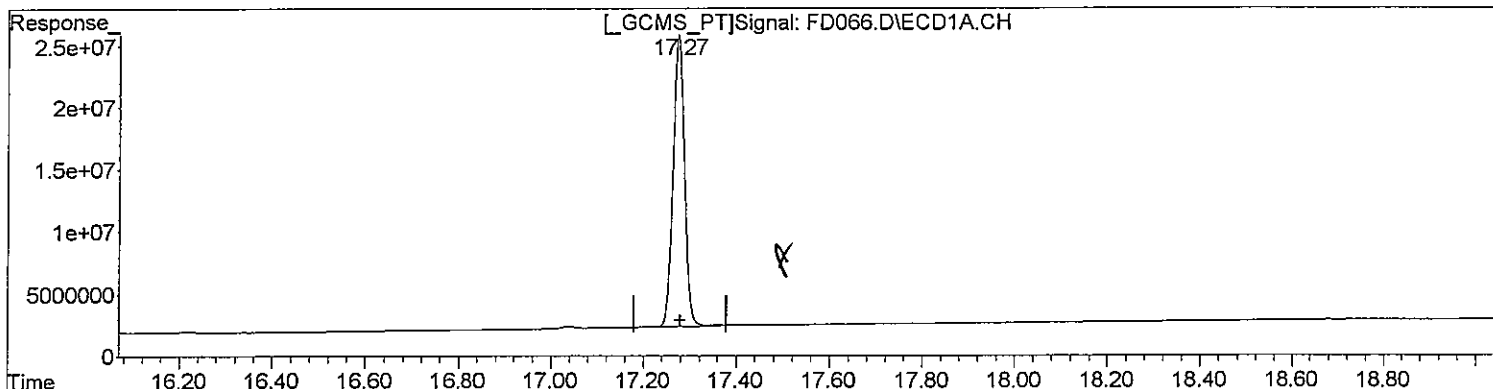
(25) SURR2,Decachlorobiphenyl #2 (S)
17.91min 18.134ug/l
response 886852165

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\102709\
Data File : FD066.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 27 Oct 2009 12:31 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: Oct 28 07:57:47 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Oct 28 07:56:41 2009
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

(25) SURR2,Decachlorobiphenyl (S)
17.27min 20.710ug/l m
response 399657601

(25) SURR2,Decachlorobiphenyl #2 (S)
17.91min 18.134ug/l
response 886852165

m.w. 10/14

10/28

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD067.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 27 Oct 2009 1:06 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: Oct 28 08:14:54 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 07:56:41 2009
 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

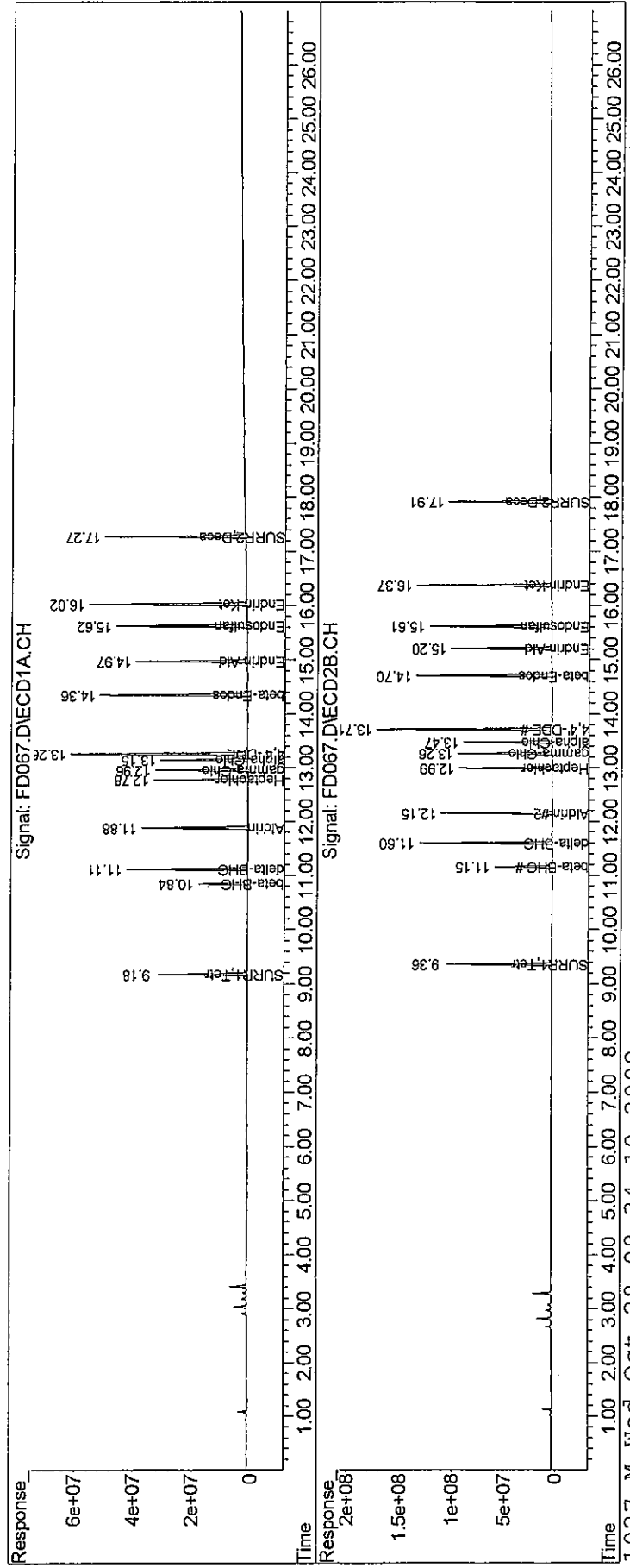
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
1) S SURR1,Tetrac	9.18	9.36	482.4E6	1453.7E6	21.736	18.263
Spiked Amount	100.000	Range 30 - 150	Recovery =		21.74%#	18.26%#
25) S SURR2,Decachloro	17.27	17.91	809.4E6	1771.9E6	41.941m	36.231
Spiked Amount	100.000	Range 30 - 150	Recovery =		41.94%	36.23%
Target Compounds						
6) tcm Aldrin	11.88	12.15	611.7E6	1650.2E6	21.359	18.297
7) tc beta-BHC	10.84	11.15	268.3E6	801.6E6	21.393	17.816
8) tc delta-BHC	11.11	11.60	664.6E6	1852.6E6	23.425	19.847
9) tc Heptachlor E	12.78	12.99	551.9E6	1430.2E6	21.281	17.999
11) tc gamma-Chlord	12.96	13.26	545.8E6	1440.6E6	21.114	18.150
12) tc alpha-Chlord	13.15	13.47	514.4E6	1371.7E6	20.694	18.257
13) tc 4,4'-DDE	13.27	13.71	1066.6E6	2671.0E6	45.243	36.323
17) tc beta-Endosul	14.36	14.70	918.3E6	2235.8E6	41.794	35.530
20) tc Endrin Aldeh	14.97	15.20	717.1E6	1727.4E6	41.967	36.374
21) tc Endosulfan S	15.62	15.61	842.6E6	2025.1E6	43.374	36.450
24) tc Endrin Keton	16.02	16.37	956.9E6	2104.9E6	43.028	35.038
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\102709\
 Data File : FD067.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 27 Oct 2009 1:06 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: Oct 28 08:14:54 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 07:56:41 2009
 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



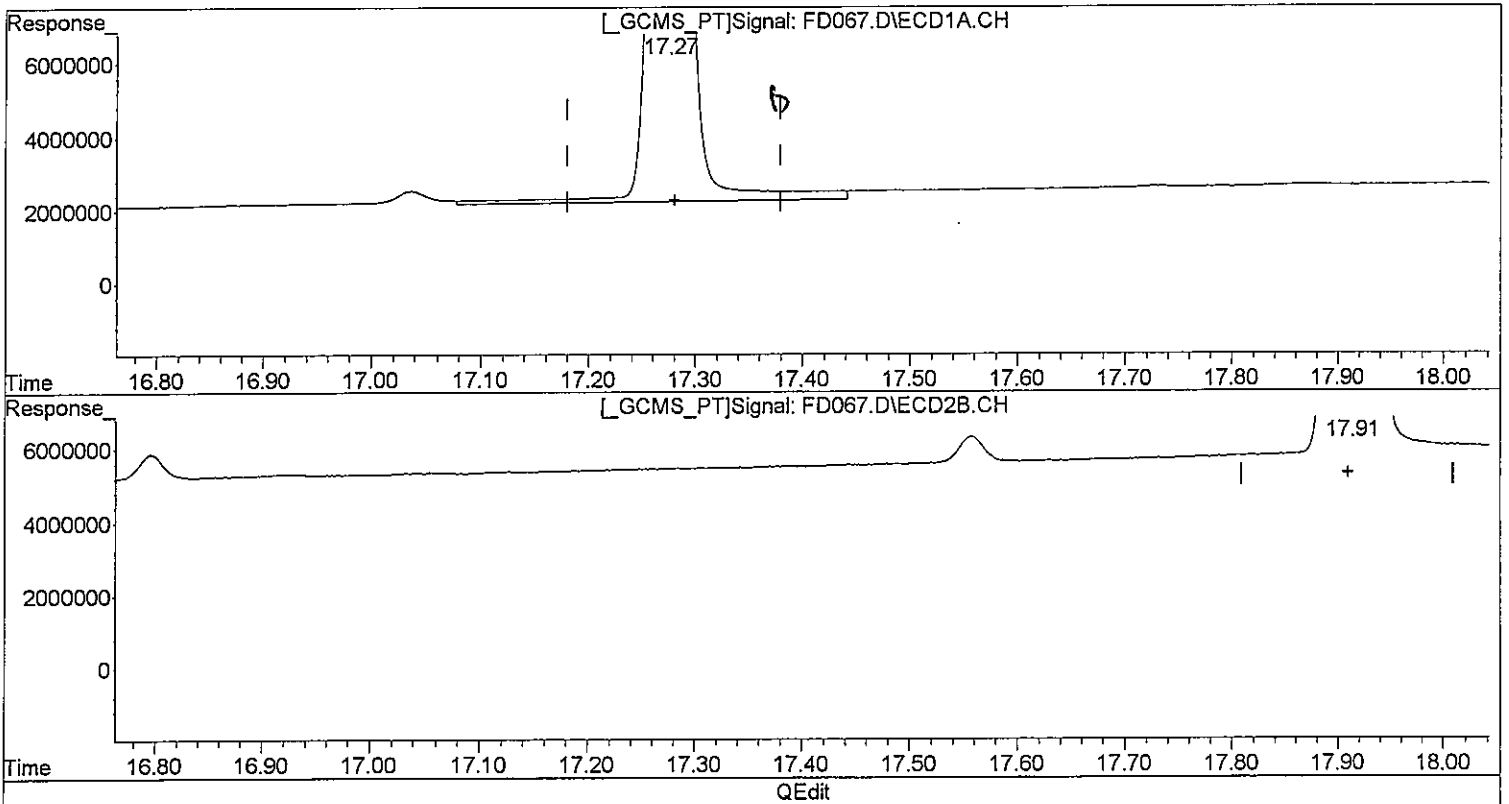
00694

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\102709\
Data File : FD067.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 27 Oct 2009 1:06 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: Oct 28 07:57:52 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Oct 28 07:56:41 2009
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)
17.28min 43.527ug/l
response 839992045

(25) SURR2,Decachlorobiphenyl #2 (S)
17.91min 36.231ug/l
response 1771902888

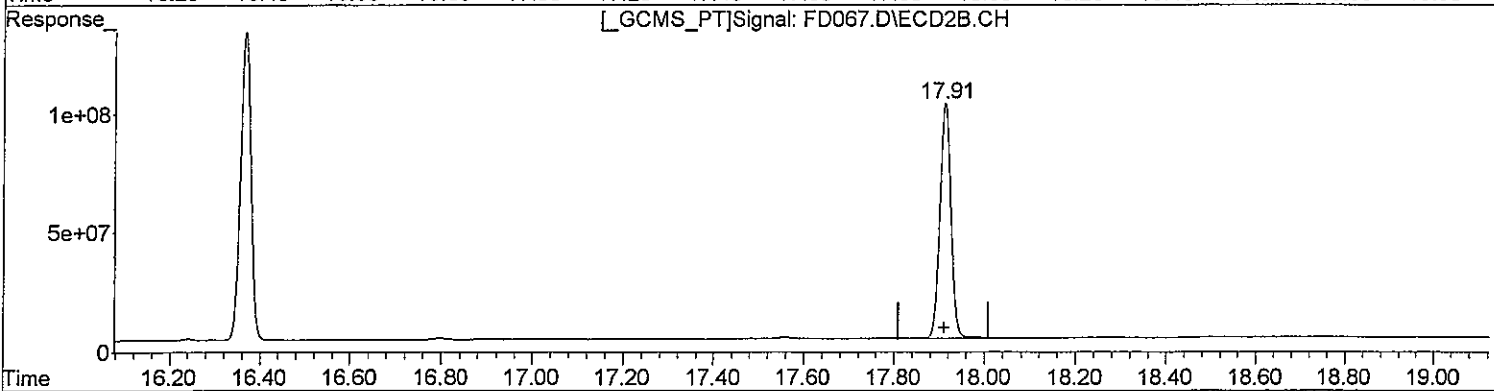
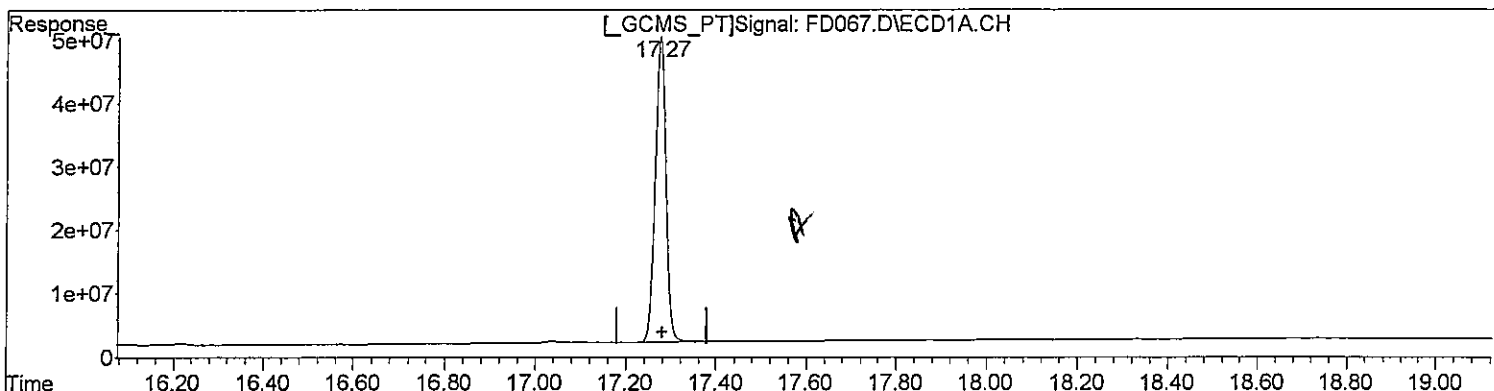
Bauer

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\102709\
Data File : FD067.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 27 Oct 2009 1:06 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: Oct 28 07:57:52 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Oct 28 07:56:41 2009
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

(25) SURR2,Decachlorobiphenyl (S)
17.27min 41.941ug/l m
response 809383624

(25) SURR2,Decachlorobiphenyl #2 (S)
17.91min 36.231ug/l
response 1771902888

Handwritten notes:
MUP 10/27
MMS 10/27

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD068.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 27 Oct 2009 1:42 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: Oct 28 08:27:01 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 07:56:41 2009
 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

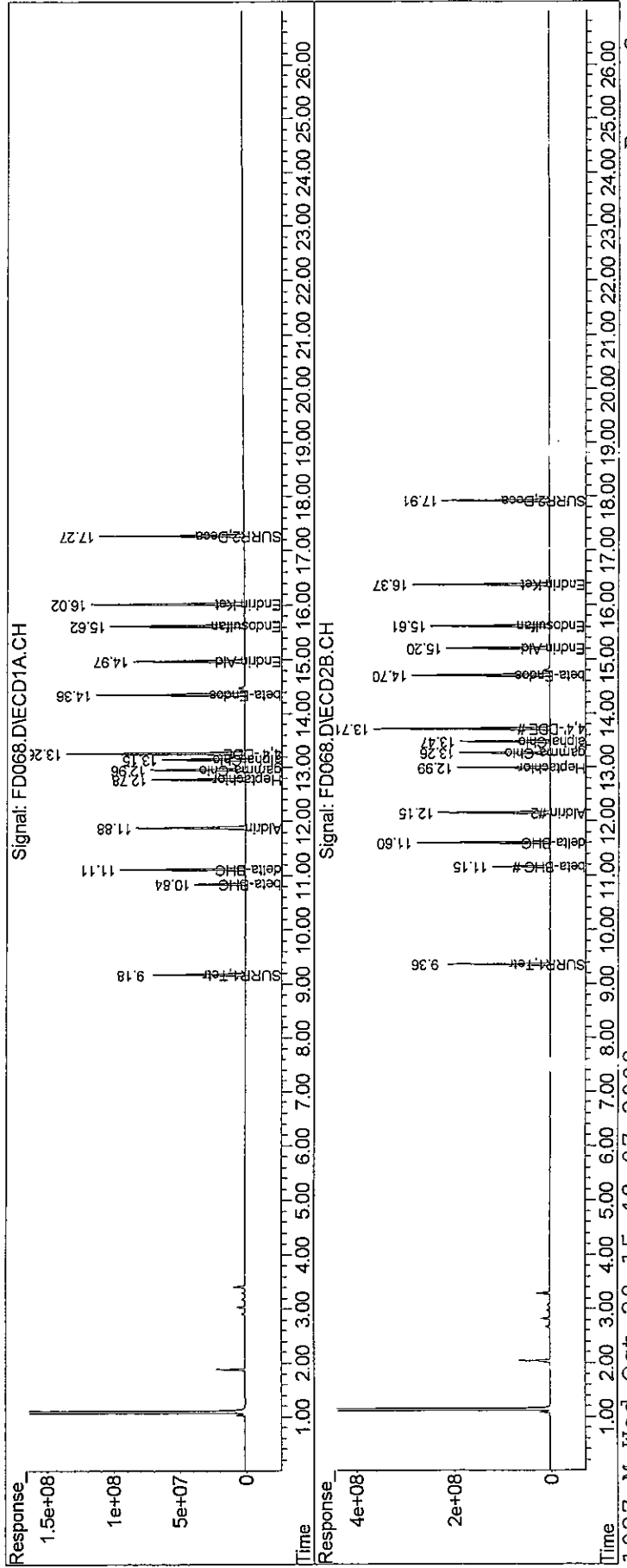
System Monitoring Compounds						
1) S SURR1,Tetrac	9.18	9.36	1095.5E6	2963.6E6	49.356	37.231 <i>file 10/28</i>
Spiked Amount	100.000	Range 30 - 150	Recovery =		49.36%	37.23%
25) S SURR2,Decachloro	17.27	17.91	1828.3E6	3975.5E6	94.738	81.288
Spiked Amount	100.000	Range 30 - 150	Recovery =		94.74%	81.29%
Target Compounds						
6) tcm Aldrin	11.88	12.15	1391.8E6	3566.7E6	48.596	39.546
7) tc beta-BHC	10.84	11.15	606.8E6	1714.0E6	48.387	38.092
8) tc delta-BHC	11.11	11.60	1514.7E6	3859.1E6	53.385	41.343
9) tc Heptachlor E	12.78	12.99	1217.2E6	3054.2E6	46.936	38.437
11) tc gamma-Chlord	12.96	13.26	1246.1E6	3016.9E6	48.208	38.009
12) tc alpha-Chlord	13.15	13.47	1101.4E6	2929.2E6	44.310	38.988
13) tc 4,4'-DDE	13.27	13.71	2381.7E6	5796.7E6	101.027	78.830
17) tc beta-Endosul	14.36	14.70	2071.5E6	4835.6E6	94.279	76.845
20) tc Endrin Aldeh	14.97	15.20	1614.0E6	3769.8E6	94.455	79.381
21) tc Endosulfan S	15.62	15.61	1927.8E6	4258.6E6	99.231	76.650
24) tc Endrin Keton	16.02	16.37	2074.3E6	4666.9E6	93.270	77.686
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\102709\
 Data File : FD068.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 27 Oct 2009 1:42 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: Oct 28 08:27:01 2009
 Quant Method : J:\ACQDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 07:56:41 2009
 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



00698

Quantitation Report (QT Reviewed)

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD069.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 27 Oct 2009 2:18 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: Oct 28 08:16:08 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 07:56:41 2009
 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	9.18	9.36	1945.3E6	5390.9E6	87.646	67.725
Spiked Amount	100.000	Range 30 - 150	Recovery =		87.65%	67.72%
25) S SURR2,Decachloro	17.28	17.91	3254.0E6	6741.9E6	168.617	137.854
Spiked Amount	100.000	Range 30 - 150	Recovery =		168.62%#	137.85%
Target Compounds						
6) tcm Aldrin	11.88	12.15	2488.5E6	6177.2E6	86.888	68.490
7) tc beta-BHC	10.84	11.16	1110.4E6	3055.9E6	88.535	67.918
8) tc delta-BHC	11.11	11.60	2784.4E6	7220.4E6	98.135	77.353
9) tc Heptachlor E	12.78	12.99	2212.5E6	5286.5E6	85.318	66.530
11) tc gamma-Chlord	12.96	13.27	2267.2E6	5559.9E6	87.709	70.047
12) tc alpha-Chlord	13.15	13.48	2150.2E6	5293.6E6	86.506	70.458
13) tc 4,4'-DDE	13.27	13.71	4289.1E6	10065.4E6	181.937	136.879
17) tc beta-Endosul	14.36	14.70	3708.7E6	8406.9E6	168.792	133.598
20) tc Endrin Aldeh	14.97	15.20	2970.8E6	6622.6E6	173.862	139.452
21) tc Endosulfan S	15.62	15.61	3393.0E6	7737.4E6	174.654	139.265
24) tc Endrin Keton	16.02	16.37	3740.1E6	8178.6E6	168.173	136.143
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

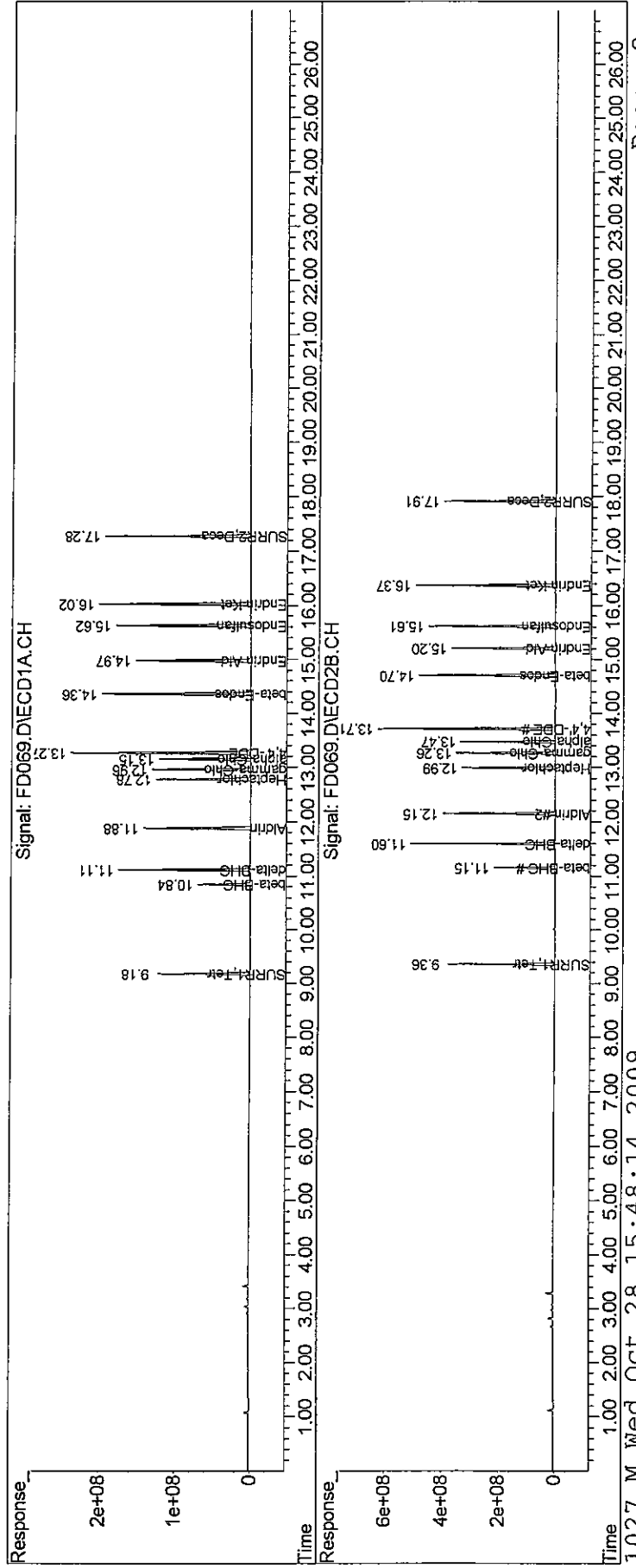
Handwritten: May 10/28

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQDATA\6890D\DATA\102709\
Data File : FD069.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 27 Oct 2009 2:18 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: Oct 28 08:16:08 2009
Quant Method : J:\ACQDATA\6890D\METHODS\80811027.M
Quant Title : 608/8081A PESTICIDES
Quant Update : Wed Oct 28 07:56:41 2009
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



00700

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD070.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 27 Oct 2009 2:53 pm
 Operator : M.PEDRO
 Sample : K/FL
 Misc : INITIAL CAL
 ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 28 08:17:07 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 07:56:41 2009
 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

16) tc	KEPONE	14.09	14.56	4887.8E6	12090.7E6	529.895	477.088
23) tc	FAMPHUR	15.92	15.70	1556.3E6	3678.1E6	99.116	91.955
	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

Handwritten initials

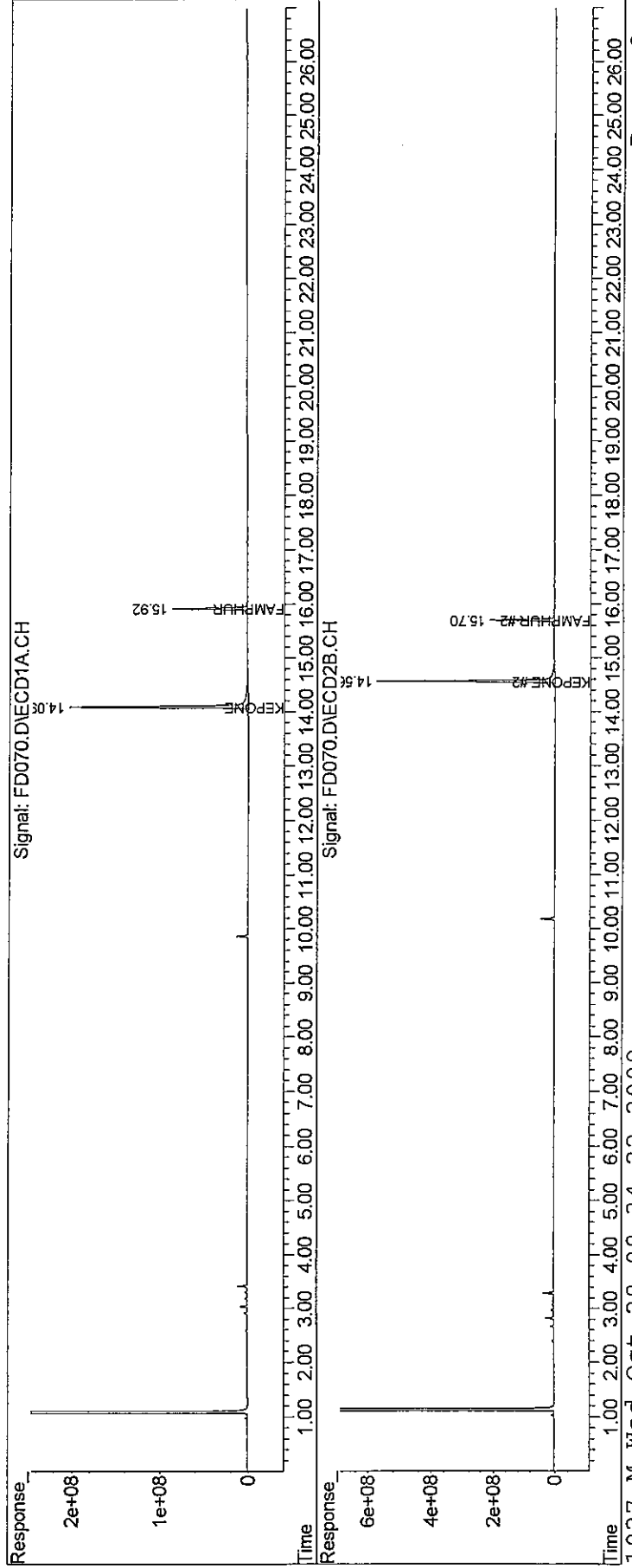
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\ACQUDATA\6890D\DATA\102709\
Data File : FD070.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 27 Oct 2009 2:53 pm
Operator : M.PEDRO
Sample : K/FL
Misc : INITIAL CAL
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 28 08:17:07 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Oct 28 07:56:41 2009
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



00702

Data Path : J:\ACQUADATA\6890D\DATA\102709\
 Data File : FD071.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 27 Oct 2009 3:29 pm
 Operator : M.PEDRO
 Sample : K/FML
 Misc : INITIAL CAL
 ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 28 08:17:45 2009
 Quant Method : J:\ACQUADATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 07:56:41 2009
 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

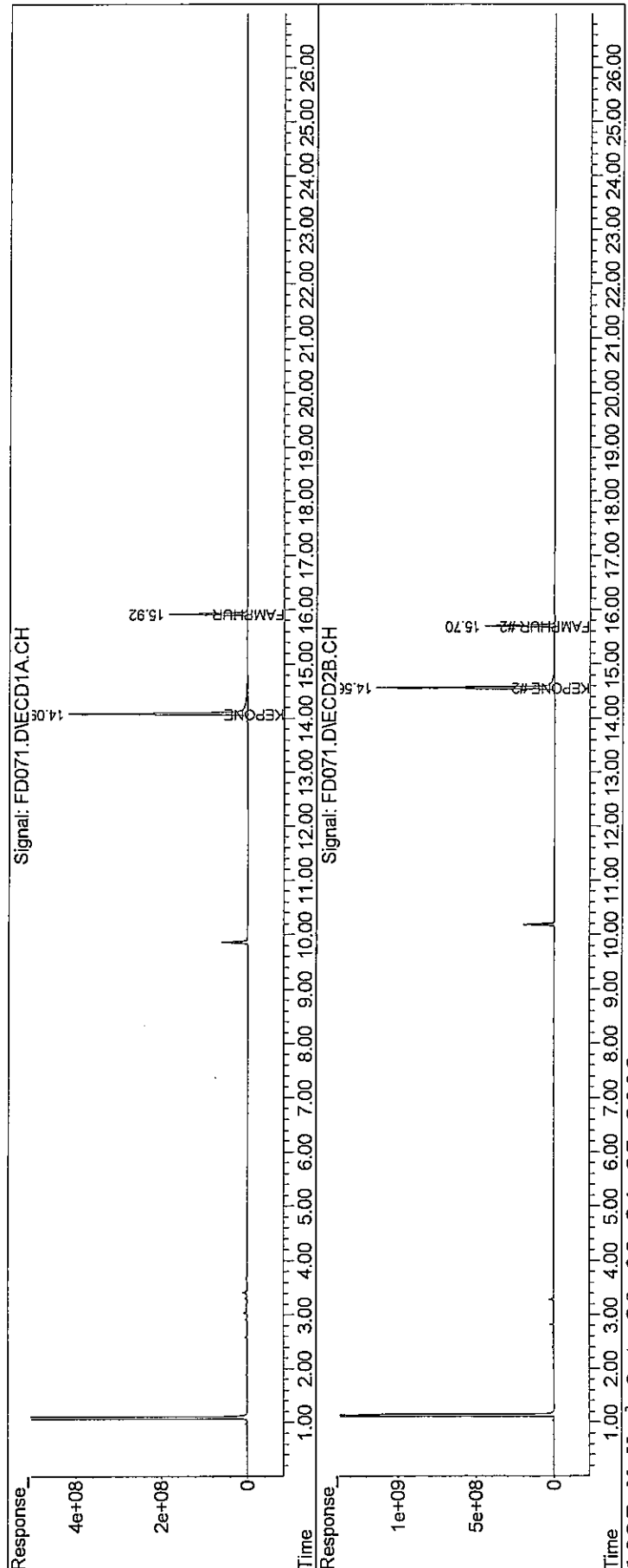
16) tc	KEPONE	14.09	14.56	10383.9E6	24985.0E6	1125.727	985.882
23) tc	FAMPHUR	15.92	15.70	3498.0E6	7754.0E6	222.776	193.856
	Sum Toxaphene			0	0	N.D.	N.D.
	Average Toxaphene					0.000	0.000
	Sum Chlordane			0	0	N.D.	N.D.
	Average Chlordane					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD071.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 27 Oct 2009 3:29 pm
 Operator : M.PEDRO
 Sample : K/FML
 Misc : INITIAL CAL
 ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 28 08:17:45 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 07:56:41 2009
 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



00704

Quantitation Report (QT Reviewed)

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD072.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 27 Oct 2009 4:05 pm
 Operator : M.PEDRO
 Sample : K/FM
 Misc : INITIAL CAL
 ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 28 08:18:36 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 07:56:41 2009
 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

*ms
10/28*

Target Compounds

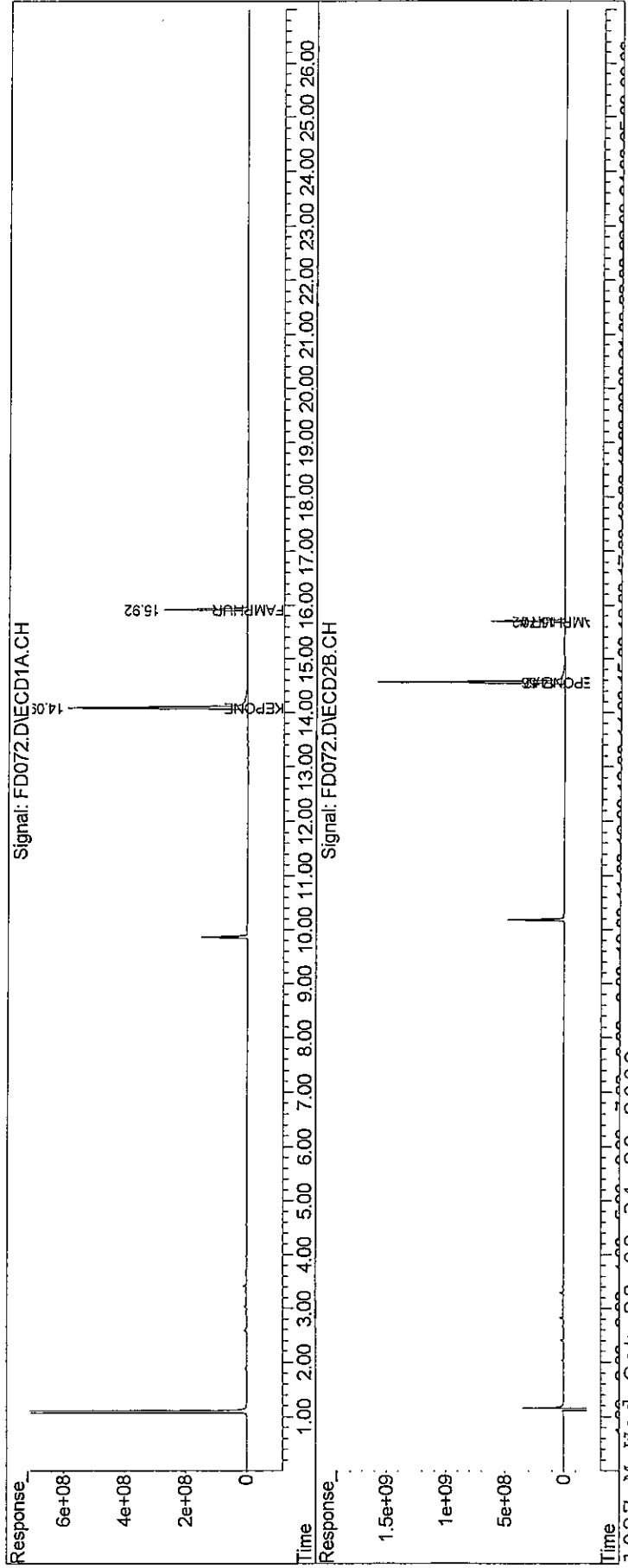
16) tc	KEPONE	14.09	14.56	14579.3E6	34486.2E6	1580.560	1360.793
23) tc	FAMPHUR	15.92	15.70	4955.1E6	10538.7E6	315.579	263.478m
	Sum Toxaphene			0	0	N.D.	N.D.
	Average Toxaphene					0.000	0.000
	Sum Chlordane			0	0	N.D.	N.D.
	Average Chlordane					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD072.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 27 Oct 2009 4:05 pm
 Operator : M.PEDRO
 Sample : K/FM
 Misc : INITIAL CAL
 ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 28 08:18:36 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 07:56:41 2009
 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



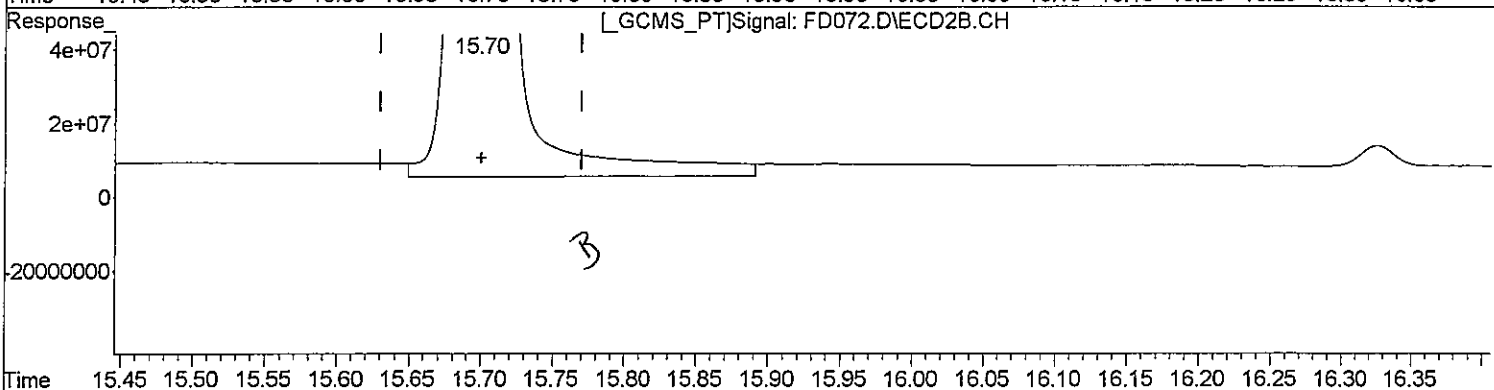
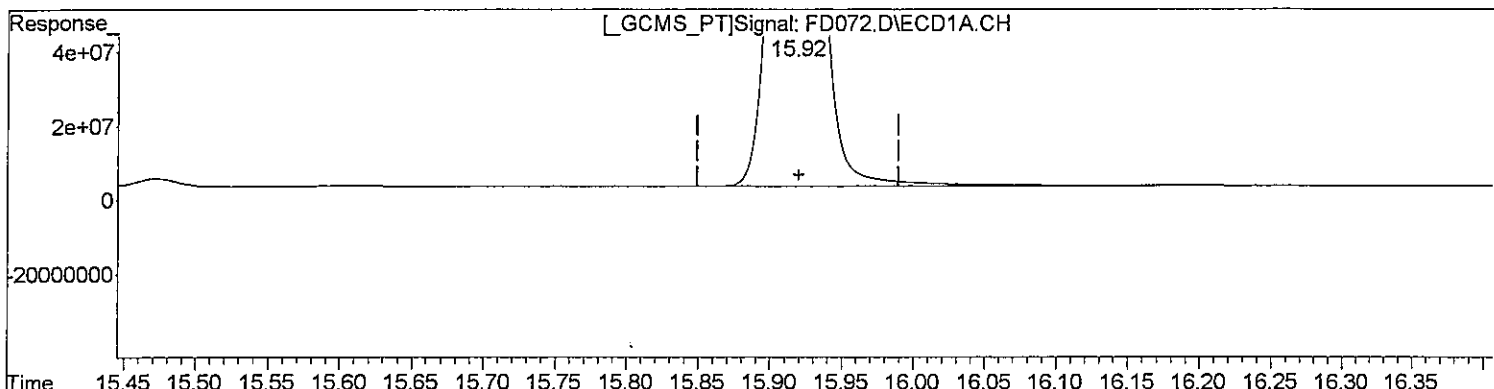
00706

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\102709\
Data File : FD072.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 27 Oct 2009 4:05 pm
Operator : M.PEDRO
Sample : K/FM
Misc : INITIAL CAL
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 28 07:58:17 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Oct 28 07:56:41 2009
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

(23) FAMPHUR (tc)
15.92min 315.579ug/l
response 4955133425

Base

(23) FAMPHUR #2 (tc)
15.70min 275.904ug/l
response 11035757237

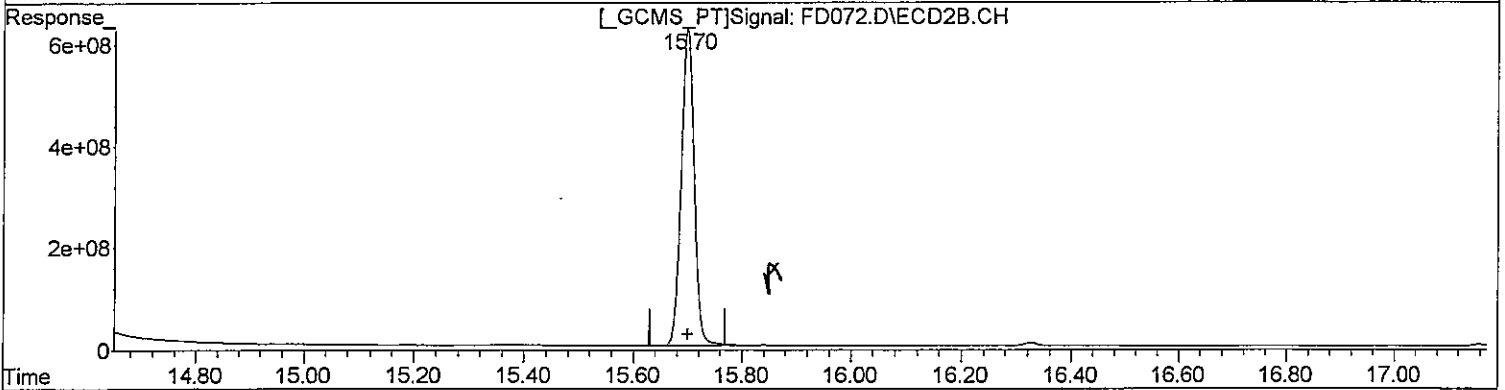
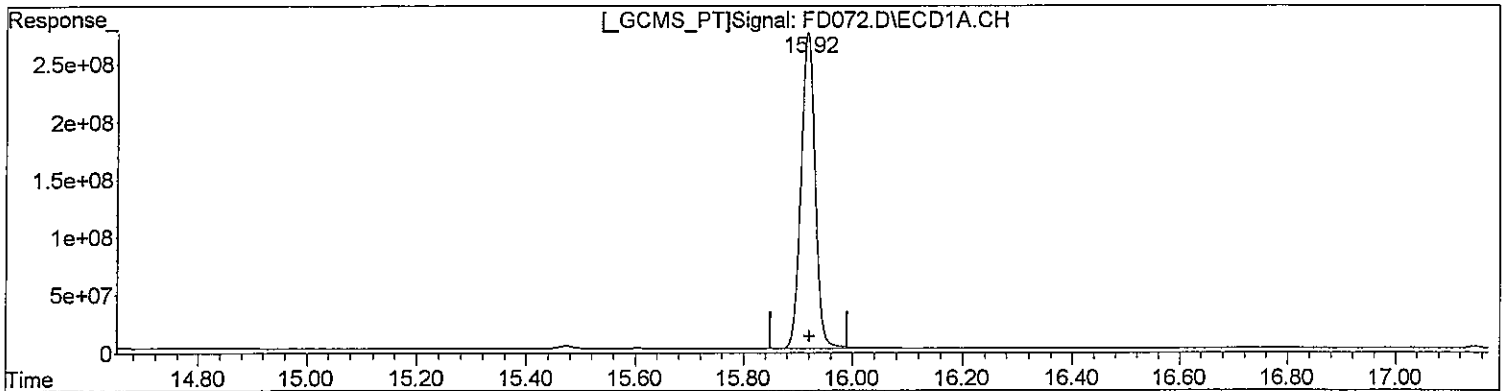
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\102709\
Data File : FD072.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 27 Oct 2009 4:05 pm
Operator : M.PEDRO
Sample : K/FM
Misc : INITIAL CAL
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 28 07:58:17 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Oct 28 07:56:41 2009
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)
15.92min 315.579ug/l
response 4955133425

(23) FAMPHUR #2 (tc)
15.70min 263.478ug/l m
response 10538708741

WV
10/28

WV
10/28

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD073.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 27 Oct 2009 4:40 pm
 Operator : M.PEDRO
 Sample : K/FMH
 Misc : INITIAL CAL
 ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 28 08:19:14 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 07:56:41 2009
 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

16) tc	KEPONE	14.09	14.56	19089.2E6	44320.4E6	2069.485	1748.838
23) tc	FAMPHUR	15.92	15.70	6568.7E6	13537.5E6	418.343	338.451m
	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

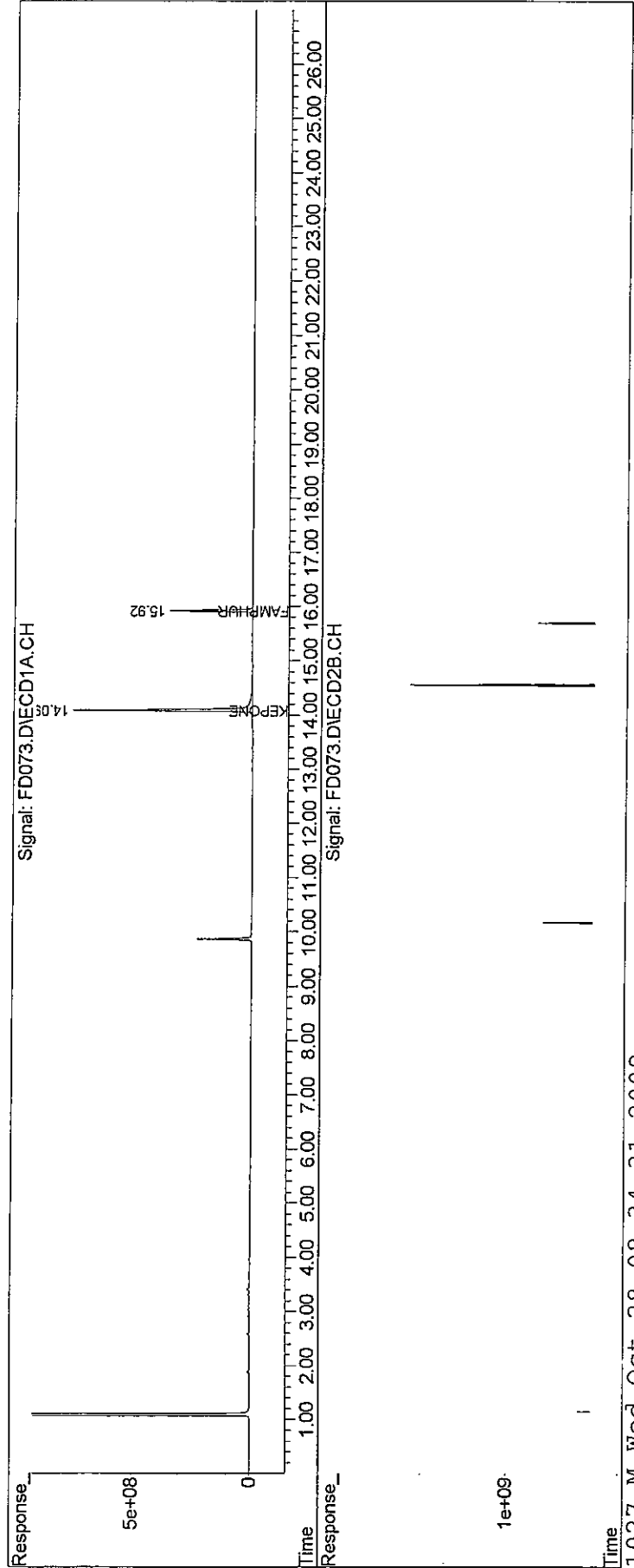
no int

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD073.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 27 Oct 2009 4:40 pm
 Operator : M.PEDRO
 Sample : K/FMH
 Misc : INITIAL CAL
 ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 28 08:19:14 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 07:56:41 2009
 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



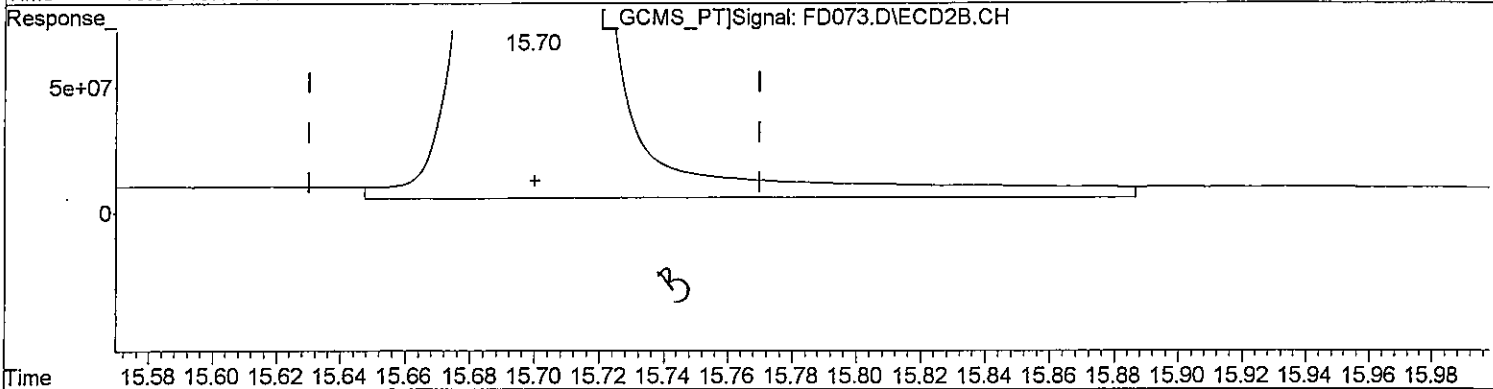
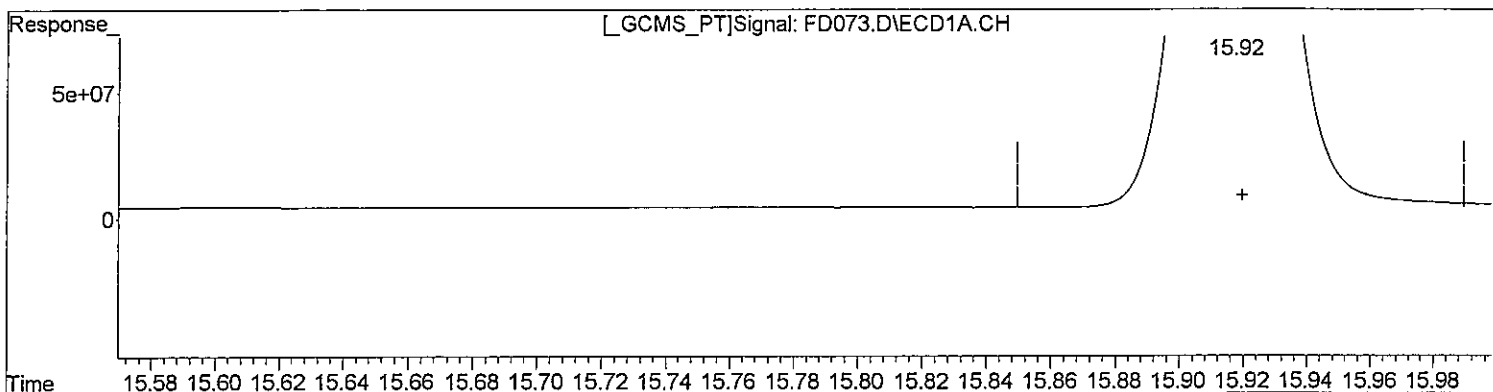
00710

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\102709\
Data File : FD073.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 27 Oct 2009 4:40 pm
Operator : M.PEDRO
Sample : K/FMH
Misc : INITIAL CAL
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 28 07:58:22 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Oct 28 07:56:41 2009
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

(23) FAMPHUR (tc)
15.92min 418.343ug/l
response 6568705401

Handwritten signature

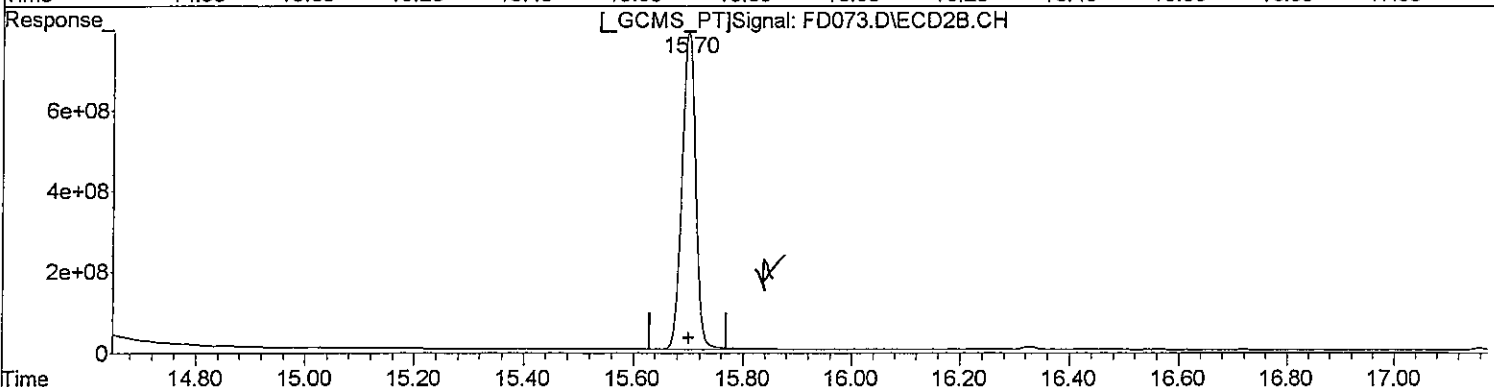
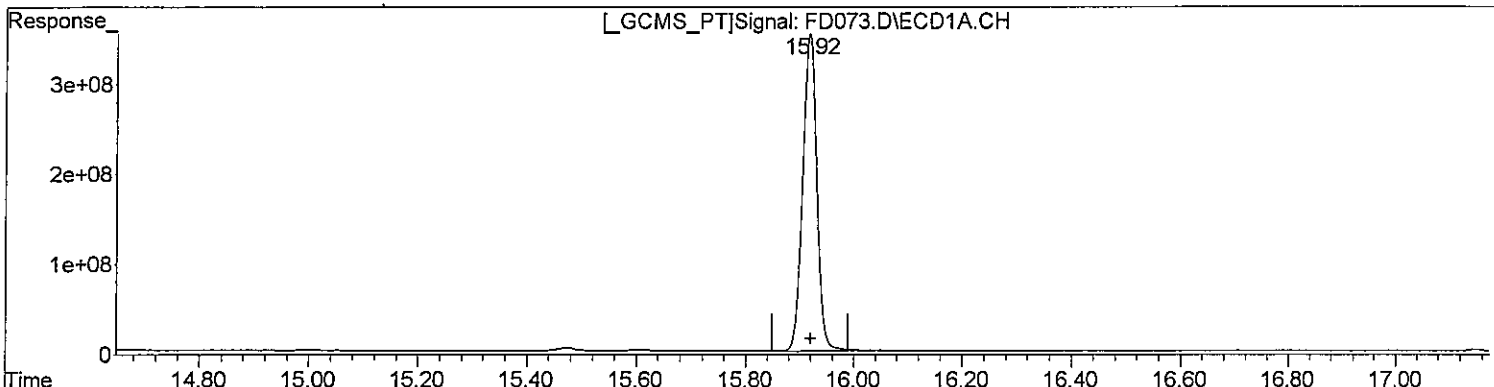
(23) FAMPHUR #2 (tc)
15.70min 354.469ug/l
response 14178210487

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\102709\
Data File : FD073.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 27 Oct 2009 4:40 pm
Operator : M.PEDRO
Sample : K/FMH
Misc : INITIAL CAL
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 28 07:58:22 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Oct 28 07:56:41 2009
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

(23) FAMPHUR (tc)
15.92min 418.343ug/l
response 6568705401

mp 10/28 *mv mv*

(23) FAMPHUR #2 (tc)
15.70min 338.451ug/l m
response 13537537913

Quantitation Report (QT Reviewed)

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD074.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 27 Oct 2009 5:16 pm
 Operator : M.PEDRO
 Sample : K/FH
 Misc : INITIAL CAL
 ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 28 08:19:47 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 07:56:41 2009
 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

16) tc	KEPONE	14.09	14.56	22764.7E6	52038.9E6	2467.946	2053.404
23) tc	FAMPHUR	15.92	15.70	8189.2E6	17538.7E6	521.549	438.485
	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

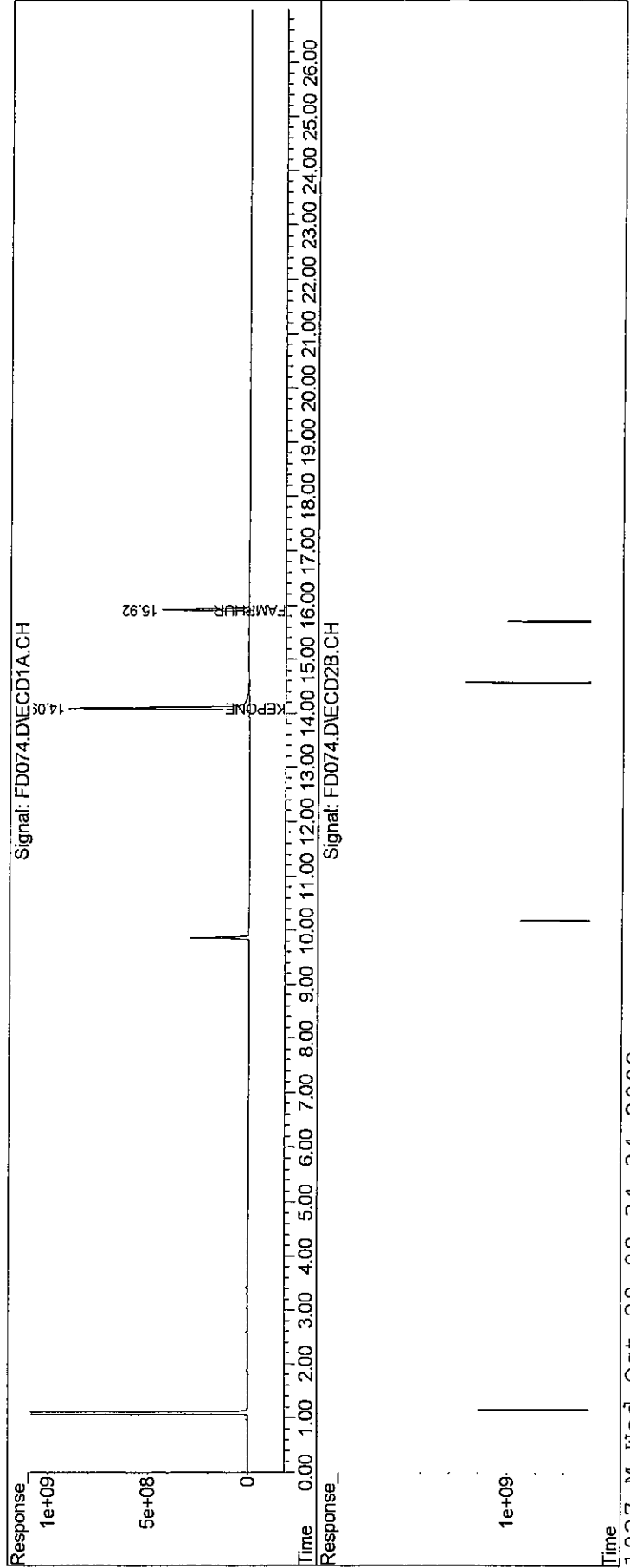
*MSP
10/28*

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\102709\
Data File : FD074.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 27 Oct 2009 5:16 pm
Operator : M.PEDRO
Sample : K/FH
Misc : INITIAL CAL
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 28 08:19:47 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Oct 28 07:56:41 2009
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



00714

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD075.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 27 Oct 2009 5:51 pm
 Operator : M.PEDRO
 Sample : TOXL
 Misc : INITIAL CAL
 ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 28 08:20:34 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 07:56:41 2009
 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

1) S SURR1,Tetrac	9.18	9.36	512.3E6	1522.1E6	23.081	19.122
Spiked Amount	100.000	Range 30 - 150	Recovery =		23.08%#	19.12%#
25) S SURR2,Decachloro	17.28	17.91	444.1E6	961.4E6	23.015	19.658
Spiked Amount	100.000	Range 30 - 150	Recovery =		23.02%#	19.66%#

Target Compounds

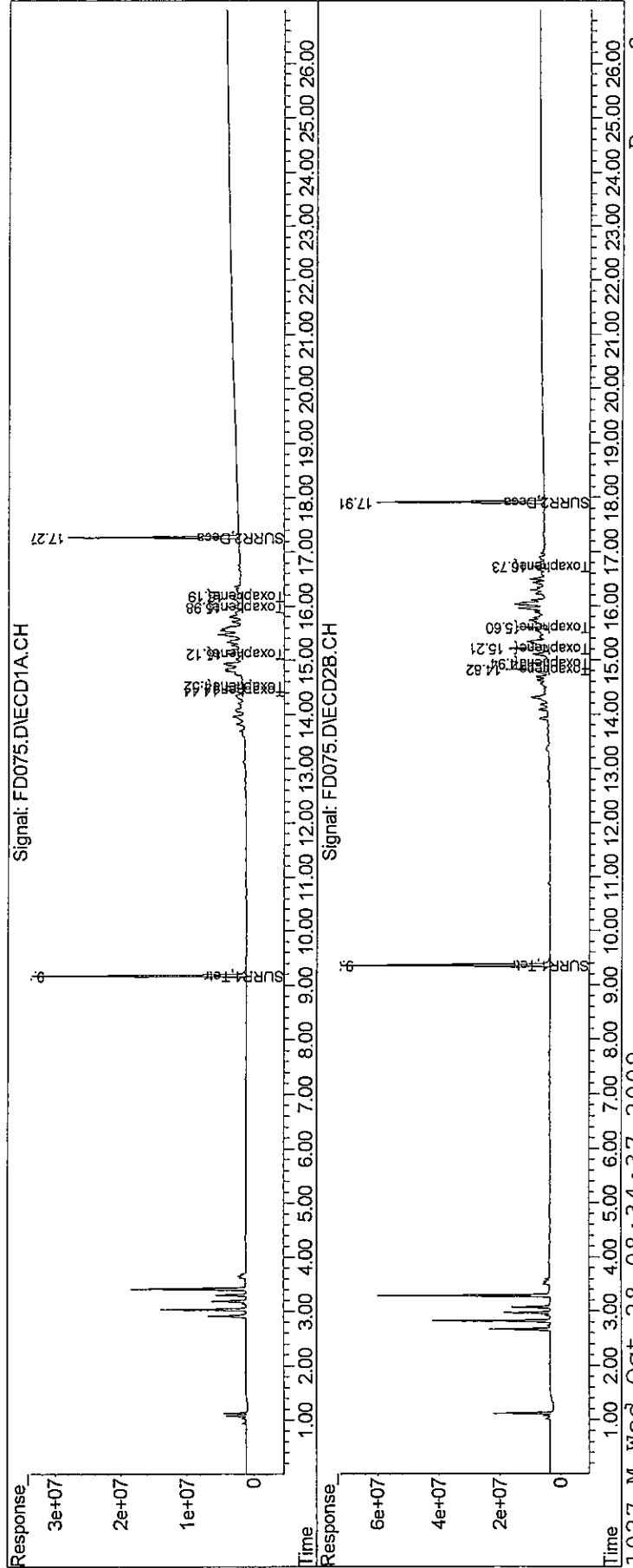
26) L8C Toxaphene	14.44	14.82	98700820	293.9E6	109.974	91.747
27) L8C Toxaphene {2}	14.52	14.94	67606104	151.5E6	91.735	41.866 #
28) L8C Toxaphene {3}	15.12	15.21	54461011	324.3E6	101.855	211.378 #
29) L8C Toxaphene {4}	15.99	15.60	61898468	143.1E6	99.345	52.118 #
30) L8C Toxaphene {5}	16.19	16.73	51438084	116.1E6	117.897	84.988 #
Sum Toxaphene			334.1E6	1028.9E6	520.806	482.097
Average Toxaphene					104.161	96.419
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\102709\
Data File : FD075.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 27 Oct 2009 5:51 pm
Operator : M.PEDRO
Sample : TOXL
Misc : INITIAL CAL
ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 28 08:20:34 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Oct 28 07:56:41 2009
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\102709\
 Data File : FD076.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 27 Oct 2009 6:27 pm
 Operator : M.PEDRO
 Sample : TOXML
 Misc : INITIAL CAL
 ALS Vial : 19 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 28 08:21:05 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 07:56:41 2009
 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

1) S SURR1,Tetrac	9.18	9.36	920.0E6	2647.2E6	41.450	33.257
Spiked Amount	100.000	Range	30 - 150	Recovery	=	41.45%
25) S SURR2,Decachloro	17.27	17.91	789.2E6	1666.8E6	40.896	34.082
Spiked Amount	100.000	Range	30 - 150	Recovery	=	40.90%

Target Compounds

26) L8C Toxaphene	14.44	14.82	230.6E6	639.1E6	256.917	199.497
27) L8C Toxaphene {2}	14.52	14.94	158.4E6	335.0E6	214.887	92.572 #
28) L8C Toxaphene {3}	15.12	15.21	131.2E6	756.6E6	245.412	493.120 #
29) L8C Toxaphene {4}	15.99	15.60	145.4E6	321.7E6	233.335	117.190 #
30) L8C Toxaphene {5}	16.19	16.73	121.9E6	274.4E6	279.379	200.810 #
Sum Toxaphene			787.4E6	2326.7E6	1229.931	1103.189
Average Toxaphene					245.986	220.638

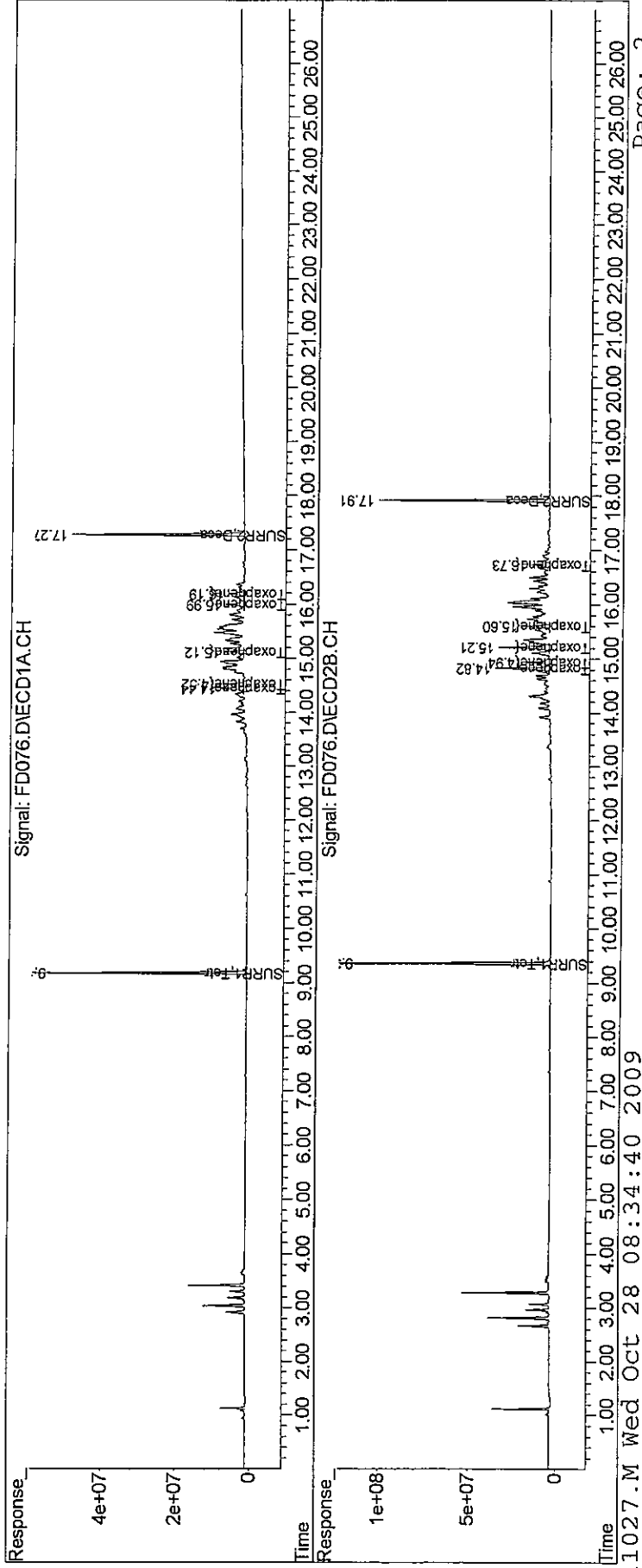
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD076.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 27 Oct 2009 6:27 pm
 Operator : M.PEDRO
 Sample : TOXML
 Misc : INITIAL CAL
 ALS Vial : 19 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 28 08:21:05 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 07:56:41 2009
 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



00718

Quantitation Report (QT Reviewed)

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD077.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 27 Oct 2009 7:03 pm
 Operator : M.PEDRO
 Sample : TOXM
 Misc : INITIAL CAL
 ALS Vial : 20 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 28 08:21:34 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 07:56:41 2009
 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

1) S SURR1,Tetrac	9.18	9.36	1380.7E6	3895.2E6	62.207	48.934
Spiked Amount	100.000	Range	30 - 150	Recovery	=	62.21% 48.93%
25) S SURR2,Decachloro	17.28	17.91	1192.9E6	2500.6E6	61.815	51.131
Spiked Amount	100.000	Range	30 - 150	Recovery	=	61.81% 51.13%

Target Compounds

26) L8C Toxaphene	14.44	14.82	490.9E6	1308.5E6	547.021	408.476 #
27) L8C Toxaphene {2}	14.52	14.94	336.6E6	684.3E6	456.769	189.117 #
28) L8C Toxaphene {3}	15.12	15.21	284.7E6	1550.4E6	532.406	1010.532 #
29) L8C Toxaphene {4}	15.99	15.60	314.8E6	661.8E6	505.223	241.080 #
30) L8C Toxaphene {5}	16.19	16.73	263.2E6	577.1E6	603.238	422.335 #
Sum Toxaphene			1690.2E6	4782.1E6	2644.656	2271.540
Average Toxaphene					528.931	454.308

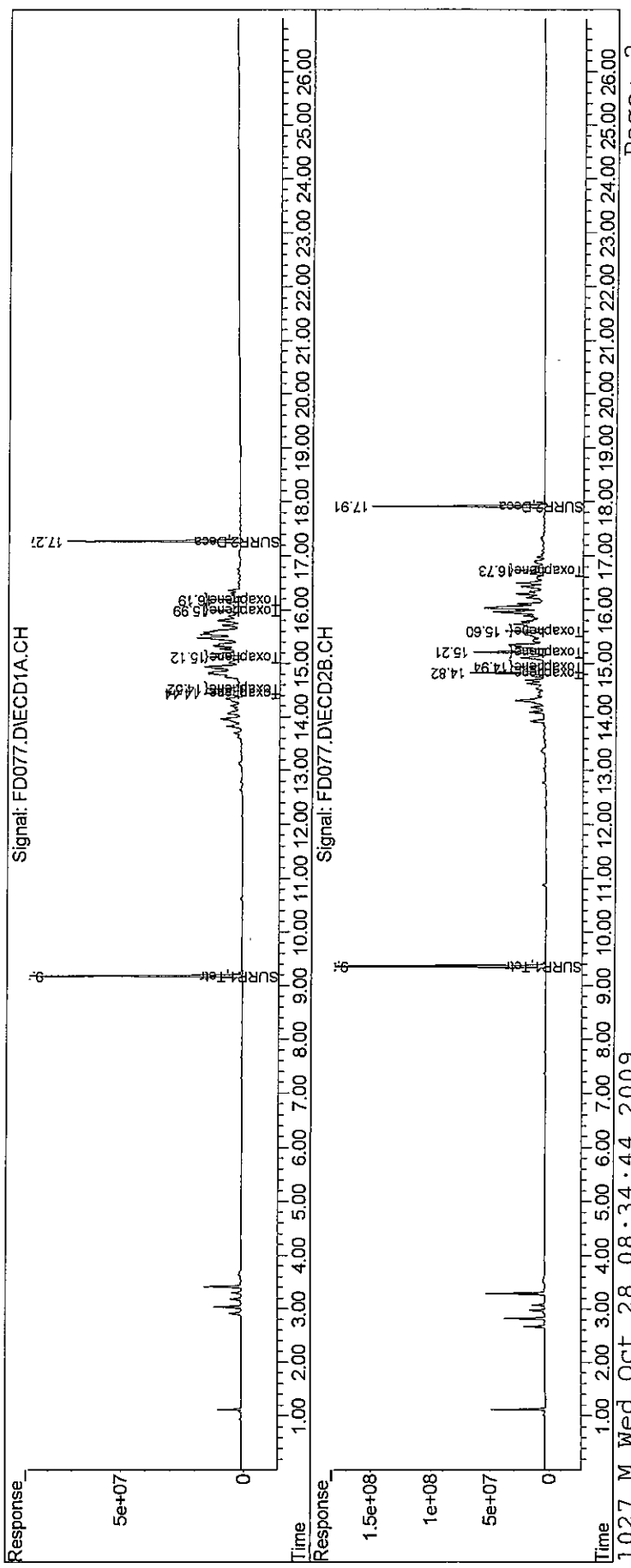
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\102709\
Data File : FD077.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 27 Oct 2009 7:03 pm
Operator : M.PEDRO
Sample : TOXM
Misc : INITIAL CAL
ALS Vial : 20 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 28 08:21:34 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Oct 28 07:56:41 2009
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



00720

Quantitation Report (QT Reviewed)

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD078.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 27 Oct 2009 7:38 pm
 Operator : M.PEDRO
 Sample : TOXMH
 Misc : INITIAL CAL
 ALS Vial : 21 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 28 08:22:04 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 07:56:41 2009
 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	9.18	9.36	1881.8E6	5211.4E6	84.784	65.469
Spiked Amount	100.000	Range 30 - 150	Recovery =		84.78%	65.47%
25) S SURR2,Decachloro	17.28	17.91	1649.8E6	3420.8E6	85.488	69.946
Spiked Amount	100.000	Range 30 - 150	Recovery =		85.49%	69.95%
Target Compounds						
26) L8C Toxaphene	14.44	14.82	779.8E6	2024.8E6	868.913	632.076 #
27) L8C Toxaphene {2}	14.52	14.94	535.2E6	1065.1E6	726.255	294.339 #
28) L8C Toxaphene {3}	15.12	15.21	459.2E6	2410.8E6	858.786	1571.269 #
29) L8C Toxaphene {4}	15.99	15.60	504.8E6	1028.2E6	810.182	374.562 #
30) L8C Toxaphene {5}	16.19	16.73	425.5E6	908.5E6	975.325	664.889 #
Sum Toxaphene			2704.6E6	7437.3E6	4239.460	3537.134
Average Toxaphene					847.892	707.427
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000

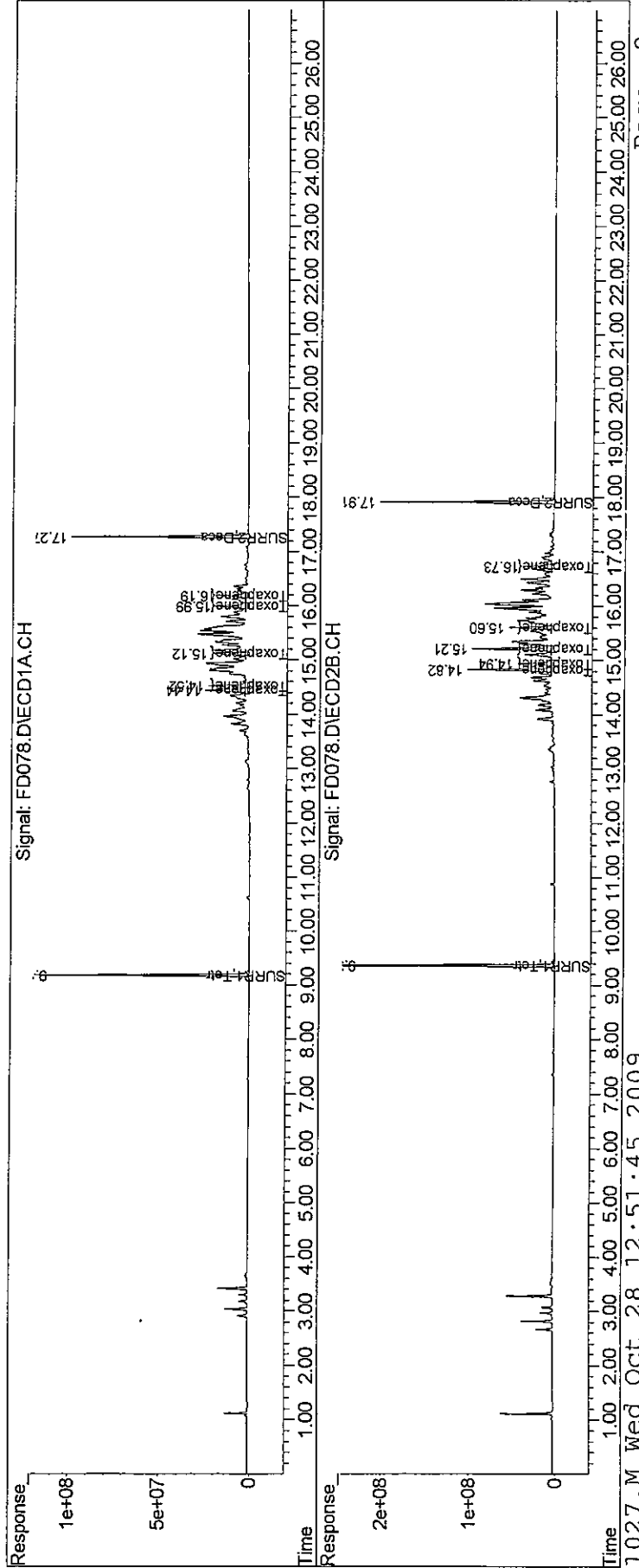
mp 10/28

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\102709\
Data File : FD078.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 27 Oct 2009 7:38 pm
Operator : M.PEDRO
Sample : TOXMH
Misc : INITIAL CAL
ALS Vial : 21 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 28 08:22:04 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Oct 28 07:56:41 2009
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



00722

Quantitation Report (QT Reviewed)

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD079.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 27 Oct 2009 8:14 pm
 Operator : M.PEDRO
 Sample : TOXH
 Misc : INITIAL CAL
 ALS Vial : 22 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 28 08:22:46 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 07:56:41 2009
 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

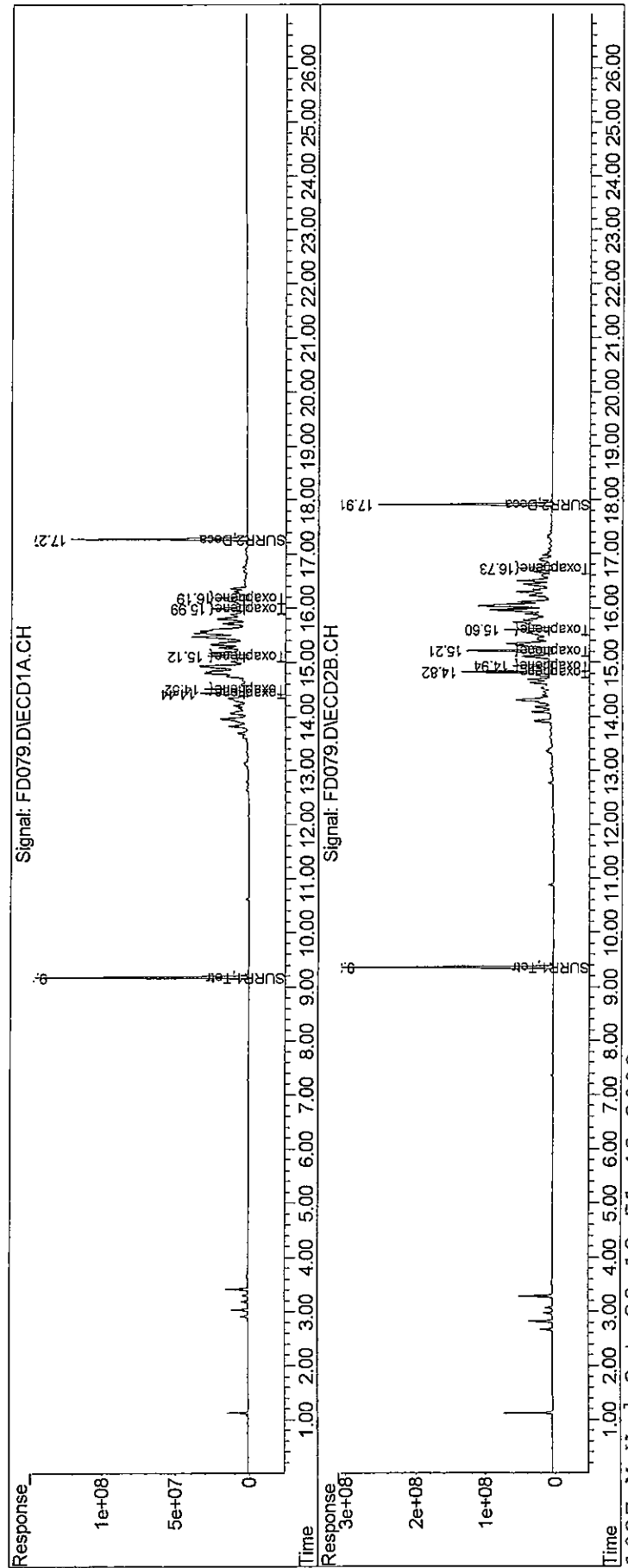
System Monitoring Compounds						
1) S SURR1,Tetrac	9.18	9.36	2332.6E6	6393.4E6	105.093	80.319
Spiked Amount	100.000	Range 30 - 150	Recovery =	105.09%	80.32%	
25) S SURR2,Decachloro	17.28	17.91	2050.5E6	4235.5E6	106.253	86.604
Spiked Amount	100.000	Range 30 - 150	Recovery =	106.25%	86.60%	
Target Compounds						
26) L8C Toxaphene	14.44	14.82	1051.1E6	2871.2E6	1171.144	896.295
27) L8C Toxaphene {2}	14.52	14.94	722.3E6	1423.0E6	980.154	393.253 #
28) L8C Toxaphene {3}	15.12	15.21	618.4E6	3218.7E6	1156.501	2097.896 #
29) L8C Toxaphene {4}	15.99	15.60	681.6E6	1377.3E6	1093.939	501.762 #
30) L8C Toxaphene {5}	16.19	16.73	575.4E6	1222.2E6	1318.739	894.431 #
Sum Toxaphene			3648.8E6	10112.4E6	5720.477	4783.637
Average Toxaphene					1144.095	956.727
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\102709\
Data File : FD079.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 27 Oct 2009 8:14 pm
Operator : M.PEDRO
Sample : TOXH
Misc : INITIAL CAL
ALS Vial : 22 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 28 08:22:46 2009
Quant Method : J:\ACQDATA\6890D\METHODS\80811027.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Oct 28 07:56:41 2009
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



00724

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD080.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 27 Oct 2009 8:49 pm
 Operator : M.PEDRO
 Sample : CHLORL
 Misc : INITIAL CAL
 ALS Vial : 23 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 28 08:23:22 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 07:56:41 2009
 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

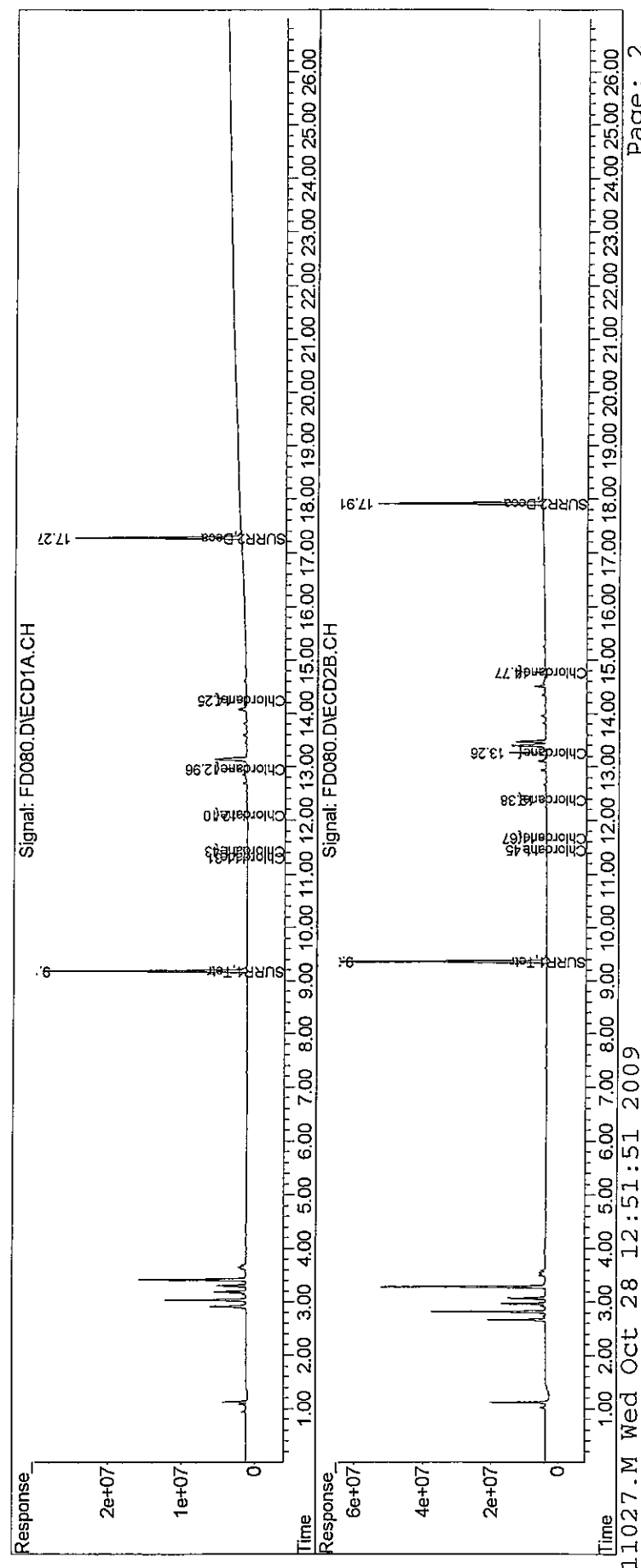
System Monitoring Compounds						
1) S SURR1,Tetrac	9.18	9.36	448.9E6	1345.9E6	20.226	16.908
Spiked Amount	100.000	Range 30 - 150	Recovery =		20.23%#	16.91%#
25) S SURR2,Decachloro	17.27	17.91	403.0E6	851.8E6	20.883	17.416
Spiked Amount	100.000	Range 30 - 150	Recovery =		20.88%#	17.42%#
Target Compounds						
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000
31) L9C Chlordane	11.31	11.45	4204040	14033743	25.003	19.168
32) L9C Chlordane {2}	11.43	11.67	10023120	31121564	24.704	21.200
33) L9C Chlordane {3}	12.10	12.39	15616625	40052802	26.133	21.720
34) L9C Chlordane {4}	12.96	13.26	71439504	180.8E6	23.424	19.930
35) L9C Chlordane {5}	14.25	14.77	26792619	72893603	21.020	19.866
Sum Chlordane			128.1E6	338.9E6	120.283	101.883
Average Chlordane					24.057	20.377

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\102709\
Data File : FD080.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 27 Oct 2009 8:49 pm
Operator : M.PEDRO
Sample : CHLORL
Misc : INITIAL CAL
ALS Vial : 23 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 28 08:23:22 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Oct 28 07:56:41 2009
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



00726

Quantitation Report (QT Reviewed)

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD081.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 27 Oct 2009 9:25 pm
 Operator : M.PEDRO
 Sample : CHLORML
 Misc : INITIAL CAL
 ALS Vial : 24 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 28 08:23:46 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 07:56:41 2009
 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

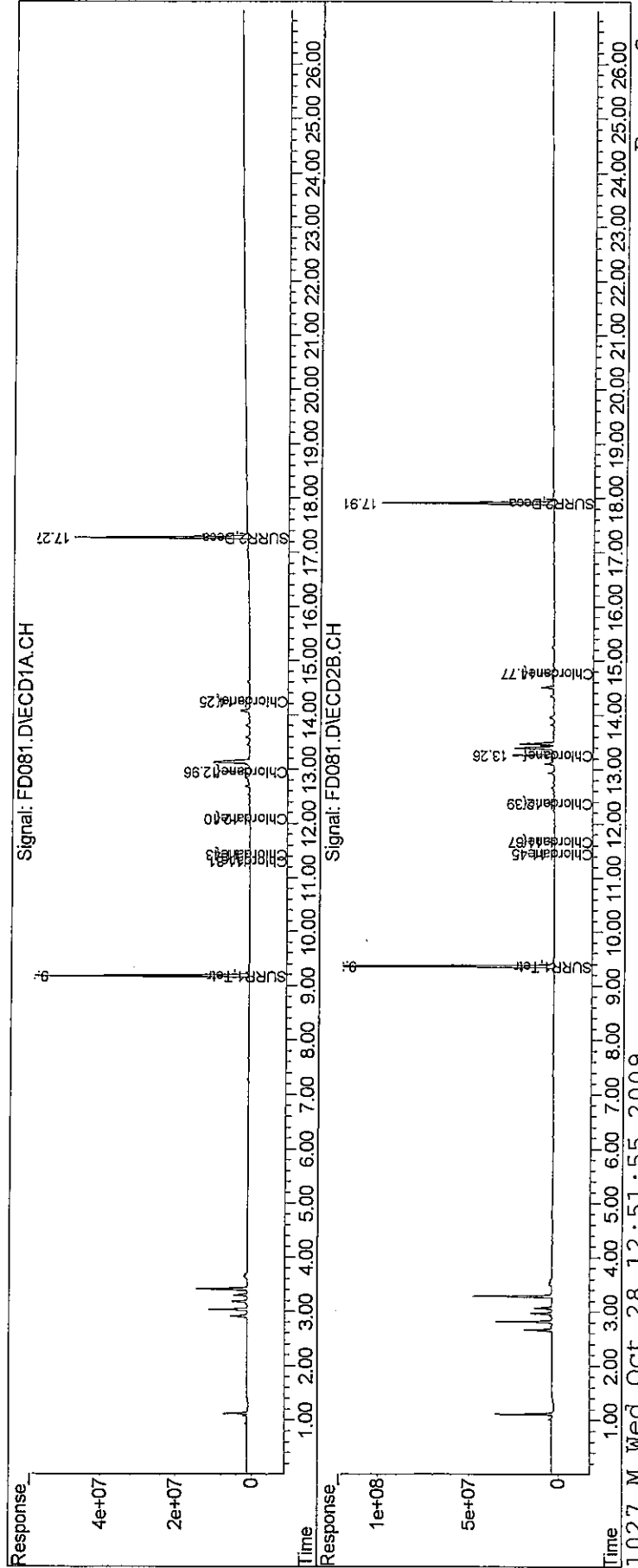
System Monitoring Compounds						
1) S SURR1,Tetrac	9.18	9.36	904.2E6	2618.5E6	40.736	32.896
Spiked Amount	100.000	Range 30 - 150	Recovery =		40.74%	32.90%
25) S SURR2,Decachloro	17.28	17.91	789.8E6	1669.3E6	40.924	34.132
Spiked Amount	100.000	Range 30 - 150	Recovery =		40.92%	34.13%
Target Compounds						
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000
31) L9C Chlordane	11.31	11.45	9049488	28377783	53.821	38.760 #
32) L9C Chlordane {2}	11.43	11.67	21106093	63706789	52.019	43.397
33) L9C Chlordane {3}	12.10	12.39	31798352	81740652	53.212	44.326
34) L9C Chlordane {4}	12.96	13.26	151.9E6	384.0E6	49.804	42.338
35) L9C Chlordane {5}	14.25	14.77	54067245	152.9E6	42.417	41.660
Sum Chlordane			267.9E6	710.7E6	251.273	210.481
Average Chlordane					50.255	42.096

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\102709\
Data File : FD081.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 27 Oct 2009 9:25 pm
Operator : M.PEDRO
Sample : CHLORML
Misc : INITIAL CAL
ALS Vial : 24 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 28 08:23:46 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Oct 28 07:56:41 2009
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



00728

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD082.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 27 Oct 2009 10:00 pm
 Operator : M.PEDRO
 Sample : CHLORM
 Misc : INITIAL CAL
 ALS Vial : 25 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 28 08:24:18 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 07:56:41 2009
 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

1) S SURR1,Tetrac	9.18	9.36	1359.5E6	3859.1E6	61.252	48.481
Spiked Amount	100.000	Range	30 - 150	Recovery	=	61.25%
48.48%						
25) S SURR2,Decachloro	17.28	17.91	1163.5E6	2472.9E6	60.289	50.564
Spiked Amount	100.000	Range	30 - 150	Recovery	=	60.29%
50.56%						

Target Compounds

Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

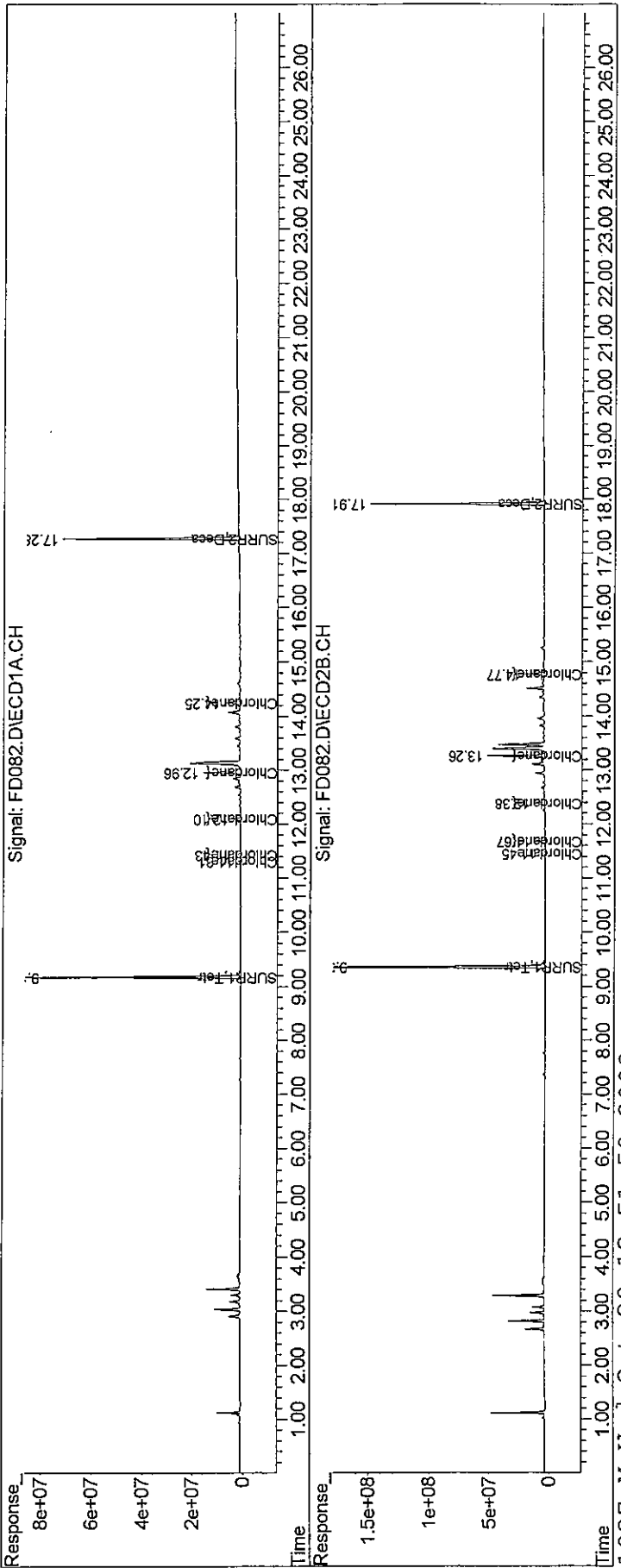
31) L9C Chlordane	11.31	11.45	17748048	56365495	105.555	76.988 #
32) L9C Chlordane {2}	11.43	11.67	41997789	125.9E6	103.510	85.750
33) L9C Chlordane {3}	12.10	12.38	61473025	158.2E6	102.870	85.799
34) L9C Chlordane {4}	12.96	13.26	311.6E6	778.8E6	102.180	85.868
35) L9C Chlordane {5}	14.25	14.77	118.8E6	311.4E6	93.188	84.860
Sum Chlordane			551.6E6	1430.6E6	507.303	419.265
Average Chlordane					101.461	83.853

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\102709\
Data File : FD082.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 27 Oct 2009 10:00 pm
Operator : M.PEDRO
Sample : CHLORM
Misc : INITIAL CAL
ALS Vial : 25 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 28 08:24:18 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Oct 28 07:56:41 2009
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



00730

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD083.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 27 Oct 2009 10:36 pm
 Operator : M.PEDRO
 Sample : CHLORMH
 Misc : INITIAL CAL
 ALS Vial : 26 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 28 08:25:03 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 07:56:41 2009
 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

1) S SURR1,Tetrac	9.18	9.36	1834.9E6	5114.4E6	82.669	64.251
Spiked Amount	100.000	Range	30 - 150	Recovery =	82.67%	64.25%
2) S SURR2,Decachloro	17.28	17.91	1589.7E6	3336.4E6	82.378	68.221
Spiked Amount	100.000	Range	30 - 150	Recovery =	82.38%	68.22%

Target Compounds

Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

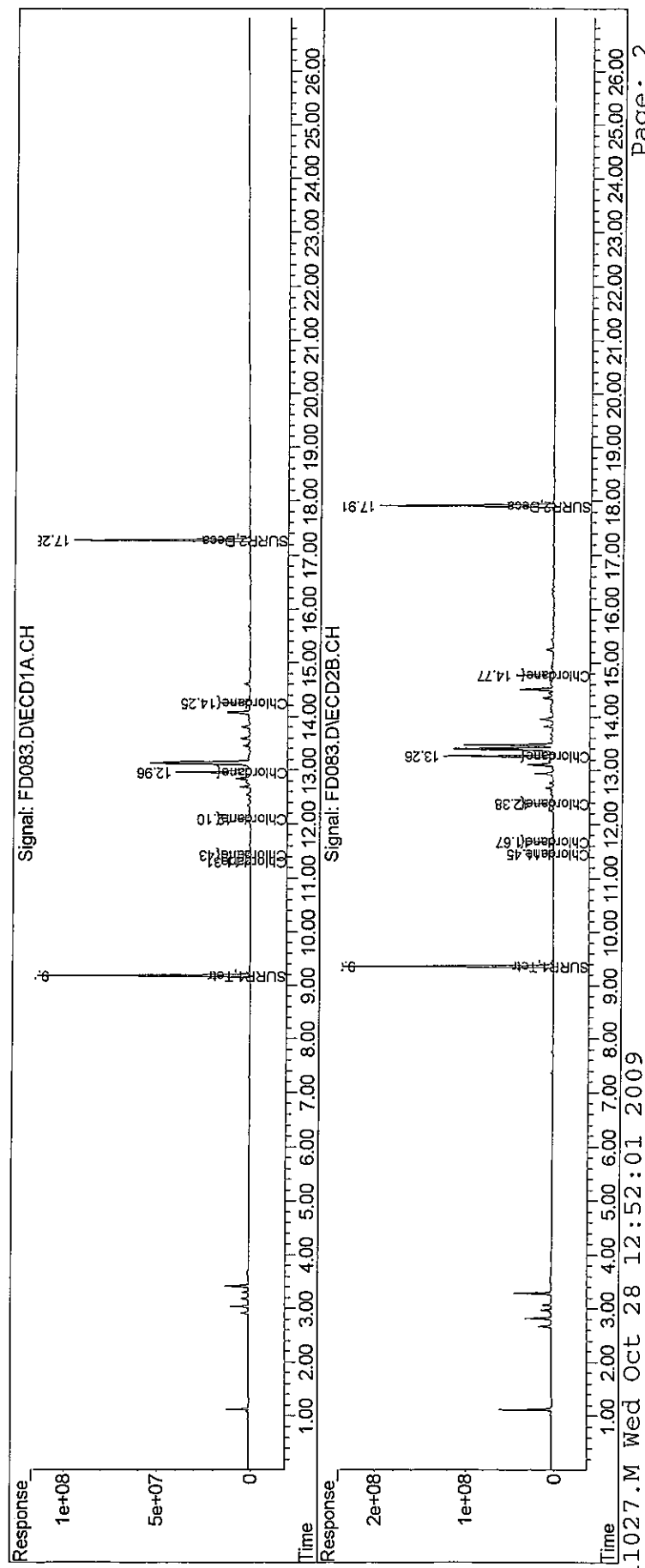
31) L9C Chlordane	11.31	11.45	44480269	136.3E6	264.543	186.230 #
32) L9C Chlordane {2}	11.43	11.67	107.8E6	315.3E6	265.606	214.777
33) L9C Chlordane {3}	12.10	12.38	152.6E6	387.1E6	255.437	209.932
34) L9C Chlordane {4}	12.96	13.26	832.5E6	1995.7E6	272.979	220.037
35) L9C Chlordane {5}	14.25	14.77	316.0E6	812.6E6	247.918	221.455
Sum Chlordane			1453.4E6	3647.0E6	1306.484	1052.430
Average Chlordane					261.297	210.486

 (f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\102709\
Data File : FD083.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 27 Oct 2009 10:36 pm
Operator : M.PEDRO
Sample : CHLORMH
Misc : INITIAL CAL
ALS Vial : 26 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 28 08:25:03 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Oct 28 07:56:41 2009
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



00732

Quantitation Report (QT Reviewed)

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD084.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 27 Oct 2009 11:11 pm
 Operator : M.PEDRO
 Sample : CHLORH
 Misc : INITIAL CAL
 ALS Vial : 27 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 28 08:25:41 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 07:56:41 2009
 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

1) S	SURR1,Tetrac	9.18	9.36	2441.8E6	6688.1E6	110.013	84.021
	Spiked Amount	100.000	Range 30 - 150	Recovery =		110.01%	84.02%
25) S	SURR2,Decachloro	17.28	17.91	2119.6E6	4436.8E6	109.836	90.721
	Spiked Amount	100.000	Range 30 - 150	Recovery =		109.84%	90.72%

Target Compounds

Sum Toxaphene				0	0	N.D.	N.D.
Average Toxaphene						0.000	0.000

31) L9C	Chlordane	11.31	11.45	96551580	295.8E6	574.232	404.012 #
32) L9C	Chlordane {2}	11.43	11.67	239.5E6	684.1E6	590.287	465.990
33) L9C	Chlordane {3}	12.10	12.38	327.4E6	821.9E6	547.924	445.704
34) L9C	Chlordane {4}	12.96	13.26	1854.0E6	4288.5E6	607.917	472.840
35) L9C	Chlordane {5}	14.25	14.77	718.4E6	1802.4E6	563.593	491.195
	Sum Chlordane			3235.9E6	7892.7E6	2883.954	2279.742
	Average Chlordane					576.791	455.948

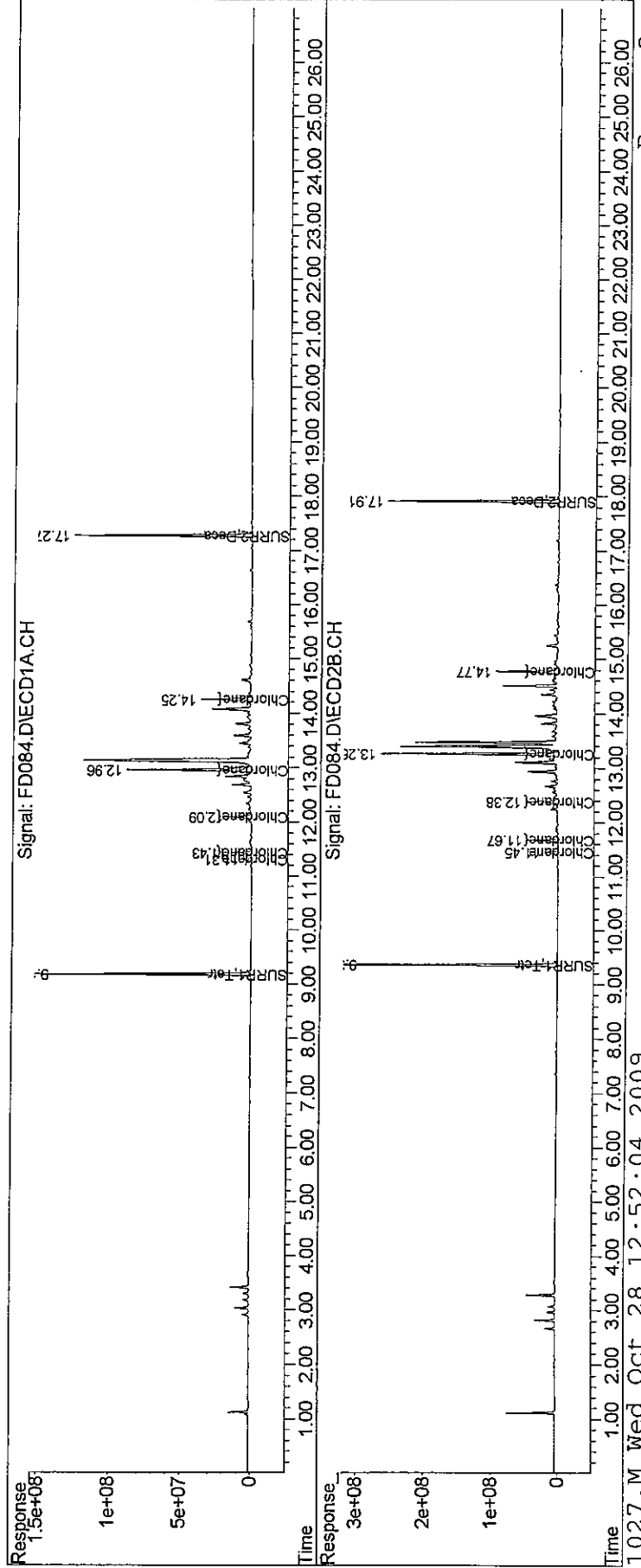
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\ACQUDATA\6890D\DATA\102709\
Data File : FD084.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 27 Oct 2009 11:11 pm
Operator : M.PEDRO
Sample : CHLORH
Misc : INITIAL CAL
ALS Vial : 27 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 28 08:25:41 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Oct 28 07:56:41 2009
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



00734

Evaluate Continuing Calibration Report

Data Path : J:\ACQUADATA\6890D\DATA\102709\
 Data File : FD085.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 27 Oct 2009 11:47 pm
 Operator : M.PEDRO
 Sample : 8081 ICV
 Misc : INITIAL CAL
 ALS Vial : 28 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 28 12:59:41 2009
 Quant Method : J:\ACQUADATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 08:32:24 2009
 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	36.594	36.040 E6	1.5	94	0.00
4 tcm gamma-BHC (L	32.862	32.985 E6	-0.4	96	0.00
5 tcm Heptachlor	32.708	32.807 E6	-0.3	96	0.00
6 tcm Aldrin	30.474	29.486 E6	3.2	96	0.00
7 tc beta-BHC	13.700	13.230 E6	3.4	99	0.00
8 TC delta-BHC	32.949	32.122 E6	2.5	97	0.00
9 tc Heptachlor E	27.583	26.624 E6	3.5	96	0.00
10 tc alpha-Endosu	24.403	24.963 E6	-2.3	99	0.00
11 tc gamma-Chlord	27.497	26.840 E6	2.4	98	0.00
12 tc alpha-Chlord	25.734	24.889 E6	3.3	97	0.00
13 tc 4,4'-DDE	26.453	25.288 E6	4.4	95	0.00
14 tcm Dieldrin	27.343	26.896 E6	1.6	93	0.00
15 tcm Endrin	24.399	23.594 E6	3.3	92	0.00
17 tc beta-Endosul	23.075	19.174 E6	16.9#	84	0.00
18 tc 4,4'-DDD	21.052	21.262 E6	-1.0	97	0.00
19 tcm 4,4'-DDT	23.386	24.890 E6	-6.4	102	0.00
20 tc Endrin Aldeh	18.237	17.697 E6	3.0	99	0.00
21 tc Endosulfan S	21.234	20.373 E6	4.1	97	0.00
22 tc Methoxychlor	10.883	11.145 E6	-2.4	98	0.00
24 tc Endrin Keton	23.747	23.892 E6	-0.6	100	0.00

MLP 10/28

Signal #2

3 tc alpha-BHC	103.067	102.345 E6	0.7	95	0.00
4 tcm gamma-BHC (L	92.175	93.744 E6	-1.7	98	0.00
5 tcm Heptachlor	87.655	89.654 E6	-2.3	98	0.00
6 tcm Aldrin	81.589	80.849 E6	0.9	98	0.00
7 tc beta-BHC	40.524	38.916 E6	4.0	97	0.00
8 tc delta-BHC	91.392	90.966 E6	0.5	98	0.00
9 tc Heptachlor E	71.270	70.978 E6	0.4	99	0.00

Evaluate Continuing Calibration Report

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD085.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 27 Oct 2009 11:47 pm
 Operator : M.PEDRO
 Sample : 8081 ICV
 Misc : INITIAL CAL
 ALS Vial : 28 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 28 12:59:41 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 08:32:24 2009
 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	59.836	62.321 E6	-4.2	99	0.00
11 tc gamma-Chlord	71.631	71.626 E6	0.0	99	0.00
12 tc alpha-Chlord	68.680	66.512 E6	3.2	97	0.00
13 tc 4,4'-DDE	66.506	65.811 E6	1.0	99	0.00
14 tcm Dieldrin	66.157	67.408 E6	-1.9	97	0.00
15 tcm Endrin	57.090	55.849 E6	2.2	93	0.00
17 tc beta-Endosul	55.752	47.961 E6	14.0	86	0.00
18 tc 4,4'-DDD	51.383	52.868 E6	-2.9	99	0.00
19 tcm 4,4'-DDT	54.662	60.114 E6	-10.0	106	0.00
20 tc Endrin Aldeh	43.581	43.433 E6	0.3	101	0.00
21 tc Endosulfan S	50.218	49.672 E6	1.1	98	0.00
22 tc Methoxychlor	23.273	24.135 E6	-3.7	99	0.00
24 tc Endrin Keton	52.764	53.479 E6	-1.4	102	0.00

Evaluate Continuing Calibration Report - Not Found

1 S SURR1,Tetrac	23.751	0.000 E6	100.0#	0#	-9.18#
2 TC HEXACHLOROBENZENE	31.714	0.000 E6	100.0#	0#	-9.86#
16 tc KEPONE	9.706	0.000 E6	100.0#	0#	-14.09#
23 tc FAMPHUR	16.474	0.000 E6	100.0#	0#	-15.92#
25 S SURR2,Decachlorobiphenyl	20.155	0.000 E6	100.0#	0#	-17.28#
26 L8C Toxaphene	0.996	0.000 E6	100.0#	0#	-14.44#
27 L8C Toxaphene{2}	683.754	0.000 E3	100.0#	0#	-14.52#
28 L8C Toxaphene{3}	573.890	0.000 E3	100.0#	0#	-15.12#
29 L8C Toxaphene{4}	636.952	0.000 E3	100.0#	0#	-15.99#
30 L8C Toxaphene{5}	534.212	0.000 E3	100.0#	0#	-16.19#
31 L9C Chlordane	179.531	0.000 E3	100.0#	0#	-11.31#
32 L9C Chlordane{2}	430.618	0.000 E3	100.0#	0#	-11.43#
33 L9C Chlordane{3}	628.159	0.000 E3	100.0#	0#	-12.10#
34 L9C Chlordane{4}	3.210	0.000 E6	100.0#	0#	-12.96#

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD085.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 27 Oct 2009 11:47 pm
 Operator : M.PEDRO
 Sample : 8081 ICV
 Misc : INITIAL CAL
 ALS Vial : 28 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 28 12:59:41 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 08:32:24 2009
 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						
3) tc alpha-BHC	10.17	10.43	720.8E6	2046.9E6	19.697	19.860
4) tcm gamma-BHC (L	10.69	11.01	659.7E6	1874.9E6	20.075	20.341
5) tcm Heptachlor	11.43	11.67	656.1E6	1793.1E6	20.060	20.456
6) tcm Aldrin	11.88	12.15	589.7E6	1617.0E6	19.352	19.819
7) tc beta-BHC	10.84	11.15	264.6E6	778.3E6	19.315	19.206
8) tc delta-BHC	11.11	11.60	642.4E6	1819.3E6	19.498	19.907
9) tc Heptachlor E	12.78	12.99	532.5E6	1419.6E6	19.304	19.918
10) tc alpha-Endosu	13.35	13.55	499.3E6	1246.4E6	20.458	20.830
11) tc gamma-Chlord	12.96	13.26	536.8E6	1432.5E6	19.522	19.999
12) tc alpha-Chlord	13.15	13.47	497.8E6	1330.2E6	19.343	19.369
13) tc 4,4'-DDE	13.26	13.71	1011.5E6	2632.5E6	38.238	39.582
14) tcm Dieldrin	13.69	13.95	1075.9E6	2696.3E6	39.346	40.756
15) tcm Endrin	14.03	14.39	943.8E6	2234.0E6	38.681	39.131
17) tc beta-Endosul	14.36	14.70	767.0E6	1918.4E6	33.237	34.410
18) tc 4,4'-DDD	14.11	14.54	850.5E6	2114.7E6	40.398	41.155
19) tcm 4,4'-DDT	14.52	15.00	995.6E6	2404.5E6	42.573	43.989
20) tc Endrin Aldeh	14.97	15.20	707.9E6	1737.3E6	38.816	39.865
21) tc Endosulfan S	15.62	15.61	814.9E6	1986.9E6	38.378	39.566
22) tc Methoxychlor	15.21	15.97	2228.9E6	4827.0E6	204.803	207.410
24) tc Endrin Keton	16.02	16.37	955.7E6	2139.2E6	40.244	40.542
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

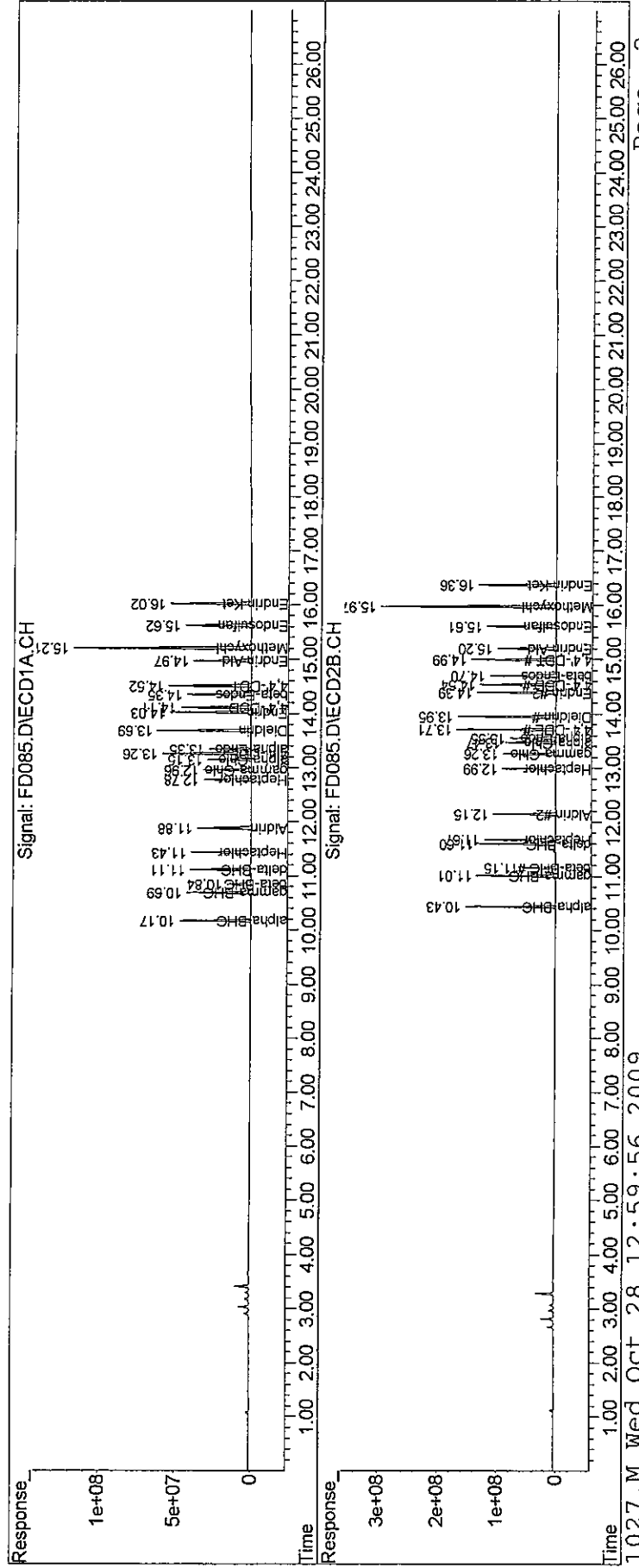
Handwritten: Not 10/28

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQDATA\6890D\DATA\102709\
 Data File : FD085.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 27 Oct 2009 11:47 pm
 Operator : M.PEDRO
 Sample : 8081 ICV
 Misc : INITIAL CAL
 ALS Vial : 28 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 28 12:59:41 2009
 Quant Method : J:\ACQDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 08:32:24 2009
 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



00738

Evaluate Continuing Calibration Report

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD086.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 28 Oct 2009 12:22 am
 Operator : M.PEDRO
 Sample : TOX ICV
 Misc : INITIAL CAL
 ALS Vial : 29 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 28 13:00:31 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 08:32:24 2009
 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	0.996	1.006 E6	-1.0	102	0.00
27 L8C Toxaphene {2}	683.754	689.844 E3	-0.9	102	0.00
28 L8C Toxaphene {3}	573.890	583.388 E3	-1.7	102	0.00
29 L8C Toxaphene {4}	636.952	646.861 E3	-1.6	103	0.00
30 L8C Toxaphene {5}	534.212	526.211 E3	1.5	100	0.00

*not
10/28*

Signal #2

26 L8C Toxaphene	2.737	2.693 E6	1.6	103	0.00
27 L8C Toxaphene {2}	1.413	1.407 E6	0.4	103	0.00
28 L8C Toxaphene {3}	3.161	3.191 E6	-0.9	103	0.00
29 L8C Toxaphene {4}	1.358	1.365 E6	-0.5	103	0.00
30 L8C Toxaphene {5}	1.169	1.202 E6	-2.8	104	0.00

Evaluate Continuing Calibration Report - Not Found

1 S SURR1,Tetrac	23.751	0.000 E6	100.0#	0#	-9.18#
2 TC HEXACHLOROBENZENE	31.714	0.000 E6	100.0#	0#	-9.86#
3 tc alpha-BHC	36.594	0.000 E6	100.0#	0#	-10.17#
4 tcm gamma-BHC (L	32.862	0.000 E6	100.0#	0#	-10.69#
5 tcm Heptachlor	32.708	0.000 E6	100.0#	0#	-11.43#
6 tcm Aldrin	30.474	0.000 E6	100.0#	0#	-11.88#
7 tc beta-BHC	13.700	0.000 E6	100.0#	0#	-10.84#
8 TC delta-BHC	32.949	0.000 E6	100.0#	0#	-11.11#
9 tc Heptachlor E	27.583	0.000 E6	100.0#	0#	-12.78#
10 tc alpha-Endosu	24.403	0.000 E6	100.0#	0#	-13.35#
11 tc gamma-Chlord	27.497	0.000 E6	100.0#	0#	-12.96#
12 tc alpha-Chlord	25.734	0.000 E6	100.0#	0#	-13.15#
13 tc 4,4'-DDE	26.453	0.000 E6	100.0#	0#	-13.27#
14 tcm Dieldrin	27.343	0.000 E6	100.0#	0#	-13.69#

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD086.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 28 Oct 2009 12:22 am
 Operator : M.PEDRO
 Sample : TOX ICV
 Misc : INITIAL CAL
 ALS Vial : 29 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 28 13:00:31 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 08:32:24 2009
 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

26) L8C Toxaphene	14.44	14.82	503.0E6	1346.6E6	504.810	492.061
27) L8C Toxaphene{2}	14.52	14.94	344.9E6	703.5E6	504.453	497.763
28) L8C Toxaphene{3}	15.12	15.21	291.7E6	1595.5E6	508.275	504.791
29) L8C Toxaphene{4}	15.99	15.60	323.4E6	682.5E6	507.779	502.656
30) L8C Toxaphene{5}	16.19	16.73	263.1E6	601.0E6	492.511	513.972
Sum Toxaphene			1726.2E6	4929.1E6	2517.828	2511.243
Average Toxaphene					503.566	502.249
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000

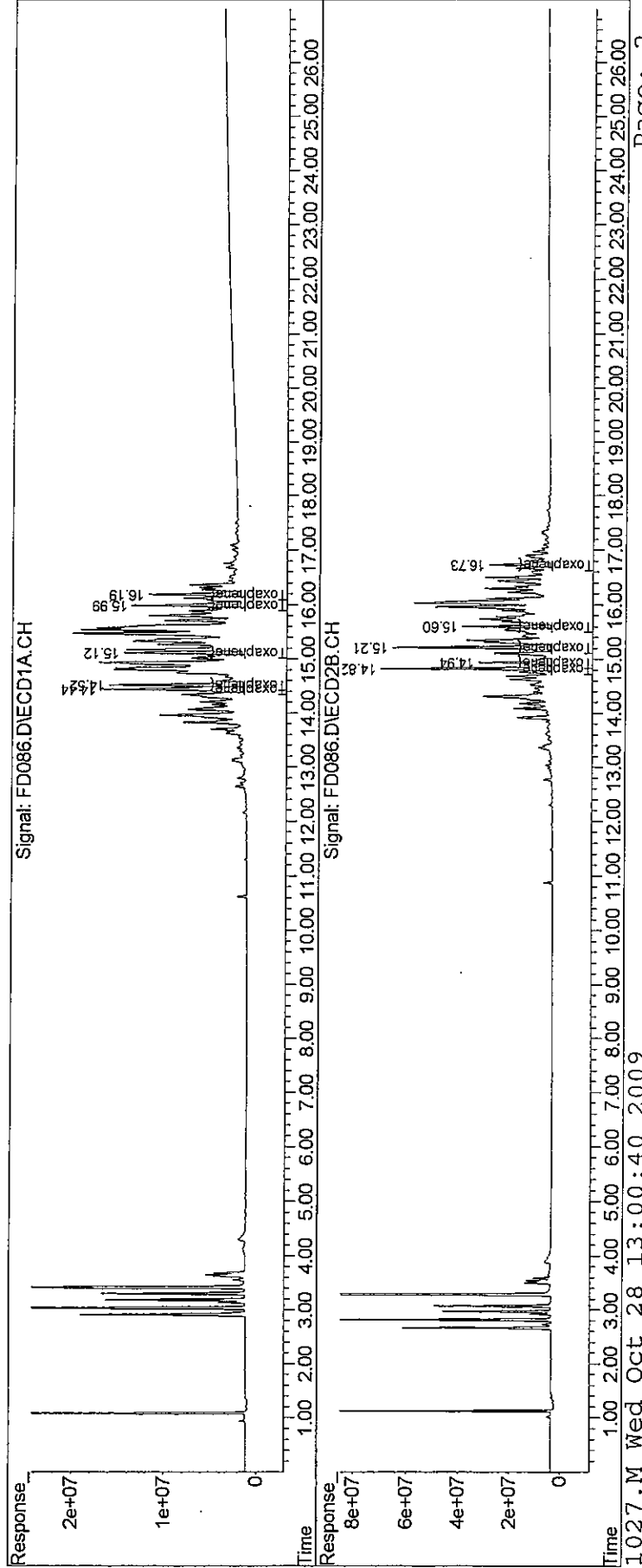
Handwritten: 214
10/28

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\102709\
Data File : FD086.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Oct 2009 12:22 am
Operator : M.PEDRO
Sample : TOX ICV
Misc : INITIAL CAL
ALS Vial : 29 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 28 13:00:31 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Oct 28 08:32:24 2009
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-CLPPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



00741

Evaluate Continuing Calibration Report

Data Path : J:\ACQUADATA\6890D\DATA\102709\
 Data File : FD087.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 28 Oct 2009 12:57 am
 Operator : M.PEDRO
 Sample : CHLOR ICV
 Misc : INITIAL CAL
 ALS Vial : 30 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 28 13:37:03 2009
 Quant Method : J:\ACQUADATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 08:32:24 2009
 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	179.531	193.808 E3	-8.0	109	0.00
32 L9C Chlordane {2}	430.618	451.752 E3	-4.9	108	0.00
33 L9C Chlordane {3}	628.159	662.289 E3	-5.4	108	0.00
34 L9C Chlordane {4}	3.210	3.393 E6	-5.7	109	0.00
35 L9C Chlordane {5}	1.208	1.290 E6	-6.8	109	0.00

Signal #2

31 L9C Chlordane	565.905	595.915 E3	-5.3	106	0.00
32 L9C Chlordane {2}	1.281	1.351 E6	-5.5	107	0.00
33 L9C Chlordane {3}	1.602	1.706 E6	-6.5	108	0.00
34 L9C Chlordane {4}	7.852	8.450 E6	-7.6	109	0.00
35 L9C Chlordane {5}	3.188	3.397 E6	-6.6	109	0.00

Evaluate Continuing Calibration Report - Not Finds

1 S SURR1, Tetrac	23.751	0.000 E6	100.0#	0#	-9.18#
2 TC HEXACHLOROBENZENE	31.714	0.000 E6	100.0#	0#	-9.86#
3 tc alpha-BHC	36.594	0.000 E6	100.0#	0#	-10.17#
4 tcm gamma-BHC (L	32.862	0.000 E6	100.0#	0#	-10.69#
5 tcm Heptachlor	32.708	0.000 E6	100.0#	0#	-11.43#
6 tcm Aldrin	30.474	0.000 E6	100.0#	0#	-11.88#
7 tc beta-BHC	13.700	0.000 E6	100.0#	0#	-10.84#
8 TC delta-BHC	32.949	0.000 E6	100.0#	0#	-11.11#
9 tc Heptachlor E	27.583	0.000 E6	100.0#	0#	-12.78#
10 tc alpha-Endosu	24.403	0.000 E6	100.0#	0#	-13.35#
11 tc gamma-Chlord	27.497	0.000 E6	100.0#	0#	-12.96#
12 tc alpha-Chlord	25.734	0.000 E6	100.0#	0#	-13.15#
13 tc 4,4'-DDE	26.453	0.000 E6	100.0#	0#	-13.27#
14 tcm Dieldrin	27.343	0.000 E6	100.0#	0#	-13.69#

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD087.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 28 Oct 2009 12:57 am
 Operator : M.PEDRO
 Sample : CHLOR ICV
 Misc : INITIAL CAL
 ALS Vial : 30 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 28 13:37:03 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 08:32:24 2009
 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						
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000
31) L9C Chlordane	11.31	11.45	19380807	59591534	107.952	105.303
32) L9C Chlordane {2}	11.43	11.67	45175172	135.1E6	104.908	105.455
33) L9C Chlordane {3}	12.10	12.38	66228890	170.6E6	105.433	106.443
34) L9C Chlordane {4}	12.96	13.26	339.3E6	845.0E6	105.706	107.623
35) L9C Chlordane {5}	14.25	14.77	129.0E6	339.7E6	106.789	106.550
Sum Chlordane			599.1E6	1550.0E6	530.788	531.374
Average Chlordane					106.158	106.275

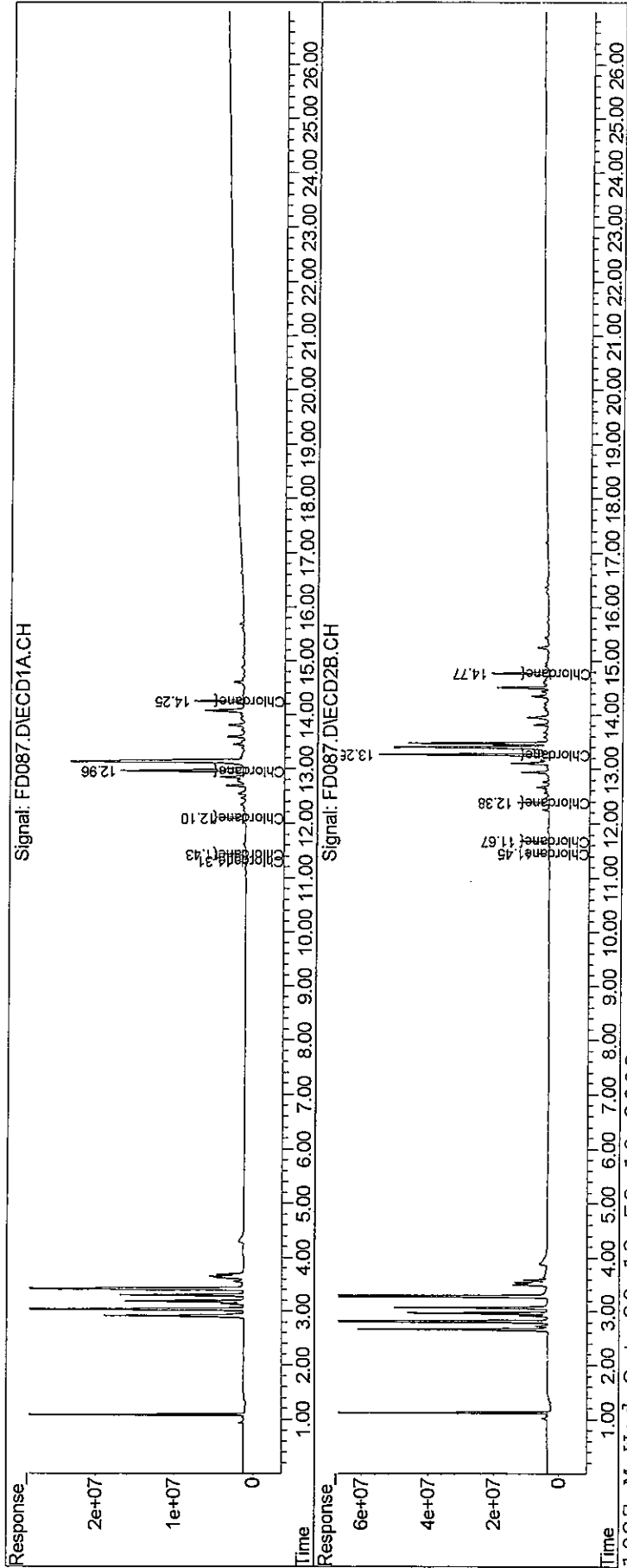
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\ACQUDATA\6890D\DATA\102709\
Data File : FD087.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Oct 2009 12:57 am
Operator : M.PEDRO
Sample : CHLOR ICV
Misc : INITIAL CAL
ALS Vial : 30 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 28 13:37:03 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Oct 28 08:32:24 2009
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-CLP
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



00744

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):	09/15/2009
EPA Sample No. (PEM):	PEM		Date Analyzed:	10/8/2009
LAB Sample ID. (PEM):	PEM		Time Analyzed:	2:59
4,4'-DDT % Breakdown (1):	1.0%		Endrin % Breakdown (1):	3.7%
Combined % Breakdown (1):	4.7%			

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

00745

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):	09/15/2009
EPA Sample No. (PEM):	PEM		Date Analyzed:	10/8/2009
LAB Sample ID. (PEM):	PEM		Time Analyzed:	2:59
4,4'-DDT % Breakdown (1):	2.0%		Endrin % Breakdown (1):	5.3%
Combined % Breakdown (1):	7.3%			

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

00746

Data Path : J:\ACQUDATA\6890D\DATA\100709\
 Data File : FC745.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 08 Oct 2009 2:59 am
 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: Oct 08 08:50:39 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Thu Oct 08 07:13:02 2009
 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	9.21	9.15	455.6E6	1718.4E6	19.893	20.907 ^{WMD}
Spiked Amount	100.000	Range 30 - 150	Recovery =		19.89%#	20.91%# ^{10/8}
25) S SURR2,Decachloro	17.31	17.61	346.7E6	921.7E6	18.482	18.818
Spiked Amount	100.000	Range 30 - 150	Recovery =		18.48%#	18.82%#
Target Compounds						
3) tc alpha-BHC	10.19	10.20	329.5E6	1205.4E6	9.163	10.049
4) tcm gamma-BHC (L	10.71	10.77	299.5E6	1082.4E6	9.494	10.386
7) tc beta-BHC	10.88	10.93	136.3E6	481.0E6	10.334	10.721
13) tc 4,4'-DDE	13.30	13.46	6096051	49171588	0.257	0.689 #
15) tcm Endrin	14.06	14.10	1120.0E6	3219.7E6	49.832	50.523
18) tc 4,4'-DDD	14.16	14.27	15773582	72543683	0.832	1.323 #
19) tcm 4,4'-DDT	14.55	14.71	2098.1E6	5873.9E6	96.751	96.535
20) tc Endrin Aldeh	15.01	14.89	16649446	93336223	1.015	2.024 #
22) tc Methoxychlor	15.25	15.69	2387.0E6	6241.4E6	244.875	236.264
24) tc Endrin Keton	16.05	16.06	26049012	85159751	1.208	1.454
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

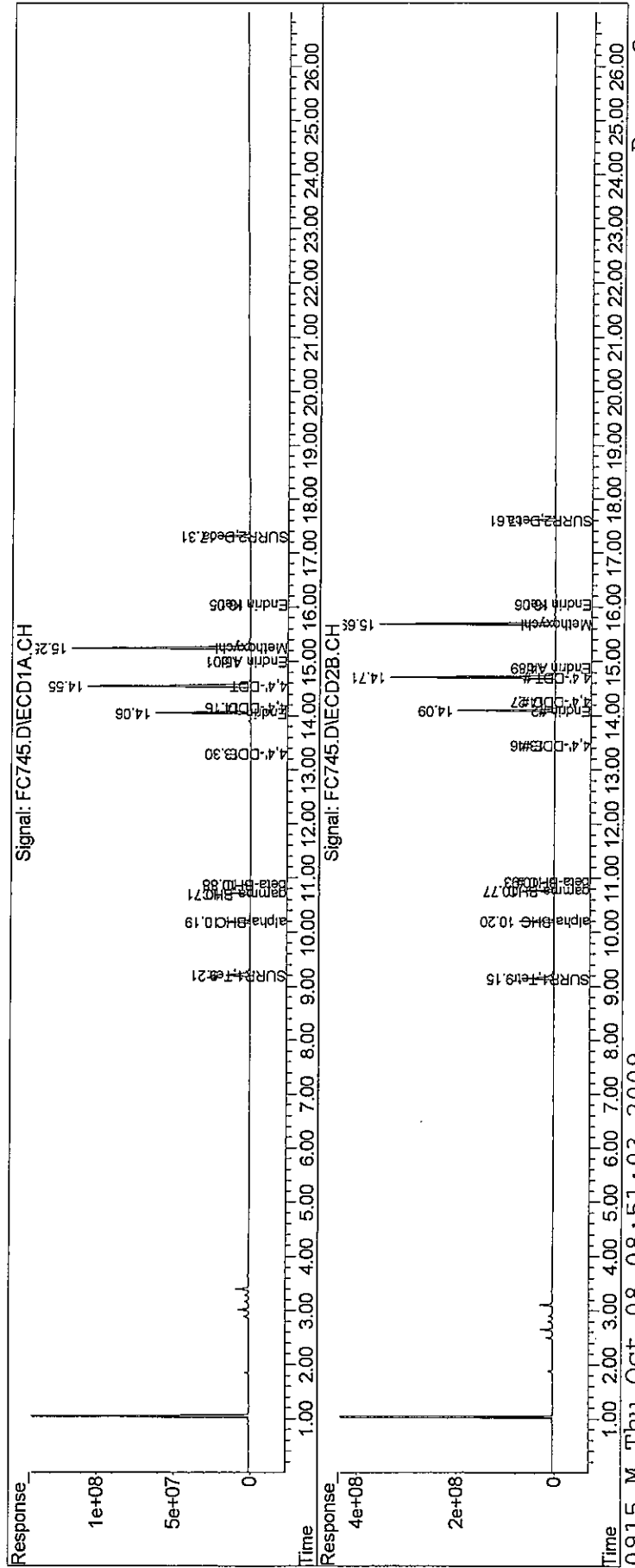
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\ACQUDATA\6890D\DATA\100709\
 Data File : FC745.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 08 Oct 2009 2:59 am
 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: Oct 08 08:50:39 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Thu Oct 08 07:13:02 2009
 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



00748

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):	10/27/2009
EPA Sample No. (PEM):	PEM		Date Analyzed:	10/28/2009
LAB Sample ID. (PEM):	PEM		Time Analyzed:	1:33
4,4'-DDT % Breakdown (1):	0.6%		Endrin % Breakdown (1):	3.6%
Combined % Breakdown (1):	4.2%			

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

00749

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):	10/12/2009
EPA Sample No. (PEM):	PEM		Date Analyzed:	10/28/2009
LAB Sample ID. (PEM):	PEM		Time Analyzed:	1:33
4,4'-DDT % Breakdown (1):	0.5%		Endrin % Breakdown (1):	4.1%
Combined % Breakdown (1):	4.6%			

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

00750

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD088.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 28 Oct 2009 1:33 am
 Operator : M.PEDRO
 Sample : PEM
 Misc : PEST PERFORM CHECK
 ALS Vial : 31 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 28 14:04:29 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 08:32:24 2009
 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	9.18	9.36	457.0E6	1384.4E6	19.241	19.829
Spiked Amount	100.000	Range 30 - 150	Recovery =		19.24%#	19.83%#
25) S SURR2,Decachloro	17.28	17.91	393.2E6	852.8E6	19.509m	19.741m
Spiked Amount	100.000	Range 30 - 150	Recovery =		19.51%#	19.74%#
Target Compounds						
3) tc alpha-BHC	10.17	10.43	338.9E6	1008.0E6	9.260	9.780
4) tcm gamma-BHC (L	10.69	11.01	305.6E6	919.0E6	9.301	9.970
7) tc beta-BHC	10.84	11.15	126.9E6	395.9E6	9.266	9.770
13) tc 4,4'-DDE	13.26	13.71	3152262	26141519	0.119	0.393 #
15) tcm Endrin	14.03	14.39	1195.2E6	2897.2E6	48.984	50.747
18) tc 4,4'-DDD	14.10	0.00	10410875	0	0.495	N.D. #
19) tcm 4,4'-DDT	14.52	15.00	2372.5E6	5485.7E6	101.451	100.356
20) tc Endrin Aldehy	14.98	15.20	16891960	51418052	0.926	1.180m#
22) tc Methoxychlor	15.21	15.97	2699.8E6	5892.7E6	248.072	253.203
24) tc Endrin Keton	16.02	16.37	28055165	73958736	1.181	1.402
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

MP
10/29

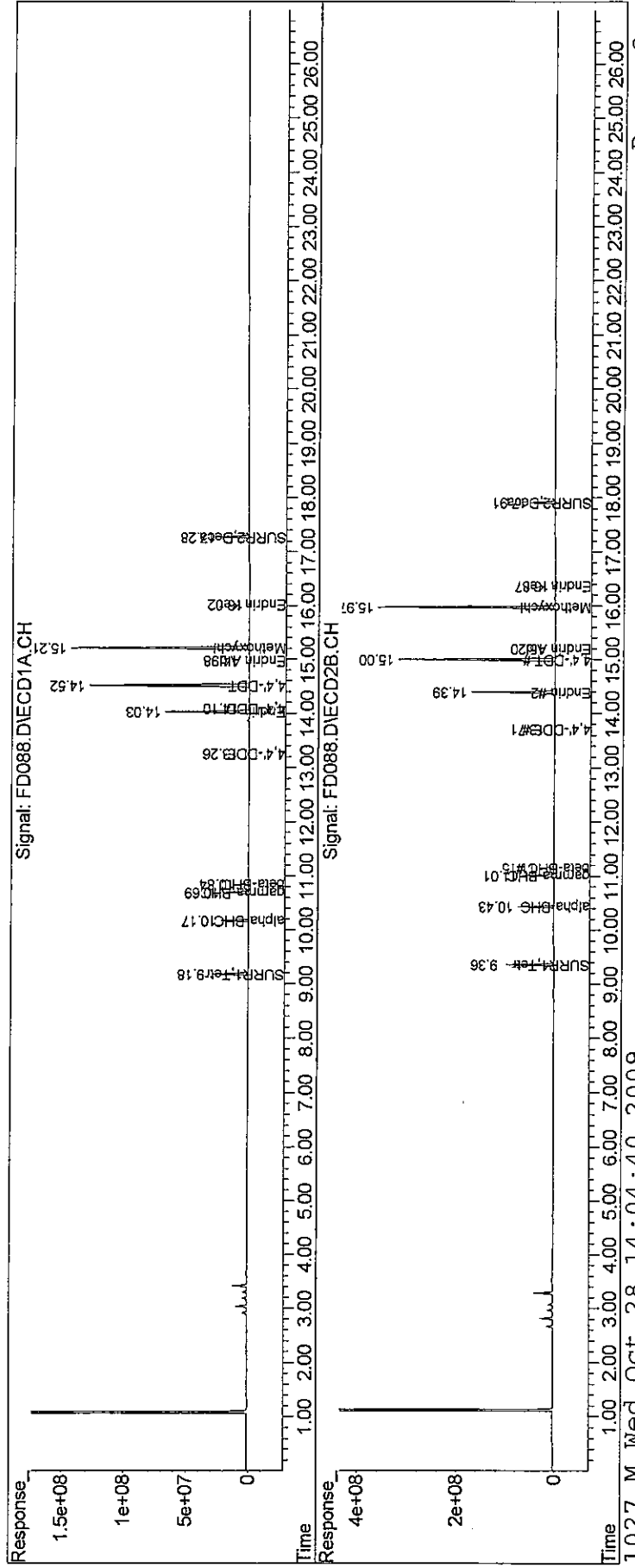
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\ACQUDATA\6890D\DATA\102709\
Data File : FD088.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Oct 2009 1:33 am
Operator : M.PEDRO
Sample : PEM
Misc : PEST PERFORM CHECK
ALS Vial : 31 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 28 14:04:29 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Oct 28 08:32:24 2009
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



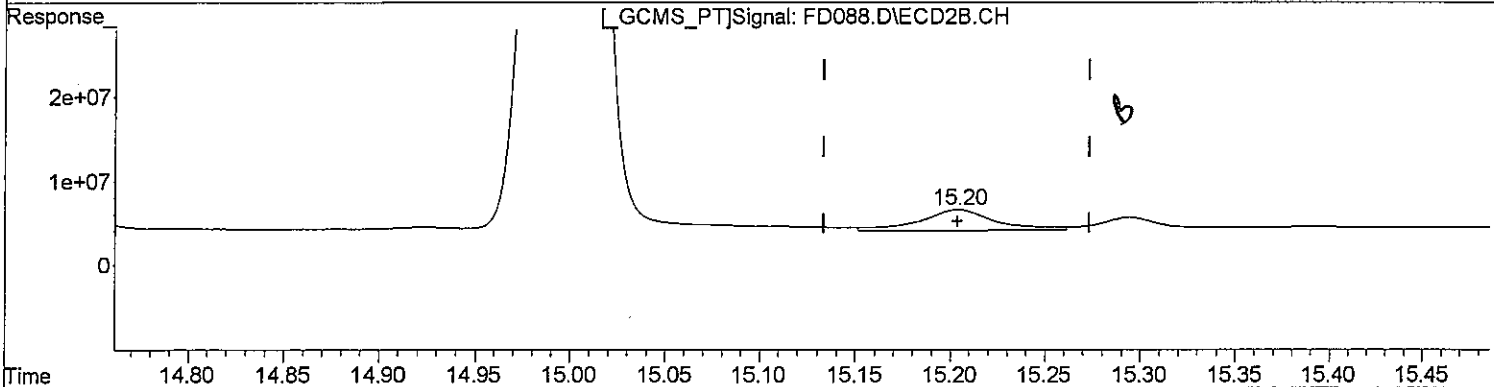
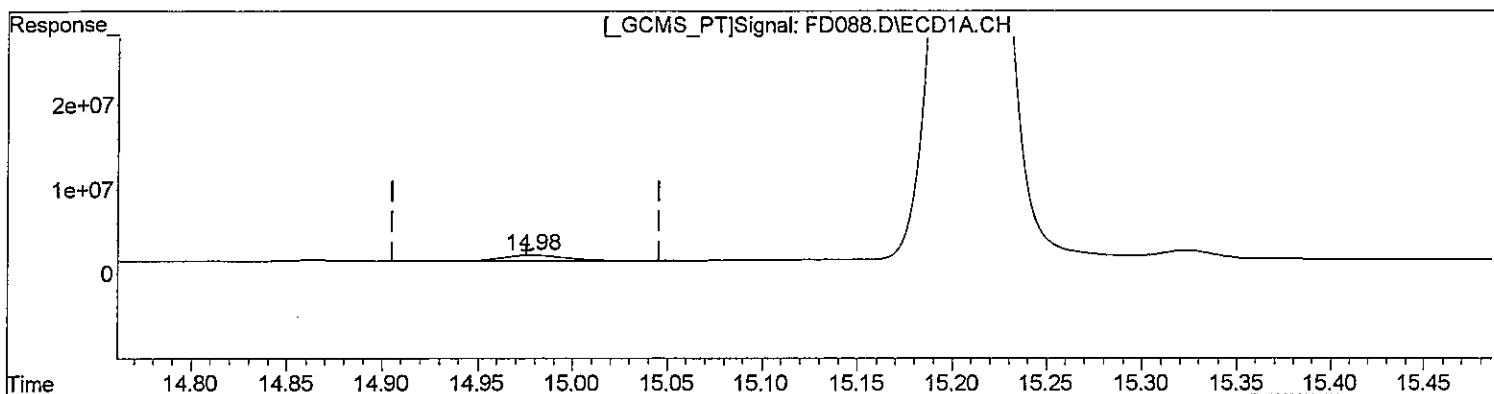
00752

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\102709\
Data File : FD088.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Oct 2009 1:33 am
Operator : M.PEDRO
Sample : PEM
Misc : PEST PERFORM CHECK
ALS Vial : 31 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 28 10:55:05 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Oct 28 08:32:24 2009
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

(20) Endrin Aldeh (tc)
14.98min 0.926ug/l
response 16891960

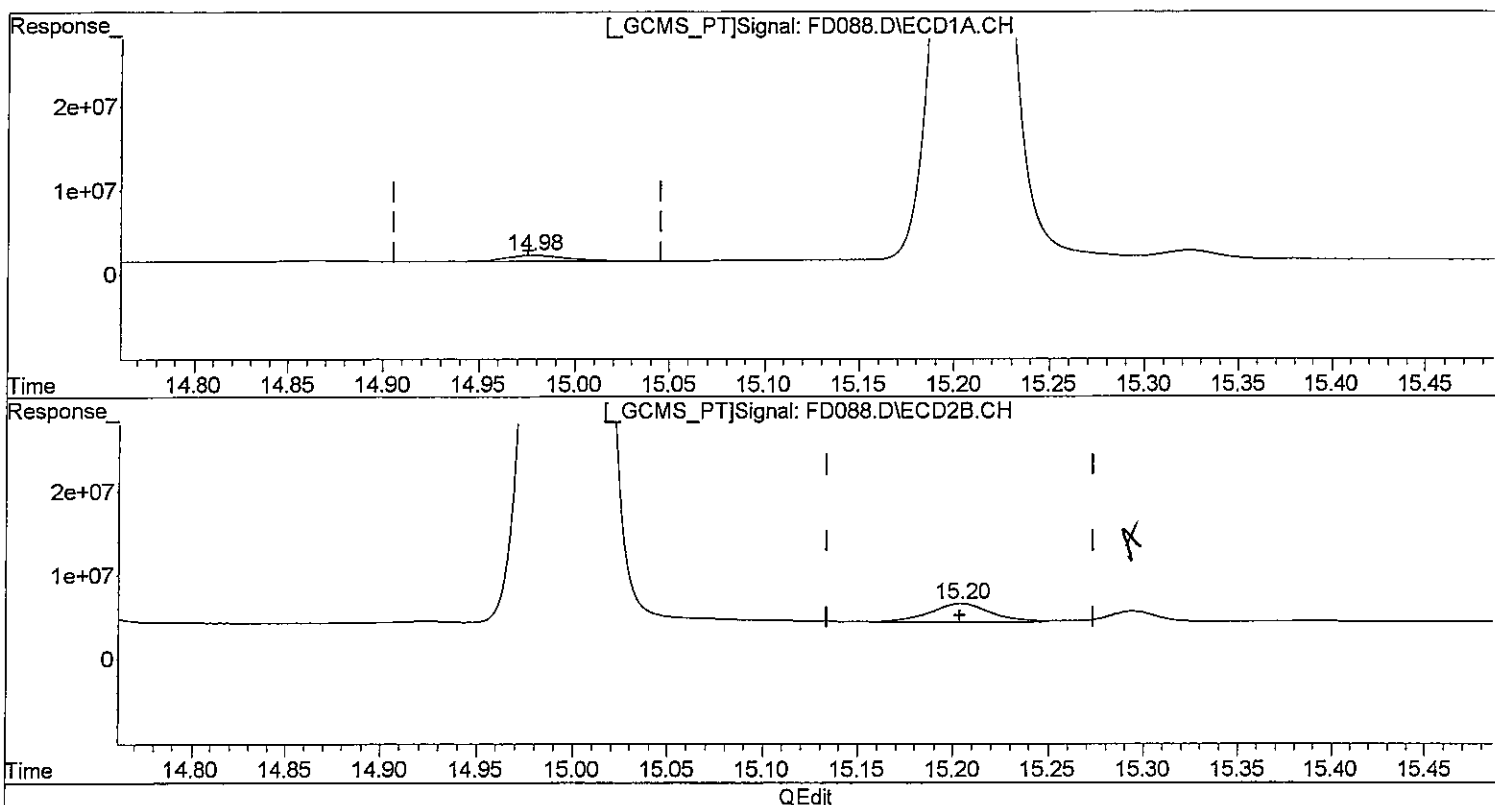
(20) Endrin Aldeh #2 (tc)
15.20min 1.575ug/l
response 68646870

Ball

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD088.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 28 Oct 2009 1:33 am
 Operator : M.PEDRO
 Sample : PEM
 Misc : PEST PERFORM CHECK
 ALS Vial : 31 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 28 10:55:05 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 08:32:24 2009
 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)
 14.98min 0.926ug/l
 response 16891960

(20) Endrin Aldeh #2 (tc)
 15.20min 1.180ug/l m
 response 51418052

Handwritten: MW 10/28

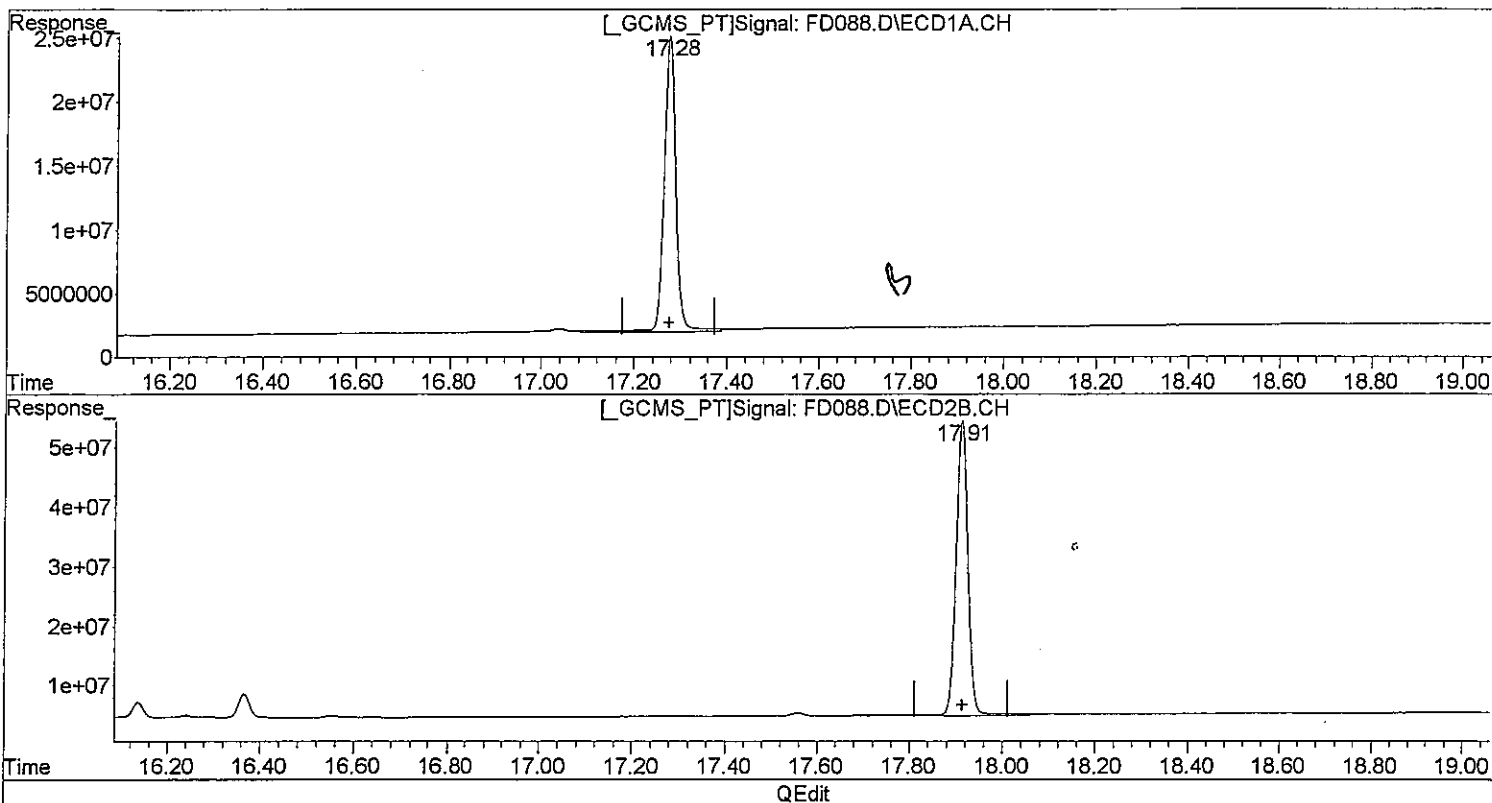
Handwritten: MW 10/28

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\102709\
Data File : FD088.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Oct 2009 1:33 am
Operator : M.PEDRO
Sample : PEM
Misc : PEST PERFORM CHECK
ALS Vial : 31 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 28 10:55:05 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Oct 28 08:32:24 2009
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)
17.28min 20.739ug/l
response 417987853

(25) SURRE2,Decachlorobiphenyl #2 (S)
17.91min 20.455ug/l
response 883680848

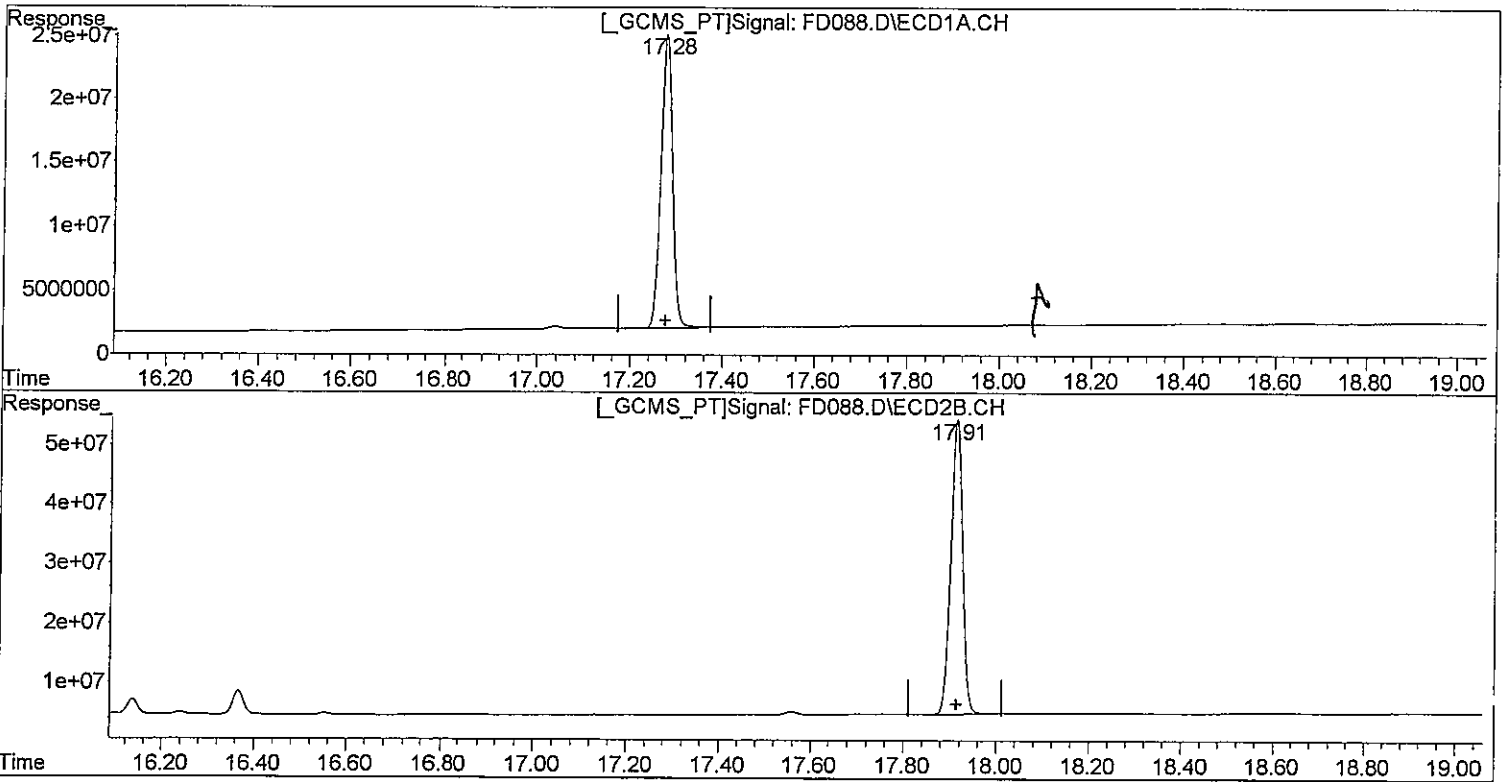
Bauer

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\102709\
Data File : FD088.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Oct 2009 1:33 am
Operator : M.PEDRO
Sample : PEM
Misc : PEST PERFORM CHECK
ALS Vial : 31 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 28 10:55:05 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Oct 28 08:32:24 2009
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)
17.28min 19.509ug/l m
response 393190899

mm
11/15

(25) SURR2,Decachlorobiphenyl #2 (S)
17.91min 19.741ug/l m
response 852831832

MP
10/29

(+) = Expected Retention Time

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):	10/27/2009
EPA Sample No. (PEM):	PEM		Date Analyzed:	10/29/2009
LAB Sample ID. (PEM):	PEM		Time Analyzed:	8:18
4,4'-DDT % Breakdown (1):	0.6%		Endrin % Breakdown (1):	7.2%
Combined % Breakdown (1):	7.8%			

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

00757

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):	10/27/2009
EPA Sample No. (PEM):	PEM		Date Analyzed:	10/29/2009
LAB Sample ID. (PEM):	PEM		Time Analyzed:	8:18
4,4'-DDT % Breakdown (1):	1.1%		Endrin % Breakdown (1):	8.3%
Combined % Breakdown (1):	9.5%			

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

00758

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD140.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 29 Oct 2009 8:18 am
 Operator : M.PEDRO
 Sample : pem
 Misc : pest perform ckeck
 ALS Vial : 83 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 30 09:53:43 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 08:32:24 2009
 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	9.18	9.36	442.2E6	1328.3E6	18.616	19.025
Spiked Amount	100.000	Range 30 - 150	Recovery =		18.62%#	19.02%#
25) S SURR2,Decachloro	17.27	17.91	370.2E6	816.1E6	18.368m	18.892m
Spiked Amount	100.000	Range 30 - 150	Recovery =		18.37%#	18.89%#

Target Compounds

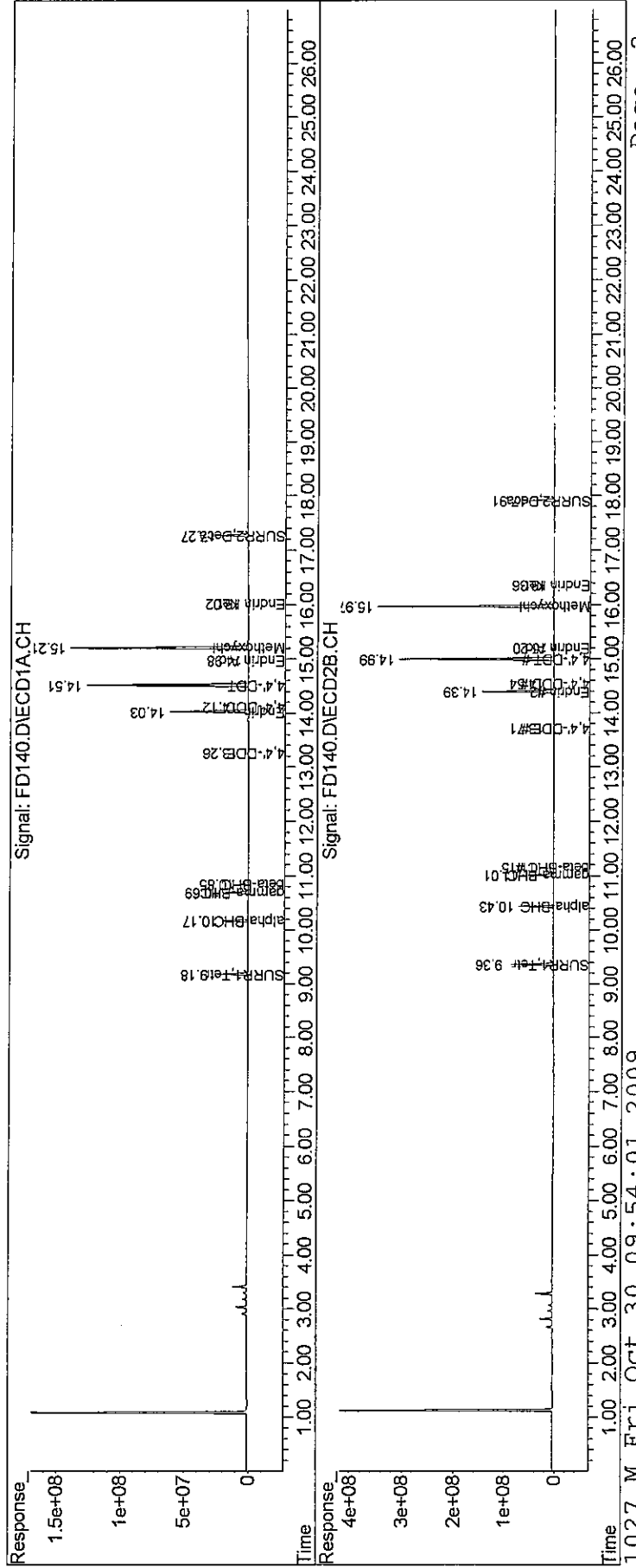
3) tc alpha-BHC	10.17	10.43	327.7E6	959.1E6	8.956	9.306
4) tcm gamma-BHC (L	10.69	11.01	296.2E6	874.2E6	9.014	9.484
7) tc beta-BHC	10.85	11.15	125.2E6	379.1E6	9.140	9.355
13) tc 4,4'-DDE	13.27	13.71	6324823	17901462	0.239	0.269
15) tcm Endrin	14.03	14.39	1094.7E6	2372.7E6	44.869	41.561
18) tc 4,4'-DDD	14.12	14.54	7660126	39295200	0.364	0.765 #
19) tcm 4,4'-DDT	14.52	14.99	2288.6E6	5098.2E6	97.861	93.267
20) tc Endrin Aldeh	14.98	15.20	37392650	102.6E6	2.050	2.353
22) tc Methoxychlor	15.21	15.97	2630.7E6	5543.8E6	241.722	238.208
24) tc Endrin Keton	16.02	16.36	47541238	113.6E6	2.002	2.153
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\102709\
 Data File : FD140.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 29 Oct 2009 8:18 am
 Operator : M.PEDRO
 Sample : pem
 Misc : pest perform ckeck
 ALS Vial : 83 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 30 09:53:43 2009
 Quant Method : J:\ACQDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 08:32:24 2009
 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



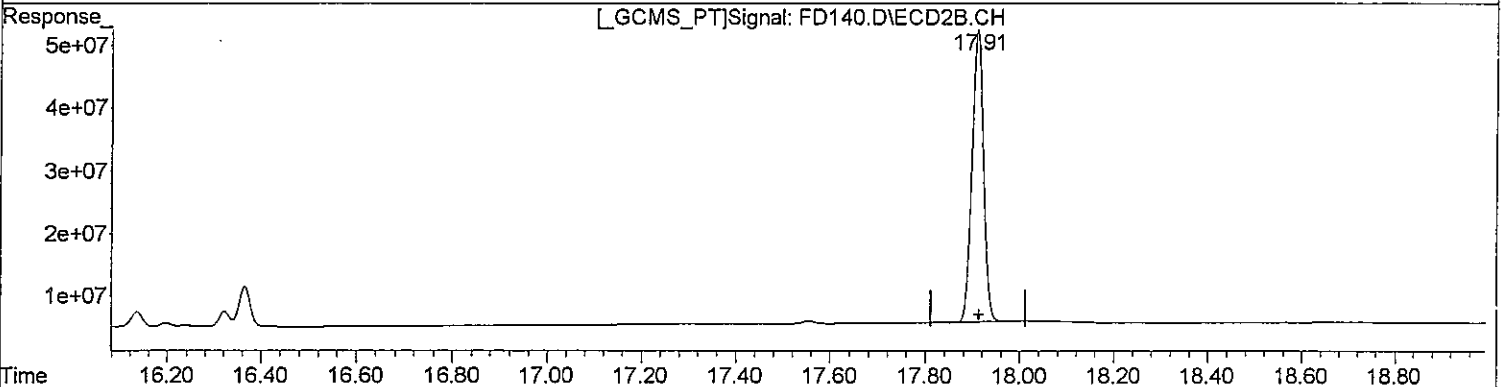
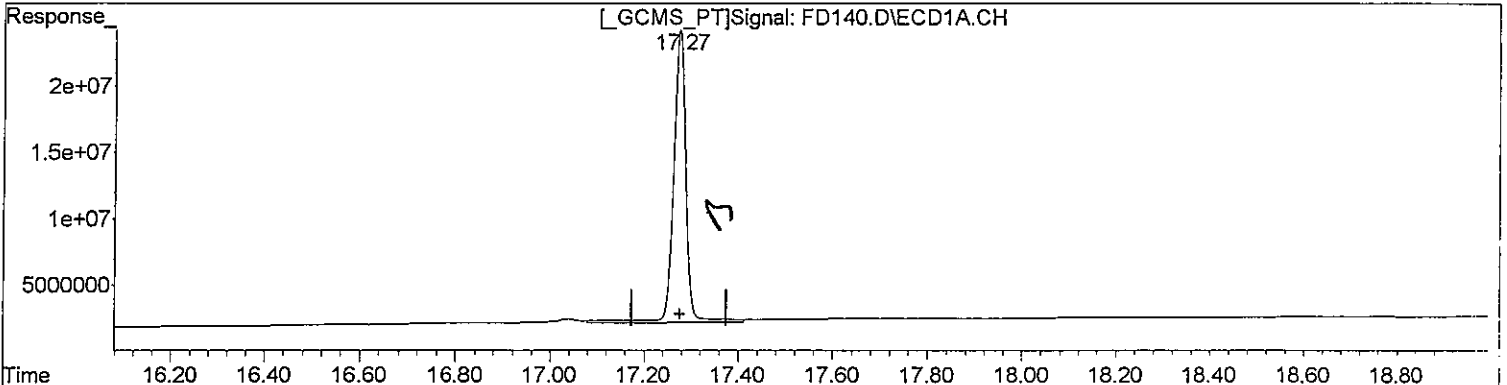
00760

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\102709\
Data File : FD140.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 29 Oct 2009 8:18 am
Operator : M.PEDRO
Sample : pem
Misc : pest perform ckeck
ALS Vial : 83 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 30 06:34:07 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Oct 28 08:32:24 2009
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)
17.27min 20.279ug/l
response 408708388

Base

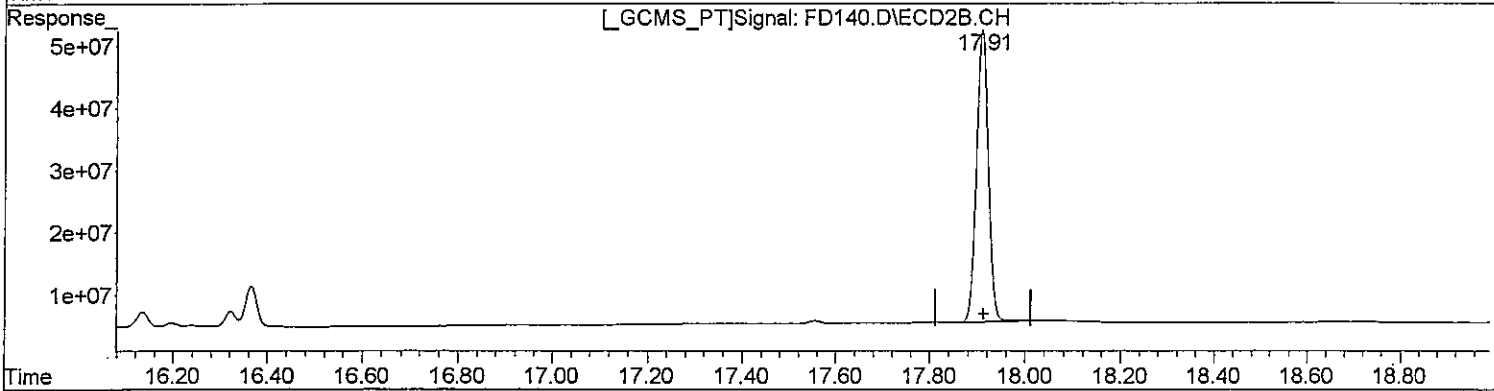
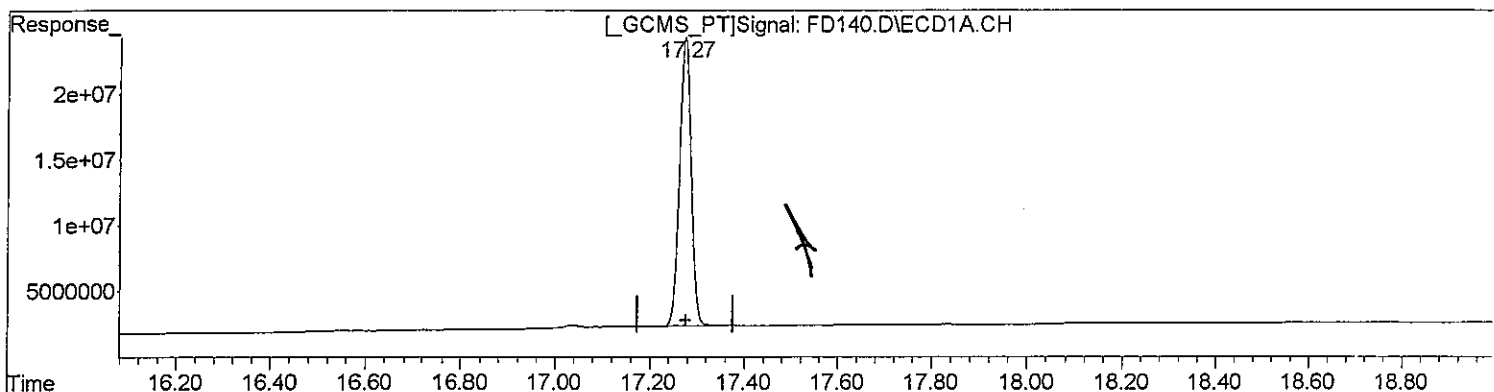
(25) SURR2,Decachlorobiphenyl #2 (S)
17.91min 18.530ug/l
response 800533732

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\102709\
Data File : FD140.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 29 Oct 2009 8:18 am
Operator : M.PEDRO
Sample : pem
Misc : pest perform ckeck
ALS Vial : 83 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 30 06:34:07 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Oct 28 08:32:24 2009
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

(25) SURR2,Decachlorobiphenyl (S)
17.27min 18.368ug/l m
response 370192798

(25) SURR2,Decachlorobiphenyl #2 (S)
17.91min 18.892ug/l m
response 816139303

MW 1070
MW 116

(+) = Expected Retention Time

8D
Pesticide Analytical Sequence

Lab Name: Columbia Analytical Client: NORTHGATE
 Lab Code: 10145 Case.No.: R0905636 SAS No.: _____ SDG PB100209-A2
 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 9.22 DCB 17.35

EPA Sample No.	Lab Sample ID	Date Analyzed	Time Analyzed	TCX rt_time	DCB rt_time
INDAL	INDAL	9/15/2009	14:20	9.23	17.35
INDAML	INDAML	9/15/2009	14:56	9.23	17.35
INDAM	INDAM	9/15/2009	15:32	9.22	17.34
INDAMH	INDAMH	9/15/2009	16:08	9.22	17.35
INDAH	INDAH	9/15/2009	16:44	9.22	17.34
INDB L	INDB L	9/15/2009	17:20	9.23	17.35
INDBML	INDBML	9/15/2009	17:56	9.23	17.35
INDBM	INDBM	9/15/2009	18:32	9.23	17.34
INDBMH	INDBMH	9/15/2009	19:08	9.22	17.35
INDBH	INDBH	9/15/2009	19:44	9.22	17.34
TOX L	TOX L	9/15/2009	20:20	9.23	17.34
TOX ML	TOX ML	9/15/2009	20:56	9.23	17.34
TOX M	TOX M	9/15/2009	21:32	9.22	17.34
TOX MH	TOX MH	9/15/2009	22:08	9.22	17.34
TOX H	TOX H	9/15/2009	22:44	9.22	17.34
CHLOR L	CHLOR L	9/15/2009	23:20	9.23	17.34
CHLOR ML	CHLOR ML	9/15/2009	23:56	9.23	17.34
CHLOR M	CHLOR M	9/16/2009	0:32	9.23	17.34
CHLOR MH	CHLOR MH	9/16/2009	1:08	9.22	17.34
CHLOR H	CHLOR H	9/16/2009	1:44	9.22	17.34
PEST ICV	PEST ICV	9/16/2009	2:19	0.00	0.00

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: NORTHGATE
 Lab Code: 10145 Case.No.: R0905636 SAS No.: _____ SDG PB100209-A2
 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

EPA Sample No.	Lab Sample ID	Date Analyzed	Time Analyzed	TCX rt_time	DCB rt_time
TOX ICV	TOX ICV	9/16/2009	9:30	0.00	0.00
CHLOR ICV	CHLOR ICV	9/16/2009	10:06	0.00	0.00
PEM	PEM	10/8/2009	2:59	9.21	17.31
CCV40A	CCV40A	10/8/2009	5:23	9.21	17.31
CCV40B	CCV40B	10/8/2009	5:59	9.22	17.31
ZZZZZ	ZZZZZ	10/8/2009	6:35	9.20	17.31
ZZZZZ	ZZZZZ	10/8/2009	8:15	0.00	0.00
PBLK1	RQ0909548-01 1.0	10/8/2009	9:07	9.20	17.32
PBLK1MS	RQ0909548-02 1.0	10/8/2009	9:43	9.20	17.32
PBLK1MSD	RQ0909548-03 1.0	10/8/2009	10:19	9.20	17.31
ZZZZZ	ZZZZZ	10/8/2009	10:55	9.19	17.31
ZZZZZ	ZZZZZ	10/8/2009	11:31	9.19	17.31
ZZZZZ	ZZZZZ	10/8/2009	12:07	9.19	17.31
ZZZZZ	ZZZZZ	10/8/2009	12:43	9.20	17.31
PB100209-A2	R0905636-001 1.0	10/8/2009	13:19	9.20	17.31
M-76B	R0905636-002 1.0	10/8/2009	13:54	9.20	17.31
M-76009B	R0905636-003 1.0	10/8/2009	14:30	9.21	17.31
CCV41A	CCV41A	10/8/2009	15:06	9.22	17.31
CCV41B	CCV41B	10/8/2009	15:42	9.23	17.31

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 Services Client: NORTHGATE
 Lab Code: 10145 Case.No.: R0905636 SAS No.: _____ SDG No.: PB100209-A2

GC Column(I) STx-CLP (ID): 0.32mm 30

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
INDAL	INDAL	10/27/2009	8:58	9.18	17.28
INDAML	INDAML	10/27/2009	9:33	9.18	17.28
INDAM	INDAM	10/27/2009	10:09	9.18	17.28
INDAMH	INDAMH	10/27/2009	10:44	9.18	17.27
INDAH	INDAH	10/27/2009	11:20	9.18	17.28
INDBL	INDBL	10/27/2009	11:55	9.18	17.27
INDBML	INDBML	10/27/2009	12:31	9.18	17.27
INDBM	INDBM	10/27/2009	13:06	9.18	17.27
INDBMH	INDBMH	10/27/2009	13:42	9.18	17.27
INDBH	INDBH	10/27/2009	14:18	9.18	17.28
K/FL	K/FL	10/27/2009	14:53	0.00	0.00
K/FML	K/FML	10/27/2009	15:29	0.00	0.00
K/FM	K/FM	10/27/2009	16:05	0.00	0.00
K/FMH	K/FMH	10/27/2009	16:40	0.00	0.00
K/FH	K/FH	10/27/2009	17:16	0.00	0.00
TOXL	TOXL	10/27/2009	17:51	9.18	17.28
TOXML	TOXML	10/27/2009	18:27	9.18	17.27
TOXM	TOXM	10/27/2009	19:03	9.18	17.28
TOXMH	TOXMH	10/27/2009	19:38	9.18	17.28
TOXH	TOXH	10/27/2009	20:14	9.18	17.28
CHLORL	CHLORL	10/27/2009	20:49	9.18	17.27

QC Limit

TCX = Tetrachloro-m-xylene (+/- 0.05 Minutes)

DCB = Decachlorobiphenyl (+/- 0.10 Minutes)

Column used to flag retention time values with an asterisk

* Values outside of QC limits

Pesticide Analytical Sequence

Lab Name: Columbia Analytical Services Client: NORTHGATE
 Lab Code: 10145 Case.No.: R0905636 SAS No.: _____ SDG No.: PB100209-A2
 GC Column(I) STx-CLP (ID): 0.32mm 30
 Instrument ID: 6890D

The analytical sequence of Performance Evaluation Mixtures, Blanks, Samples, and Standards is given below:

Mean Surrogate RT from Initial Calibration

TCX 9.18 DCB 17.28

TCX DCB

EPA Sample No.	Lab Sample ID	Date Analyzed	Time Analyzed	rt_time	rt_time
CHLORML	CHLORML	10/27/2009	21:25	9.18	17.28
CHLORM	CHLORM	10/27/2009	22:00	9.18	17.28
CHLORMH	CHLORMH	10/27/2009	22:36	9.18	17.28
CHLORH	CHLORH	10/27/2009	23:11	9.18	17.28
pest ICV	pest ICV	10/27/2009	23:47	0.00	0.00
TOX ICV	TOX ICV	10/28/2009	0:22	0.00	0.00
CHLOR ICV	CHLOR ICV	10/28/2009	0:57	0.00	0.00
PEM	PEM	10/28/2009	1:33	9.18	17.28
CCV1A	CCV1A	10/28/2009	2:08	9.18	17.28
CCV1B	CCV1B	10/28/2009	2:44	9.18	17.28
ZZZZZ	ZZZZZ	10/28/2009	3:19	9.18	17.28
ZZZZZ	ZZZZZ	10/28/2009	3:55	9.18	17.28
ZZZZZ	ZZZZZ	10/28/2009	4:30	9.18	17.28
PB100209-A2 R _E	R0905636-001 1.0	10/28/2009	5:06	9.18	17.28
ZZZZZ	ZZZZZ	10/28/2009	5:41	9.18	17.28
ZZZZZ	ZZZZZ	10/28/2009	6:16	9.18	17.28
ZZZZZ	ZZZZZ	10/28/2009	6:52	9.18	17.28
ZZZZZ	ZZZZZ	10/28/2009	7:27	9.18	17.27
ZZZZZ	ZZZZZ	10/28/2009	8:03	9.18	17.28
ZZZZZ	ZZZZZ	10/28/2009	8:38	9.18	17.28
CCV2A	CCV2A	10/28/2009	9:14	9.18	17.28

QC Limit

TCX = Tetrachloro-m-xylene (+/- 0.05 Minutes)

DCB = Decachlorobiphenyl (+/- 0.10 Minutes)

Column used to flag retention time values with an asterisk

* Values outside of QC limits

Pesticide Analytical Sequence

Lab Name: Columbia Analytical Services Client: NORTHGATE
 Lab Code: 10145 Case.No.: R0905636 SAS No.: _____ SDG No.: PB100209-A2

GC Column(1) STx-CLP (ID): 0.32mm 30

Instrument ID: 6890D

The analytical sequence of Performance Evaluation Mixtures, Blanks, Samples, and Standards is given below:

Mean Surrogate RT from Initial Calibration

TCX 9.18 DCB 17.28

TCX DCB

EPA Sample No.	Lab Sample ID	Date Analyzed	Time Analyzed	rt_time	rt_time
CCV2B	CCV2B	10/28/2009	9:49	9.18	17.27
pem	pem	10/29/2009	8:18	9.18	17.27
CCV5a	CCV5a	10/29/2009	8:53	9.18	17.27
ccv5b	ccv5b	10/29/2009	9:29	9.18	17.27
ZZZZZ	ZZZZZ	10/29/2009	10:04	9.18	17.27
ZZZZZ	ZZZZZ	10/29/2009	10:40	9.18	17.27
ZZZZZ	ZZZZZ	10/29/2009	11:15	9.18	17.27
ZZZZZ	ZZZZZ	10/29/2009	11:51	9.18	17.27
PBLK2	RQ0909854-01 1.0	10/29/2009	12:26	9.18	17.27
PBLK2MS	RQ0909854-02 1.0	10/29/2009	13:02	9.18	17.27
PBLK2MSD	RQ0909854-03 1.0	10/29/2009	13:37	9.18	17.27
ZZZZZ	ZZZZZ	10/29/2009	14:13	9.18	17.27
ZZZZZ	ZZZZZ	10/29/2009	14:48	9.18	17.27
MC-94B	R0905636-006 2.0	10/29/2009	15:24	9.18	17.27
CCV6A	CCV6A	10/29/2009	16:00	9.18	17.27
CCV6B	CCV6B	10/29/2009	16:35	9.18	17.27

QC Limit

TCX = Tetrachloro-m-xylene (+/- 0.05 Minutes)

DCB = Decachlorobiphenyl (+/- 0.10 Minutes)

Column used to flag retention time values with an asterisk

* Values outside of QC limits

8D
Pesticide Analytical Sequence

Lab Name: Columbia Analytical Contract: NORTHGATE
 Lab Code: 10145 Case.No.: R0905636 SAS No.: _____ SDG PE100209-A2
 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 9.18 DCB 17.67

EPA Sample No.	Lab Sample ID	Date Analyzed	Time Analyzed	TCX rt_time	DCB rt_time
INDAL	INDAL	9/15/2009	14:20	9.19	17.68
INDAML	INDAML	9/15/2009	14:56	9.18	17.67
INDAM	INDAM	9/15/2009	15:32	9.18	17.67
INDAMH	INDAMH	9/15/2009	16:08	9.18	17.67
INDAH	INDAH	9/15/2009	16:44	9.18	17.67
INDB L	INDB L	9/15/2009	17:20	9.19	17.67
INDBML	INDBML	9/15/2009	17:56	9.19	17.67
INDBM	INDBM	9/15/2009	18:32	9.19	17.67
INDBMH	INDBMH	9/15/2009	19:08	9.18	17.67
INDBH	INDBH	9/15/2009	19:44	9.18	17.67
TOX L	TOX L	9/15/2009	20:20	9.19	17.67
TOX ML	TOX ML	9/15/2009	20:56	9.18	17.67
TOX M	TOX M	9/15/2009	21:32	9.18	17.67
TOX MH	TOX MH	9/15/2009	22:08	9.18	17.67
TOX H	TOX H	9/15/2009	22:44	9.18	17.67
CHLOR L	CHLOR L	9/15/2009	23:20	9.19	17.67
CHLOR ML	CHLOR ML	9/15/2009	23:56	9.18	17.67
CHLOR M	CHLOR M	9/16/2009	0:32	9.18	17.67
CHLOR MH	CHLOR MH	9/16/2009	1:08	9.18	17.67
CHLOR H	CHLOR H	9/16/2009	1:44	9.18	17.67
PEST ICV	PEST ICV	9/16/2009	2:19	0.00	0.00

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: NORTHGATE
 Lab Code: 10145 Case.No.: R0905636 SAS No.: _____ SDG PB100209-A2
 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	DCB			TCX	DCB
		9.18	17.67			rt_time	rt_time
<i>EPA Sample No.</i>	<i>Lab Sample ID</i>	<i>Date Analyzed</i>	<i>Time Analyzed</i>	<i>rt_time</i>	<i>rt_time</i>	<i>rt_time</i>	<i>rt_time</i>
TOX ICV	TOX ICV	9/16/2009	9:30	0.00	0.00		
CHLOR ICV	CHLOR ICV	9/16/2009	10:06	0.00	0.00		
PEM	PEM	10/8/2009	2:59	9.15	17.61		
CCV40A	CCV40A	10/8/2009	5:23	9.15	17.61		
CCV40B	CCV40B	10/8/2009	5:59	9.15	17.61		
ZZZZZ	ZZZZZ	10/8/2009	6:35	9.14	17.61		
ZZZZZ	ZZZZZ	10/8/2009	8:15	0.00	0.00		
PBLK1	RQ0909548-01 1.0	10/8/2009	9:07	9.14	17.61		
PBLK1MS	RQ0909548-02 1.0	10/8/2009	9:43	9.14	17.61		
PBLK1MSD	RQ0909548-03 1.0	10/8/2009	10:19	9.14	17.61		
ZZZZZ	ZZZZZ	10/8/2009	10:55	9.13	17.61		
ZZZZZ	ZZZZZ	10/8/2009	11:31	9.13	17.61		
ZZZZZ	ZZZZZ	10/8/2009	12:07	9.13	17.61		
ZZZZZ	ZZZZZ	10/8/2009	12:43	9.14	17.61		
PB100209-A2	R0905636-001 1.0	10/8/2009	13:19	9.14	17.61		
M-76B	R0905636-002 1.0	10/8/2009	13:54	9.14	17.61		
M-76009B	R0905636-003 1.0	10/8/2009	14:30	9.14	17.61		
CCV41A	CCV41A	10/8/2009	15:06	9.16	17.61		
CCV41B	CCV41B	10/8/2009	15:42	9.16	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

Pesticide Analytical Sequence

Lab Name: Columbia Analytical Services Contract: NORTHGATE
 Lab Code: 10145 Case.No.: R0905636 SAS No.: _____ SDG No.: PB100209-A2

GC Column(1) STX-CLPII (ID): 0.32mm 30

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
INDAL	INDAL	10/27/2009	8:58	9.36	17.91
INDAML	INDAML	10/27/2009	9:33	9.36	17.91
INDAM	INDAM	10/27/2009	10:09	9.36	17.91
INDAMH	INDAMH	10/27/2009	10:44	9.36	17.91
INDAH	INDAH	10/27/2009	11:20	9.36	17.91
INDBL	INDBL	10/27/2009	11:55	9.36	17.91
INDBML	INDBML	10/27/2009	12:31	9.36	17.91
INDBM	INDBM	10/27/2009	13:06	9.36	17.91
INDBMH	INDBMH	10/27/2009	13:42	9.36	17.91
INDBH	INDBH	10/27/2009	14:18	9.36	17.91
K/FL	K/FL	10/27/2009	14:53	0.00	0.00
K/FML	K/FML	10/27/2009	15:29	0.00	0.00
K/FM	K/FM	10/27/2009	16:05	0.00	0.00
K/FMH	K/FMH	10/27/2009	16:40	0.00	0.00
K/FH	K/FH	10/27/2009	17:16	0.00	0.00
TOXL	TOXL	10/27/2009	17:51	9.36	17.91
TOXML	TOXML	10/27/2009	18:27	9.36	17.91
TOXM	TOXM	10/27/2009	19:03	9.36	17.91
TOXMH	TOXMH	10/27/2009	19:38	9.36	17.91
TOXH	TOXH	10/27/2009	20:14	9.36	17.91
CHLORL	CHLORL	10/27/2009	20:49	9.36	17.91

QC Limit

TCX = Tetrachloro-m-xylene (+/- 0.05 Minutes)

DCB = Decachlorobiphenyl (+/- 0.10 Minutes)

Column used to flag retention time values with an asterisk

* Values outside of QC limits

Pesticide Analytical Sequence

Lab Name: Columbia Analytical Services Contract: NORTHGATE
 Lab Code: 10145 Case.No.: R0905636 SAS No.: _____ SDG No.: PB100209-A2

GC Column(1) STx-CLPII (ID): 0.32mm 30

Instrument ID: 6890D

The analytical sequence of Performance Evaluation Mixtures, Blanks, Samples, and Standards is given below:

Mean Surrogate RT from Initial Calibration

TCX 9.36 DCB 17.91

TCX DCB

EPA Sample No.	Lab Sample ID	Date Analyzed	Time Analyzed	rt_time	rt_time
CHLORML	CHLORML	10/27/2009	21:25	9.36	17.91
CHLORM	CHLORM	10/27/2009	22:00	9.36	17.91
CHLORMH	CHLORMH	10/27/2009	22:36	9.36	17.91
CHLORH	CHLORH	10/27/2009	23:11	9.36	17.91
pest ICV	pest ICV	10/27/2009	23:47	0.00	0.00
TOX ICV	TOX ICV	10/28/2009	0:22	0.00	0.00
CHLOR ICV	CHLOR ICV	10/28/2009	0:57	0.00	0.00
PEM	PEM	10/28/2009	1:33	9.36	17.91
CCV1A	CCV1A	10/28/2009	2:08	9.36	17.91
CCV1B	CCV1B	10/28/2009	2:44	9.36	17.91
ZZZZZ	ZZZZZ	10/28/2009	3:19	9.36	17.91
ZZZZZ	ZZZZZ	10/28/2009	3:55	9.36	17.91
ZZZZZ	ZZZZZ	10/28/2009	4:30	9.36	17.91
PB100209-A2 ^{RE}	R0905636-001 1.0	10/28/2009	5:06	9.36	17.91
ZZZZZ	ZZZZZ	10/28/2009	5:41	9.36	17.91
ZZZZZ	ZZZZZ	10/28/2009	6:16	9.36	17.91
ZZZZZ	ZZZZZ	10/28/2009	6:52	9.36	17.91
ZZZZZ	ZZZZZ	10/28/2009	7:27	9.36	17.91
ZZZZZ	ZZZZZ	10/28/2009	8:03	9.36	17.91
ZZZZZ	ZZZZZ	10/28/2009	8:38	9.36	17.91
CCV2A	CCV2A	10/28/2009	9:14	9.36	17.91

QC Limit

TCX = Tetrachloro-m-xylene (+/- 0.05 Minutes)

DCB = Decachlorobiphenyl (+/- 0.10 Minutes)

Column used to flag retention time values with an asterisk

* Values outside of QC limits

Pesticide Analytical Sequence

Lab Name: Columbia Analytical Services Contract: NORTHGATE
 Lab Code: 10145 Case.No.: R0905636 SAS No.: _____ SDG No.: PB100209-A2
 GC Column(1) STx-CLPII (ID): 0.32mm 30
 Instrument ID: 6890D

The analytical sequence of Performance Evaluation Mixtures, Blanks, Samples, and Standards is given below:

Mean Surrogate RT from Initial Calibration

TCX 9.36 DCB 17.91

TCX DCB

EPA Sample No.	Lab Sample ID	Date Analyzed	Time Analyzed	rt_time	rt_time
CCV2B	CCV2B	10/28/2009	9:49	9.36	17.91
pem	pem	10/29/2009	8:18	9.36	17.91
CCV5a	CCV5a	10/29/2009	8:53	9.36	17.91
ccv5b	ccv5b	10/29/2009	9:29	9.36	17.91
ZZZZZ	ZZZZZ	10/29/2009	10:04	9.36	17.91
ZZZZZ	ZZZZZ	10/29/2009	10:40	9.36	17.91
ZZZZZ	ZZZZZ	10/29/2009	11:15	9.36	17.91
ZZZZZ	ZZZZZ	10/29/2009	11:51	9.36	17.91
PBLK2	RQ0909854-01 1.0	10/29/2009	12:26	9.36	17.91
PBLK2MS	RQ0909854-02 1.0	10/29/2009	13:02	9.36	17.91
PBLK2MSD	RQ0909854-03 1.0	10/29/2009	13:37	9.36	17.91
ZZZZZ	ZZZZZ	10/29/2009	14:13	9.36	17.91
ZZZZZ	ZZZZZ	10/29/2009	14:48	9.36	17.91
MC-94B	R0905636-006 2.0	10/29/2009	15:24	9.36	17.91
CCV6A	CCV6A	10/29/2009	16:00	9.36	17.91
CCV6B	CCV6B	10/29/2009	16:35	9.36	17.91

QC Limit

TCX = Tetrachloro-m-xylene (+/- 0.05 Minutes)

DCB = Decachlorobiphenyl (+/- 0.10 Minutes)

Column used to flag retention time values with an asterisk

* Values outside of QC limits

Evaluate Continuing Calibration Report

Data Path : J:\ACQUDATA\6890D\DATA\100709\
 Data File : FC749.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 08 Oct 2009 5:23 am
 Operator : M.PEDRO
 Sample : CCV40A
 Misc : INDAM
 ALS Vial : 32 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 08 08:55:37 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Thu Oct 08 07:13:02 2009
 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	22.903	23.539 E6	-2.8	102	-0.01
2 TC HEXACHLORO BENZENE	31.030	31.697 E6	-2.1	102	-0.01
3 tc alpha-BHC	35.959	36.926 E6	-2.7	101	-0.02
4 tcm gamma-BHC (L	31.548	32.227 E6	-2.2	101	-0.02
5 tcm Heptachlor	31.017	32.188 E6	-3.8	102	-0.03
10 tc alpha-Endosu	22.728	23.362 E6	-2.8	101	-0.03
14 tcm Dieldrin	25.139	26.297 E6	-4.6	101	-0.03
15 tcm Endrin	22.475	22.904 E6	-1.9	99	-0.03
18 tc 4,4'-DDD	18.962	19.398 E6	-2.3	100	-0.03
19 tcm 4,4'-DDT	21.686	21.774 E6	-0.4	98	-0.03
22 tc Methoxychlor	9.748	9.906 E6	-1.6	100	-0.03
25 S SURR2,Decachlorobiphenyl	18.759	19.909 E6	-6.1	104	-0.03

W/P

Signal #2

1 S SURR1,Tetrac	82.190	88.387 E6	-7.5	108	-0.03
2 TC HEXACHLORO BENZENE	105.242	112.157 E6	-6.6	106	-0.03
3 tc alpha-BHC	119.945	128.946 E6	-7.5	106	-0.04
4 tcm gamma-BHC (L	104.217	111.697 E6	-7.2	105	-0.05
5 tcm Heptachlor	98.580	106.248 E6	-7.8	106	-0.05
10 tc alpha-Endosu	68.977	73.133 E6	-6.0	104	-0.06
14 tcm Dieldrin	72.924	77.264 E6	-6.0	104	-0.06
15 tcm Endrin	63.727	67.630 E6	-6.1	104	-0.06
18 tc 4,4'-DDD	54.827	58.791 E6	-7.2	106	-0.05
19 tcm 4,4'-DDT	60.848	62.902 E6	-3.4	102	-0.06
22 tc Methoxychlor	26.417	27.665 E6	-4.7	103	-0.06
25 S SURR2,Decachlorobiphenyl	48.979	49.535 E6	-1.1	101	-0.06

Evaluate Continuing Calibration Report - Not Found

Data Path : J:\ACQUDATA\6890D\DATA\100709\
 Data File : FC749.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 08 Oct 2009 5:23 am
 Operator : M.PEDRO
 Sample : CCV40A
 Misc : INDAM
 ALS Vial : 32 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 08 08:55:37 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Thu Oct 08 07:13:02 2009
 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

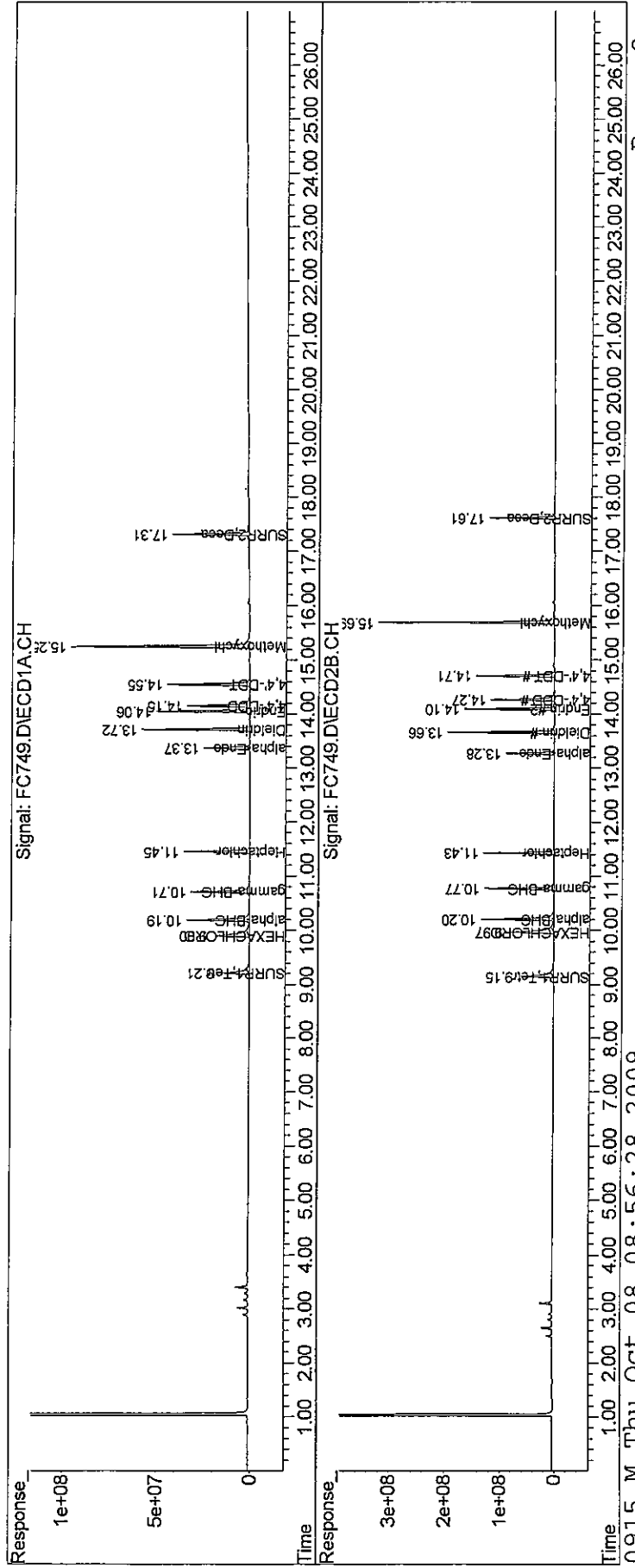
System Monitoring Compounds						
1) S SURR1,Tetrac	9.21	9.15	470.8E6	1767.7E6	20.555	21.508 <i>sup 10/8</i>
Spiked Amount	100.000	Range 30 - 150	Recovery =		20.56%#	21.51%#
25) S SURR2,Decachloro	17.31	17.61	796.3E6	1981.4E6	42.451	40.454
Spiked Amount	100.000	Range 30 - 150	Recovery =		42.45%	40.45%
Target Compounds						
2) TC HEXACHLORO BENZEN	9.90	9.97	633.9E6	2243.1E6	20.430	21.314
3) tc alpha-BHC	10.19	10.20	738.5E6	2578.9E6	20.538	21.501
4) tcm gamma-BHC (L	10.71	10.77	644.5E6	2233.9E6	20.431	21.436
5) tcm Heptachlor	11.45	11.43	643.8E6	2125.0E6	20.755	21.556
10) tc alpha-Endosu	13.37	13.28	467.2E6	1462.7E6	20.558	21.205
14) tcm Dieldrin	13.72	13.66	1051.9E6	3090.6E6	41.843	42.381
15) tcm Endrin	14.06	14.10	916.1E6	2705.2E6	40.763	42.450
18) tc 4,4'-DDD	14.15	14.27	775.9E6	2351.6E6	40.918	42.892
19) tcm 4,4'-DDT	14.55	14.71	870.9E6	2516.1E6	40.162	41.351
22) tc Methoxychlor	15.25	15.69	1981.1E6	5533.1E6	203.235	209.449
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\100709\
 Data File : FC749.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 08 Oct 2009 5:23 am
 Operator : M.PEDRO
 Sample : CCV40A
 Misc : INDAM
 ALS Vial : 32 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 08 08:55:37 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Thu Oct 08 07:13:02 2009
 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



00775

Evaluate Continuing Calibration Report

Data Path : J:\ACQUDATA\6890D\DATA\100709\
 Data File : FC750.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 08 Oct 2009 5:59 am
 Operator : M.PEDRO
 Sample : CCV40B
 Misc : INDBM
 ALS Vial : 33 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 08 08:58:55 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Thu Oct 08 07:13:02 2009
 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	22.903	23.561 E6	-2.9	102	0.00
6 tcm Aldrin	28.333	29.012 E6	-2.4	101	-0.03
7 tc beta-BHC	13.195	13.366 E6	-1.3	102	-0.02
8 TC delta-BHC	30.378	30.936 E6	-1.8	100	-0.02
9 tc Heptachlor E	25.454	26.167 E6	-2.8	102	-0.03
11 tc gamma-Chlord	25.665	26.150 E6	-1.9	102	-0.03
12 tc alpha-Chlord	24.676	24.591 E6	0.3	100	-0.03
13 tc 4,4'-DDE	23.721	24.315 E6	-2.5	101	-0.02
17 tc beta-Endosul	21.295	21.708 E6	-1.9	101	-0.03
20 tc Endrin Aldeh	16.404	16.731 E6	-2.0	102	-0.04
21 tc Endosulfan S	18.999	19.264 E6	-1.4	101	-0.04
24 tc Endrin Keton	21.571	21.757 E6	-0.9	100	-0.04
25 S SURR2,Decachlorobiphenyl	18.759	18.960 E6	-1.1	99	-0.03

*WP
10/8*

Signal #2

1 S SURR1,Tetrac	82.190	90.367 E6	-9.9	110	-0.03
6 tcm Aldrin	90.325	94.329 E6	-4.4	104	-0.05
7 tc beta-BHC	44.860	47.770 E6	-6.5	110	-0.04
8 tc delta-BHC	99.959	103.138 E6	-3.2	103	-0.04
9 tc Heptachlor E	77.889	82.068 E6	-5.4	105	-0.05
11 tc gamma-Chlord	79.746	82.536 E6	-3.5	103	-0.05
12 tc alpha-Chlord	75.634	79.712 E6	-5.4	106	-0.05
13 tc 4,4'-DDE	71.416	75.592 E6	-5.8	106	-0.05
17 tc beta-Endosul	61.120	64.471 E6	-5.5	105	-0.06
20 tc Endrin Aldeh	46.117	48.329 E6	-4.8	105	-0.06
21 tc Endosulfan S	55.321	57.405 E6	-3.8	104	-0.06
24 tc Endrin Keton	58.563	61.243 E6	-4.6	104	-0.06
25 S SURR2,Decachlorobiphenyl	48.979	49.750 E6	-1.6	101	-0.06

Data Path : J:\ACQUDATA\6890D\DATA\100709\
 Data File : FC750.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 08 Oct 2009 5:59 am
 Operator : M.PEDRO
 Sample : CCV40B
 Misc : INDBM
 ALS Vial : 33 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 08 08:58:55 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Thu Oct 08 07:13:02 2009
 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

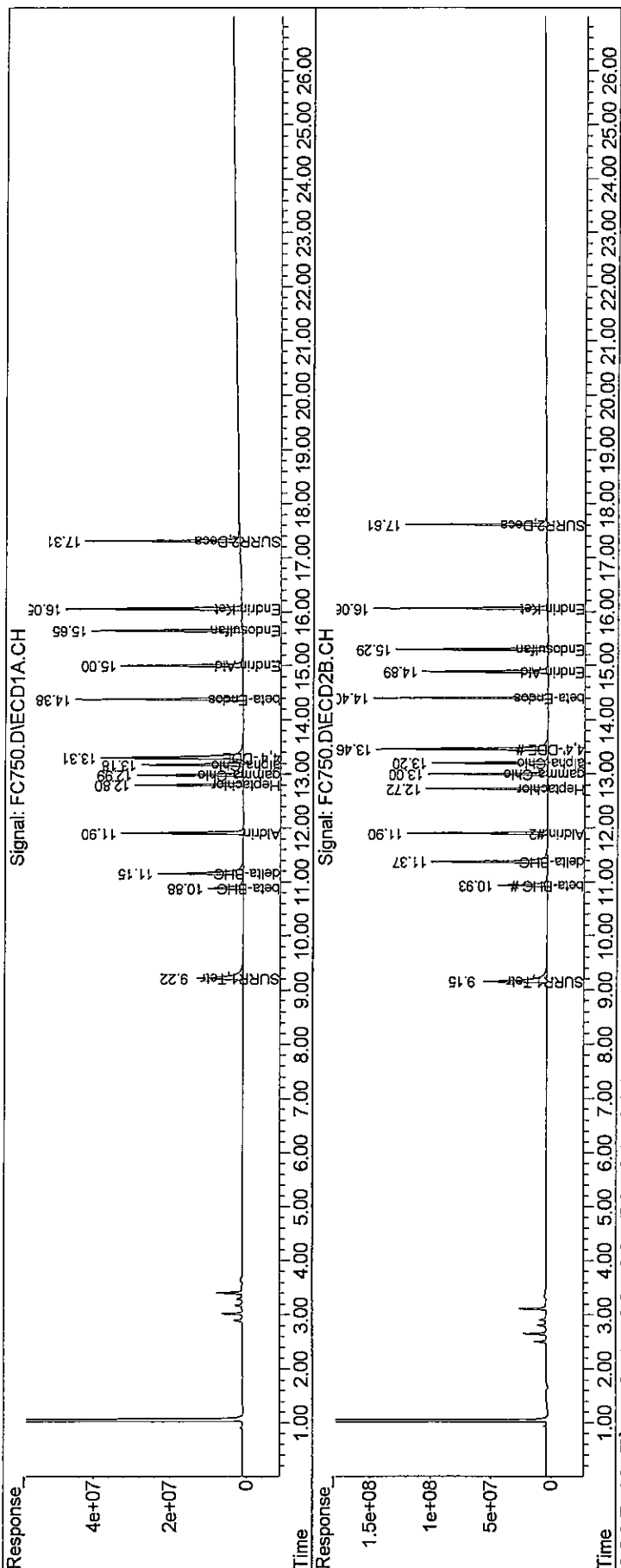
System Monitoring Compounds						
1) S SURR1,Tetrac	9.22	9.15	471.2E6	1807.3E6	20.575	21.990
Spiked Amount	100.000	Range 30 - 150	Recovery =		20.57%#	21.99%#
25) S SURR2,Decachloro	17.31	17.61	758.4E6	1990.0E6	40.429	40.630
Spiked Amount	100.000	Range 30 - 150	Recovery =		40.43%	40.63%
Target Compounds						
6) tcm Aldrin	11.90	11.90	580.2E6	1886.6E6	20.479	20.887
7) tc beta-BHC	10.88	10.93	267.3E6	955.4E6	20.259	21.297
8) tc delta-BHC	11.15	11.37	618.7E6	2062.8E6	20.367	20.636
9) tc Heptachlor E	12.80	12.72	523.3E6	1641.4E6	20.561	21.073
11) tc gamma-Chlord	12.99	13.00	523.0E6	1650.7E6	20.378	20.700
12) tc alpha-Chlord	13.18	13.20	491.8E6	1594.2E6	19.931	21.078
13) tc 4,4'-DDE	13.31	13.46	972.6E6	3023.7E6	41.001	42.339
17) tc beta-Endosul	14.38	14.40	868.3E6	2578.8E6	40.775	42.193
20) tc Endrin Aldeh	15.00	14.89	669.2E6	1933.2E6	40.797	41.919
21) tc Endosulfan S	15.65	15.29	770.6E6	2296.2E6	40.558	41.507
24) tc Endrin Keton	16.05	16.06	870.3E6	2449.7E6	40.344	41.831
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

WJ 10/8

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQDATA\6890D\DATA\100709\
Data File : FC750.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Oct 2009 5:59 am
Operator : M.PEDRO
Sample : CCV40B
Misc : INDBM
ALS Vial : 33 Sample Multiplier: 1
Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 08 08:58:55 2009
Quant Method : J:\ACQDATA\6890D\METHODS\80810915.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Thu Oct 08 07:13:02 2009
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



00778

Evaluate Continuing Calibration Report

Data Path : J:\ACQUDATA\6890D\DATA\100809\
 Data File : FC763.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 08 Oct 2009 3:06 pm
 Operator : M.PEDRO
 Sample : CCV41A
 Misc : INDAM
 ALS Vial : 46 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 09 12:20:01 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Fri Oct 09 10:50:59 2009
 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	22.903	23.407 E6	-2.2	101	0.00
2 TC HEXACHLOROBENZENE	31.030	31.194 E6	-0.5	101	0.00
3 tc alpha-BHC	35.959	37.246 E6	-3.6	102	-0.02
4 tcm gamma-BHC (L	31.548	32.510 E6	-3.0	102	-0.02
5 tcm Heptachlor	31.017	32.360 E6	-4.3	102	-0.03
10 tc alpha-Endosu	22.728	23.664 E6	-4.1	103	-0.03
14 tcm Dieldrin	25.139	26.330 E6	-4.7	102	-0.03
15 tcm Endrin	22.475	22.465 E6	0.0	97	-0.03
18 tc 4,4'-DDD	18.962	19.424 E6	-2.4	100	-0.02
19 tcm 4,4'-DDT	21.686	21.801 E6	-0.5	99	-0.03
22 tc Methoxychlor	9.748	10.354 E6	-6.2	105	-0.03
25 S SURR2,Decachlorobiphenyl	18.759	19.101 E6	-1.8	100	-0.03

Signal #2

1 S SURR1,Tetrac	82.190	86.928 E6	-5.8	106	-0.03
2 TC HEXACHLOROBENZENE	105.242	107.901 E6	-2.5	102	-0.03
3 tc alpha-BHC	119.945	125.699 E6	-4.8	103	-0.04
4 tcm gamma-BHC (L	104.217	108.454 E6	-4.1	102	-0.04
5 tcm Heptachlor	98.580	103.808 E6	-5.3	103	-0.05
10 tc alpha-Endosu	68.977	71.347 E6	-3.4	102	-0.06
14 tcm Dieldrin	72.924	75.833 E6	-4.0	102	-0.06
15 tcm Endrin	63.727	65.750 E6	-3.2	101	-0.06
18 tc 4,4'-DDD	54.827	56.579 E6	-3.2	102	-0.05
19 tcm 4,4'-DDT	60.848	61.419 E6	-0.9	99	-0.06
22 tc Methoxychlor	26.417	27.226 E6	-3.1	101	-0.06
25 S SURR2,Decachlorobiphenyl	48.979	50.124 E6	-2.3	102	-0.06

Evaluate Continuing Calibration Report - Not Found

Data Path : J:\ACQUADATA\6890D\DATA\100809\
 Data File : FC763.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 08 Oct 2009 3:06 pm
 Operator : M.PEDRO
 Sample : CCV41A
 Misc : INDAM
 ALS Vial : 46 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 09 12:20:01 2009
 Quant Method : J:\ACQUADATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Fri Oct 09 10:50:59 2009
 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	9.22	9.16	468.1E6	1738.6E6	20.440	21.153
Spiked Amount	100.000	Range	30 - 150	Recovery =	20.44%#	21.15%#
25) S SURR2,Decachloro	17.31	17.61	764.1E6	2005.0E6	40.730	40.935
Spiked Amount	100.000	Range	30 - 150	Recovery =	40.73%	40.94%
Target Compounds						
2) TC HEXACHLOROBENZEN	9.91	9.97	623.9E6	2158.0E6	20.106	20.505
3) tc alpha-BHC	10.19	10.20	744.9E6	2514.0E6	20.716	20.959
4) tcm gamma-BHC (L	10.71	10.77	650.2E6	2169.1E6	20.610	20.813
5) tcm Heptachlor	11.45	11.43	647.2E6	2076.2E6	20.866	21.061
10) tc alpha-Endosu	13.37	13.28	473.3E6	1426.9E6	20.823	20.687
14) tcm Dieldrin	13.72	13.66	1053.2E6	3033.3E6	41.895	41.596
15) tcm Endrin	14.06	14.09	898.6E6	2630.0E6	39.983	41.270
18) tc 4,4'-DDD	14.16	14.27	777.0E6	2263.2E6	40.975	41.279
19) tcm 4,4'-DDT	14.55	14.71	872.0E6	2456.7E6	40.213	40.375
22) tc Methoxychlor	15.25	15.69	2070.8E6	5445.1E6	212.436	206.120
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

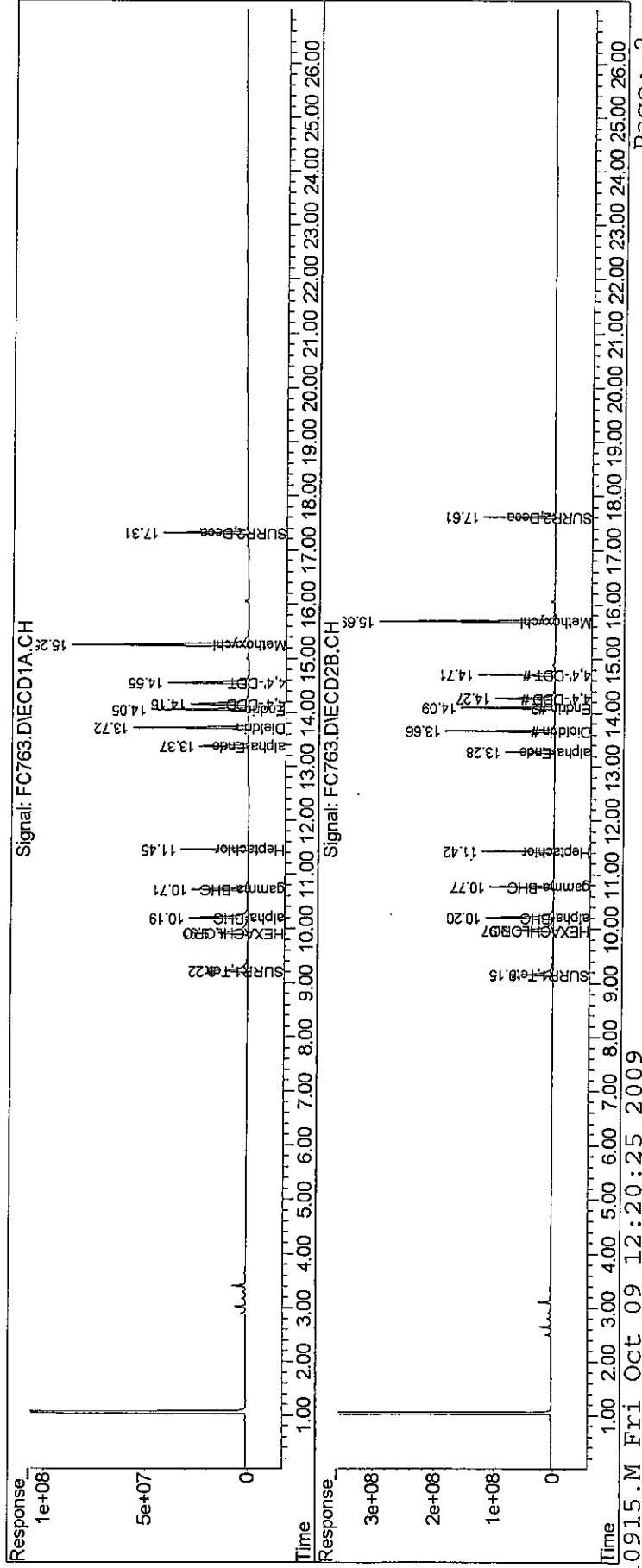
up 10/9

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\100809\
 Data File : FC763.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 08 Oct 2009 3:06 pm
 Operator : M.PEDRO
 Sample : CCV41A
 Misc : INDAM
 ALS Vial : 46 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 09 12:20:01 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Fri Oct 09 10:50:59 2009
 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



00781

Evaluate Continuing Calibration Report

Data Path : J:\ACQUDATA\6890D\DATA\100809\
 Data File : FC764.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 08 Oct 2009 3:42 pm
 Operator : M.PEDRO
 Sample : CCV41B
 Misc : INDBM
 ALS Vial : 47 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 09 12:20:55 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Fri Oct 09 10:50:59 2009
 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	22.903	23.231 E6	-1.4	101	0.00
6 tcm Aldrin	28.333	28.632 E6	-1.1	100	-0.03
7 tc beta-BHC	13.195	13.047 E6	1.1	100	0.00
8 TC delta-BHC	30.378	29.775 E6	2.0	97	0.00
9 tc Heptachlor E	25.454	26.186 E6	-2.9	102	-0.03
11 tc gamma-Chlord	25.665	25.848 E6	-0.7	101	-0.03
12 tc alpha-Chlord	24.676	24.908 E6	-0.9	101	-0.03
13 tc 4,4'-DDE	23.721	23.637 E6	0.4	98	-0.02
17 tc beta-Endosul	21.295	21.835 E6	-2.5	102	-0.03
20 tc Endrin Aldeh	16.404	16.477 E6	-0.4	100	-0.04
21 tc Endosulfan S	18.999	19.201 E6	-1.1	101	-0.04
24 tc Endrin Keton	21.571	21.812 E6	-1.1	100	-0.04
25 S SURR2,Decachlorobiphenyl	18.759	18.695 E6	0.3	98	-0.03

Signal #2

1 S SURR1,Tetrac	82.190	88.047 E6	-7.1	108	-0.02
6 tcm Aldrin	90.325	93.009 E6	-3.0	103	-0.05
7 tc beta-BHC	44.860	46.143 E6	-2.9	106	-0.04
8 tc delta-BHC	99.959	104.404 E6	-4.4	105	-0.04
9 tc Heptachlor E	77.889	81.495 E6	-4.6	104	-0.06
11 tc gamma-Chlord	79.746	79.989 E6	-0.3	100	-0.05
12 tc alpha-Chlord	75.634	77.725 E6	-2.8	103	-0.06
13 tc 4,4'-DDE	71.416	73.474 E6	-2.9	103	-0.05
17 tc beta-Endosul	61.120	62.547 E6	-2.3	101	-0.06
20 tc Endrin Aldeh	46.117	46.813 E6	-1.5	102	-0.06
21 tc Endosulfan S	55.321	55.916 E6	-1.1	101	-0.07
24 tc Endrin Keton	58.563	60.134 E6	-2.7	102	-0.07
25 S SURR2,Decachlorobiphenyl	48.979	49.948 E6	-2.0	102	-0.06

Handwritten note: 10/9

Data Path : J:\ACQUDATA\6890D\DATA\100809\
 Data File : FC764.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 08 Oct 2009 3:42 pm
 Operator : M.PEDRO
 Sample : CCV41B
 Misc : INDBM
 ALS Vial : 47 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 09 12:20:55 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Fri Oct 09 10:50:59 2009
 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

1) S	SURR1,Tetrac	9.23	9.16	464.6E6	1760.9E6	20.286	21.425
	Spiked Amount	100.000	Range 30 - 150	Recovery =		20.29%#	21.43%#
25) S	SURR2,Decachloro	17.31	17.61	747.8E6	1997.9E6	39.863	40.792
	Spiked Amount	100.000	Range 30 - 150	Recovery =		39.86%	40.79%

Target Compounds

6) tcm	Aldrin	11.90	11.89	572.6E6	1860.2E6	20.211	20.594
7) tc	beta-BHC	10.88	10.94	260.9E6	922.9E6	19.776	20.572
8) tc	delta-BHC	11.16	11.37	595.5E6	2088.1E6	19.603	20.889
9) tc	Heptachlor E	12.80	12.72	523.7E6	1629.9E6	20.576	20.926
11) tc	gamma-Chlord	12.99	13.00	517.0E6	1599.8E6	20.143	20.061
12) tc	alpha-Chlord	13.18	13.20	498.2E6	1554.5E6	20.188	20.553
13) tc	4,4'-DDE	13.31	13.46	945.5E6	2939.0E6	39.857	41.153
17) tc	beta-Endosul	14.39	14.40	873.4E6	2501.9E6	41.014	40.934
20) tc	Endrin Aldeh	15.00	14.89	659.1E6	1872.5E6	40.179	40.603
21) tc	Endosulfan S	15.65	15.29	768.0E6	2236.6E6	40.425	40.430
24) tc	Endrin Keton	16.05	16.05	872.5E6	2405.4E6	40.446	41.074
	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

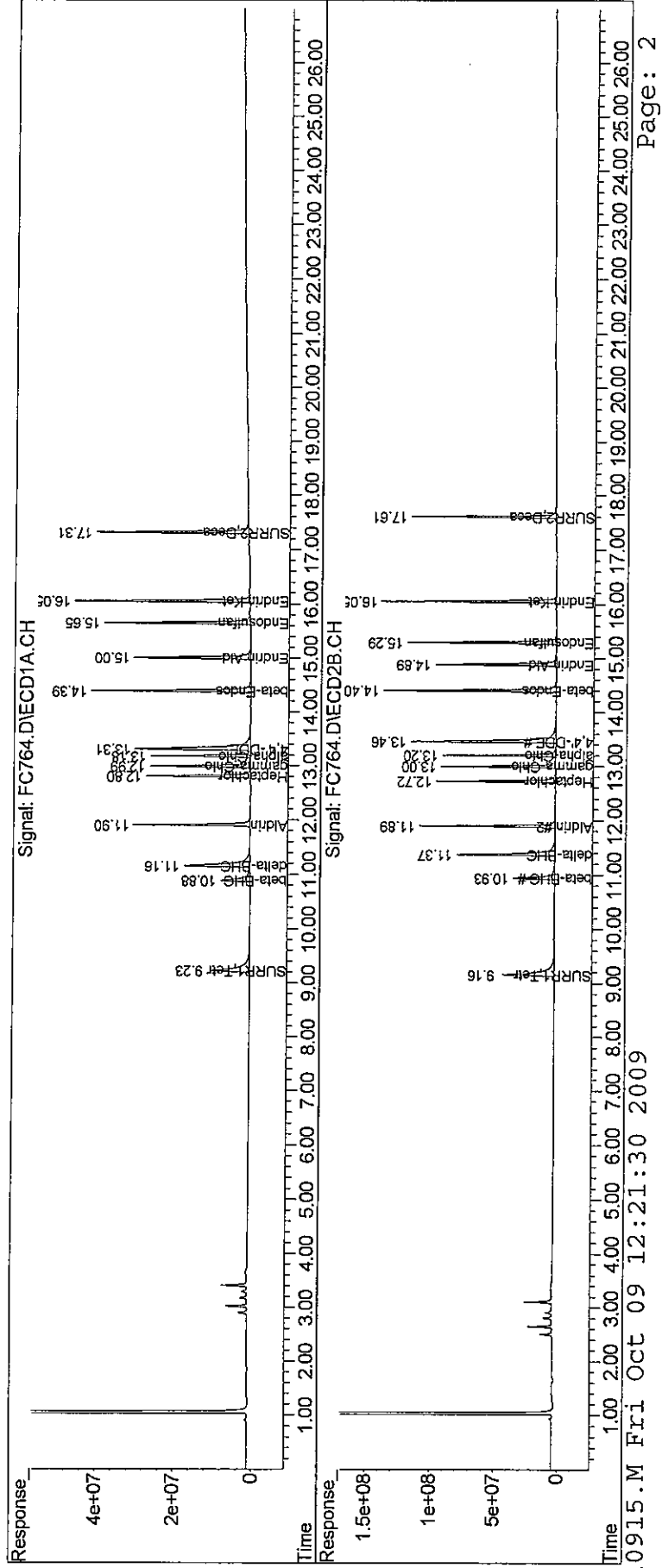
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\ACQDATA\6890D\DATA\100809\
Data File : FC764.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Oct 2009 3:42 pm
Operator : M.PEDRO
Sample : CCV41B
Misc : INDBM
ALS Vial : 47 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 09 12:20:55 2009
Quant Method : J:\ACQDATA\6890D\METHODS\80810915.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Fri Oct 09 10:50:59 2009
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



00784

Evaluate Continuing Calibration Report

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD089.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 28 Oct 2009 2:08 am
 Operator : M.PEDRO
 Sample : CCV1A
 Misc : INDAM
 ALS Vial : 32 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 28 10:56:43 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 08:32:24 2009
 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	23.751	24.631 E6	-3.7	100	0.00
2 TC HEXACHLOROBENZENE	31.714	32.644 E6	-2.9	100	0.00
3 tc alpha-BHC	36.594	38.347 E6	-4.8	100	0.00
4 tcm gamma-BHC (L	32.862	34.484 E6	-4.9	101	0.00
5 tcm Heptachlor	32.708	34.652 E6	-5.9	101	0.00
10 tc alpha-Endosu	24.403	25.658 E6	-5.1	101	0.00
14 tcm Dieldrin	27.343	29.135 E6	-6.6	101	0.00
15 tcm Endrin	24.399	25.720 E6	-5.4	100	0.00
18 tc 4,4'-DDD	21.052	22.413 E6	-6.5	102	0.00
19 tcm 4,4'-DDT	23.386	25.178 E6	-7.7	103	0.00
22 tc Methoxychlor	10.883	11.610 E6	-6.7	102	0.00
25 S SURR2,Decachlorobiphenyl	20.155	21.942 E6	-8.9	105	0.00

Signal #2

1 S SURR1,Tetrac	69.818	74.417 E6	-6.6	103	0.00
2 TC HEXACHLOROBENZENE	93.324	97.824 E6	-4.8	102	0.00
3 tc alpha-BHC	103.067	109.806 E6	-6.5	102	0.00
4 tcm gamma-BHC (L	92.175	98.567 E6	-6.9	103	0.00
5 tcm Heptachlor	87.655	94.551 E6	-7.9	103	0.00
10 tc alpha-Endosu	59.836	66.703 E6	-11.5	105	0.00
14 tcm Dieldrin	66.157	73.211 E6	-10.7	106	0.00
15 tcm Endrin	57.090	61.703 E6	-8.1	103	0.00
18 tc 4,4'-DDD	51.383	56.099 E6	-9.2	105	0.00
19 tcm 4,4'-DDT	54.662	60.338 E6	-10.4	106	0.00
22 tc Methoxychlor	23.273	25.161 E6	-8.1	103	0.00
25 S SURR2,Decachlorobiphenyl	43.201	45.257 E6	-4.8	102	0.00

Evaluate Continuing Calibration Report - Not Found

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD089.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 28 Oct 2009 2:08 am
 Operator : M.PEDRO
 Sample : CCV1A
 Misc : INDAM
 ALS Vial : 32 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 28 10:56:43 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 08:32:24 2009
 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

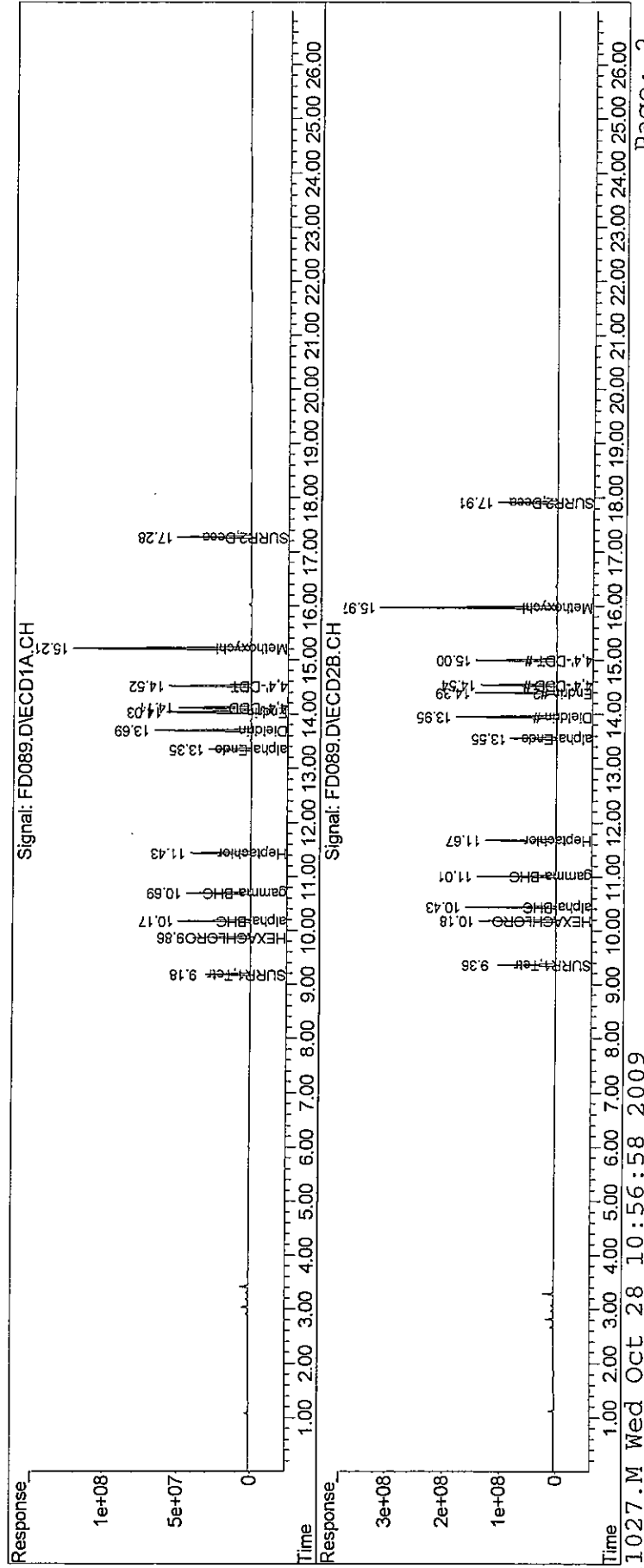
System Monitoring Compounds						
1) S SURR1,Tetrac	9.18	9.36	492.6E6	1488.3E6	20.740	21.318
Spiked Amount	100.000	Range 30 - 150	Recovery =		20.74%#	21.32%#
25) S SURR2,Decachloro	17.28	17.91	877.7E6	1810.3E6	43.547	41.904
Spiked Amount	100.000	Range 30 - 150	Recovery =		43.55%	41.90%
Target Compounds						
2) TC HEXACHLOROBENZEN	9.86	10.18	652.9E6	1956.5E6	20.587	20.964
3) tc alpha-BHC	10.17	10.43	766.9E6	2196.1E6	20.958	21.308
4) tcm gamma-BHC (L	10.69	11.01	689.7E6	1971.3E6	20.987	21.387
5) tcm Heptachlor	11.43	11.67	693.0E6	1891.0E6	21.188	21.573
10) tc alpha-Endosu	13.35	13.55	513.2E6	1334.1E6	21.028	22.295
14) tcm Dieldrin	13.69	13.95	1165.4E6	2928.5E6	42.621	44.265
15) tcm Endrin	14.03	14.39	1028.8E6	2468.1E6	42.166	43.232
18) tc 4,4'-DDD	14.11	14.54	896.5E6	2244.0E6	42.585	43.671
19) tcm 4,4'-DDT	14.52	15.00	1007.1E6	2413.5E6	43.065	44.153
22) tc Methoxychlor	15.21	15.97	2322.0E6	5032.1E6	213.351	216.224
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\102709\
 Data File : FD089.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 28 Oct 2009 2:08 am
 Operator : M.PEDRO
 Sample : CCVIA
 Misc : INDAM
 ALS Vial : 32 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 28 10:56:43 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 Qlast Update : Wed Oct 28 08:32:24 2009
 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



00787

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD090.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 28 Oct 2009 2:44 am
 Operator : M.PEDRO
 Sample : CCV1B
 Misc : INDBM
 ALS Vial : 33 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 28 10:57:50 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 08:32:24 2009
 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	23.751	24.126 E6	-1.6	98	0.00
6 tcm Aldrin	30.474	30.910 E6	-1.4	101	0.00
7 tc beta-BHC	13.700	13.515 E6	1.4	101	0.00
8 TC delta-BHC	32.949	33.564 E6	-1.9	101	0.00
9 tc Heptachlor E	27.583	28.017 E6	-1.6	102	0.00
11 tc gamma-Chlord	27.497	27.758 E6	-0.9	102	0.00
12 tc alpha-Chlord	25.734	25.482 E6	1.0	99	0.00
13 tc 4,4'-DDE	26.453	27.015 E6	-2.1	101	0.00
17 tc beta-Endosul	23.075	23.032 E6	0.2	100	0.00
20 tc Endrin Aldeh	18.237	18.392 E6	-0.8	103	0.00
21 tc Endosulfan S	21.234	21.507 E6	-1.3	102	0.00
24 tc Endrin Keton	23.747	24.454 E6	-3.0	102	0.00
25 S SURR2,Decachlorobiphenyl	20.155	21.416 E6	-6.3	103	0.00

*MW
10/29*

Signal #2

1 S SURR1,Tetrac	69.818	74.325 E6	-6.5	103	0.00
6 tcm Aldrin	81.589	83.869 E6	-2.8	102	0.00
7 tc beta-BHC	40.524	40.571 E6	-0.1	101	0.00
8 tc delta-BHC	91.392	95.196 E6	-4.2	103	0.00
9 tc Heptachlor E	71.270	74.321 E6	-4.3	104	0.00
11 tc gamma-Chlord	71.631	75.165 E6	-4.9	104	0.00
12 tc alpha-Chlord	68.680	71.390 E6	-3.9	104	0.00
13 tc 4,4'-DDE	66.506	68.953 E6	-3.7	103	0.00
17 tc beta-Endosul	55.752	58.358 E6	-4.7	104	0.00
20 tc Endrin Aldeh	43.581	45.041 E6	-3.4	104	0.00
21 tc Endosulfan S	50.218	52.384 E6	-4.3	103	0.00
24 tc Endrin Keton	52.764	54.748 E6	-3.8	104	0.00
25 S SURR2,Decachlorobiphenyl	43.201	45.565 E6	-5.5	102	0.00

Data Path : J:\ACQUADATA\6890D\DATA\102709\
 Data File : FD090.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 28 Oct 2009 2:44 am
 Operator : M.PEDRO
 Sample : CCV1B
 Misc : INDBM
 ALS Vial : 33 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 28 10:57:50 2009
 Quant Method : J:\ACQUADATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 08:32:24 2009
 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	9.18	9.36	482.5E6	1486.5E6	20.315	21.291
Spiked Amount	100.000	Range 30 - 150	Recovery =	20.32%#	21.29%#	
25) S SURR2,Decachloro	17.28	17.91	856.6E6	1822.6E6	42.503	42.189
Spiked Amount	100.000	Range 30 - 150	Recovery =	42.50%	42.19%	
Target Compounds						
6) tcm Aldrin	11.88	12.15	618.2E6	1677.4E6	20.286	20.559
7) tc beta-BHC	10.84	11.15	270.3E6	811.4E6	19.730	20.023
8) tc delta-BHC	11.11	11.60	671.3E6	1903.9E6	20.374	20.832
9) tc Heptachlor E	12.78	12.99	560.3E6	1486.4E6	20.314	20.856
11) tc gamma-Chlord	12.96	13.26	555.2E6	1503.3E6	20.190	20.987
12) tc alpha-Chlord	13.15	13.47	509.6E6	1427.8E6	19.804	20.789
13) tc 4,4'-DDE	13.27	13.71	1080.6E6	2758.1E6	40.850	41.472
17) tc beta-Endosul	14.36	14.70	921.3E6	2334.3E6	39.925	41.869
20) tc Endrin Aldeh	14.97	15.20	735.7E6	1801.6E6	40.340	41.341
21) tc Endosulfan S	15.62	15.61	860.3E6	2095.4E6	40.515	41.725
24) tc Endrin Keton	16.02	16.37	978.1E6	2189.9E6	41.191	41.504
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

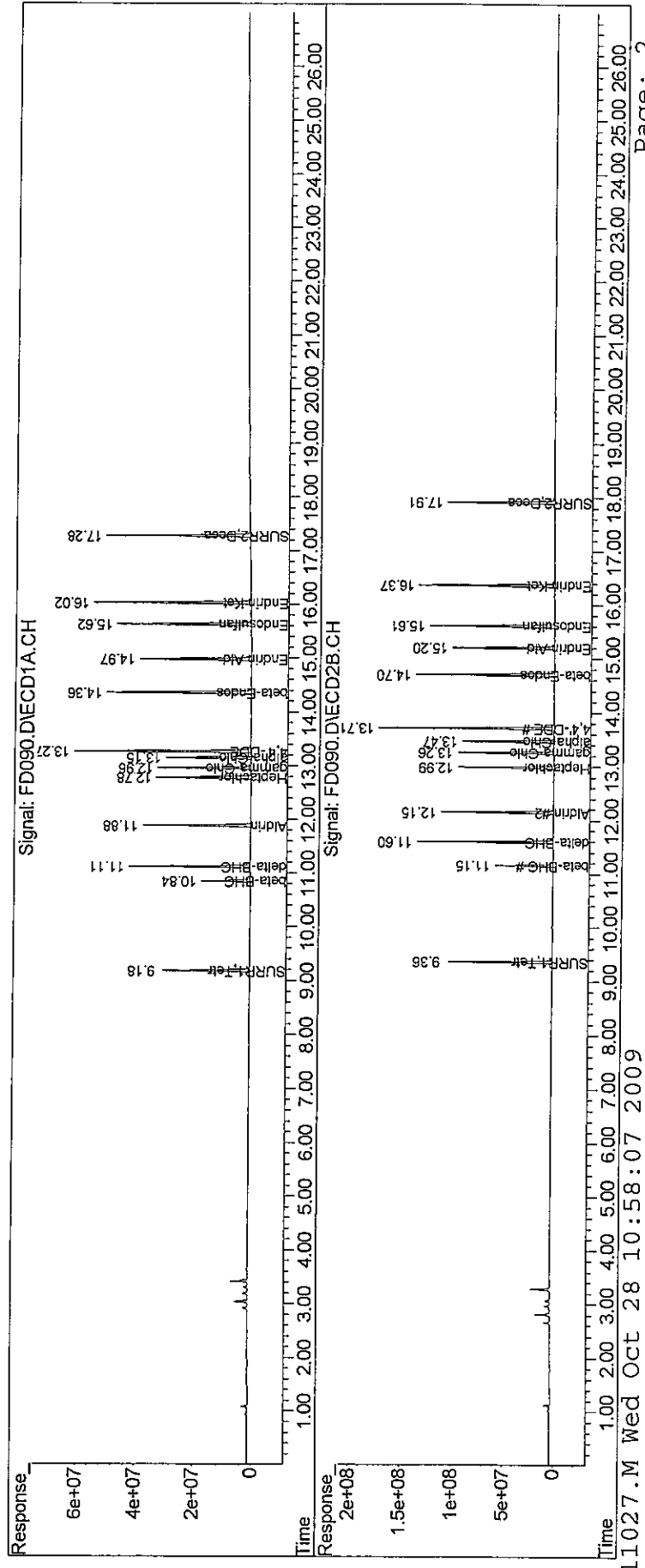
M
10/2

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\102709\
Data File : FD090.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Oct 2009 2:44 am
Operator : M.PEDRO
Sample : CCV1B
Misc : INDEM
ALS Vial : 33 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 28 10:57:50 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Oct 28 08:32:24 2009
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



00790

Evaluate Continuing Calibration Report

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD101.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 28 Oct 2009 9:14 am
 Operator : M.PEDRO
 Sample : CCV2A
 Misc : INDAM
 ALS Vial : 44 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 28 10:59:15 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 08:32:24 2009
 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	23.751	25.001 E6	-5.3	102	0.00
2 TC HEXACHLOROBENZENE	31.714	33.441 E6	-5.4	102	0.00
3 tc alpha-BHC	36.594	39.040 E6	-6.7	102	0.00
4 tcm gamma-BHC (L	32.862	34.957 E6	-6.4	102	0.00
5 tcm Heptachlor	32.708	34.965 E6	-6.9	102	0.00
10 tc alpha-Endosu	24.403	25.902 E6	-6.1	102	0.00
14 tcm Dieldrin	27.343	29.395 E6	-7.5	102	0.00
15 tcm Endrin	24.399	26.295 E6	-7.8	102	0.00
18 tc 4,4'-DDD	21.052	22.788 E6	-8.2	104	0.00
19 tcm 4,4'-DDT	23.386	25.636 E6	-9.6	105	0.00
22 tc Methoxychlor	10.883	11.780 E6	-8.2	103	0.00
25 S SURR2,Decachlorobiphenyl	20.155	21.335 E6	-5.9	103	0.00

Signal #2

1 S SURR1,Tetrac	69.818	75.159 E6	-7.6	104	0.00
2 TC HEXACHLOROBENZENE	93.324	99.621 E6	-6.7	104	0.00
3 tc alpha-BHC	103.067	111.506 E6	-8.2	104	0.00
4 tcm gamma-BHC (L	92.175	100.132 E6	-8.6	105	0.00
5 tcm Heptachlor	87.655	95.764 E6	-9.3	105	0.00
10 tc alpha-Endosu	59.836	67.486 E6	-12.8	107	0.00
14 tcm Dieldrin	66.157	72.822 E6	-10.1	105	0.00
15 tcm Endrin	57.090	63.439 E6	-11.1	106	0.00
18 tc 4,4'-DDD	51.383	57.234 E6	-11.4	107	0.00
19 tcm 4,4'-DDT	54.662	61.492 E6	-12.5	108	0.00
22 tc Methoxychlor	23.273	25.522 E6	-9.7	105	0.00
25 S SURR2,Decachlorobiphenyl	43.201	46.256 E6	-7.1	104	0.00

Evaluate Continuing Calibration Report - Not Found

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD101.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 28 Oct 2009 9:14 am
 Operator : M.PEDRO
 Sample : CCV2A
 Misc : INDAM
 ALS Vial : 44 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 28 10:59:15 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 08:32:24 2009
 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	9.18	9.36	500.0E6	1503.2E6	21.052	21.530
Spiked Amount	100.000	Range 30 - 150	Recovery =		21.05%#	21.53%#
25) S SURR2,Decachloro	17.28	17.91	853.4E6	1850.3E6	42.342	42.829
Spiked Amount	100.000	Range 30 - 150	Recovery =		42.34%	42.83%
Target Compounds						
2) TC HEXACHLOROBENZEN	9.86	10.18	668.8E6	1992.4E6	21.090	21.350
3) tc alpha-BHC	10.17	10.43	780.8E6	2230.1E6	21.337	21.638
4) tcm gamma-BHC (L	10.69	11.01	699.1E6	2002.6E6	21.275	21.727
5) tcm Heptachlor	11.43	11.67	699.3E6	1915.3E6	21.380	21.850
10) tc alpha-Endosu	13.35	13.55	518.0E6	1349.7E6	21.228	22.557
14) tcm Dieldrin	13.69	13.95	1175.8E6	2912.9E6	43.001	44.030
15) tcm Endrin	14.03	14.39	1051.8E6	2537.5E6	43.108	44.448
18) tc 4,4'-DDD	14.11	14.54	911.5E6	2289.3E6	43.297	44.554
19) tcm 4,4'-DDT	14.52	15.00	1025.4E6	2459.7E6	43.849	44.998
22) tc Methoxychlor	15.21	15.97	2356.0E6	5104.3E6	216.477	219.327
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

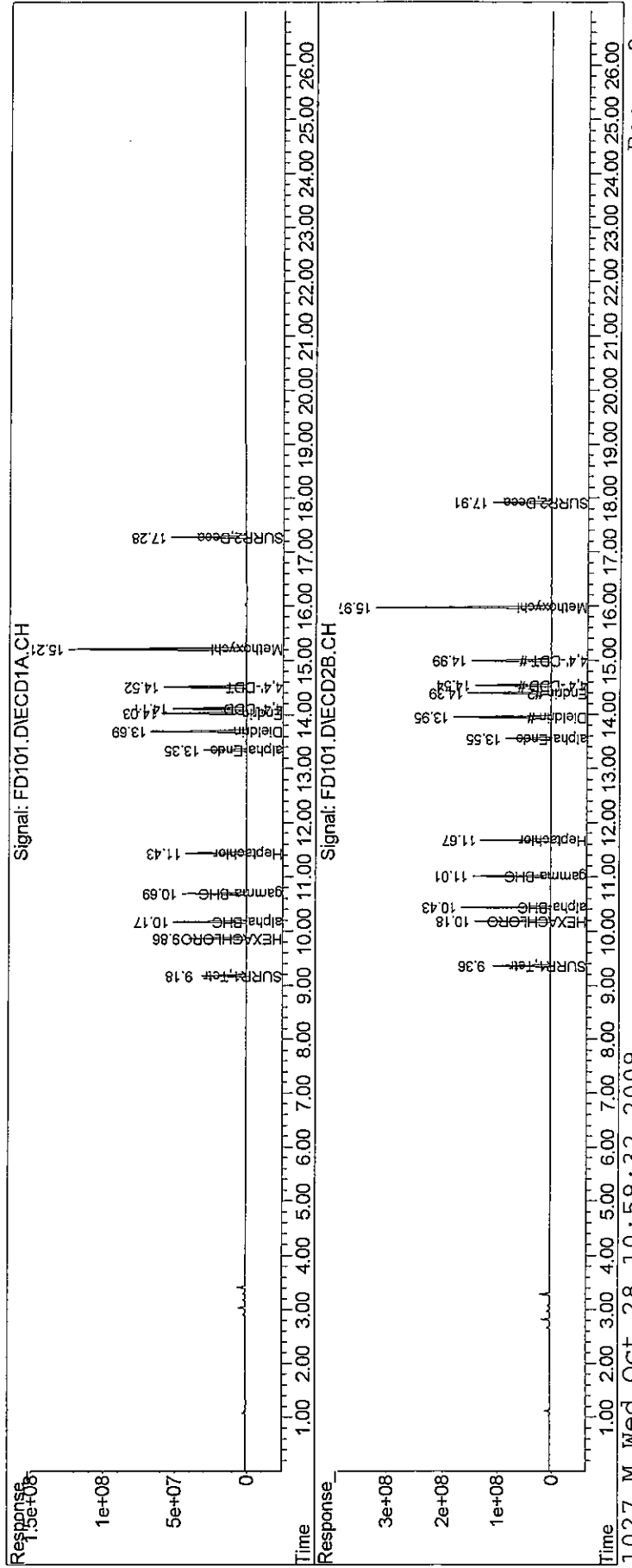
*MP
DPB*

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD101.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 28 Oct 2009 9:14 am
 Operator : M.PEDRO
 Sample : CCV2A
 Misc : INDAM
 ALS Vial : 44 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 28 10:59:15 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 Qlast Update : Wed Oct 28 08:32:24 2009
 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

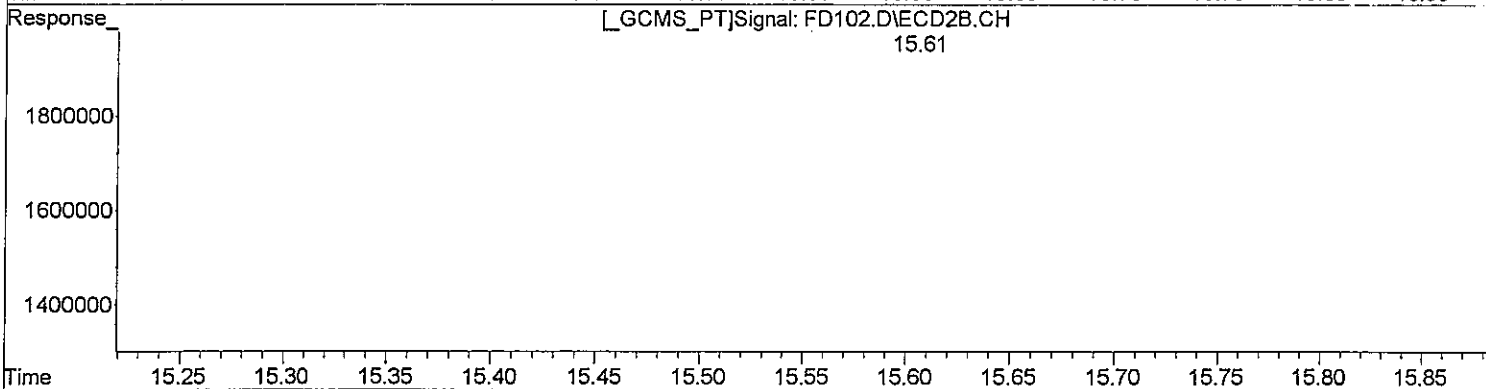
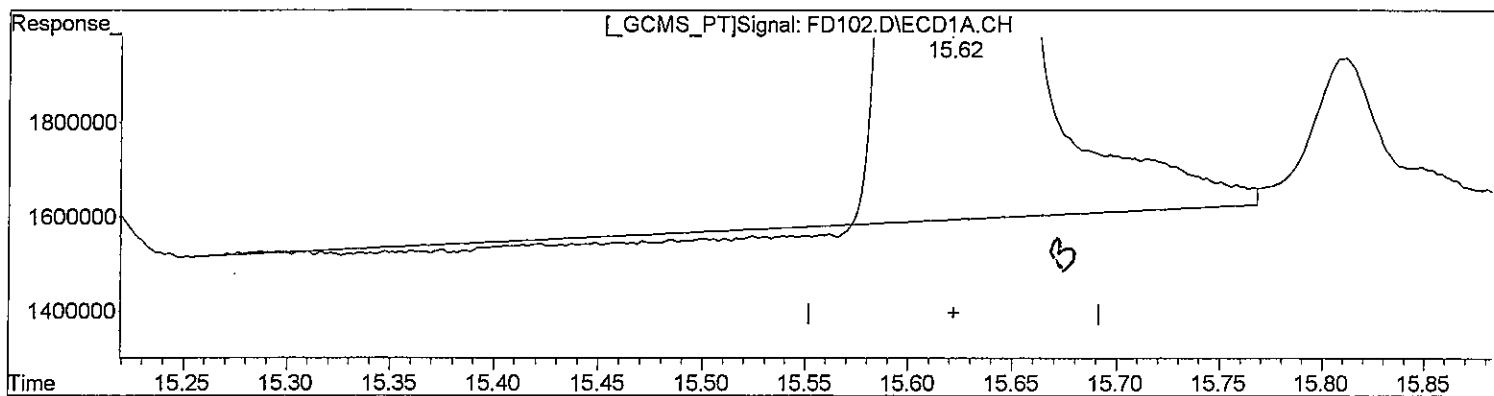


00793

Data Path : J:\ACQUDATA\6890D\DATA\102709\
Data File : FD102.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Oct 2009 9:49 am
Operator : M.PEDRO
Sample : CCV2B
Misc : INDBM
ALS Vial : 45 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 28 10:59:39 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Oct 28 08:32:24 2009
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



(21) Endosulfan S (tc)
15.62min 40.742ug/l
response 865111879

(21) Endosulfan S #2 (tc)
15.61min 42.005ug/l
response 2109394175

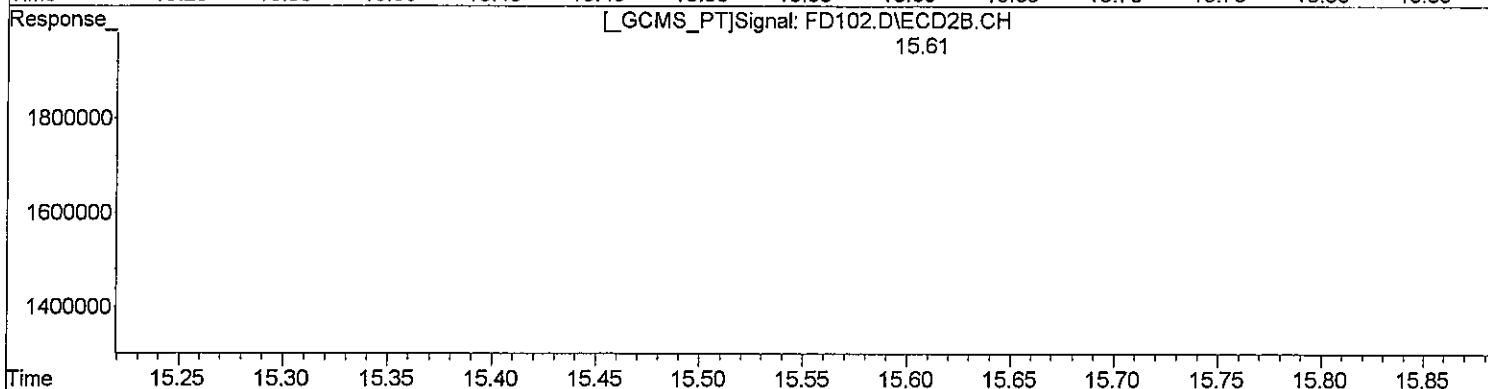
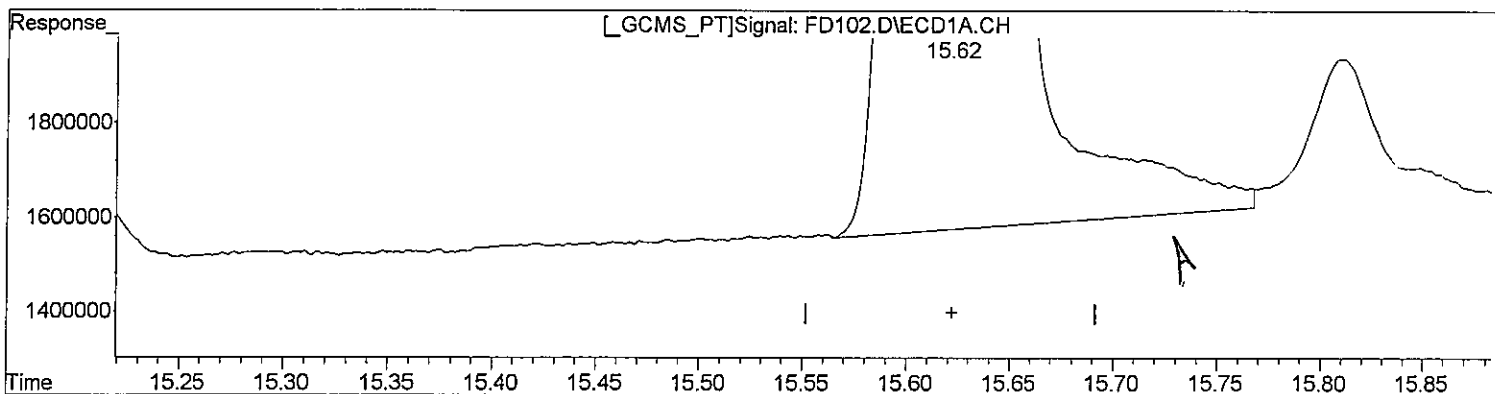
Baseline

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\102709\
Data File : FD102.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Oct 2009 9:49 am
Operator : M.PEDRO
Sample : CCV2B
Misc : INDBM
ALS Vial : 45 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 28 10:59:39 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Oct 28 08:32:24 2009
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

(21) Endosulfan S (tc)
15.62min 40.934ug/l m
response 869182409

MW
10/19

(21) Endosulfan S #2 (tc)
15.61min 42.005ug/l
response 2109394175

MW
10/28

Evaluate Continuing Calibration Report

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD102.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 28 Oct 2009 9:49 am
 Operator : M.PEDRO
 Sample : CCV2B
 Misc : INDBM
 ALS Vial : 45 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 28 11:00:42 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 08:32:24 2009
 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	23.751	24.531 E6	-3.3	100	0.00
6 tcm Aldrin	30.474	31.304 E6	-2.7	102	0.00
7 tc beta-BHC	13.700	13.721 E6	-0.2	102	0.00
8 TC delta-BHC	32.949	34.116 E6	-3.5	103	0.00
9 tc Heptachlor E	27.583	28.222 E6	-2.3	102	0.00
11 tc gamma-Chlord	27.497	28.089 E6	-2.2	103	0.00
12 tc alpha-Chlord	25.734	26.163 E6	-1.7	102	0.00
13 tc 4,4'-DDE	26.453	27.507 E6	-4.0	103	0.00
17 tc beta-Endosul	23.075	23.359 E6	-1.2	102	0.00
20 tc Endrin Aldeh	18.237	18.476 E6	-1.3	103	0.00
21 tc Endosulfan S	21.234	21.730 E6	-2.3	103	0.00
24 tc Endrin Keton	23.747	24.676 E6	-3.9	103	0.00
25 S SURR2,Decachlorobiphenyl	20.155	21.128 E6	-4.8	102	0.00

Signal #2

1 S SURR1,Tetrac	69.818	74.441 E6	-6.6	103	0.00
6 tcm Aldrin	81.589	85.187 E6	-4.4	103	0.00
7 tc beta-BHC	40.524	41.418 E6	-2.2	103	0.00
8 tc delta-BHC	91.392	96.178 E6	-5.2	104	0.00
9 tc Heptachlor E	71.270	74.911 E6	-5.1	105	0.00
11 tc gamma-Chlord	71.631	76.661 E6	-7.0	106	0.00
12 tc alpha-Chlord	68.680	74.116 E6	-7.9	108	0.00
13 tc 4,4'-DDE	66.506	70.779 E6	-6.4	106	0.00
17 tc beta-Endosul	55.752	58.469 E6	-4.9	105	0.00
20 tc Endrin Aldeh	43.581	45.608 E6	-4.7	106	0.00
21 tc Endosulfan S	50.218	52.735 E6	-5.0	104	0.00
24 tc Endrin Keton	52.764	55.171 E6	-4.6	105	0.00
25 S SURR2,Decachlorobiphenyl	43.201	45.422 E6	-5.1	102	0.00

Handwritten initials

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD102.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 28 Oct 2009 9:49 am
 Operator : M.PEDRO
 Sample : CCV2B
 Misc : INDBM
 ALS Vial : 45 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 28 11:00:42 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 08:32:24 2009
 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

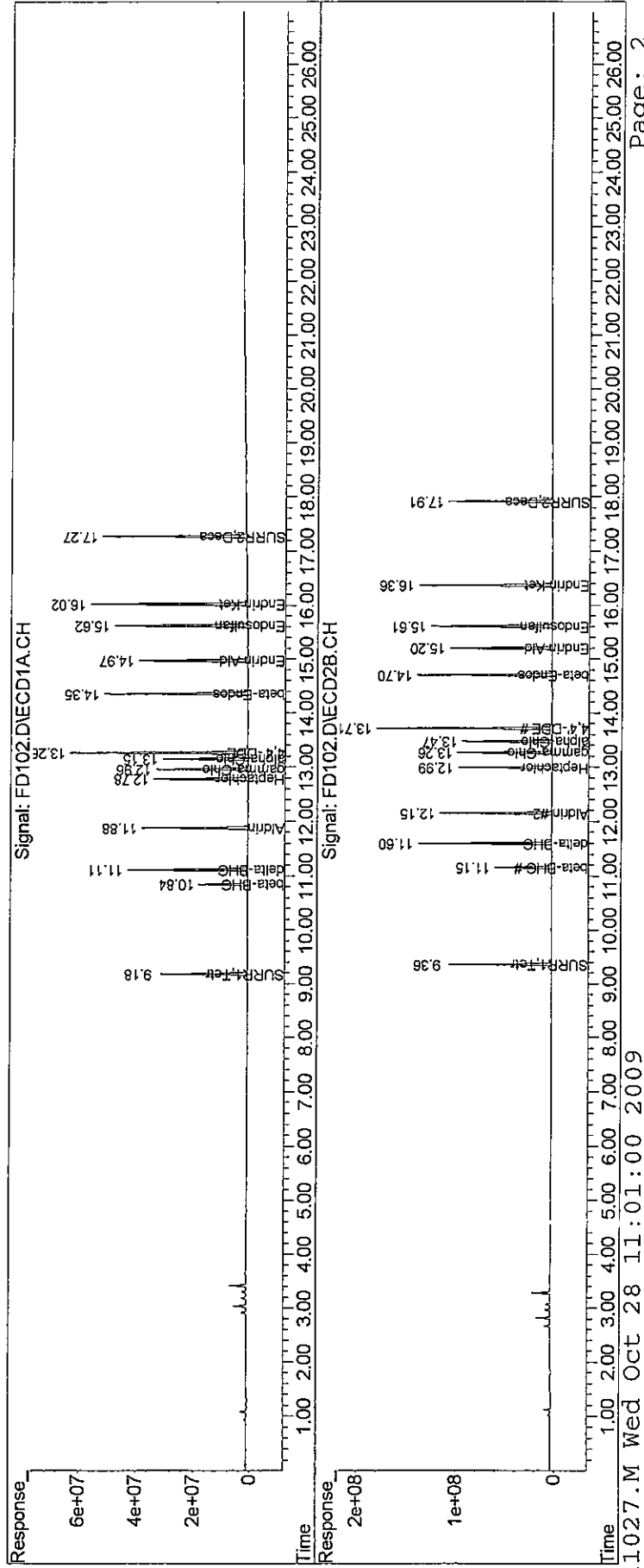
System Monitoring Compounds						
1) S SURR1,Tetrac	9.18	9.36	490.6E6	1488.8E6	20.657	21.324
Spiked Amount	100.000	Range 30 - 150	Recovery =		20.66%#	21.32%#
25) S SURR2,Decachloro	17.27	17.91	845.1E6	1816.9E6	41.931	42.056
Spiked Amount	100.000	Range 30 - 150	Recovery =		41.93%	42.06%
Target Compounds						
6) tcm Aldrin	11.88	12.15	626.1E6	1703.7E6	20.545	20.882
7) tc beta-BHC	10.84	11.15	274.4E6	828.4E6	20.030	20.441
8) tc delta-BHC	11.11	11.60	682.3E6	1923.6E6	20.709	21.047
9) tc Heptachlor E	12.78	12.99	564.4E6	1498.2E6	20.463	21.022
11) tc gamma-Chlord	12.96	13.26	561.8E6	1533.2E6	20.430	21.404
12) tc alpha-Chlord	13.15	13.47	523.3E6	1482.3E6	20.334	21.583
13) tc 4,4'-DDE	13.26	13.71	1100.3E6	2831.2E6	41.594	42.570
17) tc beta-Endosul	14.35	14.70	934.4E6	2338.8E6	40.492	41.949
20) tc Endrin Aldeh	14.97	15.20	739.0E6	1824.3E6	40.523	41.861
21) tc Endosulfan S	15.62	15.61	869.2E6	2109.4E6	40.934m	42.005
24) tc Endrin Keton	16.02	16.36	987.1E6	2206.8E6	41.566	41.824
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\102709\
 Data File : FD102.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 28 Oct 2009 9:49 am
 Operator : M.PEDRO
 Sample : CCV2B
 Misc : INDBM
 ALS Vial : 45 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 28 11:00:42 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 Quant Update : Wed Oct 28 08:32:24 2009
 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



00798

Evaluate Continuing Calibration Report

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD141.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 29 Oct 2009 8:53 am
 Operator : M.PEDRO
 Sample : CCV5a
 Misc : INDaM
 ALS Vial : 84 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 30 09:54:40 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 08:32:24 2009
 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	23.751	23.757 E6	-0.0	97	0.00
2 TC HEXACHLOROBENZENE	31.714	32.583 E6	-2.7	100	0.00
3 tc alpha-BHC	36.594	37.544 E6	-2.6	98	0.00
4 tcm gamma-BHC (L	32.862	33.342 E6	-1.5	97	0.00
5 tcm Heptachlor	32.708	33.589 E6	-2.7	98	0.00
10 tc alpha-Endosu	24.403	24.943 E6	-2.2	98	0.00
14 tcm Dieldrin	27.343	28.336 E6	-3.6	98	0.00
15 tcm Endrin	24.399	23.297 E6	4.5	91	0.00
18 tc 4,4'-DDD	21.052	22.200 E6	-5.5	101	0.00
19 tcm 4,4'-DDT	23.386	24.389 E6	-4.3	100	0.00
22 tc Methoxychlor	10.883	11.371 E6	-4.5	100	0.00
25 S SURR2,Decachlorobiphenyl	20.155	20.688 E6	-2.6	99	0.00

Signal #2

1 S SURR1,Tetrac	69.818	72.459 E6	-3.8	100	0.00
2 TC HEXACHLOROBENZENE	93.324	95.293 E6	-2.1	99	0.00
3 tc alpha-BHC	103.067	105.039 E6	-1.9	98	0.00
4 tcm gamma-BHC (L	92.175	95.603 E6	-3.7	100	0.00
5 tcm Heptachlor	87.655	89.128 E6	-1.7	97	0.00
10 tc alpha-Endosu	59.836	60.687 E6	-1.4	96	0.00
14 tcm Dieldrin	66.157	70.121 E6	-6.0	101	0.00
15 tcm Endrin	57.090	48.847 E6	14.4	81	0.00
18 tc 4,4'-DDD	51.383	53.857 E6	-4.8	101	0.00
19 tcm 4,4'-DDT	54.662	55.823 E6	-2.1	98	0.00
22 tc Methoxychlor	23.273	23.940 E6	-2.9	98	0.00
25 S SURR2,Decachlorobiphenyl	43.201	44.217 E6	-2.4	99	0.00

Evaluate Continuing Calibration Report - Not Found

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD141.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 29 Oct 2009 8:53 am
 Operator : M.PEDRO
 Sample : CCV5a
 Misc : INDaM
 ALS Vial : 84 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 30 09:54:40 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 08:32:24 2009
 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

1) S	SURR1,Tetrac	9.18	9.36	475.1E6	1449.2E6	20.005	20.757
	Spiked Amount	100.000	Range 30 - 150	Recovery =		20.00%#	20.76%#
25) S	SURR2,Decachloro	17.27	17.91	827.5E6	1768.7E6	41.059	40.941
	Spiked Amount	100.000	Range 30 - 150	Recovery =		41.06%	40.94%

Target Compounds

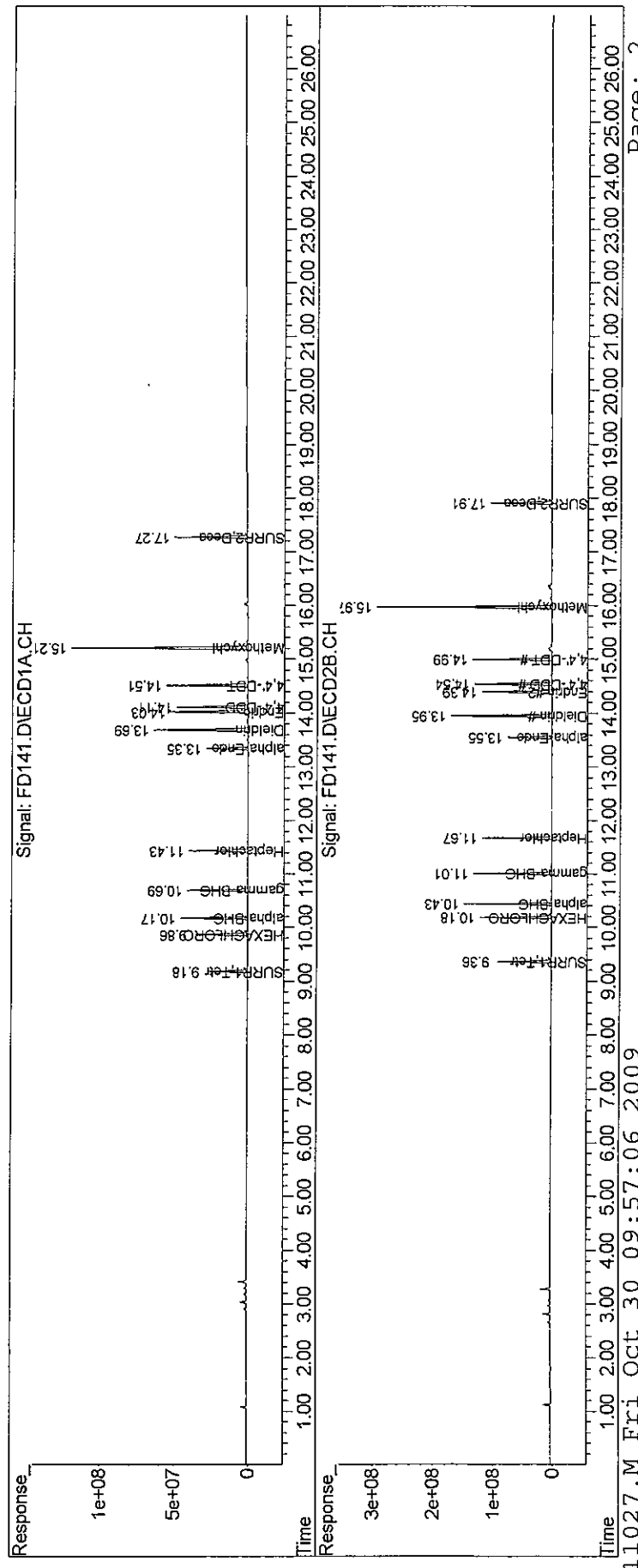
2) TC	HEXACHLORO BENZEN	9.86	10.18	651.7E6	1905.9E6	20.548	20.422
3) tc	alpha-BHC	10.17	10.43	750.9E6	2100.8E6	20.520	20.383
4) tcm	gamma-BHC (L)	10.69	11.01	666.8E6	1912.1E6	20.292	20.744
5) tcm	Heptachlor	11.43	11.67	671.8E6	1782.6E6	20.538	20.336
10) tc	alpha-Endosu	13.35	13.55	498.9E6	1213.7E6	20.442	20.284
14) tcm	Dieldrin	13.69	13.95	1133.4E6	2804.8E6	41.452	42.397
15) tcm	Endrin	14.03	14.39	931.9E6	1953.9E6	38.193	34.224
18) tc	4,4'-DDD	14.11	14.54	888.0E6	2154.3E6	42.180	41.926
19) tcm	4,4'-DDT	14.51	14.99	975.5E6	2232.9E6	41.715	40.849
22) tc	Methoxychlor	15.21	15.97	2274.2E6	4787.9E6	208.960	205.731
	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\102709\
Data File : FD141.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 29 Oct 2009 8:53 am
Operator : M.PEDRO
Sample : CCV5a
Misc : INDaM
ALS Vial : 84 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 30 09:54:40 2009
Quant Method : J:\ACQDATA\6890D\METHODS\80811027.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Oct 28 08:32:24 2009
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



00801

Evaluate Continuing Calibration Report

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD142.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 29 Oct 2009 9:29 am
 Operator : M.PEDRO
 Sample : ccv5b
 Misc : indbm
 ALS Vial : 85 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 30 09:57:38 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 08:32:24 2009
 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	23.751	23.557 E6	0.8	96	0.00
6 tcm Aldrin	30.474	30.117 E6	1.2	98	0.00
7 tc beta-BHC	13.700	13.405 E6	2.2	100	0.00
8 TC delta-BHC	32.949	32.573 E6	1.1	98	0.00
9 tc Heptachlor E	27.583	27.328 E6	0.9	99	0.00
11 tc gamma-Chlord	27.497	27.151 E6	1.3	99	0.00
12 tc alpha-Chlord	25.734	26.136 E6	-1.6	102	0.00
13 tc 4,4'-DDE	26.453	26.551 E6	-0.4	100	0.00
17 tc beta-Endosul	23.075	23.125 E6	-0.2	101	0.00
20 tc Endrin Aldeh	18.237	17.502 E6	4.0	98	0.00
21 tc Endosulfan S	21.234	20.870 E6	1.7	99	0.00
24 tc Endrin Keton	23.747	23.717 E6	0.1	99	0.00
25 S SURR2,Decachlorobiphenyl	20.155	20.288 E6	-0.7	97	0.00

Signal #2

1 S SURR1,Tetrac	69.818	70.856 E6	-1.5	98	0.00
6 tcm Aldrin	81.589	81.270 E6	0.4	98	0.00
7 tc beta-BHC	40.524	39.382 E6	2.8	98	0.00
8 tc delta-BHC	91.392	91.557 E6	-0.2	99	0.00
9 tc Heptachlor E	71.270	70.752 E6	0.7	99	0.00
11 tc gamma-Chlord	71.631	71.616 E6	0.0	99	0.00
12 tc alpha-Chlord	68.680	68.838 E6	-0.2	100	0.00
13 tc 4,4'-DDE	66.506	66.516 E6	-0.0	100	0.00
17 tc beta-Endosul	55.752	55.670 E6	0.1	100	0.00
20 tc Endrin Aldeh	43.581	41.886 E6	3.9	97	0.00
21 tc Endosulfan S	50.218	49.260 E6	1.9	97	0.00
24 tc Endrin Keton	52.764	50.831 E6	3.7	97	0.00
25 S SURR2,Decachlorobiphenyl	43.201	43.705 E6	-1.2	98	0.00

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD142.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 29 Oct 2009 9:29 am
 Operator : M.PEDRO
 Sample : ccv5b
 Misc : indbm
 ALS Vial : 85 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 30 09:57:38 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 08:32:24 2009
 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	9.18	9.36	471.1E6	1417.1E6	19.836	20.297
Spiked Amount	100.000	Range 30 - 150	Recovery =		19.84%#	20.30%#
25) S SURR2,Decachloro	17.27	17.91	811.5E6	1748.2E6	40.264	40.467
Spiked Amount	100.000	Range 30 - 150	Recovery =		40.26%	40.47%
Target Compounds						
6) tcm Aldrin	11.88	12.15	602.3E6	1625.4E6	19.766	19.922
7) tc beta-BHC	10.85	11.15	268.1E6	787.6E6	19.570	19.436
8) tc delta-BHC	11.12	11.60	651.5E6	1831.1E6	19.772	20.036
9) tc Heptachlor E	12.78	12.99	546.6E6	1415.0E6	19.815	19.855
11) tc gamma-Chlord	12.96	13.26	543.0E6	1432.3E6	19.748	19.996
12) tc alpha-Chlord	13.15	13.47	522.7E6	1376.8E6	20.313	20.046
13) tc 4,4'-DDE	13.27	13.71	1062.0E6	2660.6E6	40.148	40.006
17) tc beta-Endosul	14.35	14.70	925.0E6	2226.8E6	40.087	39.941
20) tc Endrin Aldeh	14.97	15.20	700.1E6	1675.4E6	38.387	38.444
21) tc Endosulfan S	15.62	15.60	834.8E6	1970.4E6	39.315	39.237
24) tc Endrin Keton	16.02	16.36	948.7E6	2033.2E6	39.950	38.534
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

Handwritten: 10/20

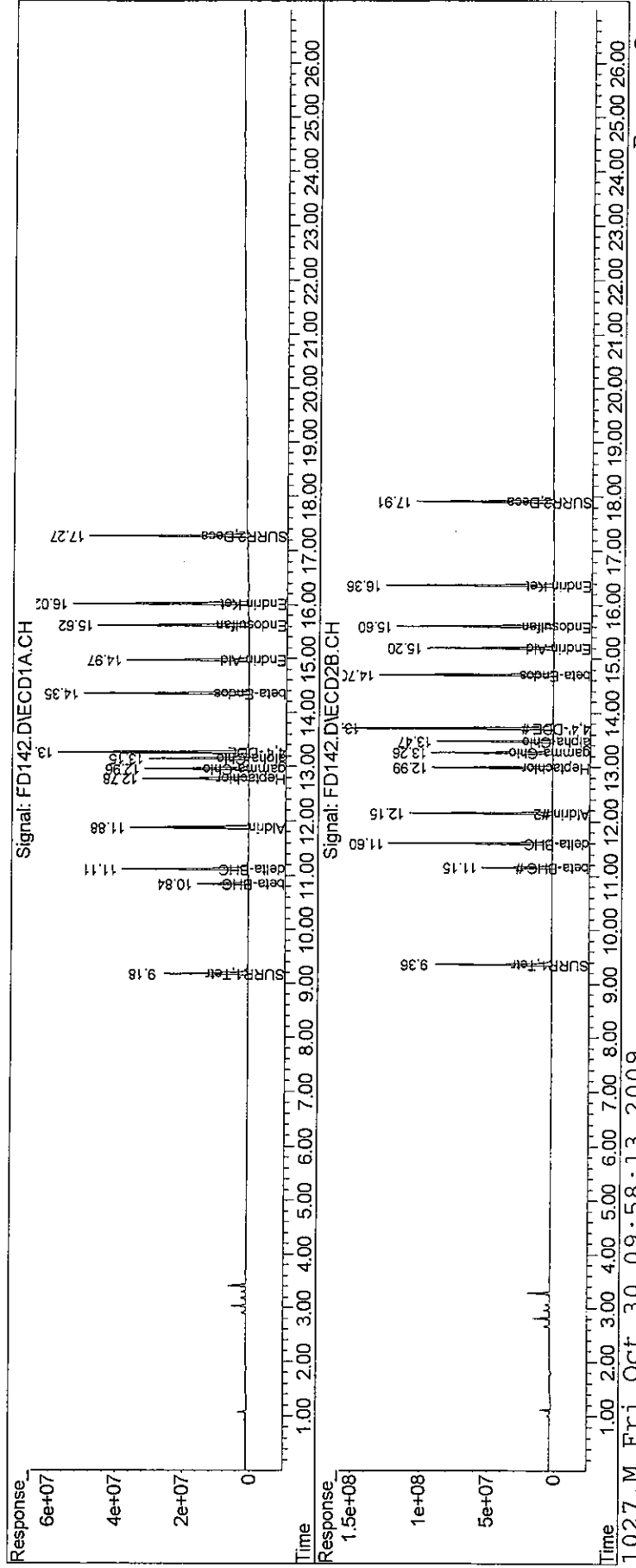
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\ACQUDATA\6890D\DATA\102709\
Data File : FD142.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 29 Oct 2009 9:29 am
Operator : M.PEDRO
Sample : ccv5b
Misc : indbm
ALS Vial : 85 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 30 09:57:38 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Oct 28 08:32:24 2009
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



00804

Evaluate Continuing Calibration Report

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD153.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 29 Oct 2009 4:00 pm
 Operator : M.PEDRO
 Sample : CCV6A
 Misc : INDAM
 ALS Vial : 96 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 30 10:12:19 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 08:32:24 2009
 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	23.751	24.108 E6	-1.5	98	0.00
2 TC HEXACHLOROBENZENE	31.714	32.535 E6	-2.6	100	0.00
3 tc alpha-BHC	36.594	37.113 E6	-1.4	97	0.00
4 tcm gamma-BHC (L	32.862	33.411 E6	-1.7	97	0.00
5 tcm Heptachlor	32.708	34.093 E6	-4.2	100	0.00
10 tc alpha-Endosu	24.403	25.276 E6	-3.6	100	0.00
14 tcm Dieldrin	27.343	28.826 E6	-5.4	100	0.00
15 tcm Endrin	24.399	23.300 E6	4.5	91	0.00
18 tc 4,4'-DDD	21.052	22.452 E6	-6.7	102	0.00
19 tcm 4,4'-DDT	23.386	25.234 E6	-7.9	103	0.00
22 tc Methoxychlor	10.883	11.587 E6	-6.5	102	0.00
25 S SURR2,Decachlorobiphenyl	20.155	21.255 E6	-5.5	102	0.00

*mf
10/30*

Signal #2

1 S SURR1,Tetrac	69.818	73.060 E6	-4.6	101	0.00
2 TC HEXACHLOROBENZENE	93.324	96.984 E6	-3.9	101	0.00
3 tc alpha-BHC	103.067	105.650 E6	-2.5	98	0.00
4 tcm gamma-BHC (L	92.175	97.122 E6	-5.4	101	0.00
5 tcm Heptachlor	87.655	93.038 E6	-6.1	102	0.00
10 tc alpha-Endosu	59.836	65.623 E6	-9.7	104	0.00
14 tcm Dieldrin	66.157	72.374 E6	-9.4	105	0.00
15 tcm Endrin	57.090	51.753 E6	9.3	86	0.00
18 tc 4,4'-DDD	51.383	55.635 E6	-8.3	104	0.00
19 tcm 4,4'-DDT	54.662	60.075 E6	-9.9	106	0.00
22 tc Methoxychlor	23.273	24.989 E6	-7.4	103	0.00
25 S SURR2,Decachlorobiphenyl	43.201	46.025 E6	-6.5	104	0.00

Evaluate Continuing Calibration Report - Not Found

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD153.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 29 Oct 2009 4:00 pm
 Operator : M.PEDRO
 Sample : CCV6A
 Misc : INDAM
 ALS Vial : 96 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 30 10:12:19 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 08:32:24 2009
 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

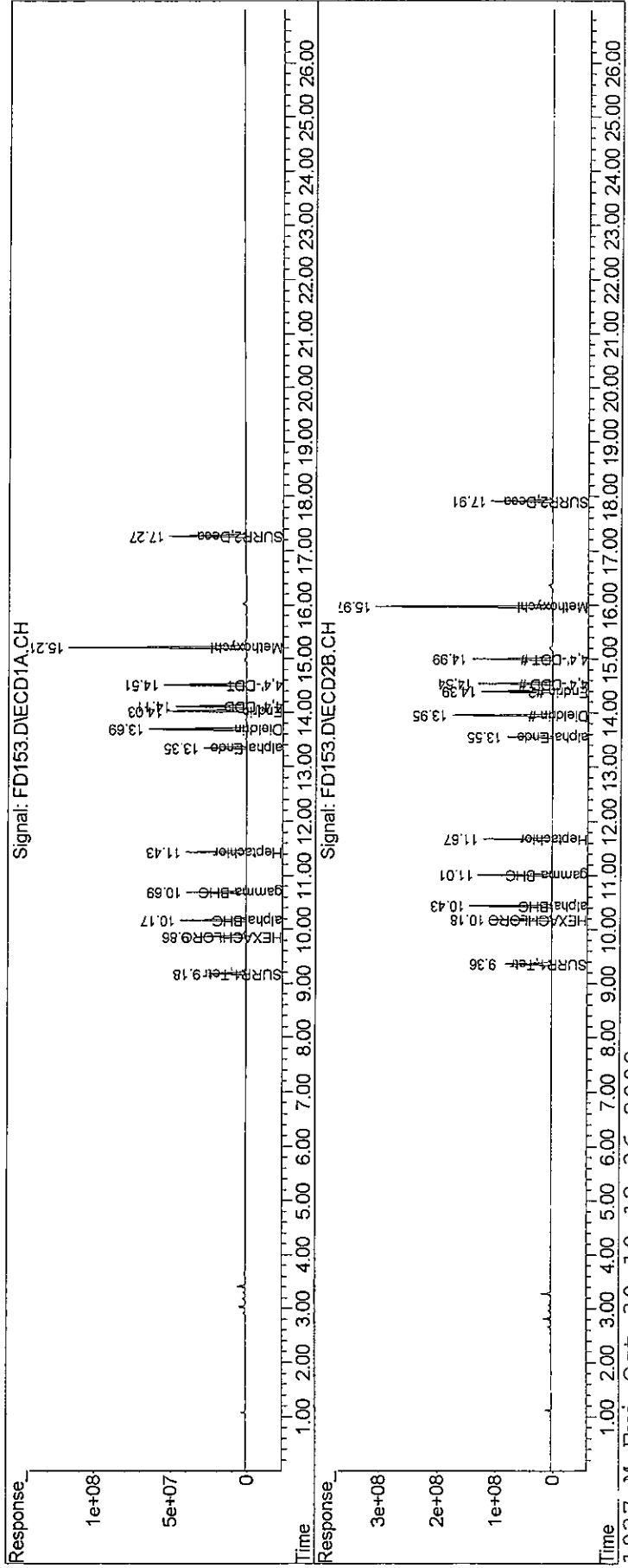
System Monitoring Compounds						
1) S SURR1,Tetrac	9.18	9.36	482.2E6	1461.2E6	20.300	20.929
Spiked Amount	100.000	Range	30 - 150	Recovery	= 20.30%#	20.93%#
25) S SURR2,Decachloro	17.27	17.91	850.2E6	1841.0E6	42.183	42.615
Spiked Amount	100.000	Range	30 - 150	Recovery	= 42.18%	42.62%
Target Compounds						
2) TC HEXACHLORO BENZEN	9.86	10.18	650.7E6	1939.7E6	20.518	20.784
3) tc alpha-BHC	10.17	10.43	742.3E6	2113.0E6	20.284	20.501
4) tcm gamma-BHC (L	10.69	11.01	668.2E6	1942.4E6	20.334	21.073
5) tcm Heptachlor	11.43	11.67	681.9E6	1860.8E6	20.847	21.228
10) tc alpha-Endosu	13.35	13.55	505.5E6	1312.5E6	20.715	21.934
14) tcm Dieldrin	13.69	13.95	1153.1E6	2895.0E6	42.169	43.759
15) tcm Endrin	14.03	14.39	932.0E6	2070.1E6	38.198	36.260
18) tc 4,4'-DDD	14.11	14.54	898.1E6	2225.4E6	42.660	43.310
19) tcm 4,4'-DDT	14.51	15.00	1009.4E6	2403.0E6	43.161	43.961
22) tc Methoxychlor	15.21	15.97	2317.4E6	4997.8E6	212.927	214.748
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\102709\
 Data File : FD153.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 29 Oct 2009 4:00 pm
 Operator : M.PEDRO
 Sample : CCV6A
 Misc : INDAM
 ALS Vial : 96 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 30 10:12:19 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 08:32:24 2009
 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



00807

Evaluate Continuing Calibration Report

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD154.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 29 Oct 2009 4:35 pm
 Operator : M.PEDRO
 Sample : CCV6B
 Misc : INDMB
 ALS Vial : 97 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 30 10:13:15 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 08:32:24 2009
 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	23.751	23.611 E6	0.6	96	0.00
6 tcm Aldrin	30.474	30.337 E6	0.4	99	0.00
7 tc beta-BHC	13.700	13.631 E6	0.5	102	0.00
8 TC delta-BHC	32.949	32.757 E6	0.6	99	0.00
9 tc Heptachlor E	27.583	27.455 E6	0.5	100	0.00
11 tc gamma-Chlord	27.497	27.329 E6	0.6	100	0.00
12 tc alpha-Chlord	25.734	26.255 E6	-2.0	102	0.00
13 tc 4,4'-DDE	26.453	26.468 E6	-0.1	99	0.00
17 tc beta-Endosul	23.075	23.325 E6	-1.1	102	0.00
20 tc Endrin Aldeh	18.237	17.984 E6	1.4	100	0.00
21 tc Endosulfan S	21.234	21.345 E6	-0.5	101	0.00
24 tc Endrin Keton	23.747	24.414 E6	-2.8	102	0.00
25 S SURR2,Decachlorobiphenyl	20.155	21.337 E6	-5.9	103	0.00

Handwritten note: 10/30/09

Signal #2

1 S SURR1,Tetrac	69.818	72.949 E6	-4.5	101	0.00
6 tcm Aldrin	81.589	84.528 E6	-3.6	102	0.00
7 tc beta-BHC	40.524	40.127 E6	1.0	100	0.00
8 tc delta-BHC	91.392	93.172 E6	-1.9	101	0.00
9 tc Heptachlor E	71.270	72.667 E6	-2.0	102	0.00
11 tc gamma-Chlord	71.631	74.029 E6	-3.3	103	0.00
12 tc alpha-Chlord	68.680	71.581 E6	-4.2	104	0.00
13 tc 4,4'-DDE	66.506	68.631 E6	-3.2	103	0.00
17 tc beta-Endosul	55.752	57.938 E6	-3.9	104	0.00
20 tc Endrin Aldeh	43.581	44.270 E6	-1.6	103	0.00
21 tc Endosulfan S	50.218	52.468 E6	-4.5	104	0.00
24 tc Endrin Keton	52.764	55.132 E6	-4.5	105	0.00
25 S SURR2,Decachlorobiphenyl	43.201	46.079 E6	-6.7	104	0.00

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD154.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 29 Oct 2009 4:35 pm
 Operator : M.PEDRO
 Sample : CCV6B
 Misc : INDMB
 ALS Vial : 97 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 30 10:13:15 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 08:32:24 2009
 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	9.18	9.36	472.2E6	1459.0E6	19.882	20.897
Spiked Amount	100.000	Range 30 - 150	Recovery =		19.88%#	20.90%#
25) S SURR2,Decachloro	17.27	17.91	853.5E6	1843.2E6	42.347	42.665
Spiked Amount	100.000	Range 30 - 150	Recovery =		42.35%	42.66%
Target Compounds						
6) tcm Aldrin	11.88	12.15	606.7E6	1690.6E6	19.910	20.721
7) tc beta-BHC	10.85	11.16	272.6E6	802.5E6	19.899	19.804
8) tc delta-BHC	11.12	11.60	655.1E6	1863.4E6	19.884	20.389
9) tc Heptachlor E	12.78	12.99	549.1E6	1453.3E6	19.907	20.392
11) tc gamma-Chlord	12.96	13.26	546.6E6	1480.6E6	19.878	20.670
12) tc alpha-Chlord	13.15	13.47	525.1E6	1431.6E6	20.405	20.845
13) tc 4,4'-DDE	13.27	13.71	1058.7E6	2745.3E6	40.022	41.278
17) tc beta-Endosul	14.35	14.70	933.0E6	2317.5E6	40.434	41.568
20) tc Endrin Aldeh	14.97	15.20	719.4E6	1770.8E6	39.445	40.633
21) tc Endosulfan S	15.62	15.60	853.8E6	2098.7E6	40.209	41.792
24) tc Endrin Keton	16.02	16.36	976.5E6	2205.3E6	41.124	41.795
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

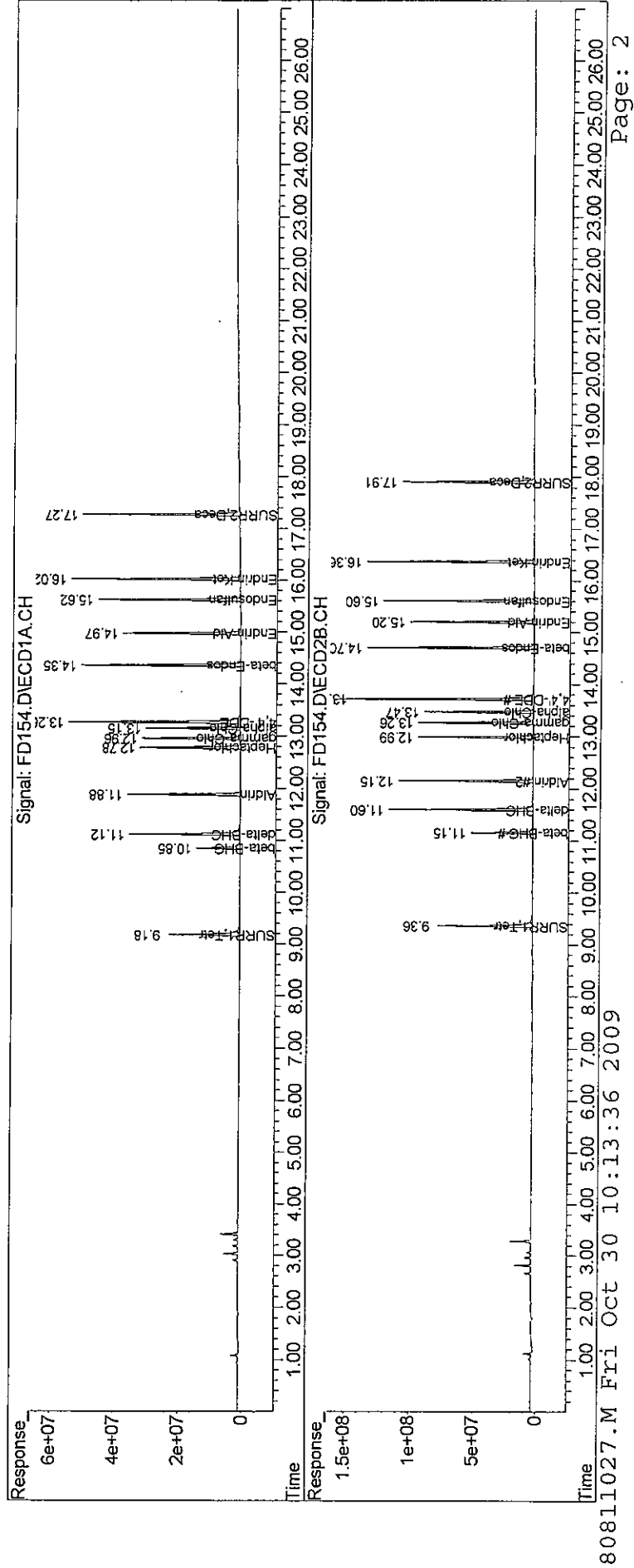
Handwritten: up 10/30

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\102709\
Data File : FD154.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 29 Oct 2009 4:35 pm
Operator : M.PEDRO
Sample : CCV6B
Misc : INDMB
ALS Vial : 97 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 30 10:13:15 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Oct 28 08:32:24 2009
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



00810

10A

*Pesticide Identification Summary
For Single Component Analytes*

NYSDEC Sample No.

MC-94B

Lab Name: Columbia Analytical Services Contract: NORTHGATE

Lab Code: 10145 Case.No.: R0905636 SAS No.: _____ SDG No.: PB100209-A2

Lab Sample ID R0905636-006|2.0 Date analyzed: 10/29/2009

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	10.17	10.12	10.22	8.90	
	2	10.43	10.38	10.48	8.55	4.05
<i>beta-BHC</i>	1	10.84	10.79	10.89	28.98	
	2	11.15	11.10	11.20	30.77	6.00
<i>delta-BHC</i>	1	11.11	11.06	11.16	11.07	
	2	11.60	11.55	11.65	11.35	2.50

10A

*Pesticide Identification Summary
For Single Component Analytes*

NYSDEC Sample No.

PBLK1MS

Lab Name: Columbia Analytical Services Contract: NORTHGATE

Lab Code: 10145 Case.No.: R0905636 SAS No.: _____ SDG No.: PB100209-A2

Lab Sample ID RQ0909548-02|1.0 Date analyzed: 10/8/2009

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
4,4'-DDD	1	14.15	14.11	14.25	0.17	
	2	14.26	14.25	14.39	0.18	1.71
4,4'-DDE	1	13.30	13.26	13.40	0.16	
	2	13.45	13.44	13.58	0.17	3.58
4,4'-DDT	1	14.55	14.51	14.65	0.17	
	2	14.71	14.70	14.84	0.17	1.01
Aldrin	1	11.90	11.88	11.98	0.15	
	2	11.89	11.90	12.00	0.15	0.27
alpha-BHC	1	10.18	10.16	10.26	0.19	
	2	10.20	10.20	10.30	0.16	14.90
alpha-Chlord	1	13.18	13.14	13.28	0.17	
	2	13.20	13.19	13.33	0.17	4.06
alpha-Endosu	1	13.37	13.33	13.47	0.19	
	2	13.28	13.26	13.40	0.17	6.63
beta-BHC	1	10.87	10.84	10.94	0.17	
	2	10.93	10.92	11.02	0.16	3.35
beta-Endosul	1	14.38	14.35	14.49	0.17	
	2	14.40	14.39	14.53	0.17	2.69
delta-BHC	1	11.14	11.12	11.22	0.16	
	2	11.36	11.36	11.46	0.15	7.61
Dieldrin	1	13.72	13.68	13.82	0.18	
	2	13.66	13.65	13.79	0.18	2.87

FORM X-CLP-PEST

00812

10A

**Pesticide Identification Summary
For Single Component Analytes**

NYSDEC Sample No.

PBLK1MS

Lab Name: Columbia Analytical Services Contract: NORTHGATE

Lab Code: 10145 Case.No.: R0905636 SAS No.: _____ SDG No.: PB100209-A2

Lab Sample ID RQ0909548-02|1.0 Date analyzed: 10/8/2009

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>Endosulfan S</i>	1	15.65	15.62	15.76	0.16	
	2	15.29	15.29	15.43	0.17	2.82
<i>Endrin</i>	1	14.06	14.02	14.16	0.18	
	2	14.10	14.09	14.23	0.19	2.77
<i>Endrin Aldehy</i>	1	15.00	14.97	15.11	0.14	
	2	14.89	14.88	15.02	0.16	12.88
<i>Endrin Keton</i>	1	16.05	16.02	16.16	0.17	
	2	16.06	16.05	16.19	0.18	3.54
<i>FAMPHUR</i>	1	0.00	15.95	16.09	0.00	
	2	15.54	15.46	15.60	0.00	0.00
<i>gamma-BHC (L</i>	1	10.71	10.68	10.78	0.18	
	2	10.76	10.76	10.86	0.17	7.89
<i>gamma-Chlord</i>	1	12.99	12.95	13.09	0.18	
	2	13.00	12.98	13.12	0.17	6.56
<i>Heptachlor</i>	1	11.45	11.43	11.53	0.17	
	2	11.42	11.43	11.53	0.18	7.91
<i>Heptachlor E</i>	1	12.80	12.76	12.90	0.18	
	2	12.72	12.71	12.85	0.18	0.17
<i>HEXACHLOROBE</i>	1	9.89	9.84	9.98	0.44	
	2	9.95	9.93	10.07	0.39	12.63
<i>KEPONE</i>	1	0.00	14.12	14.26	0.00	
	2	14.40	14.32	14.46	0.00	0.00

FORM X-CLP-PEST

00813

10A

*Pesticide Identification Summary
For Single Component Analytes*

NYSDEC Sample No.

PBLK1MS

Lab Name: Columbia Analytical Services *Contract:* NORTHGATE

Lab Code: 10145 *Case.No.:* R0905636 *SAS No.:* _____ *SDG No.:* PB100209-A2

Lab Sample ID RQ0909548-02|1.0 *Date analyzed:* 10/8/2009

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>Methoxychlor</i>	<i>1</i>	15.25	15.21	15.35	1.01	
	<i>2</i>	15.69	15.68	15.82	1.03	1.35

10A

Pesticide Identification Summary
For Single Component Analytes

NYSDEC Sample No.

PBLK1MSD

Lab Name: Columbia Analytical Services Contract: NORTHGATE

Lab Code: 10145 Case.No.: R0905636 SAS No.: _____ SDG No.: PB100209-A2

Lab Sample ID RQ0909548-03|1.0 Date analyzed: 10/8/2009

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
4,4'-DDD	1	14.15	14.11	14.25	0.19	
	2	14.26	14.25	14.39	0.19	1.91
4,4'-DDE	1	13.30	13.26	13.40	0.17	
	2	13.45	13.44	13.58	0.18	4.69
4,4'-DDT	1	14.55	14.51	14.65	0.18	
	2	14.71	14.70	14.84	0.18	1.23
Aldrin	1	11.90	11.88	11.98	0.16	
	2	11.89	11.90	12.00	0.16	2.53
alpha-BHC	1	10.18	10.16	10.26	0.17	
	2	10.20	10.20	10.30	0.18	1.31
alpha-Chlord	1	13.18	13.14	13.28	0.19	
	2	13.20	13.19	13.33	0.18	6.51
alpha-Endosu	1	13.37	13.33	13.47	0.21	
	2	13.28	13.26	13.40	0.19	8.41
beta-BHC	1	10.87	10.84	10.94	0.18	
	2	10.93	10.92	11.02	0.17	5.45
beta-Endosul	1	14.38	14.35	14.49	0.18	
	2	14.40	14.39	14.53	0.19	1.13
delta-BHC	1	11.14	11.12	11.22	0.17	
	2	11.36	11.36	11.46	0.16	7.37
Dieldrin	1	13.72	13.68	13.82	0.19	
	2	13.66	13.65	13.79	0.20	1.38

FORM X-CLP-PEST

00815

10A

Pesticide Identification Summary
For Single Component Analytes

NYSDEC Sample No.

PBLK1MSD

Lab Name: Columbia Analytical Services Contract: NORTHGATE

Lab Code: 10145 Case.No.: R0905636 SAS No.: _____ SDG No.: PB100209-A2

Lab Sample ID RQ0909548-03|1.0 Date analyzed: 10/8/2009

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
Endosulfan S	1	15.65	15.62	15.76	0.18	
	2	15.29	15.29	15.43	0.18	2.23
Endrin	1	14.05	14.02	14.16	0.20	
	2	14.09	14.09	14.23	0.20	2.26
Endrin Aldehy	1	15.00	14.97	15.11	0.16	
	2	14.89	14.88	15.02	0.17	6.43
Endrin Keton	1	16.05	16.02	16.16	0.19	
	2	16.06	16.05	16.19	0.19	1.42
gamma-BHC (L	1	10.70	10.68	10.78	0.18	
	2	10.76	10.76	10.86	0.18	0.71
gamma-Chlord	1	12.99	12.95	13.09	0.19	
	2	13.00	12.98	13.12	0.18	7.92
Heptachlor	1	11.45	11.43	11.53	0.17	
	2	11.42	11.43	11.53	0.18	5.76
Heptachlor E	1	12.80	12.76	12.90	0.19	
	2	12.72	12.71	12.85	0.19	2.04
HEXACHLOROBE	1	9.89	9.84	9.98	0.42	
	2	9.95	9.93	10.07	0.42	1.69
Methoxychlor	1	15.25	15.21	15.35	1.08	
	2	15.69	15.68	15.82	1.09	1.31

FORM X-CLP-PEST

00816

10A

*Pesticide Identification Summary
For Single Component Analytes*

NYSDEC Sample No.

PBLK2MS

Lab Name: Columbia Analytical Services Contract: NORTHGATE

Lab Code: 10145 Case.No.: R0905636 SAS No.: _____ SDG No.: PB100209-A2

Lab Sample ID RQ0909854-02|1.0 Date analyzed: 10/29/2009

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
4,4'-DDD	1	14.11	14.05	14.19	0.18	
	2	14.54	14.47	14.61	0.19	5.72
4,4'-DDE	1	13.26	13.20	13.34	0.17	
	2	13.71	13.64	13.78	0.18	5.95
4,4'-DDT	1	14.51	14.45	14.59	0.17	
	2	14.99	14.93	15.07	0.18	4.61
Aldrin	1	11.88	11.83	11.93	0.15	
	2	12.15	12.10	12.20	0.15	4.68
alpha-BHC	1	10.17	10.12	10.22	0.17	
	2	10.43	10.38	10.48	0.18	2.71
alpha-Chlord	1	13.15	13.08	13.22	0.17	
	2	13.47	13.41	13.55	0.17	0.92
alpha-Endosu	1	13.35	13.28	13.42	0.18	
	2	13.55	13.49	13.63	0.19	6.35
beta-BHC	1	10.84	10.79	10.89	0.18	
	2	11.15	11.10	11.20	0.17	5.33
beta-Endosul	1	14.35	14.29	14.43	0.17	
	2	14.70	14.63	14.77	0.19	10.06
delta-BHC	1	11.11	11.06	11.16	0.16	
	2	11.60	11.55	11.65	0.16	0.58
Dieldrin	1	13.69	13.62	13.76	0.18	
	2	13.95	13.88	14.02	0.19	9.47

FORM X-CLP-PEST

00817

10A

**Pesticide Identification Summary
For Single Component Analytes**

NYSDEC Sample No.

PBLK2MS

Lab Name: Columbia Analytical Services Contract: NORTHGATE

Lab Code: 10145 Case.No.: R0905636 SAS No.: _____ SDG No.: PB100209-A2

Lab Sample ID RQ0909854-02|1.0 Date analyzed: 10/29/2009

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>Endosulfan S</i>	1	15.62	15.55	15.69	0.16	
	2	15.61	15.54	15.68	0.18	8.18
<i>Endrin</i>	1	14.03	13.96	14.10	0.18	
	2	14.39	14.33	14.47	0.18	0.68
<i>Endrin Aldehy</i>	1	14.97	14.91	15.05	0.14	
	2	15.20	15.13	15.27	0.16	14.89
<i>Endrin Keton</i>	1	16.02	15.95	16.09	0.18	
	2	16.36	16.30	16.44	0.20	9.99
<i>gamma-BHC (L)</i>	1	10.69	10.64	10.74	0.18	
	2	11.00	10.96	11.06	0.18	1.53
<i>gamma-Chlord</i>	1	12.96	12.89	13.03	0.17	
	2	13.26	13.19	13.33	0.18	1.99
<i>Heptachlor</i>	1	11.43	11.38	11.48	0.17	
	2	11.67	11.62	11.72	0.17	2.44
<i>Heptachlor E</i>	1	12.78	12.71	12.85	0.17	
	2	12.99	12.92	13.06	0.18	4.26
<i>HEXACHLOROBE</i>	1	9.86	9.79	9.93	0.41	
	2	10.18	10.11	10.25	0.40	2.06
<i>Methoxychlor</i>	1	15.21	15.14	15.28	1.04	
	2	15.97	15.90	16.04	1.07	2.76

FORM X-CLP-PEST

00818

10A

**Pesticide Identification Summary
For Single Component Analytes**

NYSDEC Sample No.

PBLK2MSD

Lab Name: Columbia Analytical Services Contract: NORTHGATE

Lab Code: 10145 Case.No.: R0905636 SAS No.: _____ SDG No.: PB100209-A2

Lab Sample ID RQ0909854-03|1.0 Date analyzed: 10/29/2009

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
4,4'-DDD	1	14.11	14.05	14.19	0.18	
	2	14.54	14.47	14.61	0.20	7.32
4,4'-DDE	1	13.26	13.20	13.34	0.17	
	2	13.71	13.64	13.78	0.18	5.48
4,4'-DDT	1	14.51	14.45	14.59	0.18	
	2	14.99	14.93	15.07	0.19	6.11
Aldrin	1	11.88	11.83	11.93	0.15	
	2	12.15	12.10	12.20	0.16	5.63
alpha-BHC	1	10.17	10.12	10.22	0.18	
	2	10.43	10.38	10.48	0.18	2.90
alpha-Chlord	1	13.15	13.08	13.22	0.18	
	2	13.47	13.41	13.55	0.18	0.50
alpha-Endosu	1	13.35	13.28	13.42	0.19	
	2	13.55	13.49	13.63	0.20	6.52
beta-BHC	1	10.84	10.79	10.89	0.18	
	2	11.15	11.10	11.20	0.18	2.64
beta-Endosul	1	14.35	14.29	14.43	0.18	
	2	14.70	14.63	14.77	0.19	8.12
delta-BHC	1	11.11	11.06	11.16	0.16	
	2	11.60	11.55	11.65	0.16	2.26
Dieldrin	1	13.69	13.62	13.76	0.18	
	2	13.95	13.88	14.02	0.20	8.04

FORM X-CLP-PEST

00819

10A

Pesticide Identification Summary
For Single Component Analytes

NYSDEC Sample No.

PBLK2MSD

Lab Name: Columbia Analytical Services Contract: NORTHGATE

Lab Code: 10145 Case.No.: R0905636 SAS No.: _____ SDG No.: PB100209-A2

Lab Sample ID RQ0909854-03|1.0 Date analyzed: 10/29/2009

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
Endosulfan S	1	15.62	15.55	15.69	0.17	
	2	15.60	15.54	15.68	0.18	5.96
Endrin	1	14.03	13.96	14.10	0.18	
	2	14.39	14.33	14.47	0.19	2.48
Endrin Aldeh	1	14.97	14.91	15.05	0.15	
	2	15.20	15.13	15.27	0.16	7.65
Endrin Keton	1	16.02	15.95	16.09	0.19	
	2	16.36	16.30	16.44	0.21	9.01
gamma-BHC (L	1	10.69	10.64	10.74	0.18	
	2	11.01	10.96	11.06	0.18	1.76
gamma-Chlord	1	12.96	12.89	13.03	0.18	
	2	13.26	13.19	13.33	0.18	3.08
Heptachlor	1	11.43	11.38	11.48	0.17	
	2	11.67	11.62	11.72	0.17	4.09
Heptachlor E	1	12.78	12.71	12.85	0.18	
	2	12.99	12.92	13.06	0.18	3.93
HEXACHLOROBE	1	9.86	9.79	9.93	0.42	
	2	10.18	10.11	10.25	0.41	1.89
Methoxychlor	1	15.21	15.14	15.28	1.09	
	2	15.97	15.90	16.04	1.12	2.74

FORM X-CLP-PEST

00820

PESTICIDES
RAW QC DATA

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ0909548-01

Service Request: R0905636
Date Collected: NA
Date Received: NA
Units: µg/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analytical Method: 8081A
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis		
								Lot	Lot	Note
4,4'-DDD	0.050	U	0.10	0.050	1	10/ 6/09	10/8/09 09:07	97635	174100	
4,4'-DDE	0.050	U	0.10	0.050	1	10/ 6/09	10/8/09 09:07	97635	174100	
4,4'-DDT	0.050	U	0.10	0.050	1	10/ 6/09	10/8/09 09:07	97635	174100	
Aldrin	0.025	U	0.050	0.025	1	10/ 6/09	10/8/09 09:07	97635	174100	
Chlordane	0.13	U	0.25	0.13	1	10/ 6/09	10/8/09 09:07	97635	174100	
Dieldrin	0.050	U	0.10	0.050	1	10/ 6/09	10/8/09 09:07	97635	174100	
Endosulfan I	0.025	U	0.050	0.025	1	10/ 6/09	10/8/09 09:07	97635	174100	
Endosulfan II	0.050	U	0.10	0.050	1	10/ 6/09	10/8/09 09:07	97635	174100	
Endosulfan Sulfate	0.050	U	0.10	0.050	1	10/ 6/09	10/8/09 09:07	97635	174100	
Endrin	0.050	U	0.10	0.050	1	10/ 6/09	10/8/09 09:07	97635	174100	
Endrin Aldehyde	0.050	U	0.10	0.050	1	10/ 6/09	10/8/09 09:07	97635	174100	
Endrin Ketone	0.050	U	0.10	0.050	1	10/ 6/09	10/8/09 09:07	97635	174100	
Heptachlor	0.025	U	0.050	0.025	1	10/ 6/09	10/8/09 09:07	97635	174100	
Heptachlor Epoxide	0.025	U	0.050	0.025	1	10/ 6/09	10/8/09 09:07	97635	174100	
Hexachlorobenzene	0.028	U	0.050	0.028	1	10/ 6/09	10/8/09 09:07	97635	174100	
Methoxychlor	0.25	U	0.50	0.25	1	10/ 6/09	10/8/09 09:07	97635	174100	
Toxaphene	0.50	U	1.0	0.50	1	10/ 6/09	10/8/09 09:07	97635	174100	
alpha-BHC	0.025	U	0.050	0.025	1	10/ 6/09	10/8/09 09:07	97635	174100	
alpha-Chlordane	0.025	U	0.050	0.025	1	10/ 6/09	10/8/09 09:07	97635	174100	
beta-BHC	0.025	U	0.050	0.025	1	10/ 6/09	10/8/09 09:07	97635	174100	
delta-BHC	0.025	U	0.050	0.025	1	10/ 6/09	10/8/09 09:07	97635	174100	
gamma-BHC (Lindane)	0.025	U	0.050	0.025	1	10/ 6/09	10/8/09 09:07	97635	174100	
gamma-Chlordane	0.025	U	0.050	0.025	1	10/ 6/09	10/8/09 09:07	97635	174100	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
Decachlorobiphenyl	85	40-140	10/8/09 09:07		
Tetrachloro-m-xylene	79	40-140	10/8/09 09:07		

Comments: _____

Data Path : J:\ACQUDATA\6890D\DATA\100809\
 Data File : FC753.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 08 Oct 2009 9:07 am
 Operator : M.PEDRO
 Sample : RQ0909548-01|1.0
 Misc : 10/06/09 100 8081/608 BLK
 ALS Vial : 36 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 09 10:51:59 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Fri Oct 09 10:50:59 2009
 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	9.20	9.14	1798.3E6	5712.2E6	78.516	69.499
Spiked Amount	100.000	Range 30 - 150	Recovery =		78.52%	69.50%
25) S SURR2,Decachloro	17.32	17.61	1592.6E6	3914.0E6	84.897	79.912
Spiked Amount	100.000	Range 30 - 150	Recovery =		84.90%	79.91%
Target Compounds						
2) TC HEXACHLOROBENZEN	9.90	0.00	18803044	0	0.606	N.D. #
3) tc alpha-BHC	10.18	10.20	30398202	16330803	0.845	0.136 #
5) tcm Heptachlor	11.45	11.44	6463593	18955525	0.208	0.192
7) tc beta-BHC	10.90	0.00	29274094	0	2.219	N.D. #
8) tc delta-BHC	11.13	11.36	20038434	13076257	0.660	0.131 #
9) tc Heptachlor E	0.00	12.74	0	35331205	N.D.	0.454 #
11) tc gamma-Chlord	0.00	13.00	0	52625575	N.D.	0.660 #
12) tc alpha-Chlord	0.00	13.19	0	10678885	N.D.	0.141 #
13) tc 4,4'-DDE	13.29	13.48	12940036	37043219	0.545	0.519
14) tcm Dieldrin	13.72	13.64	12368015	46133040	0.492	0.633 #
15) tcm Endrin	0.00	14.11	0	12064170	N.D.	0.189 #
17) tc beta-Endosul	0.00	14.42	0	28137941	N.D.	0.460 #
19) tcm 4,4'-DDT	0.00	14.72	0	55347297	N.D.	0.910 #
20) tc Endrin Aldeh	0.00	14.98	0	95683731	N.D.	2.075 #
21) tc Endosulfan S	15.63	15.27	2300191	9976302	0.121	0.180 #
24) tc Endrin Keton	16.07	16.05	2897015	11405376	0.134	0.195 #
26) L8C Toxaphene	14.52	0.00	15942812	0	17.436	N.D. #
27) L8C Toxaphene {2}	0.00	14.98	0	7685265	N.D.	2.246 #
28) L8C Toxaphene {3}	15.17	15.07	1889495	5891773	3.656	4.801 #
29) L8C Toxaphene {4}	16.07	16.23	2897015	22214206	5.085	17.126 #
30) L8C Toxaphene {5}	16.26	16.52	22050462	36836996	48.594	30.421 #
Sum Toxaphene			42779785	72628240	74.771	54.593
Average Toxaphene					18.693	13.648
31) L9C Chlordane	0.00	11.27	0	20257639	N.D.	29.993 #
32) L9C Chlordane {2}	11.50	11.48	10807762	23077527	26.551	16.131 #

Data Path : J:\ACQUDATA\6890D\DATA\100809\
 Data File : FC753.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 08 Oct 2009 9:07 am
 Operator : M.PEDRO
 Sample : RQ0909548-01|1.0
 Misc : 10/06/09 100 8081/608 BLK
 ALS Vial : 36 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 09 10:51:59 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Fri Oct 09 10:50:59 2009
 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
35) L9C Chlordane{5}	0.00	14.56	0	11255001	N.D.	3.153 #
Sum Chlordane			10807762	54590166	26.551	49.277
Average Chlordane					26.551	16.426

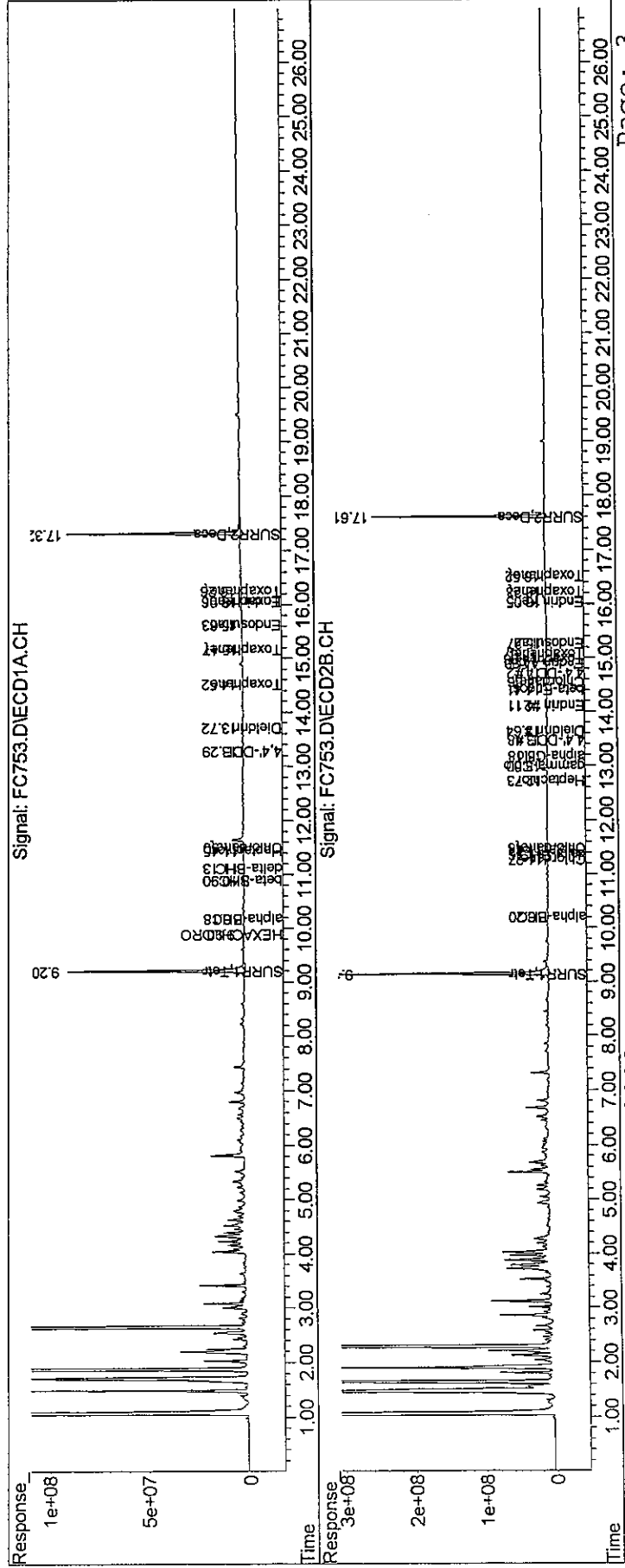
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : J:\ACQUDATA\6890D\DATA\100809\
Data File : FC753.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Oct 2009 9:07 am
Operator : M.PEDRO
Sample : RQ0909548-01|1.0
Misc : 10/06/09 100 8081/608 BLK
ALS Vial : 36 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 09 10:51:59 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Fri Oct 09 10:50:59 2009
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



00825

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ0909854-01

Service Request: R0905636
Date Collected: NA
Date Received: NA
Units: µg/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analytical Method: 8081A
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis		
								Lot	Lot	Note
4,4'-DDD	0.050	U	0.10	0.050	1	10/13/09	10/29/09 12:26	98167	177168	
4,4'-DDE	0.050	U	0.10	0.050	1	10/13/09	10/29/09 12:26	98167	177168	
4,4'-DDT	0.050	U	0.10	0.050	1	10/13/09	10/29/09 12:26	98167	177168	
Aldrin	0.025	U	0.050	0.025	1	10/13/09	10/29/09 12:26	98167	177168	
Chlordane	0.13	U	0.25	0.13	1	10/13/09	10/29/09 12:26	98167	177168	
Dieldrin	0.050	U	0.10	0.050	1	10/13/09	10/29/09 12:26	98167	177168	
Endosulfan I	0.025	U	0.050	0.025	1	10/13/09	10/29/09 12:26	98167	177168	
Endosulfan II	0.050	U	0.10	0.050	1	10/13/09	10/29/09 12:26	98167	177168	
Endosulfan Sulfate	0.050	U	0.10	0.050	1	10/13/09	10/29/09 12:26	98167	177168	
Endrin	0.050	U	0.10	0.050	1	10/13/09	10/29/09 12:26	98167	177168	
Endrin Aldehyde	0.050	U	0.10	0.050	1	10/13/09	10/29/09 12:26	98167	177168	
Endrin Ketone	0.050	U	0.10	0.050	1	10/13/09	10/29/09 12:26	98167	177168	
Heptachlor	0.025	U	0.050	0.025	1	10/13/09	10/29/09 12:26	98167	177168	
Heptachlor Epoxide	0.025	U	0.050	0.025	1	10/13/09	10/29/09 12:26	98167	177168	
Hexachlorobenzene	0.028	U	0.050	0.028	1	10/13/09	10/29/09 12:26	98167	177168	
Methoxychlor	0.25	U	0.50	0.25	1	10/13/09	10/29/09 12:26	98167	177168	
Toxaphene	0.50	U	1.0	0.50	1	10/13/09	10/29/09 12:26	98167	177168	
alpha-BHC	0.025	U	0.050	0.025	1	10/13/09	10/29/09 12:26	98167	177168	
alpha-Chlordane	0.025	U	0.050	0.025	1	10/13/09	10/29/09 12:26	98167	177168	
beta-BHC	0.025	U	0.050	0.025	1	10/13/09	10/29/09 12:26	98167	177168	
delta-BHC	0.025	U	0.050	0.025	1	10/13/09	10/29/09 12:26	98167	177168	
gamma-BHC (Lindane)	0.025	U	0.050	0.025	1	10/13/09	10/29/09 12:26	98167	177168	
gamma-Chlordane	0.025	U	0.050	0.025	1	10/13/09	10/29/09 12:26	98167	177168	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
Decachlorobiphenyl	91	40-140	10/29/09 12:26		
Tetrachloro-m-xylene	83	40-140	10/29/09 12:26		

Comments: _____

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD147.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 29 Oct 2009 12:26 pm
 Operator : M.PEDRO
 Sample : RQ0909854-01|1.0
 Misc : 10/13/09 100 8081 BLK
 ALS Vial : 90 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 30 06:34:46 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 08:32:24 2009
 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	9.18	9.36	1967.0E6	5227.4E6	82.817	74.873
Spiked Amount	100.000	Range 30 - 150	Recovery =		82.82%	74.87%
25) S SURR2,Decachloro	17.27	17.91	1843.8E6	3917.1E6	91.482	90.673
Spiked Amount	100.000	Range 30 - 150	Recovery =		91.48%	90.67%
Target Compounds						
2) TC HEXACHLOROBENZEN	9.87	10.16	26104294	18938904	0.823	0.203 #
3) tc alpha-BHC	10.15	10.42	14595499	21045238	0.399	0.204 #
4) tcm gamma-BHC (L	10.68	0.00	22380855	0	0.681	N.D. #
5) tcm Heptachlor	11.43	11.66	37745895	33668833	1.154	0.384 #
8) tc delta-BHC	11.09	11.61	30073347	13367472	0.913	0.146 #
9) tc Heptachlor E	12.78	12.99	14132179	37060672	0.512	0.520 #
10) tc alpha-Endosu	13.33	13.54	21128184	29596668	0.866	0.495 #
11) tc gamma-Chlord	12.95	13.25	18181041	47501907	0.661	0.663 #
12) tc alpha-Chlord	0.00	13.49	0	14895529	N.D.	0.217 #
13) tc 4,4'-DDE	13.25	0.00	22170068	0	0.838	N.D. #
14) tcm Dieldrin	13.68	13.96	16640977	15835669	0.609	0.239 #
15) tcm Endrin	0.00	14.38	0	9090487	N.D.	0.159 #
16) tc KEPONE	14.07	0.00	17143538	0	1.766	N.D. #
17) tc beta-Endosul	0.00	14.70	0	16280843	N.D.	0.292 #
19) tcm 4,4'-DDT	0.00	15.00	0	23226423	N.D.	0.425 #
20) tc Endrin Aldeh	0.00	15.18	0	47307291	N.D.	1.086 #
24) tc Endrin Keton	0.00	16.35	0	3091921	N.D.	0.059 #
28) L8C Toxaphene{3}	15.13	0.00	2266312	0	3.949	N.D. #
30) L8C Toxaphene{5}	0.00	16.72	0	6302710	N.D.	5.390 #
Sum Toxaphene			2266312	6302710	3.949	5.390
Average Toxaphene					3.949	5.390
31) L9C Chlordane	11.30	11.44	19840424	23114166	110.512	40.845 #
32) L9C Chlordane{2}	11.43	11.66	37745895	33668833	87.655	26.275 #
33) L9C Chlordane{3}	0.00	12.40	0	21915080	N.D.	13.677 #
34) L9C Chlordane{4}	12.95	13.25	18181041	47501907	5.664	6.050 #

10/30

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD147.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 29 Oct 2009 12:26 pm
 Operator : M.PEDRO
 Sample : RQ0909854-01|1.0
 Misc : 10/13/09 100 8081 BLK
 ALS Vial : 90 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 30 06:34:46 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 08:32:24 2009
 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

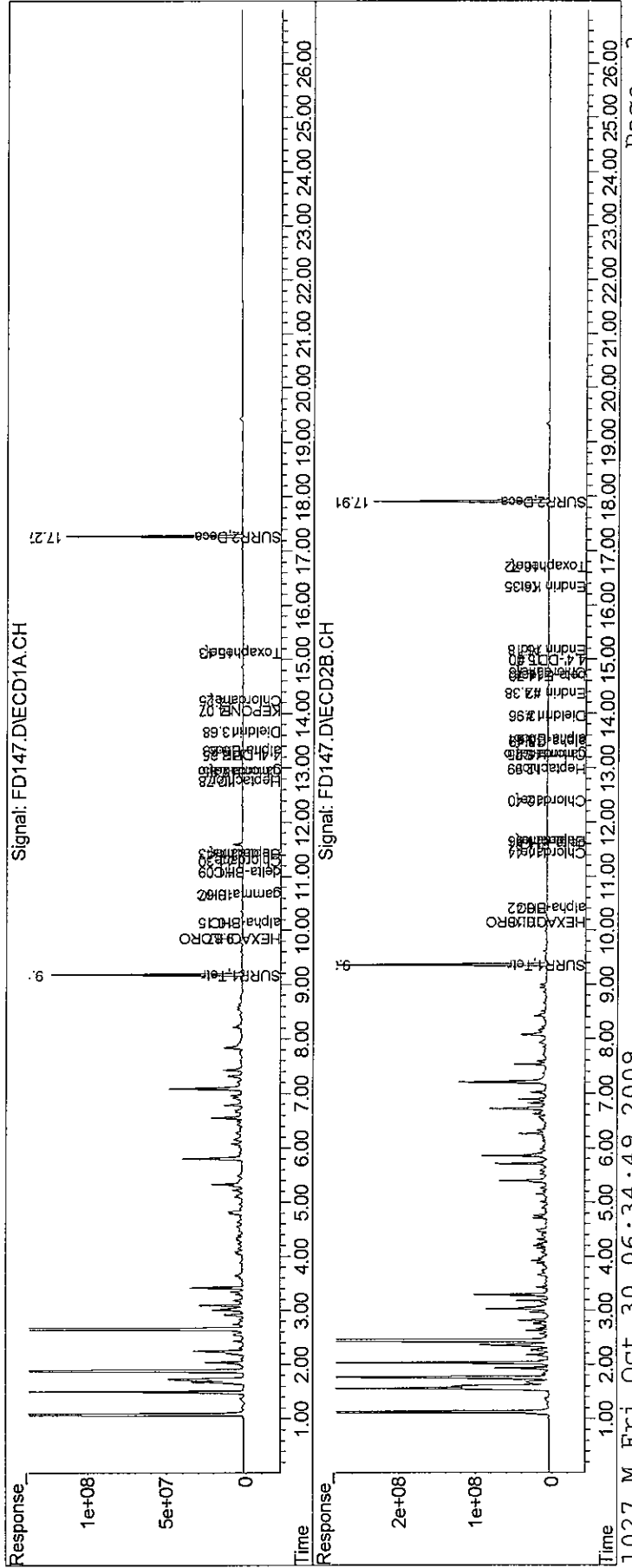
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
35) L9C Chlordane{5}	14.25	14.76	14776638	30035763	12.229	9.420
Sum Chlordane			90543997	156.2E6	216.060	96.267
Average Chlordane					54.015	19.253

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\102709\
Data File : FD147.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 29 Oct 2009 12:26 pm
Operator : M.PEDRO
Sample : RQ0909854-01|1.0
Misc : 10/13/09 100 8081 BLK
ALS Vial : 90 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 30 06:34:46 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Oct 28 08:32:24 2009
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



00829

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: Lab Control Sample
Lab Code: RQ0909548-02

Service Request: R0905636
Date Collected: NA
Date Received: NA
Units: µg/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analytical Method: 8081A
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis		Note
								Lot	Lot	
4,4'-DDD	0.177		0.10	0.050	1	10/ 6/09	10/8/09 09:43	97635	174100	
4,4'-DDE	0.171		0.10	0.050	1	10/ 6/09	10/8/09 09:43	97635	174100	
4,4'-DDT	0.169		0.10	0.050	1	10/ 6/09	10/8/09 09:43	97635	174100	
Aldrin	0.150		0.050	0.025	1	10/ 6/09	10/8/09 09:43	97635	174100	
Chlordane	0.13	U	0.25	0.13	1	10/ 6/09	10/8/09 09:43	97635	174100	
Dieldrin	0.184		0.10	0.050	1	10/ 6/09	10/8/09 09:43	97635	174100	
Endosulfan I	0.187		0.050	0.025	1	10/ 6/09	10/8/09 09:43	97635	174100	
Endosulfan II	0.173		0.10	0.050	1	10/ 6/09	10/8/09 09:43	97635	174100	
Endosulfan Sulfate	0.169		0.10	0.050	1	10/ 6/09	10/8/09 09:43	97635	174100	
Endrin	0.187		0.10	0.050	1	10/ 6/09	10/8/09 09:43	97635	174100	
Endrin Aldehyde	0.160		0.10	0.050	1	10/ 6/09	10/8/09 09:43	97635	174100	
Endrin Ketone	0.181		0.10	0.050	1	10/ 6/09	10/8/09 09:43	97635	174100	
Heptachlor	0.179		0.050	0.025	1	10/ 6/09	10/8/09 09:43	97635	174100	
Heptachlor Epoxide	0.176		0.050	0.025	1	10/ 6/09	10/8/09 09:43	97635	174100	
Hexachlorobenzene	0.444		0.050	0.028	1	10/ 6/09	10/8/09 09:43	97635	174100	
Methoxychlor	1.03		0.50	0.25	1	10/ 6/09	10/8/09 09:43	97635	174100	
Toxaphene	0.50	U	1.0	0.50	1	10/ 6/09	10/8/09 09:43	97635	174100	
alpha-BHC	0.188		0.050	0.025	1	10/ 6/09	10/8/09 09:43	97635	174100	
alpha-Chlordane	0.173		0.050	0.025	1	10/ 6/09	10/8/09 09:43	97635	174100	
beta-BHC	0.167		0.050	0.025	1	10/ 6/09	10/8/09 09:43	97635	174100	
delta-BHC	0.160		0.050	0.025	1	10/ 6/09	10/8/09 09:43	97635	174100	
gamma-BHC (Lindane)	0.183		0.050	0.025	1	10/ 6/09	10/8/09 09:43	97635	174100	
gamma-Chlordane	0.179		0.050	0.025	1	10/ 6/09	10/8/09 09:43	97635	174100	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
Decachlorobiphenyl	84	40-140	10/8/09 09:43		
Tetrachloro-m-xylene	86	40-140	10/8/09 09:43		

Comments:

Data Path : J:\ACQUDATA\6890D\DATA\100809\
 Data File : FC754.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 08 Oct 2009 9:43 am
 Operator : M.PEDRO
 Sample : RQ0909548-02|1.0
 Misc : 10/06/09 100 8081/608 BLK *US*
 ALS Vial : 37 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 09 12:06:02 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Fri Oct 09 10:50:59 2009
 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	9.20	9.14	1959.5E6	6100.7E6	85.556	74.226
Spiked Amount	100.000	Range 30 - 150	Recovery =		85.56%	74.23%
2) S SURR2,Decachloro	17.32	17.61	1581.0E6	4134.9E6	84.276	84.422
Spiked Amount	100.000	Range 30 - 150	Recovery =		84.28%	84.42%
Target Compounds						
2) TC HEXACHLOROBENZEN	9.89	9.95	1376.2E6	4112.4E6	44.351	39.076
3) tc alpha-BHC	10.18	10.20	676.7E6	1944.6E6	18.819	16.212
4) tcm gamma-BHC (L	10.71	10.76	577.7E6	1762.9E6	18.313	16.915
5) tcm Heptachlor	11.45	11.42	512.1E6	1762.0E6	16.510m	17.873
6) tcm Aldrin	11.90	11.89	424.0E6	1347.4E6	14.964m	14.917
7) tc beta-BHC	10.87	10.93	219.9E6	723.1E6	16.669m	16.119
8) tc delta-BHC	11.14	11.36	484.6E6	1477.0E6	15.953m	14.776
9) tc Heptachlor E	12.80	12.72	449.0E6	1371.3E6	17.641	17.605
10) tc alpha-Endosu	13.37	13.28	424.8E6	1206.3E6	18.693	17.488
11) tc gamma-Chlord	12.99	13.00	460.4E6	1339.7E6	17.938	16.799
12) tc alpha-Chlord	13.18	13.20	427.8E6	1259.3E6	17.338	16.649
13) tc 4,4'-DDE	13.30	13.45	390.5E6	1218.6E6	16.460	17.063
14) tcm Dieldrin	13.72	13.66	449.4E6	1341.5E6	17.878	18.395
15) tcm Endrin	14.06	14.10	408.6E6	1190.8E6	18.181	18.687
17) tc beta-Endosul	14.38	14.40	358.6E6	1057.4E6	16.839	17.300
18) tc 4,4'-DDD	14.15	14.26	329.7E6	969.9E6	17.385	17.690
19) tcm 4,4'-DDT	14.55	14.71	362.1E6	1026.4E6	16.697	16.868
20) tc Endrin Aldeh	15.00	14.89	231.2E6	739.2E6	14.095	16.028
21) tc Endosulfan S	15.65	15.29	311.9E6	933.7E6	16.414	16.877
22) tc Methoxychlor	15.25	15.69	988.4E6	2715.2E6	101.399	102.783
24) tc Endrin Keton	16.05	16.06	377.1E6	1060.5E6	17.483	18.109
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

10/9

Data Path : J:\ACQUDATA\6890D\DATA\100809\
 Data File : FC754.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 08 Oct 2009 9:43 am
 Operator : M.PEDRO
 Sample : RQ0909548-02|1.0
 Misc : 10/06/09 100 8081/608 BLK
 ALS Vial : 37 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 09 12:06:02 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Fri Oct 09 10:50:59 2009
 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

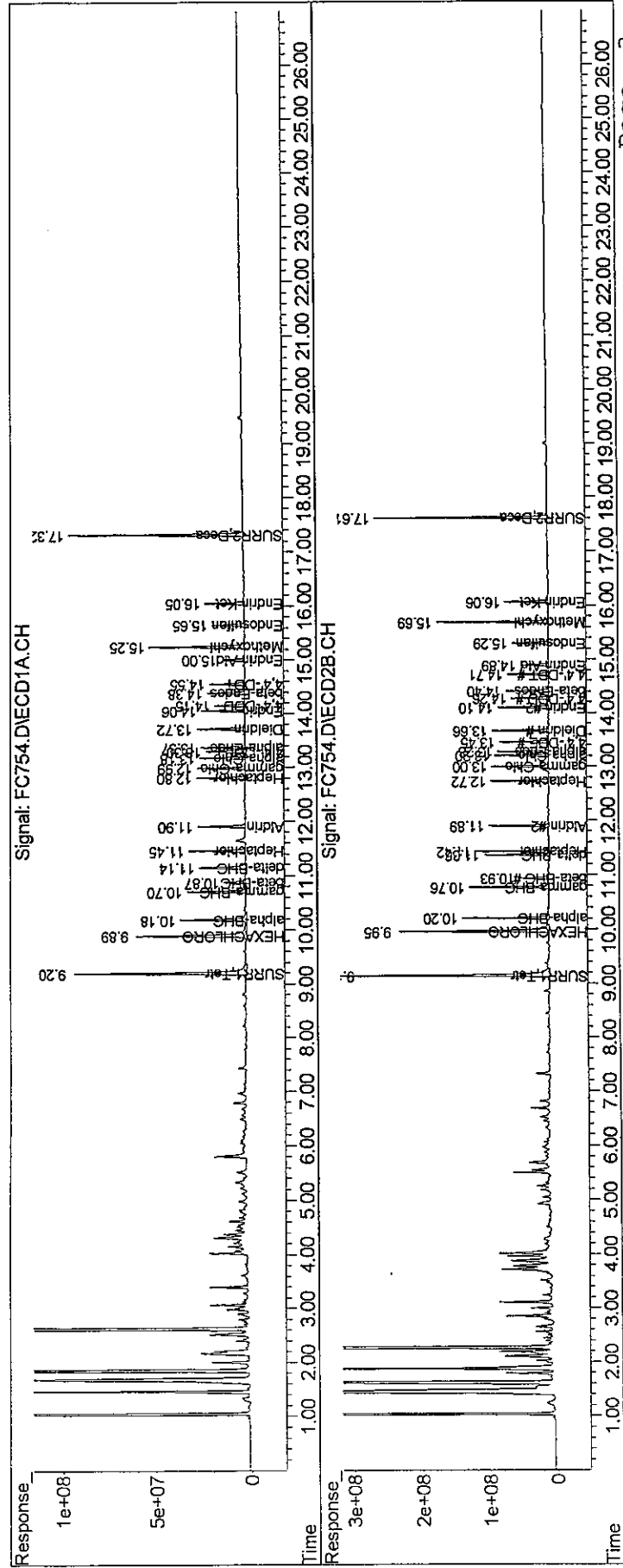
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\100809\
 Data File : FC754.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 08 Oct 2009 9:43 am
 Operator : M.PEDRO
 Sample : RQ0909548-02|1.0
 Misc : 10/06/09 100 8081/608 BLK
 ALS Vial : 37 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 09 12:06:02 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Fri Oct 09 10:50:59 2009
 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



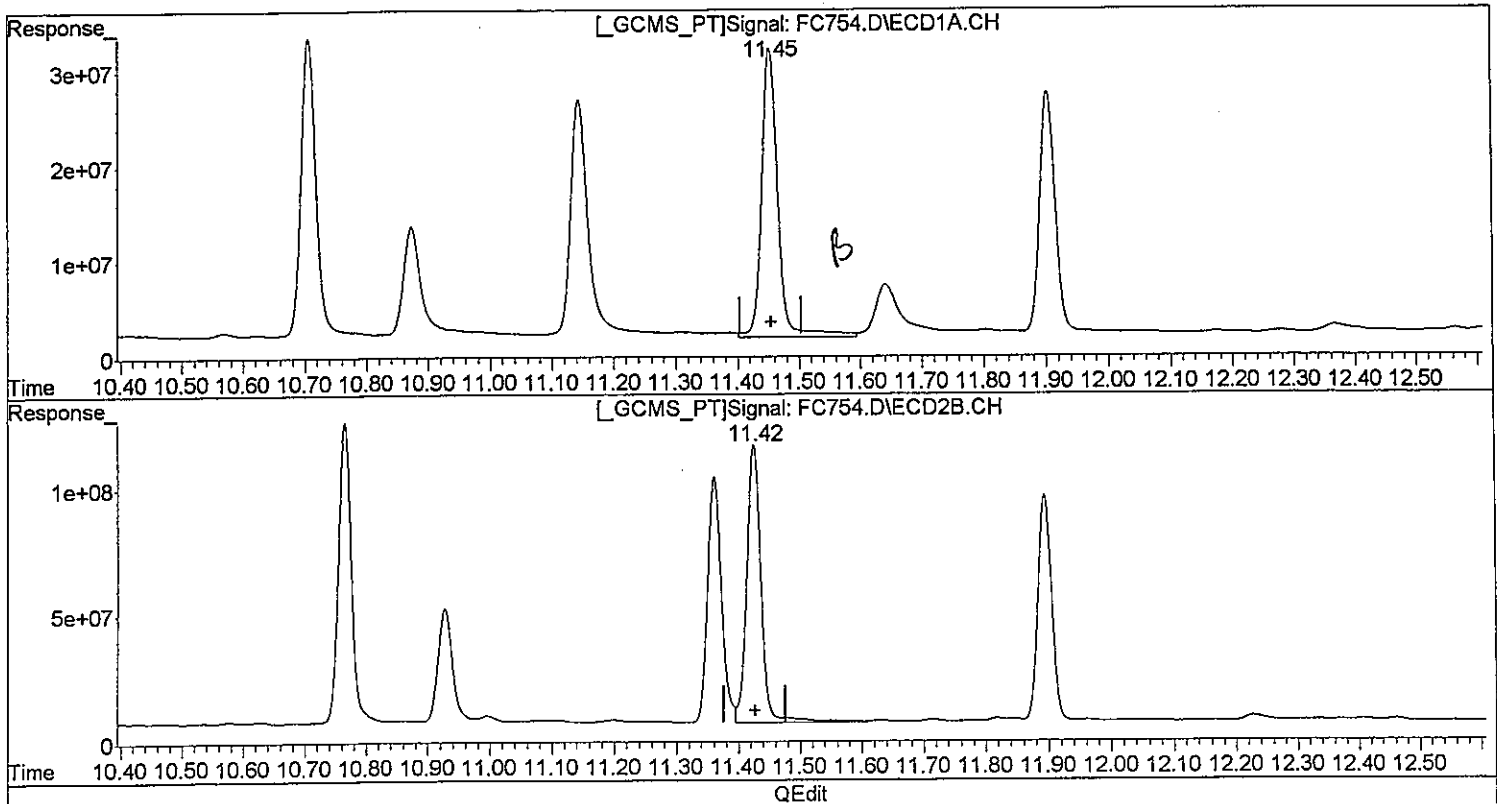
00833

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\100809\
Data File : FC754.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Oct 2009 9:43 am
Operator : M.PEDRO
Sample : RQ0909548-02|1.0
Misc : 10/06/09 100 8081/608 BLK
ALS Vial : 37 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 09 10:52:05 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Fri Oct 09 10:50:59 2009
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)
11.45min 17.964ug/l
response 557201952

Blank

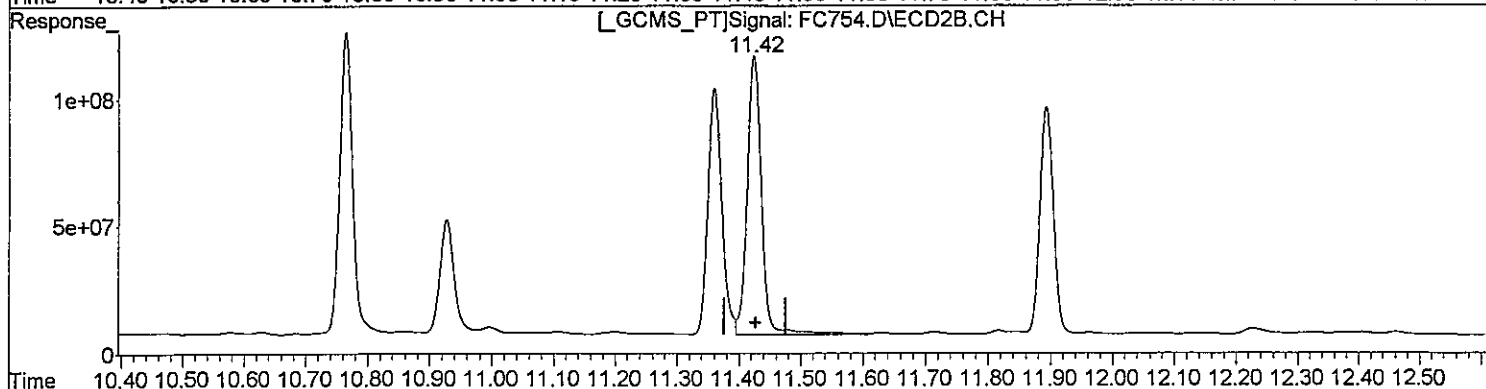
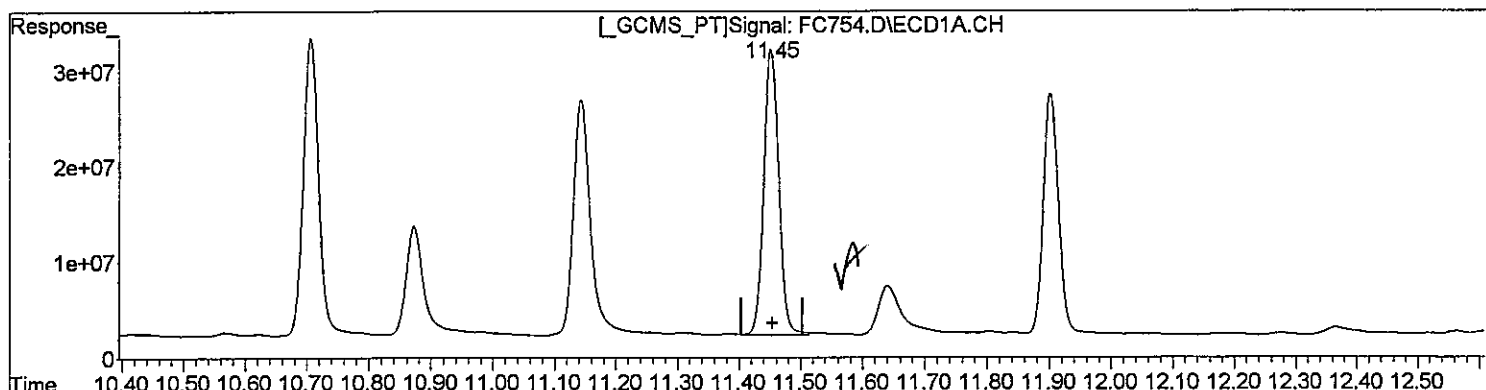
(5) Heptachlor #2 (tcm)
11.42min 17.873ug/l
response 1761952073

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\100809\
Data File : FC754.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Oct 2009 9:43 am
Operator : M.PEDRO
Sample : RQ0909548-02|1.0
Misc : 10/06/09 100 8081/608 BLK
ALS Vial : 37 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 09 10:52:05 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Fri Oct 09 10:50:59 2009
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)
11.45min 16.510ug/l m
response 512102172

Handwritten signature
10/9

(5) Heptachlor #2 (tcm)
11.42min 17.873ug/l
response 1761952073

Handwritten signature
10/9

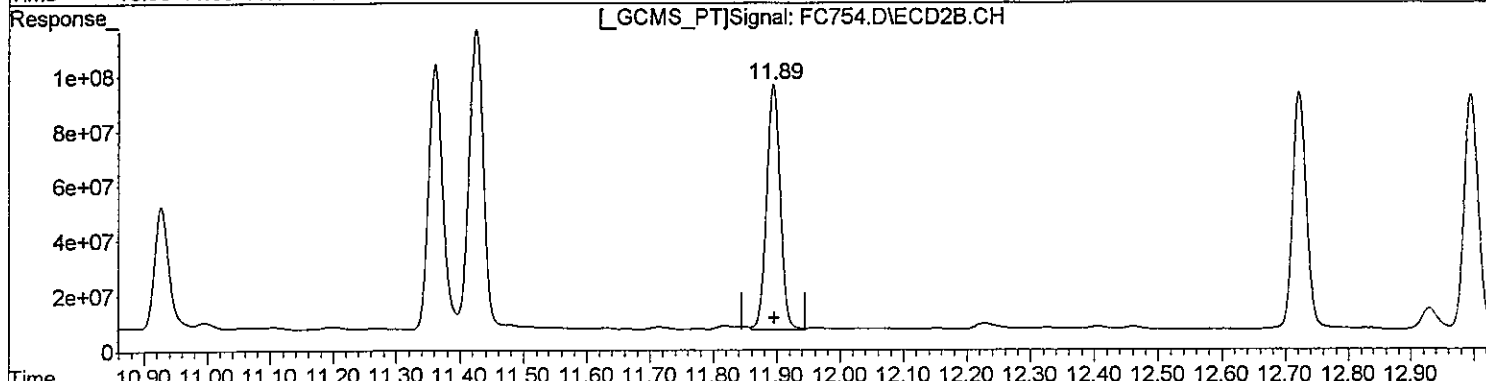
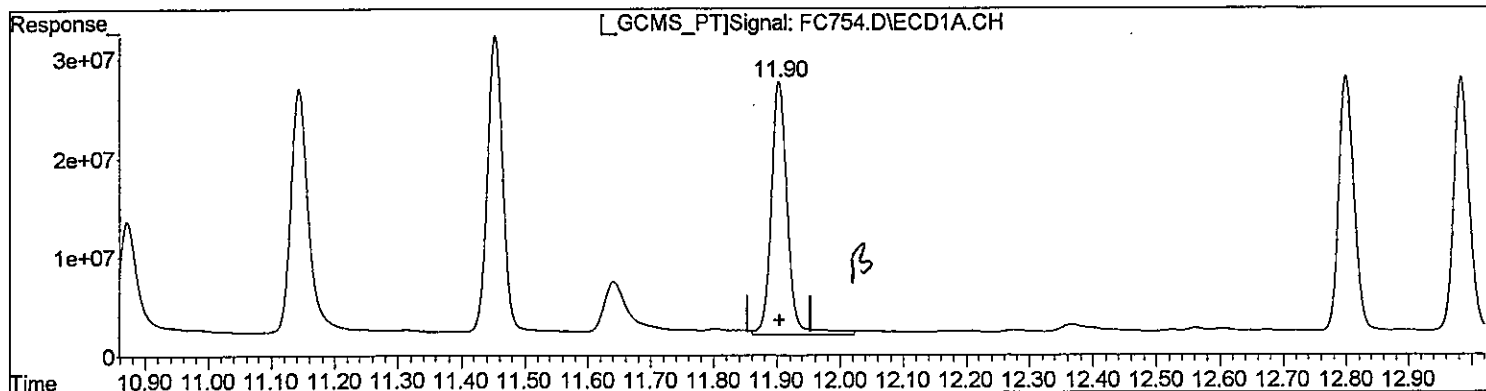
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\100809\
Data File : FC754.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Oct 2009 9:43 am
Operator : M.PEDRO
Sample : RQ0909548-02|1.0
Misc : 10/06/09 100 8081/608 BLK
ALS Vial : 37 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 09 10:52:05 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Fri Oct 09 10:50:59 2009
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)
11.90min 16.348ug/l
response 463193940

Base

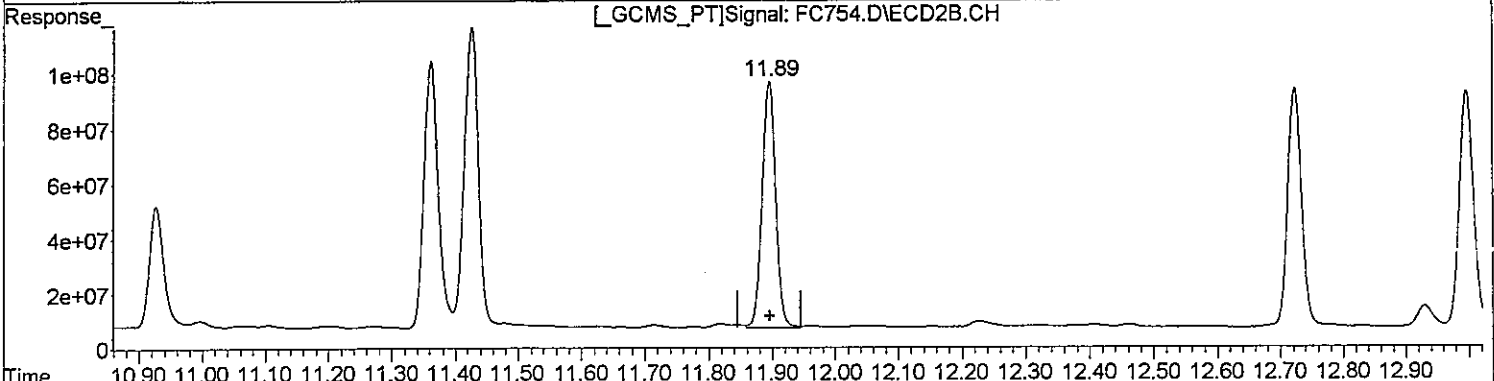
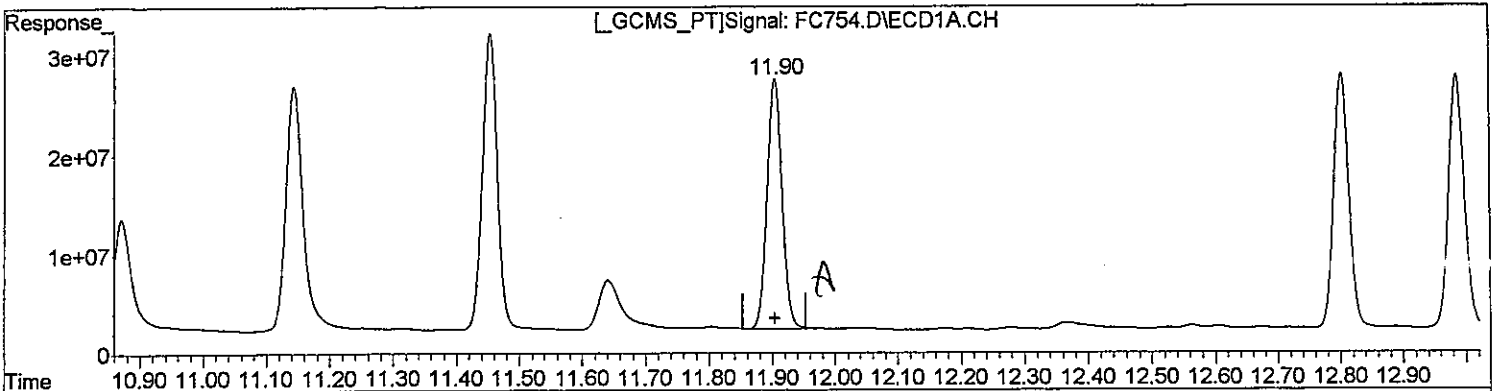
(6) Aldrin #2 (tcm)
11.89min 14.917ug/l
response 1347390017

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\100809\
Data File : FC754.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Oct 2009 9:43 am
Operator : M.PEDRO
Sample : RQ0909548-02|1.0
Misc : 10/06/09 100 8081/608 BLK
ALS Vial : 37 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 09 10:52:05 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Fri Oct 09 10:50:59 2009
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)
11.90min 14.964ug/l m
response 423978498

M.P.
10/9

(6) Aldrin #2 (tcm)
11.89min 14.917ug/l
response 1347390017

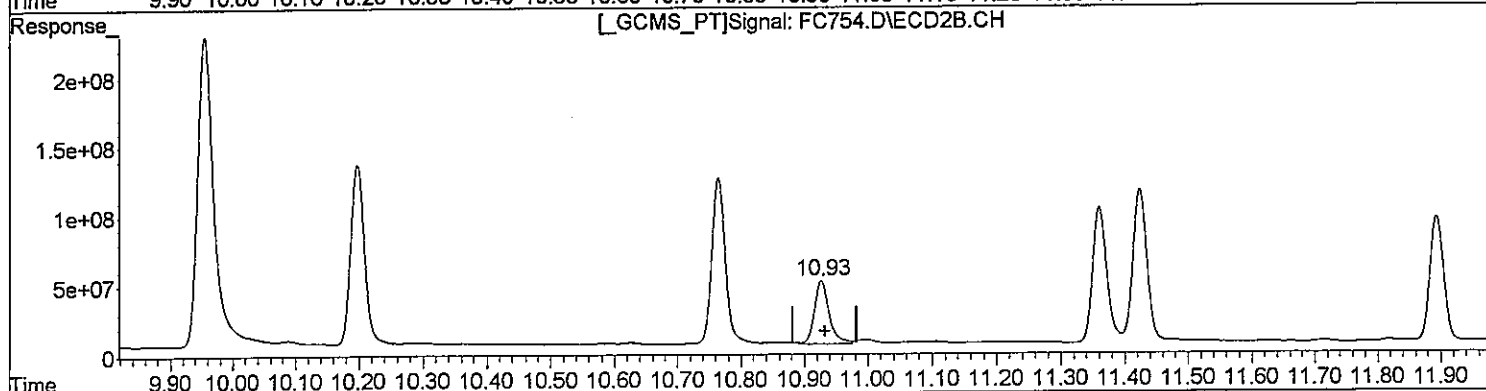
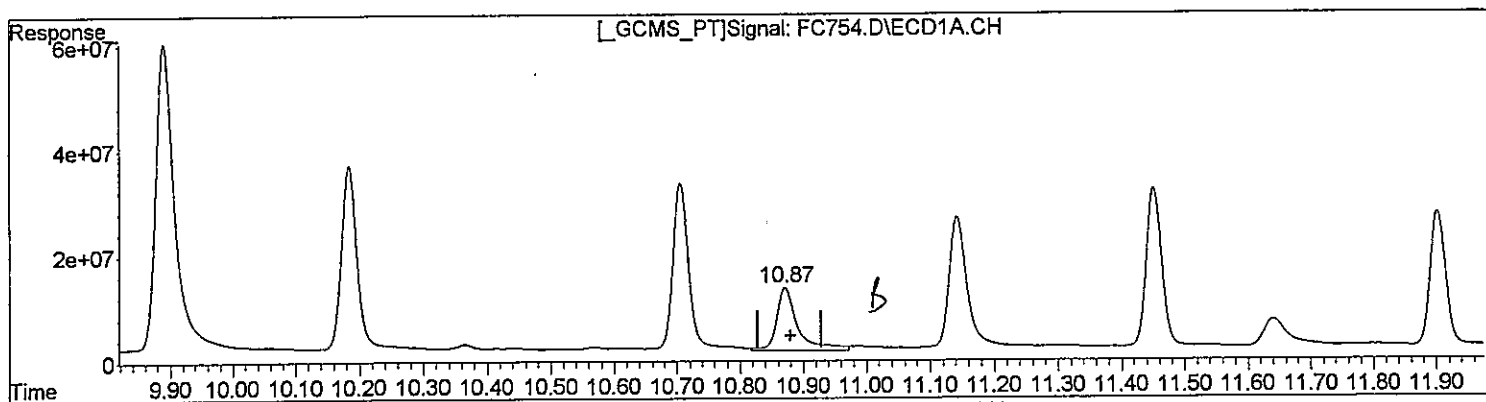
MAN
10/9

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\100809\
 Data File : FC754.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 08 Oct 2009 9:43 am
 Operator : M.PEDRO
 Sample : RQ0909548-02|1.0
 Misc : 10/06/09 100 8081/608 BLK
 ALS Vial : 37 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 09 10:52:05 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Fri Oct 09 10:50:59 2009
 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)
 10.87min 20.605ug/l
 response 271880054

(7) beta-BHC #2 (tc)
 10.93min 16.119ug/l
 response 723111435

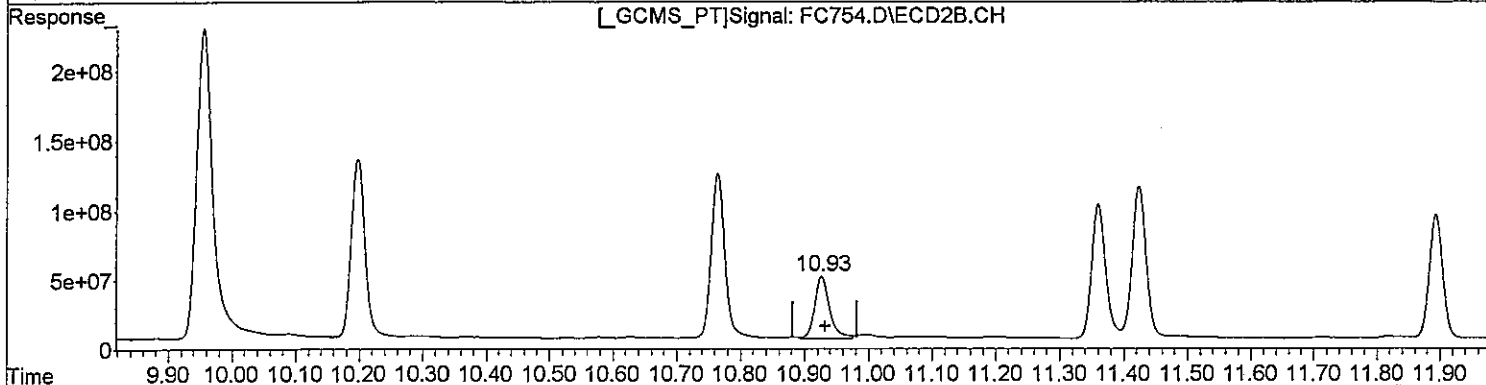
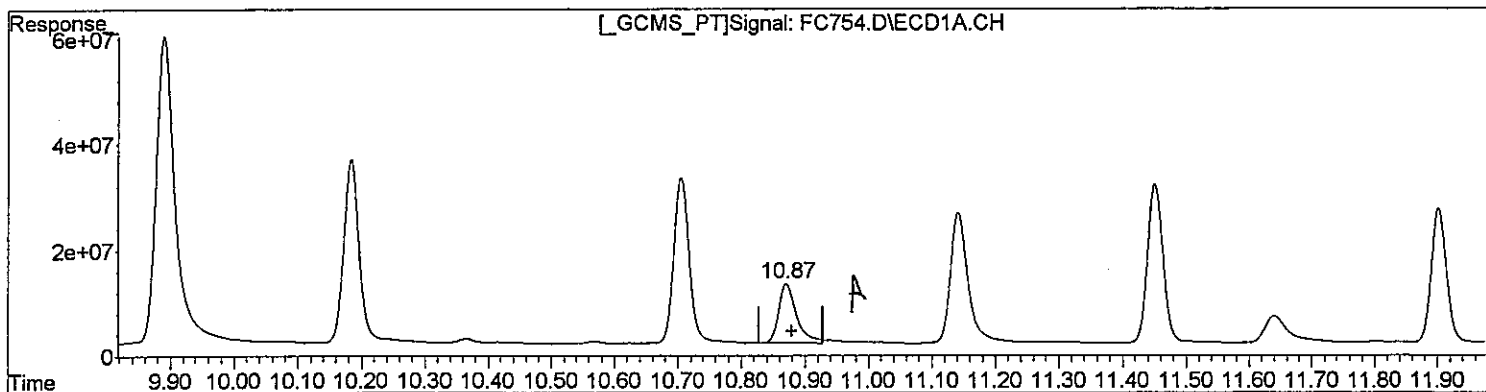
Small

Quantitation Report (Qedit)

Data Path : J:\ACQUATA\6890D\DATA\100809\
Data File : FC754.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Oct 2009 9:43 am
Operator : M.PEDRO
Sample : RQ0909548-02|1.0
Misc : 10/06/09 100 8081/608 BLK
ALS Vial : 37 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 09 10:52:05 2009
Quant Method : J:\ACQUATA\6890D\METHODS\80810915.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Fri Oct 09 10:50:59 2009
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)
10.87min 16.669ug/l m
response 219946356

MP
10/9

(7) beta-BHC #2 (tc)
10.93min 16.119ug/l
response 723111435

MP
10/9

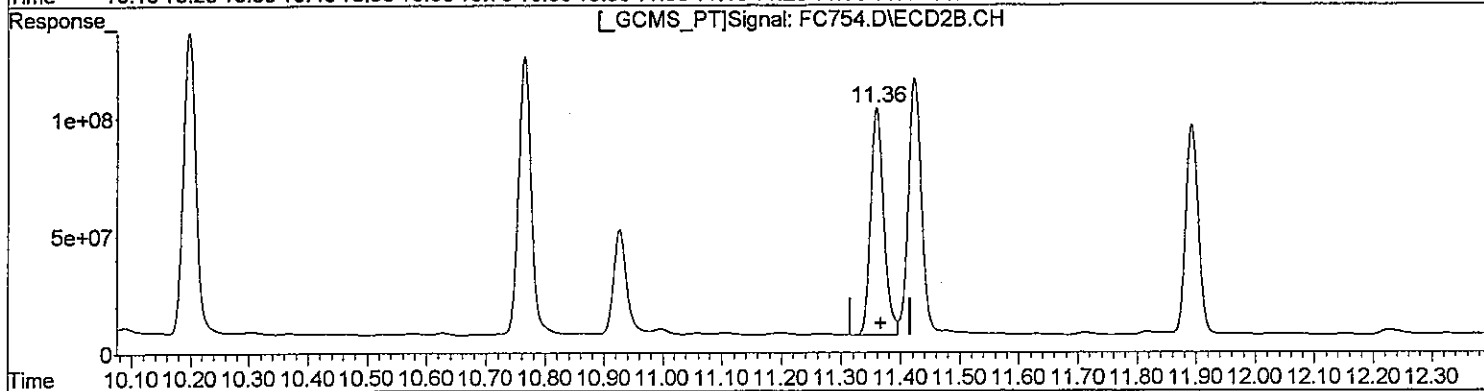
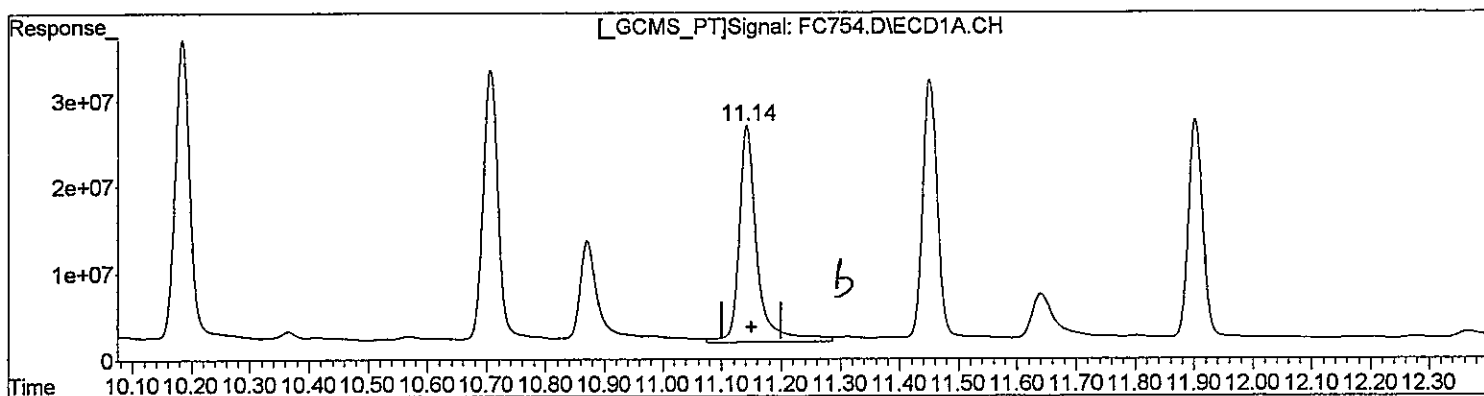
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\100809\
Data File : FC754.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Oct 2009 9:43 am
Operator : M.PEDRO
Sample : RQ0909548-02|1.0
Misc : 10/06/09 100 8081/608 BLK
ALS Vial : 37 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 09 10:52:05 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Fri Oct 09 10:50:59 2009
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

(8) delta-BHC (tc)
11.14min 17.571ug/l
response 533773474

Ball

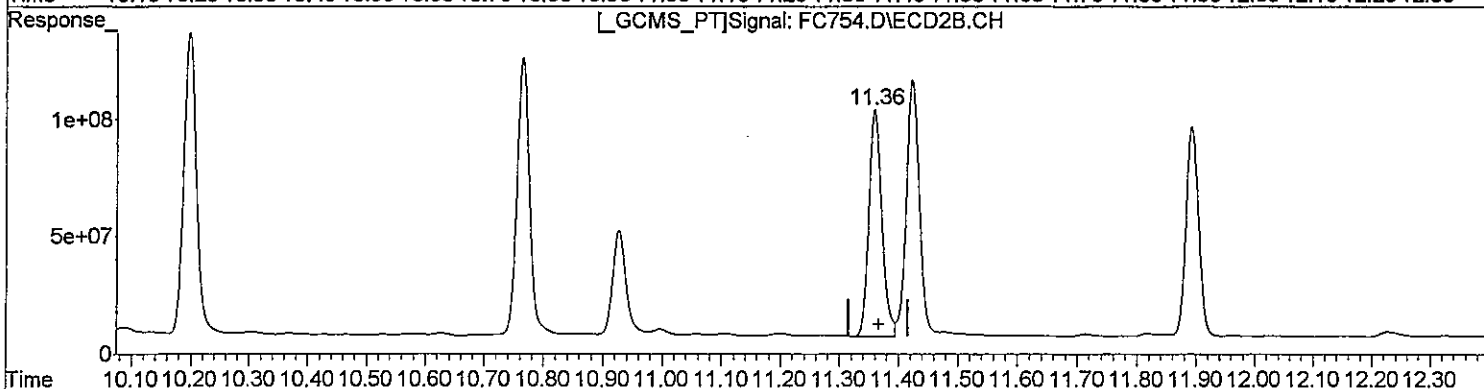
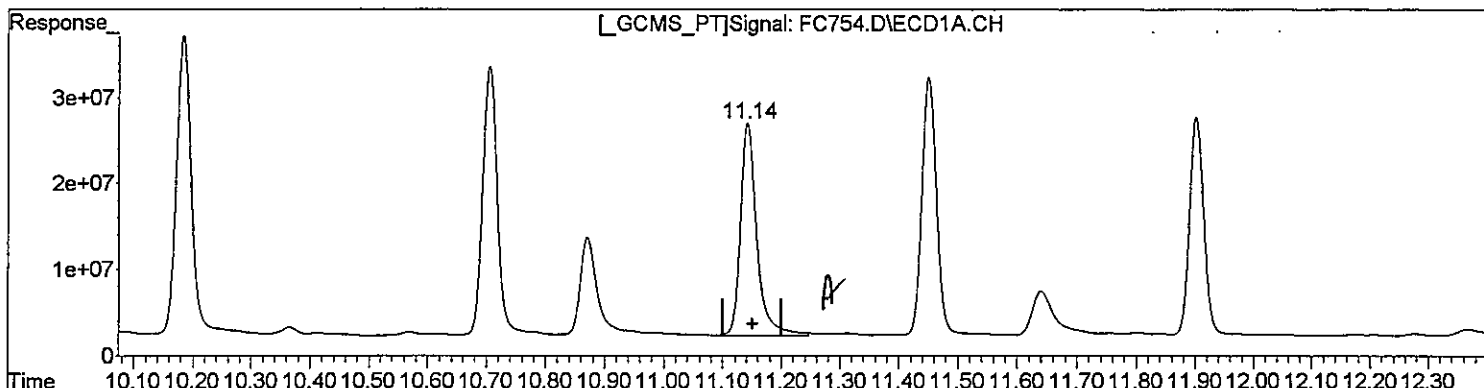
(8) delta-BHC #2 (tc)
11.36min 14.776ug/l
response 1477038800

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\100809\
Data File : FC754.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Oct 2009 9:43 am
Operator : M.PEDRO
Sample : RQ0909548-02|1.0
Misc : 10/06/09 100 8081/608 BLK
ALS Vial : 37 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 09 10:52:05 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Fri Oct 09 10:50:59 2009
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

(8) delta-BHC (TC)
11.14min 15.953ug/l m
response 484619965

(8) delta-BHC #2 (TC)
11.36min 14.776ug/l
response 1477038800

M.P.
10/9/09

M.P.
10/9/09

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data Path : J:\ACQUDATA\6890D\DATA\100809\
 Data File : FC754.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 08 Oct 2009 9:43 am
 Operator : M.PEDRO
 Sample : RQ0909548-02|1.0
 Misc : 10/06/09 100 8081/608 BLK
 ALS Vial : 37 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 09 10:52:05 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Fri Oct 09 10:50:59 2009
 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	9.20	9.14	1959.5E6	6100.7E6	85.556	74.226
Spiked Amount	100.000	Range 30 - 150	Recovery =		85.56%	74.23%
25) S SURR2,Decachloro	17.32	17.61	1581.0E6	4134.9E6	84.276	84.422
Spiked Amount	100.000	Range 30 - 150	Recovery =		84.28%	84.42%
Target Compounds						
2) TC HEXACHLOROBENZEN	9.89	9.95	1376.2E6	4112.4E6	44.351	39.076
3) tc alpha-BHC	10.18	10.20	676.7E6	1944.6E6	18.819	16.212
4) tcm gamma-BHC (L	10.71	10.76	577.7E6	1762.9E6	18.313	16.915
5) tcm Heptachlor	11.45	11.42	557.2E6	1762.0E6	17.964	17.873
6) tcm Aldrin	11.90	11.89	463.2E6	1347.4E6	16.348	14.917
7) tc beta-BHC	10.87	10.93	271.9E6	723.1E6	20.605	16.119
8) tc delta-BHC	11.14	11.36	533.8E6	1477.0E6	17.571	14.776
9) tc Heptachlor E	12.80	12.72	449.0E6	1371.3E6	17.641	17.605
10) tc alpha-Endosu	13.37	13.28	424.8E6	1206.3E6	18.693	17.488
11) tc gamma-Chlord	12.99	13.00	460.4E6	1339.7E6	17.938	16.799
12) tc alpha-Chlord	13.18	13.20	427.8E6	1259.3E6	17.338	16.649
13) tc 4,4'-DDE	13.30	13.45	390.5E6	1218.6E6	16.460	17.063
14) tcm Dieldrin	13.72	13.66	449.4E6	1341.5E6	17.878	18.395
15) tcm Endrin	14.06	14.10	408.6E6	1190.8E6	18.181	18.687
17) tc beta-Endosul	14.38	14.40	358.6E6	1057.4E6	16.839	17.300
18) tc 4,4'-DDD	14.15	14.26	329.7E6	969.9E6	17.385	17.690
19) tcm 4,4'-DDT	14.55	14.71	362.1E6	1026.4E6	16.697	16.868
20) tc Endrin Aldeh	15.00	14.89	231.2E6	739.2E6	14.095	16.028
21) tc Endosulfan S	15.65	15.29	311.9E6	933.7E6	16.414	16.877
22) tc Methoxychlor	15.25	15.69	988.4E6	2715.2E6	101.399	102.783
24) tc Endrin Keton	16.05	16.06	377.1E6	1060.5E6	17.483	18.109
28) L8C Toxaphene {3}	0.00	15.06	0	22763095	N.D.	18.549 #
29) L8C Toxaphene {4}	16.05	16.28	377.1E6	9190962	662.012	7.086 #
30) L8C Toxaphene {5}	16.26	16.52	8661074	44664072	19.087	36.884 #
Sum Toxaphene			385.8E6	76618128	681.099	62.519
Average Toxaphene					340.550	20.840

Data Path : J:\ACQUDATA\6890D\DATA\100809\
 Data File : FC754.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 08 Oct 2009 9:43 am
 Operator : M.PEDRO
 Sample : RQ0909548-02|1.0
 Misc : 10/06/09 100 8081/608 BLK
 ALS Vial : 37 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 09 10:52:05 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Fri Oct 09 10:50:59 2009
 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

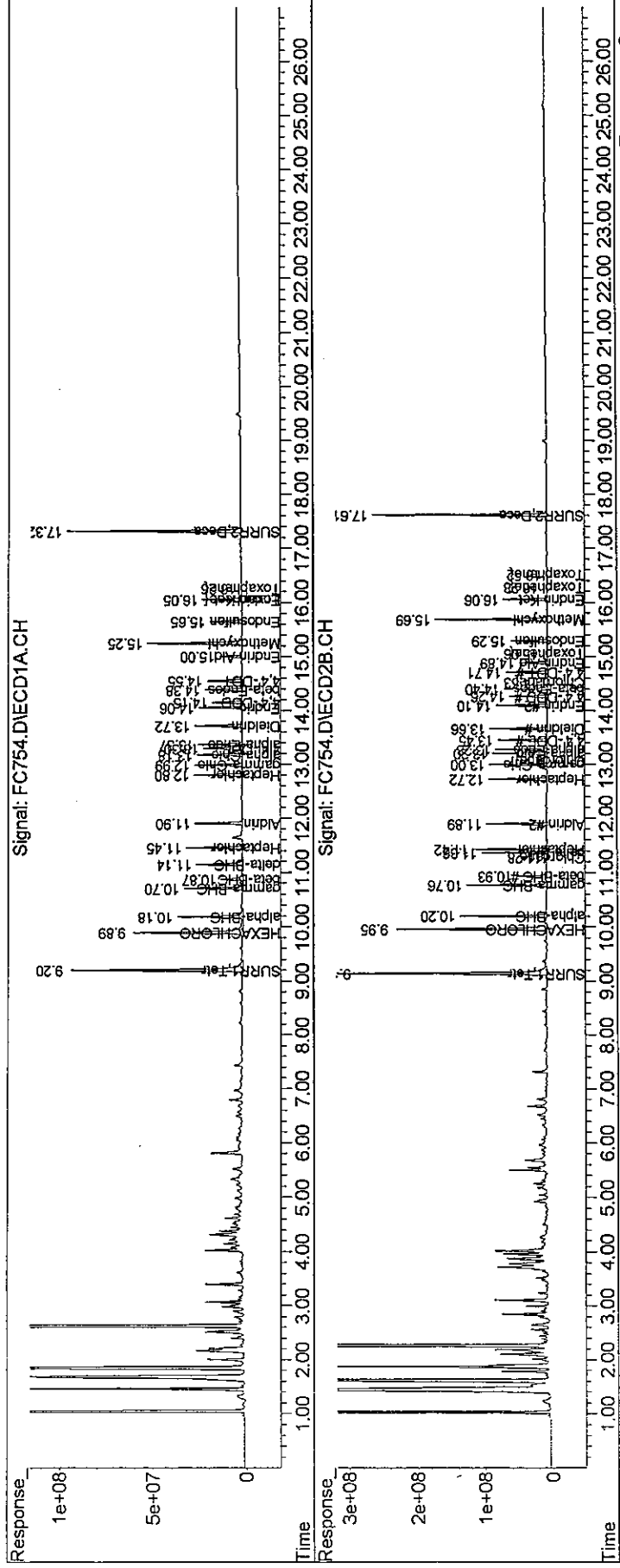
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
31) L9C Chlordane	0.00	11.27	0	14346647	N.D.	21.241 #
34) L9C Chlordane{4}	0.00	13.07	0	13001167	N.D.	1.516 #
35) L9C Chlordane{5}	0.00	14.53	0	11403206	N.D.	3.195 #
Sum Chlordane			0	38751019	N.D.	25.952
Average Chlordane					0.000	8.651

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\100809\
Data File : FC754.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Oct 2009 9:43 am
Operator : M.PEDRO
Sample : RQ0909548-02|1.0
Misc : 10/06/09 100 8081/608 BLK
ALS Vial : 37 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 09 10:52:05 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Fri Oct 09 10:50:59 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL
Signal #1 Phase : STX-CLIP
Signal #1 Info : 0.32mm 30m
Signal #2 Phase : STX-CLPII
Signal #2 Info : 0.32mm 30m



00844

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: Lab Control Sample Dup
Lab Code: RQ0909548-03

Service Request: R0905636
Date Collected: NA
Date Received: NA
Units: µg/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analytical Method: 8081A
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis	
								Lot	Lot Note
4,4'-DDD	0.191		0.10	0.050	1	10/ 6/09	10/8/09 10:19	97635	174100
4,4'-DDE	0.183		0.10	0.050	1	10/ 6/09	10/8/09 10:19	97635	174100
4,4'-DDT	0.180		0.10	0.050	1	10/ 6/09	10/8/09 10:19	97635	174100
Aldrin	0.160		0.050	0.025	1	10/ 6/09	10/8/09 10:19	97635	174100
Chlordane	0.13	U	0.25	0.13	1	10/ 6/09	10/8/09 10:19	97635	174100
Dieldrin	0.197		0.10	0.050	1	10/ 6/09	10/8/09 10:19	97635	174100
Endosulfan I	0.206		0.050	0.025	1	10/ 6/09	10/8/09 10:19	97635	174100
Endosulfan II	0.187		0.10	0.050	1	10/ 6/09	10/8/09 10:19	97635	174100
Endosulfan Sulfate	0.181		0.10	0.050	1	10/ 6/09	10/8/09 10:19	97635	174100
Endrin	0.201		0.10	0.050	1	10/ 6/09	10/8/09 10:19	97635	174100
Endrin Aldehyde	0.165		0.10	0.050	1	10/ 6/09	10/8/09 10:19	97635	174100
Endrin Ketone	0.191		0.10	0.050	1	10/ 6/09	10/8/09 10:19	97635	174100
Heptachlor	0.184		0.050	0.025	1	10/ 6/09	10/8/09 10:19	97635	174100
Heptachlor Epoxide	0.193		0.050	0.025	1	10/ 6/09	10/8/09 10:19	97635	174100
Hexachlorobenzene	0.423		0.050	0.028	1	10/ 6/09	10/8/09 10:19	97635	174100
Methoxychlor	1.09		0.50	0.25	1	10/ 6/09	10/8/09 10:19	97635	174100
Toxaphene	0.50	U	1.0	0.50	1	10/ 6/09	10/8/09 10:19	97635	174100
alpha-BHC	0.177		0.050	0.025	1	10/ 6/09	10/8/09 10:19	97635	174100
alpha-Chlordane	0.189		0.050	0.025	1	10/ 6/09	10/8/09 10:19	97635	174100
beta-BHC	0.183		0.050	0.025	1	10/ 6/09	10/8/09 10:19	97635	174100
delta-BHC	0.169		0.050	0.025	1	10/ 6/09	10/8/09 10:19	97635	174100
gamma-BHC (Lindane)	0.184		0.050	0.025	1	10/ 6/09	10/8/09 10:19	97635	174100
gamma-Chlordane	0.194		0.050	0.025	1	10/ 6/09	10/8/09 10:19	97635	174100

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
Decachlorobiphenyl	87	40-140	10/8/09 10:19		
Tetrachloro-m-xylene	86	40-140	10/8/09 10:19		

Comments:

Data Path : J:\ACQUDATA\6890D\DATA\100809\
 Data File : FC755.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 08 Oct 2009 10:19 am
 Operator : M.PEDRO
 Sample : RQ0909548-03|1.0
 Misc : 10/06/09 100 8081/608 BLK
 ALS Vial : 38 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 09 12:08:17 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Fri Oct 09 10:50:59 2009
 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	9.20	9.14	1970.2E6	6116.6E6	86.025	74.420 <i>WSP</i>
Spiked Amount	100.000	Range 30 - 150	Recovery =		86.03%	74.42% <i>10/9</i>
25) S SURR2,Decachloro	17.31	17.61	1631.2E6	4207.8E6	86.957	85.911
Spiked Amount	100.000	Range 30 - 150	Recovery =		86.96%	85.91%
Target Compounds						
2) TC HEXACHLOROBENZEN	9.89	9.95	1313.6E6	4380.5E6	42.332m	41.623
3) tc alpha-BHC	10.18	10.20	627.4E6	2120.1E6	17.446m	17.676
4) tcm gamma-BHC (L	10.70	10.76	575.7E6	1915.6E6	18.249m	18.381
5) tcm Heptachlor	11.45	11.42	538.4E6	1812.9E6	17.357m	18.390
6) tcm Aldrin	11.90	11.89	453.5E6	1409.9E6	16.006m	15.609
7) tc beta-BHC	10.87	10.93	241.2E6	776.5E6	18.281m	17.310
8) tc delta-BHC	11.14	11.36	513.0E6	1568.3E6	16.887m	15.690
9) tc Heptachlor E	12.80	12.72	491.5E6	1473.8E6	19.308	18.922
10) tc alpha-Endosu	13.37	13.28	467.6E6	1304.1E6	20.572	18.906
11) tc gamma-Chlord	12.99	13.00	498.5E6	1431.0E6	19.422	17.944
12) tc alpha-Chlord	13.18	13.20	465.5E6	1337.3E6	18.866	17.681
13) tc 4,4'-DDE	13.30	13.45	414.6E6	1308.2E6	17.479	18.319
14) tcm Dieldrin	13.72	13.66	489.2E6	1439.1E6	19.461	19.734
15) tcm Endrin	14.05	14.09	441.9E6	1281.3E6	19.663	20.106
17) tc beta-Endosul	14.38	14.40	392.9E6	1140.4E6	18.452	18.658
18) tc 4,4'-DDD	14.15	14.26	361.4E6	1025.2E6	19.059	18.700
19) tcm 4,4'-DDT	14.55	14.71	391.2E6	1084.0E6	18.040	17.816
20) tc Endrin Aldeh	15.00	14.89	254.4E6	762.6E6	15.507	16.535
21) tc Endosulfan S	15.65	15.29	336.5E6	1001.8E6	17.709	18.110
22) tc Methoxychlor	15.25	15.69	1051.7E6	2887.6E6	107.890	109.307
24) tc Endrin Keton	16.05	16.06	407.1E6	1120.6E6	18.874	19.135
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\100809\
 Data File : FC755.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 08 Oct 2009 10:19 am
 Operator : M.PEDRO
 Sample : RQ0909548-03|1.0
 Misc : 10/06/09 100 8081/608 BLK
 ALS Vial : 38 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 09 12:08:17 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Fri Oct 09 10:50:59 2009
 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

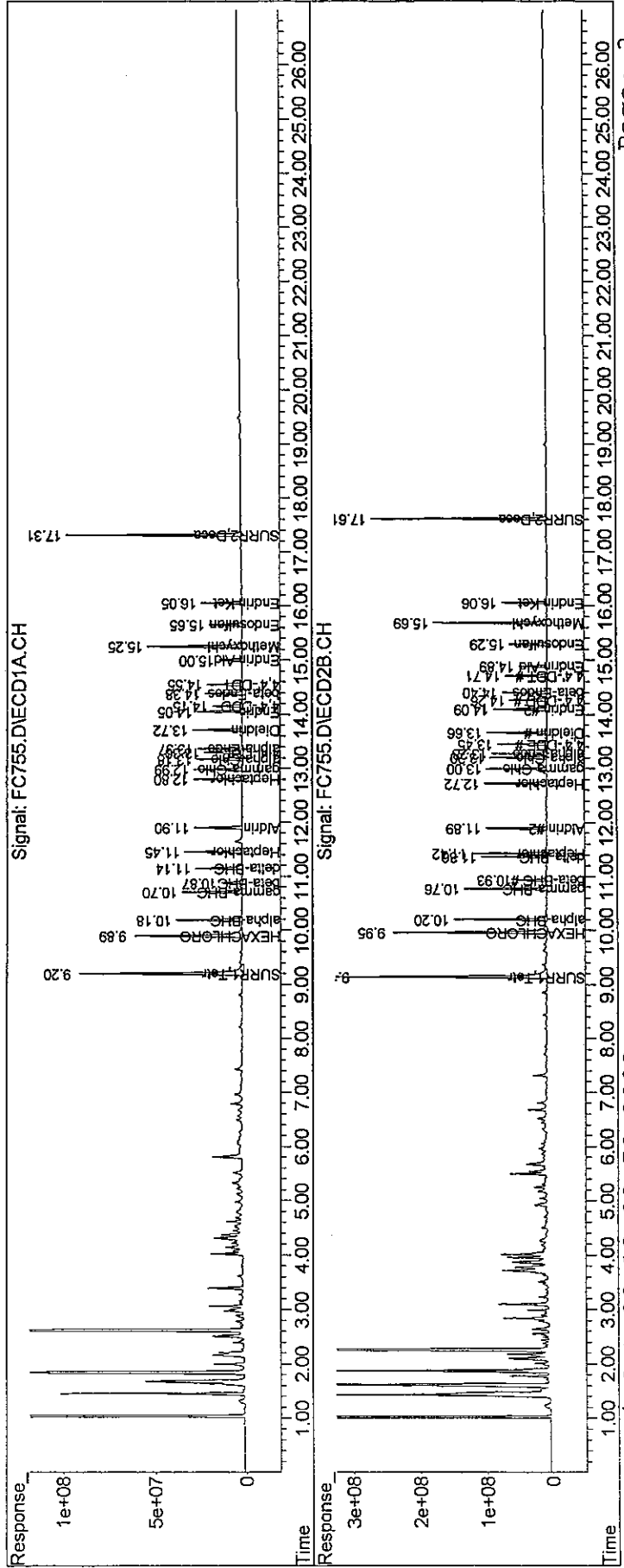
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQDATA\6890D\DATA\100809\
 Data File : FC755.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 08 Oct 2009 10:19 am
 Operator : M.PEDRO
 Sample : RQ0909548-03|1.0
 Misc : 10/06/09 100 8081/608 BLK
 ALS Vial : 38 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 09 12:08:17 2009
 Quant Method : J:\ACQDATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Fri Oct 09 10:50:59 2009
 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



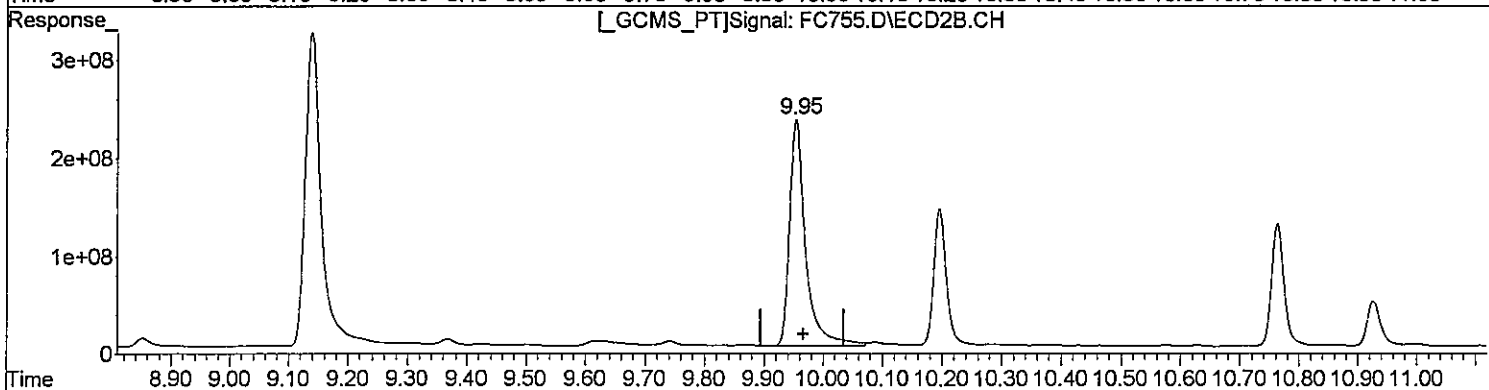
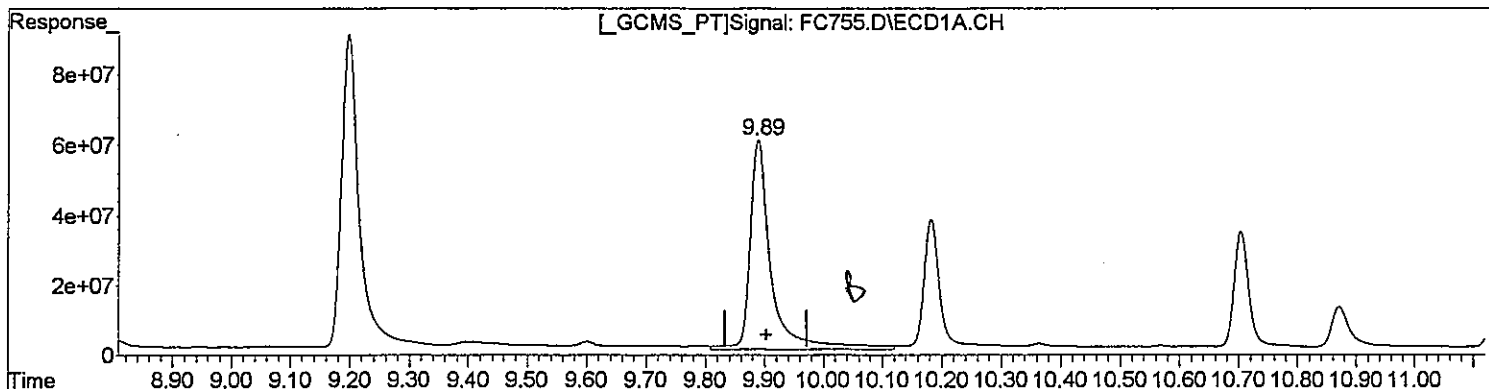
00848

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\100809\
Data File : FC755.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Oct 2009 10:19 am
Operator : M.PEDRO
Sample : RQ0909548-03|1.0
Misc : 10/06/09 100 8081/608 BLK
ALS Vial : 38 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 09 10:52:11 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Fri Oct 09 10:50:59 2009
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

(2) HEXACHLOROBENZENE (TC)

9.89min 47.898ug/l
response 1486272227

(2) HEXACHLOROBENZENE #2 (TC)

9.95min 41.623ug/l
response 4380475929

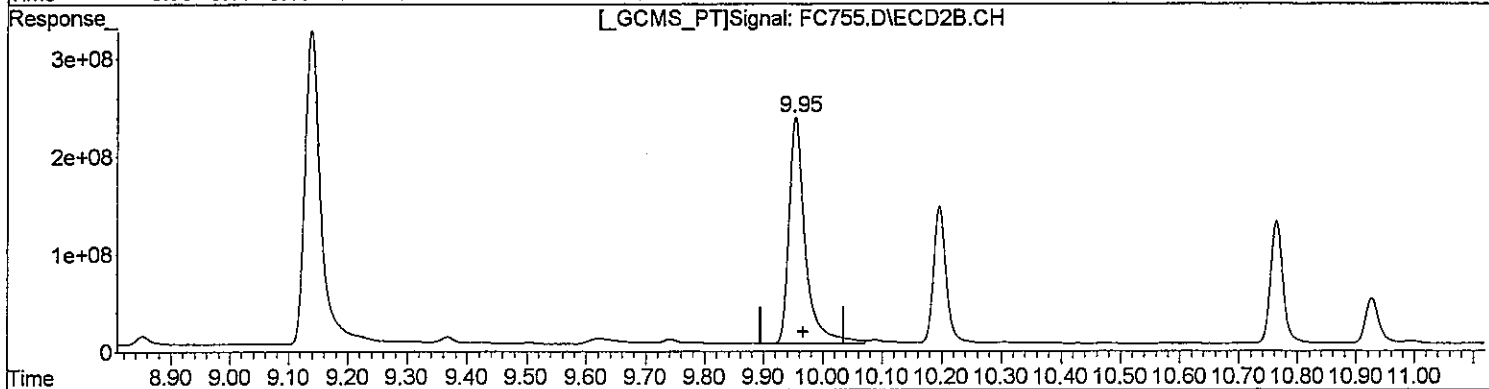
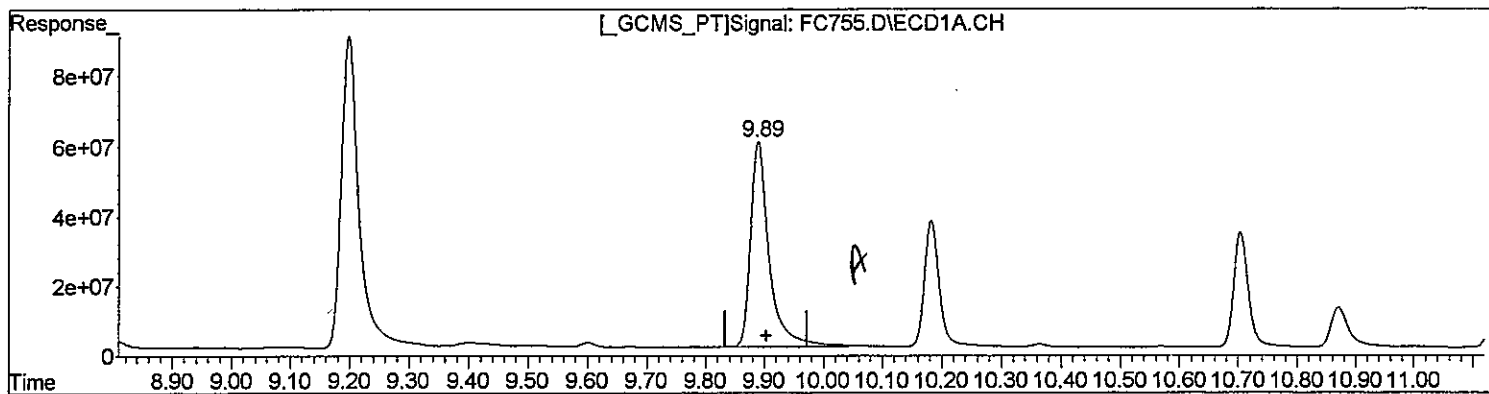
Base

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\100809\
Data File : FC755.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Oct 2009 10:19 am
Operator : M.PEDRO
Sample : RQ0909548-03|1.0
Misc : 10/06/09 100 8081/608 BLK
ALS Vial : 38 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 09 10:52:11 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Fri Oct 09 10:50:59 2009
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



(2) HEXACHLOROBENZENE (TC)

9.89min 42.332ug/l m
response 1313560085

(2) HEXACHLOROBENZENE #2 (TC)

9.95min 41.623ug/l
response 4380475929

Handwritten notes:
MJP
10/09
MW
10/9

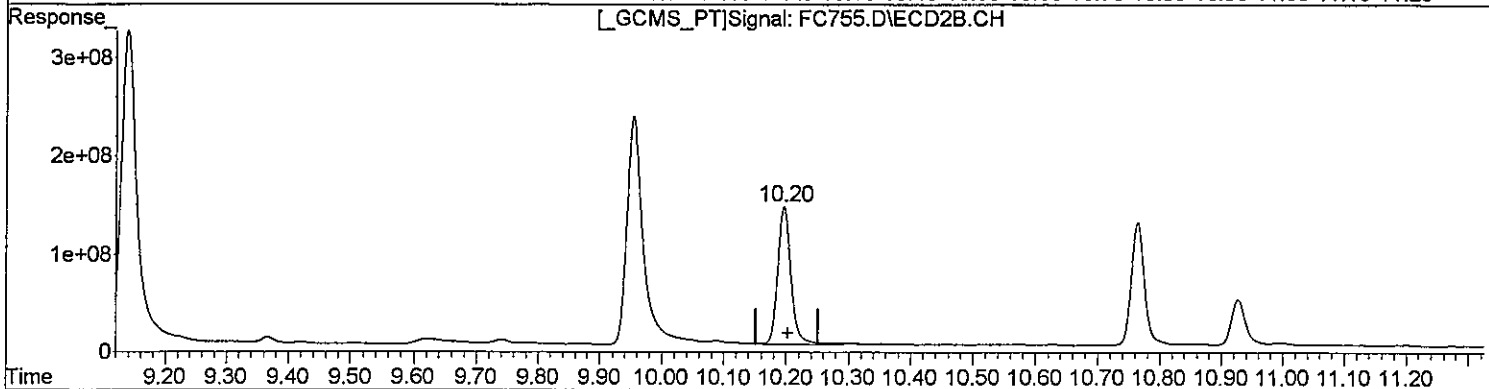
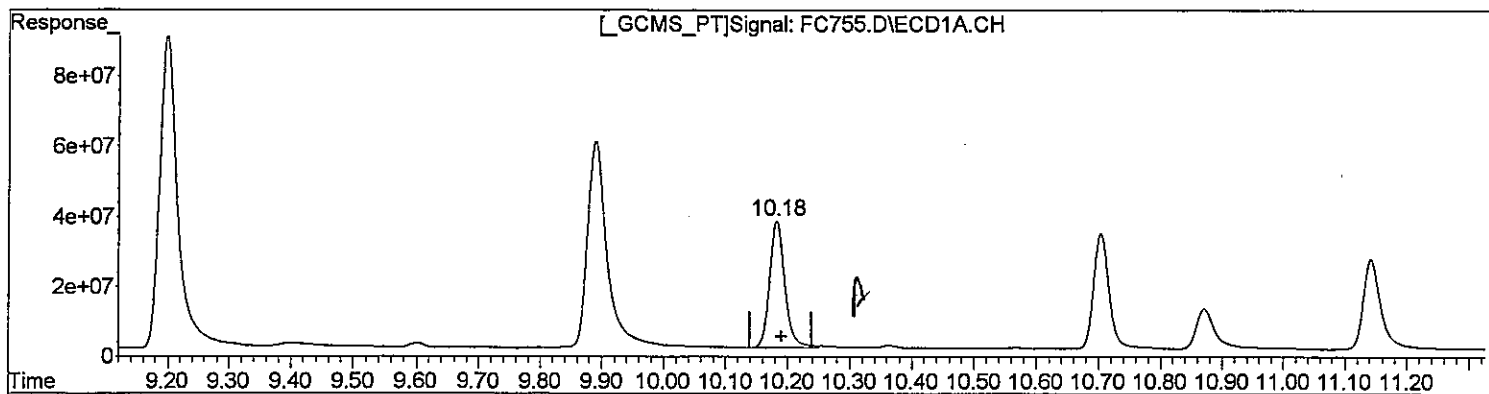
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\100809\
Data File : FC755.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Oct 2009 10:19 am
Operator : M.PEDRO
Sample : RQ0909548-03|1.0
Misc : 10/06/09 100 8081/608 BLK
ALS Vial : 38 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 09 10:52:11 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Fri Oct 09 10:50:59 2009
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

(3) alpha-BHC (tc)
10.18min 17.446ug/l m
response 627351021

(3) alpha-BHC #2 (tc)
10.20min 17.676ug/l
response 2120147063

WSP
10/9

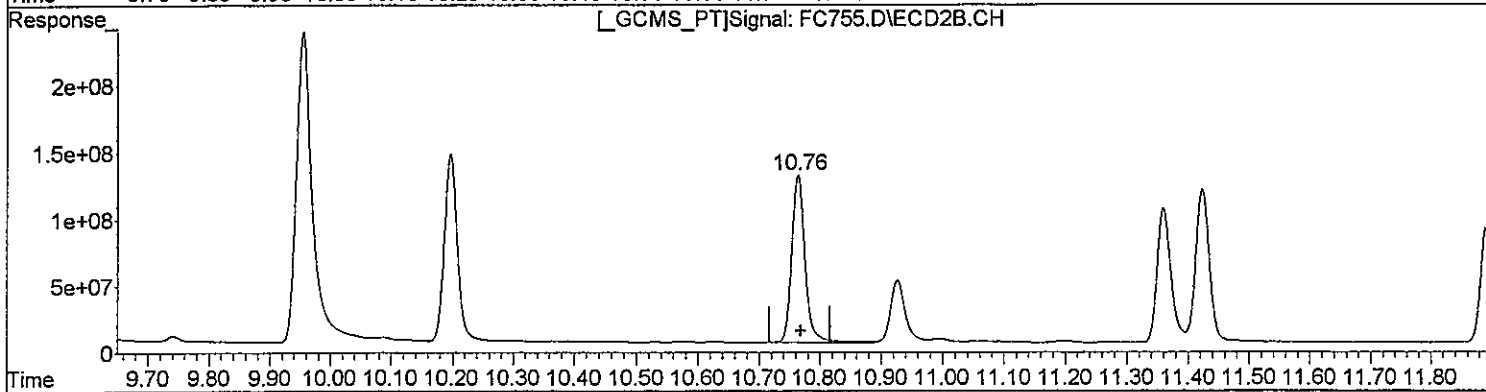
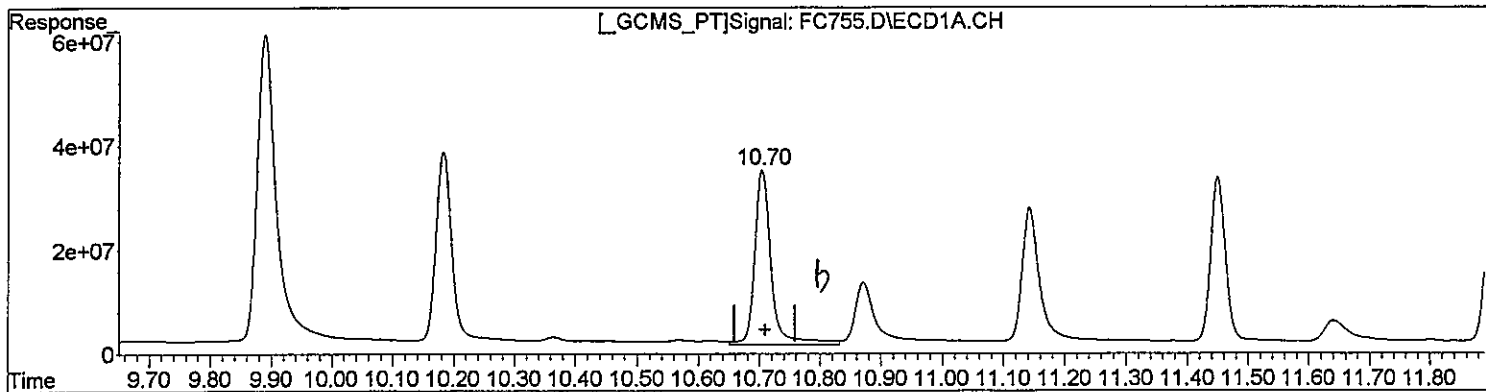
MLW
10/9

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\100809\
Data File : FC755.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Oct 2009 10:19 am
Operator : M.PEDRO
Sample : RQ0909548-03|1.0
Misc : 10/06/09 100 8081/608 BLK
ALS Vial : 38 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 09 10:52:11 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Fri Oct 09 10:50:59 2009
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)
10.70min 20.291ug/l
response 640132558

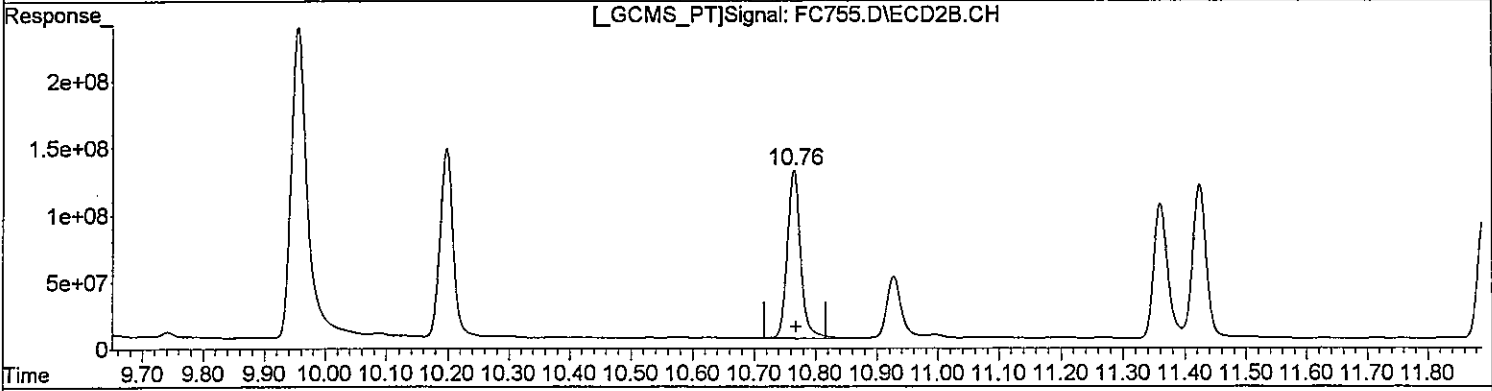
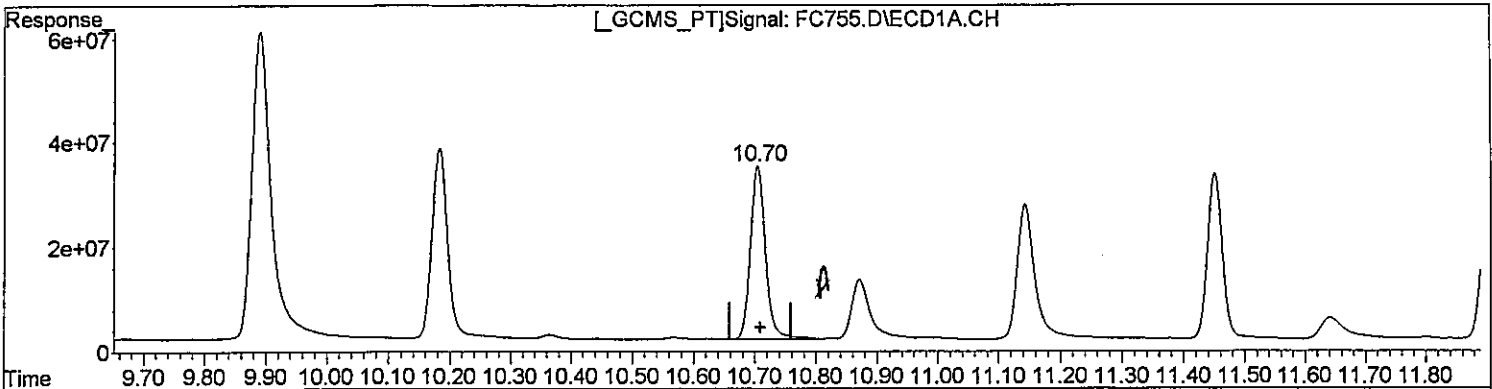
(4) gamma-BHC (L #2 (tcm)
10.76min 18.381ug/l
response 1915623688

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\100809\
Data File : FC755.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Oct 2009 10:19 am
Operator : M.PEDRO
Sample : RQ0909548-03|1.0
Misc : 10/06/09 100 8081/608 BLK
ALS Vial : 38 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 09 10:52:11 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Fri Oct 09 10:50:59 2009
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)
10.70min 18.249ug/l m
response 575724761

(4) gamma-BHC (L #2 (tcm)
10.76min 18.381ug/l
response 1915623688

WSP
10/9

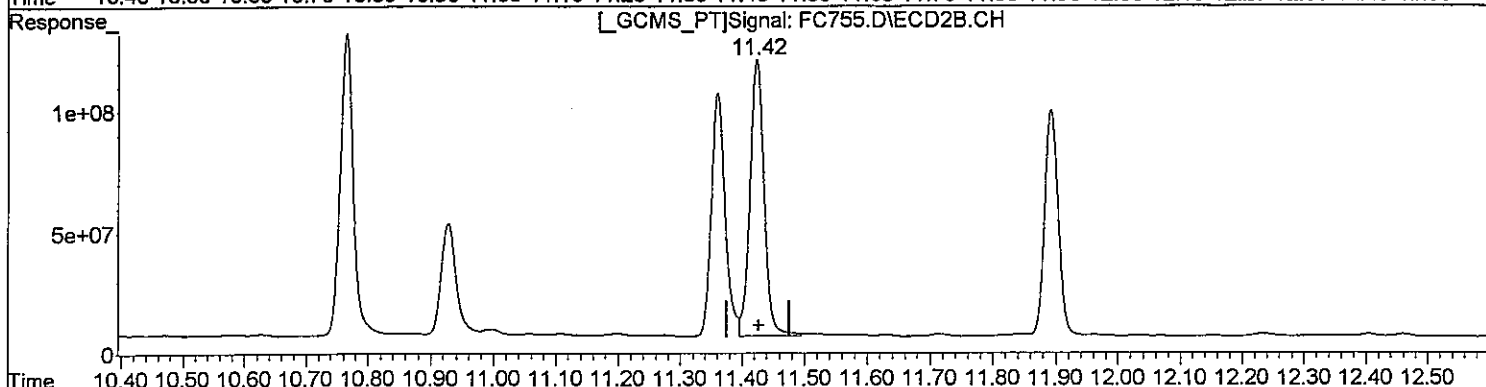
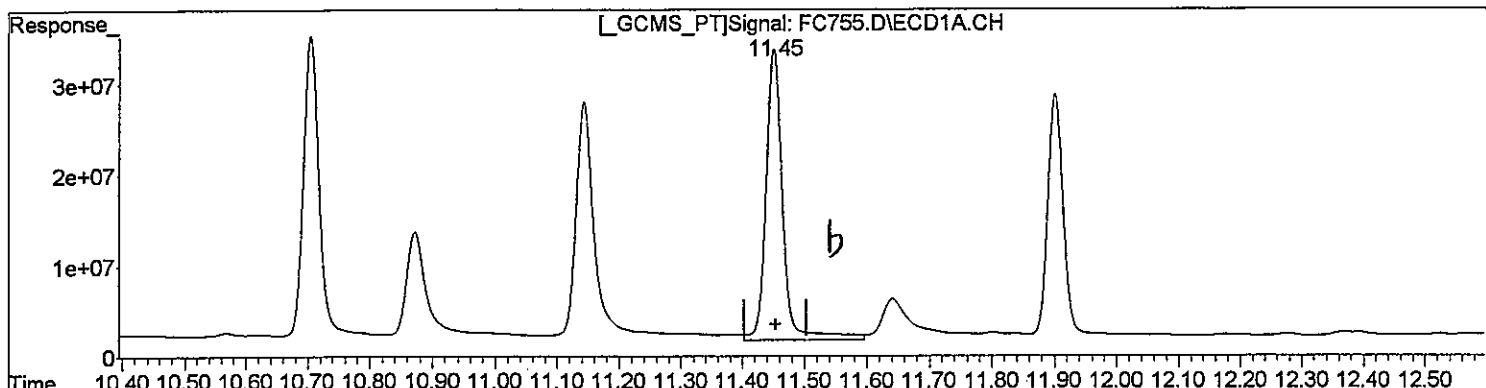
WSP
10/9

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\100809\
Data File : FC755.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Oct 2009 10:19 am
Operator : M.PEDRO
Sample : RQ0909548-03|1.0
Misc : 10/06/09 100 8081/608 BLK
ALS Vial : 38 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 09 10:52:11 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Fri Oct 09 10:50:59 2009
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)
11.45min 19.319ug/l
response 599232149

(5) Heptachlor #2 (tcm)
11.42min 18.390ug/l
response 1812881689

Handwritten signature

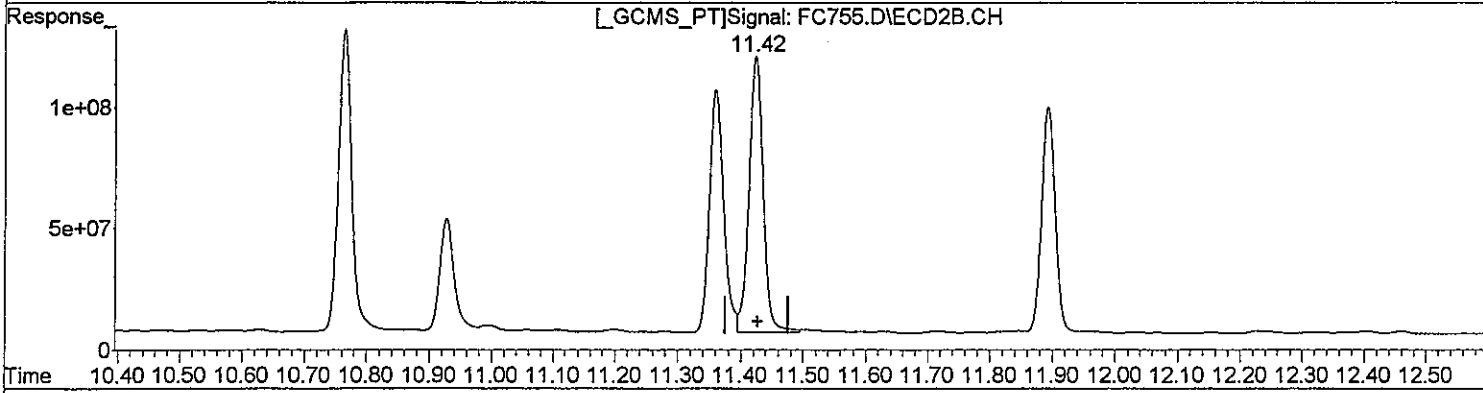
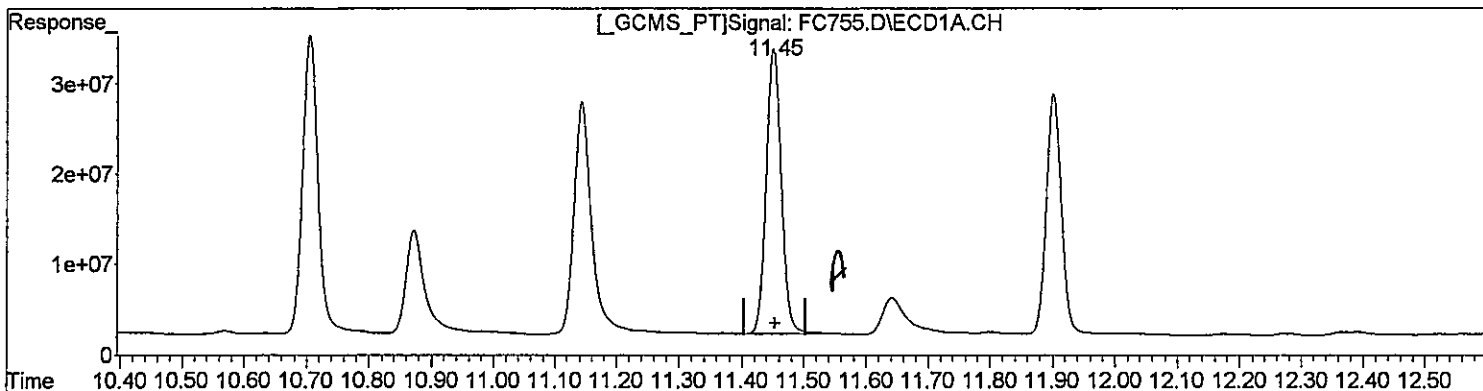
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\100809\
Data File : FC755.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Oct 2009 10:19 am
Operator : M.PEDRO
Sample : RQ0909548-03|1.0
Misc : 10/06/09 100 8081/608 BLK
ALS Vial : 38 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 09 10:52:11 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Fri Oct 09 10:50:59 2009
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)
11.45min 17.357ug/l m
response 538355941

(5) Heptachlor #2 (tcm)
11.42min 18.390ug/l
response 1812881689

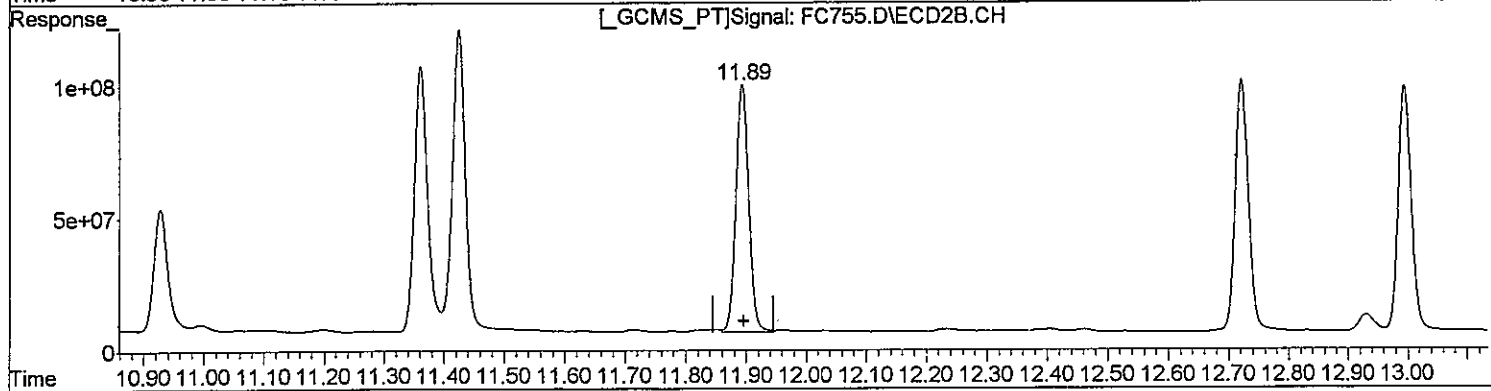
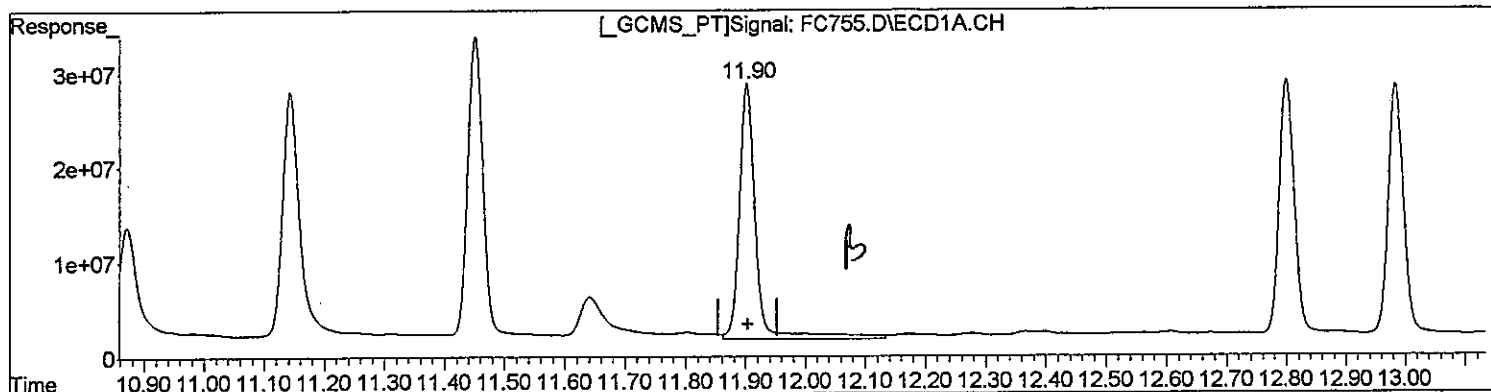
Handwritten signatures and dates:
10/9
11/5

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\100809\
Data File : FC755.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Oct 2009 10:19 am
Operator : M.PEDRO
Sample : RQ0909548-03|1.0
Misc : 10/06/09 100 8081/608 BLK
ALS Vial : 38 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 09 10:52:11 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Fri Oct 09 10:50:59 2009
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)
11.90min 18.380ug/l
response 520770065

(6) Aldrin #2 (tcm)
11.89min 15.609ug/l
response 1409865123

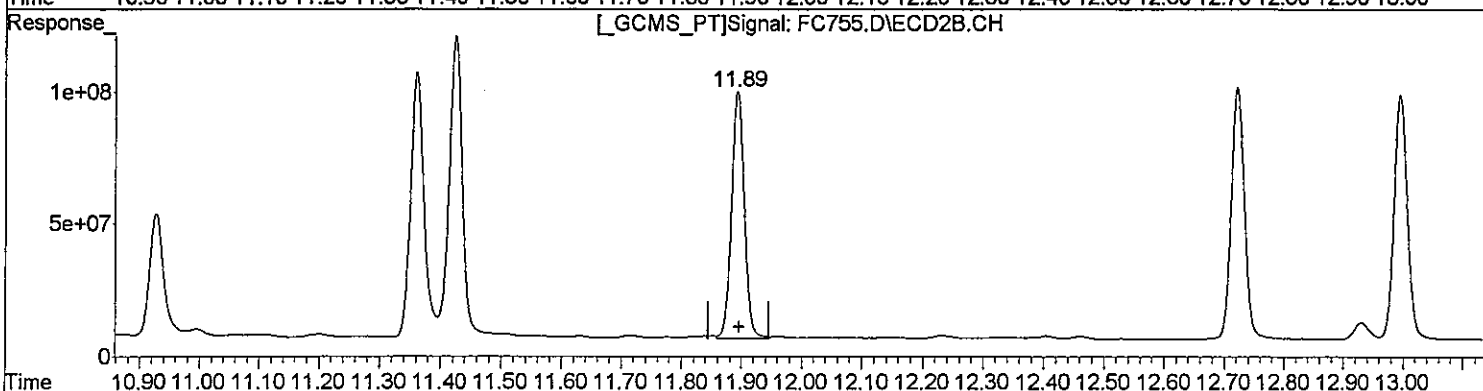
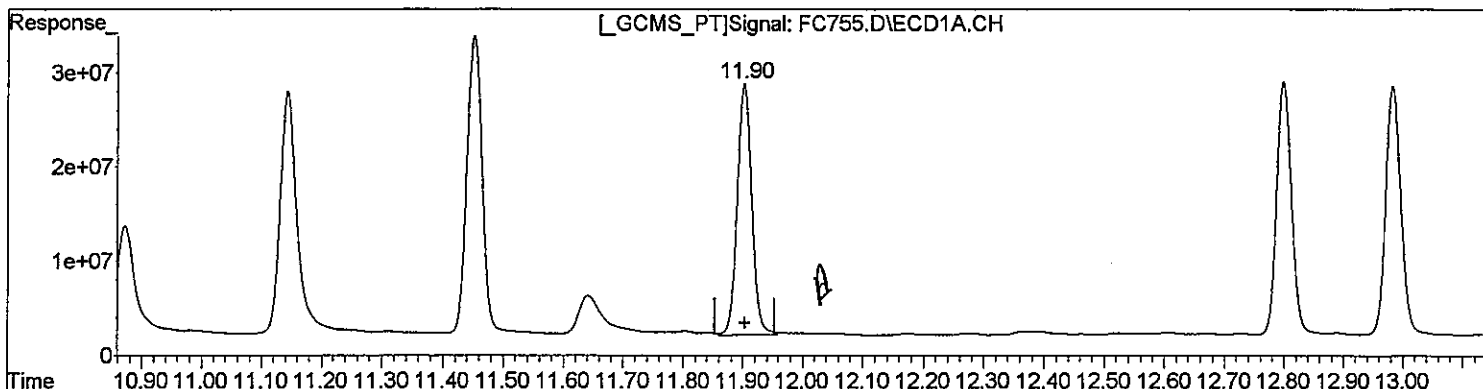
B

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\100809\
Data File : FC755.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Oct 2009 10:19 am
Operator : M.PEDRO
Sample : RQ0909548-03|1.0
Misc : 10/06/09 100 8081/608 BLK
ALS Vial : 38 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 09 10:52:11 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Fri Oct 09 10:50:59 2009
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)
11.90min 16.006ug/l m
response 453510899

Handwritten: MW 10/9

(6) Aldrin #2 (tcm)
11.89min 15.609ug/l
response 1409865123

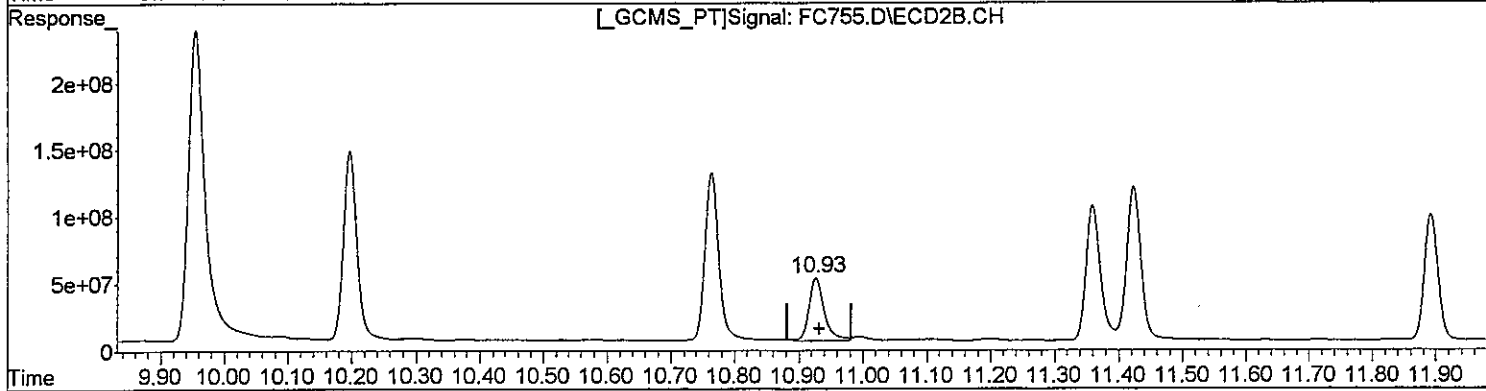
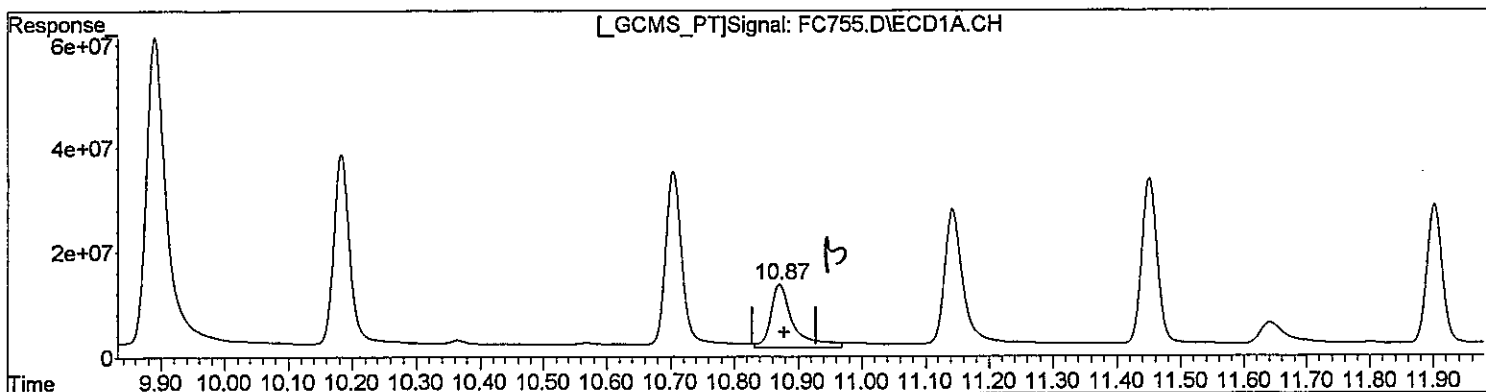
Handwritten: MW 11/1

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\100809\
Data File : FC755.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Oct 2009 10:19 am
Operator : M.PEDRO
Sample : RQ0909548-03|1.0
Misc : 10/06/09 100 8081/608 BLK
ALS Vial : 38 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 09 10:52:11 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Fri Oct 09 10:50:59 2009
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)
10.87min 22.321ug/l
response 294526321

(7) beta-BHC #2 (tc)
10.93min 17.310ug/l
response 776519812

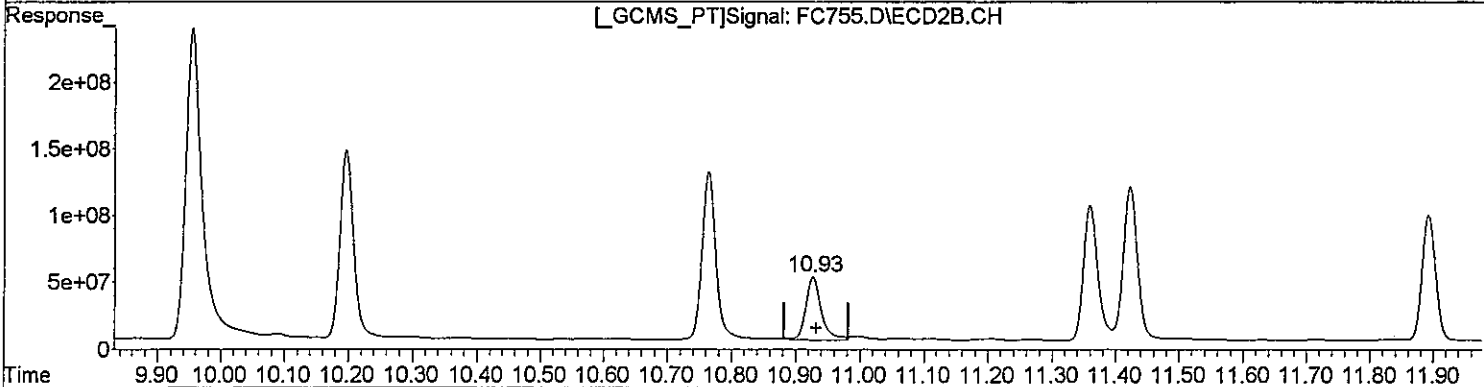
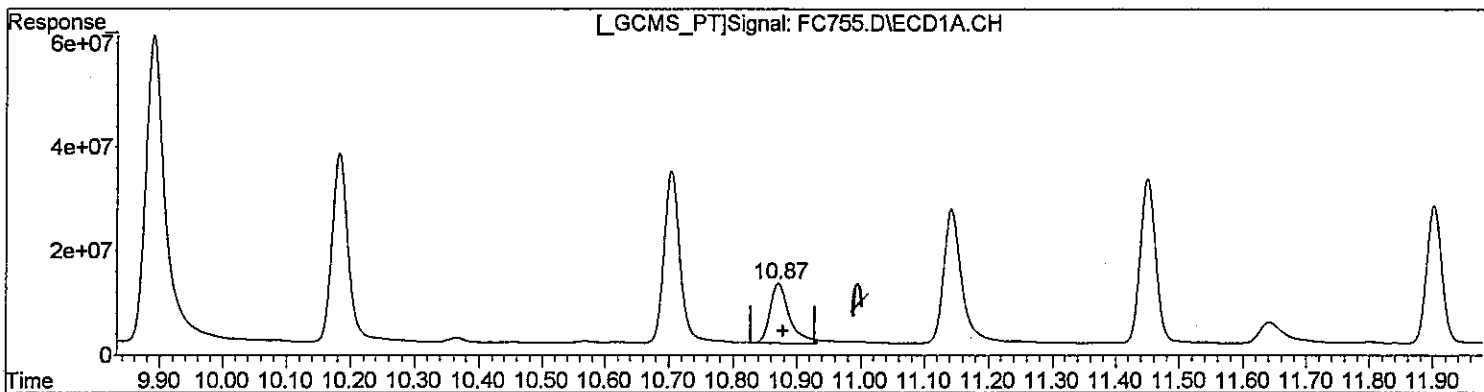
Handwritten signature

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\100809\
Data File : FC755.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Oct 2009 10:19 am
Operator : M.PEDRO
Sample : RQ0909548-03|1.0
Misc : 10/06/09 100 8081/608 BLK
ALS Vial : 38 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 09 10:52:11 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Fri Oct 09 10:50:59 2009
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)
10.87min 18.281ug/l m
response 241220306

(7) beta-BHC #2 (tc)
10.93min 17.310ug/l
response 776519812

Handwritten signatures and initials.

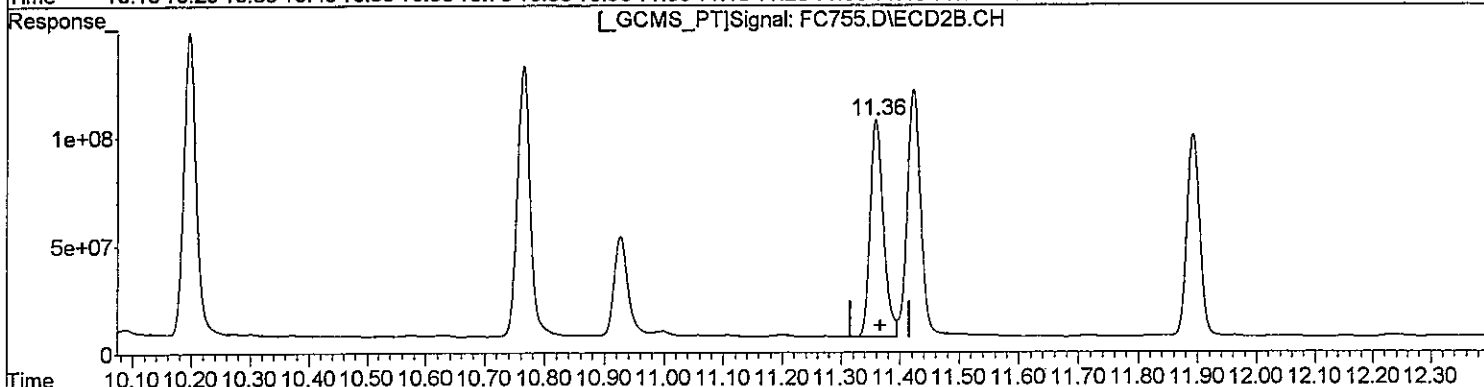
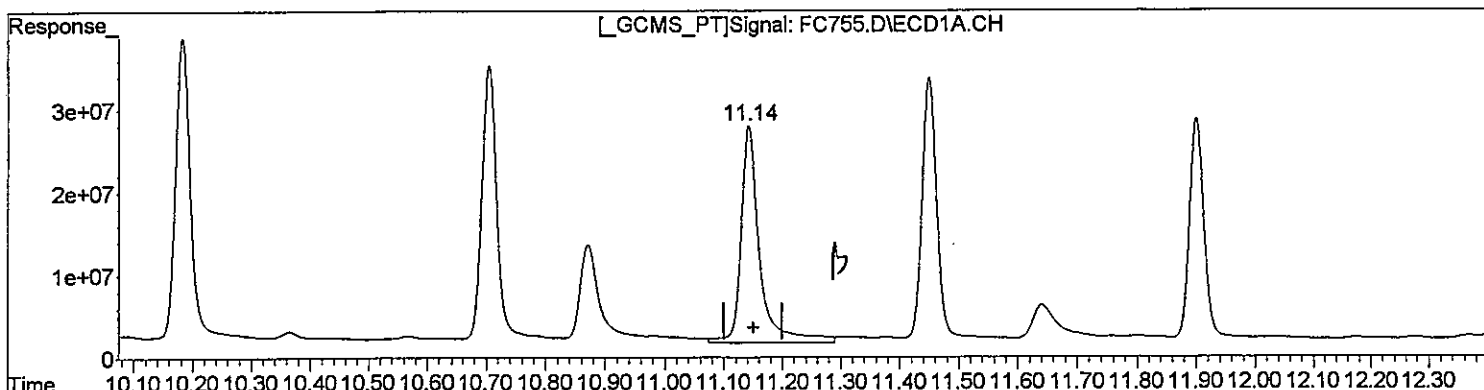
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\100809\
Data File : FC755.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Oct 2009 10:19 am
Operator : M.PEDRO
Sample : RQ0909548-03|1.0
Misc : 10/06/09 100 8081/608 BLK
ALS Vial : 38 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 09 10:52:11 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Fri Oct 09 10:50:59 2009
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

(8) delta-BHC (tc)
11.14min 19.366ug/l
response 588302777

Good

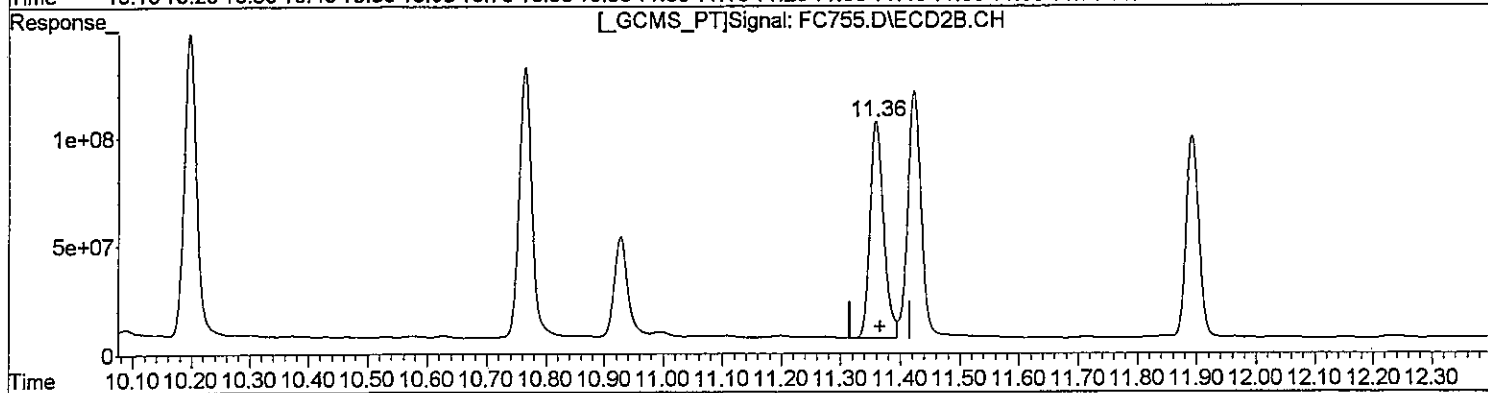
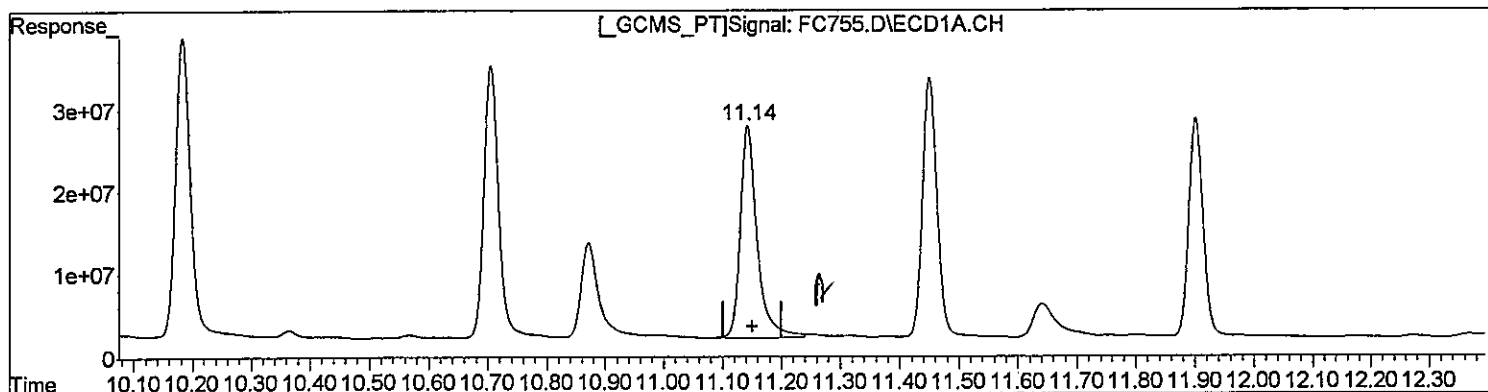
(8) delta-BHC #2 (tc)
11.36min 15.690ug/l
response 1568324232

Quantitation Report (Qedit)

Data Path : J:\ACQUDATA\6890D\DATA\100809\
Data File : FC755.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Oct 2009 10:19 am
Operator : M.PEDRO
Sample : RQ0909548-03|1.0
Misc : 10/06/09 100 8081/608 BLK
ALS Vial : 38 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 09 10:52:11 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Fri Oct 09 10:50:59 2009
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

(8) delta-BHC (TC)
11.14min 16.887ug/l m
response 512988795

(8) delta-BHC #2 (TC)
11.36min 15.690ug/l
response 1568324232

Handwritten signatures and dates:
M.P. 10/9
M.P. 10/9

Data Path : J:\ACQUDATA\6890D\DATA\100809\
 Data File : FC755.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 08 Oct 2009 10:19 am
 Operator : M.PEDRO
 Sample : RQ0909548-03|1.0
 Misc : 10/06/09 100 8081/608 BLK
 ALS Vial : 38 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 09 10:52:11 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Fri Oct 09 10:50:59 2009
 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	9.20	9.14	1970.2E6	6116.6E6	86.025	74.420
Spiked Amount	100.000	Range	30 - 150	Recovery	= 86.03%	74.42%
25) S SURR2,Decachloro	17.31	17.61	1631.2E6	4207.8E6	86.957	85.911
Spiked Amount	100.000	Range	30 - 150	Recovery	= 86.96%	85.91%

Target Compounds

2) TC HEXACHLOROBENZEN	9.89	9.95	1486.3E6	4380.5E6	47.898	41.623
3) tc alpha-BHC	10.18	10.20	743.9E6	2120.1E6	20.686	17.676
4) tcm gamma-BHC (L	10.70	10.76	640.1E6	1915.6E6	20.291	18.381
5) tcm Heptachlor	11.45	11.42	599.2E6	1812.9E6	19.319	18.390
6) tcm Aldrin	11.90	11.89	520.8E6	1409.9E6	18.380	15.609
7) tc beta-BHC	10.87	10.93	294.5E6	776.5E6	22.321	17.310
8) tc delta-BHC	11.14	11.36	588.3E6	1568.3E6	19.366	15.690
9) tc Heptachlor E	12.80	12.72	491.5E6	1473.8E6	19.308	18.922
10) tc alpha-Endosu	13.37	13.28	467.6E6	1304.1E6	20.572	18.906
11) tc gamma-Chlord	12.99	13.00	498.5E6	1431.0E6	19.422	17.944
12) tc alpha-Chlord	13.18	13.20	465.5E6	1337.3E6	18.866	17.681
13) tc 4,4'-DDE	13.30	13.45	414.6E6	1308.2E6	17.479	18.319
14) tcm Dieldrin	13.72	13.66	489.2E6	1439.1E6	19.461	19.734
15) tcm Endrin	14.05	14.09	441.9E6	1281.3E6	19.663	20.106
17) tc beta-Endosul	14.38	14.40	392.9E6	1140.4E6	18.452	18.658
18) tc 4,4'-DDD	14.15	14.26	361.4E6	1025.2E6	19.059	18.700
19) tcm 4,4'-DDT	14.55	14.71	391.2E6	1084.0E6	18.040	17.816
20) tc Endrin Aldeh	15.00	14.89	254.4E6	762.6E6	15.507	16.535
21) tc Endosulfan S	15.65	15.29	336.5E6	1001.8E6	17.709	18.110
22) tc Methoxychlor	15.25	15.69	1051.7E6	2887.6E6	107.890	109.307
24) tc Endrin Keton	16.05	16.06	407.1E6	1120.6E6	18.874	19.135
28) L8C Toxaphene {3}	0.00	15.06	0	19663750	N.D.	16.023 #
29) L8C Toxaphene {4}	16.05	0.00	407.1E6	0	714.700	N.D. #
30) L8C Toxaphene {5}	16.25	16.52	13946530	30457117	30.735	25.152
Sum Toxaphene			421.1E6	50120867	745.434	41.175
Average Toxaphene					372.717	20.588

Data Path : J:\ACQUDATA\6890D\DATA\100809\
 Data File : FC755.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 08 Oct 2009 10:19 am
 Operator : M.PEDRO
 Sample : RQ0909548-03|1.0
 Misc : 10/06/09 100 8081/608 BLK
 ALS Vial : 38 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 09 10:52:11 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Fri Oct 09 10:50:59 2009
 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

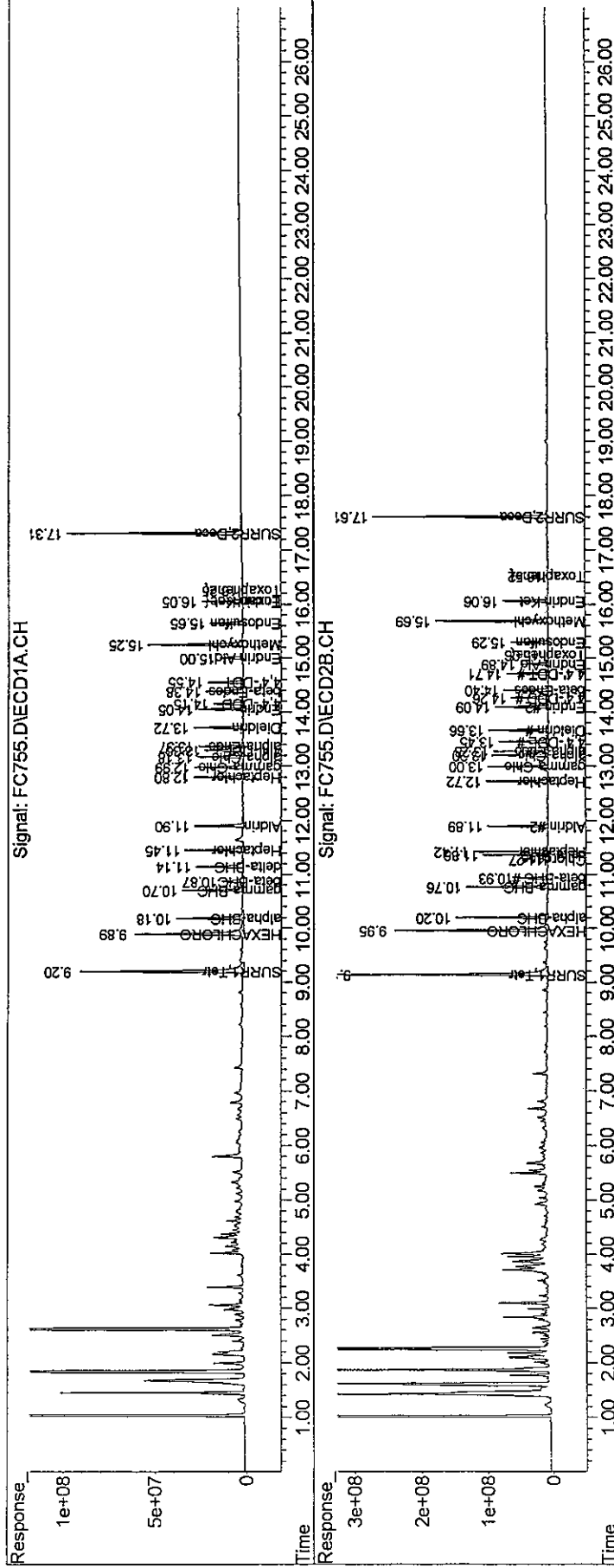
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
31) L9C Chlordane	0.00	11.27	0	9774293	N.D.	14.472 #
Sum Chlordane			0	9774293	N.D.	14.472
Average Chlordane					0.000	14.472

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\100809\
Data File : FC755.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Oct 2009 10:19 am
Operator : M.PEDRO
Sample : RQ0909548-03|1.0
Misc : 10/06/09 100 8081/608 BLK
ALS Vial : 38 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 09 10:52:11 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80810915.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Fri Oct 09 10:50:59 2009
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



109800

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: Lab Control Sample
Lab Code: RQ0909854-02

Service Request: R0905636
Date Collected: NA
Date Received: NA
Units: µg/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analytical Method: 8081A
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis		
								Lot	Lot	Note
4,4'-DDD	0.185		0.10	0.050	1	10/13/09	10/29/09 13:02	98167	177168	
4,4'-DDE	0.178		0.10	0.050	1	10/13/09	10/29/09 13:02	98167	177168	
4,4'-DDT	0.180		0.10	0.050	1	10/13/09	10/29/09 13:02	98167	177168	
Aldrin	0.153		0.050	0.025	1	10/13/09	10/29/09 13:02	98167	177168	
Chlordane	0.13	U	0.25	0.13	1	10/13/09	10/29/09 13:02	98167	177168	
Dieldrin	0.195		0.10	0.050	1	10/13/09	10/29/09 13:02	98167	177168	
Endosulfan I	0.192		0.050	0.025	1	10/13/09	10/29/09 13:02	98167	177168	
Endosulfan II	0.186		0.10	0.050	1	10/13/09	10/29/09 13:02	98167	177168	
Endosulfan Sulfate	0.176		0.10	0.050	1	10/13/09	10/29/09 13:02	98167	177168	
Endrin	0.178		0.10	0.050	1	10/13/09	10/29/09 13:02	98167	177168	
Endrin Aldehyde	0.161		0.10	0.050	1	10/13/09	10/29/09 13:02	98167	177168	
Endrin Ketone	0.197		0.10	0.050	1	10/13/09	10/29/09 13:02	98167	177168	
Heptachlor	0.170		0.050	0.025	1	10/13/09	10/29/09 13:02	98167	177168	
Heptachlor Epoxide	0.180		0.050	0.025	1	10/13/09	10/29/09 13:02	98167	177168	
Hexachlorobenzene	0.411		0.050	0.028	1	10/13/09	10/29/09 13:02	98167	177168	
Methoxychlor	1.07		0.50	0.25	1	10/13/09	10/29/09 13:02	98167	177168	
Toxaphene	0.50	U	1.0	0.50	1	10/13/09	10/29/09 13:02	98167	177168	
alpha-BHC	0.176		0.050	0.025	1	10/13/09	10/29/09 13:02	98167	177168	
alpha-Chlordane	0.174		0.050	0.025	1	10/13/09	10/29/09 13:02	98167	177168	
beta-BHC	0.179		0.050	0.025	1	10/13/09	10/29/09 13:02	98167	177168	
delta-BHC	0.156		0.050	0.025	1	10/13/09	10/29/09 13:02	98167	177168	
gamma-BHC (Lindane)	0.178		0.050	0.025	1	10/13/09	10/29/09 13:02	98167	177168	
gamma-Chlordane	0.177		0.050	0.025	1	10/13/09	10/29/09 13:02	98167	177168	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
Decachlorobiphenyl	57	40-140	10/29/09 13:02		
Tetrachloro-m-xylene	78	40-140	10/29/09 13:02		

Comments:

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD148.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 29 Oct 2009 1:02 pm
 Operator : M.PEDRO
 Sample : RQ0909854-02|1.0
 Misc : 10/13/09 100 8081 LCS
 ALS Vial : 91 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 30 10:07:26 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 08:32:24 2009
 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	9.18	9.36	1856.6E6	5146.4E6	78.167	73.713
Spiked Amount	100.000	Range 30 - 150	Recovery =		78.17%	73.71%
25) S SURR2,Decachloro	17.27	17.91	1138.3E6	2475.6E6	56.478	57.303
Spiked Amount	100.000	Range 30 - 150	Recovery =		56.48%	57.30%
Target Compounds						
2) TC HEXACHLOROBENZEN	9.86	10.18	1303.6E6	3758.3E6	41.106	40.272
3) tc alpha-BHC	10.17	10.43	625.5E6	1809.7E6	17.092	17.558
4) tcm gamma-BHC (L	10.69	11.00	577.2E6	1643.5E6	17.563	17.831
5) tcm Heptachlor	11.43	11.67	542.3E6	1489.4E6	16.580	16.991
6) tcm Aldrin	11.88	12.15	445.4E6	1249.5E6	14.615	15.315
7) tc beta-BHC	10.84	11.15	245.4E6	688.4E6	17.916	16.989
8) tc delta-BHC	11.11	11.60	512.3E6	1429.7E6	15.550	15.644
9) tc Heptachlor E	12.78	12.99	475.4E6	1282.4E6	17.235	17.994
10) tc alpha-Endosu	13.35	13.55	439.1E6	1147.0E6	17.992	19.169
11) tc gamma-Chlord	12.96	13.26	478.0E6	1269.9E6	17.384	17.728
12) tc alpha-Chlord	13.15	13.47	444.6E6	1197.8E6	17.277	17.441
13) tc 4,4'-DDE	13.26	13.71	444.7E6	1186.4E6	16.809	17.839
14) tcm Dieldrin	13.69	13.95	484.2E6	1288.1E6	17.707	19.471
15) tcm Endrin	14.03	14.39	432.0E6	1018.0E6	17.706	17.831
17) tc beta-Endosul	14.35	14.70	387.6E6	1035.6E6	16.798	18.576
18) tc 4,4'-DDD	14.11	14.54	368.3E6	952.0E6	17.495	18.528
19) tcm 4,4'-DDT	14.51	14.99	401.5E6	982.8E6	17.170	17.979
20) tc Endrin Aldeh	14.97	15.20	252.8E6	701.3E6	13.861	16.093
21) tc Endosulfan S	15.62	15.61	343.8E6	882.4E6	16.192	17.571
22) tc Methoxychlor	15.21	15.97	1127.5E6	2478.6E6	103.601	106.501
24) tc Endrin Keton	16.02	16.36	422.2E6	1036.7E6	17.779	19.648
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

10/30

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD148.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 29 Oct 2009 1:02 pm
 Operator : M.PEDRO
 Sample : RQ0909854-02|1.0
 Misc : 10/13/09 100 8081 LCS
 ALS Vial : 91 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 30 10:07:26 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 08:32:24 2009
 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

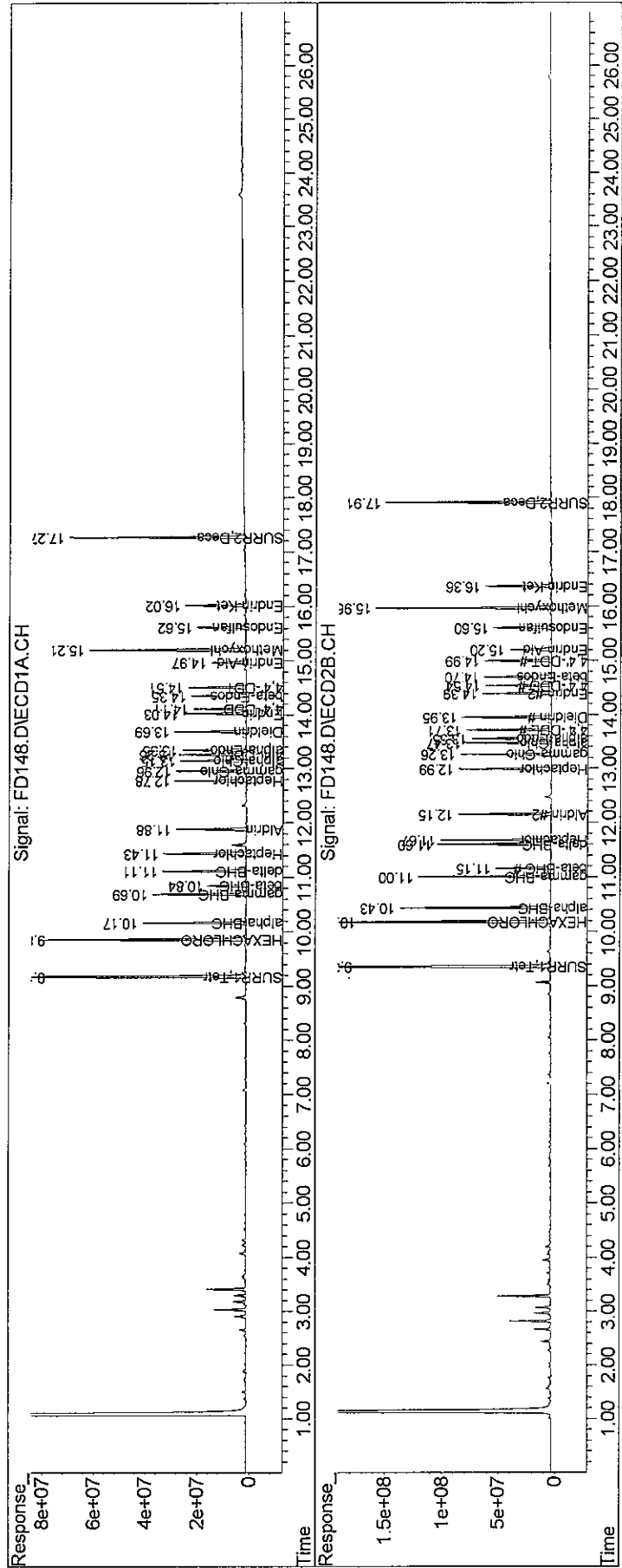
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD148.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 29 Oct 2009 1:02 pm
 Operator : M.PEDRO
 Sample : RQ0909854-02|1.0
 Misc : 10/13/09 100 8081 LCS
 ALS Vial : 91 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 30 10:07:26 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 08:32:24 2009
 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



00858

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD148.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 29 Oct 2009 1:02 pm
 Operator : M.PEDRO
 Sample : RQ0909854-02|1.0
 Misc : 10/13/09 100 8081 LCS
 ALS Vial : 91 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 30 06:34:51 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 08:32:24 2009
 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	9.18	9.36	1856.6E6	5146.4E6	78.167	73.713
Spiked Amount	100.000	Range 30 - 150	Recovery =		78.17%	73.71%
25) S SURR2,Decachloro	17.27	17.91	1138.3E6	2475.6E6	56.478	57.303
Spiked Amount	100.000	Range 30 - 150	Recovery =		56.48%	57.30%
Target Compounds						
2) TC HEXACHLOROENZEN	9.86	10.18	1303.6E6	3758.3E6	41.106	40.272
3) tc alpha-BHC	10.17	10.43	625.5E6	1809.7E6	17.092	17.558
4) tcm gamma-BHC (L	10.69	11.00	577.2E6	1643.5E6	17.563	17.831
5) tcm Heptachlor	11.43	11.67	542.3E6	1489.4E6	16.580	16.991
6) tcm Aldrin	11.88	12.15	445.4E6	1249.5E6	14.615	15.315
7) tc beta-BHC	10.84	11.15	245.4E6	688.4E6	17.916	16.989
8) tc delta-BHC	11.11	11.60	512.3E6	1429.7E6	15.550	15.644
9) tc Heptachlor E	12.78	12.99	475.4E6	1282.4E6	17.235	17.994
10) tc alpha-Endosu	13.35	13.55	439.1E6	1147.0E6	17.992	19.169
11) tc gamma-Chlord	12.96	13.26	478.0E6	1269.9E6	17.384	17.728
12) tc alpha-Chlord	13.15	13.47	444.6E6	1197.8E6	17.277	17.441
13) tc 4,4'-DDE	13.26	13.71	444.7E6	1186.4E6	16.809	17.839
14) tcm Dieldrin	13.69	13.95	484.2E6	1288.1E6	17.707	19.471
15) tcm Endrin	14.03	14.39	432.0E6	1018.0E6	17.706	17.831
16) tc KEPONE	14.11	14.54	368.3E6	952.0E6	37.947	41.346
17) tc beta-Endosul	14.35	14.70	387.6E6	1035.6E6	16.798	18.576
18) tc 4,4'-DDD	14.11	14.54	368.3E6	952.0E6	17.495	18.528
19) tcm 4,4'-DDT	14.51	14.99	401.5E6	982.8E6	17.170	17.979
20) tc Endrin Aldeh	14.97	15.20	252.8E6	701.3E6	13.861	16.093
21) tc Endosulfan S	15.62	15.61	343.8E6	882.4E6	16.192	17.571
22) tc Methoxychlor	15.21	15.97	1127.5E6	2478.6E6	103.601	106.501
24) tc Endrin Keton	16.02	16.36	422.2E6	1036.7E6	17.779	19.648
26) L8C Toxaphene	0.00	14.85	0	5611653	N.D.	2.051 #
27) L8C Toxaphene{2}	14.51	0.00	401.5E6	0	587.258	N.D. #
28) L8C Toxaphene{3}	0.00	15.20	0	701.3E6	N.D.	221.895 #
29) L8C Toxaphene{4}	0.00	15.61	0	882.4E6	N.D.	649.839 #

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD148.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 29 Oct 2009 1:02 pm
 Operator : M.PEDRO
 Sample : RQ0909854-02|1.0
 Misc : 10/13/09 100 8081 LCS
 ALS Vial : 91 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 30 06:34:51 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 08:32:24 2009
 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}	0.00	16.72	0	16641671	N.D.	14.232 #
	Sum Toxaphene			401.5E6	1606.0E6	587.258	888.016
	Average Toxaphene					587.258	222.004
31)	L9C Chlordane	0.00	11.45	0	4617824	N.D.	8.160 #
32)	L9C Chlordane{2}	11.43	11.67	542.3E6	1489.4E6	1259.397	1162.278
33)	L9C Chlordane{3}	0.00	12.40	0	6633367	N.D.	4.140 #
34)	L9C Chlordane{4}	12.96	13.26	478.0E6	1269.9E6	148.915	161.735
	Sum Chlordane			1020.3E6	2770.5E6	1408.312	1336.313
	Average Chlordane					704.156	334.078

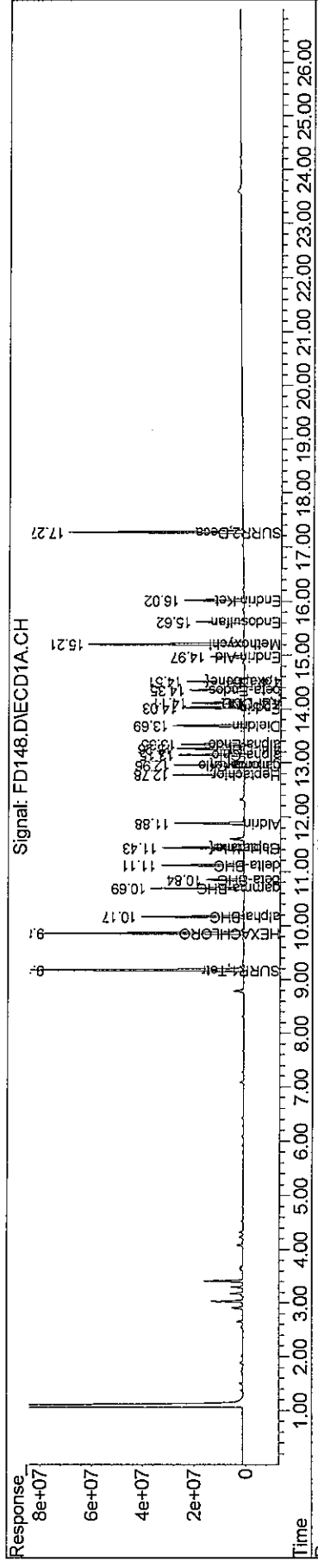
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : J:\ACQUDATA\6890D\DATA\102709\
Data File : FD148.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 29 Oct 2009 1:02 pm
Operator : M.PEDRO
Sample : RQ0909854-02|1.0
Misc : 10/13/09 100 8081 LCS
ALS Vial : 91 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Oct 30 06:34:51 2009
Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
Quant Title : 608/8081A PESTICIDES
QLast Update : Wed Oct 28 08:32:24 2009
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



00871

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: Lab Control Sample Dup
Lab Code: RQ0909854-03

Service Request: R0905636
Date Collected: NA
Date Received: NA
Units: µg/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analytical Method: 8081A
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
4,4'-DDD	0.195		0.10	0.050	1	10/13/09	10/29/09 13:37	98167	177168	
4,4'-DDE	0.184		0.10	0.050	1	10/13/09	10/29/09 13:37	98167	177168	
4,4'-DDT	0.189		0.10	0.050	1	10/13/09	10/29/09 13:37	98167	177168	
Aldrin	0.157		0.050	0.025	1	10/13/09	10/29/09 13:37	98167	177168	
Chlordane	0.13	U	0.25	0.13	1	10/13/09	10/29/09 13:37	98167	177168	
Dieldrin	0.199		0.10	0.050	1	10/13/09	10/29/09 13:37	98167	177168	
Endosulfan I	0.198		0.050	0.025	1	10/13/09	10/29/09 13:37	98167	177168	
Endosulfan II	0.192		0.10	0.050	1	10/13/09	10/29/09 13:37	98167	177168	
Endosulfan Sulfate	0.185		0.10	0.050	1	10/13/09	10/29/09 13:37	98167	177168	
Endrin	0.188		0.10	0.050	1	10/13/09	10/29/09 13:37	98167	177168	
Endrin Aldehyde	0.160		0.10	0.050	1	10/13/09	10/29/09 13:37	98167	177168	
Endrin Ketone	0.208		0.10	0.050	1	10/13/09	10/29/09 13:37	98167	177168	
Heptachlor	0.175		0.050	0.025	1	10/13/09	10/29/09 13:37	98167	177168	
Heptachlor Epoxide	0.184		0.050	0.025	1	10/13/09	10/29/09 13:37	98167	177168	
Hexachlorobenzene	0.422		0.050	0.028	1	10/13/09	10/29/09 13:37	98167	177168	
Methoxychlor	1.12		0.50	0.25	1	10/13/09	10/29/09 13:37	98167	177168	
Toxaphene	0.50	U	1.0	0.50	1	10/13/09	10/29/09 13:37	98167	177168	
alpha-BHC	0.182		0.050	0.025	1	10/13/09	10/29/09 13:37	98167	177168	
alpha-Chlordane	0.180		0.050	0.025	1	10/13/09	10/29/09 13:37	98167	177168	
beta-BHC	0.184		0.050	0.025	1	10/13/09	10/29/09 13:37	98167	177168	
delta-BHC	0.161		0.050	0.025	1	10/13/09	10/29/09 13:37	98167	177168	
gamma-BHC (Lindane)	0.184		0.050	0.025	1	10/13/09	10/29/09 13:37	98167	177168	
gamma-Chlordane	0.184		0.050	0.025	1	10/13/09	10/29/09 13:37	98167	177168	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
Decachlorobiphenyl	74	40-140	10/29/09 13:37		
Tetrachloro-m-xylene	82	40-140	10/29/09 13:37		

Comments:

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD149.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 29 Oct 2009 1:37 pm
 Operator : M.PEDRO
 Sample : RQ0909854-03|1.0
 Misc : 10/13/09 100 8081 LCSD
 ALS Vial : 92 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 30 10:08:24 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 08:32:24 2009
 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	9.18	9.36	1954.4E6	5434.8E6	82.284	77.843
Spiked Amount	100.000	Range 30 - 150	Recovery =		82.28%	77.84%
25) S SURR2,Decachloro	17.27	17.91	1486.7E6	3131.4E6	73.764	72.483
Spiked Amount	100.000	Range 30 - 150	Recovery =		73.76%	72.48%
Target Compounds						
2) TC HEXACHLORO BENZEN	9.86	10.18	1337.8E6	3863.0E6	42.183	41.394
3) tc alpha-BHC	10.17	10.43	646.4E6	1873.9E6	17.664	18.182
4) tcm gamma-BHC (L	10.69	11.01	593.4E6	1693.9E6	18.056	18.377
5) tcm Heptachlor	11.43	11.67	548.1E6	1530.2E6	16.756	17.458
6) tcm Aldrin	11.88	12.15	452.2E6	1280.8E6	14.838	15.698
7) tc beta-BHC	10.84	11.15	252.1E6	726.3E6	18.405	17.924
8) tc delta-BHC	11.11	11.60	517.9E6	1469.3E6	15.718	16.077
9) tc Heptachlor E	12.78	12.99	488.2E6	1312.4E6	17.699	18.415
10) tc alpha-Endosu	13.35	13.55	452.9E6	1185.1E6	18.558	19.805
11) tc gamma-Chlord	12.96	13.26	491.7E6	1320.6E6	17.881	18.436
12) tc alpha-Chlord	13.15	13.47	460.4E6	1235.2E6	17.889	17.985
13) tc 4,4'-DDE	13.26	13.71	460.3E6	1222.3E6	17.402	18.379
14) tcm Dieldrin	13.69	13.95	502.7E6	1317.8E6	18.383	19.920
15) tcm Endrin	14.03	14.39	447.3E6	1072.5E6	18.331	18.786
17) tc beta-Endosul	14.35	14.70	408.9E6	1071.6E6	17.721	19.220
18) tc 4,4'-DDD	14.11	14.54	382.3E6	1004.2E6	18.157	19.543
19) tcm 4,4'-DDT	14.51	14.99	415.3E6	1031.8E6	17.759	18.876
20) tc Endrin Aldeh	14.97	15.20	270.4E6	697.7E6	14.827	16.010
21) tc Endosulfan S	15.62	15.60	369.7E6	928.1E6	17.413	18.481
22) tc Methoxychlor	15.21	15.97	1187.3E6	2609.4E6	109.094	112.124
24) tc Endrin Keton	16.02	16.36	450.7E6	1095.9E6	18.980	20.770
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

Handwritten: 10/20

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD149.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 29 Oct 2009 1:37 pm
 Operator : M.PEDRO
 Sample : RQ0909854-03|1.0
 Misc : 10/13/09 100 8081 LCSD
 ALS Vial : 92 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 30 10:08:24 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 08:32:24 2009
 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

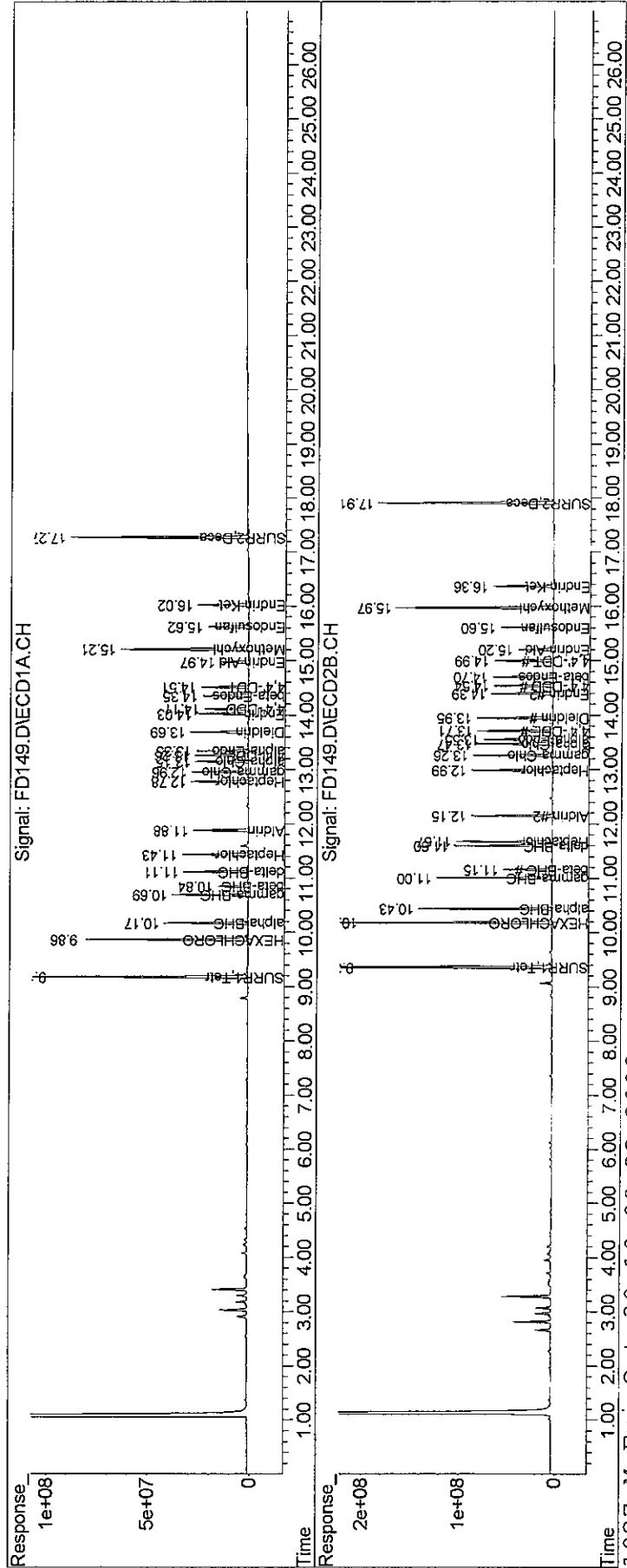
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD149.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 29 Oct 2009 1:37 pm
 Operator : M.PEDRO
 Sample : RQ0909854-03|1.0
 Misc : 10/13/09 100 8081 LCSD
 ALS Vial : 92 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 30 10:08:24 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 08:32:24 2009
 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



00875

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD149.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 29 Oct 2009 1:37 pm
 Operator : M.PEDRO
 Sample : RQ0909854-03|1.0
 Misc : 10/13/09 100 8081 LCSD
 ALS Vial : 92 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 30 06:34:57 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 08:32:24 2009
 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	9.18	9.36	1954.4E6	5434.8E6	82.284	77.843
Spiked Amount	100.000	Range 30 - 150	Recovery =		82.28%	77.84%
25) S SURR2,Decachloro	17.27	17.91	1486.7E6	3131.4E6	73.764	72.483
Spiked Amount	100.000	Range 30 - 150	Recovery =		73.76%	72.48%
Target Compounds						
2) TC HEXACHLOROENZEN	9.86	10.18	1337.8E6	3863.0E6	42.183	41.394
3) tc alpha-BHC	10.17	10.43	646.4E6	1873.9E6	17.664	18.182
4) tcm gamma-BHC (L	10.69	11.01	593.4E6	1693.9E6	18.056	18.377
5) tcm Heptachlor	11.43	11.67	548.1E6	1530.2E6	16.756	17.458
6) tcm Aldrin	11.88	12.15	452.2E6	1280.8E6	14.838	15.698
7) tc beta-BHC	10.84	11.15	252.1E6	726.3E6	18.405	17.924
8) tc delta-BHC	11.11	11.60	517.9E6	1469.3E6	15.718	16.077
9) tc Heptachlor E	12.78	12.99	488.2E6	1312.4E6	17.699	18.415
10) tc alpha-Endosu	13.35	13.55	452.9E6	1185.1E6	18.558	19.805
11) tc gamma-Chlord	12.96	13.26	491.7E6	1320.6E6	17.881	18.436
12) tc alpha-Chlord	13.15	13.47	460.4E6	1235.2E6	17.889	17.985
13) tc 4,4'-DDE	13.26	13.71	460.3E6	1222.3E6	17.402	18.379
14) tcm Dieldrin	13.69	13.95	502.7E6	1317.8E6	18.383	19.920
15) tcm Endrin	14.03	14.39	447.3E6	1072.5E6	18.331	18.786
16) tc KEPONE	14.11	14.54	382.3E6	1004.2E6	39.384	43.610
17) tc beta-Endosul	14.35	14.70	408.9E6	1071.6E6	17.721	19.220
18) tc 4,4'-DDD	14.11	14.54	382.3E6	1004.2E6	18.157	19.543
19) tcm 4,4'-DDT	14.51	14.99	415.3E6	1031.8E6	17.759	18.876
20) tc Endrin Aldeh	14.97	15.20	270.4E6	697.7E6	14.827	16.010
21) tc Endosulfan S	15.62	15.60	369.7E6	928.1E6	17.413	18.481
22) tc Methoxychlor	15.21	15.97	1187.3E6	2609.4E6	109.094	112.124
23) tc FAMPHUR	0.00	15.71	0	589028	N.D.	0.016 #
24) tc Endrin Keton	16.02	16.36	450.7E6	1095.9E6	18.980	20.770
27) L8C Toxaphene{2}	14.51	14.91	415.3E6	2611106	607.420	1.848 #
28) L8C Toxaphene{3}	0.00	15.20	0	697.7E6	N.D.	220.752 #
29) L8C Toxaphene{4}	0.00	15.60	0	928.1E6	N.D.	683.492 #

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Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD149.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 29 Oct 2009 1:37 pm
 Operator : M.PEDRO
 Sample : RQ0909854-03|1.0
 Misc : 10/13/09 100 8081 LCSD
 ALS Vial : 92 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 30 06:34:57 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 08:32:24 2009
 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

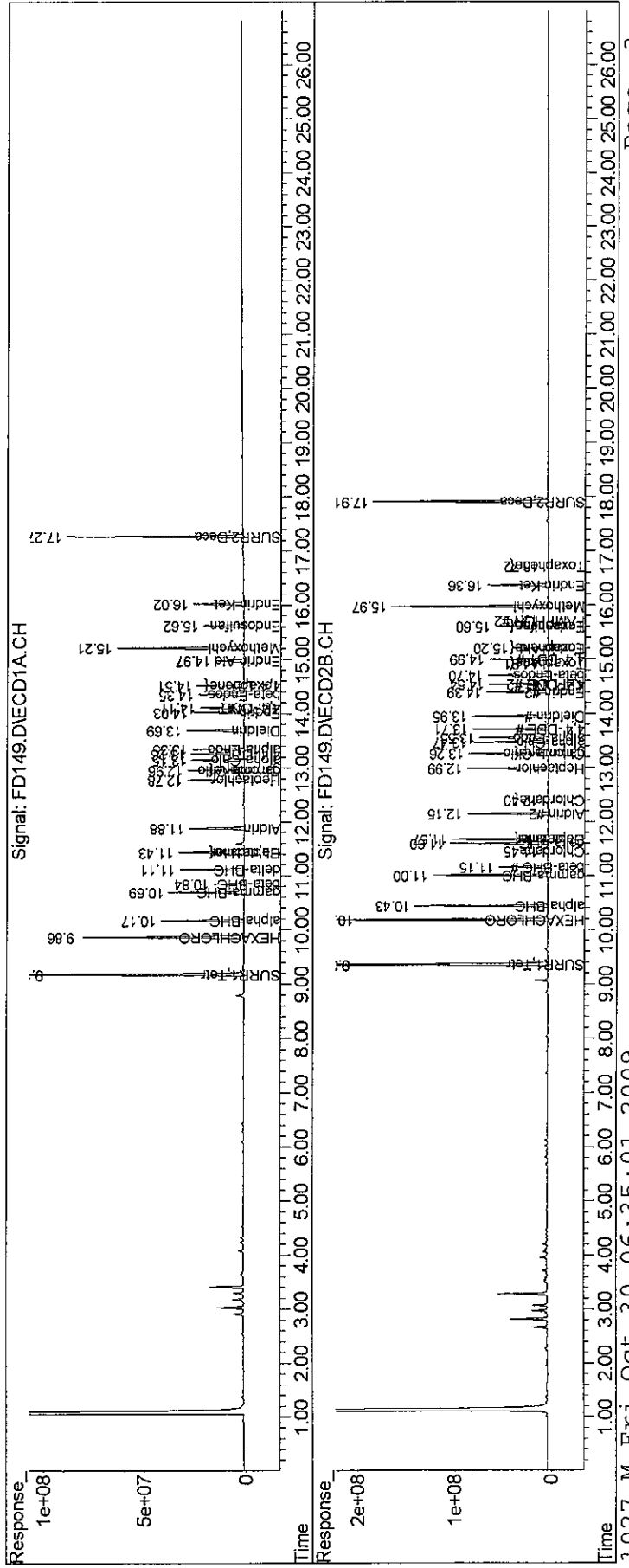
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
30) L8C Toxaphene{5}	0.00	16.72	0	15152049	N.D.	12.958 #
Sum Toxaphene			415.3E6	1643.6E6	607.420	919.050
Average Toxaphene					607.420	229.763
31) L9C Chlordane	0.00	11.45	0	4198011	N.D.	7.418 #
32) L9C Chlordane{2}	11.43	11.67	548.1E6	1530.2E6	1272.753	1194.179
33) L9C Chlordane{3}	0.00	12.40	0	4727976	N.D.	2.951 #
34) L9C Chlordane{4}	12.96	13.26	491.7E6	1320.6E6	153.170	168.198
Sum Chlordane			1039.7E6	2859.8E6	1425.923	1372.746
Average Chlordane					712.962	343.186

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\ACQUDATA\6890D\DATA\102709\
 Data File : FD149.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 29 Oct 2009 1:37 pm
 Operator : M.PEDRO
 Sample : RQ0909854-03|1.0
 Misc : 10/13/09 100 8081 LCSD
 ALS Vial : 92 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
 Integration File signal 2: EVENTS2.E
 Quant Time: Oct 30 06:34:57 2009
 Quant Method : J:\ACQUDATA\6890D\METHODS\80811027.M
 Quant Title : 608/8081A PESTICIDES
 QLast Update : Wed Oct 28 08:32:24 2009
 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



00878

#	Lab Code	Client ID	B#	Amt. Ext.	Method /Test	pH	AE	BN	Final Vol	Sample Desc. (Initial/Final)	SpikeAmt./Inv. ID	Comments
1	RQ0909548-01	MB		1000mL	608 Modified/PCB	6			10.00mL	clear-colorless	1.0000 mL/12403	
2	RQ0909548-01	MB		1000mL	608 Modified/PEST_OC	6			10.00mL	clear-colorless	1.0000 mL/12403	
3	RQ0909548-01	MB		1000mL	8081A/PEST_OC	6			10.00mL	clear-colorless	1.0000 mL/12403	
4	RQ0909548-02	LCS		1000mL	608 Modified/PCB	6			10.00mL	clear-colorless	1.0000 mL/11181;	
5	RQ0909548-02	LCS		1000mL	608 Modified/PEST_OC	6			10.00mL	clear-colorless	1.0000 mL/12374;	
6	RQ0909548-02	LCS		1000mL	8081A/PEST_OC	6			10.00mL	clear-colorless	1.0000 mL/12403	
7	RQ0909548-03	D LCS		1000mL	608 Modified/PCB	6			10.00mL	clear-colorless	1.0000 mL/11181;	
8	RQ0909548-03	D LCS		1000mL	608 Modified/PEST_OC	6			10.00mL	clear-colorless	1.0000 mL/12374;	
9	RQ0909548-03	D LCS		1000mL	8081A/PEST_OC	6			10.00mL	clear-colorless	1.0000 mL/12403	
10	R0905569-001	Influent	.07	1060mL	608 Modified/PCB	8			10.00mL	orange-cloudy	1.0000 mL/12374;	
11	R0905570-005	Effluent Composite	.04	1000mL	608 Modified/PCB	7			10.00mL	yellow-cloudy	1.0000 mL/12403	
12	R0905602-001	Tantalo	.05	1020mL	608 Modified/PCB	8			10.00mL	black-opaque	1.0000 mL/12403	
13	R0905602-001	Tantalo	.04	1020mL	608 Modified/PEST_OC	8			10.00mL	black-opaque	1.0000 mL/12403	
14	R0905634-009	005 Inlet	.01	1060mL	608 Modified/PEST_OC	7			10.00mL	clear-colorless	1.0000 mL/12403	
15	R0905634-010	005 Outlet	.01	1060mL	608 Modified/PEST_OC	7			10.00mL	brown-cloudy	1.0000 mL/12403	
16	R0905636-001	PB100209-A2	.05	1060mL	8081A/PEST_OC	7			10.00mL	clear-colorless	1.0000 mL/12403	
17	R0905636-002	M-76B	.06	1060mL	8081A/PEST_OC	7			10.00mL	yellow-clear	1.0000 mL/12403	
18	R0905636-003	M-76009B	.06	1060mL	8081A/PEST_OC	7			10.00mL	yellow-clear	1.0000 mL/12403	

Spiking Solutions

Name: 8082 Spike 5 ug/mL AR 1260 Inventory ID 11181 Logbook Ref: 0-618-129-B Expires On: 01/26/2010
 Name: 608 LCS Spike STD Inventory ID 12374 Logbook Ref: Expires On: 11/28/2009
 Name: 8081/8082 Surrogate Spike STD 1 ug/ml Inventory ID 12403 Logbook Ref: Expires On: 03/27/2010

Preparation Materials

Eppendorf Pipette Repeater EXT #3 (12431) DI System (2262) Sulfuric Acid Reagent Grade 0-344-43-N (11486)
 Mercury Reagent Grade Hg 0-344-43-H (11169) Isopropanol (2-Propanol) Reagent 0-344-42-C (9670) Dichloromethane (Methylene Chloride) 99.9% MeCl2 (12104)
 Hexane (n-Hexane) 99.8% Prepared Sodium Sulfate Na2SO4 (12441) Prepared Tetrabutylammonium hydrogen sulfate (TBA) (11950)

Preparation Steps

Step: Extraction Concentration 10/7/09 11:35 Step: Sulfur Clean 10/7/09 14:40 Step: Final Volume 10/7/09 15:17
 Started: 10/6/09 09:45 Started: 10/7/09 13:45 Started: 10/7/09 15:15
 Finished: 10/6/09 16:00 Finished: 10/7/09 14:00 Finished: 10/7/09 15:17
 By: DMURPHY By: GLAFORCE By: GLAFORCE

Prep Run#: 97635
Team: Semivox GC/DMURPHY

Prep WorkFlow: OrigExtAq(7)
Prep Method: EPA 3510C

Status: Prepped
Prep Date/Time: 10/6/09 09:45 AM

PREPARATION INFORMATION BENCHSHEET

Comments:

Reviewed By: Meghan Redw Date: 10/7/09 Spike Witness: DCURRAN Date: 10/7/09

Chain of Custody

Relinquished By: _____ Date: _____

Received By: _____ Date: _____

Extracts Examined
Yes _____ No _____

Preparation Information Benchsheet

Prep Run#: 98167
 Team: Semivova GC/DMURPHY

Prep WorkFlow: OrgExtAq(7)
 Prep Method: EPA 3510C.

Status: Prepped
 Prep Date/Time: 10/13/09 09:24 AM

#	Lab Code	Client ID	B#	Amt. Ext	Method /Test	pH	AE	BN	Final Vol	Sample Desc. (Initial/Final)	SpikeAmt./Inv. ID	Comments
1	RQ0909854-01	MIB		1000mL	8081A/PEST_OC	6			10.00mL	clear-colorless	1.0000 mL/12637	
2	RQ0909854-01	MIB		1000mL	8082/PCB	6			10.00mL	clear-colorless	1.0000 mL/12637	
3	RQ0909854-02	LCS		1000mL	8081A/PEST_OC	6			10.00mL	clear-colorless	1.0000 mL/12374; 1.0000 mL/12637	
4	RQ0909854-02	LCS		1000mL	8082/PCB	6			10.00mL	clear-colorless	1.0000 mL/12552; 1.0000 mL/12637	
5	RQ0909854-03	DLCS		1000mL	8081A/PEST_OC	6			10.00mL	clear-colorless	1.0000 mL/12374; 1.0000 mL/12637	
6	RQ0909854-03	DLCS		1000mL	8082/PCB	6			10.00mL	clear-colorless	1.0000 mL/12552; 1.0000 mL/12637	
7	R0905636-001RRE	PB100209-A2	.05	1060mL	8081A/PEST_OC	6			10.00mL	clear-colorless	1.0000 mL/12637	
8	R0905636-002	MC-94B	.06	1060mL	8081A/PEST_OC	7			10.00mL	clear-colorless	1.0000 mL/12637	
9	R0905744-011	EB100809-SO1A3	.09	1060mL	8081A/PEST_OC	7			10.00mL	clear-colorless	1.0000 mL/12637	
10	R0905830-003	MMW0018A	.12	1060mL	8081A/PEST_OC	7			10.00mL	clear-colorless	1.0000 mL/12637	
11	R0905830-003	MMW0018A	.12	1060mL	8082/PCB	7			10.00mL	clear-colorless	1.0000 mL/12637	
12	R0905830-004	MMW0018B	.09	1060mL	8081A/PEST_OC	7			10.00mL	clear-colorless	1.0000 mL/12637	
13	RQ0909854-04	R0905830-004 MS	.43	1020mL	8081A/PEST_OC	7			10.00mL	clear-colorless	1.0000 mL/12637	
14	RQ0909854-05	R0905830-004 DMS	.10	1060mL	8081A/PEST_OC	7			10.00mL	clear-colorless	1.0000 mL/12374; 1.0000 mL/12637	
15	R0905830-004	MMW0018B	.33	1060mL	8082/PCB	7			10.00mL	clear-colorless	1.0000 mL/12374; 1.0000 mL/12637	
16	RQ0909854-06	R0905830-004 MS	.12	1060mL	8082/PCB	7			10.00mL	clear-colorless	1.0000 mL/12637	
17	RQ0909854-07	R0905830-004 DMS	.36	1050mL	8082/PCB	7			10.00mL	clear-colorless	1.0000 mL/12552; 1.0000 mL/12637	
18	R0905830-005	MMW9005	.09	1060mL	8081A/PEST_OC	7			10.00mL	clear-colorless	1.0000 mL/12637	
19	R0905830-005	MMW9005	.09	1060mL	8082/PCB	7			10.00mL	clear-colorless	1.0000 mL/12637	
20	R0905830-006	LF2MW4	.35	1050mL	8081A/PEST_OC	7			10.00mL	clear-colorless	1.0000 mL/12637	
21	RQ0909854-08	R0905830-006 MS	.34	1030mL	8081A/PEST_OC	7			10.00mL	clear-colorless	1.0000 mL/12374; 1.0000 mL/12637	
22	RQ0909854-09	R0905830-006 DMS	.33	1030mL	8081A/PEST_OC	7			10.00mL	clear-colorless	1.0000 mL/12374; 1.0000 mL/12637	
23	R0905830-006	LF2MW4	.11	1050mL	8082/PCB	7			10.00mL	clear-colorless	1.0000 mL/12637	
24	RQ0909854-10	R0905830-006 MS	.30	1050mL	8082/PCB	7			10.00mL	clear-colorless	1.0000 mL/12552; 1.0000 mL/12637	
25	RQ0909854-11	R0905830-006 DMS	.31	1060mL	8082/PCB	7			10.00mL	clear-colorless	1.0000 mL/12552; 1.0000 mL/12637	
26	R0905830-007	MMW0001	.09	1060mL	8081A/PEST_OC	7			10.00mL	clear-colorless	1.0000 mL/12637	
27	R0905830-007	MMW0001	.09	1060mL	8082/PCB	7			10.00mL	clear-colorless	1.0000 mL/12637	
28	R0905830-008	MMW9006	.08	1060mL	8081A/PEST_OC	7			10.00mL	clear-colorless	1.0000 mL/12637	
29	R0905830-008	MMW9006	.08	1060mL	8082/PCB	7			10.00mL	clear-colorless	1.0000 mL/12637	

Preparation Information Benchsheet

Prep Run#: 98167 **Prep Workflow:** OrgExIAq(7) **Status:** Prepped
Team: Semivoa GC/DMURPHY **Prep Method:** EPA 3510C **Prep Date/Time:** 10/13/09 09:24 AM

Spiking Solutions

Name:	608 LCS Spike STD	Inventory ID	12374	Logbook Ref:	11/28/2009
Name:	8082 Spike 5ug/ml AR 1242	Inventory ID	12552	Logbook Ref:	04/05/2010
Name:	8081/8082 Surrogate Spike STD 1 ug/ml	Inventory ID	12637	Logbook Ref:	04/13/2010

Preparation Materials

Eppendorf Pipette Repeater	EXT #3 (12431)	Sulfuric Acid Reagent Grade H2SO4	(12512)	Mercury Reagent Grade Hg	0-344-43-H (11169)
Dichloromethane (Methylene Chloride) 99.9% MeCl2	(12407)	Hexane (n-Hexane) 99.8% Minimum	(12406)	Prepared Sodium Sulfate Na2SO4	(12543)

Preparation Steps

Step:	Extraction	Step:	Acid Clean	Step:	Sulfur Clean	Step:	Final Volume
Started:	10/13/09 09:24	Started:	10/14/09 13:55	Started:	10/14/09 14:15	Started:	10/14/09 15:02
Finished:	10/13/09 16:30	Finished:	10/14/09 14:10	Finished:	10/14/09 15:01	Finished:	10/14/09 15:02
By:	DMURPHY	By:	GLAFORCE	By:	GLAFORCE	By:	GLAFORCE

Comments:

Reviewed By: Wegman Fedus Date: 10/14/09 Spike Witness: DCURRAN Date: 10/14/09
 Chain of Custody

Relinquished By: _____	Date: _____
Received By: _____	Date: _____
Extracts Examined Yes No	

Analysis: 8081 Analyst: Miguel Ledo Run Method: 80810915.m
 Date: 9/15/09 Instr. 6890D Quant Method: ↓
 LIMS Run#: _____

Pos.	Sample	Diln.	Diln. Prep.	Client	File#	OK?	Comments
	Pem		12176			Y	
	DIRIL		12052			Y	
	INHAL		11974			Y	
	↓ m		11973			Y	
	↓ m		11972			Y	
	↓ mH		11971			Y	
	↓ H		11970			Y	
	INDBL		11979			Y	
	↓ m		11978			Y	
	↓ m		11977			Y	
	↓ mH		11976			Y	
	↓ H		11975			Y	
	TOCL		11878			Y	
	↓ mL		11877			Y	
	↓ M		11879			Y	
	↓ mH		11880			Y	
	↓ H		11881			Y	
	CHIL		11888			Y	
	↓ mL		11889			Y	
	↓ M		11890			Y	
	↓ mH		11891			Y	
	↓ H		11892			Y	
	8081ICV		to 0615 95A			Y	
	TOXICV		12236			N	Remake patterns don't
	CHILICV		122			N	↓ MATCH

All samples = _____ mL + _____ uL Combined IS/Surr.;

Analysis: 8081

Analyst: Meghan Pedro

Run Method: 80810915.M

Date: 12/8/09

Instr. 6890D

Quant Method: ↓

LIMS Run#: 173846

Pos.	Sample	Diln.	Diln. Prep.	Client	File#	OK?	Comments
	Perm		12170		FC718	YPE	
	CW37a		11972		719	YU	
	CW37b		11977		720	YU	
	R0909285-01	1.0			721	YMB	
	↓ 02 L ₆				722	YR	
	↓ 03 L ₃₀				723	YU	
	R0905464-001				724	Y	TMX4
	002				725	Y	
	003				726	Y	
	004	↓			727	Y	
	005	10			728	N	Rpt 1/100
	006	1.0			729	Y	
	007	↓			730	Y	
	CW38a		11972		731	YU	
	CW38b		11977		732	YU	
	R0905464-008	1.0			733	Y	
	009				734	Y	
	013				735	Y	
	R0909285-04 A4				736	YR	
	05 M4				737	YR	
	R0905464-014				738	Y	
	015				739	Y	
	016				740	Y	
	017				741	Y	
	018	↓			742	Y	
	CW39a		11972		743	YU	
	CW39b		11977		744	YU	
	Perm				745	YPE	
	R0905464-019	1.0			746	Y	TMX4
	020	↓			747	Y	TMX4 B.C.
	021	↓			748	Y	TMX4
	CW40a		11972		749	YU	
	CW40b		11977		750	YU	
	R0905464-003	100			751	YU	
	R0905464-005	100			752	Y	
	R0907116-01 A4		R0907116S4		753	YMB	
	02 L ₅		01		754	YU	
	03 L ₁₀₀		03		755	YR	
	R0907116-01 A1	1.0			756	Y	

All samples = _____ mL + _____ uL Combined IS/Surr.;

Primary: _____ exp: _____
Primary: _____ exp: _____

Secondary: _____ exp: _____
Secondary: _____ exp: _____

00083

Run 174100

Analysis: SCC/UC Analyst: Alghan Pedro Run Method: SCC/UC 15.15.15
 Date: 10/8/09 Instr. 6890D Quant Method: ↓
 LIMS Run#: 174100

Pos.	Sample	Diln.	Diln. Prep.	Client	File#	OK?	Comments
	R090562-001	1.0			FC157	Y	
	R0905634-009				758	Y	
	010				759	Y	
	R0905626-001				760	Y	DCB ↓
	002				761	Y	
	003				762	Y	
	CW419		11972		763	Y/C	
	CW41b		11977		764	Y/C	
	R0905734-002						
	004						
	R0909328-01						
	Pem				765	Y/P	
	R0905734-002	1.0			766	Y	
	004				767	Y	
	R0909328-4 ESM				768	Y	DCB ↓
	R0909610-01	BL			769	Y	
	02	US			770	Y/R	
	03	US			771	Y/R	
	R0905090-001				772	Y	
	002				773	Y	DCB TCMX ↓
	003				774	Y	↓
	CW42a		11971		775	Y/C	
	CW42b		11976		776	Y/C	
	R0905078-001	1.0			777	Y	
	002				778	Y	
	003				779	Y	
	R0905090-04 MS				780	N	Not used
	↓ 05 MS				781	N	↓
	R0905078-004				782	Y	
	R0905078-018				783	Y	
	CW43a		11971		784	Y/C	Back column ↓
	CW43b		11970		785	Y/C	↓

All samples = _____ mL + _____ uL Combined IS/Surr.;

Primary: _____ exp: _____ Secondary: _____ exp: _____
 Primary: _____ exp: _____ Secondary: _____ exp: _____

Analysis: 8081 Analyst: Moghan Run Method: 8081027.u
 Date: 10/27/09 Instr. 6890D Quant Method: ↓
 LIMS Run#: 176909

Pos.	Sample	Diln.	Diln. Prep.	Client	File#	OK?	Comments
	Pern		12176		10058	Y	
	PIBM		12087		059	Y	
	IWDAL		11974		060	Y	
	ML		11973		061	Y	
	M		12057		062	Y	
	MH		11971		063	Y	
	↓ H		11970		064	Y	
	IWDRL		11979		065	Y	
	ML		11978		066	Y	
	M		12058		067	Y	
	↓ MH		11976		068	Y	
	H		11975		069	Y	
	Kap/Kam L				070	Y	
	ML				071	Y	
	M				072	Y	
	MH				073	Y	
	↓ H				074	Y	
	TOX L		11978		075	Y	
	ML		11977		076	Y	
	M		11979		077	Y	
	MH		11880		078	Y	
	↓ H		11881		079	Y	
	Chlor L		11888		080	Y	
	ML		11889		081	Y	
	M		11890		082	Y	
	MH		11891		083	Y	
	↓ H		11892		084	Y	
	8081 IUV				085	Y	YUV
	TOX IUV				086	Y	YUV
	Chlor IUV				087	Y	YUV
	Pern		12176		088	Y	YUV
	CCV1a		12057		089	Y	YUV
	CCV1b		12058		090	Y	YUV
	R0909854-cl B1a				091	Y	YMB Rpt
	02 L5				092	N	
	031 L5D				093	N	
	R0905636-c01				094	Y	
	006				095	Y	RATV
	R0905744-c11				096	Y	

All samples = _____ mL + _____ uL Combined IS/Surr.;

Primary: _____ exp: _____ Secondary: _____ exp: _____
 Primary: _____ exp: _____ Secondary: _____ exp: _____

00090

Analysis: 8081
 Date: 10/21/09

Analyst: Miguel Pina
 Instr. 6890D

Run Method: 8081_027.M
 Quant Method: +
 LIMS Run#: 176909/177168

Pos.	Sample	Diln.	Diln. Prep.	Client	File#	OK?	Comments
	R0905830-003				F0097	Y	
	+ 004				098	Y	
	R0909854-04 MS				099	N	Rpt
	+ 05 MS/D				100	N	Rpt
	CCV2a		12057		101	YCC	
	CCV2b		12058		102	YCC	
	R0905830-005				103	Y	
	+ 006				104	Y	
	R0909854-08 MS				105	Y	
	+ 09 MS/D				106	Y	
	R0905830-007				107	Y	
	+ 008				108	Y	
	CCV3A				109		
	CCV3B				110		MS/D
	R0905743-023				109	Y	
	R0905744-001				110	Y	
	R0909900-06 MS				111	Y	
	+ 07 MS/D				112	Y	
	R0905744-002				113	Y	
	CCV3A		12057		114	YCC	
	CCV3B		12058		115	YCC	
	Rem		12174		116	YPE	
	R0905709-001	100.			117	Y	
	002	100.			118	Y	
	003	100.			119	Y	
	004	100.			120	Y	
	005	100.			121	Y	
	006	100.			122	Y	
	007	100.			123	Y	
	008	100.			124	Y	
	009	100.			125	Y	
	010	100.			126	Y	
	011	100.			127	Y	
	CCV4A		12057		128	YCC	
	CCV4B		12058		129	YCC	
	R0909854-01 MS	1.0			130	Y	
	02 MS	1.0			131	Y	
	03 MS	1.0			132	Y	
	R0905835-00	1.0			133	Y	

All samples = _____ mL + _____ uL Combined IS/Surr.;

Primary: _____ exp: _____ Secondary: _____ exp: _____
 Primary: _____ exp: _____ Secondary: _____ exp: _____

00091

Analysis: 8081 Analyst: Mogra Run Method: EC01/027.m
 Date: 10/28/07 Instr. 6890D Quant Method: 7
 LIMS Run#: 17768

Pos.	Sample	Diln.	Diln. Prep.	Client	File#	OK?	Comments
	R0905744-003				E0124	Y	
	R0905748-003				125	Y	
	R0905829-017				126	N	RATBA
	018				127	Y	
	R0905882-001				128	N	Rpt 12
	002				129	Y	
	PUM		12176		130	YPE	
	CCV59		12057		131	YU	
	CCV56		12058		132	YCC	
	R090580133-04				133	YQ	
	05				134	YR	
	R0905882-003				135	Y	
	004				136	Y	
	R0905854-01 1A				137	YWR	
	02 1B				138	YR	
	03 1C				139	YR	
	04 1D				140	YR	
	05 1E				141	YR	
	R0905630-006	Z.0			142	Y	
	CCV6A		12057		143	YCC	
	CCV6B		12058		144	YCC	
	R0905854-01 1A				145	YWR	
	02 1C				146	N	somehow
	03 1D				147	YR	
	R0905635-024				148	Y	
	R0905693-005				149	Y	
	006				150	Y	
	007				151	N	Surr ↓
	008				152	N	TCMST
	009				153	Y	
	011				154	Y	
	CW7A				155	YCC	
	CW7B				156	YCC	
	PUM				157	YPE	
	R0905693-012				158		
	013				159		
	014				160		
	016				161		
	017				162		

All samples = _____ mL + _____ uL Combined IS/Surr.;

Primary: _____ exp: _____
 Primary: _____ exp: _____

Secondary: _____ exp: _____
 Secondary: _____ exp: _____

exp: for
 exp: Databank

00092

GENERAL CHEMISTRY DATA

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: PB100209-A2
Lab Code: R0905636-001

Service Request: R0905636
Date Collected: 10/ 2/09 1111
Date Received: 10/ 3/09

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed
Alkalinity as CaCO ₃ , Total	SM 2320 B	1.1	J	mg/L	2.0	0.3	1	NA	10/15/09 09:33
Ammonia as Nitrogen	350.1	0.025	J	mg/L	0.050	0.007	1	NA	10/27/09 13:22
Bicarbonate Alkalinity as CaCO ₃	SM 2320 B	1.1	J	mg/L	2.0	0.3	1	NA	10/15/09 09:33
Bromide	9056	0.2	U	mg/L	1.0	0.2	10	NA	10/6/09 23:48
Carbon, Total Organic (TOC)	9060	0.1	U	mg/L	1.0	0.1	1	NA	10/10/09 13:02
Carbon, Total Organic (TOC)	9060	0.1	U	mg/L	1.0	0.1	1	NA	10/10/09 13:10
Carbon, Total Organic (TOC)	9060	0.1	U	mg/L	1.0	0.1	1	NA	10/10/09 13:20
Carbon, Total Organic (TOC)	9060	0.1	U	mg/L	1.0	0.1	1	NA	10/10/09 12:54
Carbon, Total Organic (TOC), Average	9060	0.1	U	mg/L	1.0	0.1	1	NA	10/10/09 12:54
Carbonate Alkalinity as CaCO ₃	SM 2320 B	0.3	U	mg/L	2.0	0.3	1	NA	10/15/09 09:33
Chloride	9056	0.9	J	mg/L	2.0	0.5	10	NA	10/8/09 12:47
Chromium, Hexavalent, Dissolved	218.6	0.004	U	mg/L	0.010	0.004	1	NA	10/6/09 12:13
Conductivity	120.1	1.84		µMHOS/cm	0.050		1	NA	10/3/09 12:00
Cyanide, Total	9012A	0.005	U	mg/L	0.010	0.005	1	10/12/09	10/13/09 11:42
Hydroxide Alkalinity as CaCO ₃	SM 2320 B	0.3	U	mg/L	2.0	0.3	1	NA	10/15/09 09:33
Nitrate as Nitrogen	9056	0.04	U	mg/L	0.50	0.04	10	NA	10/3/09 12:17
Nitrite as Nitrogen	353.2	0.007	U	mg/L	0.010	0.007	1	NA	10/3/09 15:35
pH	9040B	6.49		pH Units			1	NA	10/3/09 12:00
Phosphorus, Total	365.1	0.007	J	mg/L	0.050	0.005	1	10/21/09	10/22/09 11:20
Solids, Total Dissolved	SM 2540 C	6	U	mg/L	10	6	1	NA	10/6/09 11:10
Solids, Total Suspended (TSS)	SM 2540 D	1.0	U	mg/L	1.0		1	NA	10/7/09 15:05
Sulfate	9056	0.5	U	mg/L	2.0	0.5	10	NA	10/6/09 23:48
Surfactants	SM 5540 C	0.005	U	mg/L	0.020	0.005	1	NA	10/3/09 08:40

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: M-76B
Lab Code: R0905636-002

Service Request: R0905636
Date Collected: 10/ 2/09 1155
Date Received: 10/ 3/09

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed
Alkalinity as CaCO ₃ , Total	SM 2320 B	111	mg/L	2.0	0.3	1	NA	10/15/09 09:33
Ammonia as Nitrogen	350.1	0.037 J	mg/L	0.050	0.007	1	NA	10/27/09 13:23
Anion-Cation Balance Difference	SM 1030 E	5.817 J	Percent			1	NA	12/2/09
Bicarbonate Alkalinity as CaCO ₃	SM 2320 B	111	mg/L	2.0	0.3	1	NA	10/15/09 09:33
Bromide	9056	1.5	mg/L	1.0	0.2	10	NA	10/7/09 00:48
Calculated TDS/EC Ratio	SM 1030 E	0.661	NONE			1	NA	12/2/09
Carbon, Total Organic (TOC)	9060	0.6 BJ	mg/L	1.0	0.1	1	NA	10/10/09 13:29
Carbon, Total Organic (TOC)	9060	0.7 BJ	mg/L	1.0	0.1	1	NA	10/10/09 13:37
Carbon, Total Organic (TOC)	9060	0.7 BJ	mg/L	1.0	0.1	1	NA	10/10/09 13:45
Carbon, Total Organic (TOC)	9060	0.7 BJ	mg/L	1.0	0.1	1	NA	10/10/09 13:54
Carbon, Total Organic (TOC), Average	9060	0.7 BJ	mg/L	1.0	0.1	1	NA	10/10/09 13:54
Carbonate Alkalinity as CaCO ₃	SM 2320 B	0.3 U	mg/L	2.0	0.3	1	NA	10/15/09 09:33
Chloride	9056	1160	mg/L	40	9	200	NA	10/8/09 13:01
Chromium, Hexavalent, Dissolved	218.6	2.56	mg/L	0.10	0.04	10	NA	10/6/09 12:24
Conductivity	120.1	6280	µMHOS/cm	0.050		1	NA	10/3/09 12:00
Conductivity Ratio	SM 1030 E	1.395	NONE			1	NA	12/2/09
Cyanide, Total	9012A	0.022 U	mg/L	0.050	0.022	5	10/12/09	10/13/09 13:12
Hydroxide Alkalinity as CaCO ₃	SM 2320 B	0.3 U	mg/L	2.0	0.3	1	NA	10/15/09 09:33
Measured TDS/EC Ratio	SM 1030 E	0.697	NONE			1	NA	12/2/09
Nitrate as Nitrogen	9056	8.85	mg/L	0.50	0.04	10	NA	10/3/09 11:34
Nitrite as Nitrogen	353.2	0.022	mg/L	0.010	0.007	1	NA	10/3/09 15:33
pH	9040B	7.68	pH Units			1	NA	10/3/09 12:00
Phosphorus, Total	365.1	0.014 J	mg/L	0.050	0.005	1	10/21/09	10/22/09 11:21
Solids, Total Dissolved	SM 2540 C	4380	mg/L	40	22	1	NA	10/6/09 11:10
Solids, Total Suspended (TSS)	SM 2540 D	2.1	mg/L	1.0		1	NA	10/7/09 15:05
Sulfate	9056	758	mg/L	40	9	200	NA	10/8/09 13:01
Surfactants	SM 5540 C	0.149	mg/L	0.020	0.005	1	NA	10/3/09 08:40
TDS Ratio	SM 1030 E	1.055	NONE			1	NA	12/2/09

Comments:

M-76B

Water Type	Na-Cl		
Dissolved Solids	4378.6 mg/kg	4380 mg/L	Measured
Density	1.0003 g/cm ³		Calculated
Conductivity	6280 µmho/cm		Measured
Hardness (as CaCO₃)			
Total	790.21 mg/kg	790.47 mg/L	Calculated
Carbonate	182.02	182.08	
Non-Carbonate	608.19	608.39	

Primary Tests

Anion-Cation Balance

Anions	58.7	
Cations	65.9	
% Difference	5.817	Not within ± 5%

Measured TDS = Calculated TDS

Measured	4378.577	
Calculated	4152.114	
Ratio	1.055	OK

Measured EC = Calculated EC

Measured	6280.000	
Calculated	4500.836	
Ratio	1.395	Not within range 0.9 to 1.1

Secondary Tests

Measured EC and Ion Sums:

Anions	0.934164	Within preferred range (0.9-1.1)
Cations	1.049567	Within preferred range (0.9-1.1)

Calculated TDS to EC ratio 0.661 OK

Measured TDS to EC ratio 0.697 OK

Organic Mass Balance

DOC ≥ Sum of Organics

DOC unavailable

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: M-76009B
Lab Code: R0905636-003

Service Request: R0905636
Date Collected: 10/ 2/09 1155
Date Received: 10/ 3/09

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed
Alkalinity as CaCO3, Total	SM 2320 B	113		mg/L	2.0	0.3	1	NA	10/15/09 09:33
Ammonia as Nitrogen	350.1	0.331		mg/L	0.050	0.007	1	NA	10/27/09 13:24
Anion-Cation Balance Difference	SM 1030 E	4.258		Percent			1	NA	12/2/09
Bicarbonate Alkalinity as CaCO3	SM 2320 B	113		mg/L	2.0	0.3	1	NA	10/15/09 09:33
Bromide	9056	1.5		mg/L	1.0	0.2	10	NA	10/7/09 01:03
Calculated TDS/EC Ratio	SM 1030 E	0.706		NONE			1	NA	12/2/09
Carbon, Total Organic (TOC)	9060	0.9	BJ	mg/L	1.0	0.1	1	NA	10/10/09 14:03
Carbon, Total Organic (TOC)	9060	1.2	B	mg/L	1.0	0.1	1	NA	10/10/09 14:11
Carbon, Total Organic (TOC)	9060	0.9	BJ	mg/L	1.0	0.1	1	NA	10/10/09 14:19
Carbon, Total Organic (TOC)	9060	0.8	BJ	mg/L	1.0	0.1	1	NA	10/10/09 14:29
Carbon, Total Organic (TOC), Average	9060	0.9	BJ	mg/L	1.0	0.1	1	NA	10/10/09 14:29
Carbonate Alkalinity as CaCO3	SM 2320 B	0.3	U	mg/L	2.0	0.3	1	NA	10/15/09 09:33
Chloride	9056	1260		mg/L	40	9	200	NA	10/8/09 13:15
Chromium, Hexavalent, Dissolved	218.6	2.63		mg/L	0.10	0.04	10	NA	10/6/09 12:34
Conductivity	120.1	6270		µMHOS/cm	0.050		1	NA	10/3/09 12:00
Conductivity Ratio	SM 1030 E	1.314		NONE			1	NA	12/2/09
Cyanide, Total	9012A	0.022	U	mg/L	0.050	0.022	5	10/12/09	10/13/09 13:12
Hydroxide Alkalinity as CaCO3	SM 2320 B	0.3	U	mg/L	2.0	0.3	1	NA	10/15/09 09:33
Measured TDS/EC Ratio	SM 1030 E	0.673		NONE			1	NA	12/2/09
Nitrate as Nitrogen	9056	7.86		mg/L	0.50	0.04	10	NA	10/5/09 15:13
Nitrite as Nitrogen	353.2	0.021		mg/L	0.010	0.007	1	NA	10/3/09 15:35
pH	9040B	7.74		pH Units			1	NA	10/3/09 12:00
Phosphorus, Total	365.1	0.015	J	mg/L	0.050	0.005	1	10/21/09	10/22/09 11:23
Solids, Total Dissolved	SM 2540 C	4220		mg/L	50	28	1	NA	10/6/09 11:10
Solids, Total Suspended (TSS)	SM 2540 D	2.3		mg/L	1.0		1	NA	10/7/09 15:05
Sulfate	9056	843		mg/L	40	9	200	NA	10/8/09 13:15
Surfactants	SM 5540 C	0.286		mg/L	0.020	0.005	1	NA	10/3/09 08:40
TDS Ratio	SM 1030 E	0.953	J	NONE			1	NA	12/2/09

Comments:

M-76009B

Water Type	Na-Cl		
Dissolved Solids	4219.1 mg/kg	4220 mg/L	Measured
Density	1.0002 g/cm ³		Calculated
Conductivity	6270 µmho/cm		Measured
Hardness (as CaCO₃)			
Total	772.52 mg/kg	772.68 mg/L	Calculated
Carbonate	185.32	185.36	
Non-Carbonate	587.2	587.32	

Primary Tests

Anion-Cation Balance

Anions	63.4	
Cations	69.1	
% Difference	4.258	OK

Measured TDS = Calculated TDS

Measured	4219.133	
Calculated	4425.866	
Ratio	0.953	Not within range 1.0 to 1.2

Measured EC = Calculated EC

Measured	6270.000	
Calculated	4770.110	
Ratio	1.314	Not within range 0.9 to 1.1

Secondary Tests

Measured EC and Ion Sums:

Anions	1.011427	Within preferred range (0.9-1.1)
Cations	1.101400	Not within preferred range (0.9-1.1)
Calculated TDS to EC ratio	0.706	Not within preferred range (0.55-0.7)
Measured TDS to EC ratio	0.673	OK

Organic Mass Balance

DOC ≥ Sum of Organics

DOC unavailable

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: MC-94B
Lab Code: R0905636-006

Service Request: R0905636
Date Collected: 10/ 7/09 1045
Date Received: 10/ 8/09

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed
Alkalinity as CaCO ₃ , Total	SM 2320 B	260		mg/L	2.0	0.3	1	NA	10/19/09 14:25
Ammonia as Nitrogen	350.1	2.09		mg/L	0.10	0.02	2	NA	10/27/09 14:20
Anion-Cation Balance Difference	SM 1030 E	0.483		Percent			1	NA	12/2/09
Bicarbonate Alkalinity as CaCO ₃	SM 2320 B	260		mg/L	2.0	0.3	1	NA	10/19/09 14:25
Bromide	9056	1.4		mg/L	1.0	0.2	10	NA	10/8/09 12:13
Calculated TDS/EC Ratio	SM 1030 E	0.672		NONE			1	NA	12/2/09
Carbon, Total Organic (TOC)	9060	1.6	B	mg/L	1.0	0.1	1	NA	10/10/09 14:37
Carbon, Total Organic (TOC)	9060	2.5	B	mg/L	1.0	0.1	1	NA	10/10/09 14:46
Carbon, Total Organic (TOC)	9060	1.9	B	mg/L	1.0	0.1	1	NA	10/10/09 14:54
Carbon, Total Organic (TOC)	9060	1.7	B	mg/L	1.0	0.1	1	NA	10/10/09 15:03
Carbon, Total Organic (TOC), Average	9060	1.9		mg/L	1.0	0.1	1	NA	10/10/09 15:03
Carbonate Alkalinity as CaCO ₃	SM 2320 B	0.3	U	mg/L	2.0	0.3	1	NA	10/19/09 14:25
Chloride	9056	4390		mg/L	200	50	1000	NA	10/30/09 05:15
Chromium, Hexavalent, Dissolved	218.6	0.011		mg/L	0.010	0.004	1	NA	10/26/09 17:13
Conductivity	120.1	14400		µMHOS/cm	0.050		1	NA	10/8/09 19:35
Conductivity Ratio	SM 1030 E	1.345		NONE			1	NA	12/2/09
Cyanide, Total	9012A	0.005	U	mg/L	0.010	0.005	1	10/12/09	10/13/09 11:42
Hydroxide Alkalinity as CaCO ₃	SM 2320 B	0.3	U	mg/L	2.0	0.3	1	NA	10/19/09 14:25
Measured TDS/EC Ratio	SM 1030 E	0.622		NONE			1	NA	12/2/09
Nitrate as Nitrogen	9056	0.84		mg/L	0.50	0.04	10	NA	10/8/09 12:13
Nitrite as Nitrogen	353.2	0.065		mg/L	0.010	0.007	1	NA	10/9/09 12:02
pH	9040B	7.23		pH Units			1	NA	10/8/09 19:35
Phosphorus, Total	365.1	0.360		mg/L	0.050	0.005	1	10/21/09	10/22/09 11:24
Solids, Total Dissolved	SM 2540 C	8990		mg/L	83	46	1	NA	10/12/09 10:30
Solids, Total Suspended (TSS)	SM 2540 D	1.0	U	mg/L	1.0		1	NA	10/9/09 15:00
Sulfate	9056	1580		mg/L	80	18	400	NA	10/30/09 05:29
Surfactants	SM 5540 C	0.197		mg/L	0.020	0.005	1	NA	10/8/09 09:09
TDS Ratio	SM 1030 E	0.926	J	NONE			1	NA	12/2/09

Comments:

MC-94B

Water Type	Na-Cl		
Dissolved Solids	8956.4 mg/kg	8990 mg/L	Measured
Density	1.0038 g/cm ³		Calculated
Conductivity	14400 µmho/cm		Measured
Hardness (as CaCO₃)			
Total	1901.1 mg/kg	1908.3 mg/L	Calculated
Carbonate	424.89	426.49	
Non-Carbonate	1476.2	1481.8	

Primary Tests

Anion-Cation Balance

Anions	161	
Cations	163	
% Difference	0.483	OK

Measured TDS = Calculated TDS

Measured	8956.359	
Calculated	9675.329	
Ratio	0.926	Not within range 1.0 to 1.2

Measured EC = Calculated EC

Measured	14400.000	
Calculated	10709.895	
Ratio	1.345	Not within range 0.9 to 1.1

Secondary Tests

Measured EC and Ion Sums:

Anions	1.119560	Not within preferred range (0.9-1.1)
Cations	1.130428	Not within preferred range (0.9-1.1)

Calculated TDS to EC ratio 0.672 OK

Measured TDS to EC ratio 0.622 OK

Organic Mass Balance

DOC ≥ Sum of Organics

DOC unavailable

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: R0905636-MB1

Service Request: R0905636
Date Collected: NA
Date Received: NA

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed
Alkalinity as CaCO3, Total	SM 2320 B	0.3	U	mg/L	2.0	0.3	1	NA	10/15/09 09:33
Ammonia as Nitrogen	350.1	0.007	U	mg/L	0.050	0.007	1	NA	10/27/09 11:41
Bicarbonate Alkalinity as CaCO3	SM 2320 B	0.3	U	mg/L	2.0	0.3	1	NA	10/15/09 09:33
Bromide	9056	0.02	U	mg/L	0.10	0.02	1	NA	10/6/09 18:22
Carbon, Total Organic (TOC)	9060	0.4	J	mg/L	1.0	0.1	1	NA	10/10/09 04:52
Carbon, Total Organic (TOC)	9060	0.1	U	mg/L	1.0	0.1	1	NA	10/10/09 05:01
Carbon, Total Organic (TOC)	9060	0.1	U	mg/L	1.0	0.1	1	NA	10/10/09 05:09
Carbon, Total Organic (TOC)	9060	0.1	U	mg/L	1.0	0.1	1	NA	10/10/09 05:18
Carbon, Total Organic (TOC), Average	9060	0.2	J	mg/L	1.0	0.1	1	NA	10/10/09 05:18
Carbonate Alkalinity as CaCO3	SM 2320 B	0.3	U	mg/L	2.0	0.3	1	NA	10/15/09 09:33
Chloride	9056	0.05	U	mg/L	0.20	0.05	1	NA	10/8/09 09:09
Chromium, Hexavalent, Dissolved	218.6	0.004	U	mg/L	0.010	0.004	1	NA	10/6/09 10:17
Cyanide, Total	9012A	0.005	U	mg/L	0.010	0.005	1	10/12/09	10/13/09 11:35
Hydroxide Alkalinity as CaCO3	SM 2320 B	0.3	U	mg/L	2.0	0.3	1	NA	10/15/09 09:33
Nitrate as Nitrogen	9056	0.004	U	mg/L	0.050	0.004	1	NA	10/3/09 10:16
Nitrite as Nitrogen	353.2	0.007	U	mg/L	0.010	0.007	1	NA	10/3/09 15:30
Phosphorus, Total	365.1	0.005	U	mg/L	0.050	0.005	1	10/21/09	10/22/09 10:54
Solids, Total Dissolved	SM 2540 C	6	U	mg/L	10	6	1	NA	10/6/09 11:10
Solids, Total Suspended (TSS)	SM 2540 D	1.0	U	mg/L	1.0		1	NA	10/7/09 15:05
Sulfate	9056	0.05	U	mg/L	0.20	0.05	1	NA	10/6/09 18:22
Surfactants	SM 5540 C	0.005	U	mg/L	0.020	0.005	1	NA	10/3/09 08:40

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: R0905636-MB2

Service Request: R0905636
Date Collected: NA
Date Received: NA

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed
Alkalinity as CaCO ₃ , Total	SM 2320 B	1.9	J	mg/L	2.0	0.3	1	NA	10/19/09 14:25
Bicarbonate Alkalinity as CaCO ₃	SM 2320 B	1.9	J	mg/L	2.0	0.3	1	NA	10/19/09 14:25
Bromide	9056	0.02	U	mg/L	0.10	0.02	1	NA	10/7/09 00:18
Carbonate Alkalinity as CaCO ₃	SM 2320 B	0.3	U	mg/L	2.0	0.3	1	NA	10/19/09 14:25
Chloride	9056	0.05	U	mg/L	0.20	0.05	1	NA	10/30/09 01:44
Chromium, Hexavalent, Dissolved	218.6	0.004	U	mg/L	0.010	0.004	1	NA	10/26/09 16:38
Hydroxide Alkalinity as CaCO ₃	SM 2320 B	0.3	U	mg/L	2.0	0.3	1	NA	10/19/09 14:25
Nitrate as Nitrogen	9056	0.069		mg/L	0.050	0.004	1	NA	10/5/09 12:03
Nitrite as Nitrogen	353.2	0.007	U	mg/L	0.010	0.007	1	NA	10/9/09 11:42
Solids, Total Dissolved	SM 2540 C	6	U	mg/L	10	6	1	NA	10/12/09 10:30
Solids, Total Suspended (TSS)	SM 2540 D	1.0	U	mg/L	1.0		1	NA	10/7/09 15:05
Sulfate	9056	0.13	J	mg/L	0.20	0.05	1	NA	10/8/09 09:09
Surfactants	SM 5540 C	0.005	U	mg/L	0.020	0.005	1	NA	10/8/09 09:09

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: R0905636-MB3

Service Request: R0905636
Date Collected: NA
Date Received: NA

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed
Bromide	9056	0.02	U	mg/L	0.10	0.02	1	NA	10/8/09 10:23
Nitrate as Nitrogen	9056	0.004	U	mg/L	0.050	0.004	1	NA	10/8/09 10:23
Solids, Total Dissolved	SM 2540 C	6	U	mg/L	10	6	1	NA	10/12/09 10:30
Solids, Total Suspended (TSS)	SM 2540 D	1.0	U	mg/L	1.0		1	NA	10/9/09 15:00
Sulfate	9056	0.05	U	mg/L	0.20	0.05	1	NA	10/30/09 01:44

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water

Service Request: R0905636
Date Analyzed: 10/ 3/09 -
 10/27/09

**Lab Control Sample Summary
 General Chemistry Parameters**

Units: mg/L
Basis: NA

Analyte Name	Method	Lab Control Sample R0905636-LCS1			% Rec Limits
		Result	Expected	% Rec	
Ammonia as Nitrogen	350.1	0.499	0.500	100	90 - 110
Bromide	9056	0.995	1.00	100	90 - 110
Carbon, Total Organic (TOC)	9060	10.2	10.0	102	86 - 117
Carbon, Total Organic (TOC)	9060	10.4	10.0	104	86 - 117
Carbon, Total Organic (TOC)	9060	10.2	10.0	102	86 - 117
Carbon, Total Organic (TOC)	9060	9.98	10.0	100	86 - 117
Chloride	9056	1.93	2.00	96	90 - 110
Chromium, Hexavalent, Dissolved	218.6	0.190	0.200	95	90 - 110
Cyanide, Total	9012A	0.106	0.100	106	85 - 115
Nitrite as Nitrogen	353.2	0.247	0.250	99	90 - 110
Phosphorus, Total	365.1	0.774	0.800	97	90 - 110
Solids, Total Dissolved	SM 2540 C	905	915	99	80 - 120
Solids, Total Suspended (TSS)	SM 2540 D	164	213	77 *	80 - 120
Sulfate	9056	1.98	2.00	99	90 - 110
Surfactants	SM 5540 C	0.0217	0.020	109	64 - 142
Alkalinity as CaCO3, Total	SM 2320 B	18.5	20.0	92	90 - 108
Carbon, Total Organic (TOC), Average	9060	10.2	10.0	102	86 - 117
Nitrate as Nitrogen	9056	0.971	1.00	97	90 - 110

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water

Service Request: R0905636
Date Analyzed: 10/ 3/09 -
 10/30/09

**Lab Control Sample Summary
 General Chemistry Parameters**

Units: mg/L
Basis: NA

Analyte Name	Method	Lab Control Sample R0905636-LCS2			% Rec Limits
		Result	Expected	% Rec	
Bromide	9056	0.990	1.00	99	90 - 110
Chloride	9056	1.94	2.00	97	90 - 110
Chromium, Hexavalent, Dissolved	218.6	0.188	0.200	94	90 - 110
Cyanide, Total	9012A	0.431	0.400	108	85 - 115
Nitrite as Nitrogen	353.2	0.246	0.250	98	90 - 110
Solids, Total Dissolved	SM 2540 C	889	915	97	80 - 120
Solids, Total Suspended (TSS)	SM 2540 D	202	213	95	80 - 120
Sulfate	9056	1.87	2.00	93	90 - 110
Surfactants	SM 5540 C	0.354	0.350	101	64 - 142
Alkalinity as CaCO3, Total	SM 2320 B	19.1	20.0	95	90 - 108
Nitrate as Nitrogen	9056	0.966	1.00	97	90 - 110

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water

Service Request: R0905636
Date Analyzed: 10/ 8/09 -
10/30/09

**Lab Control Sample Summary
General Chemistry Parameters**

Units: mg/L
Basis: NA

Analyte Name	Method	Lab Control Sample R0905636-LCS3			% Rec Limits
		Result	Expected	% Rec	
Bromide	9056	0.985	1.00	99	90 - 110
Chromium, Hexavalent, Dissolved	218.6	0.191	0.200	96	90 - 110
Solids, Total Dissolved	SM 2540 C	889	915	97	80 - 120
Solids, Total Suspended (TSS)	SM 2540 D	208	213	98	80 - 120
Sulfate	9056	1.82	2.00	91	90 - 110
Surfactants	SM 5540 C	0.0208	0.020	104	64 - 142
Nitrate as Nitrogen	9056	0.948	1.00	95	90 - 110

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001
Sample Matrix: Water

Service Request: R0905636
Date Analyzed: 10/ 8/09

Lab Control Sample Summary
Anionic Surfactants as MBAS 20th Ed.

Units: mg/L

Basis: NA

Analyte Name	Method	Lab Control Sample			% Rec Limits
		Result	Expected	% Rec	
Surfactants	SM 5540 C	0.335	0.350	96	64 - 142

Comments: _____

Name	Unit	M-76B	M-76009B	MC-94B
Sample ID	text	M-76B	M-76009B	MC-94B
LIMs ID	text	R0905636-002	R0905636-003	R0905636-006
Calcium	µg/L	150000	147000	314000
Magnesium	µg/L	101000	98500.0	273000
Potassium	µg/L	20600.0	21400.0	24300.0
Sodium	µg/L	1.14E6	1.22E6	2.85E6
Chlorate	µg/L	583000	595000	14300.0
Perchlorate	µg/L	121000	121000	4870
Bicarbonate	mg/L	111	113	260
Carbonate	mg/L	ND	ND	ND
Chloride	mg/L	1160	1260	4390
Conductivity	µmho/cm	6280	6270	14400.0
Fluoride	mg/L			
Hydroxide	mg/L	ND	ND	ND
Nitrate	mg/L	8.85	7.86	0.84
Phosphorus	mg/L	0.014	0.015	0.36
Dissolved Solids	mg/L	4380	4220	8990
Sulfate	mg/L	758	843	1580

Analytical Results Summary

Instrument Name: R-Buret-01

Analyst: KREYNOLDS

Analysis Lot:

174948 Method/Testcode: SM 2320 B/Alkalinity Titr

Lab Code	Target Analytes	QC Type	Parent Sample	Matrix	Raw Result	Sample Amt	Final Result	Dil	PQL	% Rec	% RSD	Date Analyzed	QC? Tier
309099993-01	Alkalinity as CaCO ₃ , Total	MB		Water	0.20 mg/L	100 mL	2.0 mg/L U	1	2.0			10/15/09 09:33	N II
309099993-01	Bicarbonate Alkalinity as CaCO ₃	MB		Water	0.20 mg/L	100 mL	2.0 mg/L U	1	2.0			10/15/09 09:33	N II
309099993-01	Carbonate Alkalinity as CaCO ₃	MB		Water	0.00 mg/L	100 mL	2.0 mg/L U	1	2.0			10/15/09 09:33	N II
309099993-01	Hydroxide Alkalinity as CaCO ₃	MB		Water	0.00 mg/L		2.0 mg/L U	1	2.0			10/15/09 09:33:00	N II
309099993-02	Alkalinity as CaCO ₃ , Total	LCS		Water	18.50 mg/L	100 mL	18.5 mg/L	1	2.0	92		10/15/09 09:33	N II
30905628-031	Alkalinity as CaCO ₃ , Total	N/A		Water	321.00 mg/L	10 mL	321 mg/L	1	2.0			10/15/09 09:33	N II
30905628-032	Alkalinity as CaCO ₃ , Total	N/A		Water	681.00 mg/L	10 mL	681 mg/L	1	2.0			10/15/09 09:33	N II
30905628-033	Alkalinity as CaCO ₃ , Total	N/A		Water	163.33 mg/L	15 mL	163 mg/L	1	2.0			10/15/09 09:33	N II
30905628-034	Alkalinity as CaCO ₃ , Total	N/A		Water	179.33 mg/L	15 mL	179 mg/L	1	2.0			10/15/09 09:33	N II
30905628-035	Alkalinity as CaCO ₃ , Total	N/A		Water	379.33 mg/L	15 mL	379 mg/L	1	2.0			10/15/09 09:33	N II
30905628-036	Alkalinity as CaCO ₃ , Total	N/A		Water	346.67 mg/L	15 mL	347 mg/L	1	2.0			10/15/09 09:33	N II
30905635-001	Alkalinity as CaCO ₃ , Total	N/A		Water	1.50 mg/L	100 mL	1.5 mg/L J	1	2.0			10/15/09 09:33	N IV
30905635-001	Bicarbonate Alkalinity as CaCO ₃	N/A		Water	1.50 mg/L	100 mL	1.5 mg/L J	1	2.0			10/15/09 09:33	N IV
30905635-001	Carbonate Alkalinity as CaCO ₃	N/A		Water	0.00 mg/L	100 mL	2.0 mg/L U	1	2.0			10/15/09 09:33	N IV
30905635-012	Alkalinity as CaCO ₃ , Total	N/A		Water	0.00 mg/L	100 mL	2.0 mg/L U	1	2.0			10/15/09 09:33	N IV
30905635-012	Bicarbonate Alkalinity as CaCO ₃	N/A		Water	0.00 mg/L	100 mL	2.0 mg/L U	1	2.0			10/15/09 09:33	N IV
30905635-012	Carbonate Alkalinity as CaCO ₃	N/A		Water	0.00 mg/L	100 mL	2.0 mg/L U	1	2.0			10/15/09 09:33	N IV
30905636-001	Alkalinity as CaCO ₃ , Total	N/A		Water	1.10 mg/L	100 mL	1.1 mg/L J	1	2.0			10/15/09 09:33	N IV
30905636-001	Bicarbonate Alkalinity as CaCO ₃	N/A		Water	1.10 mg/L	100 mL	1.1 mg/L J	1	2.0			10/15/09 09:33	N IV
30905636-001	Hydroxide Alkalinity as CaCO ₃	N/A		Water	0.00 mg/L	100 mL	2.0 mg/L U	1	2.0			10/15/09 09:33	N IV
30905636-001	Carbonate Alkalinity as CaCO ₃	N/A		Water	0.00 mg/L	100 mL	2.0 mg/L U	1	2.0			10/15/09 09:33	N IV
30905636-002	Alkalinity as CaCO ₃ , Total	N/A		Water	110.50 mg/L	20 mL	111 mg/L	1	2.0			10/15/09 09:33	N IV
30905636-002	Carbonate Alkalinity as CaCO ₃	N/A		Water	0.00 mg/L	20 mL	2.0 mg/L U	1	2.0			10/15/09 09:33	N IV
30905636-002	Bicarbonate Alkalinity as CaCO ₃	N/A		Water	110.50 mg/L	20 mL	111 mg/L	1	2.0			10/15/09 09:33	N IV
30905636-002	Hydroxide Alkalinity as CaCO ₃	N/A		Water	0.00 mg/L	20 mL	2.0 mg/L U	1	2.0			10/15/09 09:33	N IV
30905636-003	Alkalinity as CaCO ₃ , Total	N/A		Water	112.50 mg/L	20 mL	113 mg/L	1	2.0			10/15/09 09:33	N IV
30905636-003	Hydroxide Alkalinity as CaCO ₃	N/A		Water	0.00 mg/L	20 mL	2.0 mg/L U	1	2.0			10/15/09 09:33	N IV
30905636-003	Carbonate Alkalinity as CaCO ₃	N/A		Water	0.00 mg/L	20 mL	2.0 mg/L U	1	2.0			10/15/09 09:33	N IV
30905636-003	Bicarbonate Alkalinity as CaCO ₃	N/A		Water	112.50 mg/L	20 mL	113 mg/L	1	2.0			10/15/09 09:33	N IV
30905661-001	Alkalinity as CaCO ₃ , Total	N/A		Water	13.90 mg/L	100 mL	13.9 mg/L	1	2.0			10/15/09 09:33	N IV
30905661-003	Alkalinity as CaCO ₃ , Total	N/A		Water	64.29 mg/L	35 mL	64.3 mg/L	1	2.0			10/15/09 09:33	N IV



Analytical Results Summary

Instrument Name: R-Buret-01

Analyst: KREYNOLDS

Analysis Lot: 174948

Method/Testcode: SM 2320 B/Alkalinity Titr

Lab Code	Target Analytes	QC Type	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	PQL	% Rec	% RSD	Date Analyzed	QC? Tier
R0905661-005	Alkalinity as CaCO ₃ , Total	N/A		Water	44.89 mg/L ✓	45 mL	44.9 mg/L	1	2.0			10/15/09 09:33	N IV
R0905661-006	Alkalinity as CaCO ₃ , Total	N/A		Water	28.71 mg/L ✓	70 mL	28.7 mg/L	1	2.0			10/15/09 09:33	N IV
R0905661-007	Alkalinity as CaCO ₃ , Total	N/A		Water	62.86 mg/L ✓	35 mL	62.9 mg/L	1	2.0			10/15/09 09:33	Y IV
RQ0909993-03	Alkalinity as CaCO ₃ , Total	DUP	R0905661-007	Water	63.14 mg/L ✓	35 mL	63.1 mg/L	1	2.0		<1	10/15/09 09:33	N IV
RQ0909993-04	Alkalinity as CaCO ₃ , Total	MS	R0905661-007	Water	88.29 mg/L ✓	35 mL	88.3 mg/L	1	2.0	89		10/15/09 09:33	N IV
R0905661-008	Alkalinity as CaCO ₃ , Total	N/A		Water	20.90 mg/L ✓	100 mL	20.9 mg/L	1	2.0			10/15/09 09:33	N IV

00907

Analyte: Alkalinity
Method: SM20 2320 B

Regular Level X
High Level _____

Analyst: KLR
Pipette: HANS

Date: 10/15/09
Time: 9:33

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

pH meter cal:

4.0 4
7.0 7.03
10.0 10

Buffer Lot #:

WC92081A
WC92081B
WC92081C

pH Meter ID ROCKY

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 #

WC92061H

WC92096E

WC85296B

WC85297E

Date

8/14/09

Phenolphthalein alkalinity = the quantity measured by titration to pH 8.3

Alkalinity, mg CaCO3 /L = (A_(mL acid used) × N_(H2SO4) × 50,000) /mL sample

* Soils - 1g of sample diluted to 100mLs in DI

**HND Soil - 25 g of sample diluted to 250mLs in DI

Misc.	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 1000 ppm (mL)	*Soil (X)	**HND Soil (X)
1	TV = 50	ICV	25.0	10.13	0.00	1.22					43.8			
2		ICB	100.0	4.99	0.00	0.01					0.1			
3	TV = 20	LCS	100.0	9.28	0.00	1.80					13.0	2.0		
4	5628	R0905628-001	20.0	7.16	0.00	2.30					115.0			
5	DUP	R0905628-001	20.0	7.20	0.00	2.30					115.0			
6	SPK TV = 50	R0905628-001	20.0	8.15	0.00	3.19					159.5	1.0		
7		R0905628-002	20.0	7.25	0.00	4.05					202.5			
8		R0905628-003	20.0	7.94	0.00	4.19					209.5			
9		R0905628-004	10.0	7.52	0.00	5.30					530.0			
10		R0905628-005	10.0	7.55	0.00	3.80					380.0			
11		R0905628-006	10.0	7.51	0.00	4.15					415.0			
12		R0905628-007	5.0	7.75	0.00	2.48					496.0			
13	TV = 50	CCV	25.0	10.15	0.00	1.25					50.0			
14		CCB	100.0	5.24	0.00	0.02					0.2			
15	5628	R0905628-008	10.0	8.43	0.00	2.69					269.0			
16	DUP	R0905628-008	10.0	8.53	0.00	2.69					269.0			
17	SPK TV=100	R0905628-008	10.0	9.05	0.00	3.55					355.0	1.0		
18		R0905628-009	10.0	7.38	0.00	4.42					442.0			
19		R0905628-010	5.0	7.00	0.00	3.32					664.0			
20		R0905628-011	10.0	7.65	0.00	2.21					221.0			
21		R0905628-012	5.0	7.46	0.00	4.99					998.0			
22		R0905628-013	5.0	7.18	0.00	2.45					490.0			
23		R0905628-014	5.0	7.00	0.00	2.75					550.0			
24		R0905628-015	5.0	7.30	0.00	2.59					518.0			
25	TV = 50	CCV	25.0	10.19	0.00	1.29					51.6			
26		CCB	100.0	5.17	0.00	0.02					0.2			
27	TV = 20	LCS	100.0	9.46	0.00	1.85					13.5	2.0		
28	5628	R0905628-016	15.0	7.07	0.00	2.61					174.0			
29		R0905628-017	15.0	7.38	0.00	2.80					186.7			
30	DUP	R0905628-017	15.0	7.35	0.00	2.79					186.0			
31	PK TV=66.6	R0905628-017	15.0	7.95	0.00	3.69					246.0	1.0		
32		R0905628-018	5.0	7.11	0.00	4.20					840.0			
33		R0905628-019	55.0	7.01	0.00	2.10					38.2			
34		R0905628-020	10.0	7.12	0.00	3.31					331.0			
35		R0905628-021	55.0	7.20	0.00	2.01					36.5			
36		R0905628-022	15.0	7.59	0.00	5.89					392.7			
37	TV = 50	CCV	25.0	10.25	0.00	1.30					52.0			
38		CCB	100.0	5.36	0.00	0.02					0.2			

Rochester, NY

Analyte: Alkalinity
Method: SM20 2320 B

Regular Level X
High Level _____

Analyst: KLR
Pipette: HANS

Date: 10/15/09
Time: 9:33

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

pH meter cal:

4.0 4
7.0 7.03
10.0 10

Buffer Lot #:

WC92081A
WC92081B
WC92081C

pH Meter ID ROCKY

Reagents: Concentration

H2SO4: 0.020 N

Log #

WC92061H Date
8/14/09

Reg Level Reference: 50 mg/L

WC92096E

High Level Reference: 5000 mg/L

WC85296B

LCS/MS Solution: 1000 mg/L

WC85297E

Phenolphthalein alkalinity = the quantity measured by titration to pH 8.3

Alkalinity, mg CaCO3 /L = (A_(mL acid used) × N_(H2SO4) × 50,000) /mL sample

* Soils - 1g of sample diluted to 100mLs in DI

**HND Soil - 25 g of sample diluted to 250mLs in DI

Misc.	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 1000 ppm (mL)	*Soil (X)	**HND Soil (X)
39	5628	R0905628-023	55.0	7.40	0.00	2.29					41.6			
40		R0905628-024	15.0	7.23	0.00	5.00					333.3			
41		R0905628-025	20.0	7.24	0.00	2.49					124.5			
42	DUP	R0905628-025	20.0	7.32	0.00	2.49					124.5			
43	SPK TV = 50	R0905628-025	20.0	8.15	0.00	3.35					167.5	1.0		
44		R0905628-026	20.0	7.30	0.00	6.31					315.5			
45		R0905628-027	10.0	7.01	0.00	6.35					635.0			
46		R0905628-028	10.0	7.01	0.00	5.81					581.0			
47		R0905628-029	15.0	7.60	0.00	2.01					134.0			
48		R0905628-030	15.0	7.24	0.00	2.30					153.3			
49	TV = 50	CCV	25.0	10.16	0.00	1.25					50.0			
50		CCB	100.0	5.30	0.00	0.02	0.00	0.0	0.0	0.2	0.2			
51	TV = 20	LCS	100.0	9.45	0.00	1.85					18.5	2.0		
52	5628	R0905628-031	10.0	7.82	0.00	3.21					321.0			
53		R0905628-032	10.0	7.03	0.00	6.81					681.0			
54		R0905628-033	15.0	7.54	0.00	2.45					163.3			
55		R0905628-034	15.0	7.60	0.00	2.69					179.3			
56		R0905628-035	15.0	7.55	0.00	5.69					379.3			
57		R0905628-036	15.0	7.79	0.00	5.20					346.7			
58	5635	R0905635-001	100.0	5.62	0.00	0.15	0.00	0.0	0.0	1.5	1.5			
59		R0905635-012	100.0	3.48	0.00	0.00	0.00	0.0	0.0	0.0	0.0			
60	5636	R0905636-001	100.0	5.15	0.00	0.11	0.00	0.0	0.0	1.1	1.1			
61	TV = 50	CCV	25.0	10.12	0.00	1.28					51.2			
62		CCB	100.0	5.18	0.00	0.01					0.1			
63	5636	R0905636-001	20.0	7.80	0.00	2.21	0.00	0.0	0.0	110.5	110.5			
64		R0905636-001	20.0	7.56	0.00	2.25	0.00	0.0	0.0	112.5	112.5			
65	5611	R0905661-001	100.0	6.95	0.00	1.65					16.5	LL		
66		R0905661-003	35.0	7.98	0.00	2.25					64.3			
67		R0905661-005	45.0	7.75	0.00	2.02					44.9			
68		R0905661-006	70.0	7.49	0.00	2.01					28.7			
69		R0905661-007	35.0	7.40	0.00	2.20					62.9			
70	DUP	R0905661-007	35.0	7.27	0.00	2.21					63.1			
71	PK TV=28.5	R0905661-007	35.0	8.02	0.00	3.09					88.3	1.0		
72		R0905661-008	100.0	7.39	0.00	2.09					20.9			
73	TV = 50	CCV	25.0	9.83	0.00	1.22					48.8			
74		CCB	100.0	5.17	0.00	0.01					0.1			
75		LCS	100.0	9.23	0.00	1.80					18.0			
76	5701	R0905701-001	30.0	7.52	0.00	2.12					70.7			

Analyte: Alkalinity
Method: SM20 2320 B

Regular Level X
High Level _____

Analyst: KLR
Pipette: HANS

Date: 10/15/09
Time: 9:33

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

pH meter cal:

4.0 4
7.0 7.03
10.0 10

Buffer Lot #:

WC92081A
WC92081B
WC92081C

pH Meter ID ROCKY

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 #

WC92061H

WC92096E

WC85296B

WC85297E

Date

8/14/09

Phenolphthalein alkalinity = the quantity measured by titration to pH 8.3

Alkalinity, mg CaCO3 /L = (A_(mL acid used) × N_(H2SO4) × 50,000) / mL sample

* Soils - 1g of sample diluted to 100mLs in DI

**HND Soil - 25 g of sample diluted to 250mLs in DI

Misc.	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 1000 ppm (mL)	*Soil (X)	**HND Soil (X)
77	5840	R0905840-001	25.0	7.85	0.00	2.50					100.0			
78	5693	R0905693-001	100.0	4.05	0.00	0.00	0.0	0.0	0.0	0.0	0.0			
79	TV = 50	CCV	25.0	9.95	0.00	1.29					51.6			
80		CCB	100.0	5.17	0.00	0.01					0.1			
81														
82														
83														
84														
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113														
114														

KLR

10/15/09

Rochester, NY

Analyte: Alkalinity Low Level

Analyst: KLR

Date: 10/15/09

Method: SM20 2320 B

Pipette: HANS

Time: 9:33

pH meter cal:

		Buffer Lot #:
4.0	<u>4</u>	<u>WC92081A</u>
7.0	<u>7.03</u>	<u>WC92081B</u>
10.0	<u>10</u>	<u>WC92081CD</u>

Reagent:

	Concentration	Log #	Date
H2SO4:	<u>0.02 N</u>	<u>WC92061H</u>	<u>8/14/09</u>

pH meter ID: ROCKY

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

*Soil - 1g of sample diluted to 100mls in DI

**HND Soil - 25 g of sample diluted to 250mLs in DI

Misc.	Order #	Sample Vol (mL)	pH Initial	Titrant Volume Initial (mL)	Vol.@pH 4.5		Vol.@pH -0.3		Total Alkalinity (mg/L)	*Soil (X)	**HND Soil (X)
					Vol.(B)	pH	Vol.(C)	pH			
1 5611	R0905661-001	100.0	6.95	0.00	1.65	4.49	1.91	4.18	13.90		

Columbia Analytical Services
1 Mustard Street, Rochester, NY 14609

General Chemistry Analytical Run Cover Sheet

Analyst: KLP

Date: 10/15/09

Analysis: Alkalinity, Regular/Low Level Instrument: Titration

Quality Control:

	<u>Log Book #</u>	<u>Log Book Date</u>	<u>Stock Sol (mLs)</u>	<u>Stock Sol (mg/L)</u>	<u>Final Vol (mLs)</u>	<u>True Value (mg/L)</u>
a) Titrant:	WC92061H	8/14/2009				
b) I/CCV Preparation:	WC92096E	10/13/2009				50
c) LCS Preparation:	WC85297E	5/4/2009	2	1000	100	20
d) Matrix Spike Prep.:	WC85297E	5/4/2009	See Data Sheet			

Instrument log filled in? (N)

Packages:

Copy and attach Standards Preparation.

Comments:

TITLE

PROJECT

Continued from page

8/12/09 (A) DPD Indicator

In 500 ml vol flask dissolve 0.50g DPD (WC76675F) and 0.10g EDTA (WC92039F) and 4.0ml 1+3 H₂SO₄ (WC92015C) in VFDI. Exp 9/12/09 or when discolored

(B) 0.025N ~~Na₂S₂O₃~~ ^{replaces} Na₂S₂O₃

Dilute 5mls of ~~0.10N~~ ^{replaces} 0.1N Na₂S₂O₃ (WC92020E) volumetrically with DI to 200mls. Store at 4°C in amber jar. Exp. 2 week 8/27/09

8/13/09 (C) Color Reagent - TOTN

NM - same as WC92044C. Exp. 1 month, 9/13/09.

8/13/09 (D) Buffer - TOTN

NM - same as WC92050G. Exp. 1 year, 8/13/10.

8/13/09 (E) Made zinc acetate solution 2N using zinc-acetate (WC85155D) in

1 L volumetric flask 220g → 1L with DI for sulfide preservation store at 4°C exp 9/13/10

8/13/09 (F) Alkalinity Reference Solution: 50mg/L

Volume: 10.0 mL of Alkalinity Reference Stock: 5000mg/L (WC85296B) and dilute to 1L w/ DI. Store @ 4°C in a plastic bottle. exp. 10/30/09

8/13/09 (G) 0.025N Na₂S₂O₃

Dilute 50 ml 0.1N Na₂S₂O₃ (WC92020E) volumetrically w/ DI to 200mls. Store at 4°C in amber jar. Exp 2 weeks 8/27/09

8/14/09 Received from VWR

(H) (1) x 4L Sulfuric acid, 0.02N, Cat # BDH3229-4, BDH Lot # 9689, CAS # 7664-93-9. Store @ R.T. Expires 3/31/10.

8/14/09 (I) 0.5 M Zinc Acetate - Sulfides

- same as WC92015G. Exp 1 year 8/14/10

SIGNATURE

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

PROPRIETARY INFORMATION

TITLE PROJECT

Continued from page

10/13/09 (A) 0.5 M NaOH - TKN
- same as WC92077H. Exp. 11/13/09.

(B) Hypochlorite - TKN
Add 15.0 mLs Sodium Hypochlorite (WC92094F) to a 250 mL vol. flask and bring to volume w/ DI. Prepare fresh each run.

(C) Color Reagent - TKN
- same as WC92088D. Exp. 1 month, 11/13/09.

10/12/09 (D) Ascorbic Acid - KoneLab
Same as WC92082F. Exp 10/27/09

10/12/09 (E) Alkalinity Reference Solution: 500mg/L
Volumetrically add 10.0 mL of Alkalinity Reference Stock: 500mg/L (WC95296B) and dilute to 1L w/ DI. Store @ 4°C in a plastic bottle. Exp: 10/30/09

10/14/09 (F) NH3 Carrier/Diluent
- same as WC92067C. Prepared solution x 3.

(G) Sodium Phenolate - NH3
- same as WC92020B. Exp. 1 year, 10/14/10.

10/14/09 (H) Received from EMD
4x4L Chloroform, cat# CX1054-1. Lot#: 48171, Store @ RT. Exp: 10/14/2012, CAS#: 67-66-3

10/14/09 (I) Na₂S - Sulfide Reference
To a tared amber jar add approx ~ 0.4g Na₂S · 9H₂O (WC76230B) and dilute to 100g w/ DI. Mix until dissolved. Exp 2 weeks : 10/28/09

(J) 0.0200 N Na₂S₂O₃
- same as WC92089I. Exp 2 weeks 10/28/09 Continued to page

SIGNATURE

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

PROPRIETARY INFORMATION

TITLE

Continued from page

10/15/09 (C)
NM

10/15/09 (B) 1
NM

10/15/09 (C)
EW

10/15/09 (F)
EW

10/15/09 (F)
NM

SIGNATURE

DISCLOSED TO AND UNDERSTOOD BY

1 mL DI. Bring up
a plastic bottle

5/1/09 (A) Buffer-TKN
NM - same as WC85270G. Exp. 1 month, 6/1/09.

in ~ 800 mL DI.
store in a plastic

5/1/09 BB
Received from VWR
(B) (1) x 500g EDTA, disodium salt, dihydrate,
Cat # EX0539-1, EMD Lot # 49037908, CAS #
6381-92-6. Store @ R.T. Expires 5/1/14 [9559]
(C) (4) x 500g Potassium Sulfate, Cat # 3278-01,
JT Baker Lot # E50158, CAS # 7778-80-5. Store @ R.T.
Expires 5/1/14. [9560]
(D) (10) x 100 Blue Microfibre filters, 691. Cat # 28333-129,
VWR Lot # J11374948 Store in drawer @ stock bench
Exp: NA. [9561]

1L Alkalinity
2 to 1L with DI.
5/30/09

5/4/09 (E) Alkalinity LCS/MS Soln, 1000 mg/L
BB Dissolve 1.6590g Na2CO3 (WC76232D) in ~ 800 mL DI.
in a 1 L volumetric flask. Dilute to volume w/ DI.
Store in plastic @ 4°C Expires 11/4/09 [9607]

C# 1350-13,
Lot NA. [9537]

5/4/09 (F) TKN Digest Reagent
SBR - same as WC85292J. Expires 6/4/09

4g Na2S · 9H2O
Mix until
exp 5/11/09

5/4/09 (G) 1000ppm TMA Standard
CMW Dilute 2 mL of 25% Trimethylamine (w/w)
(WC85235D) to 500 mL w/ DI water.
Store @ 4°C in plastic. Expires after
1 year (5/4/2010).

2094-12 33 43403
C# 2094-12,
7. Store @ R.T.

(H) 1000ppm TMAH Standard
~~Dissolve 2.094 g of Tetramethylammonium Pentahydrate
in DI water and dilute to 500 mL
volumetrically w/ DI water. Store @ 4°C
in plastic. Expires after 1 year (5/4/10).~~

C# 5X1247/2
2. @ R.T.

495-14,
2. Store @ R.T.

(H) 1000ppm TMAH Standard Tetramethyl Ammonium Hydroxide
Dissolve 1.047g of Tetramethylammonium Pentahydrate (95% purum) (WC85235A) in DI water and dilute to 500 mL volumetrically w/ DI water. Store @ 4°C in plastic. Expires after 1 year (5/4/10)

- we 1/30/09
 (A) Alkalinity LCS/HS Solution: 1000mg/L
 Dissolve 1.0590g (WC76232D) in ~800 mL DI. Bring up to 1L volumetrically with DI. Store in a plastic bottle @ 4°C. exp. 10/30/09
- (B) Alkalinity Preference Stock: 5000mg/L
 Dissolve 5.300g Na₂CO₃ (WC76294G) in ~800 mL DI. Bring up to 1L volumetrically with DI. Store in a plastic bottle @ 4°C. exp. 10/30/09
- (C) Alkalinity Preference Solution: 50mg/L
 Volumetrically add 10 mL of the 5000mg/L Alkalinity Preference Stock (WC85296B) and dilute to 1L with DI. Store in a plastic bottle @ 4°C. exp. 10/30/09

1/30/09 BB
 Received from CPI
 (D) (12) x 20 0/6 Silver SPE disks, Cat # 4350-13, CPI Lot # 030609. Store @ RT Exp. date NA. 9537

1/30/09 GN
 (E) Sulfide Reference
 To a tared amber jar add approx. 0.4g Na₂S · 9H₂O (WC76230B) and dilute to 100g w/DI. Mix until dissolved. Store at 4°C for 2 weeks. Expires 5/14/09 Standardize w/each use.

- 1/30/09 BB
 Received from VWR.
- (F) (1) x 500g Sodium Salicylate, Powder, Cat # ^{2094-12 BB 41344} ~~2094-42~~, Mallinckrodt Lot # 643597, CAS # 54-21-7. Store @ RT. Expires 4/30/14. 9545
 - (G) (4) x 2.5L Sulfuric Acid, OmniTrace, Cat # 5X1247/2 EMD Lot # 47213, CAS # 7664-93-9. Store @ RT. Expires 4/30/14 9546
 - (H) (1) x 2.5L Phosphoric Acid, Cat # Px0995-14, EMD Lot # 48175844, CAS # 7664-38-2. Store @ RT. Expires 4/30/14 9547

5/1/09 NM
 (A) Buffer
 -same c

- 5/1/09 BB
 Received from
- (B) (1) x Cat # 6381
 - (C) (4) x 5 JT BIK Expires
 - (D) (10) x VWR L Exp. 1

5/4/09 BB
 (E) Alkalinit
 Dissolve w r 1 Store in

5/4/09 SBR
 (F) TKN Dige
 -same as

5/4/09 Cmw
 (G) 1000ppm
 Dilute a (WC852: Store @ 1 year 1

(A) 1000ppm
 Dissolve in DI w Volumetri in plastic

(H) 1000ppm
 Dissolve Pentahydr in DI w w/ DI w after 1

Analytical Results Summary

Instrument Name: R-Buret-01

Analyst: BBOWE

Analysis Lot: 175461

Method/Testcode: SM 2320 B/Alkalinity Titr

Lab Code	Target Analytes	QC Type	Parent Sample	Matrix	Raw Result	Sample Amt	Final Result	Dil	PQL	% Rec	% RSD	Date Analyzed	QC? Tier
RQ0910144-01	Alkalinity as CaCO ₃ , Total	MB		Water	1.90 mg/L ✓	100 mL	1.9 mg/L J	1	2.0			10/19/09 14:25	N II
RQ0910144-01	Bicarbonate Alkalinity as CaCO ₃	MB		Water	1.90 mg/L ✓	100 mL	1.9 mg/L J	1	2.0			10/19/09 14:25	N II
RQ0910144-01	Carbonate Alkalinity as CaCO ₃	MB		Water	0.00 mg/L ✓	100 mL	2.0 mg/L U	1	2.0			10/19/09 14:25	N II
RQ0910144-01	Hydroxide Alkalinity as CaCO ₃	MB		Water	0.00 mg/L ✓	100 mL	2.0 mg/L U	1	2.0			10/19/09 14:25	N II
RQ0910144-02	Alkalinity as CaCO ₃ , Total	LCS		Water	19.10 mg/L ✓	100 mL	19.1 mg/L	1	2.0	95		10/19/09 14:25	N II
R0905714-005	Alkalinity as CaCO ₃ , Total	N/A		Water	280.00 mg/L ✓	10 mL	280 mg/L	1	2.0			10/19/09 14:25	N II
RQ0910144-03	Alkalinity as CaCO ₃ , Total	DUP	R0905714-005	Water	280.00 mg/L ✓	10 mL	280 mg/L	1	2.0		<1	10/19/09 14:25	N II
RQ0910144-04	Alkalinity as CaCO ₃ , Total	MS	R0905714-005	Water	369.00 mg/L ✓	10 mL	369 mg/L	1	2.0	89		10/19/09 14:25	N II
R0905714-006	Alkalinity as CaCO ₃ , Total	N/A		Water	167.50 mg/L ✓	20 mL	168 mg/L	1	2.0			10/19/09 14:25	N II
R0905714-007	Alkalinity as CaCO ₃ , Total	N/A		Water	482.00 mg/L ✓	10 mL	482 mg/L	1	2.0			10/19/09 14:25	N II
R0905714-008	Alkalinity as CaCO ₃ , Total	N/A		Water	180.50 mg/L ✓	20 mL	181 mg/L	1	2.0			10/19/09 14:25	N II
R0905714-009	Alkalinity as CaCO ₃ , Total	N/A		Water	317.00 mg/L ✓	10 mL	317 mg/L	1	2.0			10/19/09 14:25	N II
R0905716-001	Alkalinity as CaCO ₃ , Total	N/A		Water	850.00 mg/L ✓	10 mL	850 mg/L	1	2.0			10/19/09 14:25	N II
R0905716-002	Alkalinity as CaCO ₃ , Total	N/A		Water	568.00 mg/L ✓	5 mL	568 mg/L	1	2.0			10/19/09 14:25	N II
R0905716-003	Alkalinity as CaCO ₃ , Total	N/A		Water	426.00 mg/L ✓	5 mL	426 mg/L	1	2.0			10/19/09 14:25	N II
R0905716-004	Alkalinity as CaCO ₃ , Total	N/A		Water	420.00 mg/L ✓	5 mL	420 mg/L	1	2.0			10/19/09 14:25	N II
R0905744-011	Alkalinity as CaCO ₃ , Total	N/A		Water	0.00 mg/L ✓	100 mL	2.0 mg/L U	1	2.0			10/19/09 14:25	N IV
R0905744-011	Carbonate Alkalinity as CaCO ₃	N/A		Water	0.00 mg/L ✓	100 mL	2.0 mg/L U	1	2.0			10/19/09 14:25	N IV
R0905744-011	Bicarbonate Alkalinity as CaCO ₃	N/A		Water	0.00 mg/L ✓	100 mL	2.0 mg/L U	1	2.0			10/19/09 14:25	N IV
R0905636-006	Alkalinity as CaCO ₃ , Total	N/A		Water	260.00 mg/L ✓	20 mL	260 mg/L	1	2.0			10/19/09 14:25	N IV
R0905636-006	Carbonate Alkalinity as CaCO ₃	N/A		Water	0.00 mg/L ✓	20 mL	2.0 mg/L U	1	2.0			10/19/09 14:25	N IV
R0905636-006	Hydroxide Alkalinity as CaCO ₃	N/A		Water	0.00 mg/L ✓	20 mL	2.0 mg/L U	1	2.0			10/19/09 14:25	N IV
R0905636-006	Bicarbonate Alkalinity as CaCO ₃	N/A		Water	260.00 mg/L ✓	20 mL	260 mg/L	1	2.0			10/19/09 14:25	N IV
RQ0910144-05	Alkalinity as CaCO ₃ , Total	DUP	R0905636-006	Water	259.50 mg/L ✓	20 mL	260 mg/L	1	2.0		<1	10/19/09 14:25	N IV
RQ0910144-05	Bicarbonate Alkalinity as CaCO ₃	DUP	R0905636-006	Water	259.50 mg/L ✓	20 mL	259 mg/L	1	2.0		<1	10/19/09 14:25	N IV
RQ0910144-05	Carbonate Alkalinity as CaCO ₃	DUP	R0905636-006	Water	0.00 mg/L ✓	20 mL	2.0 mg/L U	1	2.0		NC	10/19/09 14:25	N IV
RQ0910144-05	Hydroxide Alkalinity as CaCO ₃	DUP	R0905636-006	Water	0.00 mg/L ✓	20 mL	2.0 mg/L U	1	2.0		NC	10/19/09 14:25	N IV
RQ0910144-06	Alkalinity as CaCO ₃ , Total	MS	R0905636-006	Water	349.00 mg/L ✓	20 mL	349 mg/L	1	2.0	89		10/19/09 14:25	N IV
R0905661-009	Alkalinity as CaCO ₃ , Total	N/A		Water	58.00 mg/L ✓	50 mL	58.0 mg/L	1	2.0			10/19/09 14:25	N IV
R0905661-010	Alkalinity as CaCO ₃ , Total	N/A		Water	113.20 mg/L ✓	25 mL	113 mg/L	1	2.0			10/19/09 14:25	N IV
R0905661-011	Alkalinity as CaCO ₃ , Total	N/A		Water	124.40 mg/L ✓	25 mL	124 mg/L	1	2.0			10/19/09 14:25	N IV
R0905661-012	Alkalinity as CaCO ₃ , Total	N/A		Water	119.20 mg/L ✓	25 mL	119 mg/L	1	2.0			10/19/09 14:25	N IV
R0905661-017	Alkalinity as CaCO ₃ , Total	N/A		Water	15.60 mg/L ✓	100 mL	15.6 mg/L	1	2.0			10/19/09 14:25	N IV
R0905661-018	Alkalinity as CaCO ₃ , Total	N/A		Water	28.00 mg/L ✓	100 mL	28.0 mg/L	1	2.0			10/19/09 14:25	N IV



Analytical Results Summary

Instrument Name: R-Buret-01 **Analyst:** BBOWE **Analysis Lot:** 175461 **Method/Testcode:** SM 2320 B/Alkalinity Titr
Lab Code **Target Analytes** **QC Type/Parent Sample** **Matrix** **Raw Result** **Sample Amt** **Final Result** **Dil** **POL** **% Rec** **% RSD** **Date Analyzed** **QC? Tier**
R0905661-019 Alkalinity as CaCO₃, Total N/A Water 5.20 mg/L ✓ 100 mL 5.2 mg/L 1 2.0 10/19/09 14:25 N IV
R0905661-020 Alkalinity as CaCO₃, Total N/A Water 1.80 mg/L ✓ 100 mL 2.0 mg/L U 1 2.0 10/19/09 14:25 N IV

00918

Analyte: Alkalinity
Method: SM20 2320 B

Regular Level X
High Level _____

Analyst: B. Bowe
Pipette: HANS

Date: 10/19/09
Time: 14:25

Table 403.1 Alkalinity Relationships

Result of titration	Hydroxide Alkalinity as CaCO3	Carbonate Bicarbonate 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

pH meter cal:

4.0 _____
7.0 7.04
10.0 _____

Buffer Lot #:

WC92081A
WC92081B
WC92081C

pH Meter ID _____

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 #

WC92085G

WC92096E

WC85297E

Date

9/22/09

Phenolphthalein alkalinity = the quantity measured by titration to pH 8.3

Alkalinity, mg CaCO3 /L = (A_(mL acid used) × N_(H2SO4) × 50,000) /mL sample

* Soils - 1g of sample diluted to 100mLs in DI

**HND Soil - 25 g of sample diluted to 250mLs in DI

Misc.	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 1000 ppm (mL)	*Soil (X)	**HND Soil (X)
1	ICV	25.0	9.97	0.00	1.27						50.8			
2	ICB	100.0	5.30	0.00	0.09						0.9			
3	LCS	100.0	9.25	0.00	1.83						18.3	2.0		
4	5729 R0905729-001	10.0	6.90	0.00	5.47						547.0			
5	R0905729-001 DUF	10.0	6.90	0.00	5.45						545.0			
6	R0905729-001 SPK	10.0	7.30	0.00	7.20						720.0	2.0		
7	R0905729-002	5.0	6.90	0.00	1.83						366.0			
8	R0905729-003	10.0	7.50	0.00	3.72						372.0			
9	R0905729-004	10.0	7.30	0.00	3.90						390.0			
10	R0905729-005	10.0	7.40	0.00	3.20						320.0			
11	5731 R0905731-001	50.0	8.60	0.00	3.88						77.6			
12	R0905731-002	10.0	6.60	0.00	3.40						340.0			
13	CCV	25.0	10.20	0.00	1.30						52.0			
14	CCB	100.0	5.50	0.00	0.17						1.7			
15	R0905731-003	10.0	7.20	0.00	>10						0.0	HL		
16	R0905731-004	10.0	7.30	0.00	4.02						402.0			
17	R0905731-005	10.0	7.30	0.00	6.03						603.0			
18	R0905731-005 DUF	10.0	7.30	0.00	6.00						600.0			
19	R0905731-005 SPK	10.0	7.60	0.00	7.79						779.0	2.0		
20	5732 R0905732-001	50.0	7.20	0.00	2.40						48.0			
21	R0905732-002	50.0	7.10	0.00	2.42						48.4			
22	5746 R0905746-001	25.0	7.40	0.00	2.10						84.0			
23	R0905746-002	25.0	7.40	0.00	2.27						90.8			
24	5692 R0905692-035	100.0	6.60	0.00	3.05						30.5			
25	CCV	25.0	10.10	0.00	1.31						52.4			
26	CCB	100.0	5.60	0.00	0.19	0.00	0.0	0.0	0.0	1.9	1.9			
27	R0905692-036	100.0	7.00	0.00	6.12						61.2			
28	5714 R0905714-001	10.0	7.60	0.00	3.39						339.0			
29	R0905714-002	10.0	7.70	0.00	3.51						351.0			
30	R0905714-003	10.0	7.70	0.00	4.58						458.0			
31	R0905714-004	10.0	7.10	0.00	8.60						860.0			
32	LCS	100.0	9.50	0.00	1.91						19.1			
33	R0905714-005	10.0	7.80	0.00	2.80						280.0			
34	R0905714-005 DUF	10.0	7.80	0.00	2.80						280.0			
35	R0905714-005 SPK	10.0	8.80	0.00	3.69						369.0	1.0		
36	CCV	25.0	10.10	0.00	1.30						52.0			
37	CCB	100.0	5.40	0.00	0.15	0.00	0.0	0.0	0.0	1.5	1.5			
38	R0905714-006	20.0	7.70	0.00	3.35						167.5			

Analyte: Alkalinity
Method: SM20 2320 B

Regular Level X
High Level _____

Analyst: B. Bowe
Pipette: HANS

Date: 10/19/09
Time: 14:25

Table 403.1 Alkalinity Relationships

Result of titration	Hydroxide Alkalinity as CaCO3	Carbonate Bicarbonate 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

pH meter cal:

4.0 _____
7.0 7.04
10.0 _____

Buffer Lot #:

WC92081A
WC92081B
WC92081C

pH Meter ID _____

Reagents: Concentration Log # Date

H2SO4: 0.020 N WC92085G 9/22/09

Reg Level Reference: 50 mg/L WC92096E

High Level Reference: 5000 mg/L

LCS/MS Solution: 1000 mg/L WC85297E

Phenolphthalein alkalinity = the quantity measured by titration to pH 8.3

Alkalinity, mg CaCO3 /L = (A_(mL acid used) × N_(H2SO4) × 50,000) /mL sample

* Soils - 1g of sample diluted to 100mLs in DI

**HND Soil - 25 g of sample diluted to 250mLs in DI

Misc.	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 1000 ppm (mL)	*Soil (X)	**HND Soil (X)
39	R0905714-007	10.0	7.50	0.00	4.82						482.0			
40	R0905714-008	20.0	9.40	0.00	3.61						180.5			
41	R0905714-009	10.0	11.20	0.00	3.17						317.0			
42	5716 R0905716-001	10.0	7.20	0.00	8.50						850.0			
43	R0905716-002	5.0	7.60	0.00	2.84						568.0			
44	R0905716-003	5.0	7.60	0.00	2.13						426.0			
45	R0905716-004	5.0	7.60	0.00	2.10						420.0			
46	5744 R0905744-011	100.0	4.45	0.00	0.00	0.00	0.0	0.0	0.0	0.0	0.0			
47	5636 R0905636-006	20.0	7.70	0.00	5.20	0.00	0.0	0.0	0.0	260.0	260.0			
48	CCV	25.0	10.20	0.00	1.30						52.0			
49	CCB	100.0	5.40	0.00	0.19	0.00	0.0	0.0	0.0	1.9	1.9			
50	R0905636-006 DUF	20.0	7.70	0.00	5.19	0.00	0.0	0.0	0.0	259.5	259.5			
51	R0905636-006 SPK	20.0	8.10	0.00	6.98	0.00	0.0	0.0	0.0	349.0	349.0	2.0		
52	5661 R0905661-009	50.0	7.90	0.00	2.90						58.0			
53	R0905661-010	25.0	7.90	0.00	2.83						113.2			
54	R0905661-011	25.0	7.90	0.00	3.11						124.4			
55	R0905661-012	25.0	7.90	0.00	2.98						119.2			
56	R0905661-017	100.0	7.10	0.00	1.82						18.2	LL		
57	R0905661-018	100.0	7.30	0.00	2.80						28.0			
58	R0905661-019	100.0	6.80	0.00	0.75						7.5	LL		
59	R0905661-020	100.0	5.20	0.00	0.18						1.8			
60	CCV	25.0	10.10	0.00	1.29						51.6			
61	CCB	100.0	5.20	0.00	0.15	0.00	0.0	0.0	0.0	1.5	1.5			

Rochester, NY

Analyte: Alkalinity Low Level

Analyst: B. Bowe

Date: 10/19/09

Method: SM20 2320 B

Pipette:

Time: 14:25

pH meter cal:

		Buffer Lot #:
4.0		WC92081A
7.0	7.04	WC92081B
10.0		WC92081C

Reagent:

	Concentration	Log #	Date
H2SO4:	0.02 N	WC92085G	9/22/09

pH meter ID: Rocky

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

*Soil - 1g of sample diluted to 100mls in DI

**HND Soil - 25 g of sample diluted to 250mLs in DI

Misc.	Order #	Sample Vol (mL)	pH Initial	Titrant Volume Initial (mL)	Vol.@pH 4.5		Vol.@pH -0.3		Total Alkalinity (mg/L)	*Soil (X)	**HND Soil (X)
					Vol.(B)	pH	Vol.(C)	pH			
1	R0905661-017	100.0	7.10	0.00	1.82	4.47	2.08	4.17	15.60		
2	R0905661-019	100.0	6.80	0.00	0.75	4.48	0.98	4.18	5.20		

Analyte: Alkalinity
Method: SM20 2320 B

Regular Level _____
High Level X

Analyst: B. Bowe
Pipette: HANS

Date: 10/19/09
Time: 18:50

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_(mL acid used) × N_(H2SO4) × 50,000) /mL sample

pH meter cal:

4.0 _____
7.0 7.04
10.0 _____

pH Meter ID _____

Reagents: Concentration

H2SO4: 0.100 N

Reg Level Reference: 50 mg/L

High Level Reference: 5000 mg/L

LCS/MS Solution: 1000 mg/L

Buffer Lot #:

WC92081A

WC92081B

WC92081C

Log #

WC85245D

WC85296B

Date

12/10/08

* Soils - 1g of sample diluted to 100mLs in DI

**HND Soil - 25 g of sample diluted to 250mLs in DI

Misc.	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 5000 ppm (mL)	*Soil (X)	**HND Soil (X)
1	ICV	2.0	10.80	0.00	2.00						5000.0			
2	ICB	100.0	5.40	0.00	0.02						1.0			
3	LCS	25.0	10.90	0.00	4.99						998.0	5.0		
4	5731 R0905731-003	10.0	7.30	0.00	2.01						1005.0			
5	R0905731-003 DUF	10.0	7.30	0.00	2.00						1000.0			
6	R0905731-003 SPK	10.0	8.50	0.00	2.99						1495.0	1.0		
7	CCV	2.0	10.80	0.00	2.00						5000.0			
8	CCB	100.0	5.20	0.00	0.03						1.5			

Columbia Analytical Services
1 Mustard Street, Rochester, NY 14609

General Chemistry Analytical Run Cover Sheet

Analyst: B. Bruce Date: 10/19/09

Analysis: Alkalinity, Regular/Low Level Instrument: Titration

Quality Control:

	Log Book #	Log Book Date	Stock Sol (mLs)	Stock Sol (mg/L)	Final Vol (mLs)	True Value (mg/L)
a) Titrant:	WC92085G	9/22/2009				
b) I/CCV Preparation:	WC92096E	10/13/2009				50
c) LCS Preparation:	WC85297E	5/4/2009	2	1000	100	20
d) Matrix Spike Prep.:	WC85297E	5/4/2009	See Data Sheet			

Instrument log filled in? (Y) (N)

Packages:

Copy and attach Standards Preparation.

Comments:

p:\greg\forms\cover.alk

TITLE PROJECT

Continued from page

9/21/09 (A) TDS Reference

EW 0.9126g ~~1926g~~ NaCl (WC85215H) diluted volumetrically to 1 liter of DI. Store in plastic bottle @ 4°C.
TV = 913 mg/L Exp: 9/21/10 (12306)

9/21/09 (B) TKN Digest Reagent

SBR To a 2 L vol. flask, add 268g K₂SO₄ (WC92081G) and 14.6 g CuSO₄ (WC85271E). Fill ~ 1/2 way with UPDI. Slowly add 268 mL omnitrace H₂SO₄ (WC92064B). Allow to dissolve and cool. Bring to vol. with UPDI. Store in amber glass @ RT for 1 month. Exp 10/21/09

9/21/09 (C) Color Reagent - TPO₄

EN - same as WC 92075G. Exp 1 year - 9/21/09 or when discolored

9/21/09 (D) Ascorbic Acid - TPO₄

EN - same as WC 92070C. Exp 1 week: 9/28/09

9/22/09 (E) Hypochlorite - TKN

NM - same as WC 92082B. Prepare fresh each run.

9/22/09 Received from VWR:

(F) EDTA 1x500g CAT# EX0539-1 EMD lot# 49077930 CAS# 6381-92-6

Store at room temp Exp 9/22/14 (12329)

(G) 1x1L 0.0200N Sulfuric Acid Solution CAT# BDH 3229-4 BDH lot# 9089 CAS# 7664-93-9

Store at room temp Exp 3/31/10 (12330)

(H) 1x500g Sodium Formate Crystal CAT# 376-01 JTBaker lot# B40601 CAS# 141-53-7

Store at room temp Exp 9/22/14

(I) 1x 125ml Bromide Standard 1000 ppm CAT# 100-001 Ultra Scientific lot# J00147

Store at 4°C in standards fridge Exp 3/31/11 (12327)

(J) 1x 500ml Phosol Solution CAT# PX0511-1 EMD lot# 48112 CAS# 108-95-2

Store in flammable cabinet Exp 9/22/14 (12328)

9/22/09 (A) TS/TDS Reference

EW 0.3001 g KHP (WC85062C) diluted volumetrically to 1 liter of DI. Store in plastic bottle @ 4°C. TV_{TS} = 300 mg/L TV_{TDS} = 200 mg/L Exp: 9/22/10 (12332) continued to page

SIGNATURE

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

PROPRIETARY INFORMATION

PROJECT

TITLE

TITLE

Continued from page

Continued from page

10/13/09 (A) 0.8 M NaOH - TKN
-same as WC 92077H. Exp. 11/13/09.

10/15/09 (C)
NM

(B) Hypochlorite - TKN
Add 15.0 mLs Sodium Hypochlorite (WC 92094F) to a 250 mL vol. flask and bring to volume w/ DI. Prepare fresh each run.

10/15/09 (B) I
NM

(C) Color Reagent - TKN
-same as WC 92088D. Exp. 1 month, 11/13/09.

10/15/09 (C) -
EW

10/13/09 (D) Ascorbic Acid - Kometab
Same as WC 92082E. Exp 10/27/09

10/15/09 (D) R
EW

10/13/09 (E) Alkalinity Reference Solution: 50 mg/L
Volumetrically add 10.0 mL of Alkalinity Reference Stock: 500 mg/L (WC 92960B) and dilute to 1 L w/ DI. Store @ 4°C in a plastic bottle. Exp: 10/30/09

(E)

10/14/09 (F) NH3 Carrier/Diluent
-same as WC 92067C. Prepared solution x 3.

(F)

(G) Sodium Phenolate: NH3
-same as WC 92090B. Exp. 1 year, 10/14/10.

10/15/09 (F)
NM

10/14/09 (H) Received from EMD
DPC (H) 4x4L Chloroform, cat # OX054-1. Lot # 148171, store @ RT. Exp: 10/14/2012, CAS #: 67-66-3

(F)

10/14/09 (I) Na2S - sulfide reference
GN To a tared amber jar add approx ~ 0.4g Na2S · 9H2O (WC 92330B) and dilute to 100g w/ DI. Mix until dissolved. Exp 2 weeks : 10/28/09

(F)

(J) 0.0250 N Na2S2O3
-same as WC 92089I. Exp 2 weeks 10/28/09 Continued to page

(F)

SIGNATURE

DATE

SIGNATURE

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DATE

PROPRIETARY INFORMATION

DISCLOSED TO AND UNDERSTOOD BY

mL DI. Bring up
a plastic bottle

5/1/09 (A) Buffer-TKN
NM - same as WC852706. Exp. 1 month, 6/1/09.

in ~ 800 mL DI.
store in a plastic

- 5/1/09 BB
- Received from VWR
- (B) (1) x 500g EDTA, disodium salt, dihydrate, Cat # EX0539-1, EMD Lot # 49037908, CAS # 6381-92-6. Store @ R.T. Expires 5/1/14 [9559]
 - (C) (4) x 500g Potassium Sulfate, Cat # 3278-01, JT Baker Lot # E50158, CAS # 7778-80-5. Store @ R.T. Expires 5/1/14. [9560]
 - (D) (10) x 100 Mem Microfibre filters, 691. Cat # 28333-129, VWR Lot # J11374948 Store in drawer @ solid bench Exp: NA. [9561]

1 L Alkalinity
to 1L with DI.
130109

5/4/09 (E) Alkalinity LCS/MS Soln. 1000 mg/L
BB Dissolve 1.6590g Na₂CO₃ (WC76232D) in ~ 800mL DI in a 1 L volumetric flask. Dilute to volume w/DI. Store in plastic @ 4°C Expires 11/4/09 [9604]

C# 1350-13,
etc. NA. [9537]

4/4/09 (F) TKN Digest Reagent
SBR - same as WC85292J. Expires 6/4/09

4g Na₂S · 9H₂O
Mix until
4023 5/14/09

5/4/09 (G) 1000ppm TMA Standard
Cmw Dilute 2mLs of 25% Trimethylamine (w/w) (WC85235D) to 500mLs w/ DI Water. Store @ 4°C in plastic. Expires after 1 year (5/4/2010).

2094-12 JS 113409
C# 2094-12,
7. Store @ R.T.

(H) 1000ppm TMAH Standard
~~Dissolve 2.094 g of Tetramethyl Ammonium Pentahydrate in DI water and dilute to 500mL volumetrically w/ DI Water. Store @ 4°C in plastic. Expires after 1 year (5/4/10).~~

C# 5X1247/2
@ R.T.

145-14,
.. Store @ R.T.

(H) 1000ppm TMAH Standard Tetramethyl Ammonium Hydroxide
Dissolve 1.047g of Tetramethyl Ammonium Pentahydrate (95% pure) (WC85235A) in DI water and dilute to 500mL volumetrically w/ DI Water. Store @ 4°C in plastic. Expires after 1 year (5/4/10)

12/30/09

(A) Alkalinity ACS/MS Solution: 1000mg/L
Dissolve 1.0590g (WC76232D) in ~800 mL DI. Bring up to 1L volumetrically with DI. Store in a plastic bottle @ 4°C. exp. ~~10/30/09~~ 10/30/09

5/1/09
NM (A) Buffer
-same as

5/1/09
AB (B) Received from
(1) x
Cat #
6381-

(B) Alkalinity Reference Stock: 5000mg/L
Dissolve 5.300g Na₂CO₃ (WC76294G) in ~800 mL DI. Bring up to 1L volumetrically with DI. Store in a plastic bottle @ 4°C. exp. 10/30/09

(C) (4) x 5
JT Bk
Express

(C) Alkalinity Reference Solution: 50mg/L
Volumetrically add 10 mL of the 5000mg/L Alkalinity Reference Stock (WC85296B) and dilute to 1L with DI. Store in a plastic bottle @ 4°C. exp. 10/30/09

(D) (10) x
VWR L
Exp: 1

1/30/09
AB

Received from CPI

(D) (12) x 20 0/6 Silver SPE disks, Cat # 4350-13, CPI Lot # 630609. Store @ RT Exp. date: NA. 9537

5/4/09
AB (E) Alkalinity
Express
in a 1
Store in

1/30/09
GN

(E) Sulfide Reference
To a tared amber jar add approx. 0.4g Na₂S · 9H₂O (WC76230B) and dilute to 100g w/DI. Mix until dissolved. Store at 4°C for 2 weeks. Expires 5/14/09. Standardize w/ each use.

5/4/09
SER (F) TKN Dige
-same as

4/30/09
BB

Received from VWR

(F) (1) x 500g Sodium Salicylate, Powder, Cat # ~~2094-42~~ ^{2094-12 BB 41344}, Mallinckrodt Lot # 643597, CAS # 54-21-7. Store @ RT. Expires 4/30/14. 9545

5/4/09
Cmw (G) 1000ppm
Dilute 2
(WC852:
Store @
1 year

(G) (4) x 2.5L Sulfuric Acid, OmniTrace, Cat # 5X1247/2 EMD Lot # 47213, CAS # 7664-93-9. Store @ RT. Expires 4/30/14 9546

(H) (1) x 2.5L Phosphoric Acid, Cat # PX0995-14, EMD Lot # 48175844, CAS # 7664-38-2. Store @ RT. Expires 4/30/14 9547

(A) 1000ppm
Dissolve
in DI w
Volumetri
in plastic

(H) 1000ppm
Dissolve
Pentahydr
in DI w
w/ DI w
after 1

Columbia Analytical Services
 1 Mustard Street, Rochester, NY 14609

General Chemistry Analytical Run Cover Sheet

Analyst: B Bouie

Date: ^{03/10/2009}
~~10/16~~ 19/09

Analysis: Alkalinity, High Level

Instrument: Titration

Quality Control:

	Log Book #	Log Book Date	Stock Sol (m/Ls)	Stock Sol (mg/L)	Final Vol (mLs)	True Value (mg/L)
a) Titrant:	WC85245D	12/10/2008				
b) I/CCV Preparation:	WC85296B	4/30/2009				5000
c) LCS Preparation:	WC85296B	4/30/2009	5	5000	25	1000
d) Matrix Spike Prep.:	WC85296B	4/30/2009	See Data Sheet			

Instrument log filled in? (Y) (N)

Packages:

Copy and attach Standards Preparation.

Comments:

12/10/08
NM(A) ANSA Reducing Agent - SilicaTo a tared 500 mL dark plastic bottle add:

- 2.0g sodium sulfite (WC69172D)
- 396.0g UPDI
- 0.25g ANSA (WC76127G)
- 15.0g Sodium Bisulfite (WC76161H)
- 5.2g Glycerol (WC76105H)

Mix thoroughly. Store @ 4°C. Exp. 1 year, 12/10/09

~~(B) Oxalic Acid - Silica~~~~To a tared 500 mL plastic bottle add:~~

- ~~- 486 g UPDI 12/10/08~~
- ~~- 20.0g Ammonium Molybdate (WC5204K)~~
- ~~- 14.8g Instra~~

NM 12/10/08

NM 12/10/08

(B) Oxalic Acid - Silica

To a tared 500 mL plastic bottle add:

- 50.0g Oxalic Acid (WC85204K)
- 490 g UPDI.

Stir until dissolved. Store @ RT. Exp. 1 year, 12/10/09.

12/10/08

AB

Received from Thermo Fisher

- (C) (3) x PK of 5 vials 13.8% Sodium Dihydrogen Phosphate Buffer, Cat # K981335.21, Lot # 1012294. Store @ 4°C
Expires 7/1/09

Received from VWR

- (D) (1) x 1 L 0.100 N Sulfuric Acid, Cat # W3230.1, VWR Lot # 8196, CAS # 7664-93-9. Store @ R.T.
Expires 1/31/10

Received from LIAH

Analytical Results Summary

Instrument Name: R-FIA-01

Analyst: NMEAD

Analysis Lot: 176581

Method/Testcode: 350.1/Ammonia T

Lab Code	Target Analytes	QC Type	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	PQL	% Rec	% RSD	Date Analyzed	QC? Tier
3Q0910460-01	Ammonia as Nitrogen	MB		Water	0.00 mg/L	10 mL	0.050 mg/L U	1	0.050			10/27/09 11:41:03	N IV
3Q0910460-02	Ammonia as Nitrogen	LCS		Water	0.50 mg/L	10 mL	0.499 mg/L	1	0.050	100		10/27/09 13:08:11	N IV
3Q0905635-001	Ammonia as Nitrogen	N/A		Water	0.26 mg/L	10 mL	0.259 mg/L	1	0.050			10/27/09 13:16:02	N IV
3Q0910460-04	Ammonia as Nitrogen	DUP	R0905635-001	Water	0.29 mg/L	10 mL	0.294 mg/L	1	0.050		12	10/27/09 13:17:00	N IV
3Q0910460-03	Ammonia as Nitrogen	MS	R0905635-001	Water	0.76 mg/L	10 mL	0.762 mg/L	1	0.050	101		10/27/09 13:19:55	N IV
3Q0905635-012	Ammonia as Nitrogen	N/A		Water	0.29 mg/L	10 mL	0.291 mg/L	1	0.050			10/27/09 13:20:53	N IV
3Q0905693-001	Ammonia as Nitrogen	N/A		Water	0.00 mg/L	10 mL	0.050 mg/L U	1	0.050			10/27/09 13:21:52	N IV
3Q0905636-001	Ammonia as Nitrogen	N/A		Water	0.03 mg/L	10 mL	0.025 mg/L J	1	0.050			10/27/09 13:22:51	N IV
3Q0905636-002	Ammonia as Nitrogen	N/A		Water	0.04 mg/L	10 mL	0.037 mg/L J	1	0.050			10/27/09 13:23:51	N IV
3Q0905636-003	Ammonia as Nitrogen	N/A		Water	0.33 mg/L	10 mL	0.331 mg/L	1	0.050			10/27/09 13:24:50	N IV
3Q0905636-006	Ammonia as Nitrogen	N/A		Water	1.04 mg/L	10 mL	2.09 mg/L	2	0.10			10/27/09 14:20:56	N IV
3Q0905731-001	Ammonia as Nitrogen	N/A		Water	0.01 mg/L	10 mL	0.050 mg/L U	1	0.050			10/27/09 13:26:48	N IV
3Q0905731-002	Ammonia as Nitrogen	N/A		Water	1.65 mg/L	10 mL	3.31 mg/L	2	0.10			10/27/09 14:13:04	N II
3Q0905731-003	Ammonia as Nitrogen	N/A		Water	1.10 mg/L	10 mL	44.1 mg/L	40	2.0			10/27/09 14:21:56	N II
3Q0905731-004	Ammonia as Nitrogen	N/A		Water	0.41 mg/L	10 mL	0.405 mg/L	1	0.050			10/27/09 13:32:39	N II
3Q0910460-06	Ammonia as Nitrogen	DUP	R0905731-004	Water	0.41 mg/L	10 mL	0.405 mg/L	1	0.050		<1	10/27/09 13:33:37	N II
3Q0910460-05	Ammonia as Nitrogen	MS	R0905731-004	Water	0.83 mg/L	10 mL	0.826 mg/L	1	0.050	84*		10/27/09 13:34:36	N II
3Q0905731-005	Ammonia as Nitrogen	N/A		Water	1.56 mg/L	10 mL	1.56 mg/L	1	0.050			10/27/09 13:35:34	N II
3Q0905744-011	Ammonia as Nitrogen	N/A		Water	0.04 mg/L	10 mL	0.038 mg/L J	1	0.050			10/27/09 13:36:34	N IV
3Q0905628-018	Ammonia as Nitrogen	N/A		Water	1.19 mg/L	10 mL	1.19 mg/L	1	0.050			10/27/09 13:37:34	N II
3Q0905628-019	Ammonia as Nitrogen	N/A		Water	0.18 mg/L	10 mL	0.184 mg/L	1	0.050			10/27/09 13:38:33	N II
3Q0905628-020	Ammonia as Nitrogen	N/A		Water	0.05 mg/L	10 mL	0.052 mg/L	1	0.050			10/27/09 13:39:33	N II
3Q0905628-021	Ammonia as Nitrogen	N/A		Water	0.41 mg/L	10 mL	0.409 mg/L	1	0.050			10/27/09 13:40:32	N II
3Q0905628-022	Ammonia as Nitrogen	N/A		Water	0.34 mg/L	10 mL	0.338 mg/L	1	0.050			10/27/09 13:43:30	N II
3Q0905628-023	Ammonia as Nitrogen	N/A		Water	0.32 mg/L	10 mL	0.316 mg/L	1	0.050			10/27/09 13:44:29	N II
3Q0905628-024	Ammonia as Nitrogen	N/A		Water	0.04 mg/L	10 mL	0.050 mg/L U	1	0.050			10/27/09 13:45:28	N II



Creator: NMEAD

Creation Date: Oct 27, 2009 22:35:08

Last Modified: Oct 28, 2009 2:18:39

Description: QC 8000 350.1 Ammonia - RUN LOG - 0910270A

~~10/27/09~~ actual analysis date is 10/27/09
actual times are 12 hours earlier

should be AM not PM

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 = 0.90	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	RQ09010243-01 MB	1.0000	Unknown
9	R0905885-001	1.0000	Unknown
10	5885-001 DUP	1.0000	Unknown
11	5885-001 SPK TV = 0.500	1.0000	Unknown
12	RQ09010244-01 MB	1.0000	Unknown
13	R0905885-002	1.0000	Unknown
14	RQ0909842-01 MB	1.0000	Unknown
15	R0905464-007	1.0000	Unknown
16	5464-007 DUP	1.0000	Unknown
17	5464-007 SPK TV = 5.00	1.0000	Unknown
18	CCV	1.0000	Unknown
19	CCB	1.0000	Unknown
20	LCS	1.0000	Unknown
21	R0905464-008	1.0000	Unknown
22	R0905464-009	1.0000	Unknown
23	R0905464-014	1.0000	Unknown
24	R0905464-015	1.0000	Unknown
25	R0905464-016	1.0000	Unknown
26	R0905464-017	1.0000	Unknown
27	R0905464-018	1.0000	Unknown
28	R0905464-019	1.0000	Unknown
29	R0905464-020	1.0000	Unknown
30	CCV	1.0000	Unknown
31	CCB	1.0000	Unknown

not preserved
w/ H₂SO₄

not preserved
w/ H₂SO₄

* - neg. peak - LLOQ

Cup #	Sample ID	Manual Dilution	Sample Type	
32	R0905464-021	1.0000	Unknown	
33	R0905464-022	1.0000	Unknown	
34	R0905464-023	1.0000	Unknown	
35	R0905524-003	1.0000	Unknown	
36	RQ0909915-03 MB 10/27/09	1.0000	Unknown	⊗
37	R0905524-004	1.0000	Unknown	
38	R0905524-005	1.0000	Unknown	
39	R0905524-006	1.0000	Unknown	⊗
40	5524-006 DUP	1.0000	Unknown	⊗
41	5524-006 SPK TV = 5.00	1.0000	Unknown	
42	CCV	1.0000	Unknown	
43	CCB	1.0000	Unknown	
44	LCS	1.0000	Unknown	
45	R0905524-007	1.0000	Unknown	⊗
46	R0905524-008	1.0000	Unknown	
47	R0905524-009	1.0000	Unknown	⊗
48	R0905524-010	1.0000	Unknown	⊗
49	R0905524-011	1.0000	Unknown	⊗
50	R0905524-012	1.0000	Unknown	
51	R0905524-013	1.0000	Unknown	
52	RQ0909978-01 MB	1.0000	Unknown	⊗
53	R0905524-014	1.0000	Unknown	⊗
54	CCV	1.0000	Unknown	
55	CCB	1.0000	Unknown	
56	R0905524-015	1.0000	Unknown	⊗
57	5524-015 DUP	1.0000	Unknown	⊗
58	5524-015 SPK TV = 5.00	1.0000	Unknown	
59	R0905524-016	1.0000	Unknown	
60	R0905524-017	1.0000	Unknown	⊗
61	R0905524-018	1.0000	Unknown	⊗
62	R0905524-019	1.0000	Unknown	⊗
63	R0905524-020	1.0000	Unknown	⊗
64	R0905539-003	1.0000	Unknown	⊗
65	R0905539-004	1.0000	Unknown	⊗
66	CCV	1.0000	Unknown	
67	CCB	1.0000	Unknown	
68	LCS	1.0000	Unknown	
69	5539-004 DUP	1.0000	Unknown	⊗
70	5539-004 SPK TV = 5.00	1.0000	Unknown	⊗
71	RQ09010040-01 MB	1.0000	Unknown	⊗
72	R0905539-005	1.0000	Unknown	⊗
73	R0905539-006	1.0000	Unknown	⊗
74	R0905539-007	1.0000	Unknown	⊗
75	R0905539-008	1.0000	Unknown	⊗
76	R0905539-009	1.0000	Unknown	⊗

⊗ - neg. peak - < LOQ

Cup #	Sample ID	Manual Dilution	Sample Type	
77	R0905661-001	1.0000	Unknown	
78	CCV	1.0000	Unknown	
79	CCB	1.0000	Unknown	
80	R0905661-003	1.0000	Unknown	
81	R0905661-005	1.0000	Unknown	
82	R0905661-006	1.0000	Unknown	
83	R0905661-007	1.0000	Unknown	
84	5661-007 DUP	1.0000	Unknown	-Bad integration- rptc# 156
85	5661-007 SPK TV = 0.500	1.0000	Unknown	
86	R0905661-008	1.0000	Unknown	
87	R0905661-009	1.0000	Unknown	
88	R0905661-010	1.0000	Unknown	
89	R0905661-011	1.0000	Unknown	
90	CCV	1.0000	Unknown	
91	CCB	1.0000	Unknown	
92	LCS	1.0000	Unknown	
93	R0905661-012	1.0000	Unknown	
94	R0905661-017	1.0000	Unknown	
95	R0905661-018	1.0000	Unknown	
96	5661-018 DUP	1.0000	Unknown	
97	5661-018 SPK TV = 0.500	1.0000	Unknown	
98	R0905661-019	1.0000	Unknown	
99	R0905661-020	1.0000	Unknown	
100	R0905635-001	1.0000	Unknown	
101	5635-001 DUP	1.0000	Unknown	
102	CCV	1.0000	Unknown	
103	CCB	1.0000	Unknown	
104	5635-001 SPK TV = 0.500	1.0000	Unknown	
105	R0905635-012	1.0000	Unknown	
106	R0905693-001	1.0000	Unknown	
107	R0905636-001	1.0000	Unknown	
108	R0905636-002	1.0000	Unknown	
109	R0905636-003	1.0000	Unknown	
110	R0905636-006	1.0000	Unknown	- rptc# 157-1/2
111	R0905731-001	1.0000	Unknown	
112	R0905731-002	1.0000	Unknown	- rptc# 158-1/2
113	R0905731-003	1.0000	Unknown	- rptc# 159-1/4
114	CCV	1.0000	Unknown	
115	CCB	1.0000	Unknown	
116	LCS	1.0000	Unknown	
117	R0905731-004	1.0000	Unknown	
118	5731-004 DUP	1.0000	Unknown	
119	5731-004 SPK TV = 0.500	1.0000	Unknown	- low - rpt@ #160
120	R0905731-005	1.0000	Unknown	
121	R0905744-011	1.0000	Unknown	

Cup #	Sample ID	Manual Dilution	Sample Type	
122	R0905628-018	1.0000	Unknown	
123	R0905628-019	1.0000	Unknown	
124	R0905628-020	1.0000	Unknown	
125	R0905628-021	1.0000	Unknown	
126	CCV	1.0000	Unknown	
127	CCB	1.0000	Unknown	
128	R0905628-022	1.0000	Unknown	
129	R0905628-023	1.0000	Unknown	
130	R0905628-024	1.0000	Unknown	
131	R0905628-025	1.0000	Unknown	
132	5628-025 DUP	1.0000	Unknown	
133	5628-025 SPK TV = 0.500	1.0000	Unknown	
134	R0905628-026	1.0000	Unknown	
135	R0905628-027	1.0000	Unknown	
136	R0905628-028	1.0000	Unknown	
137	R0905628-029	1.0000	Unknown	
138	CCV	1.0000	Unknown	
139	CCB	1.0000	Unknown	
140	LCS	1.0000	Unknown	
141	R0905628-030	1.0000	Unknown	
142	R0905628-031	1.0000	Unknown	
143	R0905628-032	1.0000	Unknown	
144	R0905628-033	1.0000	Unknown	
145	R0905628-034	1.0000	Unknown	
146	R0905628-035	1.0000	Unknown	
147	5628-035 DUP	1.0000	Unknown	- air spike - rpt #161
148	5628-035 SPK TV = 0.500	1.0000	Unknown	
149	R0905628-036	1.0000	Unknown	
150	CCV	1.0000	Unknown	
151	CCB	1.0000	Unknown	
152	R0906001-001	2,000.0000	Unknown	
153	R0906001-002	200.0000	Unknown	- rpt #165 - 1/500
154	R0906048-001	1.0000	Unknown	⊛
155	R0905524-016 RPT	1.0000	Unknown	⊛
156	R0905661-007 DUP RPT	1.0000	Unknown	
157	R0905636-006 RPT 1/2	2.0000	Unknown	- strange peak - rpt #166
158	R0905731-002 RPT 1/2	2.0000	Unknown	
159	R0905731-003 RPT 1/4	4.0000	Unknown	- rpt #167 - 1/40
160	R0905731-004 SPK PTTV = 0.5	1.0000	Unknown	- low report original result
161	R0905628-035 DUP RPT	1.0000	Unknown	
162	CCV	1.0000	Unknown	
163	CCB	1.0000	Unknown	
164	LCS	1.0000	Unknown	
165	R0906001-002 RPT 1/500	500.0000	Unknown	
166	R0905636-006 RPT 1/2	2.0000	Unknown	

⊛ - Neg peak - < LOQ

Cup #	Sample ID	Manual Dilution	Sample Type	
167	R0905731-003 RPT 1/40	40.0000	Unknown	
168	CCV	1.0000	Unknown	
169	CCB	1.0000	Unknown	

(*) ⊕ Actual analysis date is 10/27/09
Actual times are 12 hours earlier

OPERATOR: NMEAD
ACQ. TIME: Oct 27, 2009 23:40:02
DATA FILENAME: C:\OMNION\DATA\091027A1.FDT
TRAY FILENAME: C:\OMNION\TRAYS\0910270A.TRA

should be AM not PM

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= 0.90	27 Oct 2009	23:40:05	1	0.8947	1.0	1.00
2	ICB	27 Oct 2009	23:41:03	1	0.0018	1.0	1.00
3	LCS TV= 0.500	27 Oct 2009	23:42:01	1	0.4990	1.0	1.00
4	CRDL 0.050	27 Oct 2009	23:42:59	1	0.0523	1.0	1.00
5	CRDL 0.010	27 Oct 2009	23:43:58	1	0.0118	1.0	1.00
6	CCV	27 Oct 2009	23:44:56	1	0.8943	1.0	1.00
7	CCB	27 Oct 2009	23:45:54	1	-0.0039	1.0	1.00
8	RQ09010243-01 MB	27 Oct 2009	23:46:52	1	0.0162	1.0	1.00
9	R0905885-001	27 Oct 2009	23:47:49	1	0.0299	1.0	1.00
10	5885-001 DUP	27 Oct 2009	23:48:46	1	0.0331	1.0	1.00
11	5885-001 SPK TV = 0.500	27 Oct 2009	23:49:43	1	0.5043	1.0	1.00
12	RQ09010244-01 MB	27 Oct 2009	23:50:41	1	0.0265	1.0	1.00
13	R0905885-002	27 Oct 2009	23:51:38	1	0.0299	1.0	1.00
14	RQ0909842-01 MB	27 Oct 2009	23:52:35	1	0.0627	1.0	1.00
15	R0905464-007	27 Oct 2009	23:53:32	1	0.0694	1.0	1.00
16	5464-007 DUP	27 Oct 2009	23:54:30	1	0.0735	1.0	1.00
17	5464-007 SPK TV= 5.00	27 Oct 2009	23:55:29	1	0.5524	1.0	1.00
18	CCV	27 Oct 2009	23:56:27	1	0.8876	1.0	1.00
19	CCB	27 Oct 2009	23:57:26	1	-0.0057	1.0	1.00
20	LCS	27 Oct 2009	23:58:24	1	0.4993	1.0	1.00
21	R0905464-008	27 Oct 2009	23:59:22	1	0.0682	1.0	1.00
22	R0905464-009	28 Oct 2009	00:00:20	1	0.0980	1.0	1.00
23	R0905464-014	28 Oct 2009	00:01:18	1	0.0700	1.0	1.00
24	R0905464-015	28 Oct 2009	00:02:16	1	0.0661	1.0	1.00
25	R0905464-016	28 Oct 2009	00:03:14	1	0.0798	1.0	1.00

not preserved
w/ H₂SO₄

not preserved
w/ H₂SO₄

OPERATOR:
ACQ. TIME:
DATA FILENAME:
TRAY FILENAME:

NMEAD
Oct 27, 2009 23:40:02
C:\OMNION\DATA\091027A1.FDT
C:\OMNION\TRAYS\0910270A.TRA

⊕ ⊗ Actual analysis date is 10/27.
Actual times are 12 hours earlier
Should be AM not PM

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	R0905464-017	28 Oct 2009	00:04:11	1	0.0680	1.0	1.00
27	R0905464-018	28 Oct 2009	00:05:08	1	0.0665	1.0	1.00
28	R0905464-019	28 Oct 2009	00:06:05	1	0.0696	1.0	1.00
29	R0905464-020	28 Oct 2009	00:07:02	1	0.0654	1.0	1.00
30	CCV	28 Oct 2009	00:07:59	1	0.8909	1.0	1.00
31	CCB	28 Oct 2009	00:08:58	1	-0.0048	1.0	1.00
32	R0905464-021	28 Oct 2009	00:09:57	1	0.0791	1.0	1.00
33	R0905464-022	28 Oct 2009	00:10:56	1	0.0882	1.0	1.00
34	R0905464-023	28 Oct 2009	00:11:54	1	0.0931	1.0	1.00
35	R0905524-003	28 Oct 2009	00:12:52	1	0.1092	1.0	1.00
36	RQ0909915-03 MB	28 Oct 2009	00:13:50	1	-0.0002	1.0	1.00 ⊗
37	R0905524-004	28 Oct 2009	00:14:48	1	-0.0002	1.0	1.00
38	R0905524-005	28 Oct 2009	00:15:46	1	-0.0009	1.0	1.00
39	R0905524-006	28 Oct 2009	00:16:44	1	0.0005	1.0	1.00 ⊗
40	5524-006 DUP	28 Oct 2009	00:17:43	1	-0.0005	1.0	1.00 ⊗
41	5524-006 SPK TV= 5.00	28 Oct 2009	00:18:40	1	0.5025	1.0	1.00
42	CCV	28 Oct 2009	00:19:37	1	0.8940	1.0	1.00
43	CCB	28 Oct 2009	00:20:34	1	-0.0057	1.0	1.00
44	LCS	28 Oct 2009	00:21:31	1	0.4970	1.0	1.00
45	R0905524-007	28 Oct 2009	00:22:28	1	0.0015	1.0	1.00 ⊗
46	R0905524-008	28 Oct 2009	00:23:27	1	0.0000	1.0	1.00
47	R0905524-009	28 Oct 2009	00:24:27	1	0.0009	1.0	1.00 ⊗
48	R0905524-010	28 Oct 2009	00:25:26	1	0.0015	1.0	1.00 ⊗
49	R0905524-011	28 Oct 2009	00:26:25	1	-0.0013	1.0	1.00 ⊗
50	R0905524-012	28 Oct 2009	00:27:23	1	-0.0007	1.0	1.00

} not preserved
E H2SO4

} not preserved
E H2SO4

⊕ - neg. peak - < LO ⊕

Actual analysis date is 10/27/09
Actual times are 12 hours earlier

OPERATOR:
ACQ. TIME:
DATA FILENAME:
TRAY FILENAME:

NMEAD
Oct 27, 2009 23:40:02
C:\OMNION\DATA\091027A1.FDT
C:\OMNION\TRAYS\0910270A.TRA

Should be PM not AM

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	R0905524-013	28 Oct 2009	00:28:21	1	-0.0015	1.0	1.00
52	RQ0909978-01 MB	28 Oct 2009	00:29:19	1	0.0055	1.0	1.00
53	R0905524-014	28 Oct 2009	00:30:18	1	-0.0057	1.0	1.00
54	CCV	28 Oct 2009	00:31:16	1	0.8943	1.0	1.00
55	CCB	28 Oct 2009	00:32:14	1	-0.0037	1.0	1.00
56	R0905524-015	28 Oct 2009	00:33:11	1	0.0001	1.0	1.00
57	5524-015 DUP	28 Oct 2009	00:34:09	1	0.0015	1.0	1.00
58	5524-015 SPK TV= 5.00	28 Oct 2009	00:35:06	1	0.5086	1.0	1.00
59	R0905524-016	28 Oct 2009	00:36:03	1	0.0157	1.0	1.00
60	R0905524-017	28 Oct 2009	00:37:00	1	0.0005	1.0	1.00
61	R0905524-018	28 Oct 2009	00:38:00	1	-0.0006	1.0	1.00
62	R0905524-019	28 Oct 2009	00:38:59	1	-0.0050	1.0	1.00
63	R0905524-020	28 Oct 2009	00:39:58	1	-0.0051	1.0	1.00
64	R0905539-003	28 Oct 2009	00:40:57	1	0.0056	1.0	1.00
65	R0905539-004	28 Oct 2009	00:41:56	1	-0.0011	1.0	1.00
66	CCV	28 Oct 2009	00:42:55	1	0.8972	1.0	1.00
67	CCB	28 Oct 2009	00:43:53	1	-0.0041	1.0	1.00
68	LCS	28 Oct 2009	00:44:51	1	0.5072	1.0	1.00
69	5539-004 DUP	28 Oct 2009	00:45:49	1	-0.0051	1.0	1.00
70	5539-004 SPK TV= 5.00	28 Oct 2009	00:46:47	1	0.4958	1.0	1.00
71	RQ09010040-01 MB	28 Oct 2009	00:47:45	1	0.0068	1.0	1.00
72	R0905539-005	28 Oct 2009	00:48:43	1	0.0036	1.0	1.00
73	R0905539-006	28 Oct 2009	00:49:40	1	0.0057	1.0	1.00
74	R0905539-007	28 Oct 2009	00:50:38	1	0.0061	1.0	1.00
75	R0905539-008	28 Oct 2009	00:51:35	1	0.0013	1.0	1.00

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⊗

- air spikes - rpt # 155

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⊗

⊗ - neg. peak - <LOQ

⊕⊕ Actual analysis date is 10/27/09
 Actual times are 12 hours earlier
 should be Am not PM

OPERATOR:
 ACQ. TIME:
 DATA FILENAME:
 TRAY FILENAME:

NMEAD
 Oct 27, 2009 23:40:02
 C:\OMNION\DATA\091027A1.FDT
 C:\OMNION\TRAYS\0910270A.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	R0905539-009	28 Oct 2009	00:52:34	1	0.0080	1.0	1.00
77	R0905661-001	28 Oct 2009	00:53:33	1	0.0192	1.0	1.00
78	CCV	28 Oct 2009	00:54:32	1	0.8980	1.0	1.00
79	CCB	28 Oct 2009	00:55:31	1	-0.0050	1.0	1.00
80	R0905661-003	28 Oct 2009	00:56:31	1	0.0069	1.0	1.00
81	R0905661-005	28 Oct 2009	00:57:30	1	0.0186	1.0	1.00
82	R0905661-006	28 Oct 2009	00:58:28	1	0.0104	1.0	1.00
83	R0905661-007	28 Oct 2009	00:59:26	1	0.0042	1.0	1.00
84	5661-007 DUP	28 Oct 2009	01:00:24	1	-0.0043	1.0	1.00 - Bad integration - rpte #156
85	5661-007 SPK TV= 0.500	28 Oct 2009	01:01:23	1	0.5089	1.0	1.00
86	R0905661-008	28 Oct 2009	01:02:21	1	0.0958	1.0	1.00
87	R0905661-009	28 Oct 2009	01:03:19	1	0.0113	1.0	1.00
88	R0905661-010	28 Oct 2009	01:04:17	1	0.0616	1.0	1.00
89	R0905661-011	28 Oct 2009	01:05:15	1	0.0828	1.0	1.00
90	CCV	28 Oct 2009	01:06:12	1	0.8966	1.0	1.00
91	CCB	28 Oct 2009	01:07:12	1	-0.0057	1.0	1.00
92	LCS	28 Oct 2009	01:08:11	1	0.4991	1.0	1.00
93	R0905661-012	28 Oct 2009	01:09:10	1	0.1296	1.0	1.00
94	R0905661-017	28 Oct 2009	01:10:09	1	0.0052	1.0	1.00
95	R0905661-018	28 Oct 2009	01:11:08	1	0.0178	1.0	1.00
96	5661-018 DUP	28 Oct 2009	01:12:07	1	0.0151	1.0	1.00
97	5661-018 SPK TV= 0.500	28 Oct 2009	01:13:07	1	0.5164	1.0	1.00
98	R0905661-019	28 Oct 2009	01:14:06	1	0.0048	1.0	1.00
99	R0905661-020	28 Oct 2009	01:15:04	1	0.0027	1.0	1.00
100	R0905635-001	28 Oct 2009	01:16:02	1	0.2594	1.0	1.00

ⓈⓈ Actual analysis date is 10/27/09
 Actual times are 12 hours earlier

OPERATOR:
 ACQ. TIME:
 DATA FILENAME:
 TRAY FILENAME:

NMEAD
 Oct 27, 2009 23:40:02
 C:\OMNION\DATA\091027A1.FDT
 C:\OMNION\TRAYS\0910270A.TRA

Should be AM not PM

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	5635-001 DUP	28 Oct 2009	01:17:00	1	0.2938	1.0	1.00
102	CCV	28 Oct 2009	01:17:58	1	0.8970	1.0	1.00
103	CCB	28 Oct 2009	01:18:57	1	-0.0057	1.0	1.00
104	5635-001 SPK TV= 0.500	28 Oct 2009	01:19:55	1	0.7625	1.0	1.00
105	R0905635-012	28 Oct 2009	01:20:53	1	0.2907	1.0	1.00
106	R0905693-001	28 Oct 2009	01:21:52	1	0.0024	1.0	1.00
107	R0905636-001	28 Oct 2009	01:22:51	1	0.0254	1.0	1.00
108	R0905636-002	28 Oct 2009	01:23:51	1	0.0372	1.0	1.00
109	R0905636-003	28 Oct 2009	01:24:50	1	0.3311	1.0	1.00
110	R0905636-006	28 Oct 2009	01:25:49	1	2.6195	1.0	1.00 - rpt @ #157-1/2
111	R0905731-001	28 Oct 2009	01:26:48	1	0.0097	1.0	1.00
112	R0905731-002	28 Oct 2009	01:27:47	1	2.6772	1.0	1.00 - rpt @ #158-1/2
113	R0905731-003	28 Oct 2009	01:28:47	1	15.3134	1.0	1.00 - rpt @ #159-1/4
114	CCV	28 Oct 2009	01:29:45	1	0.8939	1.0	1.00
115	CCB	28 Oct 2009	01:30:43	1	-0.0038	1.0	1.00
116	LCS	28 Oct 2009	01:31:41	1	0.5008	1.0	1.00
117	R0905731-004	28 Oct 2009	01:32:39	1	0.4051	1.0	1.00
118	5731-004 DUP	28 Oct 2009	01:33:37	1	0.4053	1.0	1.00
119	5731-004 SPK TV= 0.500	28 Oct 2009	01:34:36	1	0.8256	1.0	1.00 - low - rpt @ #160
120	R0905731-005	28 Oct 2009	01:35:34	1	1.5559	1.0	1.00
121	R0905744-011	28 Oct 2009	01:36:34	1	0.0378	1.0	1.00
122	R0905628-018	28 Oct 2009	01:37:34	1	1.1937	1.0	1.00
123	R0905628-019	28 Oct 2009	01:38:33	1	0.1841	1.0	1.00
124	R0905628-020	28 Oct 2009	01:39:33	1	0.0517	1.0	1.00
125	R0905628-021	28 Oct 2009	01:40:32	1	0.4086	1.0	1.00

⊕⊗ Actual analysis date is 10/27/09
 Actual times are 12 hours earlier
 should be AM not PM

OPERATOR:
 ACQ. TIME:
 DATA FILENAME:
 TRAY FILENAME:

NMEAD
 Oct 27, 2009 23:40:02
 C:\OMNION\DATA\091027A1.FDT
 C:\OMNION\TRAYS\0910270A.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	CCV	28 Oct 2009	01:41:31	1	0.8964	1.0	1.00
127	CCB	28 Oct 2009	01:42:30	1	-0.0025	1.0	1.00
128	R0905628-022	28 Oct 2009	01:43:30	1	0.3378	1.0	1.00
129	R0905628-023	28 Oct 2009	01:44:29	1	0.3156	1.0	1.00
130	R0905628-024	28 Oct 2009	01:45:28	1	0.0431	1.0	1.00
131	R0905628-025	28 Oct 2009	01:46:26	1	0.2662	1.0	1.00
132	5628-025 DUP	28 Oct 2009	01:47:24	1	0.2690	1.0	1.00
133	5628-025 SPK TV= 0.500	28 Oct 2009	01:48:22	1	0.7620	1.0	1.00
134	R0905628-026	28 Oct 2009	01:49:21	1	0.0049	1.0	1.00
135	R0905628-027	28 Oct 2009	01:50:19	1	0.0046	1.0	1.00
136	R0905628-028	28 Oct 2009	01:51:19	1	0.0056	1.0	1.00
137	R0905628-029	28 Oct 2009	01:52:19	1	0.1031	1.0	1.00
138	CCV	28 Oct 2009	01:53:20	1	0.8997	1.0	1.00
139	CCB	28 Oct 2009	01:54:19	1	-0.0057	1.0	1.00
140	LCS	28 Oct 2009	01:55:18	1	0.5027	1.0	1.00
141	R0905628-030	28 Oct 2009	01:56:17	1	0.2396	1.0	1.00
142	R0905628-031	28 Oct 2009	01:57:16	1	0.0125	1.0	1.00
143	R0905628-032	28 Oct 2009	01:58:16	1	0.1827	1.0	1.00
144	R0905628-033	28 Oct 2009	01:59:15	1	0.2455	1.0	1.00
145	R0905628-034	28 Oct 2009	02:00:14	1	0.3127	1.0	1.00
146	R0905628-035	28 Oct 2009	02:01:13	1	0.1537	1.0	1.00
147	5628-035 DUP	28 Oct 2009	02:02:11	1	0.1542	1.0	1.00 - air spike - rpt #161
148	5628-035 SPK TV= 0.500	28 Oct 2009	02:03:09	1	0.6178	1.0	1.00
149	R0905628-036	28 Oct 2009	02:04:08	1	0.0196	1.0	1.00
150	CCV	28 Oct 2009	02:05:06	1	0.8974	1.0	1.00

⊛⊛ Actual analysis date is 10/27/09
Actual times are 12 hours earlier

Should be AM not PM

OPERATOR:
ACQ. TIME:
DATA FILENAME:
TRAY FILENAME:

NMEAD
Oct 27, 2009 23:40:02
C:\OMNION\DATA\091027A1.FDT
C:\OMNION\TRAYS\0910270A.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	CCB	28 Oct 2009	02:06:06	1	-0.0024	1.0	1.00
152	R0906001-001	28 Oct 2009	02:07:06	1	1640.4437	2000.0	1.00
153	R0906001-002	28 Oct 2009	02:08:07	1	600.3303	200.0	1.00
154	R0906048-001	28 Oct 2009	02:09:07	1	0.0074	1.0	1.00
155	R0905524-016 RPT	28 Oct 2009	02:10:06	1	-0.0054	1.0	1.00
156	R0905661-007 DUP RPT	28 Oct 2009	02:11:05	1	0.0001	1.0	1.00
157	R0905636-006 RPT 1/2	28 Oct 2009	02:12:04	1	2.0887	2.0	1.00
158	R0905731-002 RPT 1/2	28 Oct 2009	02:13:04	1	3.3059	2.0	1.00
159	R0905731-003 RPT 1/4	28 Oct 2009	02:14:03	1	36.6523	4.0	1.00
160	R0905731-004SPKPTTV=0.5	28 Oct 2009	02:15:02	1	0.8467	1.0	1.00
161	R0905628-035 DUP RPT	28 Oct 2009	02:16:01	1	0.1562	1.0	1.00
162	CCV	28 Oct 2009	02:17:00	1	0.8937	1.0	1.00
163	CCB	28 Oct 2009	02:17:58	1	-0.0057	1.0	1.00
164	LCS	28 Oct 2009	02:18:57	1	0.5097	1.0	1.00
165	R0906001-002 RPT 1/500	28 Oct 2009	02:19:55	1	600.6115	500.0	1.00
166	R0905636-006 RPT 1/2	28 Oct 2009	02:20:56	1	2.0879	2.0	1.00
167	R0905731-003 RPT 1/40	28 Oct 2009	02:21:56	1	44.1413	40.0	1.00
168	CCV	28 Oct 2009	02:22:57	1	0.8968	1.0	1.00
169	CCB	28 Oct 2009	02:23:57	1	-0.0057	1.0	1.00

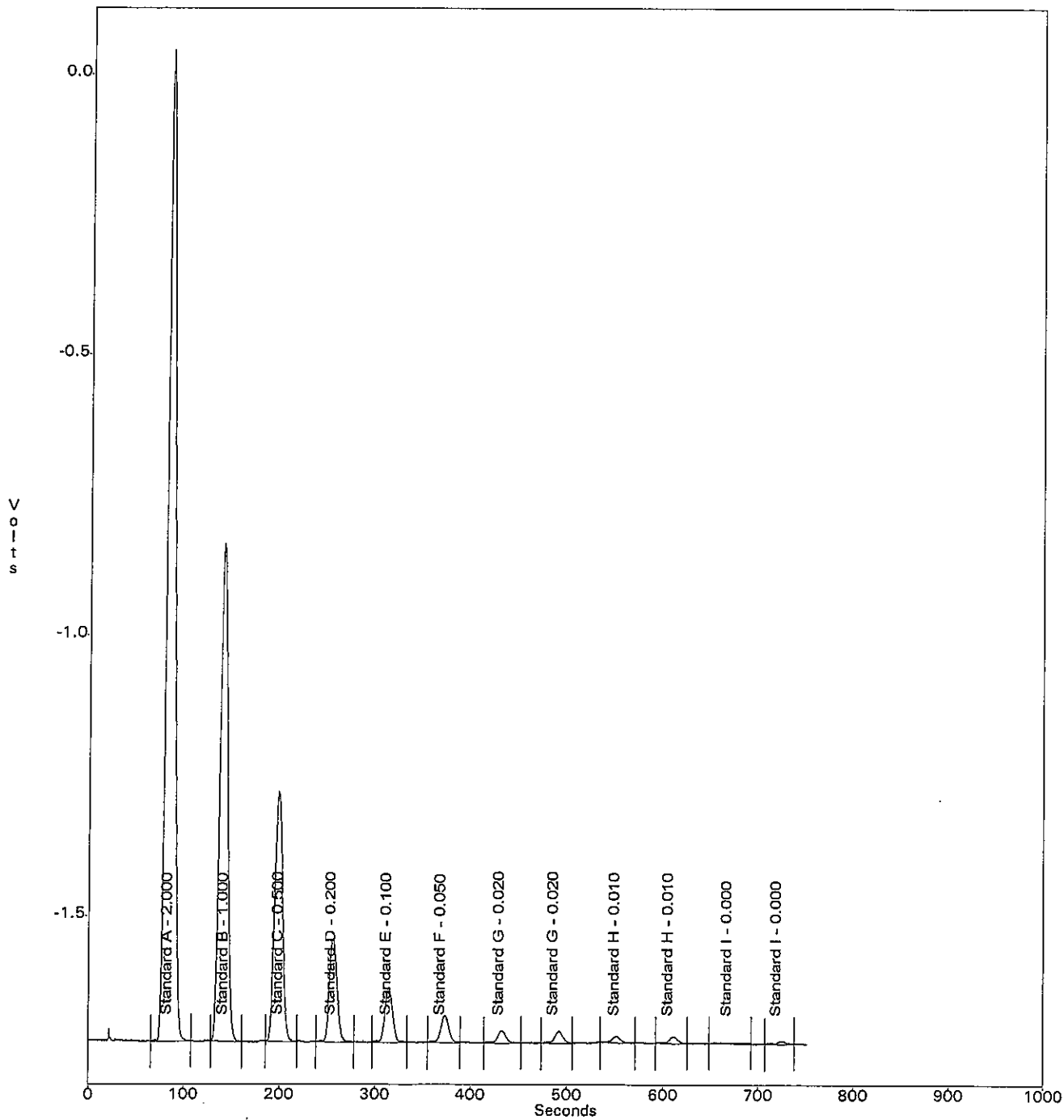
~ rpt @ #165-1/500
⊛
⊛
- strange peak - rpt @ #166
~ rpt @ #162-1/40
- low - report original result

⊛ - neg. peak - LLOQ

OPERATOR:
ACQ. TIME:
DATA FILENAME:
TRAY FILENAME:

NMEAD 11:18:03
Oct 27, 2009 ~~23:48:00~~ nm 10/27/09
C:\OMNION\DATA\0910270A.FDT
C:\OMNION\TRAYS\0910270A.TRA

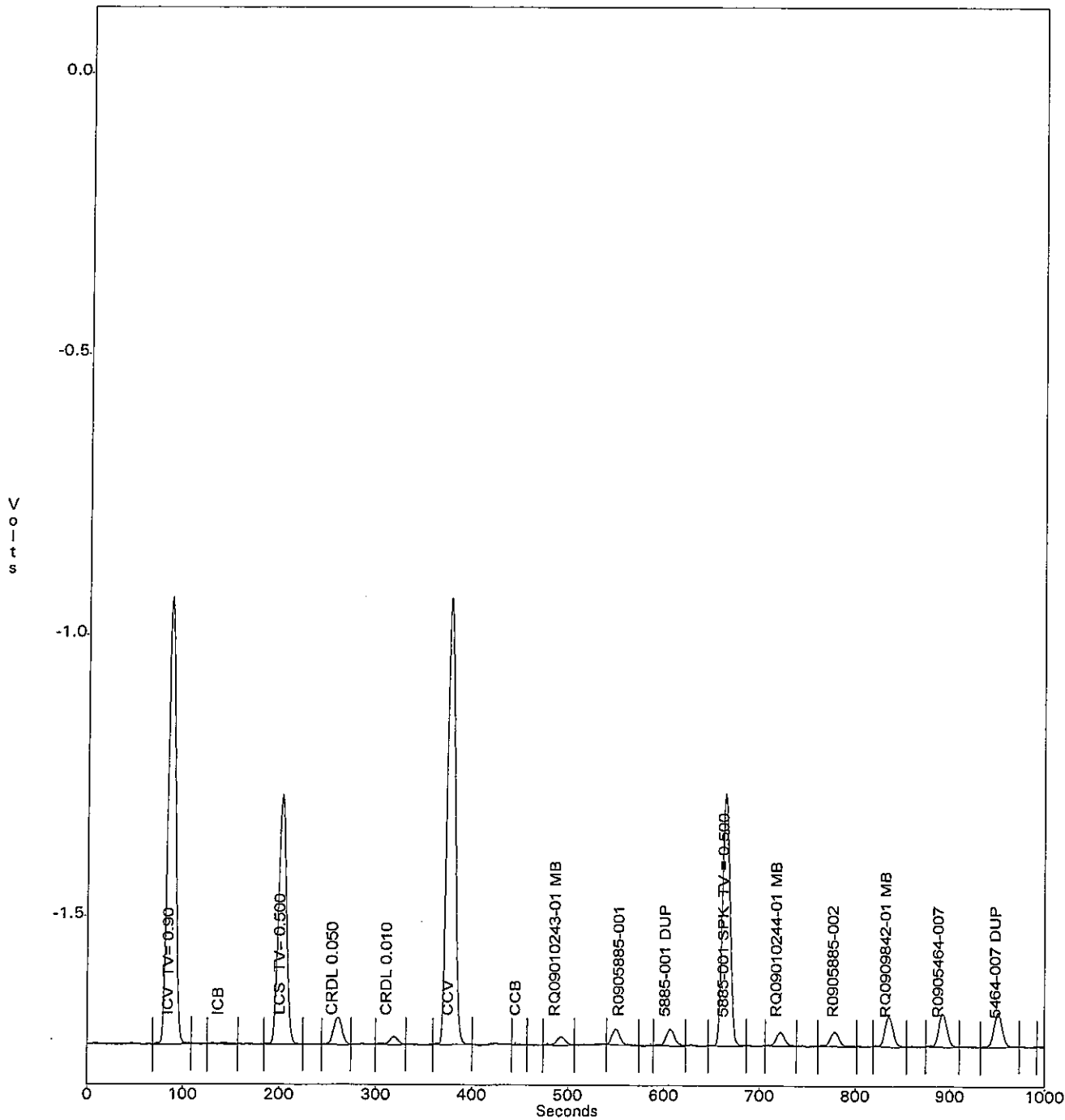
Channel 1 - QC 8000 350.1 Ammonia



OPERATOR:
ACQ. TIME:
DATA FILENAME:
TRAY FILENAME:

NMEAD *11:40:02*
Oct 27, 2009 ~~23:48:02~~ *nm10/27/09*
C:\OMNION\DATA\091027A1.FDT
C:\OMNION\TRAYS\0910270A.TRA

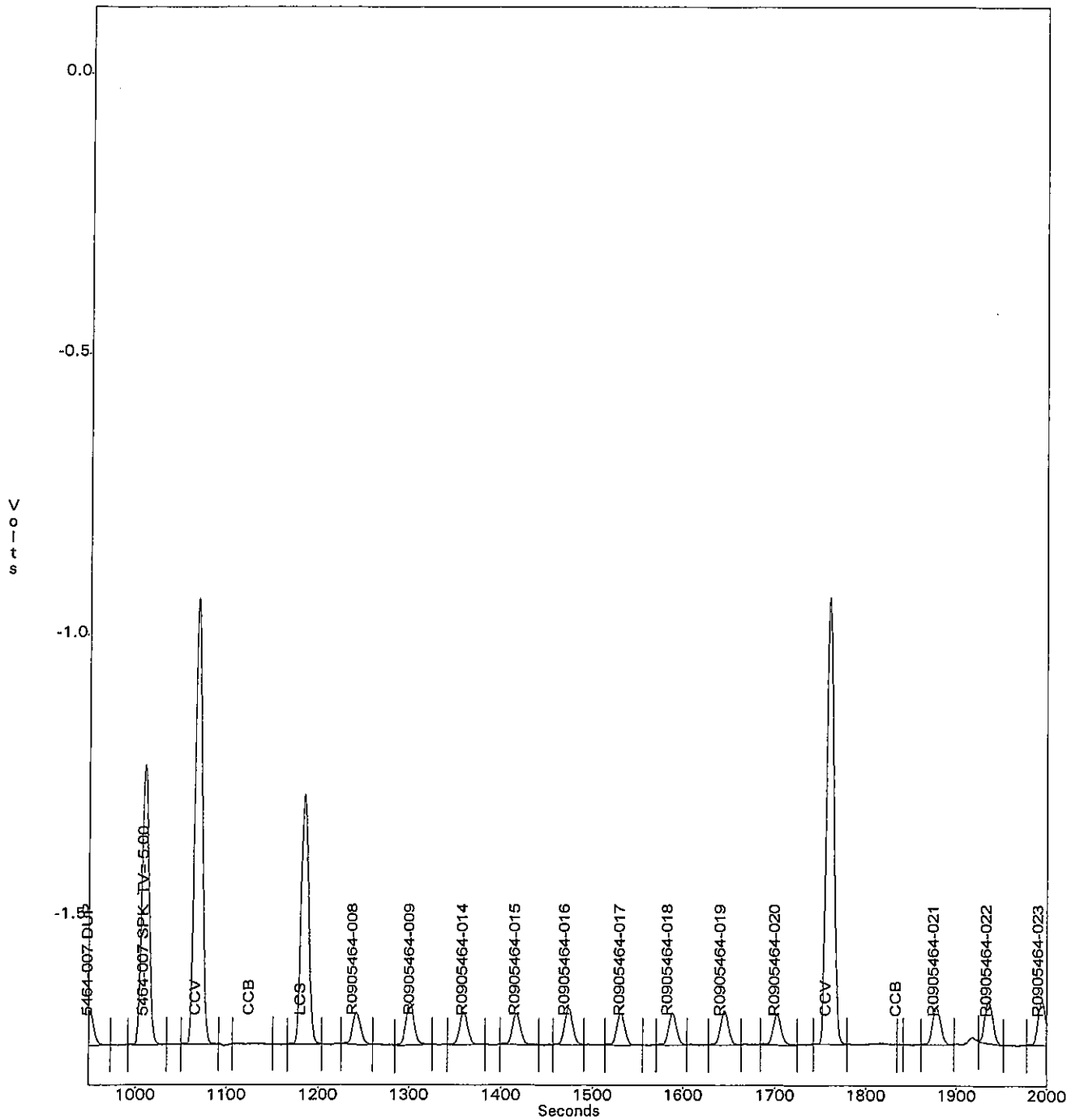
Channel 1 - QC 8000 350.1 Ammonia



OPERATOR:
ACQ. TIME:
DATA FILENAME:
TRAY FILENAME:

NMEAD 11:40:02
Oct 27, 2009 23:40:02 AM 10/27/09
C:\OMNION\DATA\091027A1.FDT
C:\OMNION\TRAYS\0910270A.TRA

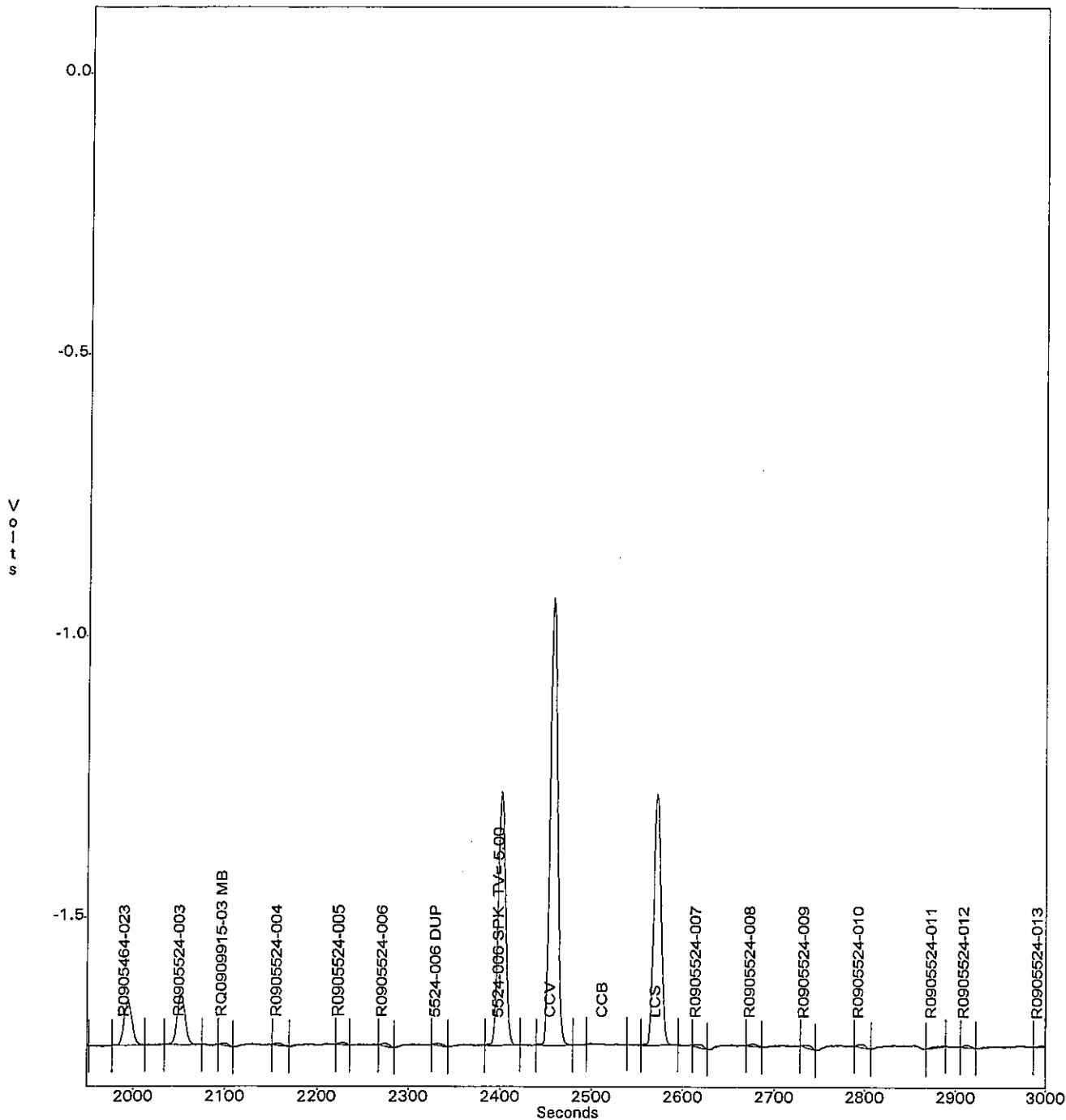
Channel 1 - QC 8000 350.1 Ammonia



OPERATOR:
ACQ. TIME:
DATA FILENAME:
TRAY FILENAME:

NMEAD 11:40:02
Oct 27, 2009 23:40:02 nm10/27/09
C:\OMNION\DATA\091027A1.FDT
C:\OMNION\TRAYS\0910270A.TRA

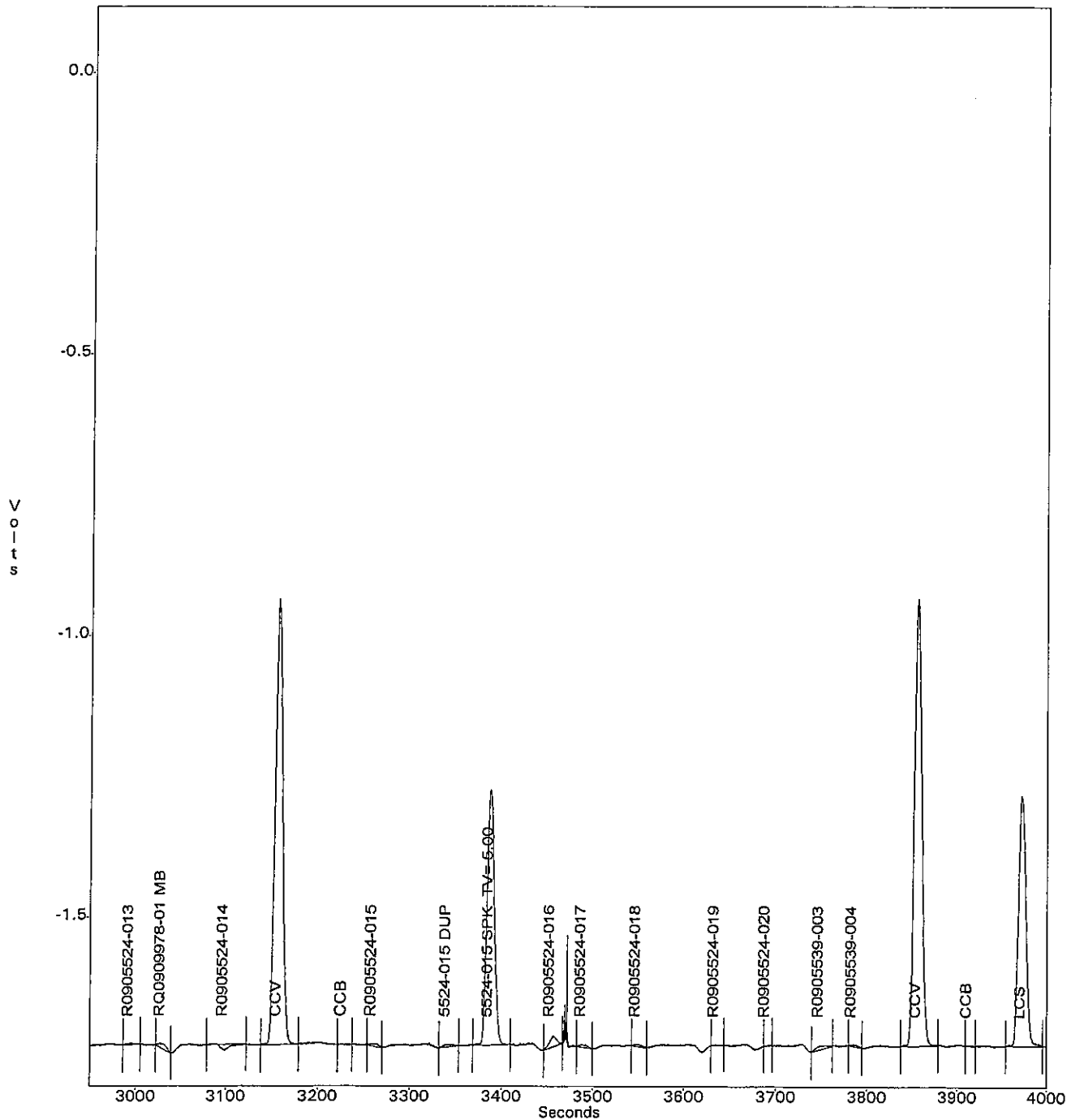
Channel 1 - QC 8000 350.1 Ammonia



OPERATOR:
ACQ. TIME:
DATA FILENAME:
TRAY FILENAME:

NMEAD 11:40:02
Oct 27, 2009 ~~23:40:02~~ nmi/27/09
C:\OMNION\DATA\091027A1.FDT
C:\OMNION\TRAYS\0910270A.TRA

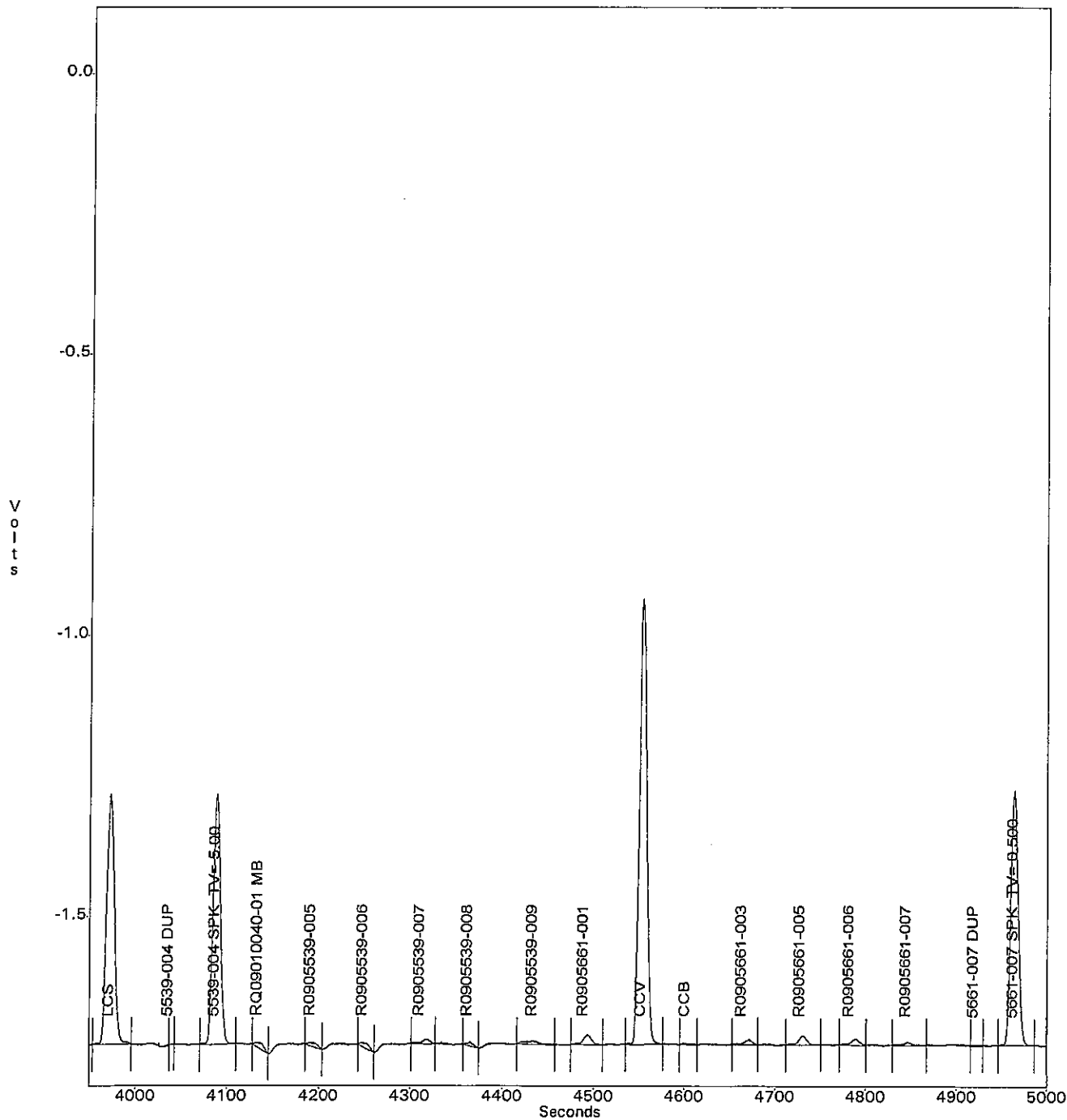
Channel 1 - QC 8000 350.1 Ammonia



OPERATOR:
ACQ. TIME:
DATA FILENAME:
TRAY FILENAME:

NMEAD *11:40:02*
Oct 27, 2009 ~~23:40:02~~ *nm10/27/09*
C:\OMNION\DATA\091027A1.FDT
C:\OMNION\TRAYS\0910270A.TRA

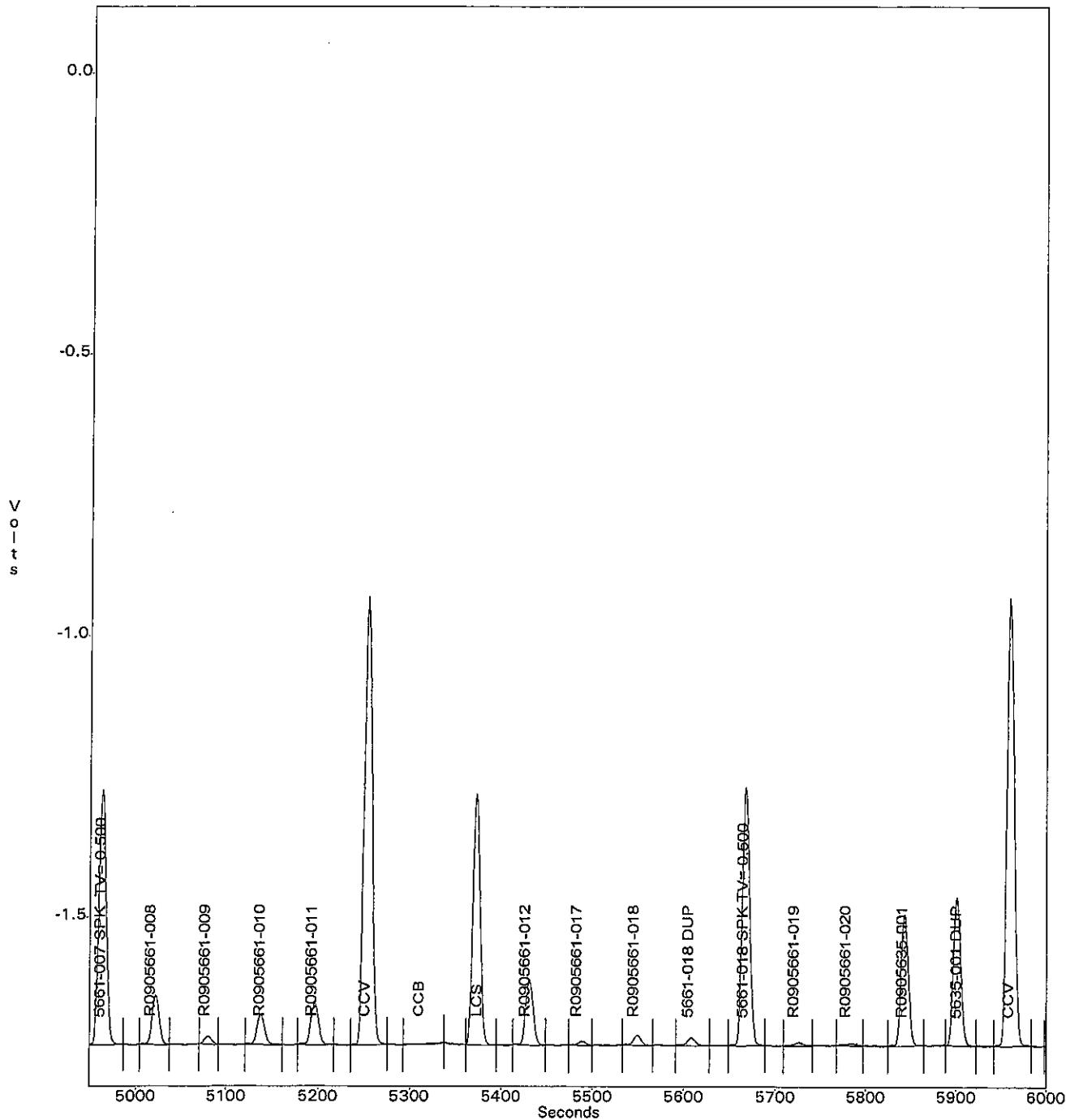
Channel 1 - QC 8000 350.1 Ammonia



OPERATOR:
ACQ. TIME:
DATA FILENAME:
TRAY FILENAME:

NMEAD 11:40:02
Oct 27, 2009 23:40:02 nm10/27/09
C:\OMNION\DATA\091027A1.FDT
C:\OMNION\TRAYS\0910270A.TRA

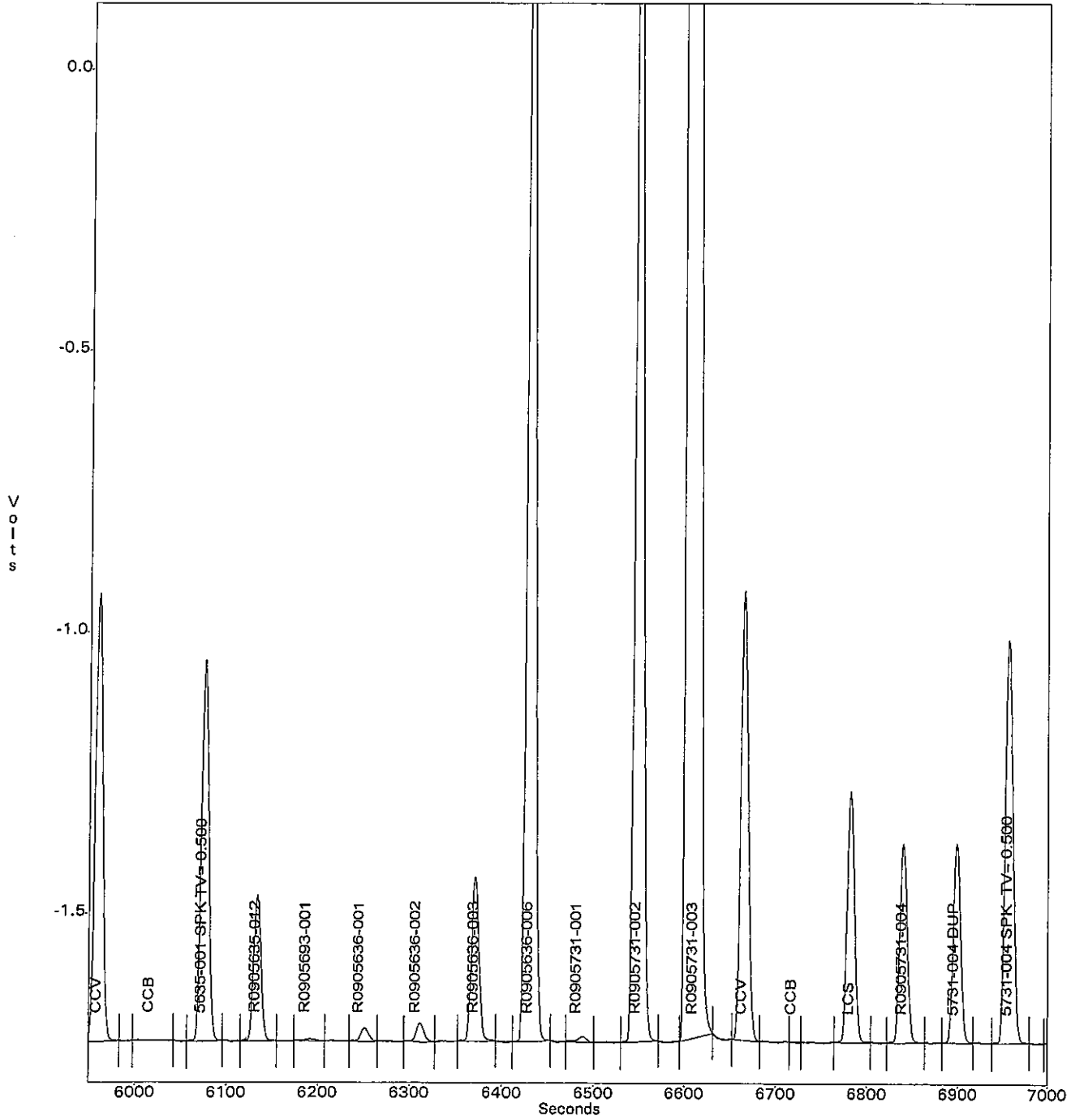
Channel 1 - QC 8000 350.1 Ammonia



OPERATOR:
ACQ. TIME:
DATA FILENAME:
TRAY FILENAME:

NMEAD *11:40:02*
Oct 27, 2009 ~~23:40:02~~ *nm10/27/09*
C:\OMNION\DATA\091027A1.FDT
C:\OMNION\TRAYS\0910270A.TRA

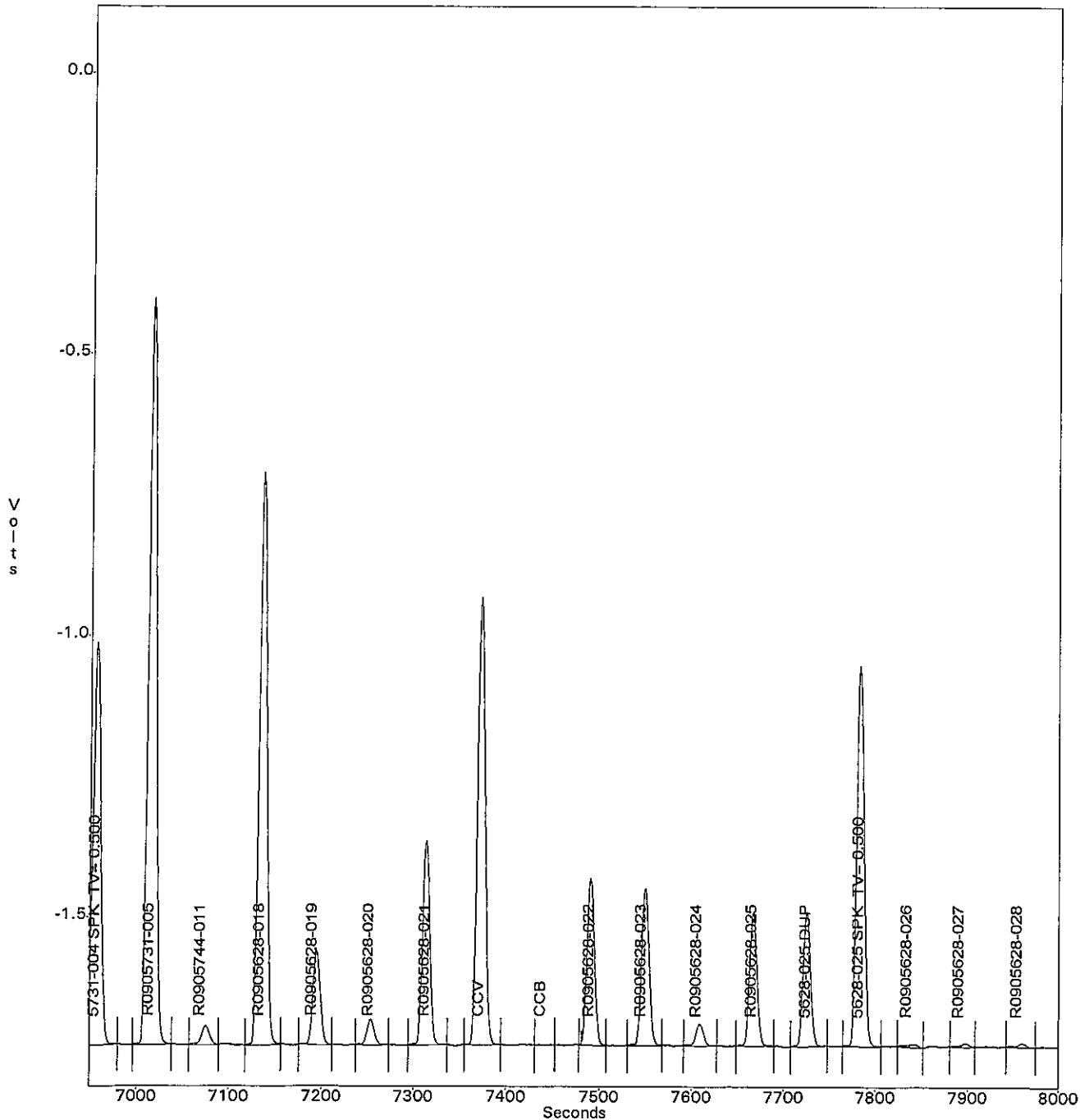
Channel 1 - QC 8000 350.1 Ammonia



OPERATOR:
ACQ. TIME:
DATA FILENAME:
TRAY FILENAME:

NMEAD 11:40:02
Oct 27, 2009 23:48:02 nm1027109
C:\OMNION\DATA\091027A1.FDT
C:\OMNION\TRAYS\0910270A.TRA

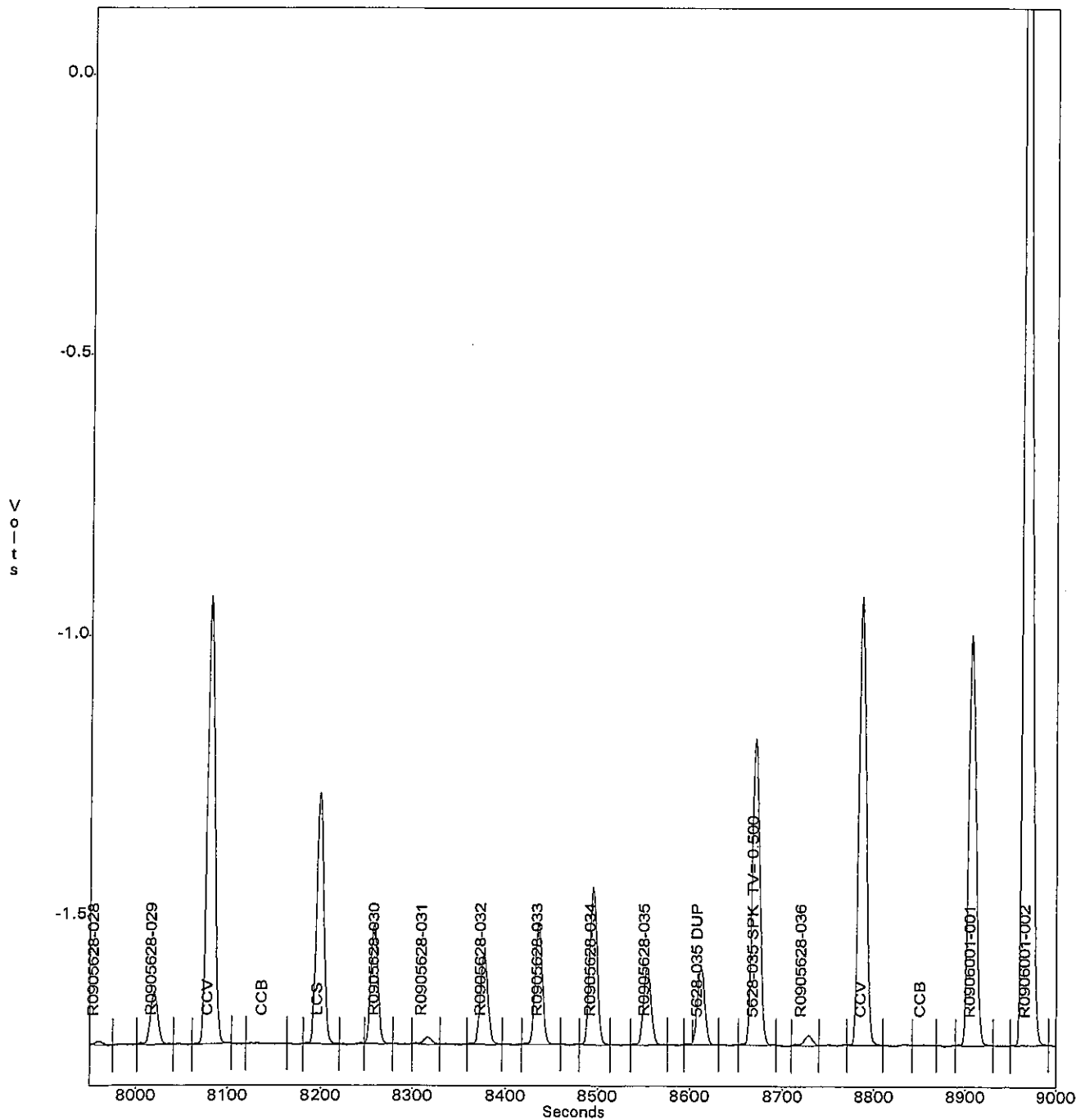
Channel 1 - QC 8000 350.1 Ammonia



OPERATOR:
ACQ. TIME:
DATA FILENAME:
TRAY FILENAME:

NMEAD *11:40:02*
Oct 27, 2009 ~~23:40:02~~ *nm 10/27/09*
C:\OMNION\DATA\091027A1.FDT
C:\OMNION\TRAYS\0910270A.TRA

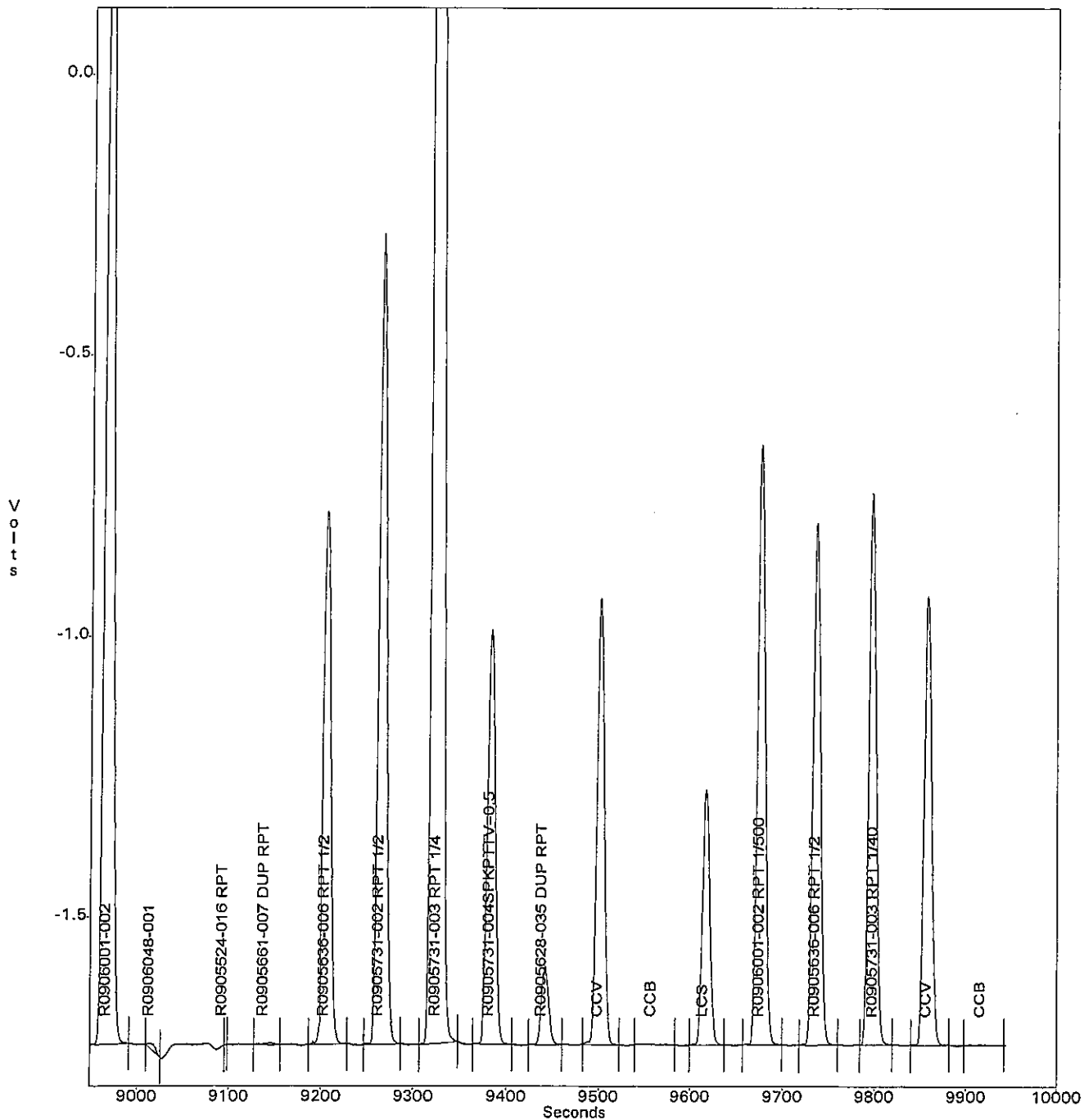
Channel 1 - QC 8000 350.1 Ammonia



OPERATOR:
ACQ. TIME:
DATA FILENAME:
TRAY FILENAME:

NMEAD *11:40:02*
Oct 27, 2009 ~~23:40:02~~ *nm10/27/09*
C:\OMNION\DATA\091027A1.FDT
C:\OMNION\TRAYS\0910270A.TRA

Channel 1 - QC 8000 350.1 Ammonia



OPERATOR: NMEAD ^{11:18:03}
 ACQ. TIME: Oct 27, 2009 ~~23:18:03~~ ^{nm 10/27/09}
 DATA FILENAME: C:\OMNION\DATA\0910270A.FDT
 METHOD FILENAME:
 TRAY FILENAME: C:\OMNION\TRAYS\0910270A.TRA

TRAY DESCRIPTION:

Created: Oct 27, 2009 ~~22:35:08~~ ^{10:35:08} ^{nm 10/27/09}
 Modified: Oct 27, 2009 ~~22:35:08~~ ^{10:35:08}
 QC 8000 350.1 Ammonia - RUN LOG - 0910270A ^{10:35:08}

DATA DESCRIPTION:

Created: Oct 27, 2009 ~~23:18:03~~ ^{11:18:03} ^{nm 10/27/09}
 Modified: Oct 27, 2009 ~~23:18:03~~ ^{11:18:03} ^{nm 10/27/09}

Method - Ch. 1 (QC 8000 350.1 Ammonia)

METHOD DESCRIPTION:

Created: Jun 8, 2007 13:44:01
 Modified: Oct 21, 2009 15:39:11
 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

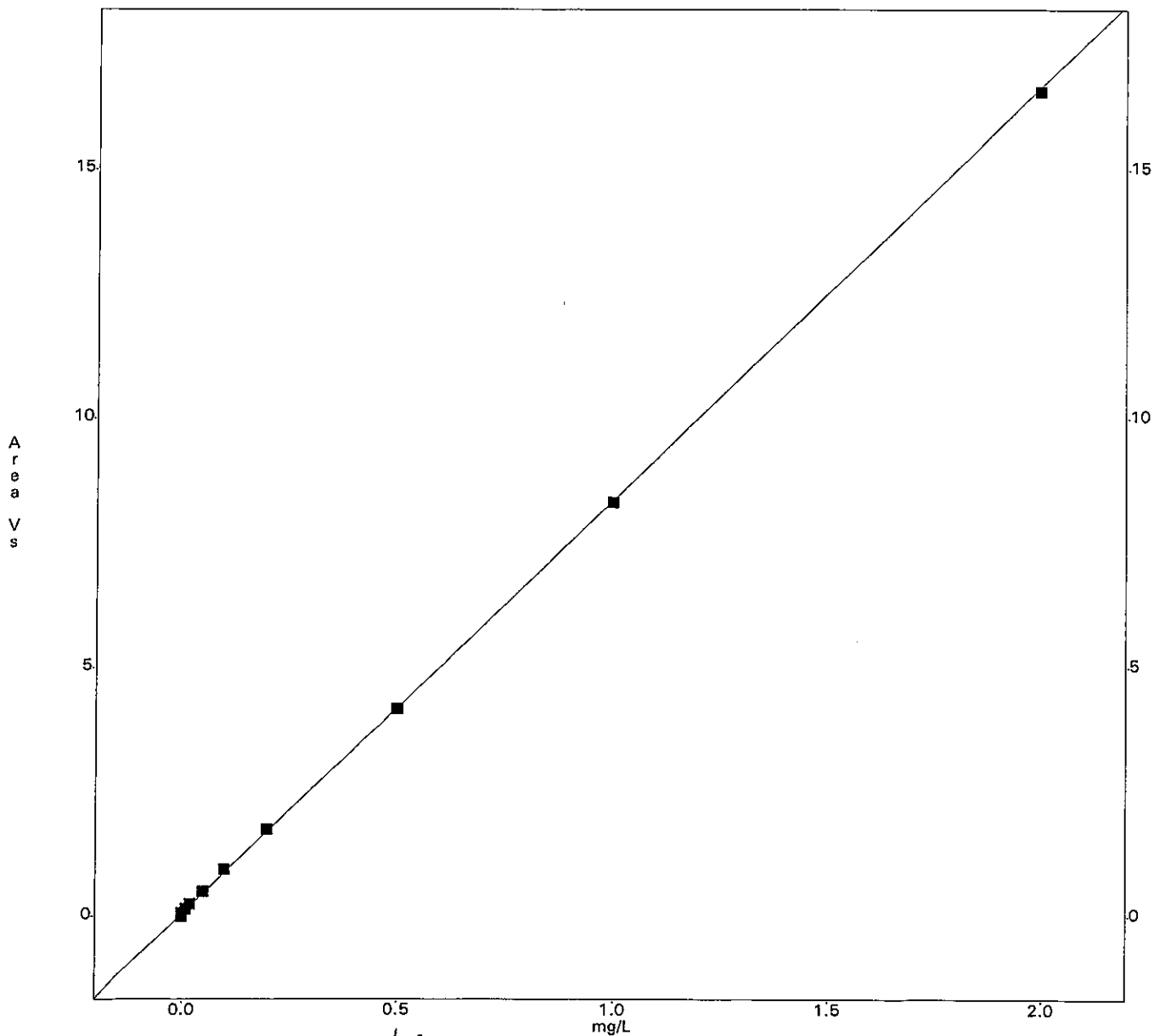
QC 8000 350.1 Ammonia

Lvl	Area	mg/L	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Replic STD	Replic % RSD	Residual 1st Poly
1	16568800	2.00	16568800					0.0	0.0	0.6
2	8309172	1.00	8309172					0.0	0.0	0.6
3	4174563	0.50	4174563					0.0	0.0	0.6
4	1752339	0.20	1752339					0.0	0.0	-2.6
5	941466	0.10	941466					0.0	0.0	-7.6
6	491782	0.05	491782					0.0	0.0	-7.0
7	242906	0.02	241971	243840				1321.6	0.5	-17.7
8	145706	0.01	143488	147923				3136.0	2.2	-18.3
9	34893	0.00	69786	0				49346.2	141.4	

1st Order Poly
 Conc = 1.204e-007 Area - 5.705e-003
 r = 1.0000

pipette IDs: E-2
 ALI

Scaling: None - Weighting: 1/X



Printed: Tuesday, October 27, 2009 - 10/27/09 11:30 AM
 11:30 AM

General Chemistry Analytical Run Cover Sheet

Analyst: N. Mead

Date: 10/27/09

Analysis: Ammonia

Instrument: Lachat

Quality Control:

	Same as Log#, Date,	Stocks Prep. Log#, Date,	Stock Sol (mLs)	Stock Sol (mg/L)	Final Vol (mLs)	True Value (mg/L)
a) Standards Prep.:	WC65166A, 4/7/03	WC85257E, 1/19/09				
b) ICV Preparation:	WC92071F, 8/26/09	WC85257G, 1/19/09	0.5	18	10	0.90
c) LCS Preparation:	WC65166D, 4/7/03	WC85257E, 1/19/09	0.05	100	10	0.50
d) Matrix Spike Prep.:	WC65166D, 4/7/03	WC85257E, 1/19/09	0.05	100	10	0.50

Instrument log filled in? (Y) (N)

Packages: Copy and attach Standards Preparation

Comments:

4/7/03
DMG

Ammonia (NH₃) [Laohat: pp1 = 0.050 Rej Level, 0.010 - Low Level]

Ⓐ STANDARDS

STD.	CONC (mg/L)	mls 100ppm (wcb5166C)	mls Carrier-Diluent (wcb5165F)
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	1/10 Dil'n of STD B.)	1.000
F	0.050	1/10 Dil'n of STD C.)	0.500
G	0.020	1/10 Dil'n of STD D.)	0.200
H	0.010	1/10 Dil'n of STD E.)	0.100
I	0.000	10 mls of Carrier-Diluent	

Ⓑ TeV/CCV: (TV = 1.80 mg/L)

Do two (2) 1/10 serial dilutions of the 180 ppm Reference Stock (wcb5156B). Prepare using Carrier-Diluent (wcb5165F)

Ⓒ 10.0 ppm Working Stock

Do two (2) 1/10 serial dilutions of the 1000 ppm Standard Stock (wcb5156A). Prepare using Carrier-Diluent (wcb5165F)

Ⓓ LES/Matrix Spike: (TV = 0.500 mg/L)

Add 0.050 mls 100 ppm working Stock (wcb5166C, 1st 1/10 serial dilution) to 10 mls Carrier-Diluent (wcb5165F) or sample.

1/15/07 (A) Buffer-NH3
 run. NMI - same as WC85247I. Exp. 1 year, 1/15/10.

↓ (B) Buffer-TKN
 run. - same as WC85246C. Exp. 1 month, 2/15/09.

1/19/09 (C) NO₂ Color Reagent - Konalab
 in 100 ml vol flask, dissolve 1.00g Sulfanilamide (WC65167F) and 0.10g NEDS (WC76226H) in 10ml H₂PO₄ (WC76214F) Bring to volume with DI. Store at 4°C Exp 2/15/09

1/19/09 (D) Rhodamine Indicator Solution
 Dissolve 0.020g 5-(4-DIMAB) Rhodamine (WC76015E) in 100mL Acetone (WC69222E). Store in glass @ R.T. Expires 1/19/10

1/19/09 (E) NH₃/TKN 1000 ppm Standard Stock
 SBR 3.819g granular NH₄Cl (WC85085F), previously dried for 2 hrs @ 140°C. dissolve in ~800 mL DI in a 1 L volumetric flask. Bring to volume with DI. Store @ 4°C in amber glass. Expires 1/19/10

(F) 500 ppm Organic TKN Standard
 In a 1 Liter vol. flask, dissolve 5.252g L-glutamic acid (WC85029A) in ~800 mL DI. Bring to volume with DI. Store @ 4°C in amber glass Expires 1/19/10.
 TV = 500 mg/L nitrogen

(G) NH₃ 180 ppm Reference Stock
 0.687g granular NH₄Cl (WC85085G), previously dried for 2 hrs @ 104°C. dissolve in ~800 mL DI in a 1 L vol flask. Bring to volume with DI. Store @ 4°C in amber glass. Expires 1/19/10.

(H) TKN 400 ppm Reference Stock
 1.5276g granular NH₄Cl (WC85085I), previously dried for 2 hrs @ 104°C. dissolve in ~800 mL DI in a 1 L vol flask. Bring to volume with DI. Store @ 4°C in amber glass Expires 1/19/10

1/19/09 (I) TSS Reference
 EW 0.212g Kaolin (WC69285G) brought to 1000g w/ DI. Store in plastic bottle @ 4°C. (7483)
 TV = 212 mg/L Exp: 1/19/10

to 1000g w/ DI. (7357)
 1-pyrenylcarboxylic acid in DI to volume. Store at 4°C.
 7 X 3.
 each run,
 1/10/09.
 Eriochrome BlackT shake well to mix.
 DI Fresh per run
) with DI. fresh per run.
 and 0.10g EDTA (WC65210C) amber glass.

TITLE PROJECT

Continued from page

8/25/09 (A) MBAS Wash Solution

DW 6 calibrated 2L Vol. Flask add: 100g Sodium phosphate mono basic monohydrate (WC92035H) and 13.7 ml conc. H_2SO_4 (WC92040B). Bring to volume w/ DI. Store @ RT, exp: 8/25/2010.

8/25/09 (B) 1:1 H_2SO_4 - Ca Distillation

20p Same as WC112027E exp 8/25/10

8/26/09 (C) Hypochlorite - NH_3

NM -400 mLs Sodium Hypochlorite (WC92060F)
-400 mLs UP DI
Prepare fresh each run.

8/26/09 (D) 1.0ppm Working Reference Stock

DW Dilute 1.0 ml of 1000ppm LAS Reference Stock (WC92060L) to 1L volumetrically w/ DI, Store @ 4°C, exp: 8/26/10 ^{8/26/2010}

8/26/09 (E) Iodide-Iodate Titrant - Sulfite

20p in a 1L vol flask dilute 0.4428g KIO_3 (WC65239A), 4.25g KI (WC65285J) and 0.310g $NaHCO_3$ (WC65271C) to volume with DI. Store at 4°C. Exp 8/26/10

8/26/09 (F) Ammonia (NH_3) [Lachat: LOQ = 0.050 Reg. level, 0.010 - Low level]

NM
ICV/CCV: (TV = 0.90 mg/L)
Do ~~100~~ ¹⁰⁰⁰ one (1) 1/10 serial dilution of the 180ppm Reference Stock (WC85257G). Add 0.5 mL of this 18.0 ppm stock to 9.5 mL NH_3 Carrier/Diluent.

Continued to page

SIGNATURE

✓ Steve 8/26/09

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

PROPRIETARY INFORMATION

Analytical Results Summary

Instrument Name: R-TOC-01 Analyst: CSCHRADER Analysis Lot: 174269 Method/Testcode: 9060/TOC 4X T

Lab Code	Target Analytes	QC Type	Parent Sample	Matrix	Raw Result	Sample Amt	Final Result	Dil	PQL	% Rec	% RSD	Date Analyzed	QC? Tier
R0909785-01	Carbon, Total Organic (TOC)	MB		Water	0.41 ppm	42 mL	0.4 mg/L J	1	1.0			10/10/09 04:52	N II
R0909785-01	Carbon, Total Organic (TOC)	MB		Water	0.05 ppm	42 mL	1.0 mg/L U	1	1.0			10/10/09 05:01	N II
R0909785-01	Carbon, Total Organic (TOC)	MB		Water	0.04 ppm	42 mL	1.0 mg/L U	1	1.0			10/10/09 05:09	N II
R0909785-01	Carbon, Total Organic (TOC)	MB		Water	-0.02 ppm	42 mL	1.0 mg/L U	1	1.0			10/10/09 05:18	N II
R0909785-02	Carbon, Total Organic (TOC)	LCS		Water	9.98 ppm	42 mL	9.98 mg/L	1	1.0	100		10/10/09 05:27	N II
R0909785-02	Carbon, Total Organic (TOC)	LCS		Water	10.16 ppm	42 mL	10.2 mg/L	1	1.0	102		10/10/09 05:35	N II
R0909785-02	Carbon, Total Organic (TOC)	LCS		Water	10.40 ppm	42 mL	10.4 mg/L	1	1.0	104		10/10/09 05:43	N II
R0909785-02	Carbon, Total Organic (TOC)	LCS		Water	10.25 ppm	42 mL	10.2 mg/L	1	1.0	102		10/10/09 05:52	N II
R0905628-011	Carbon, Total Organic (TOC)	N/A		Water	5.28 ppm	42 mL	5.3 mg/L	1	1.0			10/10/09 06:01	N II
R0905628-011	Carbon, Total Organic (TOC)	N/A		Water	5.88 ppm	42 mL	5.9 mg/L	1	1.0			10/10/09 06:09	N II
R0905628-011	Carbon, Total Organic (TOC)	N/A		Water	6.19 ppm	42 mL	6.2 mg/L	1	1.0			10/10/09 06:17	N II
R0905628-011	Carbon, Total Organic (TOC)	N/A		Water	6.00 ppm	42 mL	6.0 mg/L	1	1.0			10/10/09 06:27	N II
R0905462-003	Carbon, Total Organic (TOC)	N/A		Water	1.53 ppm	42 mL	1.5 mg/L B	1	1.0			10/10/09 06:36	N IV
R0905462-003	Carbon, Total Organic (TOC), Average	N/A		Water	1.42 mg/L	42 mL	1.4 mg/L B	1	1.0			10/10/09 06:36	N IV
R0905462-003	Carbon, Total Organic (TOC)	N/A		Water	1.50 ppm	42 mL	1.5 mg/L B	1	1.0			10/10/09 06:44	N IV
R0905462-003	Carbon, Total Organic (TOC)	N/A		Water	1.30 ppm	42 mL	1.3 mg/L B	1	1.0			10/10/09 06:52	N IV
R0905462-003	Carbon, Total Organic (TOC)	N/A		Water	1.34 ppm	42 mL	1.3 mg/L B	1	1.0			10/10/09 07:01	N IV
R0905462-004	Carbon, Total Organic (TOC)	N/A		Water	1.40 ppm	42 mL	1.4 mg/L B	1	1.0			10/10/09 07:10	N IV
R0905462-004	Carbon, Total Organic (TOC), Average	N/A		Water	1.36 mg/L	42 mL	1.4 mg/L B	1	1.0			10/10/09 07:10	N IV
R0905462-004	Carbon, Total Organic (TOC)	N/A		Water	1.39 ppm	42 mL	1.4 mg/L B	1	1.0			10/10/09 07:18	N IV
R0905462-004	Carbon, Total Organic (TOC)	N/A		Water	1.36 ppm	42 mL	1.4 mg/L B	1	1.0			10/10/09 07:26	N IV
R0905462-004	Carbon, Total Organic (TOC)	N/A		Water	1.29 ppm	42 mL	1.3 mg/L B	1	1.0			10/10/09 07:36	N IV
R0905464-011	Carbon, Total Organic (TOC)	N/A		Water	0.57 ppm	42 mL	0.6 mg/L BJ	1	1.0			10/10/09 07:44	N IV
R0905464-011	Carbon, Total Organic (TOC)	N/A		Water	0.39 ppm	42 mL	0.4 mg/L BJ	1	1.0			10/10/09 07:52	N IV
R0905464-011	Carbon, Total Organic (TOC)	N/A		Water	0.43 ppm	42 mL	0.4 mg/L BJ	1	1.0			10/10/09 08:01	N IV
R0905464-011	Carbon, Total Organic (TOC)	N/A		Water	0.39 ppm	42 mL	0.4 mg/L BJ	1	1.0			10/10/09 08:10	N IV
R0905464-011	Carbon, Total Organic (TOC), Average	N/A		Water	0.44 mg/L	42 mL	0.4 mg/L BJ	1	1.0			10/10/09 08:10	N IV
R0905464-012	Carbon, Total Organic (TOC)	N/A		Water	0.36 ppm	42 mL	0.4 mg/L BJ	1	1.0			10/10/09 08:19	N IV
R0905464-012	Carbon, Total Organic (TOC), Average	N/A		Water	0.33 mg/L	42 mL	0.3 mg/L BJ	1	1.0			10/10/09 08:19	N IV
R0905464-012	Carbon, Total Organic (TOC)	N/A		Water	0.36 ppm	42 mL	0.4 mg/L BJ	1	1.0			10/10/09 08:27	N IV
R0905464-012	Carbon, Total Organic (TOC)	N/A		Water	0.29 ppm	42 mL	0.3 mg/L BJ	1	1.0			10/10/09 08:35	N IV
R0905464-012	Carbon, Total Organic (TOC)	N/A		Water	0.34 ppm	42 mL	0.3 mg/L BJ	1	1.0			10/10/09 08:44	N IV
R0905524-001	Carbon, Total Organic (TOC)	N/A		Water	0.34 ppm	42 mL	0.3 mg/L BJ	1	1.0			10/10/09 08:53	N IV
R0905524-001	Carbon, Total Organic (TOC), Average	N/A		Water	0.28 mg/L	42 mL	0.3 mg/L BJ	1	1.0			10/10/09 08:53	N IV
R0905524-001	Carbon, Total Organic (TOC)	N/A		Water	0.26 ppm	42 mL	0.3 mg/L BJ	1	1.0			10/10/09 09:01	N IV
R0905524-001	Carbon, Total Organic (TOC)	N/A		Water	0.25 ppm	42 mL	0.3 mg/L BJ	1	1.0			10/10/09 09:09	N IV
R0905524-001	Carbon, Total Organic (TOC)	N/A		Water	0.26 ppm	42 mL	0.3 mg/L BJ	1	1.0			10/10/09 09:19	N IV
R0905524-002	Carbon, Total Organic (TOC)	N/A		Water	0.33 ppm	42 mL	0.3 mg/L BJ	1	1.0			10/10/09 09:28	N IV



Analytical Results Summary

Instrument Name: R-TOC-01 Analyst: CSCHRADER Analysis Lot: 174269 Method/Testcode: 9060/TOC 4X T

Lab Code	Target Analytes	QC Type	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
30905524-002	Carbon, Total Organic (TOC), N/A Average	N/A	Water	Water	0.30 mg/L	42 mL	0.3 mg/L BJ	1	1.0			10/10/09 09:28	N	IV
30905524-002	Carbon, Total Organic (TOC)	N/A	Water	Water	0.26 ppm	42 mL	0.3 mg/L BJ	1	1.0			10/10/09 09:36	N	IV
30905524-002	Carbon, Total Organic (TOC)	N/A	Water	Water	0.33 ppm	42 mL	0.3 mg/L BJ	1	1.0			10/10/09 09:44	N	IV
30905524-002	Carbon, Total Organic (TOC)	N/A	Water	Water	0.28 ppm	42 mL	0.3 mg/L BJ	1	1.0			10/10/09 09:53	N	IV
30905539-001	Carbon, Total Organic (TOC)	N/A	Water	Water	0.38 ppm	42 mL	0.4 mg/L BJ	1	1.0			10/10/09 10:02	N	IV
30905539-001	Carbon, Total Organic (TOC), N/A Average	N/A	Water	Water	0.39 mg/L	42 mL	0.4 mg/L BJ	1	1.0			10/10/09 10:02	N	IV
30905539-001	Carbon, Total Organic (TOC)	N/A	Water	Water	0.35 ppm	42 mL	0.4 mg/L BJ	1	1.0			10/10/09 10:10	N	IV
30905539-001	Carbon, Total Organic (TOC)	N/A	Water	Water	0.40 ppm	42 mL	0.4 mg/L BJ	1	1.0			10/10/09 10:18	N	IV
30905539-001	Carbon, Total Organic (TOC)	N/A	Water	Water	0.43 ppm	42 mL	0.4 mg/L BJ	1	1.0			10/10/09 10:28	N	IV
30905539-002	Carbon, Total Organic (TOC)	N/A	Water	Water	0.23 ppm	42 mL	0.2 mg/L BJ	1	1.0			10/10/09 10:36	N	IV
30905539-002	Carbon, Total Organic (TOC), N/A Average	N/A	Water	Water	0.24 mg/L	42 mL	0.2 mg/L BJ	1	1.0			10/10/09 10:36	N	IV
30905539-002	Carbon, Total Organic (TOC)	N/A	Water	Water	0.21 ppm	42 mL	0.2 mg/L BJ	1	1.0			10/10/09 10:45	N	IV
30905539-002	Carbon, Total Organic (TOC)	N/A	Water	Water	0.25 ppm	42 mL	0.2 mg/L BJ	1	1.0			10/10/09 10:53	N	IV
30905539-002	Carbon, Total Organic (TOC)	N/A	Water	Water	0.28 ppm	42 mL	0.3 mg/L BJ	1	1.0			10/10/09 11:02	N	IV
30905567-001	Carbon, Total Organic (TOC)	N/A	Water	Water	0.20 ppm	42 mL	0.2 mg/L BJ	1	1.0			10/10/09 12:20	N	IV
30905567-001	Carbon, Total Organic (TOC)	N/A	Water	Water	0.12 ppm	42 mL	0.1 mg/L BJ	1	1.0			10/10/09 12:28	N	IV
30905567-001	Carbon, Total Organic (TOC)	N/A	Water	Water	0.17 ppm	42 mL	0.2 mg/L BJ	1	1.0			10/10/09 12:36	N	IV
30905567-001	Carbon, Total Organic (TOC)	N/A	Water	Water	0.19 ppm	42 mL	0.2 mg/L BJ	1	1.0			10/10/09 12:45	N	IV
30905567-001	Carbon, Total Organic (TOC), N/A Average	N/A	Water	Water	0.17 mg/L	42 mL	0.2 mg/L BJ	1	1.0			10/10/09 12:45	N	IV
30905636-001	Carbon, Total Organic (TOC)	N/A	Water	Water	0.05 ppm	42 mL	1.0 mg/L U	1	1.0			10/10/09 12:54	N	IV
30905636-001	Carbon, Total Organic (TOC), N/A Average	N/A	Water	Water	0.03 mg/L	42 mL	1.0 mg/L U	1	1.0			10/10/09 12:54	N	IV
30905636-001	Carbon, Total Organic (TOC)	N/A	Water	Water	0.02 ppm	42 mL	1.0 mg/L U	1	1.0			10/10/09 13:02	N	IV
30905636-001	Carbon, Total Organic (TOC)	N/A	Water	Water	-0.01 ppm	42 mL	1.0 mg/L U	1	1.0			10/10/09 13:10	N	IV
30905636-001	Carbon, Total Organic (TOC)	N/A	Water	Water	0.03 ppm	42 mL	1.0 mg/L U	1	1.0			10/10/09 13:20	N	IV
30905636-002	Carbon, Total Organic (TOC)	N/A	Water	Water	0.57 ppm	42 mL	0.6 mg/L BJ	1	1.0			10/10/09 13:29	N	IV
30905636-002	Carbon, Total Organic (TOC)	N/A	Water	Water	0.69 ppm	42 mL	0.7 mg/L BJ	1	1.0			10/10/09 13:37	N	IV
30905636-002	Carbon, Total Organic (TOC)	N/A	Water	Water	0.70 ppm	42 mL	0.7 mg/L BJ	1	1.0			10/10/09 13:45	N	IV
30905636-002	Carbon, Total Organic (TOC)	N/A	Water	Water	0.71 ppm	42 mL	0.7 mg/L BJ	1	1.0			10/10/09 13:54	N	IV
30905636-002	Carbon, Total Organic (TOC), N/A Average	N/A	Water	Water	0.67 mg/L	42 mL	0.7 mg/L BJ	1	1.0			10/10/09 13:54	N	IV
30905636-003	Carbon, Total Organic (TOC)	N/A	Water	Water	0.87 ppm	42 mL	0.9 mg/L BJ	1	1.0			10/10/09 14:03	N	IV
30905636-003	Carbon, Total Organic (TOC)	N/A	Water	Water	1.15 ppm	42 mL	1.2 mg/L B	1	1.0			10/10/09 14:11	N	IV
30905636-003	Carbon, Total Organic (TOC)	N/A	Water	Water	0.88 ppm	42 mL	0.9 mg/L BJ	1	1.0			10/10/09 14:19	N	IV
30905636-003	Carbon, Total Organic (TOC)	N/A	Water	Water	0.81 ppm	42 mL	0.8 mg/L BJ	1	1.0			10/10/09 14:29	N	IV
30905636-003	Carbon, Total Organic (TOC), N/A Average	N/A	Water	Water	0.93 mg/L	42 mL	0.9 mg/L BJ	1	1.0			10/10/09 14:29	N	IV
30905636-006	Carbon, Total Organic (TOC)	N/A	Water	Water	1.60 ppm	42 mL	1.6 mg/L B	1	1.0			10/10/09 14:37	N	IV
30905636-006	Carbon, Total Organic (TOC)	N/A	Water	Water	2.47 ppm	42 mL	2.5 mg/L B	1	1.0			10/10/09 14:46	N	IV

00001

Analytical Results Summary

Instrument Name: R-TOC-01

Analyst: CSCHRADER

Analysis Lot: 174269

Method/Testcode: 9060/TOC 4X T

Lab Code	Target Analytes	QC Type	Parent Sample	Matrix	Raw Result	Sample Amt	Final Result	Dil	PQL	% Rec	% RSD	Date Analyzed	QC? Tier
30905636-006	Carbon, Total Organic (TOC)	N/A		Water	1.88 ppm	42 mL	1.9 mg/L B	1	1.0			10/10/09 14:54	N IV
30905636-006	Carbon, Total Organic (TOC)	N/A		Water	1.71 ppm	42 mL	1.7 mg/L B	1	1.0			10/10/09 15:03	N IV
30905636-006	Carbon, Total Organic (TOC), Average	N/A		Water	1.91 mg/L	42 mL	1.9 mg/L	1	1.0			10/10/09 15:03	N IV

00962

 ** SEQUENCE **

100909 Fri Oct 09 14:32:45 2009

Pos/ Vial	Sample Name	Method	Run Type	# Rep	Vol (mL)	# Blk	Dil Fact	Ovr Rng	Remarks
1	CCV	toc1	Chk. 5	4	1.000	0	1.00	No	
2	CCB	toc1	Chk. 5	4	1.000	0	1.00	No	
3	LCS	toc1	Chk. 5	4	1.000	0	1.00	No	
4	R0905800-001	toc1	Sample	2	1.000	0	1.00	No	
5	R0905800-002	toc1	Sample	2	1.000	0	1.00	No	
6	R0905800-003	toc1	Sample	2	1.000	0	1.00	No	
7	R0905628-001	toc1	Sample	4	1.000	0	1.00	No	
8	R0905628-001DUP	toc1	Sample	4	1.000	0	1.00	No	
9	R0905628-001SPK	toc1	Sample	4	1.000	0	1.00	No	
10	R0905628-002	toc1	Sample	4	1.000	0	1.00	No	
11	R0905628-003	toc1	Sample	4	1.000	0	1.00	No	
12	R0905628-004	toc1	Sample	4	1.000	0	1.00	No	
13	CCV	toc1	Chk. 5	4	1.000	0	1.00	No	
14	CCB	toc1	Chk. 5	4	1.000	0	1.00	No	
15	R0905628-005	toc1	Sample	4	1.000	0	1.00	No	
16	R0905628-005DUP	toc1	Sample	4	1.000	0	1.00	No	
17	R0905628-005SPK	toc1	Sample	4	1.000	0	1.00	No	
18	R0905628-006	toc1	Sample	4	1.000	0	1.00	No	
19	R0905628-007	toc1	Sample	4	1.000	0	1.00	No	
20	R0905628-008	toc1	Sample	4	1.000	0	1.00	No	
21	R0905628-009	toc1	Sample	4	1.000	0	1.00	No	
22	R0905628-010	toc1	Sample	4	1.000	0	1.00	No	
23	R0905628-010DUP	toc1	Sample	4	1.000	0	1.00	No	
24	R0905628-010SPK	toc1	Sample	4	1.000	0	1.00	No	
25	CCV	toc1	Chk. 5	4	1.000	0	1.00	No	
26	CCB	toc1	Chk. 5	4	1.000	0	1.00	No	
27	LCS	toc1	Chk. 5	4	1.000	0	1.00	No	
28	R0905628-011	toc1	Sample	4	1.000	0	1.00	No	
29	R0905462-003	toc1	Sample	4	1.000	0	1.00	No	
30	R0905462-004	toc1	Sample	4	1.000	0	1.00	No	
31	R0905464-011	toc1	Sample	4	1.000	0	1.00	No	
32	R0905464-012	toc1	Sample	4	1.000	0	1.00	No	
33	R0905524-001	toc1	Sample	4	1.000	0	1.00	No	
34	R0905524-002	toc1	Sample	4	1.000	0	1.00	No	
35	R0905539-001	toc1	Sample	4	1.000	0	1.00	No	
36	R0905539-002	toc1	Sample	4	1.000	0	1.00	No	
37	CCV	toc1	Chk. 5	4	1.000	0	1.00	No	
38	CCB	toc1	Chk. 5	4	1.000	0	1.00	No	
39	R0905567-001	toc1	Sample	4	1.000	0	1.00	No	
40	R0905636-001	toc1	Sample	4	1.000	0	1.00	No	
41	R0905636-002	toc1	Sample	4	1.000	0	1.00	No	
42	R0905636-003	toc1	Sample	4	1.000	0	1.00	No	
43	R0905636-006	toc1	Sample	4	1.000	0	1.00	No	
44	MB-9328	toc1	Sample	4	1.000	0	1.00	No	

Analyst: C. Schrader
 Pipets: TOC/TOX
 WAYNE

** SEQUENCE **

100909 Fri Oct 09 14:32:45 2009

Pos/ Vial	Sample Name	Method	Run Type	# Rep	Vol (mL)	# Blk	Dil Fact	Ovr Rng	Remarks
45	R0905434-002	toc1	Sample	4	1.000	0	1.00	No	
46	R0905434-004	toc1	Sample	4	1.000	0	1.00	No	
47	CCV	toc1	Chk. 5	4	1.000	0	1.00	No	
48	CCB	toc1	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: 4
 Date: 09Oct2009
 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: 1009001.rlt

Method Name: toc1
 Sequence Name: 100909
 Calibration Name: 081809rl
 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	15:21	13127	15.576	15.196
2	15:29	12077	14.301	13.952
3	15:38	12428	14.727	14.368
4	15:47	12717	15.078	14.711

Avg. 12587
 Std. Dev 444.93
 RSD (%) 3.53

OK DS
 10/12/09

00005

Columbia Analytical Svcs.
1 Mustard Street
Rochester, NY 14609
585-288-5380

Method Name: toc1
Sequence Name: 100909
Calibration Name: 081809rl
PAM Mode: OFF
PAM Volume (ul): 0
PAM Purge (min:sec): 0:30

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: 1009002.rtt

Sample Information:

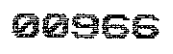
Sample #: 2
Sample Name: CCB
Run Type: CHK STD 5
Analysis Mode: TOC
Total Reps: 4
Date: 09Oct2009
Dilution Factor: 1.00
Comments:

Sample Results:

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	15:56	185	-0.142	-0.139
2	16:04	170	-0.160	-0.156
3	16:12	160	-0.172	-0.168
4	16:21	141	-0.196	-0.191
Avg.		164	-0.168	-0.164
Std. Dev		18.46		
RSD (%)		11.25		

OK
CS
10/12/09

** = 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: LCS
 Run Type: CHK STD 5
 Analysis Mode: TOC
 Total Reps: 4
 Date: 09Oct2009
 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: 1009003.rit

Method Name: toc1
 Sequence Name: 100909
 Calibration Name: 081809r1
 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	16:30	8349	9.773	9.535
2	16:38	8222	9.619	9.384
3	16:46	8658	10.149	9.901
4	16:56	8772	10.287	10.036

Avg. 8500
 Std. Dev 257.57
 RSD (%) 3.03

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00957

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Sample Information:

Sample #: 4
 Sample Name: R0905800-001
 Run Type: SAMPLE
 Analysis Mode: TIC/TOC
 Total Reps: 2
 Date: 09Oct2009
 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: 1009004.rit

Method Name: toc1
 Sequence Name: 100909
 Calibration Name: 081809r1
 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	17:04	2726	3.040	2.966
2	17:14	3001	3.374	3.292
Avg.		2864	3.207	3.129
Std. Dev		194.45		
RSD (%)		6.79		

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Sample Information:

Sample #: 5
 Sample Name: R0905800-002
 Run Type: SAMPLE
 Analysis Mode: TIC:TOC
 Total Reps: 2
 Date: 09Oct2009
 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: 1009005.rit

Method Name: toc1
 Sequence Name: 100909
 Calibration Name: 081809rl
 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	2865	3.209	3.131
2	17:32	3013	3.389	3.306
Avg.		2939	3.299	3.218
Std. Dev		104.65		
RSD (%)		3.56		

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00059

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Sample Information:

Sample #: 6
 Sample Name: R0905800-003
 Run Type: SAMPLE
 Analysis Mode: TIC/TOC
 Total Reps: 2
 Date: 09Oct2009
 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: 1009006.rft

Method Name: toc1
 Sequence Name: 100909
 Calibration Name: 081809r1
 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	17:41	3320	3.761	3.670
2	17:50	3456	3.927	3.831
Avg.		3388	3.844	3.750
Std. Dev		96.17		
RSD (%)		2.84		

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Method Name: toc1
 Sequence Name: 100909
 Calibration Name: 081809r1
 PAM Mode: OFF
 PAM Volume (ul): 0
 PAM Purge (min:sec): 0:30

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: 1009007.rft

Sample Information:

Sample #: 7
 Sample Name: R0905628-001
 Run Type: SAMPLE
 Analysis Mode: TIC/TOC
 Total Reps: 4
 Date: 09Oct2009
 Dilution Factor: 1.00
 Comments:

Sample Results:

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	17:59	9956	11.821	11.533
2	18:07	10199	12.116	11.821
3	18:15	10703	12.728	12.418
4	18:25	10092	11.986	11.694
Avg.		10238	12.163	11.866
Std. Dev		325.88		
RSD (%)		3.18		

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Method Name: toc1
Sequence Name: 100909
Calibration Name: 081809rl
PAM Mode: OFF
PAM Volume (ul): 0
PAM Purge (min:sec): 0:30

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: 1009008.rft

Sample Information:

Sample #: 8
Sample Name: R0905628-001DUP
Run Type: SAMPLE
Analysis Mode: TIC/TOC
Total Reps: 4
Date: 09Oct2009
Dilution Factor: 1.00
Comments:

Sample Results:

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	18:33	10106	12.003	11.710
2	18:41	10256	12.185	11.888
3	18:50	10097	11.992	11.700
4	18:59	10938	13.014	12.696

Avg. 10349
Std. Dev 399.22
RSD (%) 3.86

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Method Name: toc1
 Sequence Name: 100909
 Calibration Name: 081809r1
 PAM Mode: OFF
 PAM Volume (ul): 0
 PAM Purge (min:sec): 0:30

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: 1009009.rtf

Sample Information:

Sample #: 9
 Sample Name: R0905628-001SPK
 Run Type: SAMPLE
 Analysis Mode: TIC/TOC
 Total Reps: 4
 Date: 09Oct2009
 Dilution Factor: 1.00
 Comments:

Sample Results:

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	19:08	18948	22.742	22.187
2	19:16	17772	21.314	20.794
3	19:24	19758	23.726	23.147
4	19:33	18793	22.554	22.004
Avg.		18818	22.584	22.033
Std. Dev		815.52		
RSD (%)		4.33		

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Sample Information:

Sample #: 10
 Sample Name: R0905628-002
 Run Type: SAMPLE
 Analysis Mode: TIC/TOC
 Total Reps: 4
 Date: 09Oct2009
 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: 1009010.rtf

Method Name: toc1
 Sequence Name: 100909
 Calibration Name: 081809rl
 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	19:42	2571	2.852	2.782
2	19:50	3031	3.410	3.327
3	19:58	2700	3.008	2.935
4	20:08	2782	3.108	3.032

Avg. 2771
 Std. Dev 193.87
 RSD (%) 7.00

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Method Name: toc1
Sequence Name: 100909
Calibration Name: 081809rl
PAM Mode: OFF
PAM Volume (ul): 0
PAM Purge (min:sec): 0:30

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: 1009011.rlt

Sample Information:

Sample #: 11
Sample Name: R0905628-003
Run Type: SAMPLE
Analysis Mode: TIC/TOC
Total Reps: 4
Date: 09Oct2009
Dilution Factor: 1.00
Comments:

Sample Results:

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	20:17	2818	3.152	3.075
2	20:25	3089	3.481	3.396
3	20:33	2858	3.200	3.122
4	20:42	2999	3.372	3.289

Avg. 2941
Std. Dev 125.55
RSD (%) 4.27
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Sample Information:

Sample #: 12
Sample Name: R0905628-004
Run Type: SAMPLE
Analysis Mode: TIC/TOC
Total Reps: 4
Date: 09Oct2009
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: 1009012.rft

Method Name: toc1
Sequence Name: 100909
Calibration Name: 081809r1
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	20:51	2289	2.509	2.448
2	20:59	3527	4.013	3.915
3	21:07	3091	3.483	3.398
4	21:17	2486	2.748	2.681

Avg. 2848
Std. Dev 566.75
RSD (%) 19.90
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Method Name: toc1
Sequence Name: 100909
Calibration Name: 081809rl
PAM Mode: OFF
PAM Volume (ul): 0
PAM Purge (min:sec): 0:30

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: 1009013.rlt

Sample Information:

Sample #: 13
Sample Name: CCV
Run Type: CHK STD 5
Analysis Mode: TOC
Total Reps: 4
Date: 09Oct2009
Dilution Factor: 1.00
Comments:

Sample Results:

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	21:25	12980	15.398	15.022
2	21:33	12994	15.415	15.039
3	21:42	13563	16.106	15.713
4	21:51	13318	15.808	15.423

Avg. 13214
Std. Dev 280.34
RSD (%) 2.12

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Method Name: toc1
Sequence Name: 100909
Calibration Name: 081809rl
PAM Mode: OFF
PAM Volume (ul): 0
PAM Purge (min:sec): 0:30

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: 1009014.rlt

Sample Information:

Sample #: 14
Sample Name: CCB
Run Type: CHK STD 5
Analysis Mode: TOC
Total Reps: 4
Date: 09Oct2009
Dilution Factor: 1.00
Comments:

Sample Results:

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	22:00	335	0.040	0.039
2	22:08	211	-0.111	-0.108
3	22:16	217	-0.103	-0.101
4	22:25	223	-0.096	-0.094

Avg. 247
Std. Dev 59.20
RSD (%) 24.02
OK DS
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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: 1009015.rft

Method Name: toc1
Sequence Name: 100909
Calibration Name: 081809r1
PAM Mode: OFF
PAM Volume (ul): 0
PAM Purge (min:sec): 0:30

Sample Information:

Sample #: 15
Sample Name: R0905628-005
Run Type: SAMPLE
Analysis Mode: TIC/TOC
Total Reps: 4
Date: 09Oct2009
Dilution Factor: 1.00
Comments:

Sample Results:

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	22:34	5123	5.951	5.806
2	22:42	5903	6.899	6.730
3	22:50	5910	6.907	6.739
4	23:00	6064	7.094	6.921

Avg. 5750
Std. Dev 424.55
RSD (%) 7.38

OK DUP RSD > 20% RPT
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Method Name: toc1
 Sequence Name: 100909
 Calibration Name: 081809rl
 PAM Mode: OFF
 PAM Volume (ul): 0
 PAM Purge (min:sec): 0:30

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: 1009016.rlt

Sample Information:

Sample #: 16
 Sample Name: R0905628-005DUP
 Run Type: SAMPLE
 Analysis Mode: TIC/TOC
 Total Reps: 4
 Date: 09Oct2009
 Dilution Factor: 1.00
 Comments:

Sample Results:

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	23:08	2743	3.061	2.986
2	23:16	3364	3.815	3.722
3	23:25	2956	3.319	3.238
4	23:34	2844	3.183	3.106

Avg. 2977
 Std. Dev 272.43
 RSD (%) 9.15

DUP RSD > 20%, RPT
 CS
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Method Name: toc1
Sequence Name: 100909
Calibration Name: 081809h
PAM Mode: OFF
PAM Volume (ul): 0
PAM Purge (min:sec): 0:30

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: 1009017.rft

Sample Information:

Sample #: 17
Sample Name: R0905628-005SPK
Run Type: SAMPLE
Analysis Mode: TIC/TOC
Total Reps: 4
Date: 09Oct2009
Dilution Factor: 1.00
Comments:

Sample Results:

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	23:43	11743	13.991	13.650
2	23:51	12007	14.312	13.963
3	23:59	11569	13.780	13.444
4	00:08	11894	14.175	13.829

Avg. 11803
Std. Dev 189.96
RSD (%) 1.61

DUP RSD > 20% RPT
DS
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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: 1009018.rit

Method Name: toc1
 Sequence Name: 100909
 Calibration Name: 081809rl
 PAM Mode: OFF
 PAM Volume (ul): 0
 PAM Purge (min:sec): 0:30

Sample Information:

Sample #: 18
 Sample Name: R0905628-006
 Run Type: SAMPLE
 Analysis Mode: TIC/TOC
 Total Reps: 4
 Date: 10Oct2009
 Dilution Factor: 1.00
 Comments:

Sample Results:

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	00:17	5327	6.199	6.048
2	00:25	5820	6.798	6.632
3	00:34	5250	6.105	5.957
4	00:43	5151	5.985	5.839

Avg. 5387
 Std. Dev 297.52
 RSD (%) 5.52

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Method Name: toc1
Sequence Name: 100909
Calibration Name: 081809rl
PAM Mode: OFF
PAM Volume (ul): 0
PAM Purge (min:sec): 0:30

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: 1009019.rit

Sample Information:

Sample #: 19
Sample Name: R0905628-007
Run Type: SAMPLE
Analysis Mode: TIC/TOC
Total Reps: 4
Date: 10Oct2009
Dilution Factor: 1.00
Comments:

Sample Results:

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	00:52	4853	5.623	5.486
2	01:00	5433	6.328	6.173
3	01:08	4989	5.788	5.647
4	01:17	5016	5.821	5.679
Avg.		5073	5.890	5.747
Std. Dev		250.54		
RSD (%)		4.94		

OK
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Method Name: toc1
 Sequence Name: 100909
 Calibration Name: 081809r1
 PAM Mode: OFF
 PAM Volume (ul): 0
 PAM Purge (min:sec): 0:30

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: 1009020.rtf

Sample Information:

Sample #: 20
 Sample Name: R0905628-008
 Run Type: SAMPLE
 Analysis Mode: TIC/TOC
 Total Reps: 4
 Date: 10Oct2009
 Dilution Factor: 1.00
 Comments:

Sample Results:

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	01:26	4194	4.823	4.705
2	01:34	4845	5.614	5.477
3	01:42	4585	5.298	5.169
4	01:52	4414	5.090	4.966

Avg. 4510
 Std. Dev 275.03
 RSD (%) 6.10
 OK
 CS
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00004

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Method Name: toc1
Sequence Name: 100909
Calibration Name: 081809rl
PAM Mode: OFF
PAM Volume (ul): 0
PAM Purge (min:sec): 0:30

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: 1009021.rft

Sample Information:

Sample #: 21
Sample Name: R0905628-009
Run Type: SAMPLE
Analysis Mode: TIC/TOC
Total Reps: 4
Date: 10Oct2009
Dilution Factor: 1.00
Comments:

Sample Results:

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	02:00	4300	4.952	4.831
2	02:08	5009	5.813	5.671
3	02:17	4495	5.188	5.062
4	02:26	4499	5.193	5.067

Avg. 4576
Std. Dev 303.40
RSD (%) 6.63

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Sample Information:

Sample #: 22
 Sample Name: R0905628-010
 Run Type: SAMPLE
 Analysis Mode: TIC/TOC
 Total Reps: 4
 Date: 10Oct2009
 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: 1009022.rft

Method Name: toc1
 Sequence Name: 100909
 Calibration Name: 081809rl
 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	02:35	10251	12.179	11.882
2	02:43	11999	14.302	13.953
3	02:51	10767	12.806	12.494
4	03:00	10597	12.600	12.292
Avg.		10904	12.972	12.655
Std. Dev		761.24		
RSD (%)		6.98		

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Sample Information:

Sample #: 23
Sample Name: R0905628-010DUP
Run Type: SAMPLE
Analysis Mode: TIC/TOC
Total Reps: 4
Date: 10Oct2009
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: 1009023.rit

Method Name: toc1
Sequence Name: 100909
Calibration Name: 081809rl
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	03:09	10310	12.251	11.952
2	03:17	11715	13.957	13.617
3	03:25	10399	12.359	12.058
4	03:35	10462	12.436	12.132

Avg. 10722
Std. Dev 665.26
RSD (%) 6.20

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Sample Information:

Sample #: 24
 Sample Name: R0905628-010SPK
 Run Type: SAMPLE
 Analysis Mode: TIC/TOC
 Total Reps: 4
 Date: 10Oct2009
 Dilution Factor: 1.00
 Comments:

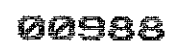
Operator Name: Unknown
 Sample Volume (ml): 1.025
 Loop Volume (ml): 1.025
 Loop Size (ml): 1.000
 Sample Intro: AUTOSAMPLER
 Remote Start: OFF
 File Name: 1009024.rit

Method Name: toc1
 Sequence Name: 100909
 Calibration Name: 081809r1
 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	03:44	18816	22.582	22.031
2	03:52	20039	24.067	23.480
3	04:00	17589	21.092	20.577
4	04:09	17673	21.194	20.677
Avg.		18529	22.233	21.691
Std. Dev		1151.64		
RSD (%)		6.22		

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Columbia Analytical Svcs.
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585-288-5380

Sample Information:

Sample #: 25
Sample Name: CCV
Run Type: CHK STD 5
Analysis Mode: TOC
Total Reps: 4
Date: 10Oct2009
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: 1009025.rit

Method Name: toc1
Sequence Name: 100909
Calibration Name: 081809r1
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	04:18	14311	17.014	16.599
2	04:26	13223	15.693	15.310
3	04:34	12814	15.196	14.826
4	04:44	13628	16.185	15.790

Avg. 13494
Std. Dev 638.04
RSD (%) 4.73

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Method Name: toc1
Sequence Name: 100909
Calibration Name: 081809r1
PAM Mode: OFF
PAM Volume (ul): 0
PAM Purge (min:sec): 0:30

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: 1009026.rft

Sample Information:

Sample #: 26
Sample Name: CCB
Run Type: CHK STD 5
Analysis Mode: TOC
Total Reps: 4
Date: 10Oct2009
Dilution Factor: 1.00
Comments:

Sample Results:

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	04:52	645	0.417	0.406
2	05:01	345	0.052	0.051
3	05:09	333	0.038	0.037
4	05:18	284	-0.022	-0.021

Avg. 402
Std. Dev 164.30
RSD (%) 40.90
OK
03
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"" = modified '-' = unused



Columbia Analytical Svcs.
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Method Name: toc1
 Sequence Name: 100909
 Calibration Name: 081809r1
 PAM Mode: OFF
 PAM Volume (ul): 0
 PAM Purge (min:sec): 0:30

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: 1009027.rft

Sample Information:

Sample #: 27
 Sample Name: LCS
 Run Type: CHK STD 5
 Analysis Mode: TOC
 Total Reps: 4
 Date: 10Oct2009
 Dilution Factor: 1.00
 Comments:

Sample Results:

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	05:27	8720	10.224	9.975
2	05:35	8872	10.409	10.155
3	05:43	9078	10.659	10.399
4	05:52	8951	10.504	10.248

Avg. 8905
 Std. Dev 149.84
 RSD (%) 1.68

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"*" = modified "-" = unused

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Method Name: toc1
Sequence Name: 100909
Calibration Name: 081809rl
PAM Mode: OFF
PAM Volume (ul): 0
PAM Purge (min:sec): 0:30

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: 1009028.rlt

Sample Information:

Sample #: 28
Sample Name: R0905628-011
Run Type: SAMPLE
Analysis Mode: TIC/TOC
Total Reps: 4
Date: 10Oct2009
Dilution Factor: 1.00
Comments:

Sample Results:

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	06:01	4676	5.408	5.276
2	06:09	5184	6.025	5.878
3	06:17	5450	6.348	6.194
4	06:27	5284	6.147	5.997

Avg. 5149
Std. Dev 333.56
RSD (%) 6.48
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* = modified ' ' = unused

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Sample Information:

Sample #: 29
 Sample Name: R0905462-003
 Run Type: SAMPLE
 Analysis Mode: TIC/TOC
 Total Reps: 4
 Date: 10Oct2009
 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: 1009029.rft

Method Name: toc1
 Sequence Name: 100909
 Calibration Name: 081809rl
 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	06:36	1510	1.563	1.525
2	06:44	1487	1.535	1.498
3	06:52	1318	1.330	1.297
4	07:01	1354	1.374	1.340

Avg. 1417
 Std. Dev 95.43
 RSD (%) 6.73

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Sample Information:

Sample #: 30
 Sample Name: R0905462-004
 Run Type: SAMPLE
 Analysis Mode: TIC/TOC
 Total Reps: 4
 Date: 10Oct2009
 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: 1009030.rit

Method Name: toc1
 Sequence Name: 100909
 Calibration Name: 081809rl
 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	07:10	1408	1.439	1.404
2	07:18	1399	1.428	1.393
3	07:26	1368	1.391	1.357
4	07:36	1310	1.320	1.288
Avg.		1371	1.395	1.361
Std. Dev		44.28		
RSD (%)		3.23		

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40004

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Method Name: toc1
Sequence Name: 100909
Calibration Name: 081809rl
PAM Mode: OFF
PAM Volume (ul): 0
PAM Purge (min:sec): 0:30

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: 1009031.rlt

Sample Information:

Sample #: 31
Sample Name: R0905464-011
Run Type: SAMPLE
Analysis Mode: TIC/TOC
Total Reps: 4
Date: 10Oct2009
Dilution Factor: 1.00
Comments:

Sample Results:

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	07:44	703	0.583	0.569
2	07:52	551	0.398	0.389
3	08:01	586	0.441	0.430
4	08:10	553	0.401	0.391

Avg. 598
Std. Dev 71.65
RSD (%) 11.98
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000005

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Sample Information:

Sample #: 32
 Sample Name: R0905464-012
 Run Type: SAMPLE
 Analysis Mode: TIC/TOC
 Total Reps: 4
 Date: 10Oct2009
 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: 1009032.rit

Method Name: toc1
 Sequence Name: 100909
 Calibration Name: 081809rl
 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	08:19	523	0.364	0.355
2	08:27	523	0.364	0.355
3	08:35	469	0.299	0.291
4	08:44	508	0.346	0.338
Avg.		506	0.343	0.335
Std. Dev		25.50		
RSD (%)		5.04		

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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: 1009033.rft

Method Name: toc1
Sequence Name: 100909
Calibration Name: 081809r1
PAM Mode: OFF
PAM Volume (ul): 0
PAM Purge (min:sec): 0:30

Sample Information:

Sample #: 33
Sample Name: R0905524-001
Run Type: SAMPLE
Analysis Mode: TIC/TOC
Total Reps: 4
Date: 10Oct2009
Dilution Factor: 1.00
Comments:

Sample Results:

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	08:53	509	0.347	0.339
2	09:01	440	0.264	0.257
3	09:09	436	0.259	0.252
4	09:19	444	0.268	0.262
Avg.		457	0.285	0.278
Std. Dev		34.65		
RSD (%)		7.58		

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Method Name: toc1
Sequence Name: 100909
Calibration Name: 081809rl
PAM Mode: OFF
PAM Volume (ul): 0
PAM Purge (min:sec): 0:30

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: 1009034.rlt

Sample Information:

Sample #: 34
Sample Name: R0905524-002
Run Type: SAMPLE
Analysis Mode: TIC/TOC
Total Reps: 4
Date: 10Oct2009
Dilution Factor: 1.00
Comments:

Sample Results:

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	09:28	505	0.342	0.334
2	09:36	446	0.271	0.264
3	09:44	503	0.340	0.332
4	09:53	463	0.291	0.284

Avg. 479
Std. Dev 29.42
RSD (%) 6.14
OK
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1011210A

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Method Name: toc1
Sequence Name: 100909
Calibration Name: 081809rt
PAM Mode: OFF
PAM Volume (ul): 0
PAM Purge (min:sec): 0:30

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: 1009035.rlt

Sample Information:

Sample #: 35
Sample Name: R0905539-001
Run Type: SAMPLE
Analysis Mode: TIC/TOC
Total Repts: 4
Date: 10Oct2009
Dilution Factor: 1.00
Comments:

Sample Results:

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	10:02	546	0.392	0.383
2	10:10	520	0.361	0.352
3	10:18	561	0.411	0.400
4	10:28	588	0.443	0.432

Avg. 554
Std. Dev 28.43
RSD (%) 5.13
OK
CS
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Method Name: toc1
Sequence Name: 100909
Calibration Name: 081809rl
PAM Mode: OFF
PAM Volume (ul): 0
PAM Purge (min:sec): 0:30

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: 1009036.rlt

Sample Information:

Sample #: 36
Sample Name: R0905539-002
Run Type: SAMPLE
Analysis Mode: TIC/TOC
Total Reps: 4
Date: 10Oct2009
Dilution Factor: 1.00
Comments:

Sample Results:

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	10:36	417	0.236	0.230
2	10:45	403	0.219	0.213
3	10:53	432	0.254	0.248
4	11:02	459	0.287	0.280
Avg.		428	0.249	0.243
Std. Dev		23.96		
RSD (%)		5.60		

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Method Name: toc1
Sequence Name: 100909
Calibration Name: 081809rl
PAM Mode: OFF
PAM Volume (ul): 0
PAM Purge (min:sec): 0:30

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: 1009037.rlt

Sample Information:

Sample #: 37
Sample Name: CCV
Run Type: CHK STD 5
Analysis Mode: TOC
Total Reps: 4
Date: 10Oct2009
Dilution Factor: 1.00
Comments:

Sample Results:

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	11:11	13003	15.426	15.050
2	11:19	13013	15.438	15.061
3	11:27	12738	15.104	14.736
4	11:36	13367	15.868	15.481

Avg. 13030
Std. Dev 258.10
RSD (%) 1.98
OK
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Method Name: toc1
Sequence Name: 100909
Calibration Name: 081809rl
PAM Mode: OFF
PAM Volume (ul): 0
PAM Purge (min:sec): 0:30

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: 1009038.rft

Sample Information:

Sample #: 38
Sample Name: CCB
Run Type: CHK STD 5
Analysis Mode: TOC
Total Reps: 4
Date: 10Oct2009
Dilution Factor: 1.00
Comments:

Sample Results:

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	11:45	179	-0.149	-0.146
2	11:53	214	-0.107	-0.104
3	12:02	196	-0.129	-0.126
4	12:11	195	-0.130	-0.127

Avg. 196
Std. Dev 14.31
RSD (%) 7.30

OK
05
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"M" = modified "U" = unused

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Method Name: toc1
Sequence Name: 100909
Calibration Name: 081809r1
PAM Mode: OFF
PAM Volume (ul): 0
PAM Purge (min:sec): 0:30

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: 1009039.rft

Sample Information:

Sample #: 39
Sample Name: R0905567-001
Run Type: SAMPLE
Analysis Mode: TIC/TOC
Total Reps: 4
Date: 10Oct2009
Dilution Factor: 1.00
Comments:

Sample Results:

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	12:20	389	0.202	0.197
2	12:28	324	0.123	0.120
3	12:36	368	0.176	0.172
4	12:45	381	0.192	0.187

Avg. 366
Std. Dev 28.99
RSD (%) 7.93
OK
10/21/09

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Columbia Analytical Svcs.
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TOC by EPA 415.1 / 9060
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Method Name: toc1
 Sequence Name: 100909
 Calibration Name: 081809r1
 PAM Mode: OFF
 PAM Volume (ul): 0
 PAM Purge (min:sec): 0:30

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: 1009040.rlt

Sample Information:
 Sample #: 40
 Sample Name: R0905636-001
 Run Type: SAMPLE
 Analysis Mode: TIC:TOC
 Total Reps: 4
 Date: 10Oct2009
 Dilution Factor: 1.00
 Comments:

Sample Results:

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	12:54	267	0.053	0.052
2	13:02	237	0.017	0.017
3	13:10	218	-0.006	-0.006
4	13:20	252	0.035	0.034
Avg.		244	0.025	0.024
Std. Dev		20.95		
RSD (%)		8.60		

OK
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01004

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TOC by EPA 415.1 / 9060
 OI Analytical Model 1010

Sample Information:

Sample #: 41
 Sample Name: R0905636-002
 Run Type: SAMPLE
 Analysis Mode: TIC/TOC
 Total Reps: 4
 Date: 10Oct2009
 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: 1009041.rtf

Method Name: toc1
 Sequence Name: 100909
 Calibration Name: 081809r1
 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	13:29	707	0.588	0.573
2	13:37	808	0.711	0.693
3	13:45	813	0.717	0.699
4	13:54	818	0.723	0.705

Avg. 787
 Std. Dev 53.16
 RSD (%) 6.76

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01005

Columbia Analytical Svcs.
1 Mustard Street
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Sample Information:

Sample #: 42
Sample Name: R0905636-003
Run Type: SAMPLE
Analysis Mode: TIC/TOC
Total Repts: 4
Date: 10Oct2009
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: 1009042.rft

Method Name: toc1
Sequence Name: 100909
Calibration Name: 081809rl
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	14:03	960	0.895	0.873
2	14:11	1194	1.179	1.151
3	14:19	968	0.905	0.883
4	14:29	903	0.826	0.806
Avg.		1006	0.951	0.928
Std. Dev		128.47		
RSD (%)		12.77		

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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: 1009043.rlt

Method Name: toc1
Sequence Name: 100909
Calibration Name: 081809rl
PAM Mode: OFF
PAM Volume (ul): 0
PAM Purge (min:sec): 0:30

Sample Information:

Sample #: 43
Sample Name: R0905636-006
Run Type: SAMPLE
Analysis Mode: TIC/TOC
Total Reps: 4
Date: 10Oct2009
Dilution Factor: 1.00
Comments:

Sample Results:

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	14:37	1574	1.641	1.601
2	14:46	2310	2.535	2.473
3	14:54	1806	1.923	1.876
4	15:03	1664	1.750	1.707

Avg. 1839
Std. Dev 328.52
RSD (%) 17.87
OK
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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: 1009044.rft

Method Name: toc1
Sequence Name: 100909
Calibration Name: 081809r1
PAM Mode: OFF
PAM Volume (ul): 0
PAM Purge (min:sec): 0:30

Sample Information:

Sample #: 44
Sample Name: MB-9328
Run Type: SAMPLE
Analysis Mode: TIC/TOC
Total Reps: 4
Date: 10Oct2009
Dilution Factor: 1.00
Comments:

Sample Results:

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	15:12	636	0.502	0.489
2	15:20	317	0.114	0.111
3	15:28	289	0.080	0.078
4	15:37	277	0.066	0.064

Avg. 380
Std. Dev 171.65
RSD (%) 45.20

OK
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Columbia Analytical Svcs.
1 Mustard Street
Rochester, NY. 14609
585-288-5380

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: 1009045.rlt

Method Name: toc1
Sequence Name: 100909
Calibration Name: 081809rl
PAM Mode: OFF
PAM Volume (ul): 0
PAM Purge (min:sec): 0:30

Sample Information:

Sample #: 45
Sample Name: R0905434-002
Run Type: SAMPLE
Analysis Mode: TIC/TOC
Total Reps: 4
Date: 10Oct2009
Dilution Factor: 1.00
Comments:

Sample Results:

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	15:46	503	0.340	0.332
2	15:54	488	0.322	0.314
3	16:03	471	0.301	0.294
4	16:12	531	0.374	0.365
Avg.		498	0.334	0.326
Std. Dev		25.45		
RSD (%)		5.11		

OK
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Columbia Analytical Svcs.
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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: 1009046.rlt

Method Name: toc1
Sequence Name: 100909
Calibration Name: 081809r1
PAM Mode: OFF
PAM Volume (ul): 0
PAM Purge (min:sec): 0:30

Sample Information:

Sample #: 46
Sample Name: R0905434-004
Run Type: SAMPLE
Analysis Mode: TIC/TOC
Total Reps: 4
Date: 10Oct2009
Dilution Factor: 1.00
Comments:

Sample Results:

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	16:21	738	0.625	0.610
2	16:29	784	0.681	0.665
3	16:37	717	0.600	0.585
4	16:46	717	0.600	0.585

Avg. 739
Std. Dev 31.59
RSD (%) 4.27

OK
CS
10/12/09

Columbia Analytical Svcs.
1 Mustard Street
Rochester, NY. 14609
585-288-5380

Method Name: toc1
Sequence Name: 100909
Calibration Name: 081809r1
PAM Mode: OFF
PAM Volume (ul): 0
PAM Purge (min:sec): 0:30

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: 1009047.rtf

Sample Information:
Sample #: 47
Sample Name: CCV
Run Type: CHK STD 5
Analysis Mode: TOC
Total Reps: 4
Date: 10Oct2009
Dilution Factor: 1.00
Comments:

Sample Results:

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	16:55	13515	16.048	15.656
2	17:03	13246	15.721	15.337
3	17:11	12234	14.492	14.138
4	17:21	13385	15.890	15.502

Avg. 13095
Std. Dev 584.41
RSD (%) 4.46
OK CS 10/12/09

"*" = modified '-' = unused

Columbia Analytical Svcs.
1 Mustard Street
Rochester, NY. 14609
585-288-5380

Method Name: toc1
Sequence Name: 100909
Calibration Name: 081809H
PAM Mode: OFF
PAM Volume (ul): 0
PAM Purge (min:sec): 0:30

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: 1009048.rtf

Sample Information:

Sample #: 48
Sample Name: CCB
Run Type: CHK STD 5
Analysis Mode: TOC
Total Reps: 4
Date: 10Oct2009
Dilution Factor: 1.00
Comments:

Sample Results:

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	17:30	217	-0.103	-0.101
2	17:38	163	-0.169	-0.165
3	17:46	157	-0.176	-0.172
4	17:55	183	-0.145	-0.141
Avg.		180	-0.148	-0.145
Std. Dev		27.06		
RSD (%)		15.03		

OK
CS
10/12/09

General Chemistry Analytical Run Cover Sheet

Analyst: C. Schrader

Date: 10/9/09

Analysis: Total Organic Carbon, 415.1/9060
 High Level: 1.0 to 30.0 ppm

Instrument: OI Analytical Model1010 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.:	WC86012B, 08/18/09	WC86010B, 05/05/09				
b) I/CCV Preparation:	WC86012E, 08/18/09	WC86010A, 05/05/09	3.0	1000	200	15.00
c) LCS Preparation:	WC86012C, 08/18/09	WC86010B, 05/05/09	1.0	1000	100	10.00
d) Matrix Spike Prep.:	WC86012D, 08/18/09	WC86010B, 05/05/09	0.42	1000	42	10.00

Instrument log filled in? (Y) (N)

Comments:

Curve Date = 08/18/09

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 **

081809RL Tue Aug 18 17:43:10 2009

Pos/ Vial	Sample Name	Method	Run Type	# Rep	Vol (mL)	# Blk	Dil Fact	Ovr Rng	Remarks
1	BLANK	blk	Sample	4	1.000	15	1.00	No	
2	BLANK	blk	Sample	4	1.000	8	1.00	No	
3	BLANK	toc1	Sample	4	1.000	0	1.00	No	
4	0.00 STD	toc1	Std. 1	4	1.000	0	1.00	No	
5	1.00 STD	toc1	Std. 2	4	1.000	0	1.00	No	
6	5.00 STD	toc1	Std. 3	4	1.000	0	1.00	No	
7	10.00 STD	toc1	Std. 4	4	1.000	0	1.00	No	
8	30.00 STD	toc1	Std. 5	4	1.000	0	1.00	No	
9	ICV	toc1	Chk. 5	4	1.000	0	1.00	No	
10	ICB	toc1	Chk. 5	4	1.000	0	1.00	No	
11	LCS	toc1	Chk. 5	4	1.000	0	1.00	No	
12	MDL 1 TV= 0.500	toc1	Sample	4	1.000	0	1.00	No	
13	MDL 2 TV= 0.500	toc1	Sample	4	1.000	0	1.00	No	
14	MDL 3 TV= 0.500	toc1	Sample	4	1.000	0	1.00	No	
15	MDL 4 TV= 0.500	toc1	Sample	4	1.000	0	1.00	No	
16	MDL 5 TV= 0.500	toc1	Sample	4	1.000	0	1.00	No	
17	MDL 6 TV= 0.500	toc1	Sample	4	1.000	0	1.00	No	
18	MDL 7 TV= 0.500	toc1 CS 8/18/09	Sample	4	1.000	0	1.00	No	
19	LOD TV= 0.500	toc1	Sample	4	1.000	0	1.00	No	
20	LOD TV= 0.500	toc1	Sample	4	1.000	0	1.00	No	
21	CCV 0.200	toc1 CS	Chk. 5	4	1.000	0	1.00	No	
22	CCB 8/19/09	toc1	Chk. 5	4	1.000	0	1.00	No	

Analyst: C. Schrader
Pipets: Spiderman
Wonder Woman

1 Mustard Street
 Rochester, NY. 14609
 585-288-5380

Method Name: blk
 Sequence Name: 081809r
 Calibration Name: 081809r
 PAM Mode: OFF
 PAM Volume (ul): 0
 PAM Purge (min:sec): 0:30

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: 0818001.rtf

Sample Information:

Sample #: 1
 Sample Name: BLANK
 Run Type: BLANK
 Analysis Mode: TIC/TOC
 Total Repts: 15
 Date: 18Aug2009
 Dilution Factor: 1.00
 Comments:

Sample Results:

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	17:50	*	377	0.505
2	17:55	*	255	0.342
3	18:01	*	219	0.294
4	18:06	*	266	0.357
5	18:12	*	329	0.441
6	18:18	*	310	0.416
7	18:23	*	326	0.437
8	18:29	*	218	0.293
9	18:35	*	248	0.333
10	18:40	*	222	0.298
11	18:46	*	215	0.289
12	18:51	*	225	0.302
13	18:57	*	230	0.309
14	19:03	*	235	0.316
15	19:10	*	231	0.310
		Avg.	260	0.350
		Std. Dev	50.72	
		RSD (%)	19.48	

Reagent blanks
OK
CS
8/19/09

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: 0818002.rtf

Method Name: blk
 Sequence Name: 081809r
 Calibration Name: 081809r
 PAM Mode: OFF
 PAM Volume (ul): 0
 PAM Purge (min:sec): 0:30

Sample Information:

Sample #: 2
 Sample Name: BLANK
 Run Type: SAMPLE
 Analysis Mode: TIC/TOC
 Total Repts: 4
 Date: 18Aug2009
 Dilution Factor: 1.00
 Comments:

Sample Results:

Rep #	Time	TOC Area (cnts)	TOC Mass (ugC)	TOC Conc (ppm)
1	19:17	333	0.138	0.135
2	19:22	209	-0.032	-0.031
3	19:28	196	-0.049	-0.048
4	19:36	209	-0.032	-0.031
Avg.		237	0.007	0.006
Std. Dev.		64.46		
RSD (%)		27.23		

Water blank
OK
CS
8/19/09

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: BLANK
 Run Type: BLANK
 Analysis Mode: TIC/TOC
 Total Repts: 8
 Date: 18Aug2009
 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: 0818003.rtf

Method Name: blk
 Sequence Name: 081809rl
 Calibration Name: 081809rl
 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	19:42	*	259	0.348
2	19:48	*	250	0.336
3	19:53	*	233	0.313
4	19:59	*	262	0.352
5	20:04	*	248	0.333
6	20:10	*	255	0.342
7	20:16	*	214	0.288
8	20:23	*	200	0.269
Avg.		240	0.331	0.322
Std. Dev		22.55		
RSD (%)		9.39		

Reagent blanks
OK
CS
8/19/09

01017

1 Mustard Street
 Rochester, NY. 14609
 585-288-5380

TOC by EPA 415.1 / 9060
 OI Analytical Model 1010

Sample Information:

Sample #: 4
 Sample Name: BLANK
 Run Type: SAMPLE
 Analysis Mode: TIC/TOC
 Total Reps: 4
 Date: 18Aug2009
 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: 0818004.rft

Method Name: blk
 Sequence Name: 081809r1
 Calibration Name: 081809r1
 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	20:30	278	0.075	0.074
2	20:35	177	-0.063	-0.062
3	20:41	237	0.019	0.019
4	20:49	160	-0.086	-0.084
Avg.		213	-0.014	-0.013
Std. Dev		54.49		
RSD (%)		25.58		

Water blank
OK
CS
8/19/09

01018

1 Mustard Street
 Rochester, NY. 14609
 585-288-5380

Sample Information:

Sample #: 5
 Sample Name: BLANK
 Run Type: SAMPLE
 Analysis Mode: TIC/TOC
 Total Reps: 4
 Date: 18Aug2009
 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: 0818005.rft

Method Name: toc1
 Sequence Name: 081809rl
 Calibration Name: 081809rl
 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	20:58	296	0.100	0.098
2	21:06	296	0.100	0.098
3	21:14	286	0.086	0.084
4	21:23	267	0.060	0.059
Avg.		286	0.087	0.085
Std. Dev		13.67		
RSD (%)		4.78		

Water blank
OK
CS
8/19/09

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: 0.00 STD
Run Type: STD 1
Analysis Mode: TOC
Total Reps: 4
Date: 18Aug2009
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: 0818006.rft

Method Name: toc1
Sequence Name: 081809r1
Calibration Name: 081809r1
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	21:32	238	0.000	0.000
2	21:40	295	0.000	0.000
3	21:49	295	0.000	0.000
4	21:58	260	0.000	0.000
Avg.		272	0.000	0.000
Std. Dev		28.04		
RSD (%)		10.31		

OK
CS
8/19/09

01020

1 Mustard Street
 Rochester, NY. 14609
 585-288-5380

Sample Information:

Sample #: 7
 Sample Name: 1.00 STD
 Run Type: STD 2
 Analysis Mode: TOC
 Total Reps: 4
 Date: 18Aug2009
 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: 0818007.rit

Method Name: toc1
 Sequence Name: 081809rl
 Calibration Name: 081809rl
 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	1094	1.025	1.000
2	22:15	1030	1.025	1.000
3	22:23	1079	1.025	1.000
4	22:32	1132	1.025	1.000
Avg.		1084	1.025	1.000
Std. Dev		42.21		
RSD (%)		3.89		

OK
 CS
 8/19/09

1 Mustard Street
 Rochester, NY. 14609
 585-288-5380

TOC by EPA 415.1 / 9060
 OI Analytical Model 1010

Sample Information:

Sample #: 8
 Sample Name: 5.00 STD
 Run Type: STD 3
 Analysis Mode: TOC
 Total Repts: 4
 Date: 18Aug2009
 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: 0818008.rft

Method Name: toc1
 Sequence Name: 081809r1
 Calibration Name: 081809r1
 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	22:41	4391	5.125	5.000
2	22:49	4589	5.125	5.000
3	22:57	4771	5.125	5.000
4	23:07	4693	5.125	5.000
Avg.		4611	5.125	5.000
Std. Dev		164.53		
RSD (%)		3.57		

OK
 AS
 8/19/09

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: 10.00 STD
Run Type: STD 4
Analysis Mode: TOC
Total Reps: 4
Date: 18Aug2009
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: 0818009.rft

Method Name: toc1
Sequence Name: 081809r
Calibration Name: 081809r
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	23:16	8591	10.250	10.000
2	23:24	8882	10.250	10.000
3	23:32	8965	10.250	10.000
4	23:41	8927	10.250	10.000
Avg.		8841	10.250	10.000
Std. Dev		170.25		
RSD (%)		1.93		

OK
CS
8/19/09

1 Mustard Street
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 585-288-5380

Sample Information:

Sample #: 10
 Sample Name: 30.00 STD
 Run Type: STD 5
 Analysis Mode: TOC
 Total Repts: 4
 Date: 18Aug2009
 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: 0818010.rft

Method Name: toc1
 Sequence Name: 081809r1
 Calibration Name: 081809r1
 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	23:50	23659	30.750	30.000
2	23:58	25783	30.750	30.000
3	00:06	26255	30.750	30.000
4	00:16	26397	30.750	30.000
Avg.		25524	30.750	30.000
Std. Dev		1270.41		
RSD (%)		4.98		

OK
 CS
 8/19/09

11
 11
 ICV
 CHK STD 5
 TOC
 4
 19Aug2009
 1.00

TOC by EPA 415.1 / 9060
 OI Analytical Model 1010

11
 11
 ICV
 CHK STD 5
 TOC
 4
 19Aug2009
 1.00

11
 11
 ICV
 CHK STD 5
 TOC
 4
 19Aug2009
 1.00

11
 11
 ICV
 CHK STD 5
 TOC
 4
 19Aug2009
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11
 11
 ICV
 CHK STD 5
 TOC
 4
 19Aug2009
 1.00

11
 11
 ICV
 CHK STD 5
 TOC
 4
 19Aug2009
 1.00

11
 11
 ICV
 CHK STD 5
 TOC
 4
 19Aug2009
 1.00

11
 11
 ICV
 CHK STD 5
 TOC
 4
 19Aug2009
 1.00

11
 11
 ICV
 CHK STD 5
 TOC
 4
 19Aug2009
 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: 0818011.rft

Method Name: toc1
 Sequence Name: 081809r1
 Calibration Name: 081809r1
 PAM Mode: OFF
 PAM Volume (ul): 0
 PAM Purge (min:sec): 0:30

Method Name: toc1
 Sequence Name: 081809r1
 Calibration Name: 081809r1
 PAM Mode: OFF
 PAM Volume (ul): 0
 PAM Purge (min:sec): 0:30

Method Name: toc1
 Sequence Name: 081809r1
 Calibration Name: 081809r1
 PAM Mode: OFF
 PAM Volume (ul): 0
 PAM Purge (min:sec): 0:30

Method Name: toc1
 Sequence Name: 081809r1
 Calibration Name: 081809r1
 PAM Mode: OFF
 PAM Volume (ul): 0
 PAM Purge (min:sec): 0:30

Method Name: toc1
 Sequence Name: 081809r1
 Calibration Name: 081809r1
 PAM Mode: OFF
 PAM Volume (ul): 0
 PAM Purge (min:sec): 0:30

Method Name: toc1
 Sequence Name: 081809r1
 Calibration Name: 081809r1
 PAM Mode: OFF
 PAM Volume (ul): 0
 PAM Purge (min:sec): 0:30

Method Name: toc1
 Sequence Name: 081809r1
 Calibration Name: 081809r1
 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	00:24	13002	15.425	15.048
2	00:32	13583	16.130	15.737
3	00:41	13434	15.949	15.560
4	00:50	13494	16.022	15.631
Avg.		13378	15.882	15.494
Std. Dev		258.19		
RSD (%)		1.93		

OK
 CS
 8/19/09

1 Mustard Street
 Rochester, NY. 14609
 585-288-5380

Sample Information:

Sample #: 12
 Sample Name: ICB
 Run Type: CHK STD 5
 Analysis Mode: TOC
 Total Reps: 4
 Date: 19Aug2009
 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: 0818012.rft

Method Name: toc1
 Sequence Name: 081809rl
 Calibration Name: 081809rl
 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	00:59	230	-0.087	-0.085
2	01:07	190	-0.136	-0.133
3	01:15	239	-0.077	-0.075
4	01:24	196	-0.129	-0.126
Avg.		214	-0.107	-0.105
Std. Dev		24.36		
RSD (%)		11.40		

OK
 CS
 8/19/09

1 Mustard Street
 Rochester, NY. 14609
 585-288-5380

TOC by EPA 415.1 / 9060
 OI Analytical Model 1010

Sample Information:

Sample #: 13
 Sample Name: LCS
 Run Type: CHK STD 5
 Analysis Mode: TOC
 Total Reps: 4
 Date: 19Aug2009
 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: 0818013.rft

Method Name: toc1
 Sequence Name: 081809r1
 Calibration Name: 081809r1
 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	01:33	8506	9.964	9.721
2	01:41	8454	9.901	9.659
3	01:49	8741	10.249	9.999
4	01:59	9089	10.672	10.412
Avg.		8698	10.197	9.948
Std. Dev		289.33		
RSD (%)		3.33		

OK
 CS
 8/19/09

01027

5/5/09 CS (A) TOC Reference Stock (1000 ppm)
 2.128 g KHP (~~WC86062C~~^{5/5/09}), previously dried @ 104 °C for 2 hours, → 1000 mL w/ UPDI. Store @ RT in amber glass. Exp. 1 yr., 5/5/09 5/5/10

(B) TOC Standard Stock (1000 ppm)
 2.128 g KHP (~~WC86062C~~^{5/5/09} (~~WC86076G~~^{5/5/09}), previously dried @ 104 °C for 2 hours, → 1000 mL w/ UPDI. Store @ RT in amber glass. Exp. 1 yr. 5/5/10.

(C) TOC High Level Calibration for OI Model 1010, standards - fresh per calibration

Conc. (mg/L)	mLs 1000 ppm (WC86010B ^{5/5/09})	Final vol. w/ U
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

(D) TOC High Level LCS TV = 10.0 mg/L fresh per run
 1.0 mL 1000 ppm Std stock (~~WC86010B~~) diluted volumetrically to 100 mL w/ UPDI.

Continued on Page _____

Head and method by _____

Signed _____

Date _____

Signed _____

Date _____

7/2/09 ~~(E)~~ (A) Matrix Spike - Add 20 mL of 10000 ppm CS ^{7/2/09} standard stock (WC860088) to sample and analyze. $TV = \frac{(20 \text{ mL})(10000 \text{ ppm})}{(X \text{ g sample})}$

8/18/09 (B) TOC High Level Calibration for OI Model 1010

CS Standards - fresh per calibration

Conc. (mg/L)	mLs 1000 ppm (WC860108)	Final vol w/ UPDI
0.00	0.000	100
1.00	0.100	100
5.00	0.500	100
10.00	1.000	100
30.00	3.000	100

(C) TOC High Level LCS, $TV = 10.0 \text{ mg/L}$ fresh per run. 1.0 mL 1000 ppm std. stock (WC860108), Diluted volumetrically to 100 mL w/ UPDI.

(D) TOC High level MS, $TV = 10.0 \text{ mg/L}$, Add 0.420 mL 1000 ppm std. stock (WC860108) to 42 mL in sample volume.

(E) TOC High Level ICV/CCV, $TV = 15.0 \text{ mg/L}$, fresh per run. 3.0 mL 1000 ppm Ref. Stock (WC86010A) diluted to 200 mL volumetrically w/ UPDI.

Continued on Page _____

Read and Understood By _____

S) 8/18/09

Signed _____

Date _____

Signed _____

Date _____

 ** CALIBRATION **

081809RL Wed Aug 19 00:16:03 2009

Std. #	Used	Conc. (ppm)	Volume (mL)		
1	Yes	0.000	1.000	RF (ugC/k-cts):	1.215
2	Yes	1.000	1.000	R-Squared:	0.9970
3	Yes	5.000	1.000	Offset (cts):	301
4	Yes	10.000	1.000	Offset (ugC):	-0.367
5	Yes	30.000	1.000	Calibration Mode:	TOC
				Allow Editing:	No

Rep	Std. 1	Std. 2	Std. 3	Std. 4	Std. 5
1	238	1094	4391	8591	23659
2	295	1030	4589	8882	25783
3	295	1079	4771	8965	26255
4	260	1132	4693	8927	26397
5	-	-	-	-	-
6	-	-	-	-	-
7	-	-	-	-	-
8	-	-	-	-	-
9	-	-	-	-	-
10	-	-	-	-	-

(* = unused)

Analytical Results Summary

Instrument Name: R-IC-01	Analyst: CWOODS	Analysis Lot: 173619	Method/Testcode: 218.6/Cr6 D									
Lab Code	Target Analytes	QC Type/Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	PQL	% Rec	% RSD	Date Analyzed	QC? Tier
		MB	Water	0.00 mg/L	10 mL	0.010 mg/L U	1	0.010			10/6/09 10:17:12	N IV
3Q0909609-01	Chromium, Hexavalent, Dissolved	LCS	Water	0.19 mg/L	10 mL	0.190 mg/L ✓	1	0.010	95		10/6/09 10:27:36	N IV
3Q0909609-02	Chromium, Hexavalent, Dissolved	LCS	Water	0.19 mg/L	10 mL	0.188 mg/L ✓	1	0.010	94		10/6/09 10:48:24	N IV
3Q0909609-03	Chromium, Hexavalent, Dissolved	N/A	Water	0.00 mg/L	10 mL	0.010 mg/L U ✓	1	0.010			10/6/09 12:13:40	N IV
3Q0909609-001	Chromium, Hexavalent, Dissolved	N/A	Water	2.56 mg/L	10 mL	2.56 mg/L ✓	10	0.10			10/6/09 12:24:04	N IV
3Q0909609-002	Chromium, Hexavalent, Dissolved	N/A	Water	2.63 mg/L	10 mL	2.63 mg/L ✓	10	0.10			10/6/09 12:34:28	N IV
3Q0909609-003	Chromium, Hexavalent, Dissolved	N/A	Water	24.27 mg/L	10 mL	24.3 mg/L ✓	40	0.40			10/6/09 12:44:52	N IV
3Q0909609-004	Chromium, Hexavalent, Dissolved	DUP	Water	25.10 mg/L	10 mL	25.1 mg/L ✓	40	0.40	3		10/6/09 13:28:10	N IV
3Q0909609-005	Chromium, Hexavalent, Dissolved	MS	Water	32.54 mg/L	10 mL	32.5 mg/L ✓	40	0.40	103		10/6/09 13:38:35	N IV
3Q0909609-003	Chromium, Hexavalent, Dissolved	N/A	Water	20.64 mg/L	10 mL	20.6 mg/L ✓	40	0.40			10/6/09 13:48:59	N IV
3Q0909609-004	Chromium, Hexavalent, Dissolved	N/A	Water	21.92 mg/L	10 mL	21.9 mg/L ✓	40	0.40			10/6/09 13:59:23	N IV
3Q0909173-007	Chromium, Hexavalent, Dissolved	N/A	Water	0.00 mg/L	10 mL	0.010 mg/L U ✓	1	0.010			10/6/09 14:09:47	N IV
3Q0909173-008	Chromium, Hexavalent, Dissolved	N/A	Water	0.00 mg/L	10 mL	0.010 mg/L U ✓	1	0.010			10/6/09 14:20:11	N IV
3Q0909173-001	Chromium, Hexavalent, Dissolved	N/A	Water	0.00 mg/L	10 mL	0.010 mg/L U ✓	1	0.010			10/6/09 14:30:34	N IV
3Q0909173-002	Chromium, Hexavalent, Dissolved	N/A	Water	0.00 mg/L	10 mL	0.010 mg/L U ✓	1	0.010			10/6/09 14:40:59	N IV
3Q0909173-003	Chromium, Hexavalent, Dissolved	N/A	Water	0.00 mg/L	10 mL	0.010 mg/L U ✓	1	0.010			10/6/09 14:51:24	N IV
3Q0909173-004	Chromium, Hexavalent, Dissolved	N/A	Water	0.00 mg/L	10 mL	0.010 mg/L U ✓	1	0.010			10/6/09 15:01:48	N IV
3Q0909609-06	Chromium, Hexavalent, Dissolved	DUP	Water	0.00 mg/L	10 mL	0.010 mg/L U ✓	1	0.010		NC	10/6/09 15:33:00	N IV
3Q0909609-07	Chromium, Hexavalent, Dissolved	MS	Water	0.18 mg/L	10 mL	0.176 mg/L ✓	1	0.010	88*		10/6/09 15:43:24	N IV
3Q0909173-005	Chromium, Hexavalent, Dissolved	N/A	Water	0.00 mg/L	10 mL	0.010 mg/L U ✓	1	0.010			10/6/09 15:53:48	N IV
3Q0909173-006	Chromium, Hexavalent, Dissolved	N/A	Water	0.00 mg/L	10 mL	0.010 mg/L U ✓	1	0.010			10/6/09 16:04:10	N IV
3Q0909173-009	Chromium, Hexavalent, Dissolved	N/A	Water	0.00 mg/L	10 mL	0.010 mg/L U ✓	1	0.010			10/6/09 16:14:34	N IV
3Q0909173-010	Chromium, Hexavalent, Dissolved	N/A	Water	0.00 mg/L	10 mL	0.010 mg/L U ✓	1	0.010			10/6/09 16:24:58	N IV
3Q0909173-011	Chromium, Hexavalent, Dissolved	N/A	Water	0.00 mg/L	10 mL	0.010 mg/L U ✓	1	0.010			10/6/09 16:35:23	N IV
3Q0909609-08	Chromium, Hexavalent, Dissolved	DUP	Water	0.00 mg/L	10 mL	0.010 mg/L U ✓	1	0.010		NC	10/6/09 17:06:35	N IV

Analytical Results Summary

Instrument Name: R-IC-01	Analyst: CWOODS	Analysis Lot: 173619	Method/Testcode: 218.6/Cr6 D								
<u>Lab Code</u>	<u>QC Type/Parent Sample</u>	<u>Matrix</u>	<u>Raw Result</u>	<u>Sample Amt.</u>	<u>Final Result</u>	<u>Dil</u>	<u>PQL</u>	<u>% Rec</u>	<u>% RSD</u>	<u>Date Analyzed</u>	<u>QC? Tier</u>
3Q0909609-09	MS K0909173-003	Water	0.18 mg/L	10 mL	0.184 mg/L ✓	1	0.010	92		10/6/09 17:16:59	N IV
3Q0909609-10	DUP K0909173-005	Water	0.00 mg/L	10 mL	0.010 mg/L U ✓	1	0.010		NC	10/6/09 17:27:23	N IV
3Q0909609-11	MS K0909173-005	Water	0.18 mg/L	10 mL	0.183 mg/L ✓	1	0.010	91		10/6/09 17:37:47	N IV

Target Analytes
Chromium, Hexavalent, Dissolved
Chromium, Hexavalent, Dissolved
Chromium, Hexavalent, Dissolved

218.6

Analyst: C Woods
Pipet: Superman

Hesperia

R-5635

R-5636

R-5462

K-9173

Reviewed & Approved

By: B. B. B.

Date: 10/16/09

Line	Sample	Sample Type	Level	Method	Data File	Dilution	Comment
1	CCV	Sample		cr6-0917.met	o06_001.dxd	1	
2	CCB	Sample		cr6-0917.met	o06_002.dxd	1	
3	LCS	Sample		cr6-0917.met	o06_003.dxd	1	
4	LCS	Sample		cr6-0917.met	o06_004.dxd	1	
5	LCS DUP	Sample		cr6-0917.met	o06_005.dxd	1	
6	LCS DUP	Sample		cr6-0917.met	o06_006.dxd	1	
7	EB100509-SO1	Sample		cr6-0917.met	o06_007.dxd	1	218.6
8	EB100509-SO1	Sample		cr6-0917.met	o06_008.dxd	1	218.6
9	R0905636-001	Sample		cr6-0917.met	o06_009.dxd	1	218.6
10	R0905636-002	Sample		cr6-0917.met	o06_010.dxd	10	218.6
11	R0905636-003	Sample		cr6-0917.met	o06_011.dxd	10	218.6
12	R0905462-001	Sample		cr6-0917.met	o06_012.dxd	40	218.6
13	CCV	Sample		cr6-0917.met	o06_013.dxd	1	
14	CCB	Sample		cr6-0917.met	o06_014.dxd	1	
15	R0905462-001 DUP	Sample		cr6-0917.met	o06_015.dxd	40	218.6
16	R0905462-001 SPK	Sample		cr6-0917.met	o06_016.dxd	40	218.6
17	R0905462-003	Sample		cr6-0917.met	o06_017.dxd	40	218.6
18	R0905462-004	Sample		cr6-0917.met	o06_018.dxd	40	218.6
19	K0909173-007	Sample		cr6-0917.met	o06_019.dxd	1	218.6
20	K0909173-008	Sample		cr6-0917.met	o06_020.dxd	1	218.6
21	K0909173-001	Sample		cr6-0917.met	o06_021.dxd	1	218.6
22	K0909173-002	Sample		cr6-0917.met	o06_022.dxd	1	218.6
23	K0909173-003	Sample		cr6-0917.met	o06_023.dxd	1	218.6
24	K0909173-004	Sample		cr6-0917.met	o06_024.dxd	1	218.6
25	CCV	Sample		cr6-0917.met	o06_025.dxd	1	
26	CCB	Sample		cr6-0917.met	o06_026.dxd	1	
27	K0909173-004 DUP	Sample		cr6-0917.met	o06_027.dxd	1	218.6
28	K0909173-004 SPK	Sample		cr6-0917.met	o06_028.dxd	1	218.6
29	K0909173-005	Sample		cr6-0917.met	o06_029.dxd	1	218.6
30	K0909173-006	Sample		cr6-0917.met	o06_030.dxd	1	218.6
31	K0909173-009	Sample		cr6-0917.met	o06_031.dxd	1	218.6
32	K0909173-010	Sample		cr6-0917.met	o06_032.dxd	1	218.6
33	K0909173-011	Sample		cr6-0917.met	o06_033.dxd	1	218.6
34	CCV	Sample		cr6-0917.met	o06_034.dxd	1	
35	CCB	Sample		cr6-0917.met	o06_035.dxd	1	
36	K0909173-003 DUP	Sample		cr6-0917.met	o06_036.dxd	1	218.6
37	K0909173-003 SPK	Sample		cr6-0917.met	o06_037.dxd	1	218.6
38	K0909173-005 DUP	Sample		cr6-0917.met	o06_038.dxd	1	218.6
39	K0909173-005 SPK	Sample		cr6-0917.met	o06_039.dxd	1	218.6
40	R0905462-001 DUP	Sample		cr6-0917.met	o06_040.dxd	40	218.6
41	R0905462-001 SPK	Sample		cr6-0917.met	o06_041.dxd	40	218.6
42	CCV	Sample		cr6-0917.met	o06_042.dxd	1	
43	CCB	Sample		cr6-0917.met	o06_043.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\100609
Comment:

01000

Columbia Analytical Services
 1 Mustard St., Suite 250
 Rochester, NY 14609-0859

Analyst: C. Woods
 Date: 10/6/09
 pH Meter ID: Bullwinkle
 Adjustment Solutions: NaOH H₂SO₄

Hexavalent Chromium:

Method 218.6*

Method 7199**

Folder Number	Sample ID	Sample pH at ^{10/6/09} arrival _{day of analysis}	Date and Time pH check at arrival _{analysis 10/6/09}	Sample pH at analysis	Analysis Date
5635	R0905635-012	5.63 → 9.14	10/6/09 11:18	9.14	10/6/2009
5636	R0905636-001	9.37	10/6/09 12:10	9.39	10/6/2009
	R0905636-002	9.18 → 9.45	10/6/09 12:11	9.41	10/6/2009
	R0905636-003	9.38	10/6/09 12:12	9.39	10/6/2009
5462	R0905462-001	9.48	10/6/09 12:13	9.48	10/6/2009
	R0905462-003	9.33	10/6/09 12:13	9.33	10/6/2009
	R0905462-004	9.59	10/6/09 12:14	9.59	10/6/2009
K9173	K0909173-007	5.84 → 9.13	10/6/09 12:15	9.33	10/6/2009
	K0909173-008	6.84 → 9.27	10/6/09 12:17	9.37	10/6/2009
	K0909173-001	6.69 → 9.09	10/6/09 12:18	9.49	10/6/2009
	K0909173-002	8.81 → 9.47	10/6/09 12:21	9.47	10/6/2009
	K0909173-003	5.94 → 9.19	10/6/09 12:25	9.39	10/6/2009
	K0909173-004	8.38 → 9.44	10/6/09 12:28	9.44	10/6/2009
	K0909173-005	8.11 → 9.18	10/6/09 12:30	9.59	10/6/2009
	K0909173-006	7.45 → 9.09	10/6/09 12:31	9.33	10/6/2009
	K0909173-009	7.63 → 9.37	10/6/09 12:33	9.37	10/6/2009
	K0909173-010	4.38 → 9.26	10/6/09 12:35	9.46	10/6/2009
	K0909173-011	5.11 → 9.38	10/6/09 12:38	9.38	10/6/2009
<i>C</i> 10/6/09					

*Note: Sample pH must be between 9.3 and 9.7 for 218.6

**Note: Sample pH must be between 9.0 and 9.5 for 7199

Note: Folder K0909173 not preserved upon arrival to laboratory. pH not adjusted or recorded until just prior to analysis

Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : CCV
Data File Name : ... \O06_001.DXD
Method File Name : ... \Cr6-0917.met
Date Time Collected : 10/6/09 10:06:48

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 09/17/09 50uL Loop

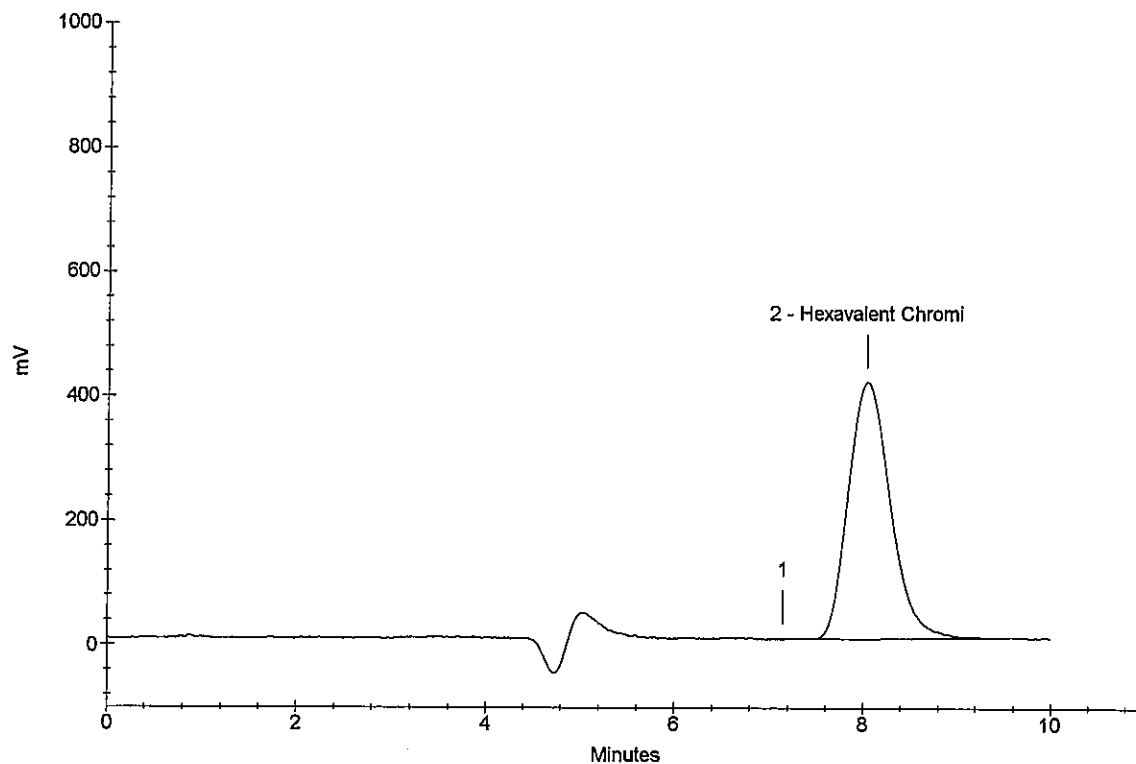
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment :

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
2	8.03	Hexavalent Chromi <i>α</i>	0.4742	12812485

CCV
10/7/09



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : CCB
Data File Name : ...\\O06_002.DXD
Method File Name : ...\\Cr6-0917.met
Date Time Collected : 10/6/09 10:17:12

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 09/17/09 50uL Loop

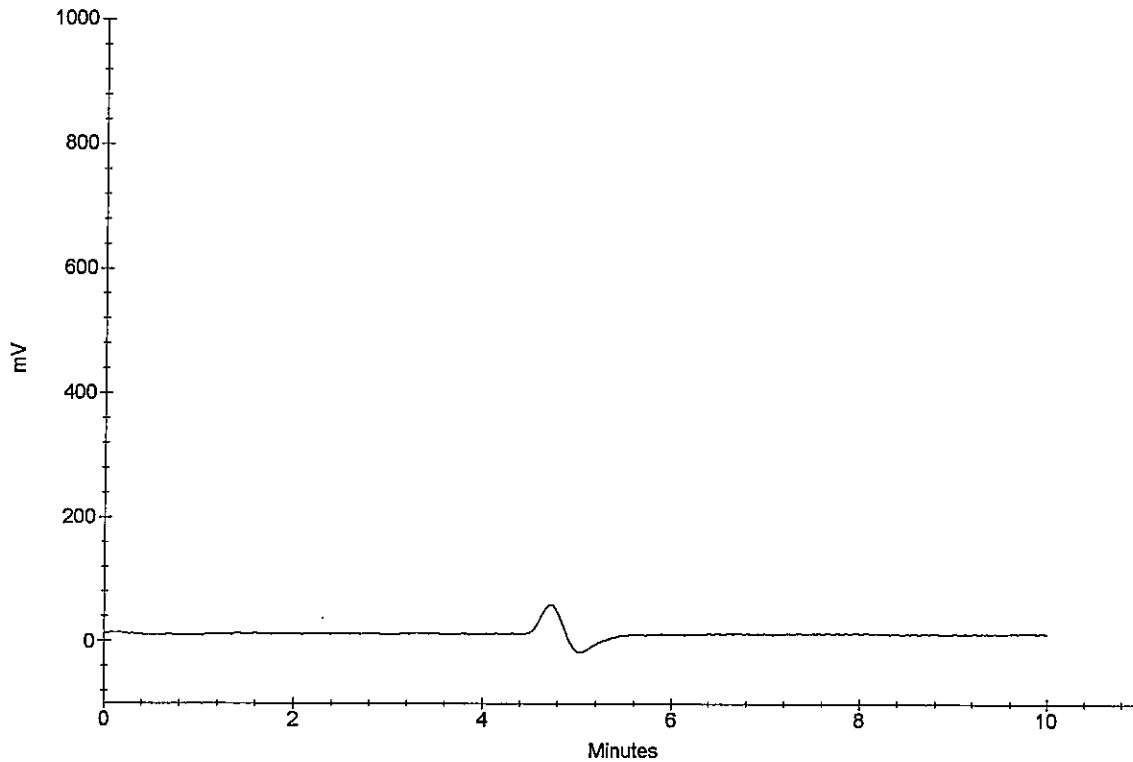
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment :

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
0	0.00	(null)	0.0000	0

CCB
10/7/09



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : LCS
Data File Name : ...\\O06_003.DXD
Method File Name : ...\\Cr6-0917.met
Date Time Collected : 10/6/09 10:27:36

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 09/17/09 50uL Loop

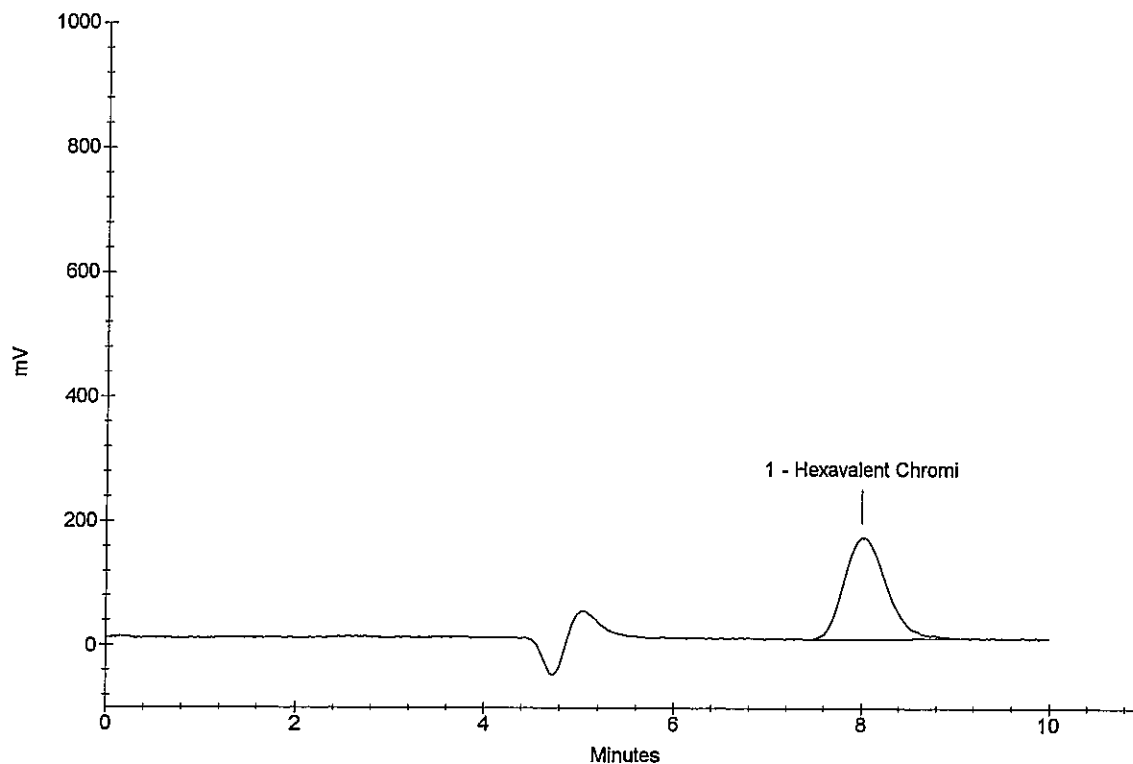
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment :

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.00	Hexavalent Chromi	0.1904	5148788

α
10/7/09
LCS



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : LCS
Data File Name : ...\\O06_004.DXD
Method File Name : ...\\Cr6-0917.met
Date Time Collected : 10/6/09 10:38:00

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 09/17/09 50uL Loop

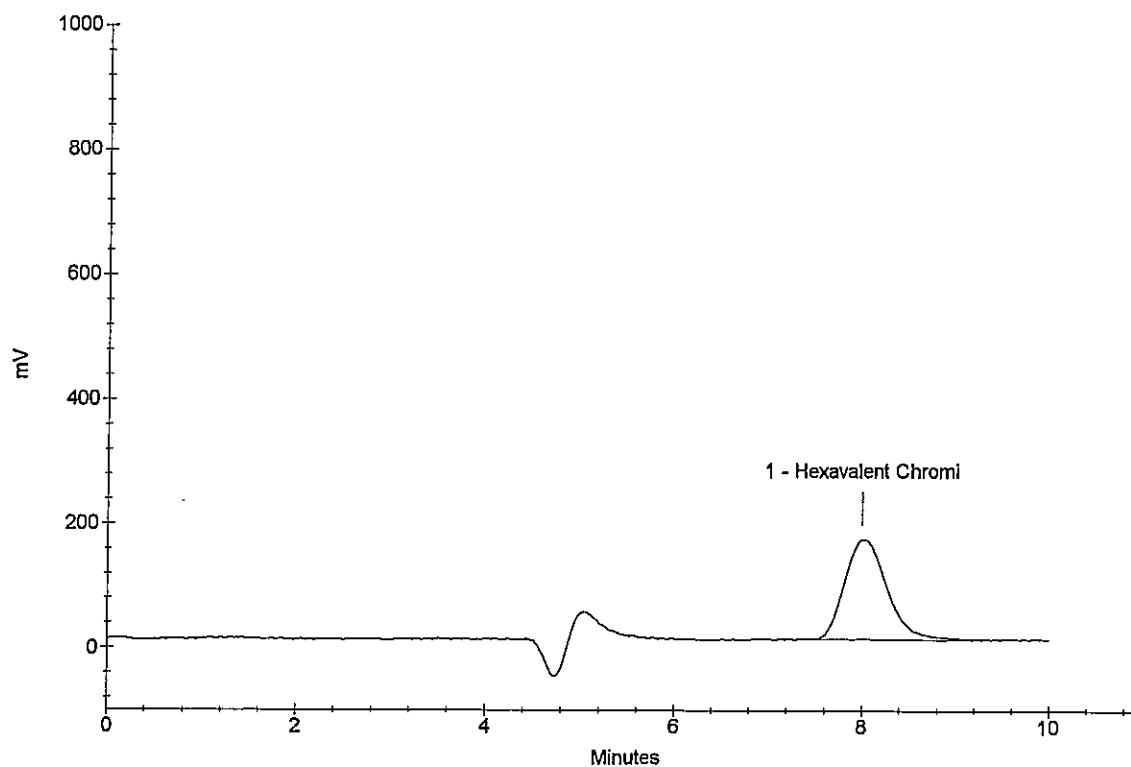
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment :

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.00	Hexavalent Chromi	0.1877	5074767

DL
10/17/09
LCS



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : LCS DUP
Data File Name : ...\\O06_005.DXD
Method File Name : ...\\Cr6-0917.met
Date Time Collected : 10/6/09 10:48:24

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 09/17/09 50uL Loop

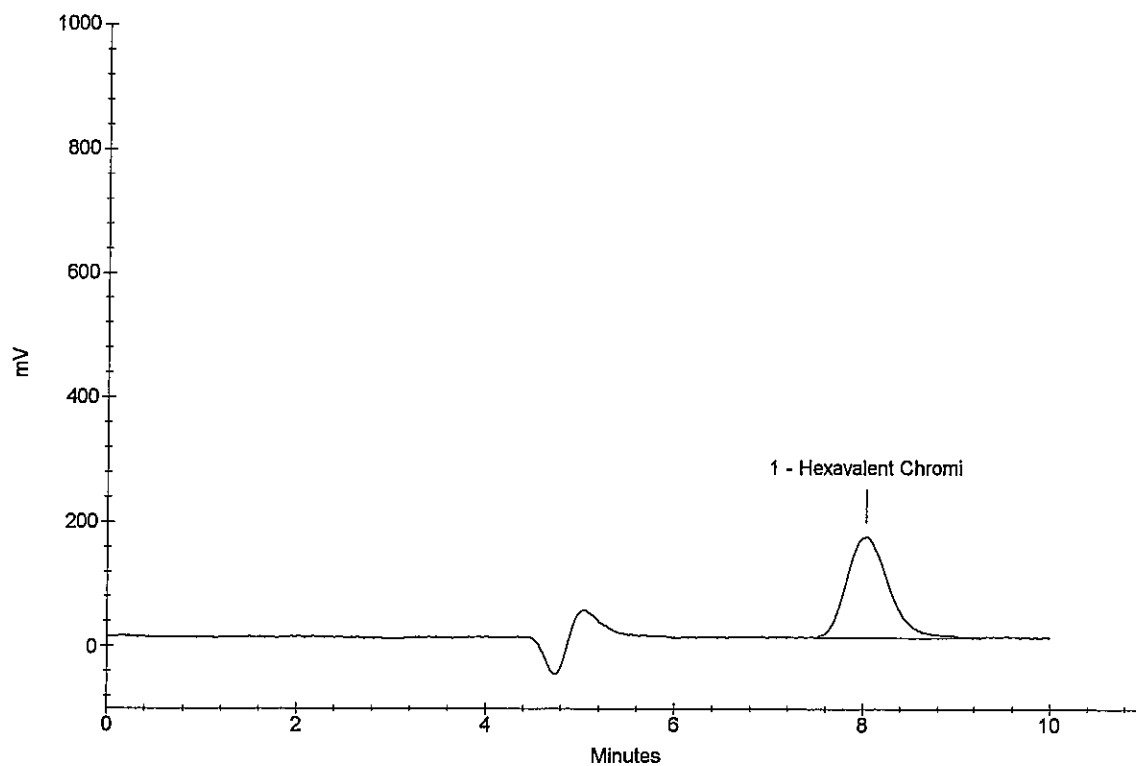
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment :

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.03	Hexavalent Chromi <i>OK</i>	0.1877	5074691

OK
ant
10/7/09
LCS DUP



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : LCS DUP
Data File Name : ...\\O06_006.DXD
Method File Name : ...\\Cr6-0917.met
Date Time Collected : 10/6/09 10:58:48

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 09/17/09 50uL Loop

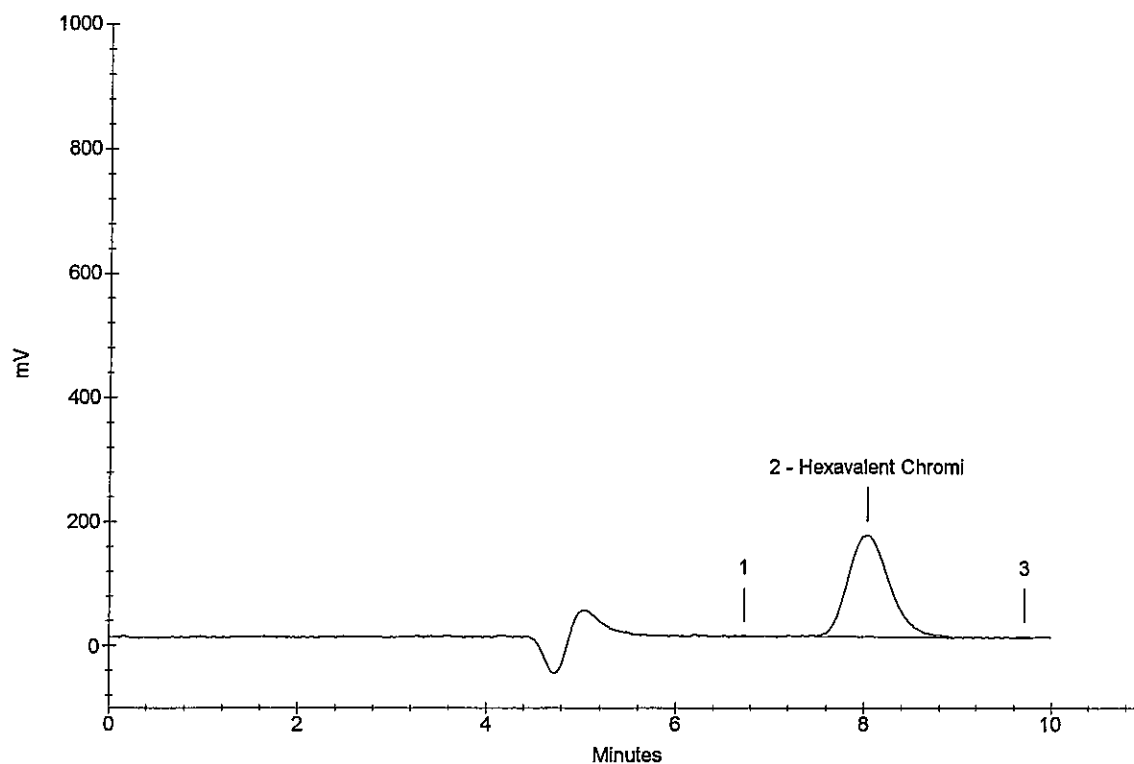
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment :

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
2	8.03	Hexavalent Chromi	0.1857	5020243

OK
[Signature]
LCS DUP



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : EB100509-SO1
Data File Name : ...O06_007.DXD
Method File Name : ...Cr6-0917.met
Date Time Collected : 10/6/09 11:31:37

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 09/17/09 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

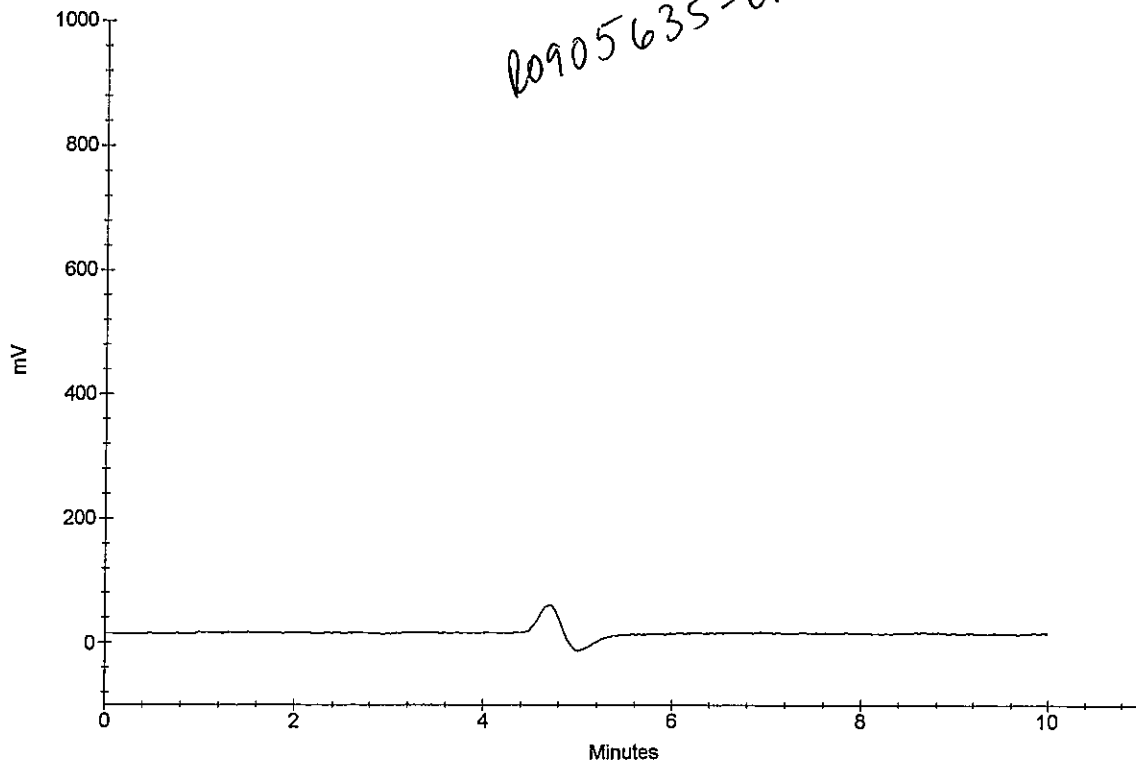
Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
0	0.00	(null)	0.0000	0

OK
CM
10/7/09

EB100509-SO1

20905635-012



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : EB100509-SO1
Data File Name : ...\\O06_008.DXD
Method File Name : ...\\Cr6-0917.met
Date Time Collected : 10/6/09 11:42:01

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 09/17/09 50uL Loop

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

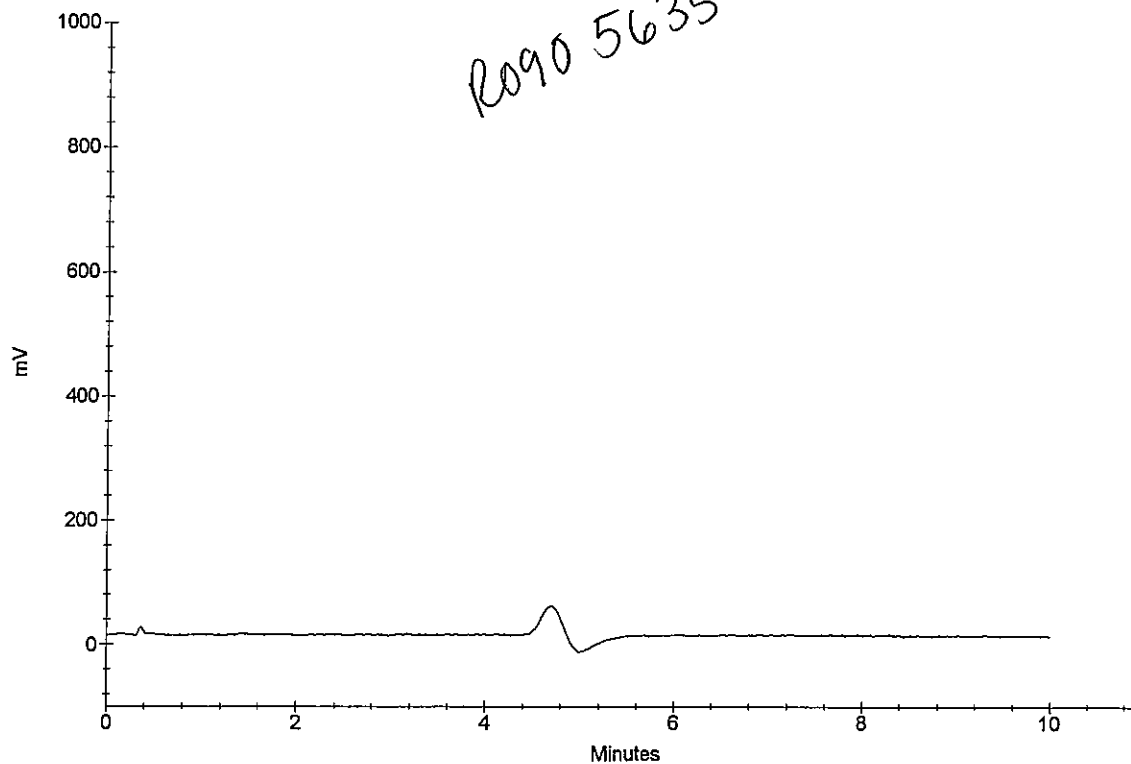
Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
0	0.00	(null)	0.0000	0

ok
cm
10/7/09
EB100509-SO1

R090 5635-012



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : R0905636-001
Data File Name : ...\\O06_009.DXD
Method File Name : ...\\Cr6-0917.met
Date Time Collected : 10/6/09 12:13:40

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 09/17/09 50uL Loop

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 218.6

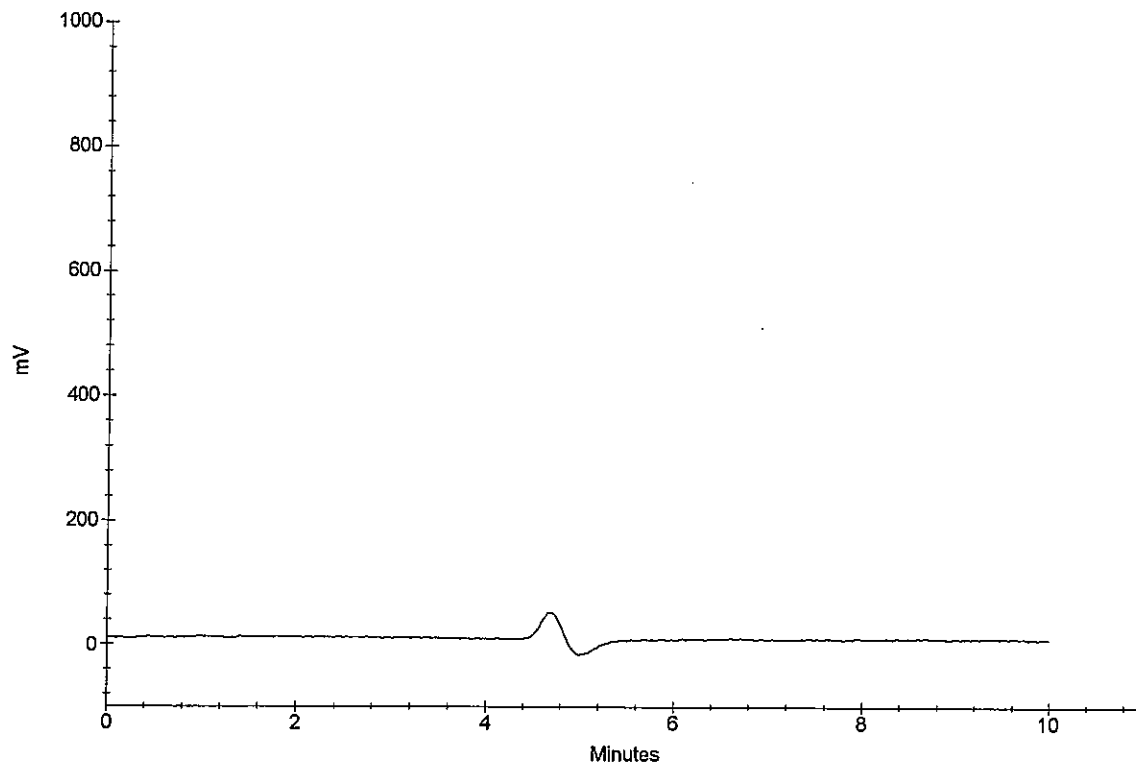
Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
0	0.00	(null)	0.0000	0

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CM
10/17/09

R0905636-001



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : R0905636-002
Data File Name : ...\\O06_010.DXD
Method File Name : ...\\Cr6-0917.met
Date Time Collected : 10/6/09 12:24:04

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 09/17/09 50uL Loop

Dilution Factor : 10.00
Sample Type : Sample Analysis
Sample Comment : 218.6

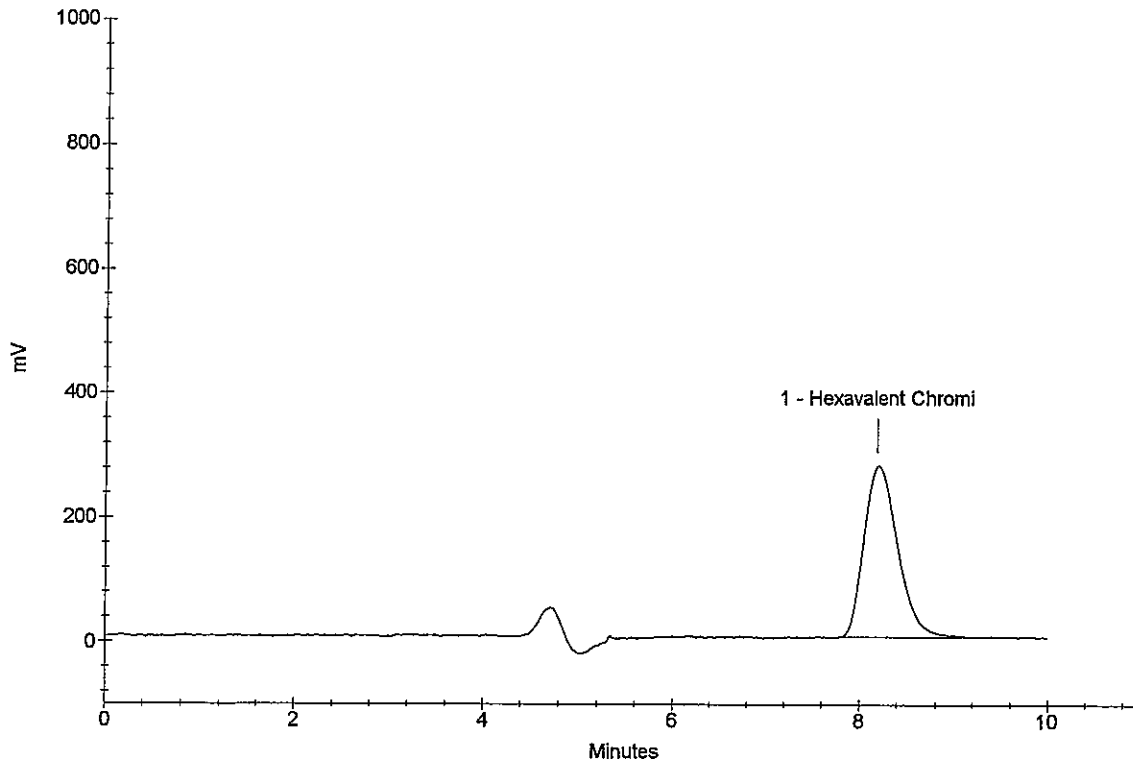
Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.18	Hexavalent Chromi	2.5572	6911577

OK
10/17/09

R0905636-002



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : R0905636-003
Data File Name : ...\\O06_011.DXD
Method File Name : ...\\Cr6-0917.met
Date Time Collected : 10/6/09 12:34:28

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 09/17/09 50uL Loop

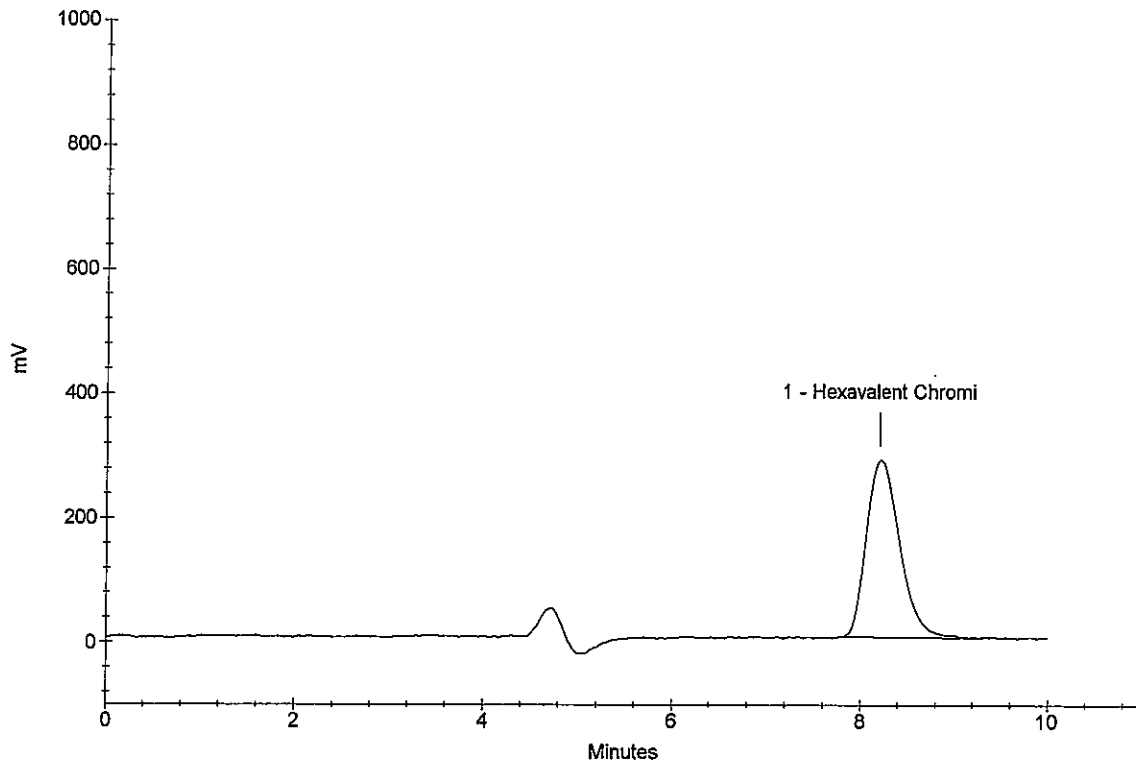
Dilution Factor : 10.00
Sample Type : Sample Analysis
Sample Comment : 218.6

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.20	Hexavalent Chromi	2.6282	7103277

OK
10/7/09
R0905636-003



Ion Chromatography Analytical Report
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Sample Name : R0905462-001
Data File Name : ...\\O06_012.DXD
Method File Name : ...\\Cr6-0917.met
Date Time Collected : 10/6/09 12:44:52

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 09/17/09 50uL Loop

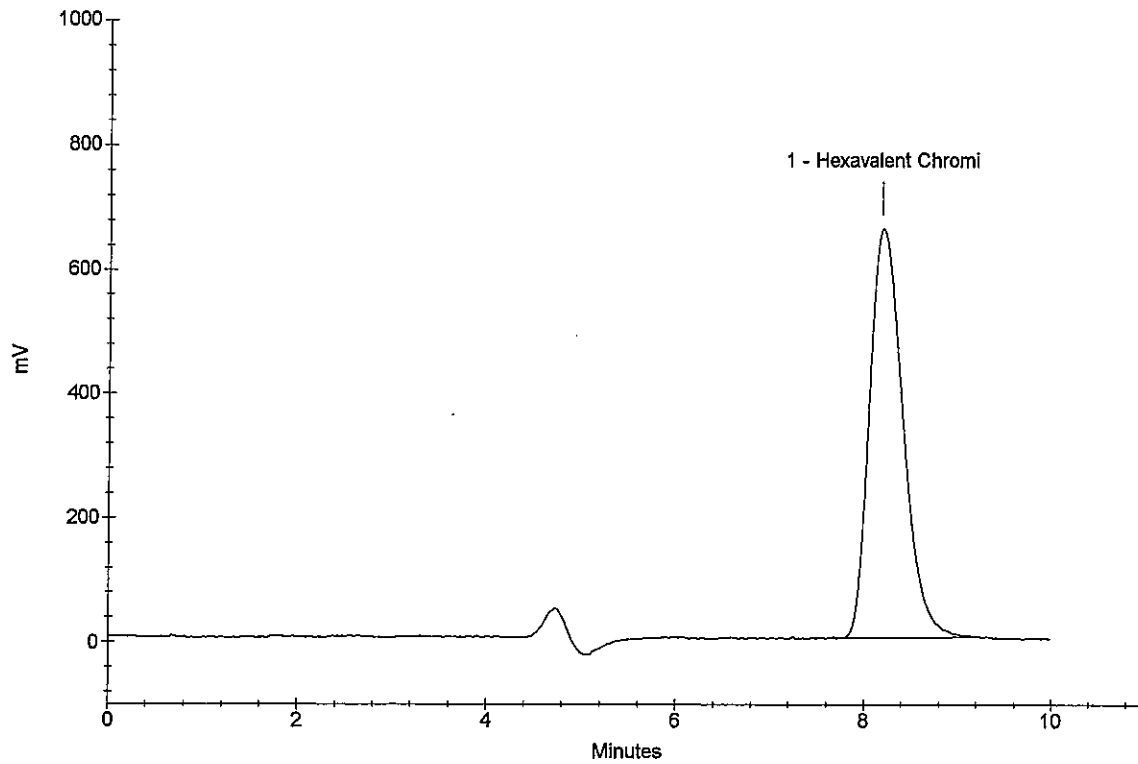
Dilution Factor : 40.00
Sample Type : Sample Analysis
Sample Comment : 218.6

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.20	Hexavalent Chromi <i>OK</i>	24.2666	16388663

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10/7/09
R0905462-001



Ion Chromatography Analytical Report
Columbia Analytical Services
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Sample Name : CCV
Data File Name : ...\\O06_013.DXD
Method File Name : ...\\Cr6-0917.met
Date Time Collected : 10/6/09 12:55:16

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 09/17/09 50uL Loop

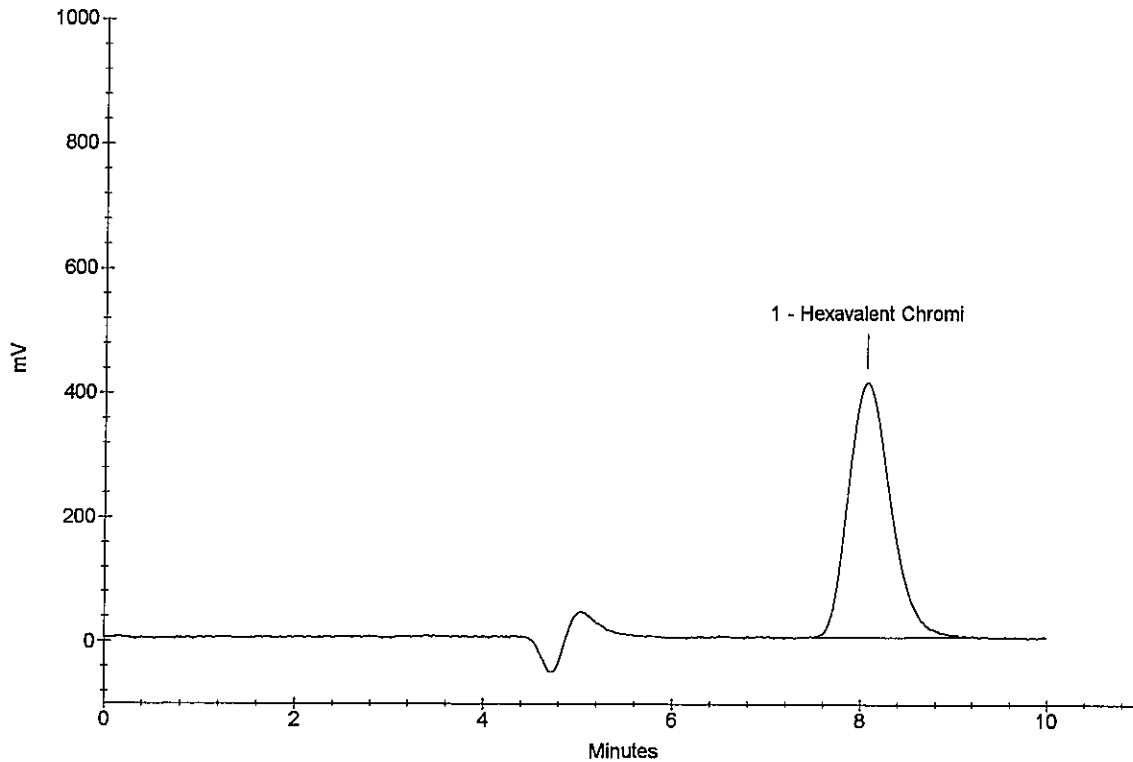
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment :

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.07	Hexavalent Chromi	0.4742	12810668

OK
CCV
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Ion Chromatography Analytical Report
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Sample Name : CCB
Data File Name : ...\\O06_014.DXD
Method File Name : ...\\Cr6-0917.met
Date Time Collected : 10/6/09 13:05:40

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 09/17/09 50uL Loop

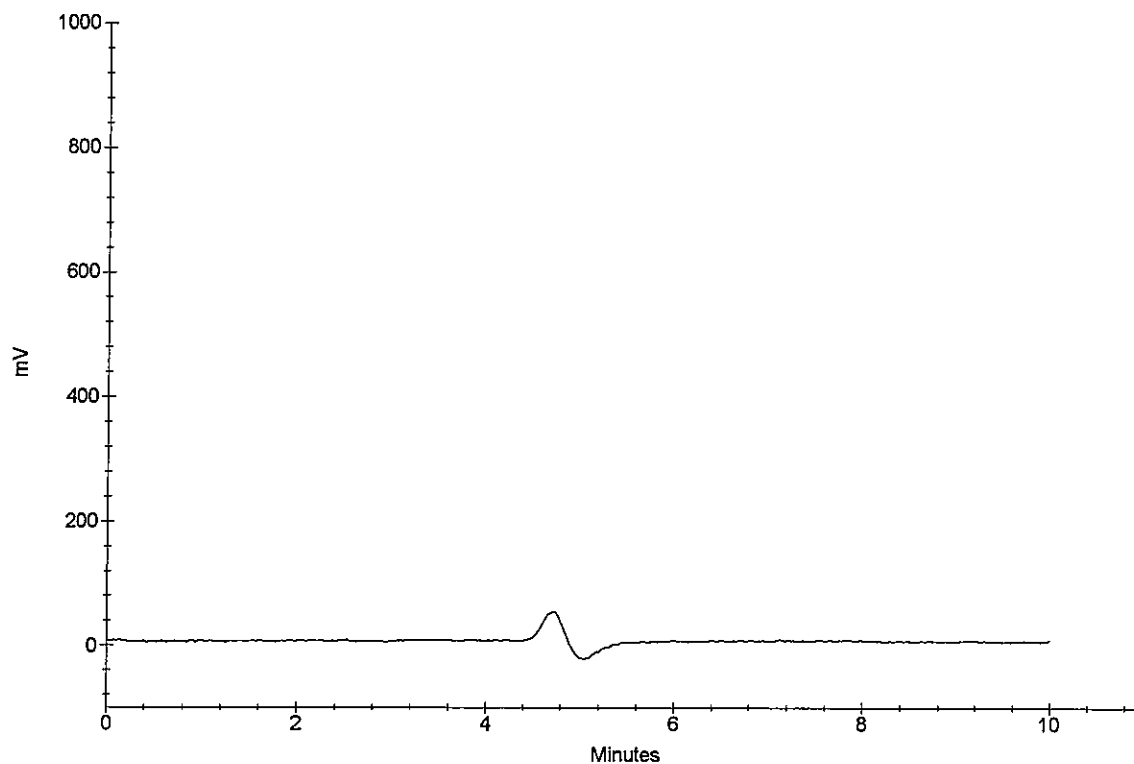
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment :

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
0	0.00	(null)	0.0000	0

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CCB
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Ion Chromatography Analytical Report
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Sample Name : R0905462-001 DUP
Data File Name : ...\\O06_015.DXD
Method File Name : ...\\Cr6-0917.met
Date Time Collected : 10/6/09 13:28:10

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 09/17/09 50uL Loop

Dilution Factor : 40.00
Sample Type : Sample Analysis
Sample Comment : 218.6

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

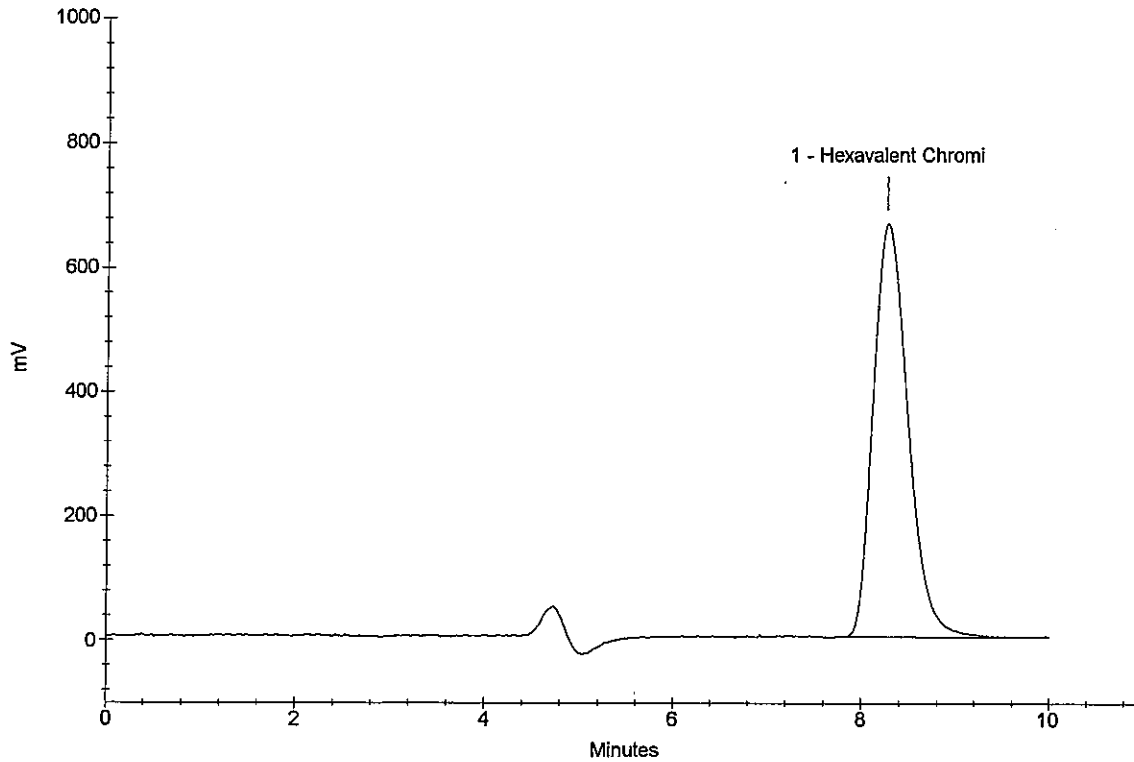
Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
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1	8.27	Hexavalent Chromi <i>OK</i>	25.0964	16948866
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10/17/09

R0905462-001 DUP



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : R0905462-001 SPK
Data File Name : ...\\O06_016.DXD
Method File Name : ...\\Cr6-0917.met
Date Time Collected : 10/6/09 13:38:35

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 09/17/09 50uL Loop

Dilution Factor : 40.00
Sample Type : Sample Analysis
Sample Comment : 218.6

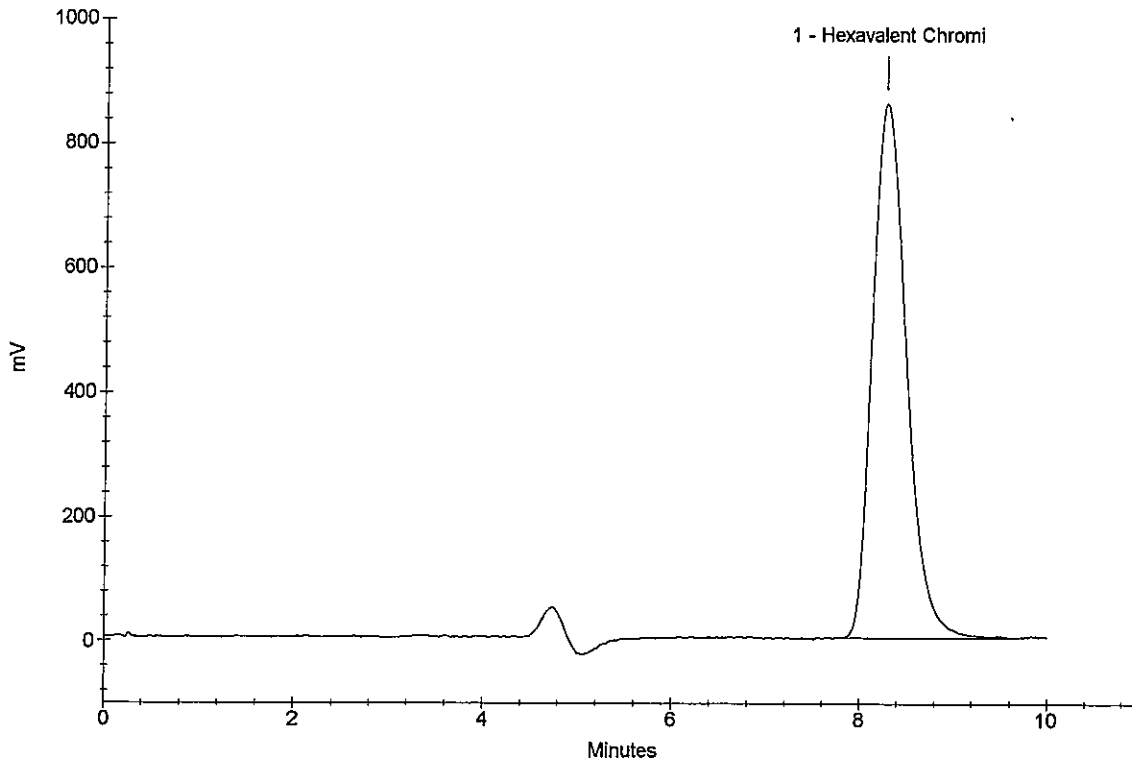
Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.28	Hexavalent Chromi <i>α</i>	32.5352	21970894

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10/7/09

R0905462-001 SPK



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : R0905462-003
Data File Name : ...\\O06_017.DXD
Method File Name : ...\\Cr6-0917.met
Date Time Collected : 10/6/09 13:48:59

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 09/17/09 50uL Loop

Dilution Factor : 40.00
Sample Type : Sample Analysis
Sample Comment : 218.6

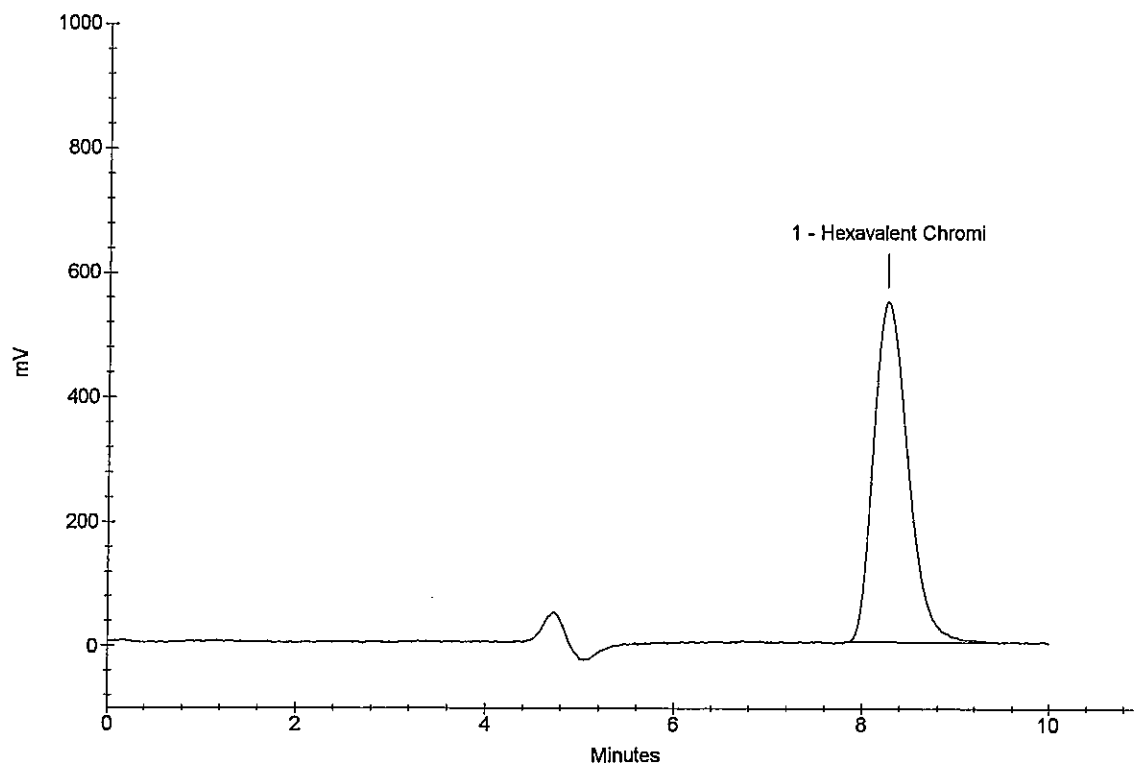
Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.27	Hexavalent Chromi	20.6385	13939317

OK
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R0905462-003



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Sample Name : R0905462-004
Data File Name : ...\\O06_018.DXD
Method File Name : ...\\Cr6-0917.met
Date Time Collected : 10/6/09 13:59:23

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 09/17/09 50uL Loop

Dilution Factor : 40.00
Sample Type : Sample Analysis
Sample Comment : 218.6

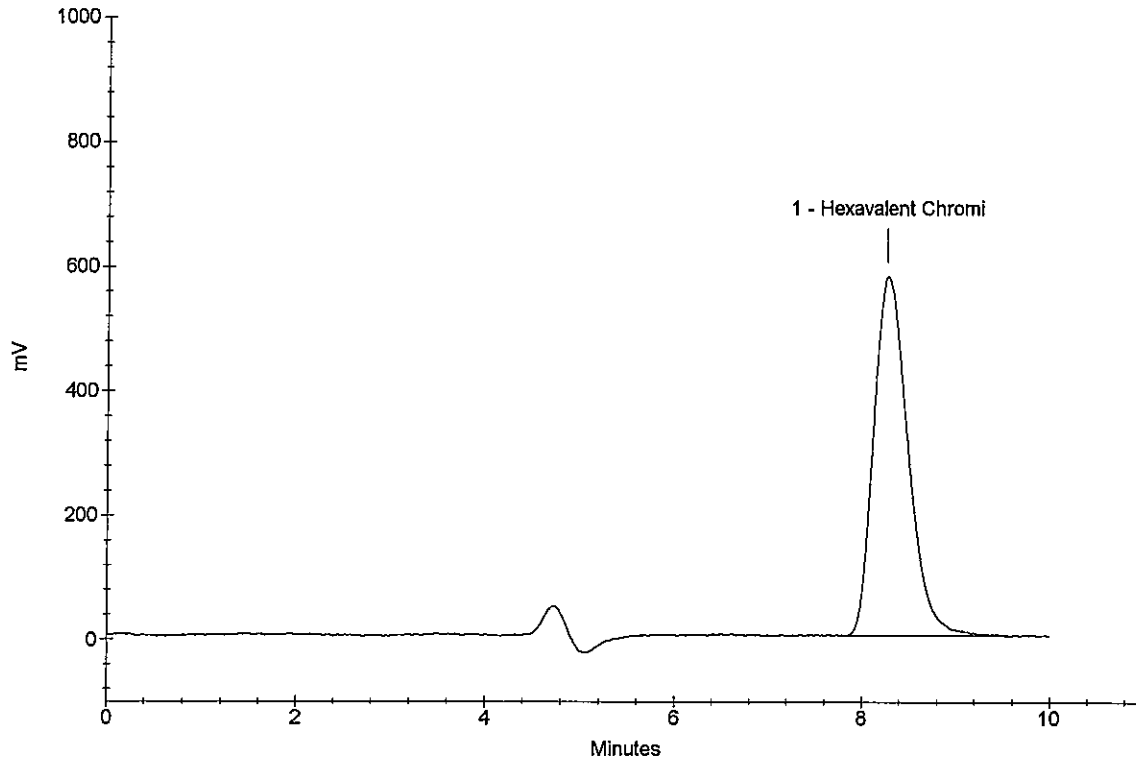
Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.27	Hexavalent Chromi <i>OK</i>	21.9182	14803235

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R0905462-004



Ion Chromatography Analytical Report
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Sample Name : K0909173-007
Data File Name : ...\\O06_019.DXD
Method File Name : ...\\Cr6-0917.met
Date Time Collected : 10/6/09 14:09:47

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 09/17/09 50uL Loop

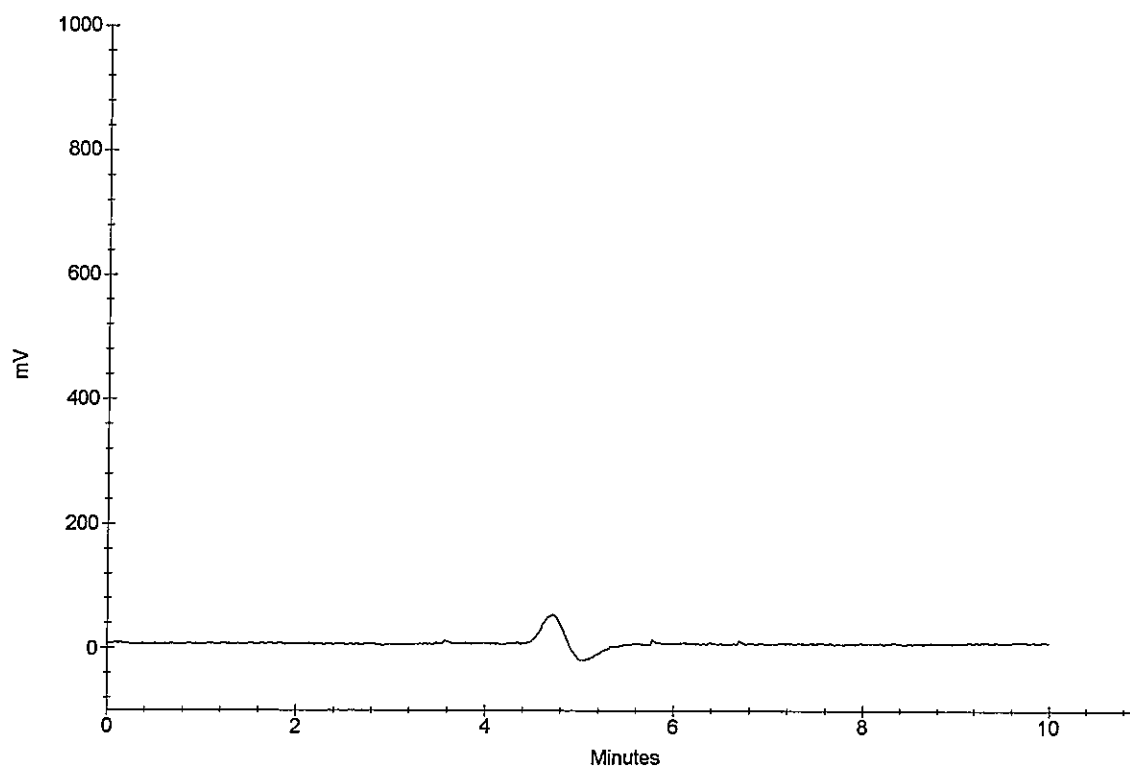
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 218.6

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
0	0.00	(null)	0.0000	0

OK
10/7/09
K0909173-007



Ion Chromatography Analytical Report
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Rochester, NY 14607

Sample Name : K0909173-008
Data File Name : ...\\O06_020.DXD
Method File Name : ...\\Cr6-0917.met
Date Time Collected : 10/6/09 14:20:11

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 09/17/09 50uL Loop

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 218.6

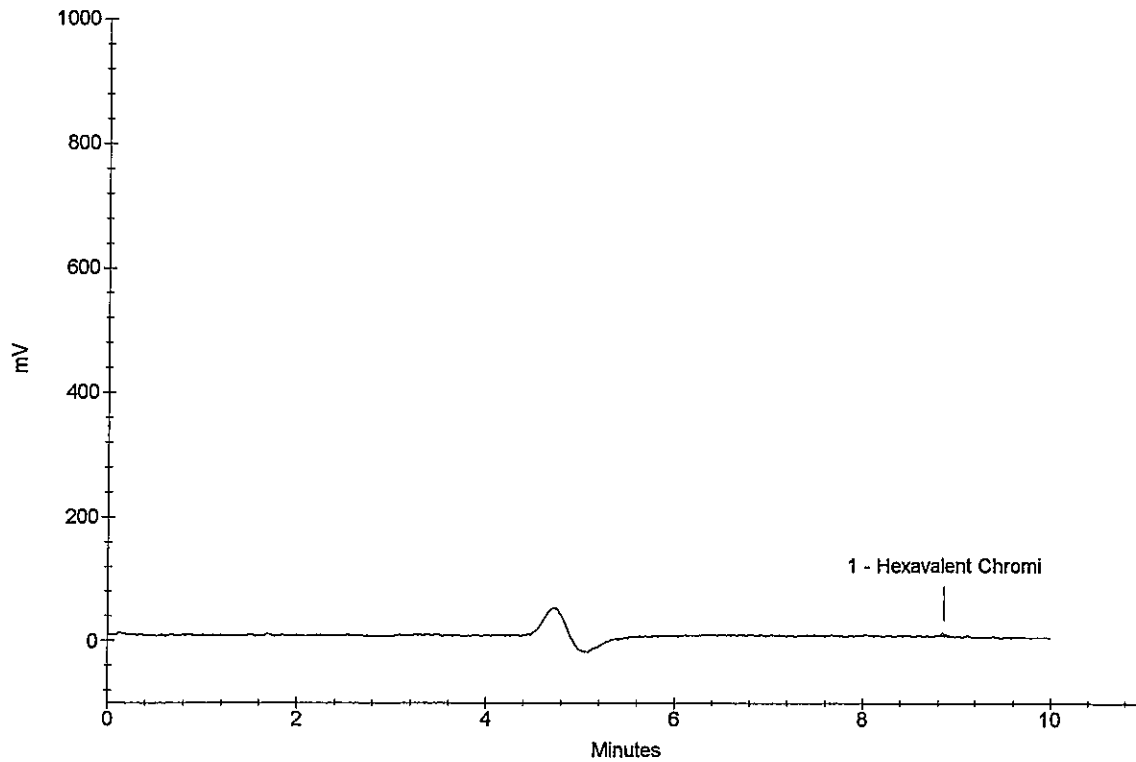
Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.87	Hexavalent Chromi	0.0004	17947

OK
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K0909173-008



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Sample Name : K0909173-001
Data File Name : ...\\O06_021.DXD
Method File Name : ...\\Cr6-0917.met
Date Time Collected : 10/6/09 14:30:34

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 09/17/09 50uL Loop

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 218.6

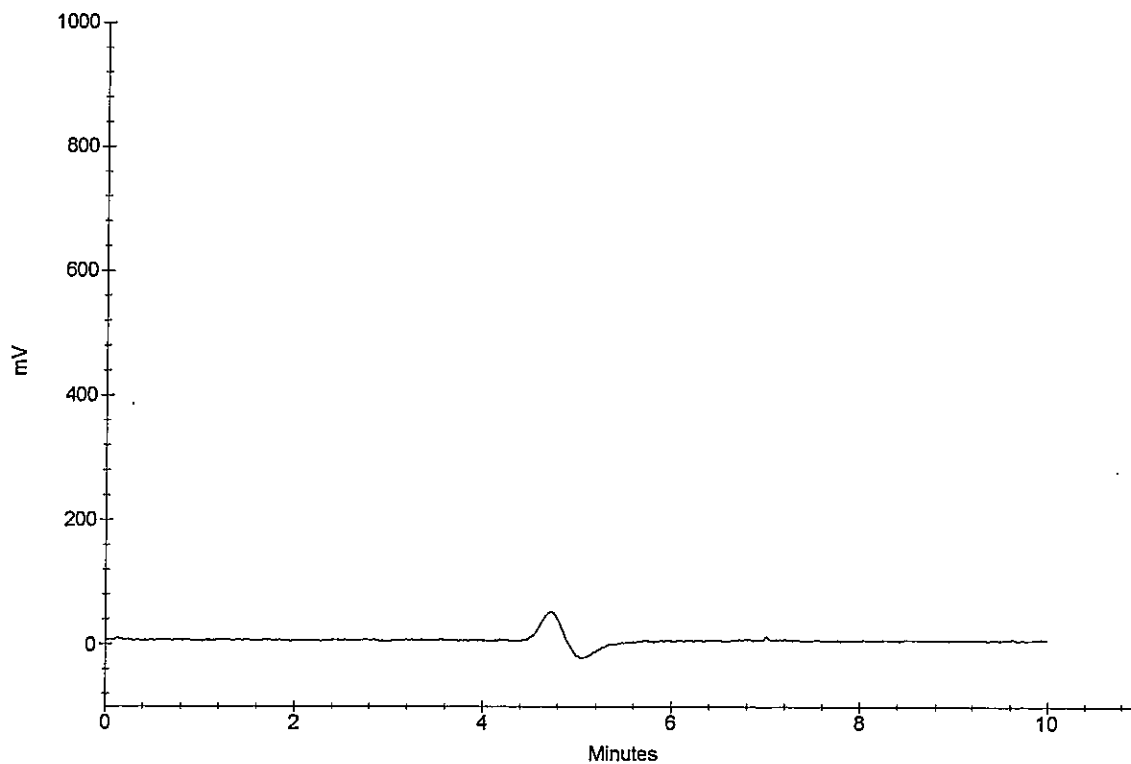
Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
0	0.00	(null)	0.0000	0

OK
10/7/09

K0909173-001



Ion Chromatography Analytical Report
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Sample Name : K0909173-002
Data File Name : ...\\O06_022.DXD
Method File Name : ...\\Cr6-0917.met
Date Time Collected : 10/6/09 14:40:59

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 09/17/09 50uL Loop

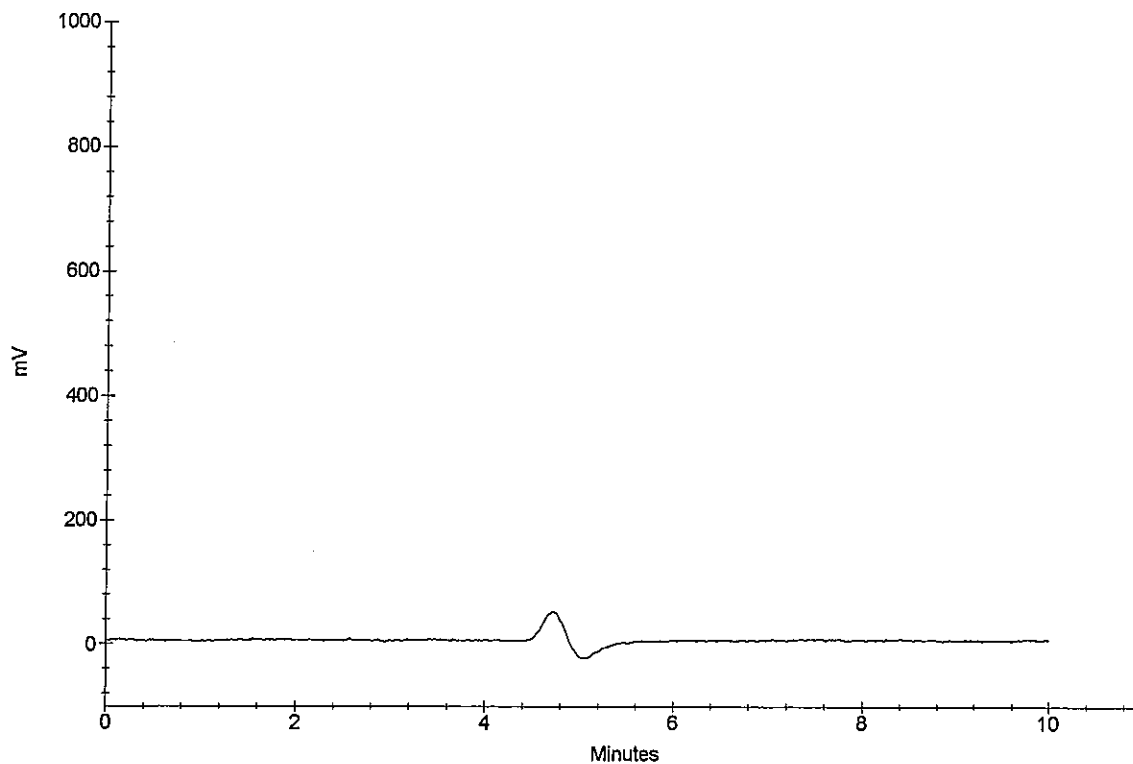
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 218.6

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
0	0.00	(null)	0.0000	0

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10/7/09
K0909173-002



Ion Chromatography Analytical Report
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Sample Name : K0909173-003
Data File Name : ...\\O06_023.DXD
Method File Name : ...\\Cr6-0917.met
Date Time Collected : 10/6/09 14:51:24

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 09/17/09 50uL Loop

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 218.6

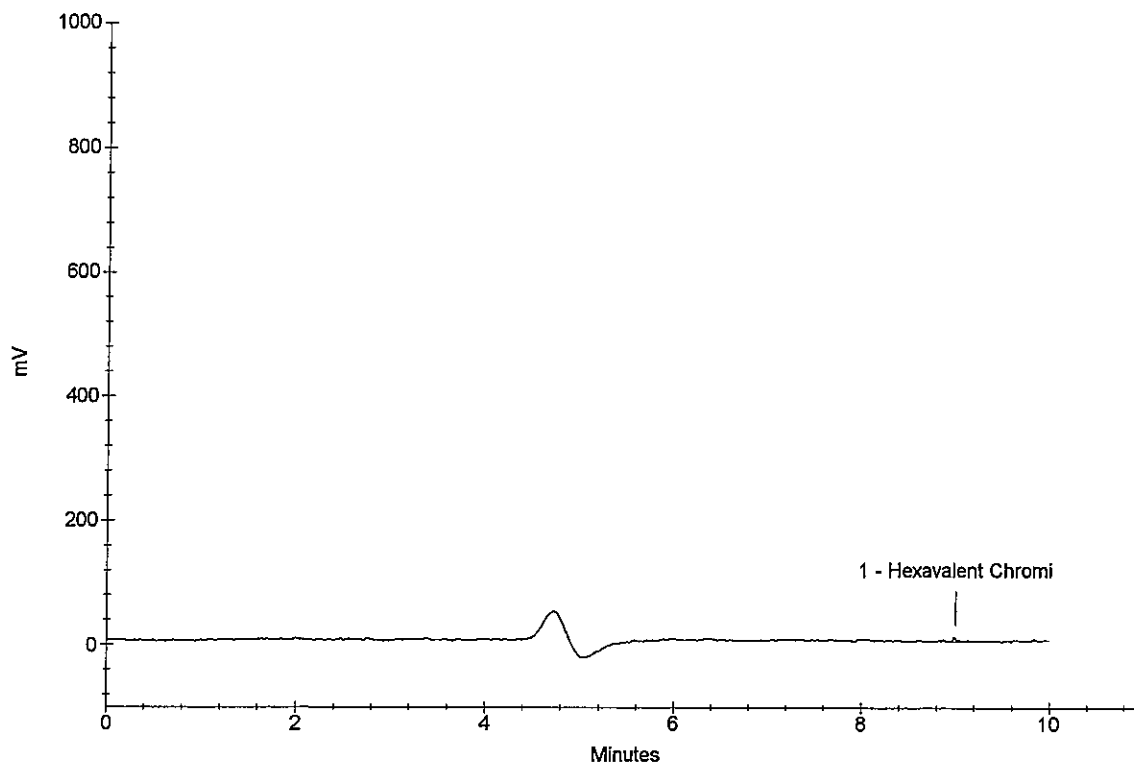
Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	9.00	Hexavalent Chromi	0.0014	44941

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K0909173-003



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Sample Name : K0909173-004
Data File Name : ...\\O06_024.DXD
Method File Name : ...\\Cr6-0917.met
Date Time Collected : 10/6/09 15:01:48

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 09/17/09 50uL Loop

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 218.6

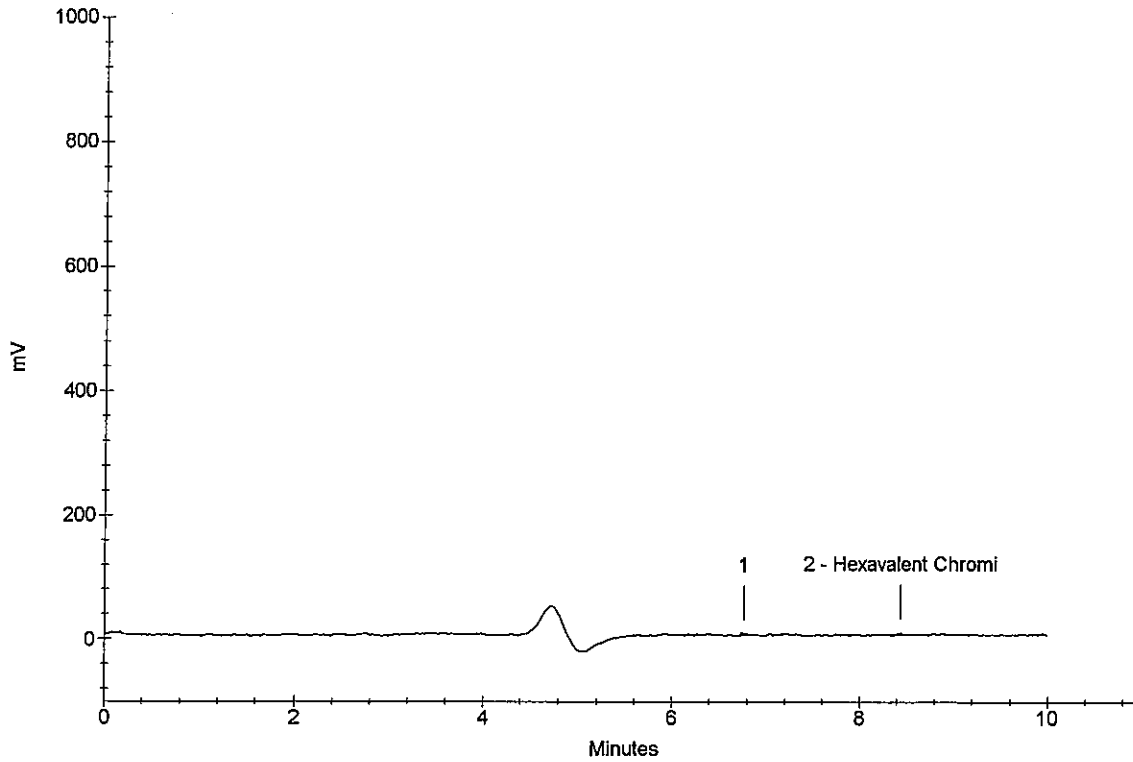
Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
2	8.43	Hexavalent Chromi	0.0004	18005

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K0909173-004



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Sample Name : CCV
Data File Name : ...\\O06_025.DXD
Method File Name : ...\\Cr6-0917.met
Date Time Collected : 10/6/09 15:12:11

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 09/17/09 50uL Loop

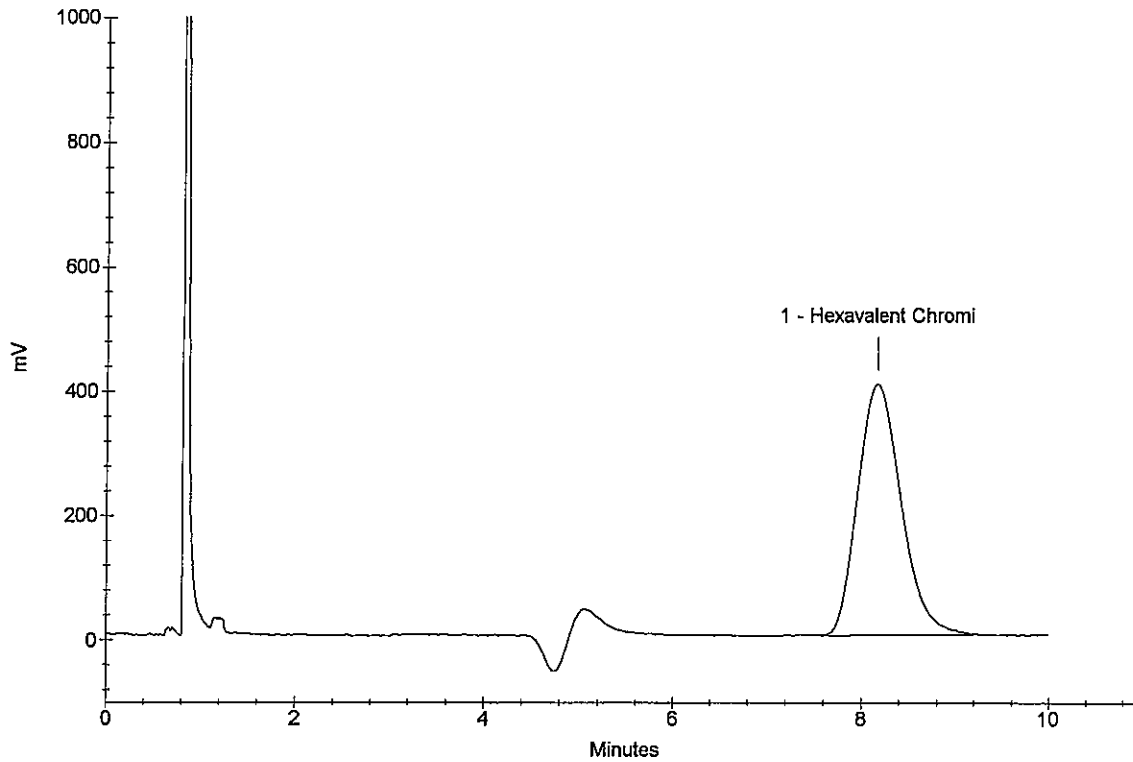
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment :

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.17	Hexavalent Chromi	0.4781	12917911

CCV
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CCV



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Sample Name : CCB
Data File Name : ...\\O06_026.DXD
Method File Name : ...\\Cr6-0917.met
Date Time Collected : 10/6/09 15:22:36

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 09/17/09 50uL Loop

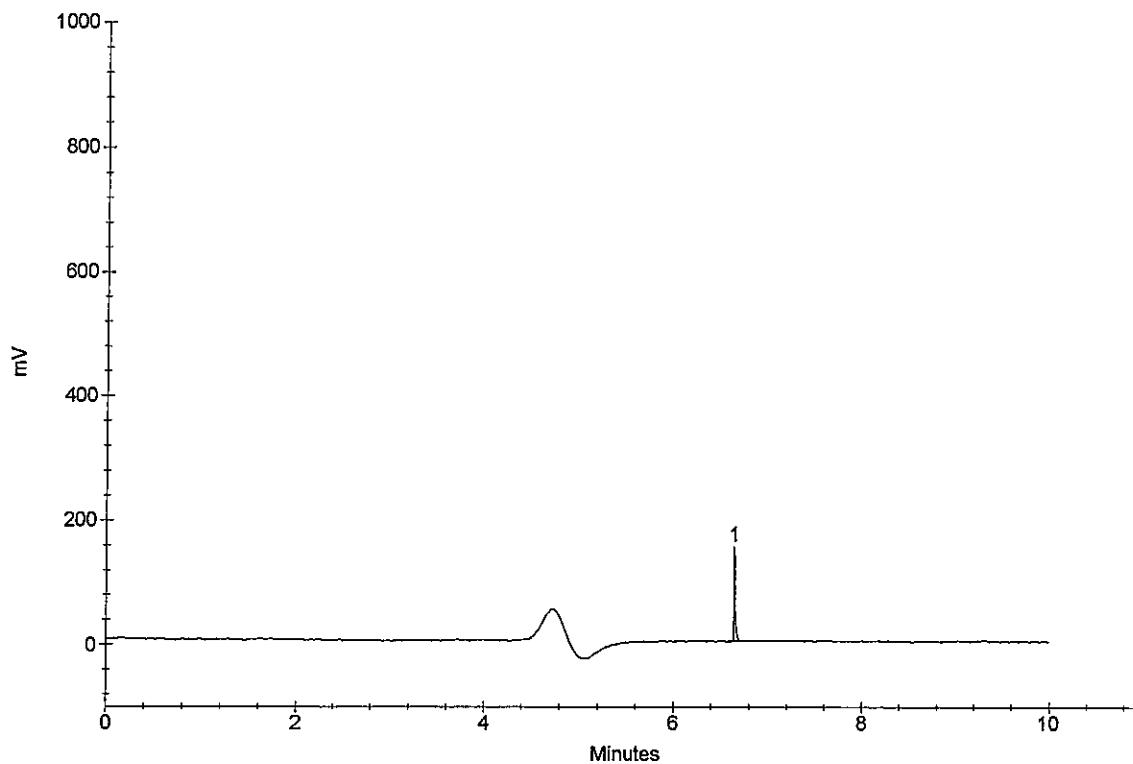
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment :

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	6.65		0.0000	120391

OK
10/7/09
CCB



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Sample Name : K0909173-004 DUP
Data File Name : ...\\O06_027.DXD
Method File Name : ...\\Cr6-0917.met
Date Time Collected : 10/6/09 15:33:00

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 09/17/09 50uL Loop

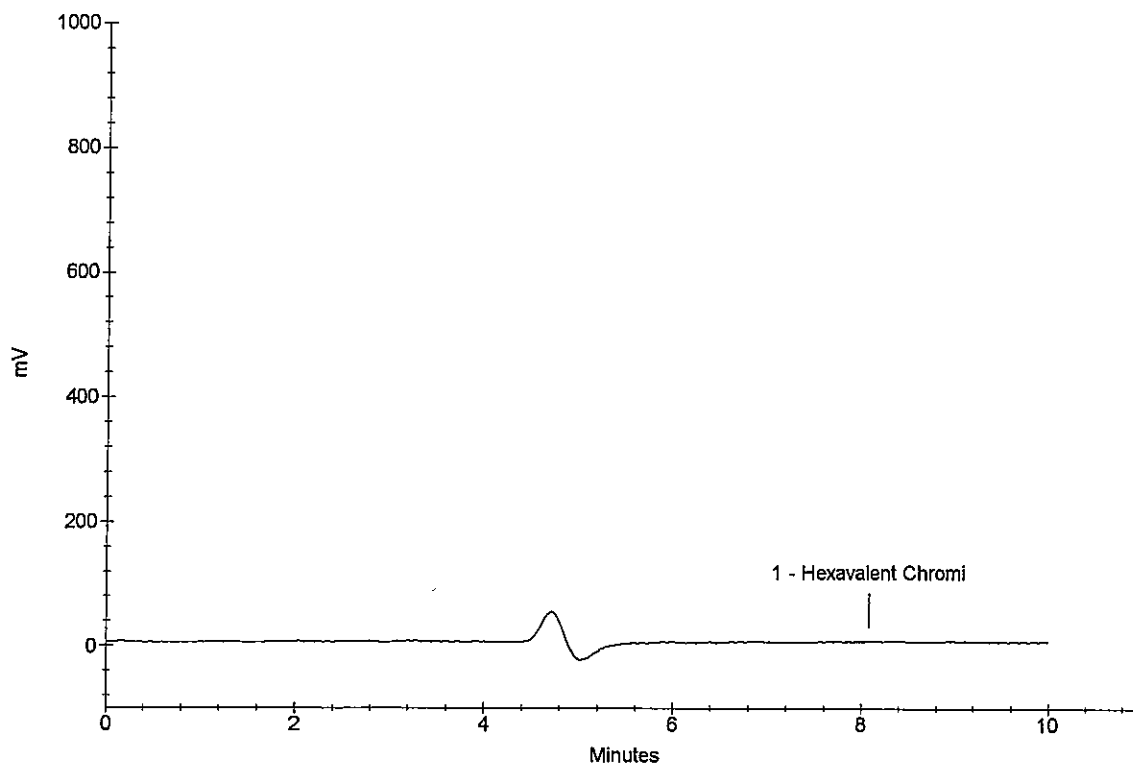
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 218.6

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.08	Hexavalent Chromi <i>α</i>	0.0004	17017

CVT
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K0909173-004 DUP



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Sample Name : K0909173-004 SPK
Data File Name : ...\\O06_028.DXD
Method File Name : ...\\Cr6-0917.met
Date Time Collected : 10/6/09 15:43:24

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 09/17/09 50uL Loop

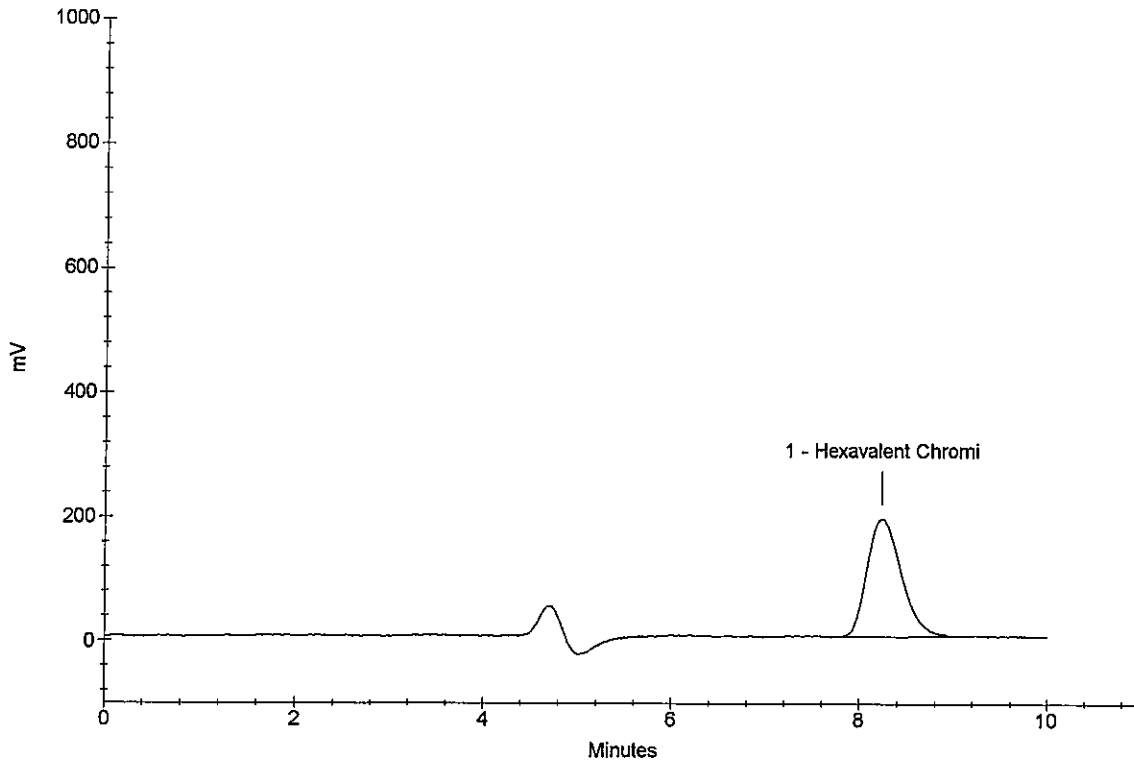
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 218.6

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.23	Hexavalent Chromi <i>OK</i>	0.1760	4758842

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K0909173-004 SPK



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : K0909173-005
Data File Name : ...\\O06_029.DXD
Method File Name : ...\\Cr6-0917.met
Date Time Collected : 10/6/09 15:53:48

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 09/17/09 50uL Loop

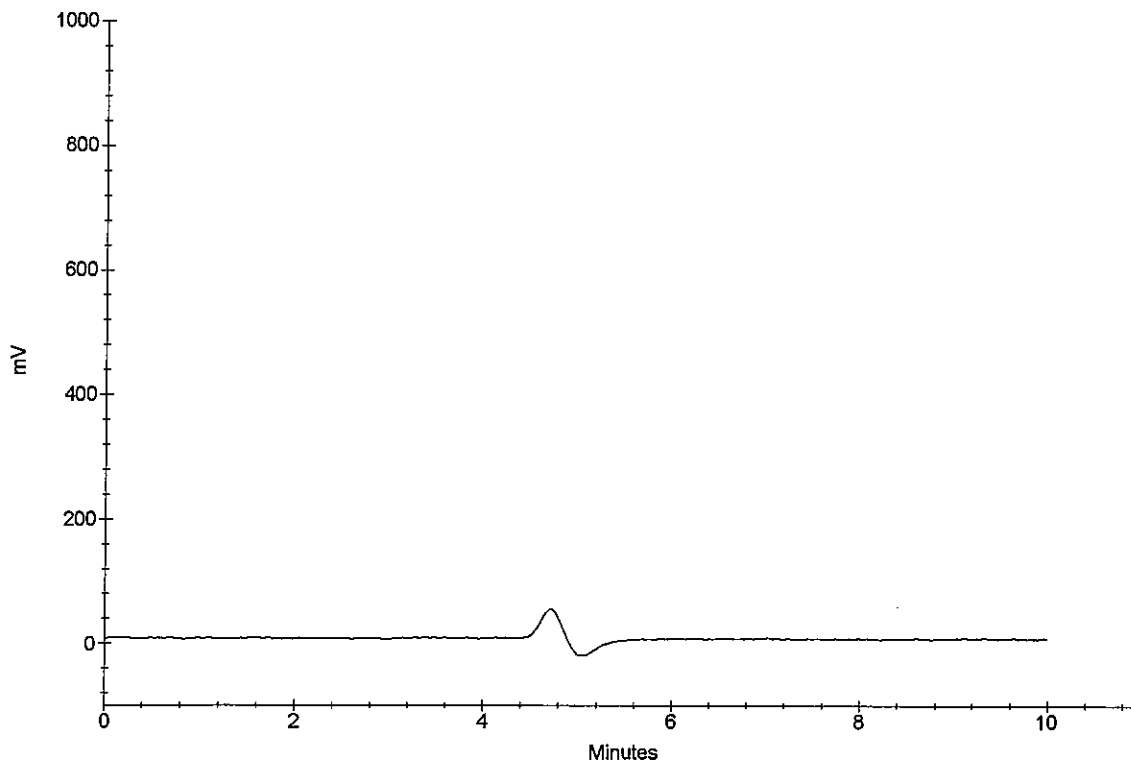
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 218.6

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
0	0.00	(null)	0.0000	0

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K0909173-005



Ion Chromatography Analytical Report
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Sample Name : K0909173-006
Data File Name : ...\\O06_030.DXD
Method File Name : ...\\Cr6-0917.met
Date Time Collected : 10/6/09 16:04:10

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 09/17/09 50uL Loop

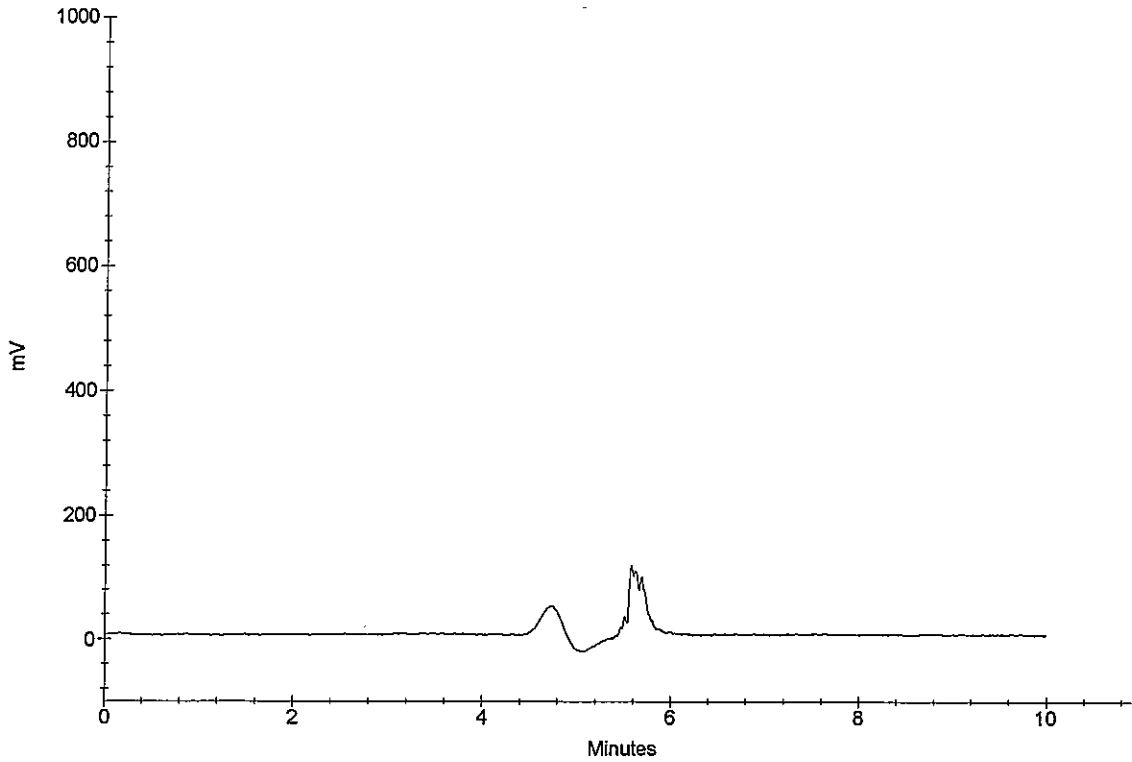
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 218.6

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
0	0.00	(null)	0.0000	0

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10/17/09
K0909173-006



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : K0909173-009
Data File Name : ...\\O06_031.DXD
Method File Name : ...\\Cr6-0917.met
Date Time Collected : 10/6/09 16:14:34

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 09/17/09 50uL Loop

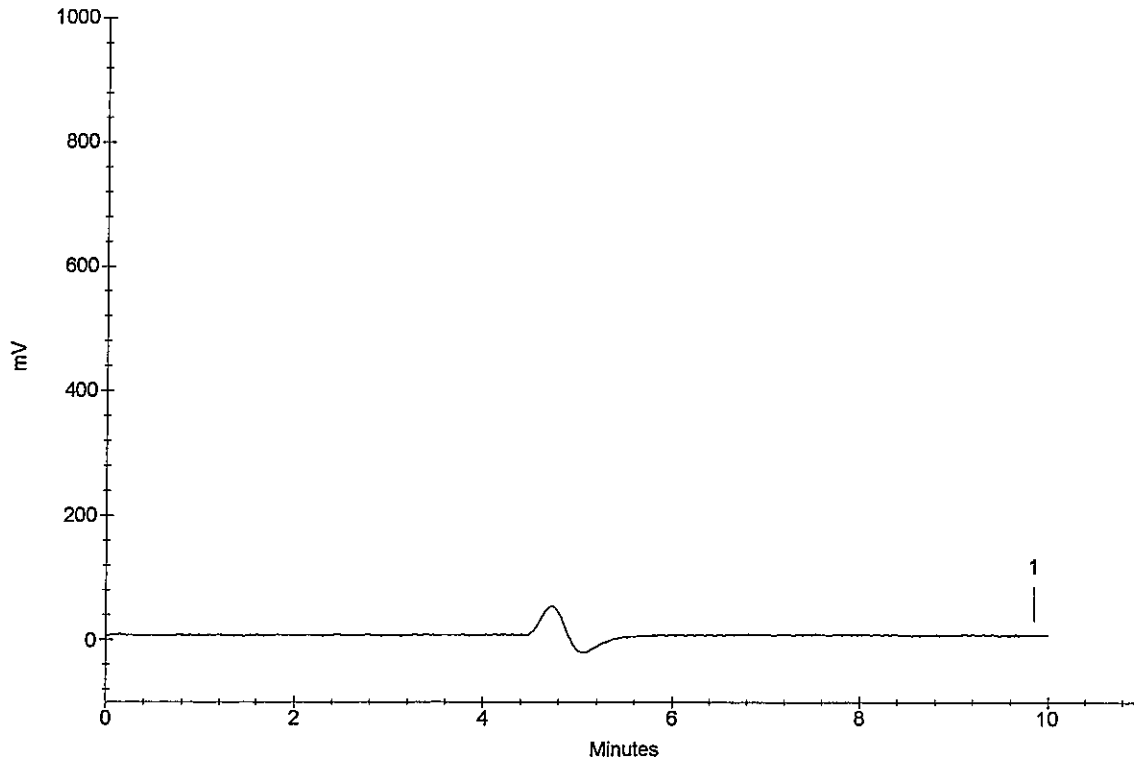
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 218.6

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	9.85	<i>α</i>	0.0000	18346

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Cr6-0917
K0909173-009



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Sample Name : K0909173-010
Data File Name : ...\\O06_032.DXD
Method File Name : ...\\Cr6-0917.met
Date Time Collected : 10/6/09 16:24:58

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 09/17/09 50uL Loop

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 218.6

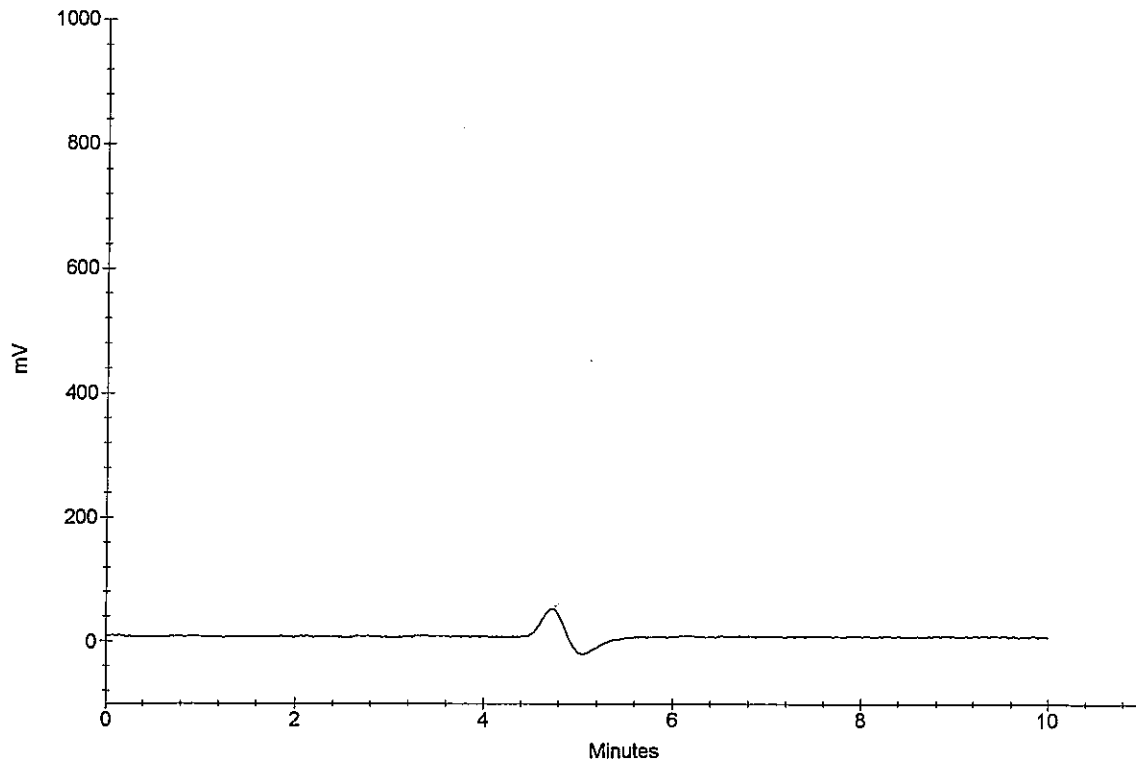
Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
0	0.00	(null)	0.0000	0

OK
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K0909173-010



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : K0909173-011
Data File Name : ...\\O06_033.DXD
Method File Name : ...\\Cr6-0917.met
Date Time Collected : 10/6/09 16:35:23

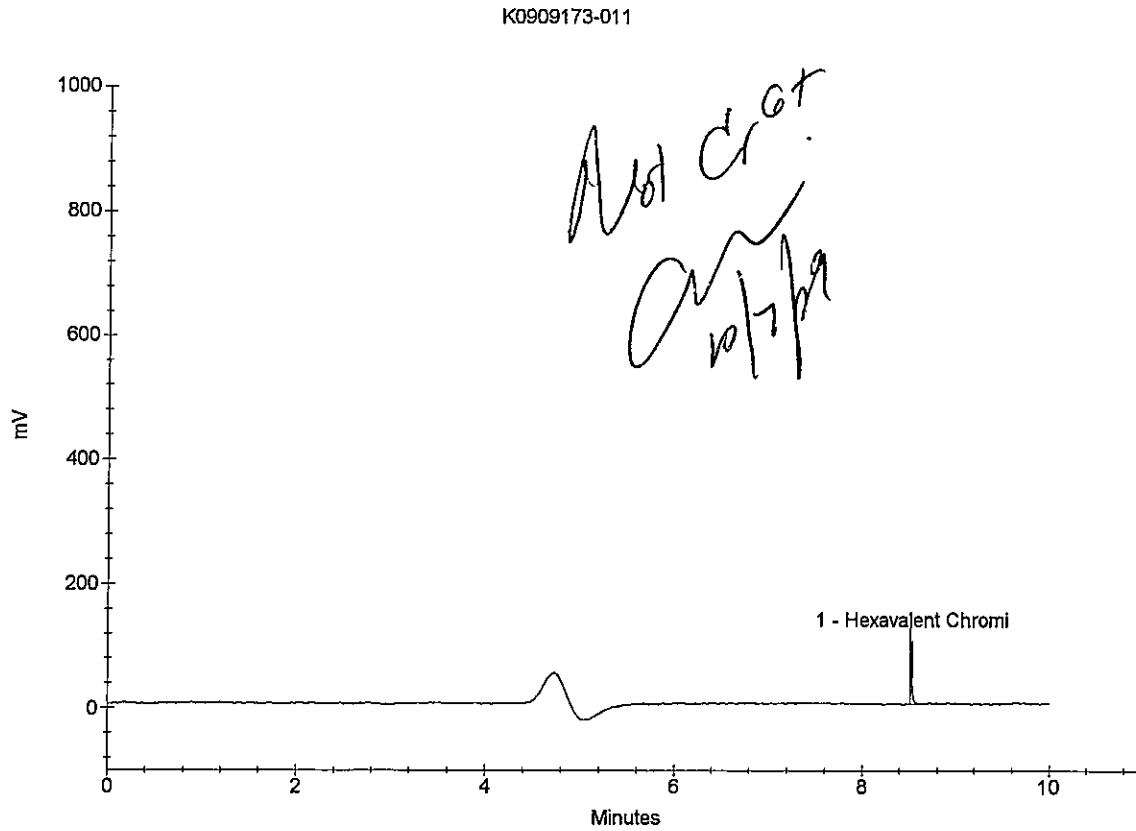
Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 09/17/09 50uL Loop

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 218.6

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.53	Hexavalent Chromi	0.0042	118203



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : CCV
Data File Name : ...\\O06_034.DXD
Method File Name : ...\\Cr6-0917.met
Date Time Collected : 10/6/09 16:45:47

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 09/17/09 50uL Loop

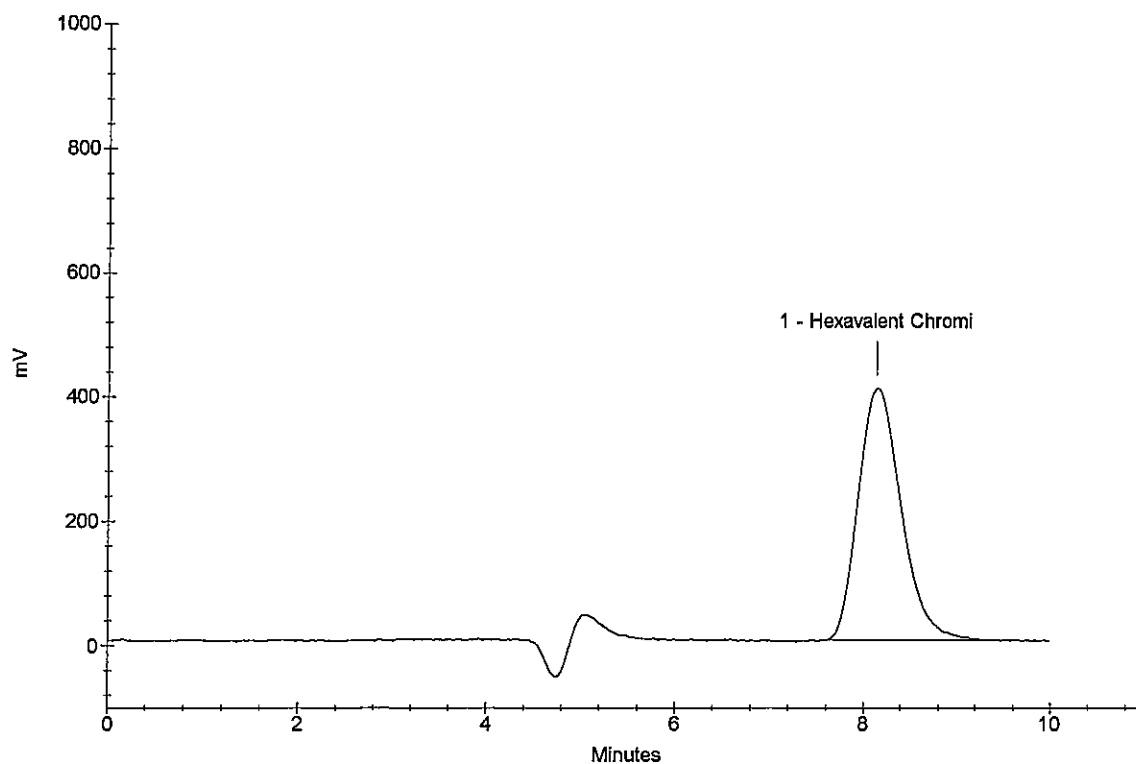
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment :

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.13	Hexavalent Chromi <i>OK</i>	0.4802	12972837

CCV 10/17/09



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : CCB
Data File Name : ...\\O06_035.DXD
Method File Name : ...\\Cr6-0917.met
Date Time Collected : 10/6/09 16:56:11

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 09/17/09 50uL Loop

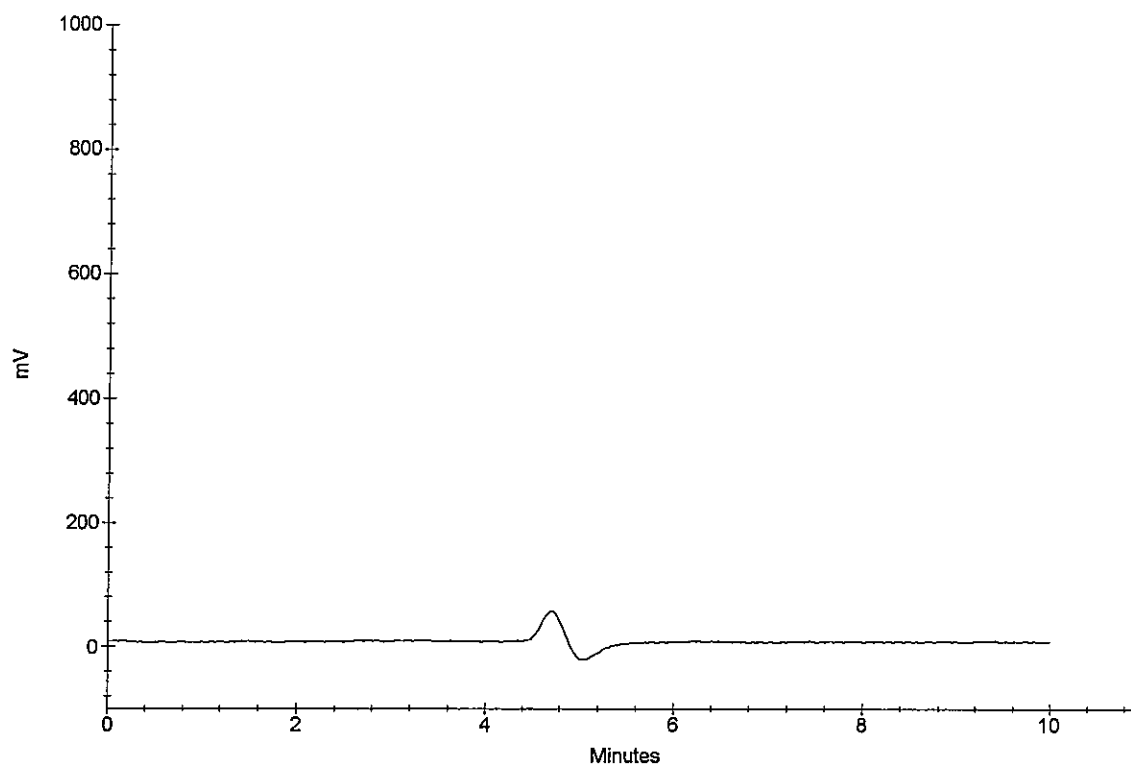
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment :

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
0	0.00	(null)	0.0000	0

OK
10/7/09
CCB



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : K0909173-003 DUP
Data File Name : ...\\O06_036.DXD
Method File Name : ...\\Cr6-0917.met
Date Time Collected : 10/6/09 17:06:35

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 09/17/09 50uL Loop

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 218.6

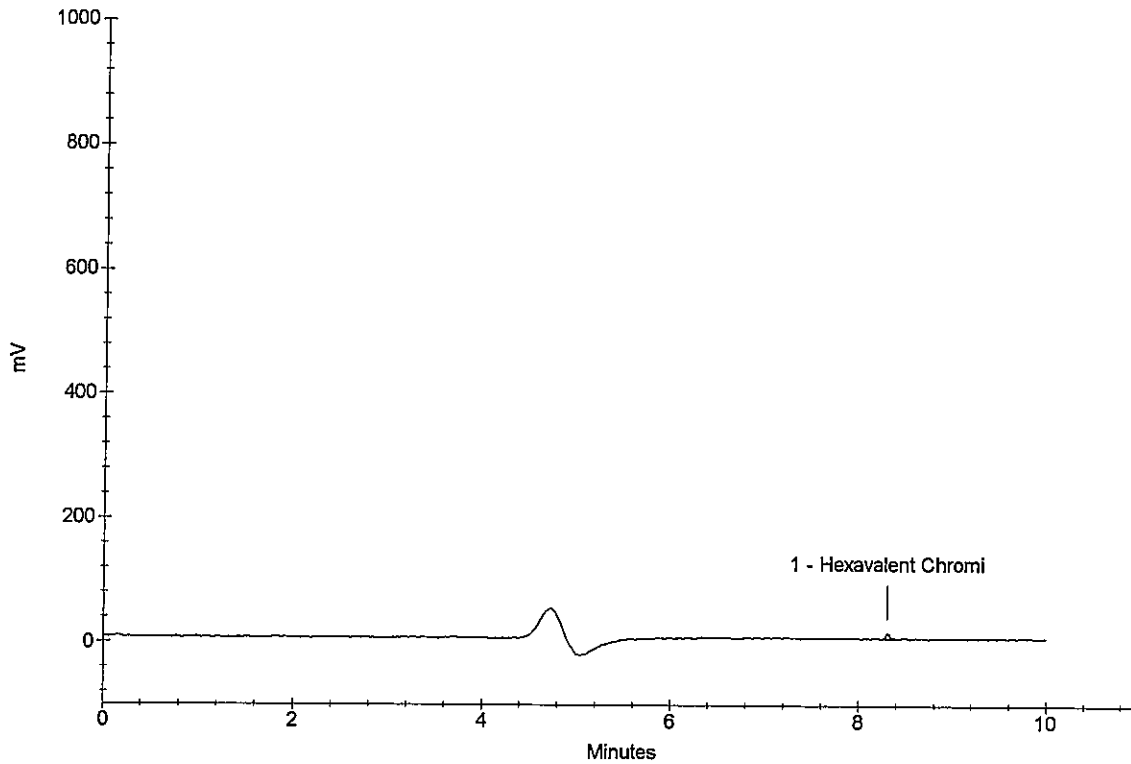
Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.30	Hexavalent Chromi	0.0009	29474

OK
CV
10/7/09

K0909173-003 DUP



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : K0909173-003 SPK
Data File Name : ...\\O06_037.DXD
Method File Name : ...\\Cr6-0917.met
Date Time Collected : 10/6/09 17:16:59

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 09/17/09 50uL Loop

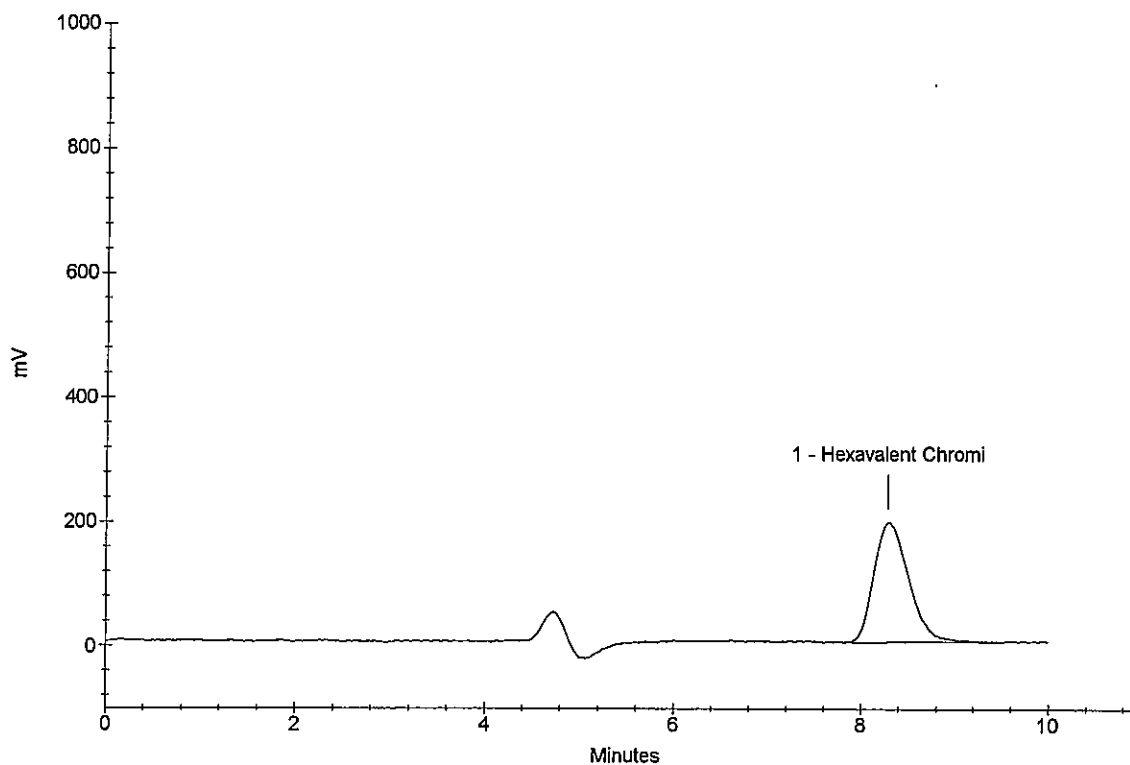
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 218.6

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.28	Hexavalent Chromi <i>OK</i>	0.1841	4977971

Handwritten signature
10/7/09
K0909173-003 SPK



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : K0909173-005 DUP
Data File Name : ... \O06_038.DXD
Method File Name : ... \Cr6-0917.met
Date Time Collected : 10/6/09 17:27:23

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 09/17/09 50uL Loop

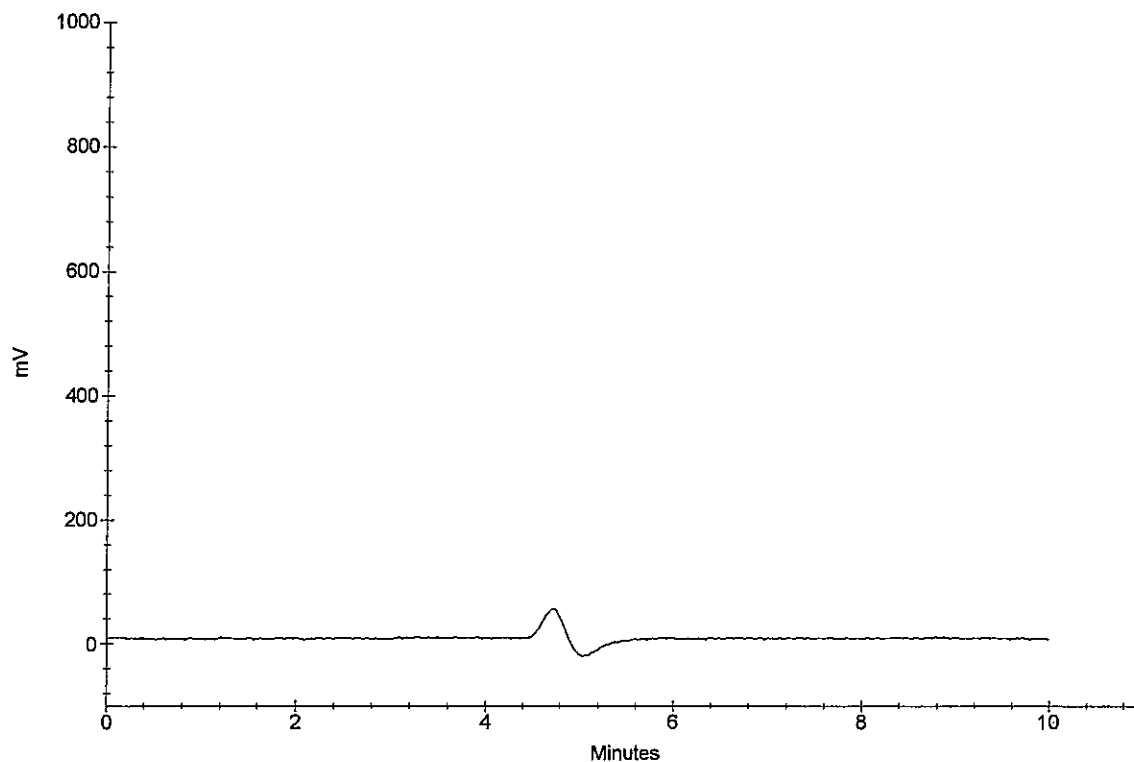
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 218.6

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
0	0.00	(null)	0.0000	0

OK
10/7/09
K0909173-005 DUP



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : K0909173-005 SPK
Data File Name : ...\\O06_039.DXD
Method File Name : ...\\Cr6-0917.met
Date Time Collected : 10/6/09 17:37:47

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 09/17/09 50uL Loop

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 218.6

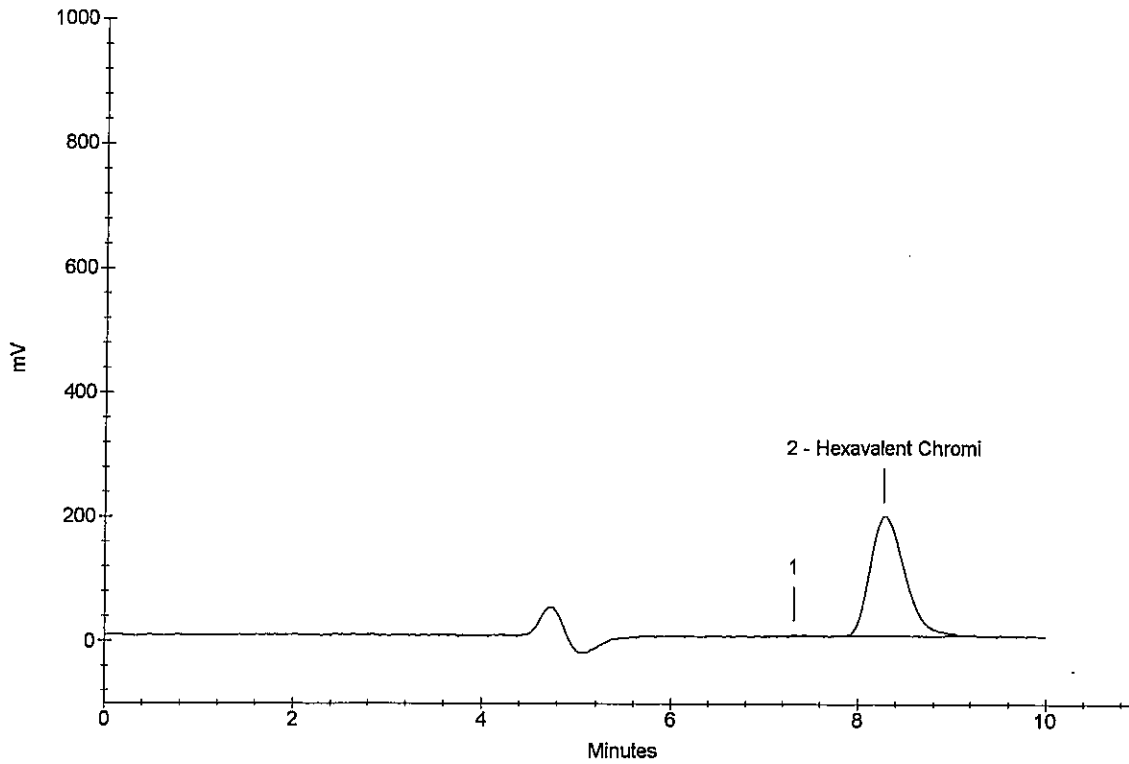
Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
2	8.27	Hexavalent Chromi	0.1826	4936775

Handwritten signature and date:
10/17/09

K0909173-005 SPK



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : R0905462-001 DUP
Data File Name : ... \O06_040.DXD
Method File Name : ... \Cr6-0917.met
Date Time Collected : 10/6/09 17:48:11

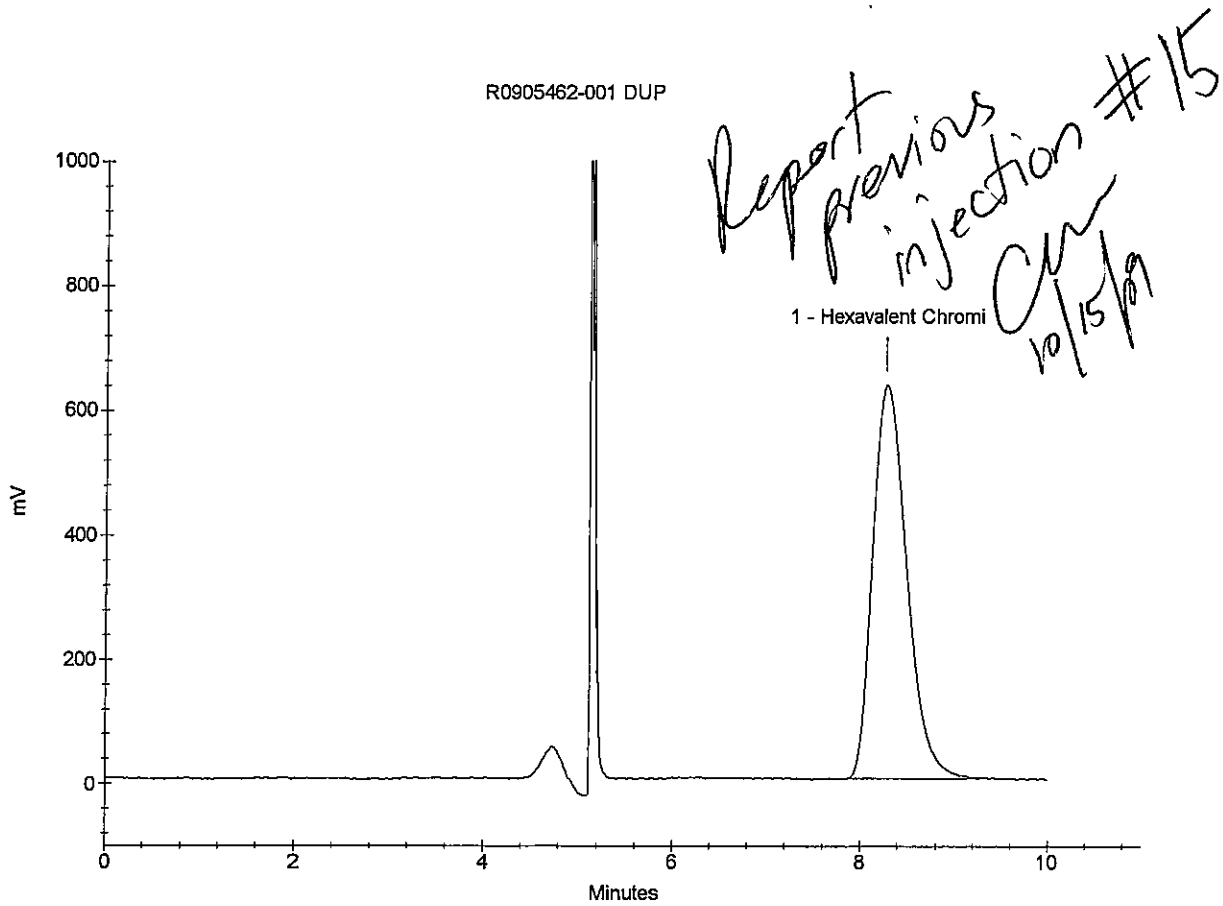
Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 09/17/09 50uL Loop

Dilution Factor : 40.00
Sample Type : Sample Analysis
Sample Comment : 218.6

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.28	Hexavalent Chromi	23.6661	15983273



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : R0905462-001 SPK
Data File Name : ...\\O06_041.DXD
Method File Name : ...\\Cr6-0917.met
Date Time Collected : 10/6/09 17:58:34

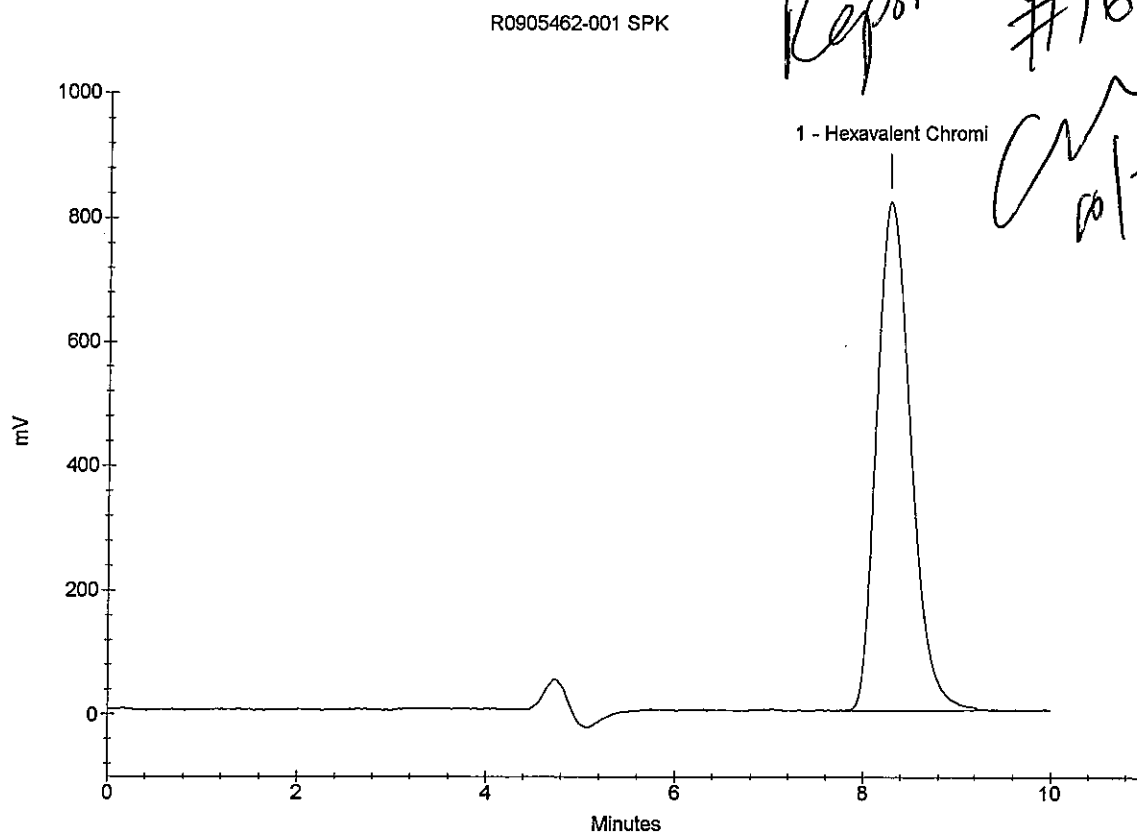
Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 09/17/09 50uL Loop

Dilution Factor : 40.00
Sample Type : Sample Analysis
Sample Comment : 218.6

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.28	Hexavalent Chromi	30.8222	20814430



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : CCV
Data File Name : ...\\O06_042.DXD
Method File Name : ...\\Cr6-0917.met
Date Time Collected : 10/6/09 18:08:58

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 09/17/09 50uL Loop

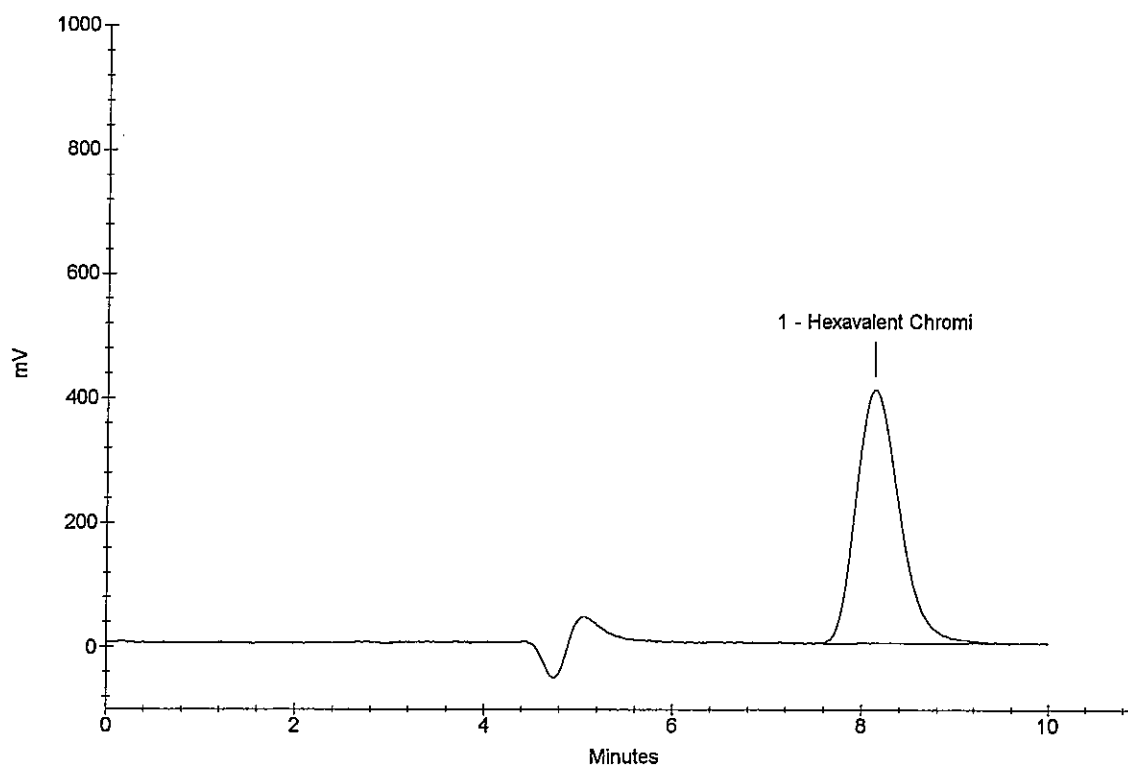
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment :

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.13	Hexavalent Chromi <i>OK</i>	0.4811	12998049

CCV
10/17/09
CCV



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : CCB
Data File Name : ...\\O06_043.DXD
Method File Name : ...\\Cr6-0917.met
Date Time Collected : 10/6/09 18:19:22

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 09/17/09 50uL Loop

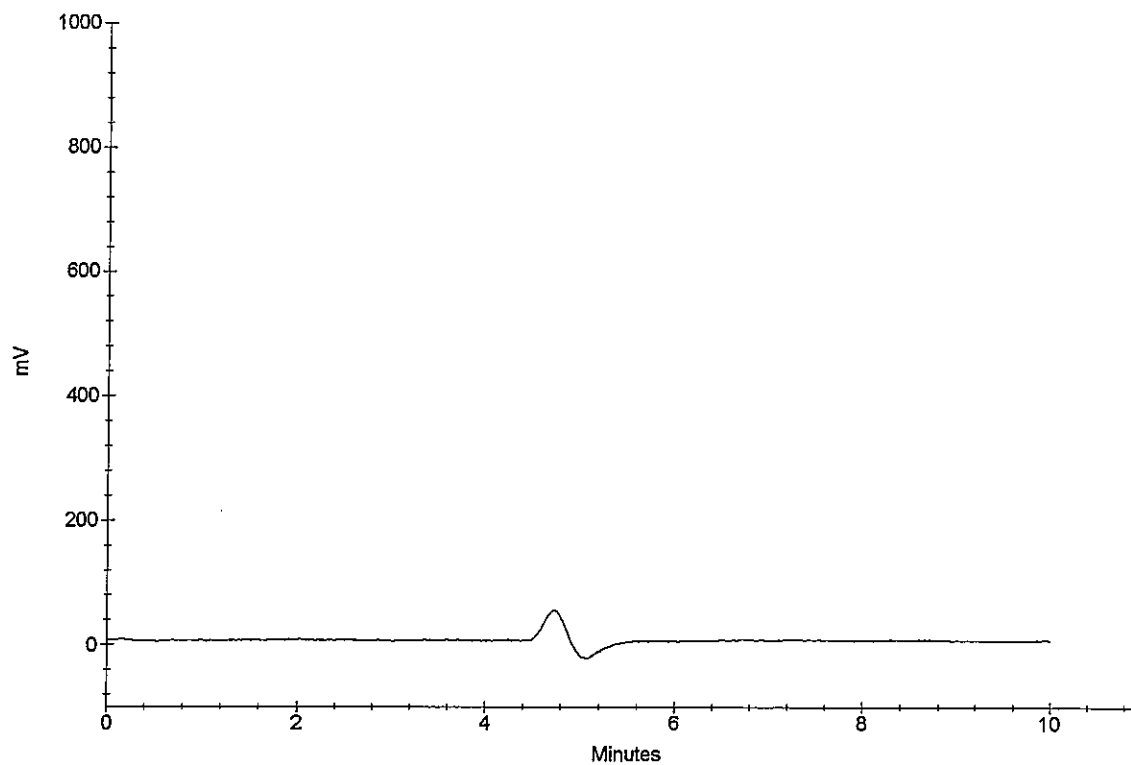
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment :

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
0	0.00	(null)	0.0000	0

OK
CCB 10/7/09



Ion Chromatography Cover Sheet

Instrument: Dionex 1000I, IC #1

Column: AS7 Analytical Column, NG-1 Guard Column, 4mm, 06/02/08

Curve Date: 09/17/09

Loop size: 100 uL Loop

Analyst: C. Woods

Analysis Date: 10/6/09

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	02/05/09	WC85265C	Calibration Stds	08/11/09	SAME AS WC85303E
LCS / MS Soluble Stock	02/05/09	WC85265C	Soluble MS	Daily	SAME AS WC85304B
I/CCV Standard Stock	02/05/09	WC85265D	I/CCV	Daily	SAME AS WC85303F
LCS / MS Insoluble Stock	01/11/08	WC85095H Soils Only	Insoluble LCS/MS	Daily	SAME AS WC85304C
LCS for Waters	Daily	SAME AS WC85304A	MS for Waters	Daily	SAME AS WC85304B

Comments:

Ion Chromatography Calibration Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : STANDARD 1
Sample Type : Calibration Update
Data File Name : ... \917_001.DXD
Method File Name : ... \Cr6-0917.met

Date Time Collected : 9/17/09 15:09:11
Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Analyst : CMW

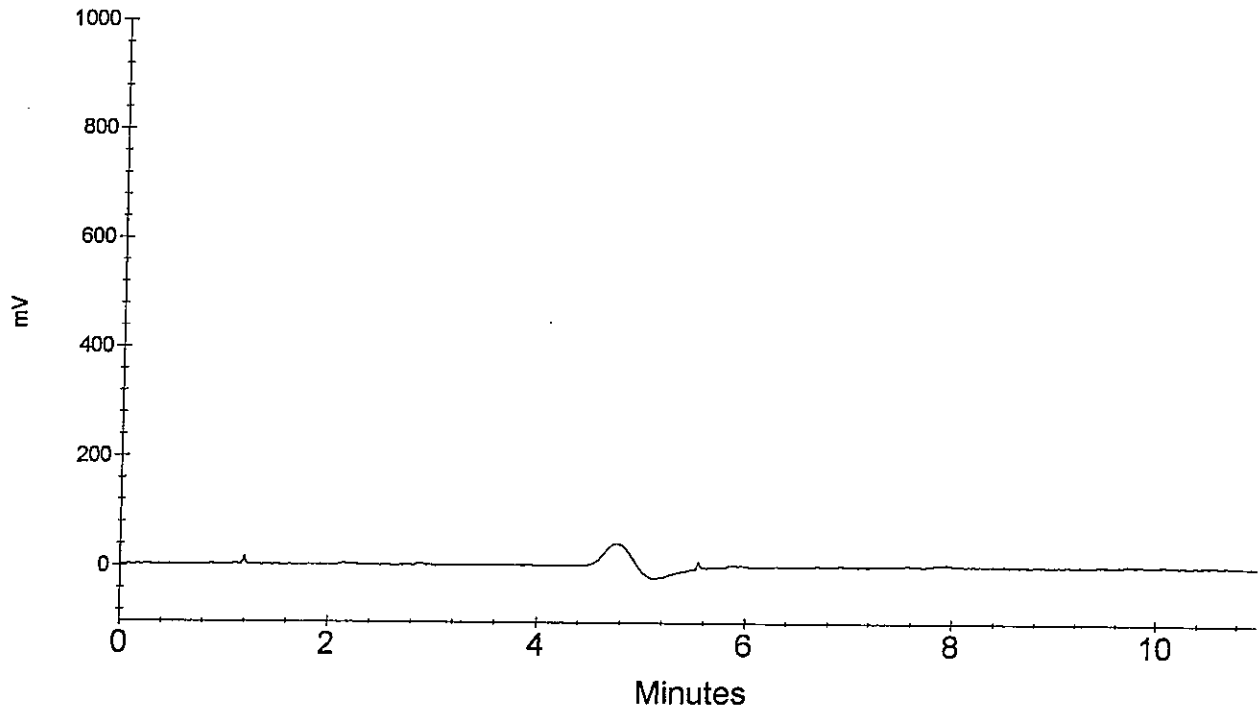
Dilution Factor : 1.00
Sample Comment :
Data Collection Rate : 20.00 Hz

Calibration Type : EXTERNAL
Calibration Level : 1

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
0	0.00	(null)	0.000	0

OK
CMW
9/17/09
STANDARD 1



Ion Chromatography Calibration Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : STANDARD 2
Sample Type : Calibration Update
Data File Name : ... \917 002.DXD
Method File Name : ... \Cr6-0917.met

Date Time Collected : 9/17/09 15:20:33
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

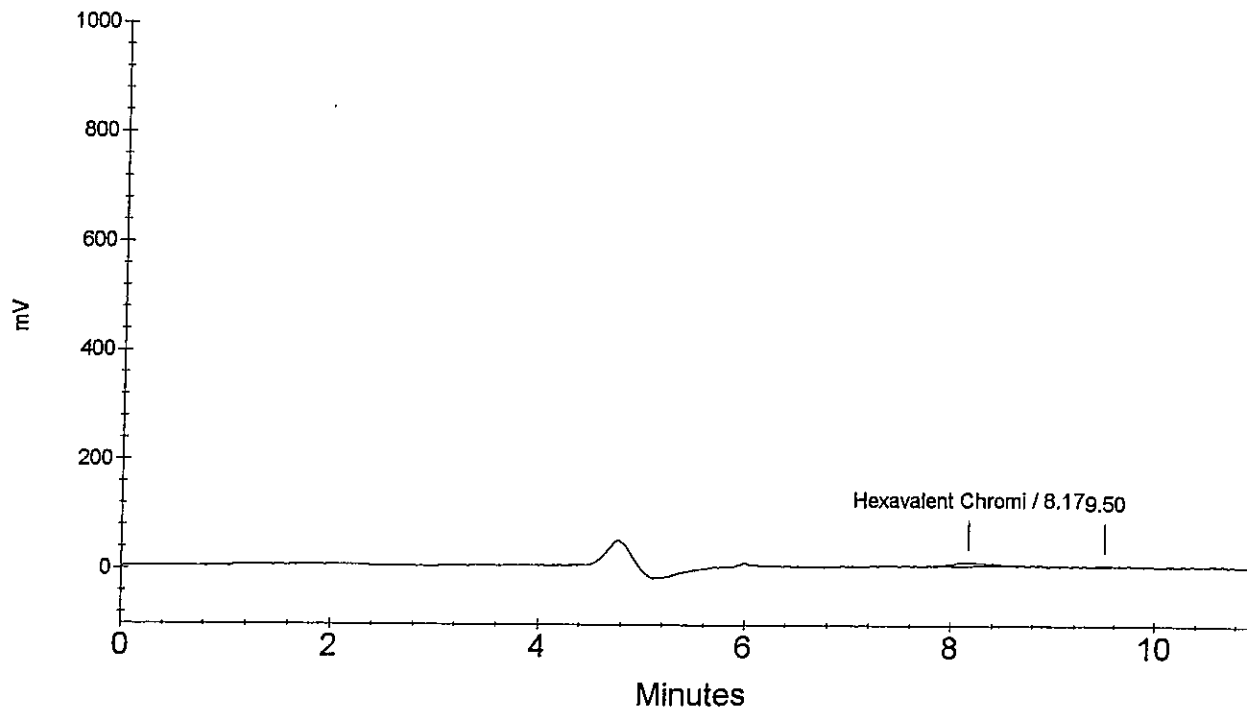
Calibration Type : EXTERNAL
Calibration Level : 2

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
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1	8.17	Hexavalent Chromi	0.010	158419
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OK
CMW
9/17/09
STANDARD 2



Ion Chromatography Calibration Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : STANDARD 3
Sample Type : Calibration Update
Data File Name : ...\\917_003.DXD
Method File Name : ...\\Cr6-0917.met

Date Time Collected : 9/17/09 15:31:53
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

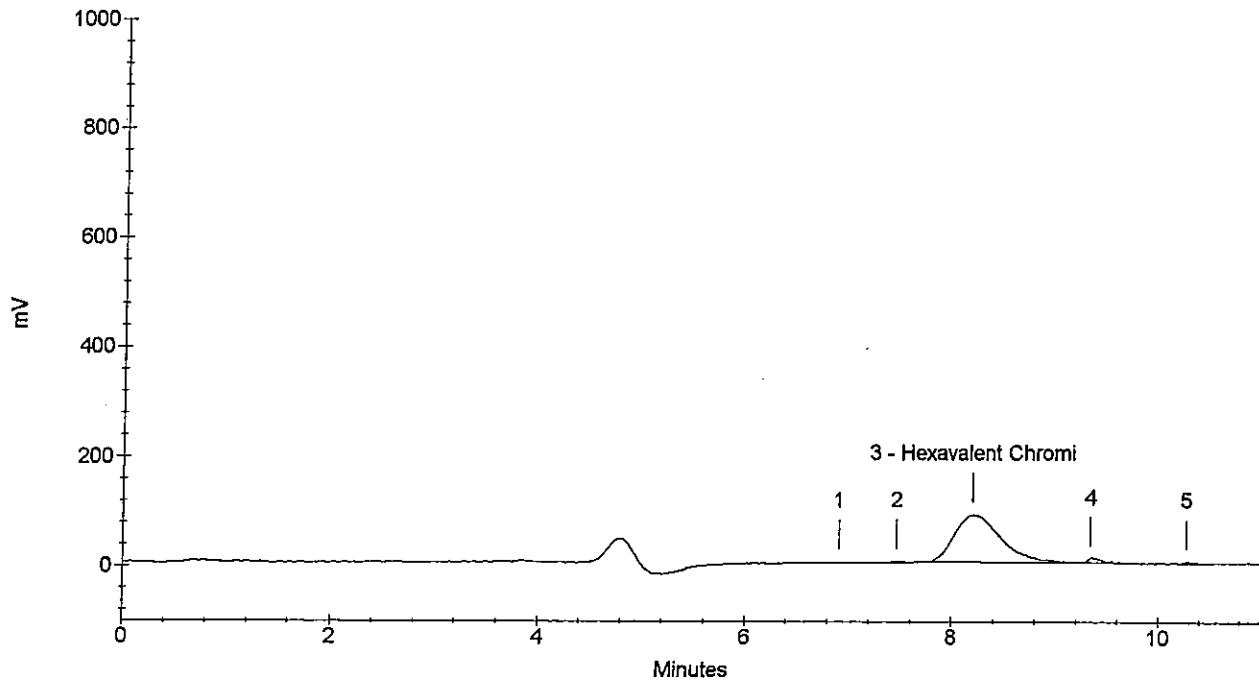
Calibration Type : EXTERNAL
Calibration Level : 3

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
3	8.20	Hexavalent Chromi <i>OK</i>	0.100	2668552

CMW
9/17/09

STANDARD 3



Ion Chromatography Calibration Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : STANDARD 4
Sample Type : Calibration Update
Data File Name : ...\\917_004.DXD
Method File Name : ...\\Cr6-0917.met

Date Time Collected : 9/17/09 15:43:13
Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Analyst : CMW

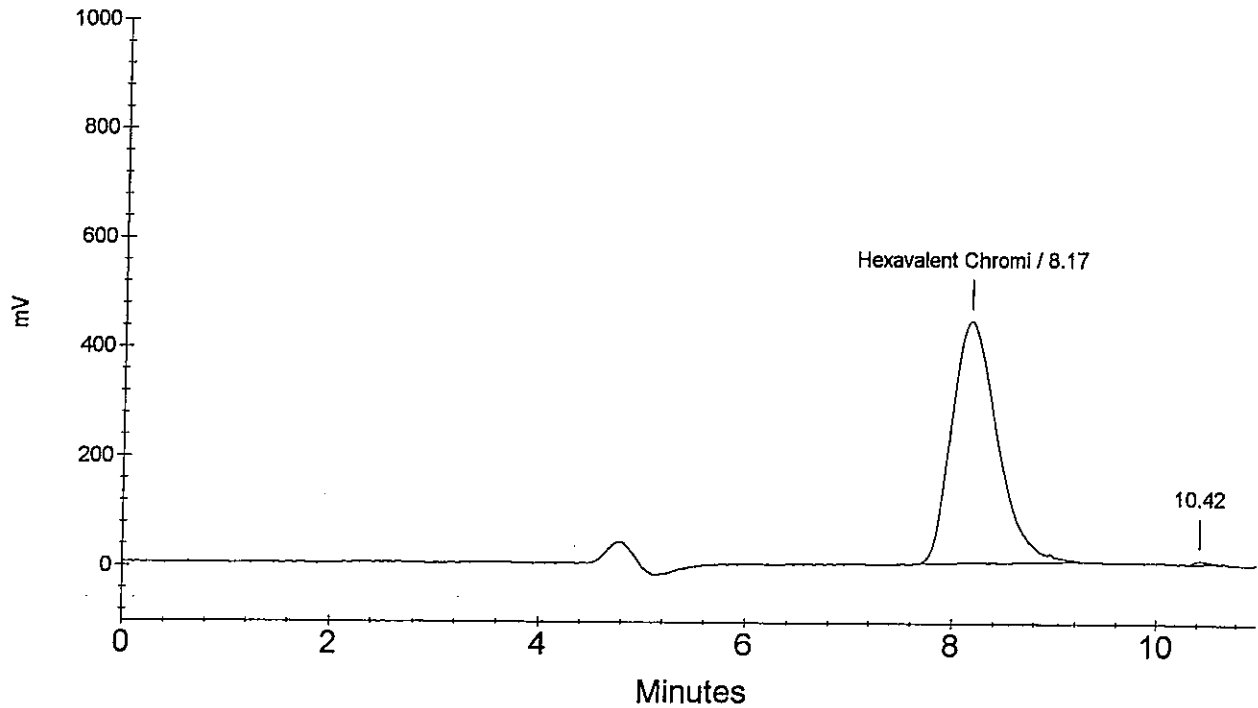
Dilution Factor : 1.00
Sample Comment :
Data Collection Rate : 20.00 Hz

Calibration Type : EXTERNAL
Calibration Level : 4

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.17	Hexavalent Chromi	0.500	13571573

OK
CMW
9/17/09
STANDARD 4



Ion Chromatography Calibration Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : STANDARD 5
Sample Type : Calibration Update
Data File Name : ...\\917_005.DXD
Method File Name : ...\\Cr6-0917.met

Date Time Collected : 9/17/09 15:54:33
Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Analyst : CMW

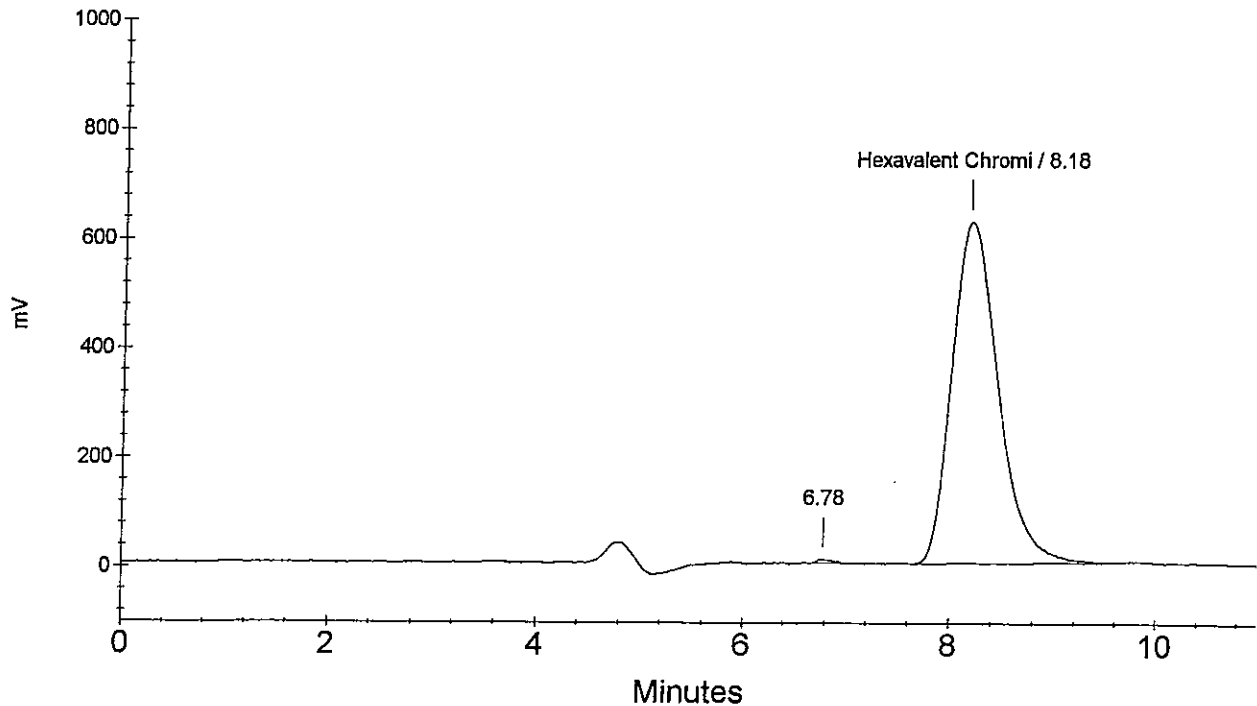
Dilution Factor : 1.00
Sample Comment :
Data Collection Rate : 20.00 Hz

Calibration Type : EXTERNAL
Calibration Level : 5

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
2	8.18	Hexavalent Chromi	0.700	19370126

CMW
9/17/09
STANDARD 5



Ion Chromatography Calibration Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : STANDARD 6
Sample Type : Calibration Update
Data File Name : ...\\917_006.DXD
Method File Name : ...\\Cr6-0917.met

Date Time Collected : 9/17/09 16:05:53
Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Analyst : CMW

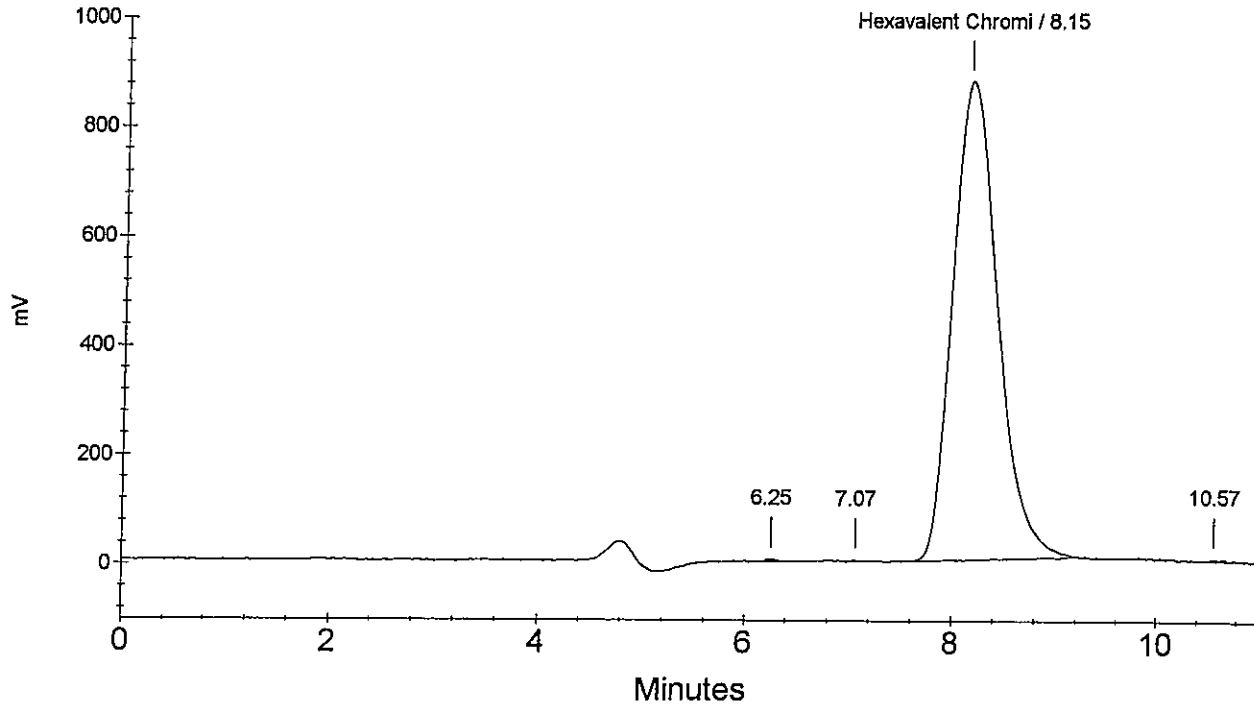
Dilution Factor : 1.00
Sample Comment :
Data Collection Rate : 20.00 Hz

Calibration Type : EXTERNAL
Calibration Level : 6

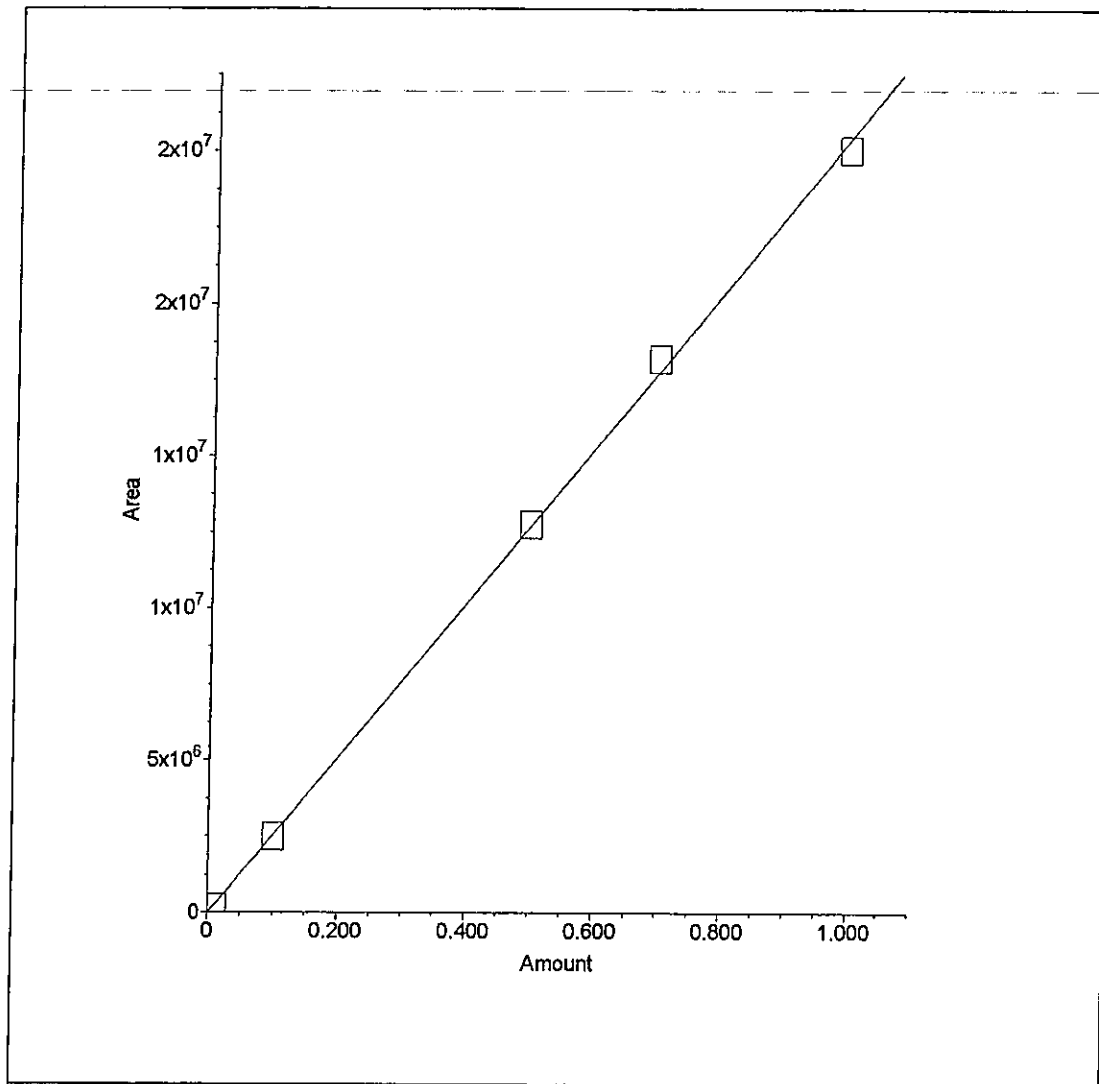
Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
3	8.15	Hexavalent Chromi	1.000	26647639

CMW
9/17/09
STANDARD 6



1. Component:Hexavalent Chromi
Standard:External Fit Type:Linear
Origin:Include Calibration:Area
 $r^2=0.999421$
Amt= $3.703e-008 * Resp + -0.0002215$



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : ICV
Data File Name : ... \917_007.DXD
Method File Name : ... \Cr6-0917.met
Date Time Collected : 9/17/09 16:17:14

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 09/17/09 50uL Loop

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

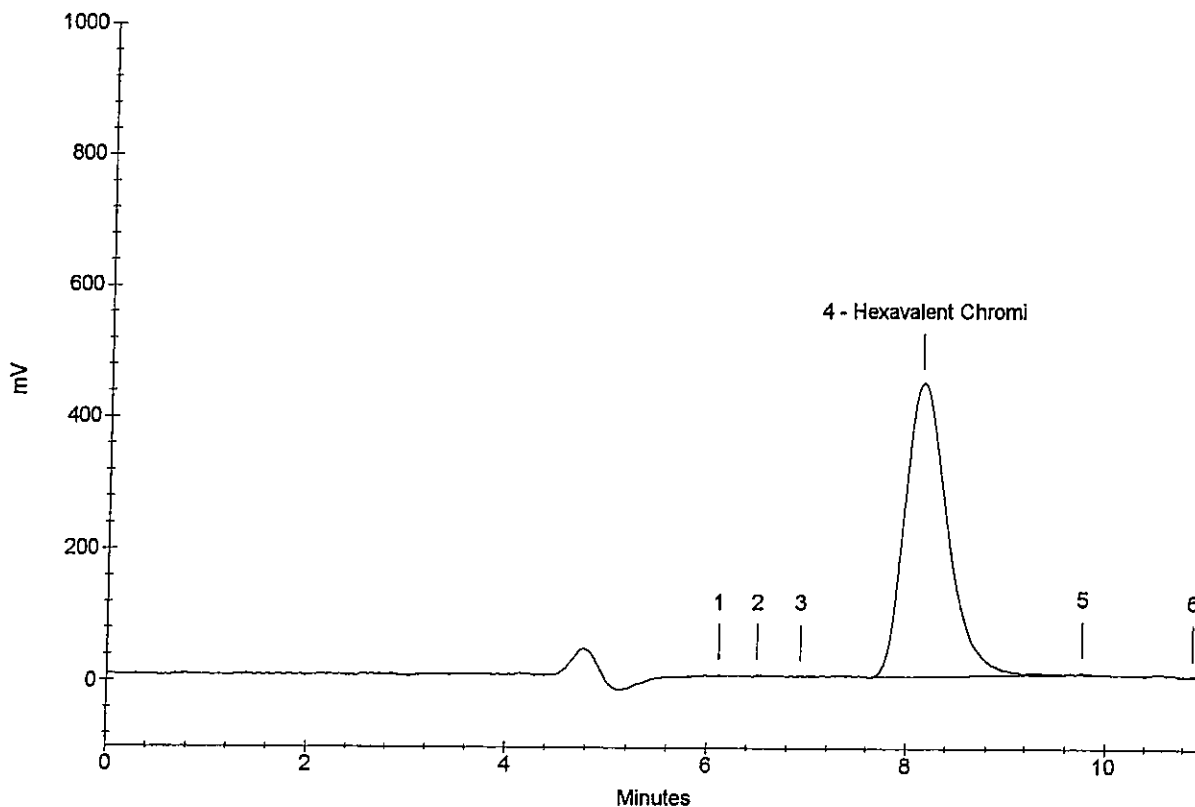
Data Collection Rate : 20.00 Hz
Data Collection Period : 660.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
4	8.13	Hexavalent Chromi	0.4940	13347390

OK
9/17/09

ICV



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : ICB
Data File Name : ...917_008.DXD
Method File Name : ...Cr6-0917.met
Date Time Collected : 9/17/09 16:28:34

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 09/17/09 50uL Loop

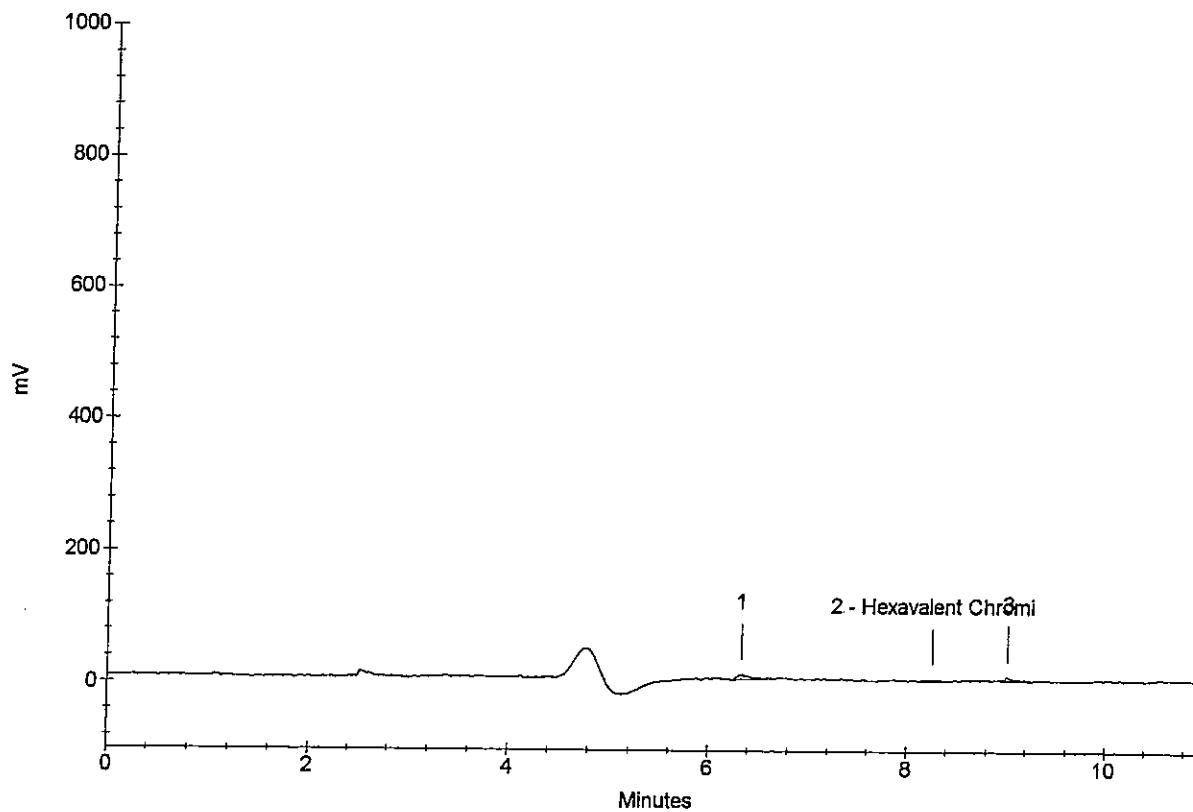
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment :

Data Collection Rate : 20.00 Hz
Data Collection Period : 660.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
2	8.25	Hexavalent Chromi	0.0006	22538

OK
ICB 9/17/09



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : LCS
Data File Name : ...917_009.DXD
Method File Name : ...Cr6-0917.met
Date Time Collected : 9/17/09 16:39:37

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 09/17/09 50uL Loop

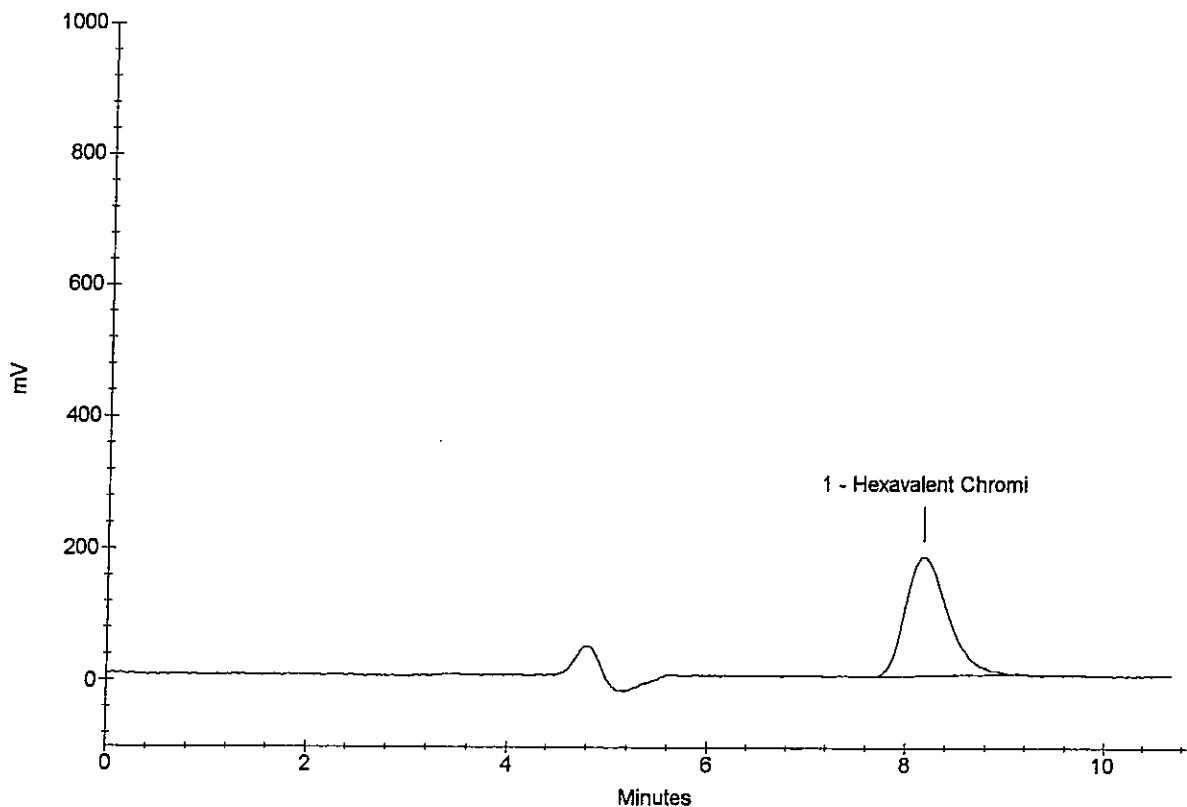
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment :

Data Collection Rate : 20.00 Hz
Data Collection Period : 641.60 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.17	Hexavalent Chromi	0.1967	5317794

OK
9/17/09
LCS



DIONEX ACI METHOD PARAMETERS - Cr6-0917.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, 09/17/09 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) : 10.00
Peak threshold : 3.00
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
0.00	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	8.00 min	1.00 min	

AI450 Component Quantitation Table

Component	Retention	Low Limit	High Limit
Hexavalent Chromi	8.00 min	0	0

AI450 Component Calibration Table

Component	Retention Time	Curve Fit	Origin	Cal. by	Response Component	Relative Factor
Hexavalent Chromi	8.00 min	Linear	Include	Area		0.00

AI450 Component = Hexavalent Chromi Levels Table

Retention Time : 8.00 min

Amount units : PPM

Replicate unit type : Area

Number of levels : 6

Number of replicates : 1

Level	Amount	Replicate 1
1	0.00	16802.4 NO PEAK <i>cm 9/24/09</i>
2	0.01	158419
3	0.10	2.66855e+006
4	0.50	1.35716e+007
5	0.70	1.93701e+007
6	1.00	2.66476e+007

AI450 XY Data Parameters

Ion Chromatography Cover Sheet

Instrument: Dionex 1000I, IC #1

Column: AS7 Analytical Column, NG-1 Guard Column, 4mm, 06/02/08

Curve Date: 09/17/09

Loop size: 100 uL Loop

Analyst: C. Woods

Analysis Date: 9/17/09

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	02/05/09	WC85265C	Calibration Stds	08/11/09	SAME AS WC85303E
LCS / MS Soluble Stock	02/05/09	WC85265C	Soluble MS	Daily	SAME AS WC85304B
I/CCV Standard Stock	02/05/09	WC85265D	I/CCV	Daily	SAME AS WC85303F
LCS / MS Insoluble Stock	01/11/08	WC85095H Soils Only	Insoluble LCS/MS	Daily	SAME AS WC85304C
LCS for Waters	Daily	SAME AS WC85304A	MS for Waters	Daily	SAME AS WC85304B

Comments: Curve valid for both 7199 + 218.6

1/10/08 ^{TC 11/10/08} ~~A~~ DPD Indicator

TC in a 500 ml vol flask, dissolve 0.50g DPD (WC16015F) and 0.100g EDTAC and 4ml 1 + 3 H₂SO₄ (WC85027B) in UPDI, Bring to vol. Store @ RT in amber glass. Exp 1 yr. or when discolored, 1/10/09

1/10/08 B Sodium Phenolate-NH₃
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 Yudin (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 Crop Soils Buffer
In a 500 mL vol. flask dissolve
- 43.545g K₂HPO₄ (WC76227G)
- 34.02g KH₂PO₄ (WC85054G)
in ~400 mL DI. Bring to vol. w/ DI. Store @ 4°C. Exp. 1 yr. 1/11/09.

F Crop Soils Digest Solution
20.0g NaOH pellets (WC85072G) and 30.0g Na₂CO₃ (WC76232D) dissolved in DI. Bring to 1 liter volumetrically w/ DI. Exp. 1 month, 2/11/08.

1/11/08 G 0.0250 Na₂S₂O₃ - Sulfides
TC Dilute 50 ml 1.0N Na₂S₂O₃ (WC85067D) → 200 mL volumetrically w/ DI. Store for 2 weeks @ 4°C. Exp. 1/25/08.

1/11/08 Received from Alfa Aesar
6/B (H) (1) x 100g Gen II Chromate, Cat # 14125, 44 Lot # J03Q003, CAS # 7758-97-6. Store @ R.T. Expires 1/11/13
1/11/09
Certificate changed

sh each run.

2/9/09
30

Received from HACH

(A) 3) x 25 BOD Nutrient Buffer Pills, Cat. 14863-98, HACH Lot # A8339, CAS# Same as W085017H. Store @ R.T. Expires 12/31/2013

(B) (2) x 150 COD Digestion Solution Vials, 0-1500 ppm, Cat # 21259-15, HACH Lot # A9017, CAS # Same as W085008D. Store w/ cool, dark place. Expires 1/31/2017

1. NH_4CO_3 (W085210D)

IXR

0.2 ml volume (W0852053)

0.5 ml (W085215G)

exp 2/2010

0.5 ml (W085018J)

exp 2/2009

510 g $4S(CH_3)_6H_4O$
Store at

Received from Thermo-Fisher

(C) (1) x 500 mL Chromium Reference Std Soln, 1000 mg/L. Cat # SC192-500, Fisher Lot # 076763, CAS # 7778-50-9. Store @ R.T. Expires 1/31/2010 7980

Received from Environmental Express

(D) (1) x 250 mL Chromium Std. Soln, 1000 mg/L. Cat # HP100012-7, EE Lot # 0804608, CAS # 7778-50-4. Store @ R.T. Expires 7/30/2010 7981

Received from VWR

(E) (1) x 500 mL Phenol, liquidified, Cat # PXD511-1, EMD Lot # 48112, CAS # 108-95-2. Store in plastic bottle. Expires 2/5/2014 7983

(F) (1) x 6 Membrane Cap assemblies for BOD, pH. Cat # YSI5906, YSI Lot # 59068M100071. Store @ RT. Exp: not listed.

2/9/09
one

(G) 0.00564N $NH_4S_2O_8$

Same as W085256I. Fresh per run.

(H) Stock Chlorine - Cl₂ Residual

Same as W085256J. Fresh per run

(I) DPD Indicator

Same as W085256K. Store at 4°C. Exp 2/5/10 or when discolored

2/6/09
NM

(J) 0.00564 N Sodium thiosulfate - Chlorine Demand

- Same as W085256L. Exp. 2 weeks, ~~2/20/09~~ ^{1/20/09} 2/20/09.

(K) Std. KIO₃ Titrant - Chlorine Demand

nm. 2/6/09

Cmw
5/15/09

Ⓐ Cr⁶⁺ 7199 Eluent

Dissolve 33g of Ammonium Sulfate (wc85040B) in 500 mL of DI and add 6.5 mL of Ammonium hydroxide (wc85188I). Dilute to 1L volumetrically w/ DI. Degas prior to use. Store @ RT. Expires 6/15/09.

Ⓑ Cr⁶⁺ 7199 Post-Column Color Reagent

Dissolve 0.5g of 1,5-diphenylcarbohydrazide (wc85190E) in 100 mL HPLC grade methanol (wc85284G) in a 1L volumetric flask. In a separate container add about 500 mL DI then add 28 mL of conc. H₂SO₄ (wc85276C), mix + degas before adding to diphenylcarbohydrazide solution. Dilute to volume w/ DI water. Store @ 4°C. Degas prior to use. Expires 6/15/09.

Cr⁶⁺ 7199/218.6 Calibration on IC # 5

Ⓒ 10ppm Standard Working Stock

Do two (2) 1/10 serial dilutions of 1000ppm Std. Stock (wc85265C). Prepare as needed.

Ⓓ 10ppm Reference Working Stock

Do two (2) 1/10 serial dilutions of 1000ppm Ref. Stock (wc85265D). Prepare as needed.

Ⓔ Calibration Standards

Std #	mLs 10ppm Std. (wc85303C)	mLs DI	concentration (ppm)
6	1.0	9.0	1.00
5	0.70	9.3	0.70
4	0.10 0.50	9.9 9.5	0.10 0.50
3	0.10	9.9	0.10
2	1/10 dilution of Std. # 3		0.010
1	0.0	10	0.00

Ⓕ ICV/CCV (TV=0.50ppm) [waters + soils]

To 9.5 mLs of DI add 0.5 mLs of 10ppm Reference Stock (wc85303D). Mix + analyze. Prepare as needed.

5 cmw
5/15/09

A) LCS for Cr⁶⁺ Waters (TV=0.2 ppm)

To 10mL of DI water, add 0.2 mL of 10ppm Std. ~~Std.~~ ^{WC85303C} (WC85303C). Mix thoroughly. Prepare as needed.

B) Matrix Spike for Cr⁶⁺ Waters (TV=0.2 ppm)

To 10mL of sample, add 0.2 mL of 10ppm Std. (WC85303C). Mix thoroughly + analyze.

C) LCS for Cr⁶⁺ Soils

To digestate add approximately 10mg of Lead(II) Chromate (WC85095H) + digest as normal.

$$TV = \frac{(mg PbCrO_4)}{(kg sample)} \times 0.161$$

D) Matrix Spike for Cr⁶⁺ Soils

To digestate add approximately 10mg of Lead(II) Chromate (WC85095H) + digest as normal.

$$TV = \frac{(mg PbCrO_4)}{(kg sample)} \times 0.161$$

E) Post-Verification Spike (PVS) for Cr⁶⁺ Soils

A- If a sample has no value, take a 45mL aliquot of digestate and add 0.45mLs of 100ppm Std. (WC85304F). Analyze as usual. TV= 1.00ppm (Needs to be run @ dilution on IC)

B- If a sample has a value, use the following to determine the amount of spike.

$$(\text{Amount of spike, mL}) = \frac{(45\text{mLs})(2)(\text{Sample Value, mg/L})}{(100\text{ ppm})}$$

Spike a 45mL aliquot w/ the calculated amount of 100ppm Standard (WC85304F). Spike with whichever amount is greater, A or B.

F) 100ppm Standard Working Stock

Do a 1/10 serial dilution of 1000ppm Standard Stock (WC85265C). Prepare fresh as needed

Review
by
...

Analytical Results Summary

Instrument Name: R-IC-01

Analyst: CWOODS

Analysis Lot: 176541

Method/Testcode: 218.6/Cr6 D

Lab Code	Target Analytes	QC Type	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
3Q0910452-01	Chromium, Hexavalent, Dissolved	MB		Water	0.00 mg/L	10 mL	0.010 mg/L U	1	0.010			10/26/09 16:38:31	N	IV
3Q0910452-02	Chromium, Hexavalent, Dissolved	LCS		Water	0.19 mg/L	10 mL	0.191 mg/L	1	0.010	96		10/26/09 16:48:55	N	IV
3Q0905636-006	Chromium, Hexavalent, Dissolved	N/A		Water	0.01 mg/L	10 mL	0.011 mg/L	1	0.010			10/26/09 17:13:04	N	IV
3Q0910452-03	Chromium, Hexavalent, Dissolved	DUP	R0905636-006	Water	0.01 mg/L	10 mL	0.012 mg/L	1	0.010		3	10/26/09 17:23:28	N	IV
3Q0910452-04	Chromium, Hexavalent, Dissolved	MS	R0905636-006	Water	0.21 mg/L	10 mL	0.209 mg/L	1	0.010	99		10/26/09 17:33:52	N	IV

01097

218.6 water

Analyst: CWoods
 Pipet: 0.1 Blue
 Superman

R5567
 R5635
 R5636
 Zupaxo

Reviewed & Approved
 By:
 Date: 10/28/09

Line	Sample	Sample Type	Level	Method	Data File	Dilution	Comment
1	CCV	Sample		1-1022.met	026_001.dxd	1	7199/218.6
2	CCB	Sample		1-1022.met	026_002.dxd	1	7199/218.6
3	LCS	Sample		1-1022.met	026_003.dxd	1	7199/218.6
4	R0905636-006	DUP		1-1022.met	026_004.dxd	1	218.6
5	R0905636-006	SPK		1-1022.met	026_005.dxd	1	218.6
6	METHOD BLK DIG 10/26/09			1-1022.met	026_006.dxd	1	7199
7	METHOD BLK DIG 10/26/09			1-1022.met	026_007.dxd	1	7199 REPLICATE
8	LCS DIG 10/26/09			1-1022.met	026_008.dxd	1	7199 TV=663mg/Kg
9	LCS DIG 10/26/09			1-1022.met	026_009.dxd	20	7199 TV=663mg/Kg REP
10	R0905567-010			1-1022.met	026_010.dxd	20	7199
11	R0905567-010			1-1022.met	026_011.dxd	1	7199
12	CCV	Sample		1-1022.met	026_012.dxd	1	7199 REPLICATE
13	CCB	Sample		1-1022.met	026_013.dxd	1	7199/218.6
14	R0905567-010	DUP		1-1022.met	026_014.dxd	1	7199/218.6
15	R0905567-010	DUP		1-1022.met	026_015.dxd	1	7199
16	R0905567-010	SOL		1-1022.met	026_016.dxd	1	7199 REPLICATE
17	R0905567-010	SOL		1-1022.met	026_017.dxd	2	7199 TV=40.0mg/Kg
18	R0905567-010	SOL		1-1022.met	026_018.dxd	2	7199 TV=40.0mg/Kg REP
19	R0905567-010	INSOL		1-1022.met	026_019.dxd	20	7199 TV=644mg/Kg
20	R0905567-010	INSOL		1-1022.met	026_020.dxd	20	7199 TV=644mg/Kg REP
21	R0905567-010	PVS		1-1022.met	026_021.dxd	2	7199 SEE PVS SHEET
22	R0905567-010	PVS		1-1022.met	026_022.dxd	2	7199 SEE PVS SHEET REP
23	R0905567-018			1-1022.met	026_023.dxd	1	7199
24	R0905567-018			1-1022.met	026_024.dxd	1	7199 REPLICATE
25	CCV	Sample		1-1022.met	026_025.dxd	1	7199/218.6
26	CCB	Sample		1-1022.met	026_026.dxd	1	7199/218.6
27	R0905567-019			1-1022.met	026_027.dxd	1	7199
28	R0905567-019			1-1022.met	026_028.dxd	1	7199 REPLICATE
29	R0905567-020			1-1022.met	026_029.dxd	1	7199
30	R0905567-020			1-1022.met	026_030.dxd	1	7199 REPLICATE
31	R0905567-021			1-1022.met	026_031.dxd	1	7199
32	R0905567-021			1-1022.met	026_032.dxd	1	7199 REPLICATE
33	R0905567-022			1-1022.met	026_033.dxd	1	7199
34	R0905567-022			1-1022.met	026_034.dxd	1	7199 REPLICATE
35	R0905635-002			1-1022.met	026_035.dxd	1	7199
36	R0905635-002			1-1022.met	026_036.dxd	1	7199 REPLICATE
37	CCV	Sample		1-1022.met	026_037.dxd	1	7199/218.6
38	CCB	Sample		1-1022.met	026_038.dxd	1	7199/218.6
39	R0905635-003			1-1022.met	026_039.dxd	1	7199
40	R0905635-003			1-1022.met	026_040.dxd	1	7199 REPLICATE
41	R0905635-004			1-1022.met	026_041.dxd	1	7199
42	R0905635-004			1-1022.met	026_042.dxd	1	7199 REPLICATE
43	R0905635-005			1-1022.met	026_043.dxd	1	7199
44	R0905635-005			1-1022.met	026_044.dxd	1	7199 REPLICATE
45	R0905635-007			1-1022.met	026_045.dxd	1	7199
46	R0905635-007			1-1022.met	026_046.dxd	1	7199 REPLICATE
47	R0905635-008			1-1022.met	026_047.dxd	1	7199
48	R0905635-008			1-1022.met	026_048.dxd	1	7199 REPLICATE
49	CCV	Sample		1-1022.met	026_049.dxd	1	7199/218.6
50	CCB	Sample		1-1022.met	026_050.dxd	1	7199/218.6
51	R0905635-009			1-1022.met	026_051.dxd	1	7199
52	R0905635-009			1-1022.met	026_052.dxd	1	7199 REPLICATE
53	R0905635-013			1-1022.met	026_053.dxd	1	7199
54	R0905635-013			1-1022.met	026_054.dxd	1	7199 REPLICATE
55	R0905635-014			1-1022.met	026_055.dxd	1	7199
56	R0905635-014			1-1022.met	026_056.dxd	1	7199 REPLICATE
57	R0905635-016			1-1022.met	026_057.dxd	1	7199

01000

Line	Sample	Sample Type	Level	Method	Data File	Dilution	Comment
58	R0905635-016	Sample		1-1022.met	026_058.dxd	1	7199 REPLICATE
59	R0905635-017	Sample		1-1022.met	026_059.dxd	1	7199
60	R0905635-017	Sample		1-1022.met	026_060.dxd	1	7199 REPLICATE
61	CCV	Sample		1-1022.met	026_061.dxd	1	7199/218.6
62	CCB	Sample		1-1022.met	026_062.dxd	1	7199/218.6
63	R0905635-018	Sample		1-1022.met	026_063.dxd	1	7199
64	R0905635-018	Sample		1-1022.met	026_064.dxd	1	7199 REPLICATE
65	R0905635-019	Sample		1-1022.met	026_065.dxd	1	7199
66	R0905635-019	Sample		1-1022.met	026_066.dxd	1	7199 REPLICATE
67	R0905635-020	Sample		1-1022.met	026_067.dxd	1	7199
68	R0905635-020	Sample		1-1022.met	026_068.dxd	1	7199 REPLICATE
69	CCV	Sample		1-1022.met	026_069.dxd	1	7199/218.6
70	CCB	Sample		1-1022.met	026_070.dxd	1	7199/218.6

Default Method Path: J:\ACQUJDATA\IC\METHOD.AC\IC#11CR6
 Default Data Path: J:\ACQUJDATA\IC\DATA\IC#11CR6\102609
 Comment:

01099

Columbia Analytical Services
 1 Mustard St., Suite 250
 Rochester, NY 14609-0859

Analyst: C Woods
 Date: 10/26/09
 pH Meter ID: Bullwinkle
 Adjustment Solutions: _____

Hexavalent Chromium:

Method 218.6*

Method 7199**

Folder Number	Sample ID	Sample pH at arrival	Date and Time pH check at arrival	Sample pH at analysis	Analysis Date
5636	R0905636-006	9.456	10/8/09 840	9.47	10/26/09

Handwritten signature and date 10/26/09 over the lower portion of the table.

*Note: Sample pH must be between 9.3 and 9.7 for 218.6

**Note: Sample pH must be between 9.0 and 9.5 for 7199

Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : CCV
Data File Name : ...\\O26_001.DXD
Method File Name : ...\\1-1022.met
Date Time Collected : 10/26/09 16:28:07

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199/218.6

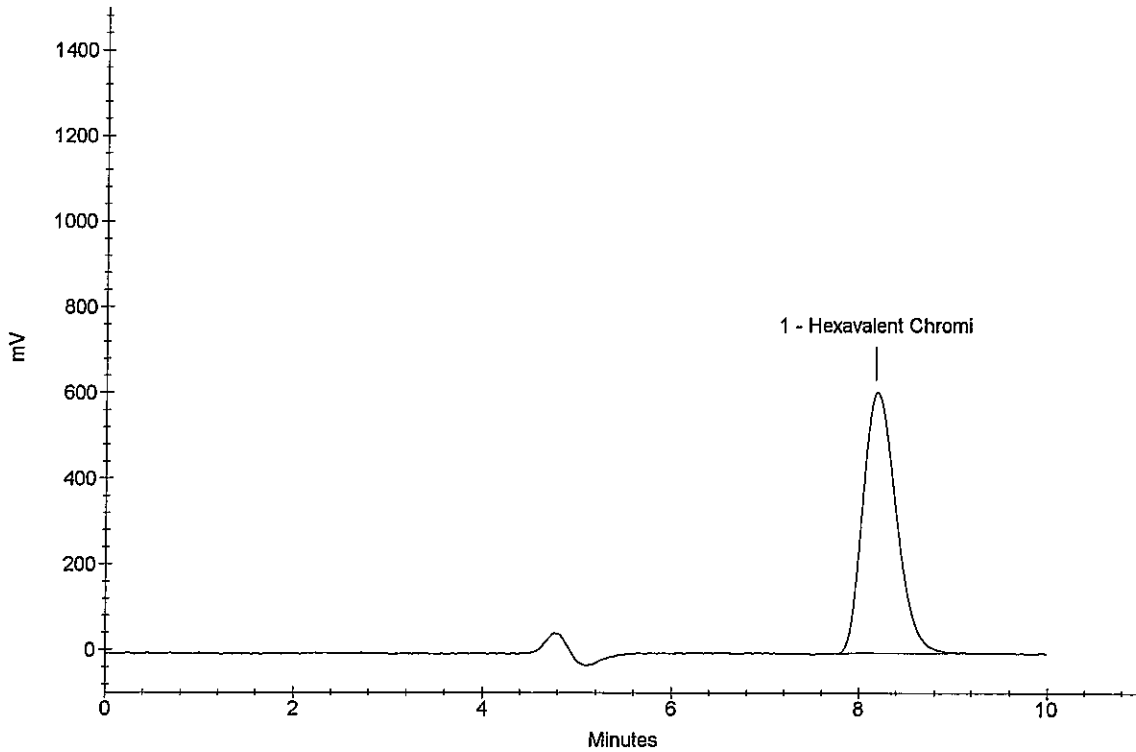
Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.18	Hexavalent Chromi <i>OK</i>	0.4737	15081574

95%

CCV 10/22/09



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : CCB
Data File Name : ... \O26_002.DXD
Method File Name : ... \1-1022.met
Date Time Collected : 10/26/09 16:38:31

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

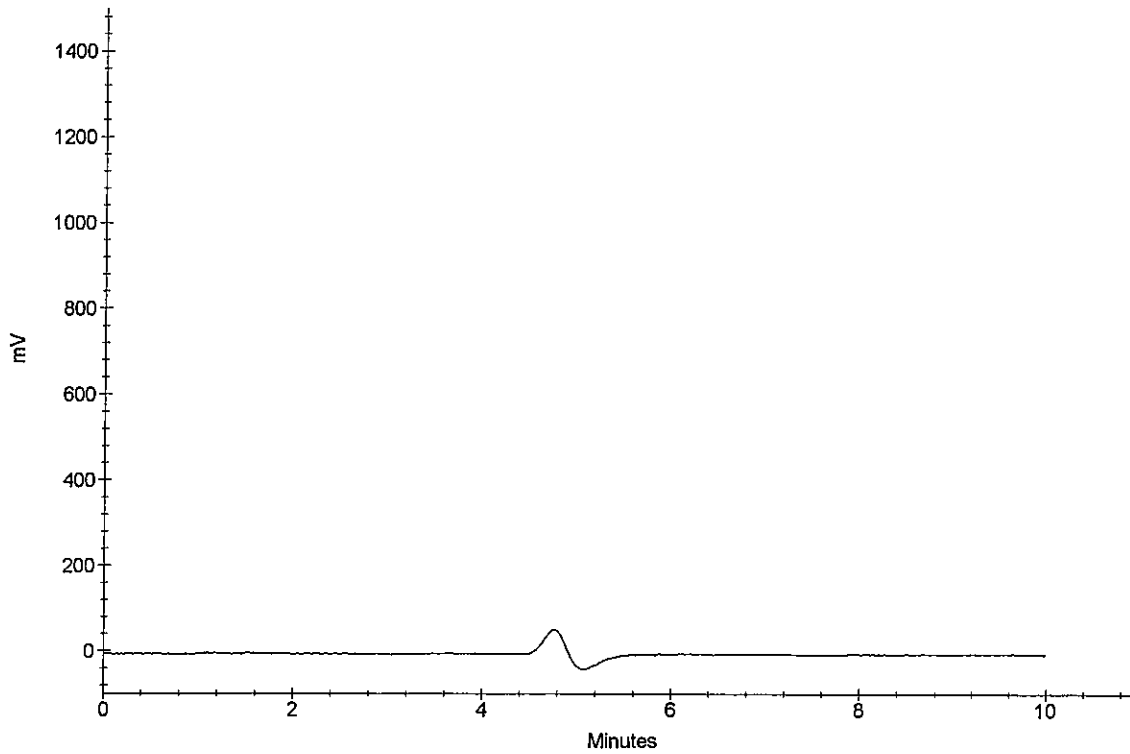
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199/218.6

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
0	0.00	(null)	0.0000	0

OK
CCB 10/27/09



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : LCS
Data File Name : ...O26_003.DXD
Method File Name : ...1-1022.met
Date Time Collected : 10/26/09 16:48:55

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

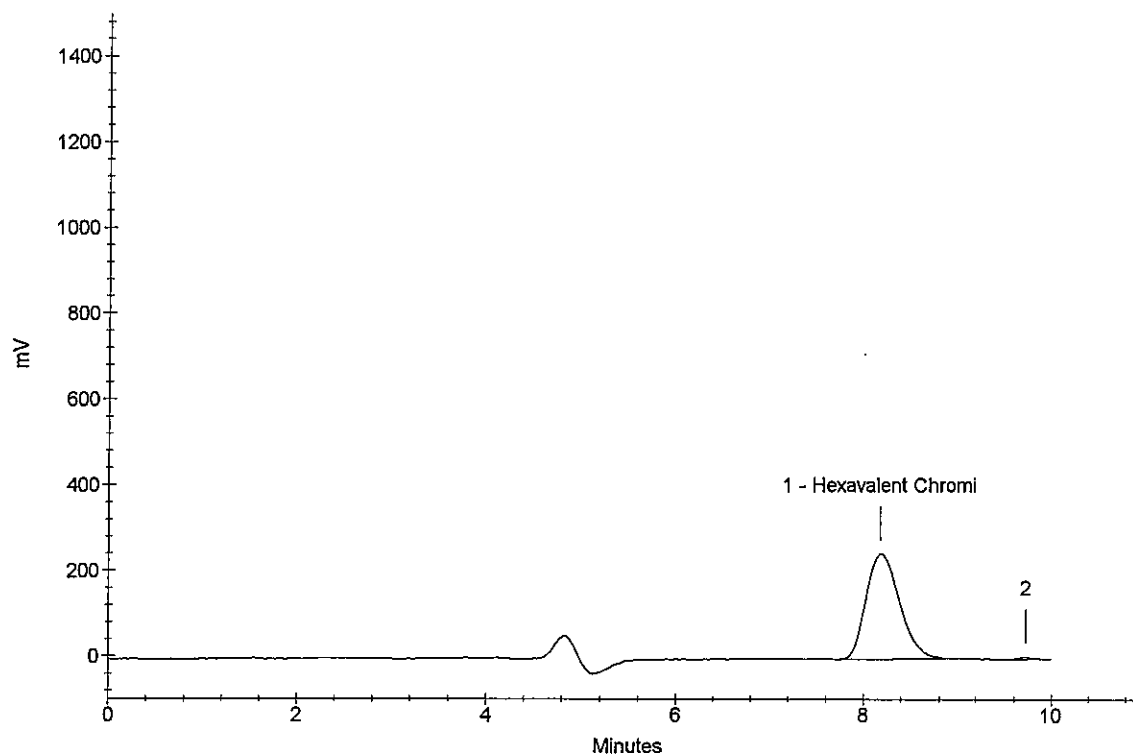
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199/218.6

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.18	Hexavalent Chromi	0.1914	6131319

OK
LCS
10/27/09



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : R0905636-006
Data File Name : ... \O26_004.DXD
Method File Name : ... \1-1022.met
Date Time Collected : 10/26/09 17:13:04

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

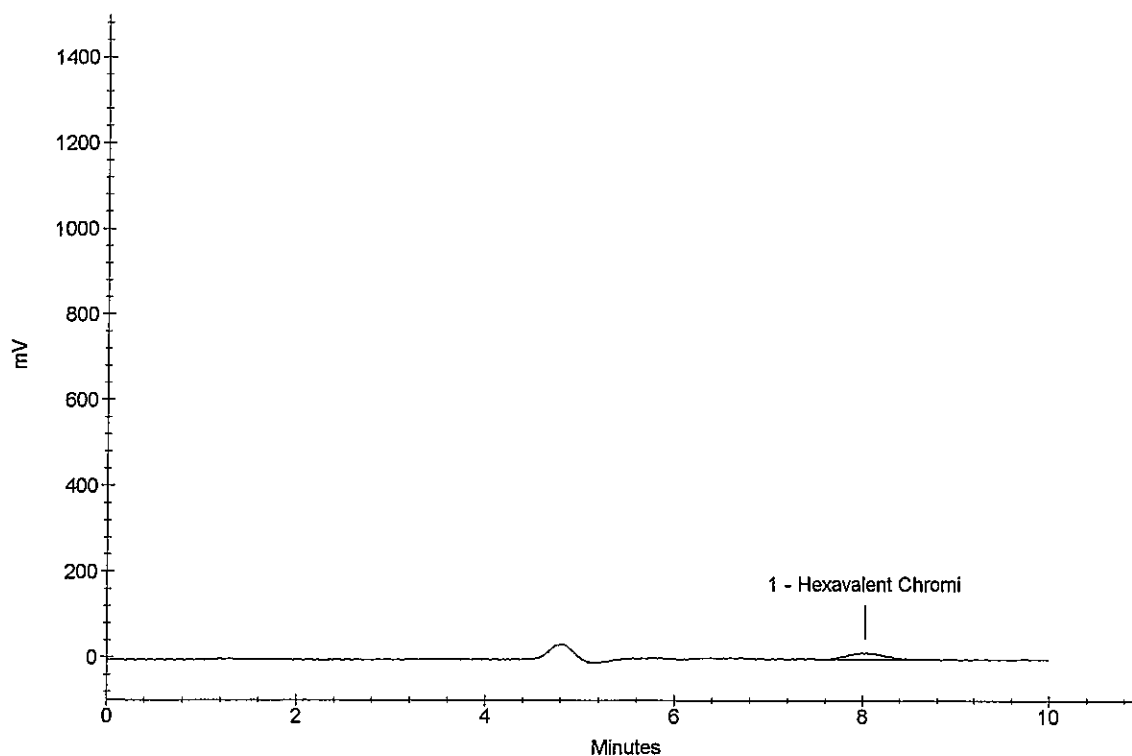
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 218.6

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.03	Hexavalent Chromi	0.0112	420127

OK
cm
10/26/09
R0905636-006



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : R0905636-006 DUP
Data File Name : ...\\O26_005.DXD
Method File Name : ...\\1-1022.met
Date Time Collected : 10/26/09 17:23:28

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

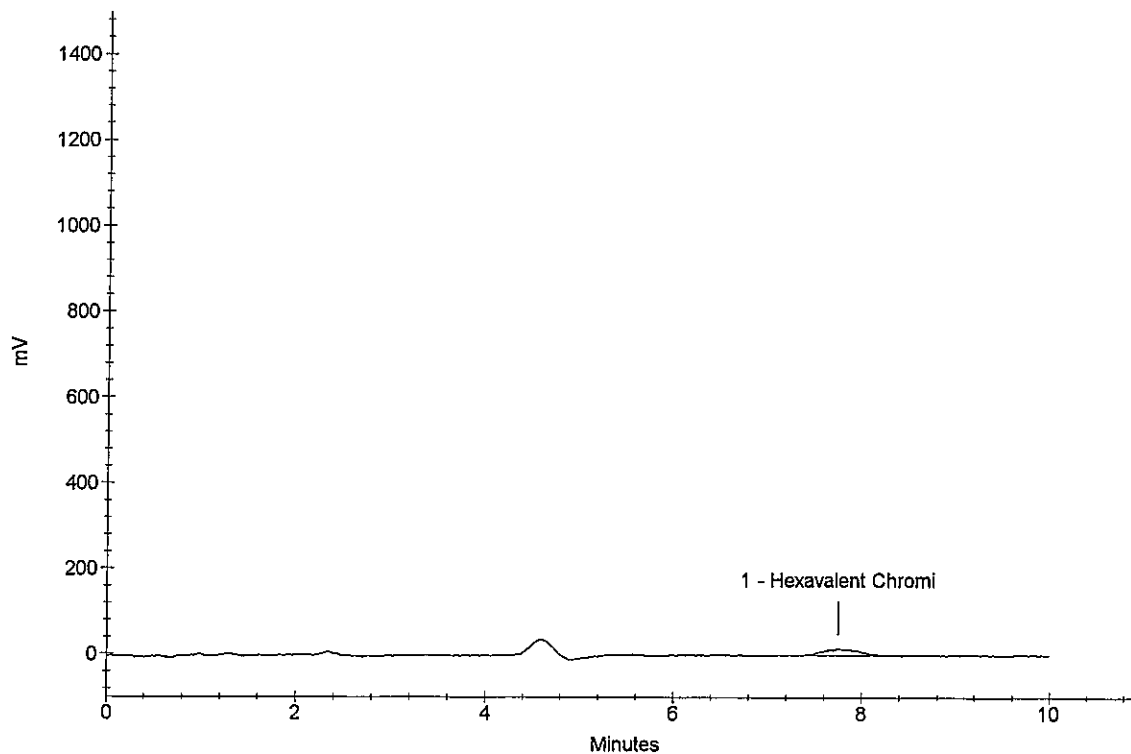
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 218.6

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	7.75	Hexavalent Chromi	0.0115	430048

AK
CM
10/20/09
R0905636-006 DUP



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : R0905636-006 SPK
Data File Name : ... \O26_006.DXD
Method File Name : ... \1-1022.met
Date Time Collected : 10/26/09 17:33:52

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 218.6

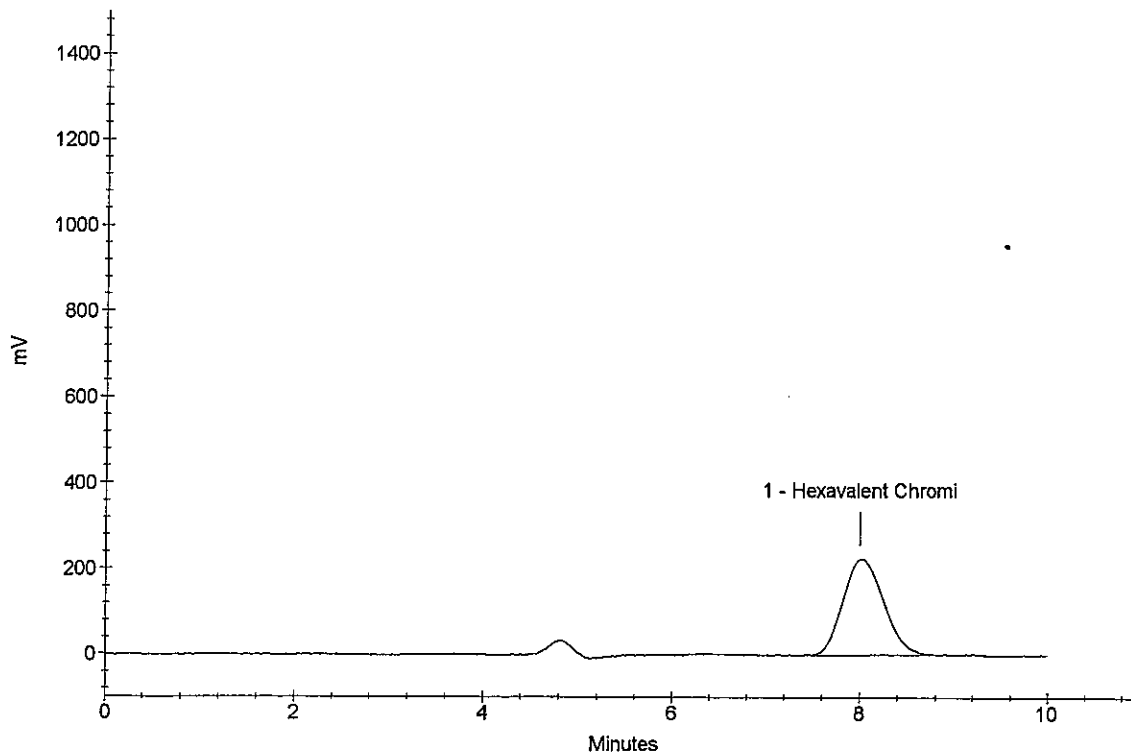
Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.00	Hexavalent Chromi	0.2093	6698848

OK
10/22/09

R0905636-006 SPK



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : METHOD BLK DIG 10/26/09
Data File Name : ...\\O26_007.DXD
Method File Name : ...\\1-1022.met
Date Time Collected : 10/26/09 17:44:16

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199

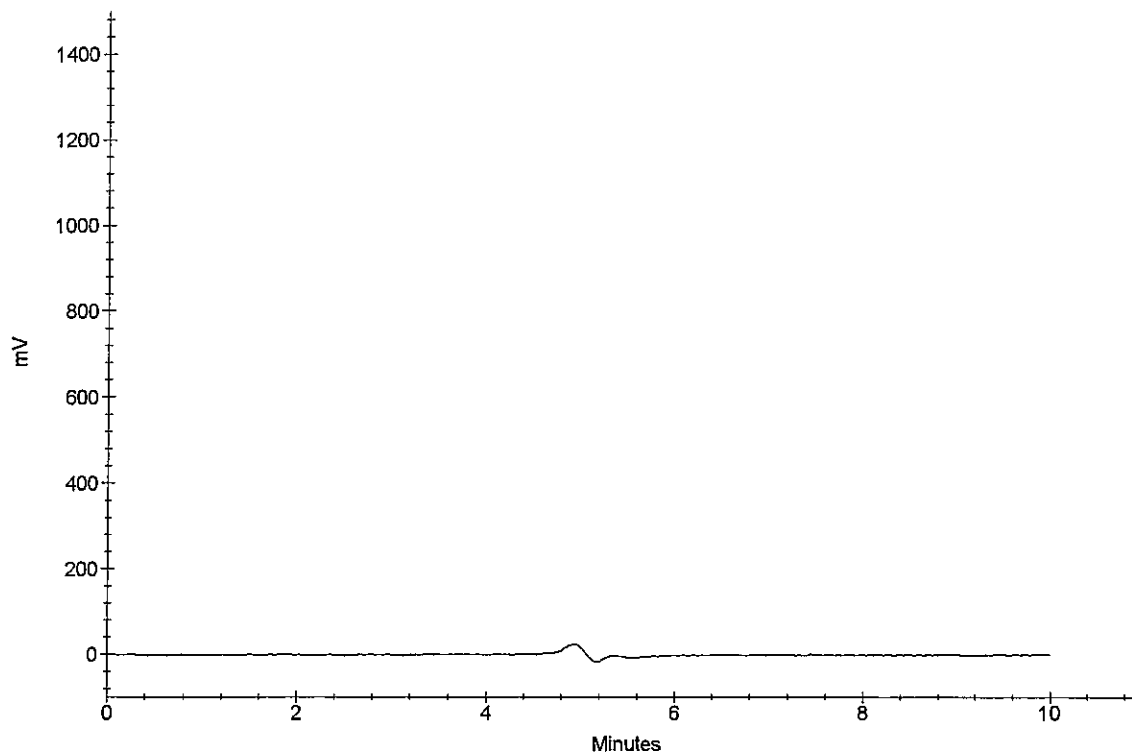
Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
0	0.00	(null)	0.0000	0

OK
10/26/09

METHOD BLK DIG 10/26/09



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : METHOD BLK DIG 10/26/09
Data File Name : ...O26_008.DXD
Method File Name : ...1-1022.met
Date Time Collected : 10/26/09 17:54:40

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199 REPLICATE

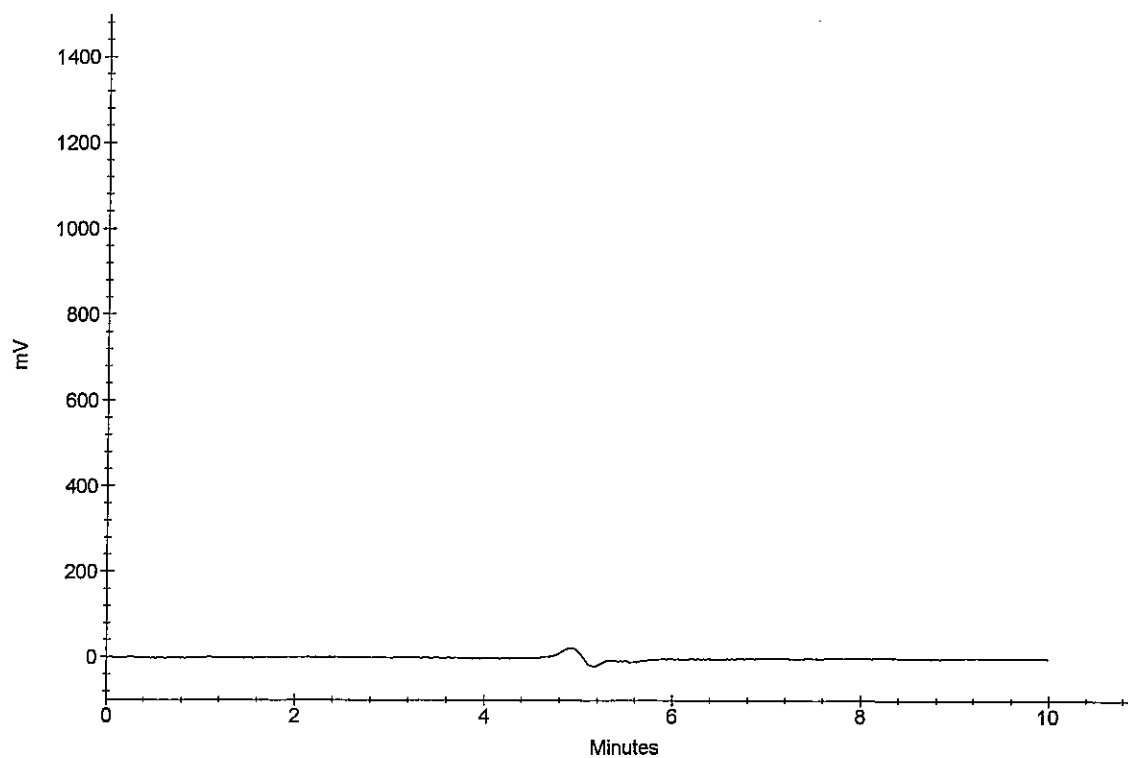
Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
0	0.00	(null)	0.0000	0

OK
10/27/09

METHOD BLK DIG 10/26/09



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Sample Name : LCS DIG 10/26/09
Data File Name : ... \O26_009.DXD
Method File Name : ... \1-1022.met
Date Time Collected : 10/26/09 18:05:04

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

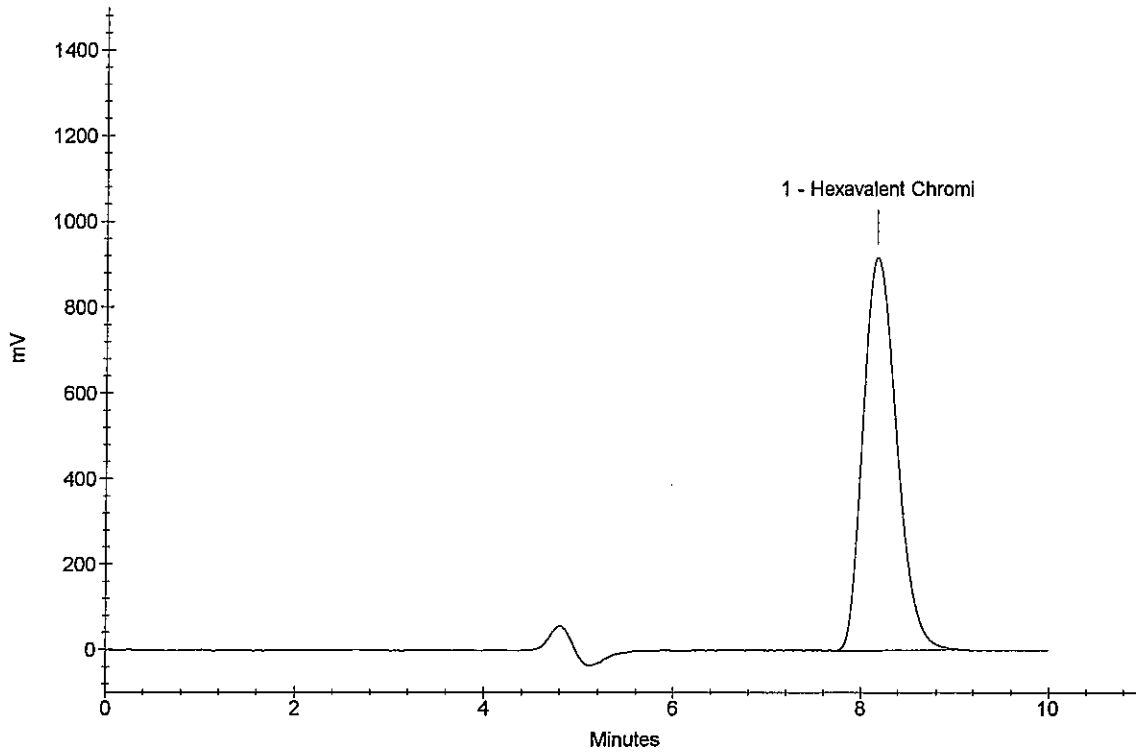
Dilution Factor : 20.00
Sample Type : Sample Analysis
Sample Comment : 7199 TV=663mg/Kg

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.18	Hexavalent Chromi <i>OK</i>	14.4940	23036918

OK
10/27/09
LCS DIG 10/26/09



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Sample Name : LCS DIG 10/26/09
Data File Name : ...O26_010.DXD
Method File Name : ...1-1022.met
Date Time Collected : 10/26/09 18:15:28

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

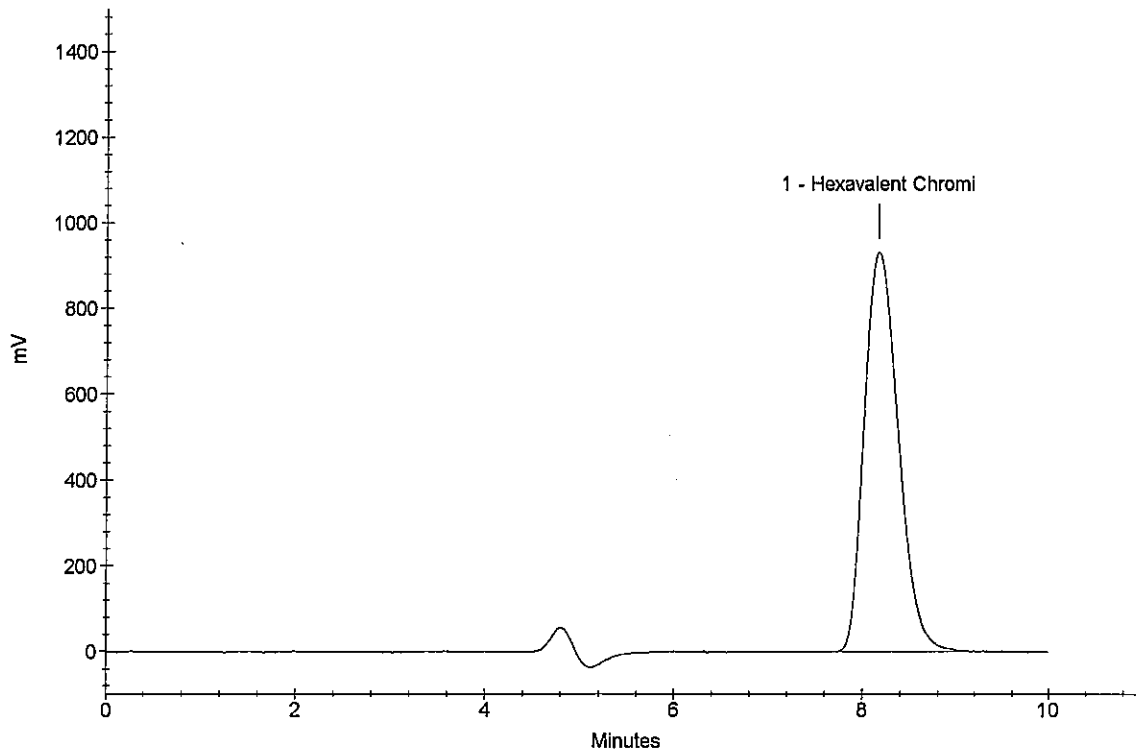
Dilution Factor : 20.00
Sample Type : Sample Analysis
Sample Comment : 7199 TV=663mg/Kg REP

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.18	Hexavalent Chromi	14.6636	23305751

OK
10/27/09
LCS DIG 10/26/09



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Sample Name : R0905567-010
Data File Name : ...\\O26_012.DXD
Method File Name : ...\\1-1022.met
Date Time Collected : 10/26/09 18:36:15

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

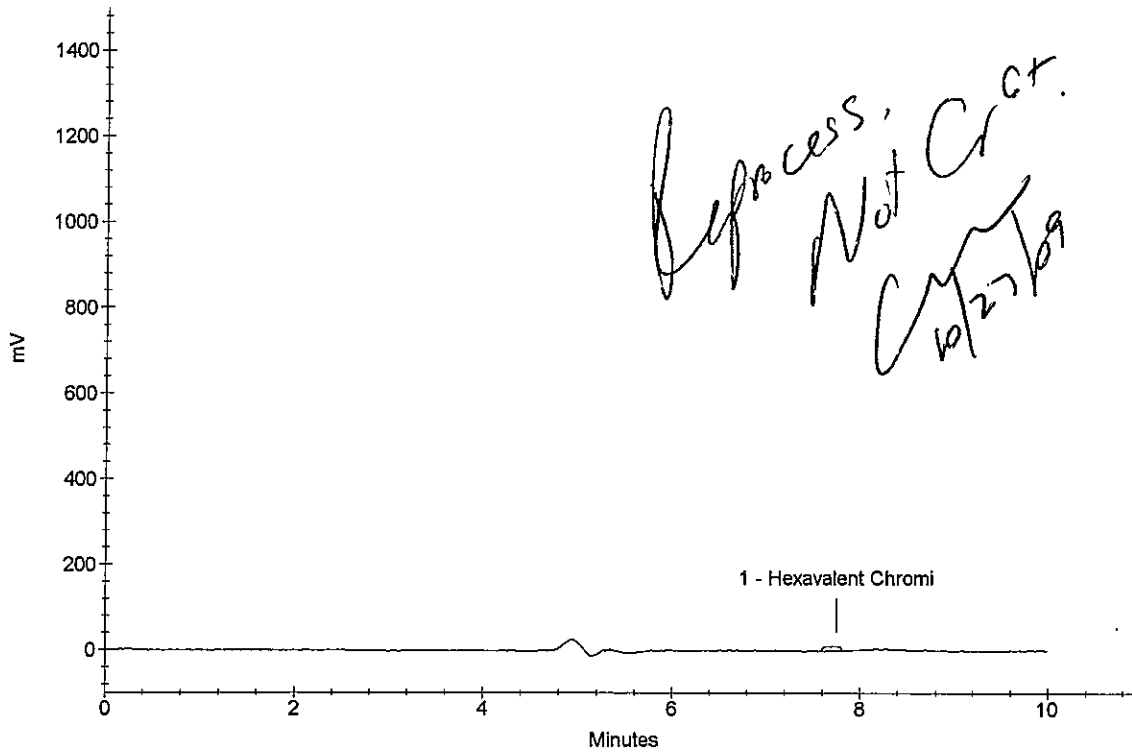
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199 REPLICATE

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	7.75	Hexavalent Chromi	0.0018	122023

R0905567-010



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Sample Name : R0905567-010
Data File Name : ...\\O26_012.DXD
Method File Name : ...\\1-1022.met
Date Time Collected : 10/26/09 18:36:15

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199 REPLICATE

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

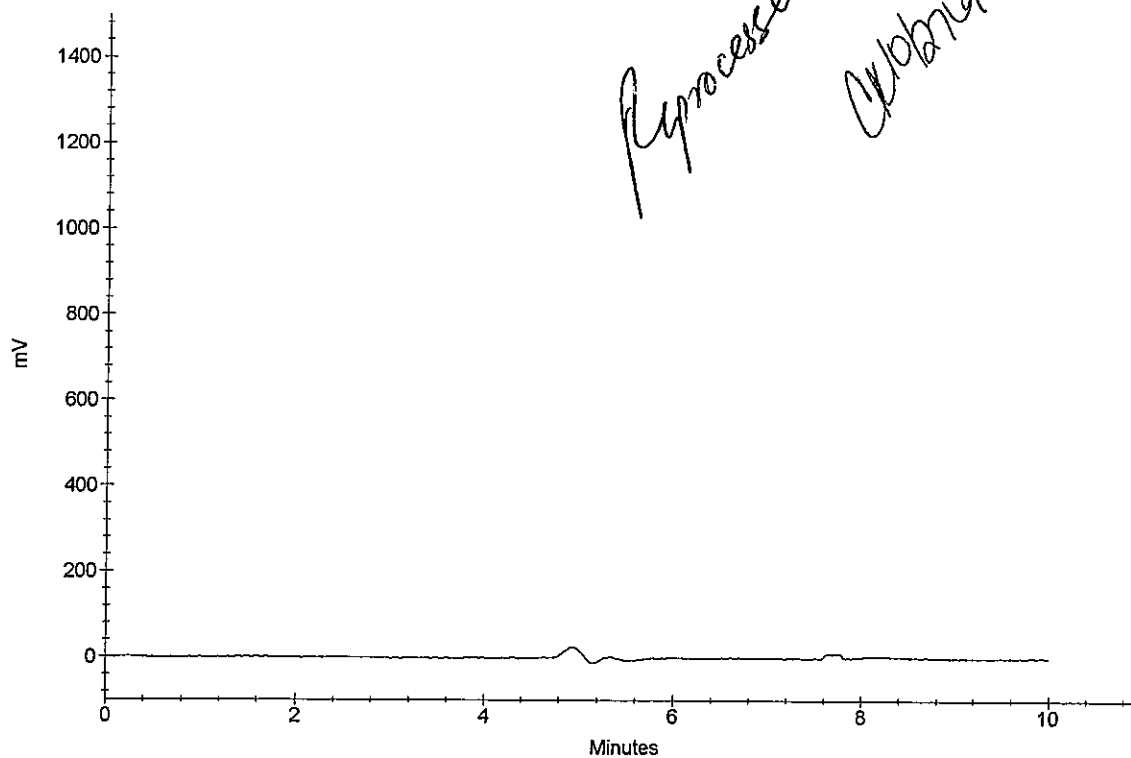
Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
0	0.00	(null)	0.0000	0

OK
10/26/09

R0905567-010

Reprocessed
Columbia



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Sample Name : R0905567-010
Data File Name : ...O26_011.DXD
Method File Name : ...1-1022.met
Date Time Collected : 10/26/09 18:25:52

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

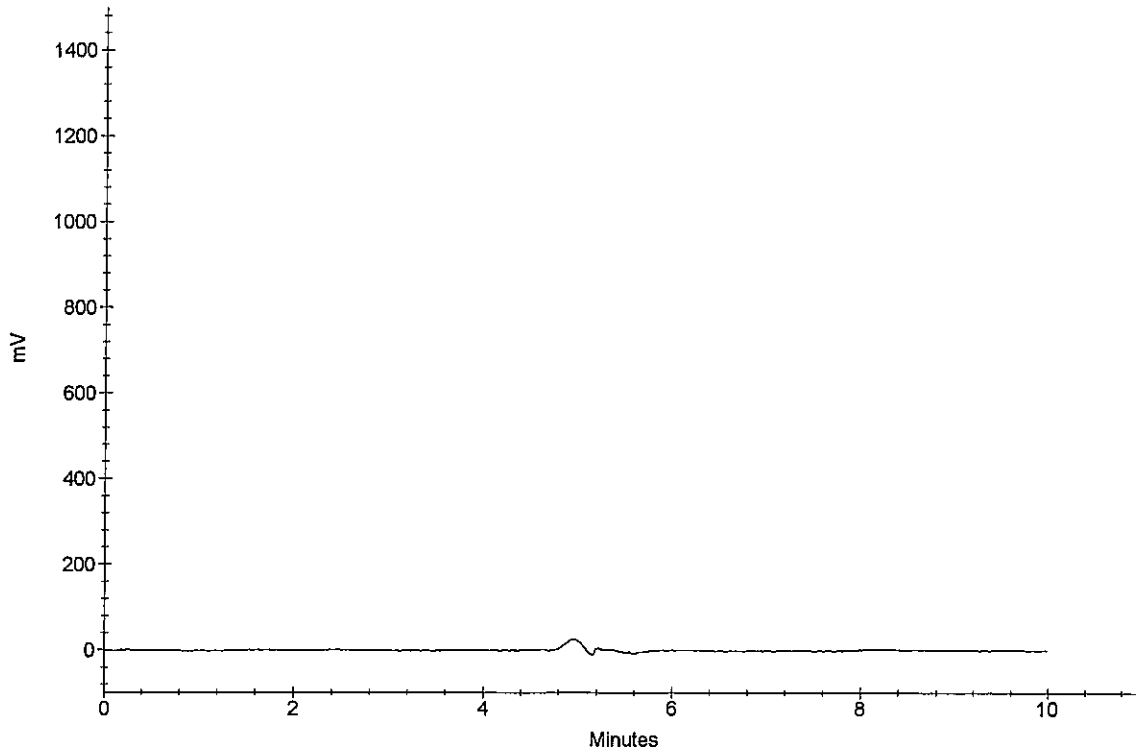
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
0	0.00	(null)	0.0000	0

OK
10/27/09
R0905567-010



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Sample Name : CCV
Data File Name : ...O26_013.DXD
Method File Name : ...1-1022.met
Date Time Collected : 10/26/09 18:46:38

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

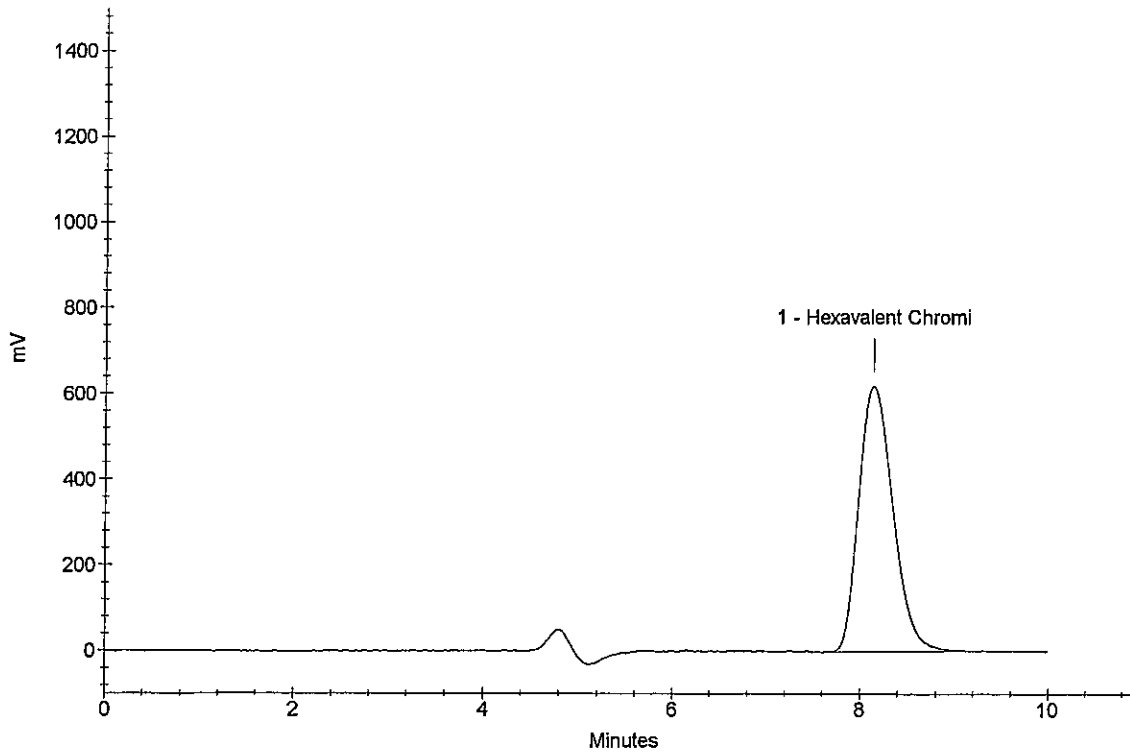
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199/218.6

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.15	Hexavalent Chromi	0.4902	15603397

OK
CCV
10/27/09



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Sample Name : CCB
Data File Name : ...O26_014.DXD
Method File Name : ...I-1022.met
Date Time Collected : 10/26/09 18:57:02

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199/218.6

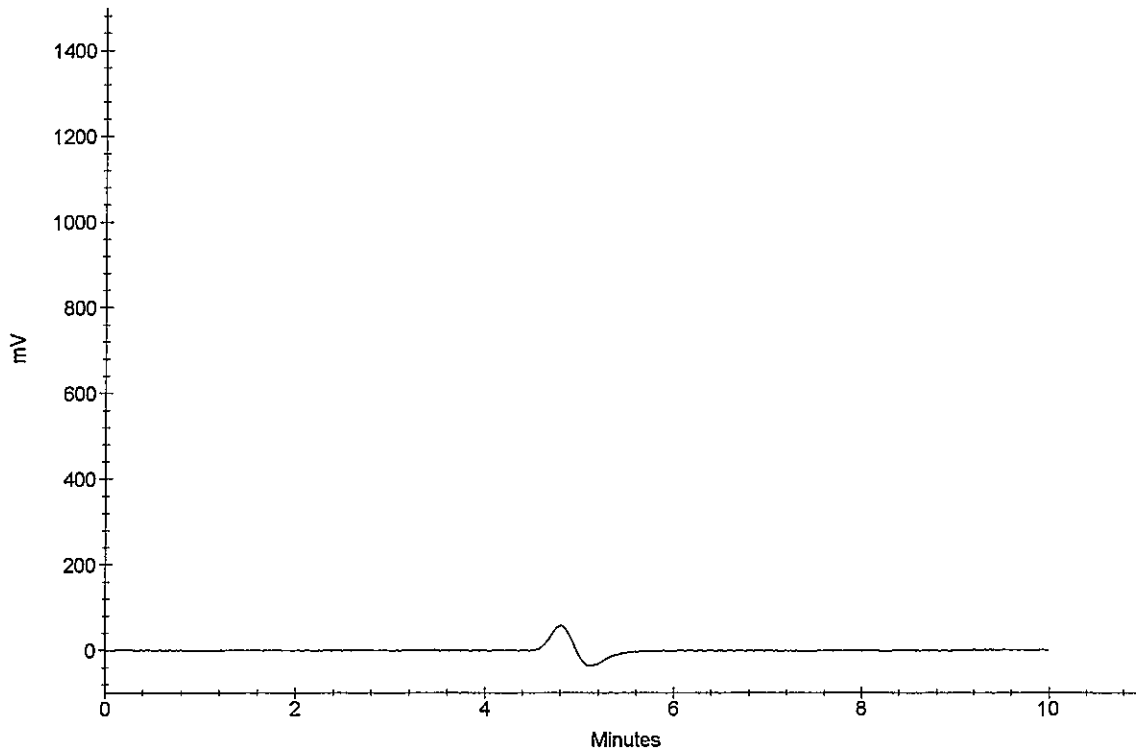
Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
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0	0.00	(null)	0.0000	0
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OK
10/22/09
CCB



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Sample Name : R0905567-010 DUP
Data File Name : ...O26_015.DXD
Method File Name : ...1-1022.met
Date Time Collected : 10/26/09 19:07:25

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199

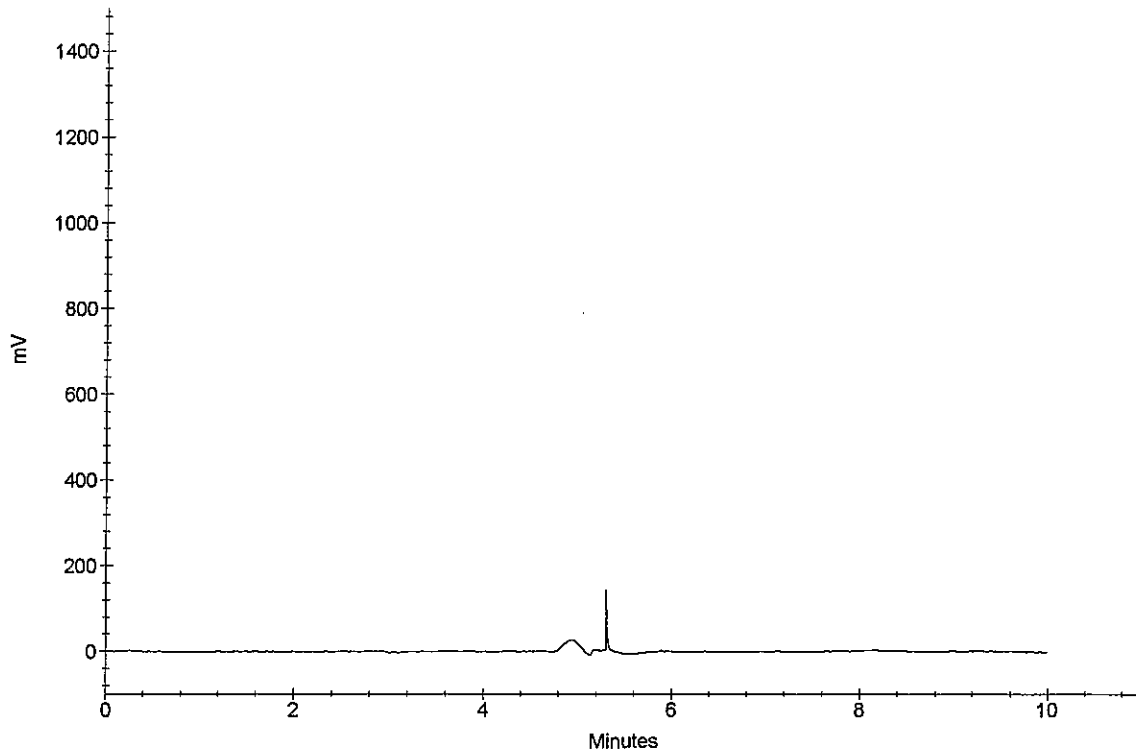
Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
0	0.00	(null)	0.0000	0

OK
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R0905567-010 DUP



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Sample Name : R0905567-010 DUP
Data File Name : ...\\O26_016.DXD
Method File Name : ...\\1-1022.met
Date Time Collected : 10/26/09 19:17:48

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

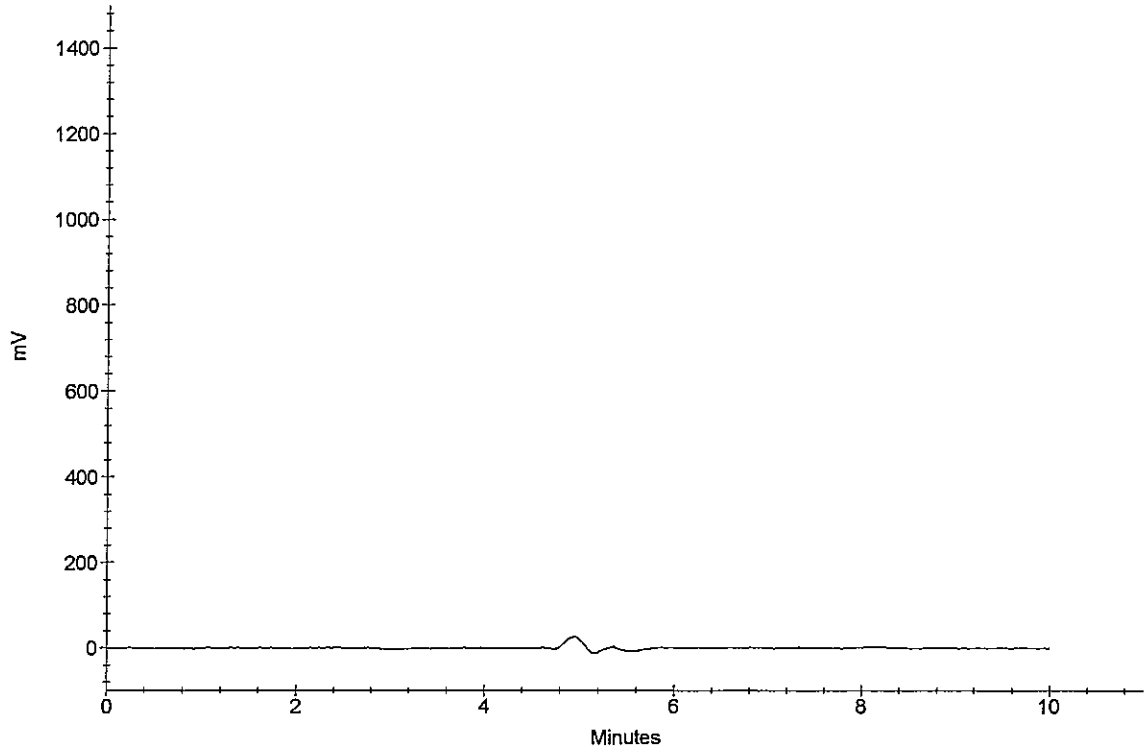
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199 REPLICATE

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
0	0.00	(null)	0.0000	0

at
10/26/09
R0905567-010 DUP



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Sample Name : R0905567-010 SOL
Data File Name : ... \O26_017.DXD
Method File Name : ... \1-1022.met
Date Time Collected : 10/26/09 19:28:11

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

Dilution Factor : 2.00
Sample Type : Sample Analysis
Sample Comment : 7199 TV=40.0mg/Kg

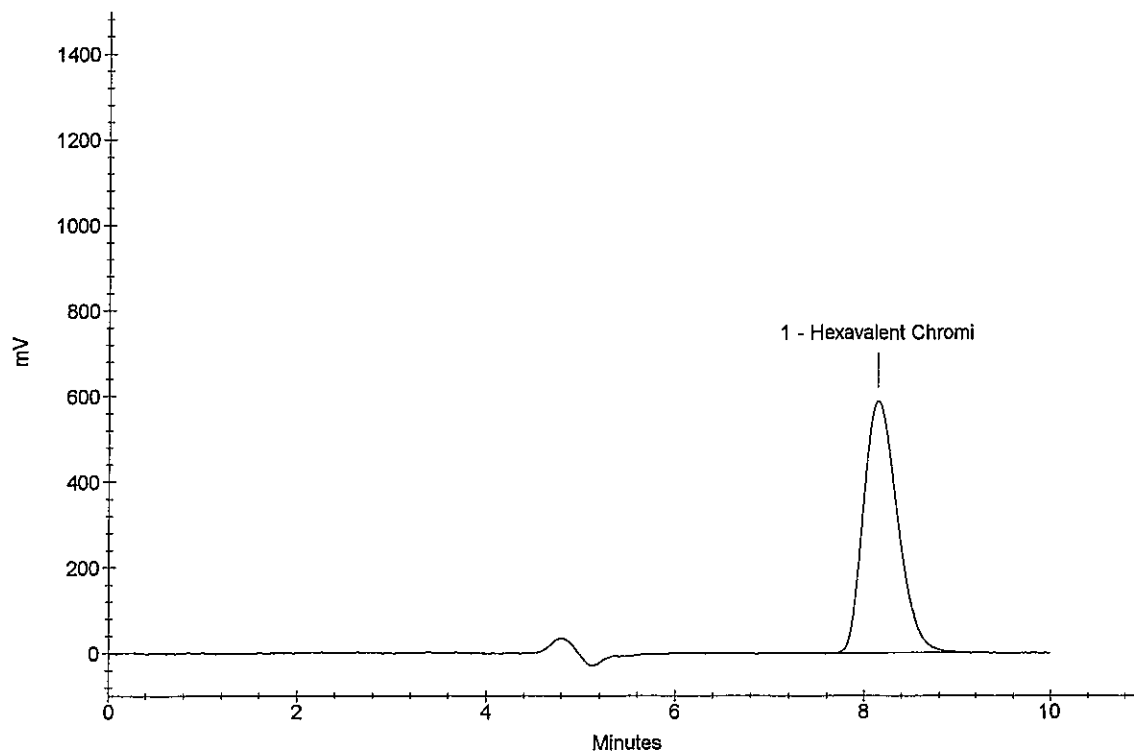
Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.15	Hexavalent Chromi	0.9307	14816642

OK
CM
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R0905567-010 SOL



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Sample Name : R0905567-010 SOL
Data File Name : ...O26_018.DXD
Method File Name : ...1-1022.met
Date Time Collected : 10/26/09 19:38:35

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

Dilution Factor : 2.00
Sample Type : Sample Analysis
Sample Comment : 7199 TV=40.0mg/Kg REP

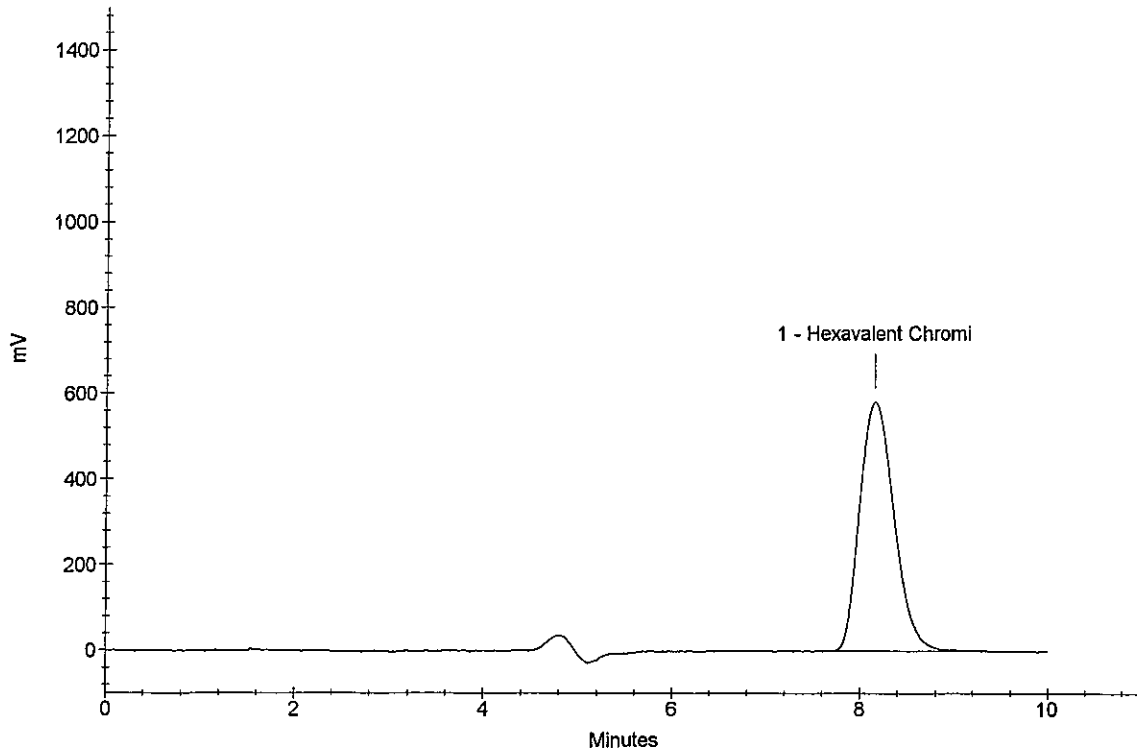
Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.15	Hexavalent Chromi	0.9248	14723070

OK
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R0905567-010 SOL



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Sample Name : R0905567-010 INSOL
Data File Name : ...O26_019.DXD
Method File Name : ...1-1022.met
Date Time Collected : 10/26/09 19:48:59

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

Dilution Factor : 20.00
Sample Type : Sample Analysis
Sample Comment : 7199 TV=644mg/Kg

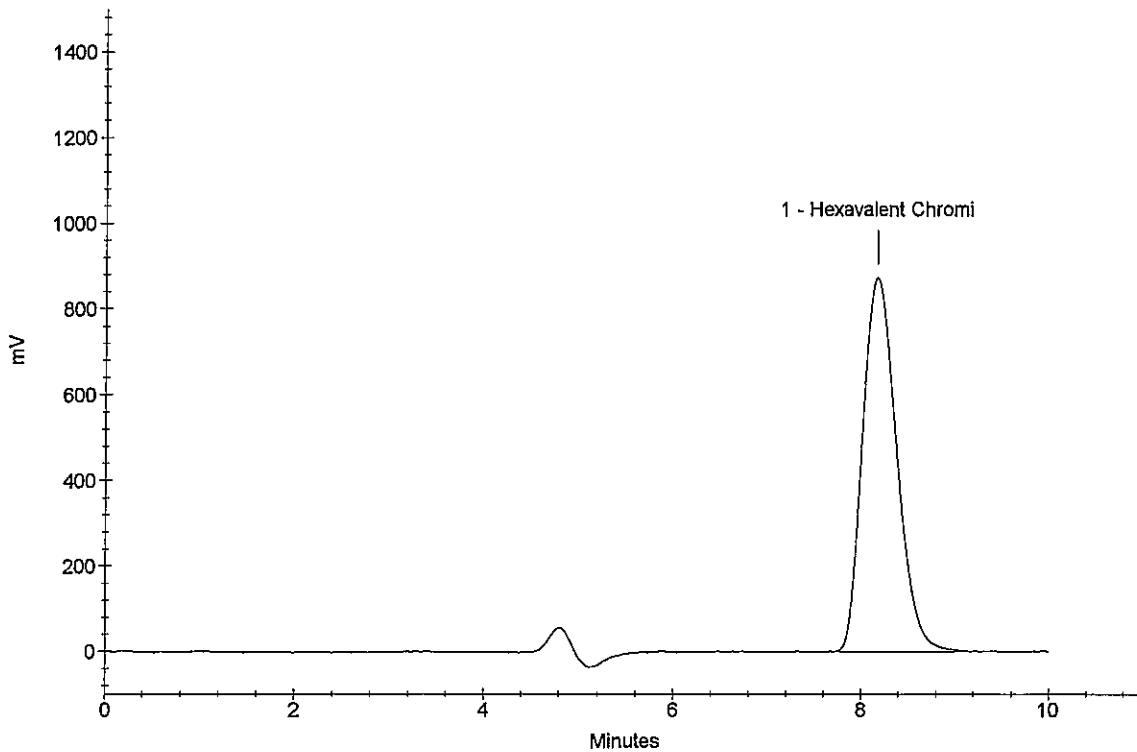
Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.18	Hexavalent Chromi	13.9567	22185412

OK
10/27/09

R0905567-010 INSOL



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Sample Name : R0905567-010 INSOL
Data File Name : ...O26_020.DXD
Method File Name : ...1-1022.met
Date Time Collected : 10/26/09 19:59:23

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

Dilution Factor : 20.00
Sample Type : Sample Analysis
Sample Comment : 7199 TV=644mg/Kg REP

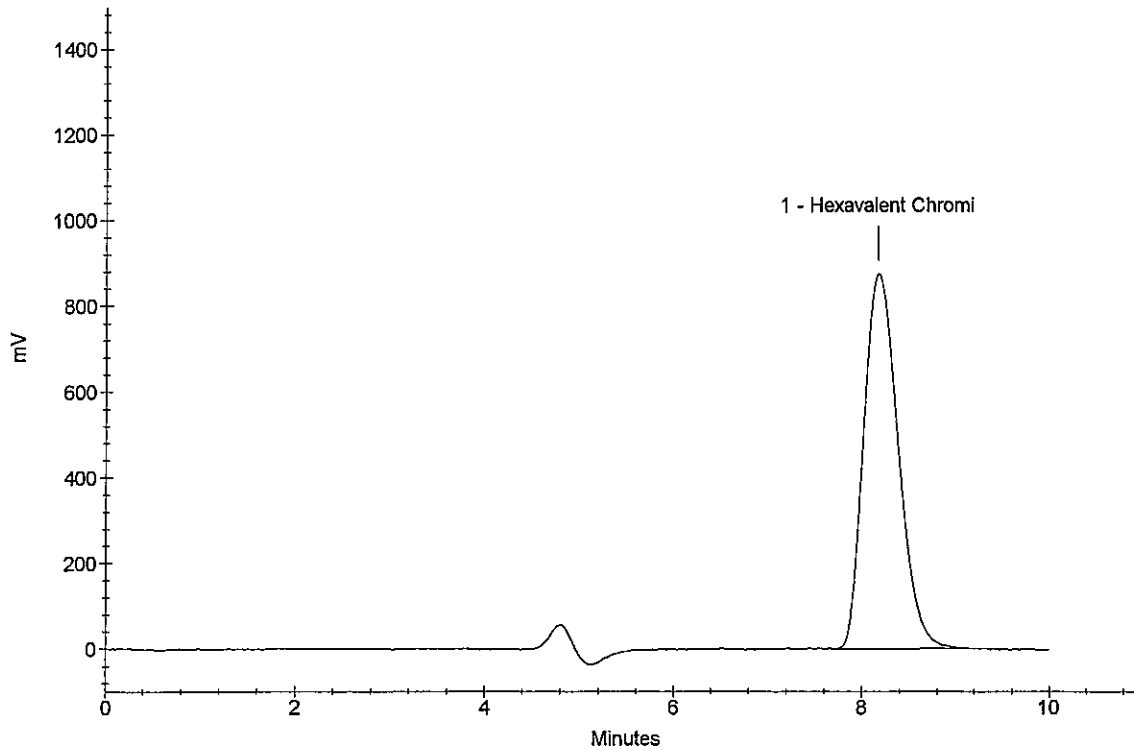
Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.18	Hexavalent Chromi	14.0121	22273128

OK
CY
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R0905567-010 INSOL



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Sample Name : R0905567-010 PVS
Data File Name : ...O26_021.DXD
Method File Name : ...1-1022.met
Date Time Collected : 10/26/09 20:09:47

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

Dilution Factor : 2.00
Sample Type : Sample Analysis
Sample Comment : 7199 SEE PVS SHEET

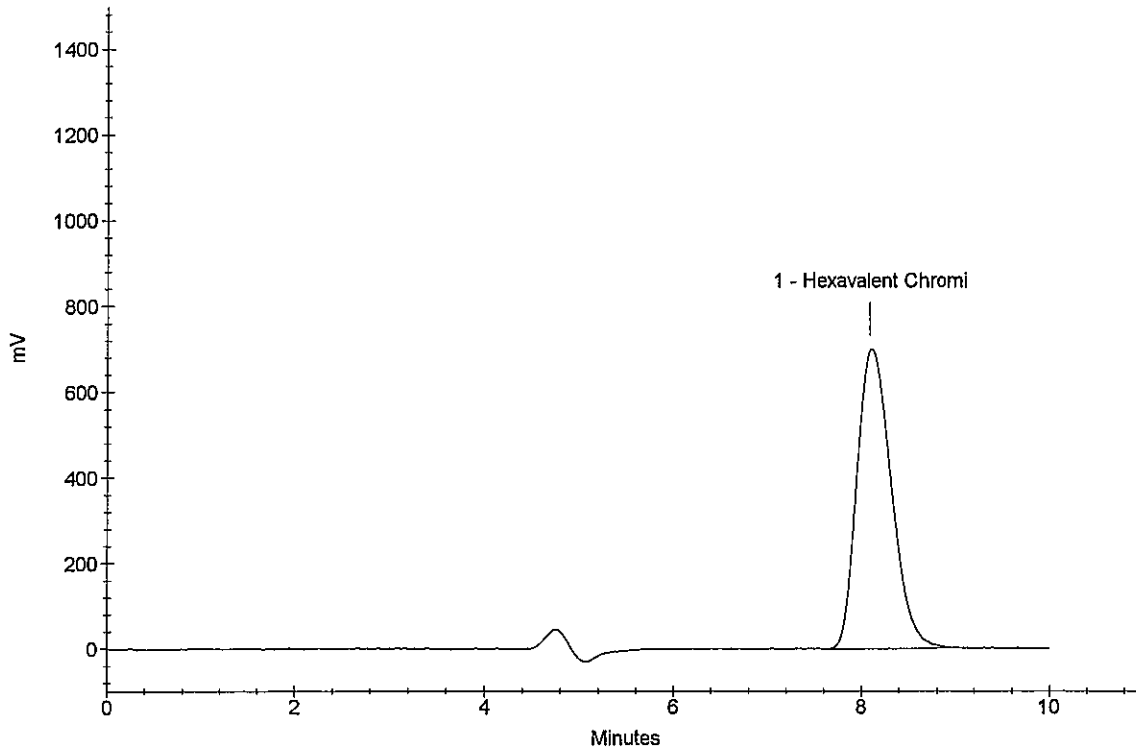
Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.10	Hexavalent Chromi	1.1229	17862269

OK
10/26/09

R0905567-010 PVS



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Sample Name : R0905567-010 PVS
Data File Name : ...\\O26_022.DXD
Method File Name : ...\\1-1022.met
Date Time Collected : 10/26/09 20:20:12

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

Dilution Factor : 2.00
Sample Type : Sample Analysis
Sample Comment : 7199 SEE PVS SHEET REP

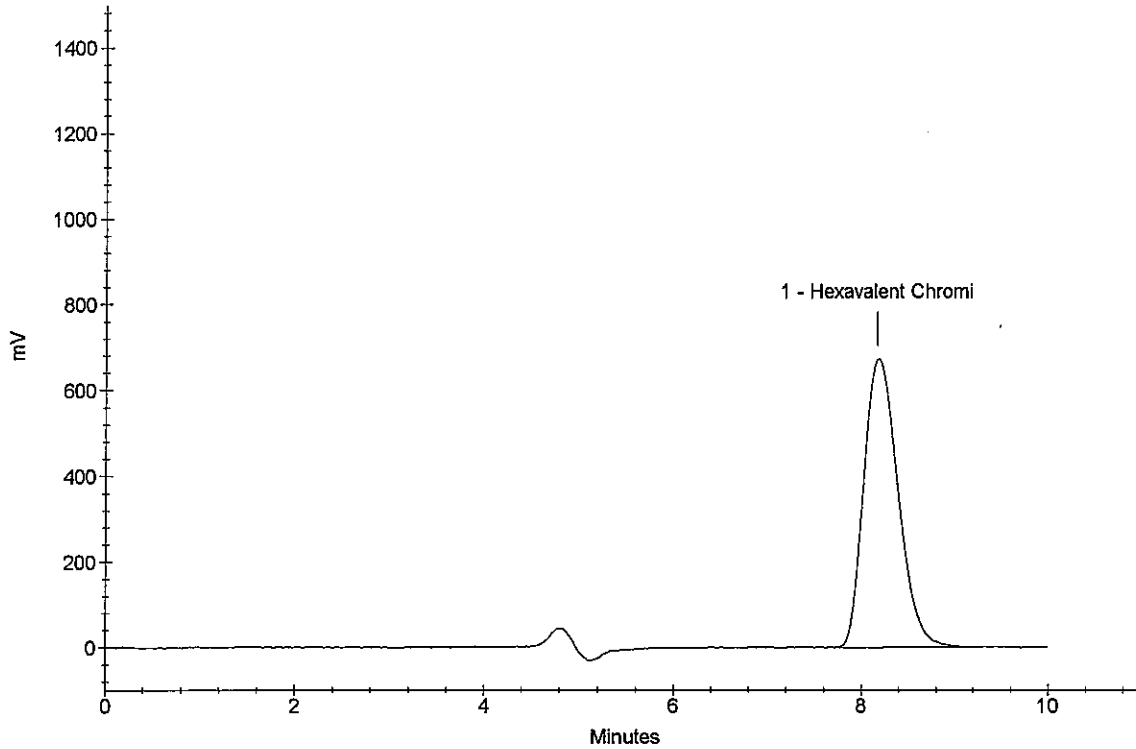
Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.18	Hexavalent Chromi	1.0788	17163991

OK
cm
10/20/09

R0905567-010 PVS



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Sample Name : R0905567-018
Data File Name : ...O26_023.DXD
Method File Name : ...1-1022.met
Date Time Collected : 10/26/09 20:30:36

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

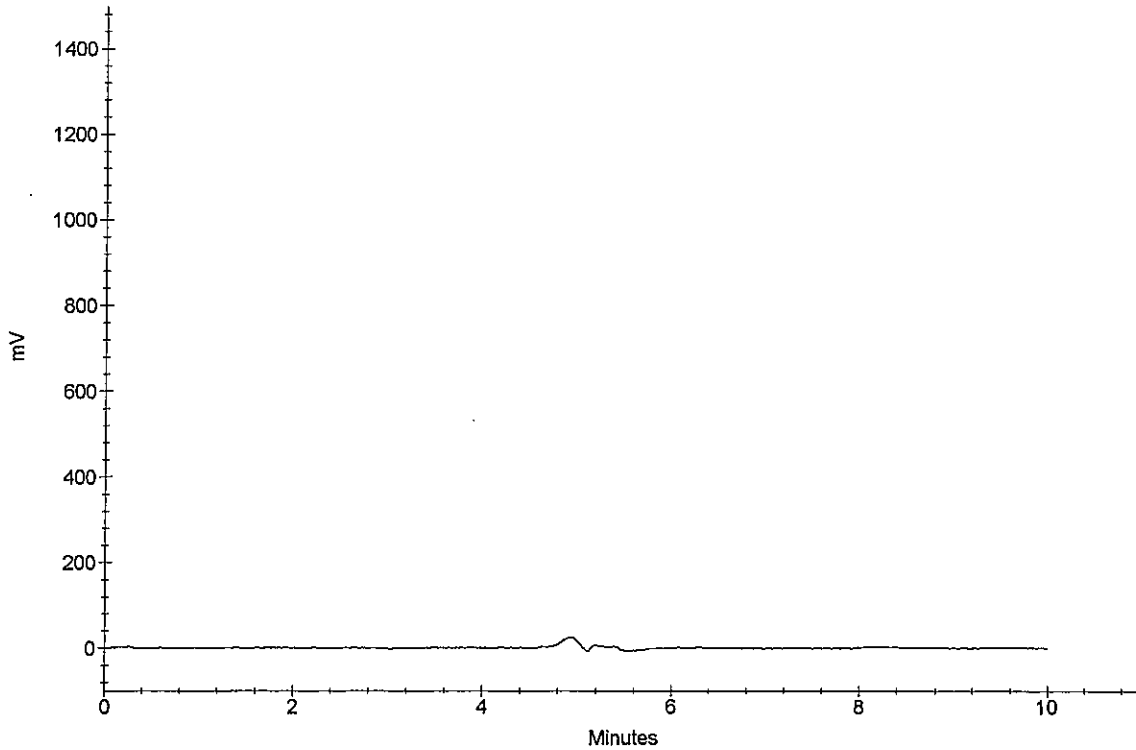
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
0	0.00	(null)	0.0000	0

OK
10/26/09
R0905567-018



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Sample Name : R0905567-018
Data File Name : ... \O26_024.DXD
Method File Name : ... \1-1022.met
Date Time Collected : 10/26/09 20:40:59

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

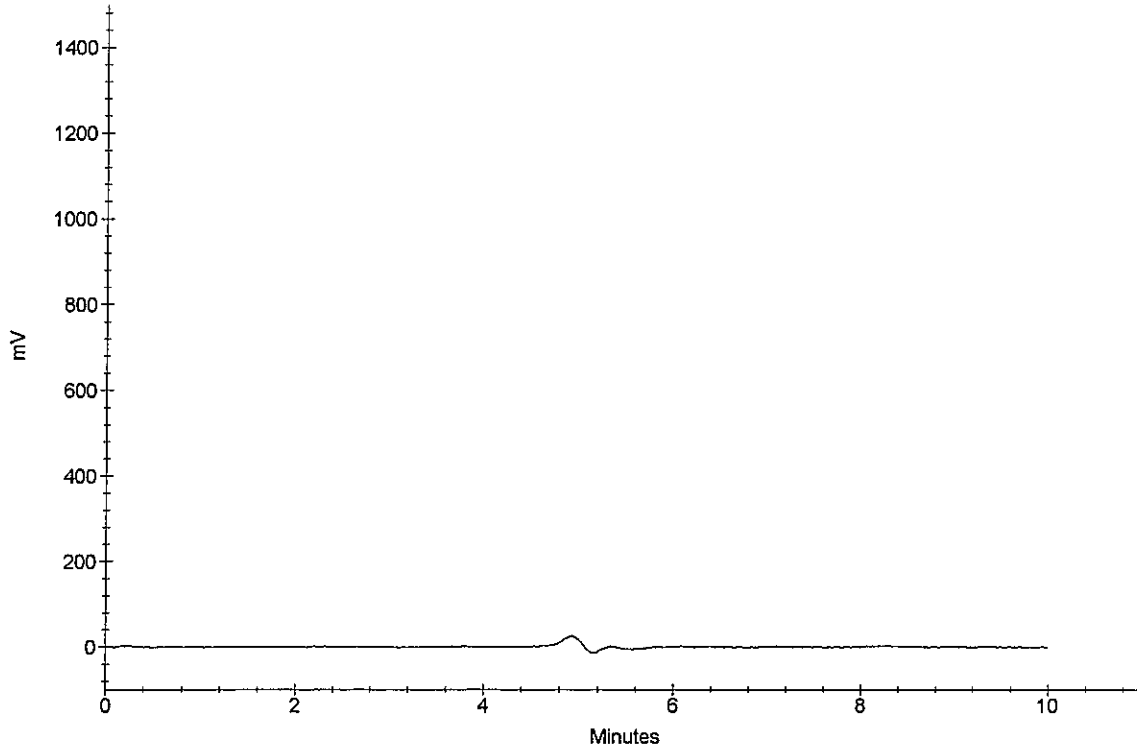
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199 REPLICATE

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
0	0.00	(null)	0.0000	0

OK
10/26/09
R0905567-018



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Sample Name : CCV
Data File Name : ...O26_025.DXD
Method File Name : ...1-1022.met
Date Time Collected : 10/26/09 20:51:23

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

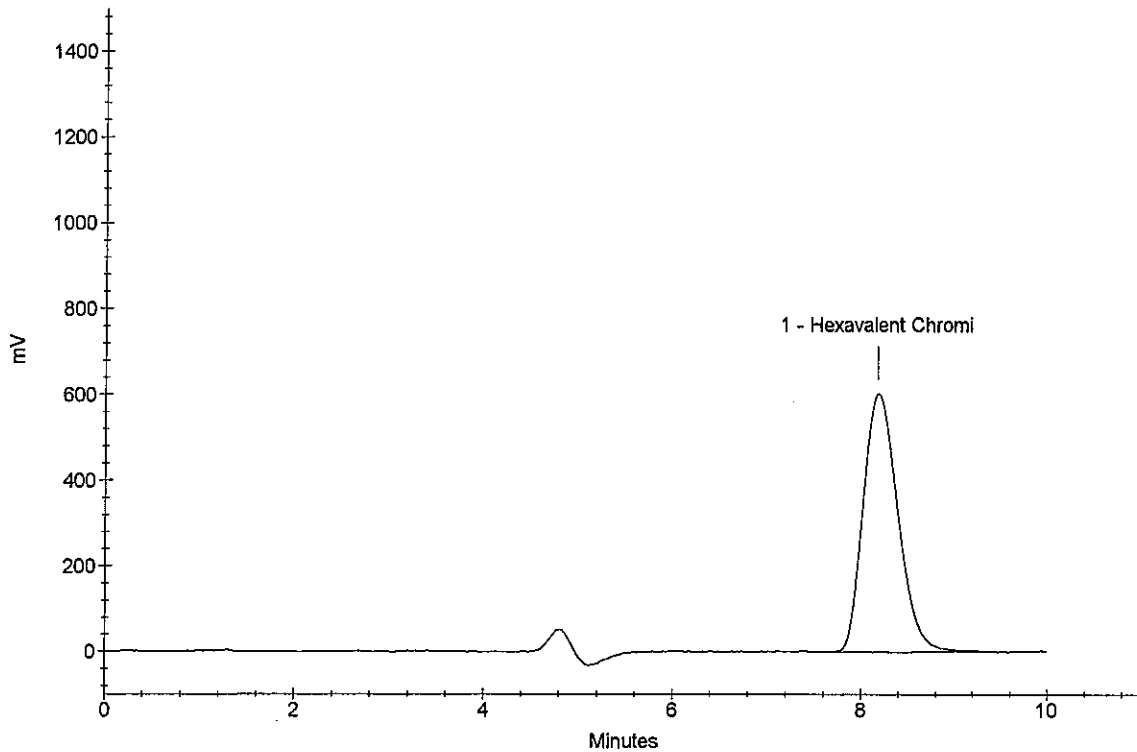
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199/218.6

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.18	Hexavalent Chromi <i>OK</i>	0.4898	15589847

ccv
10/27/09



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Sample Name : CCB
Data File Name : ...\\O26_026.DXD
Method File Name : ...\\1-1022.met
Date Time Collected : 10/26/09 21:01:47

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

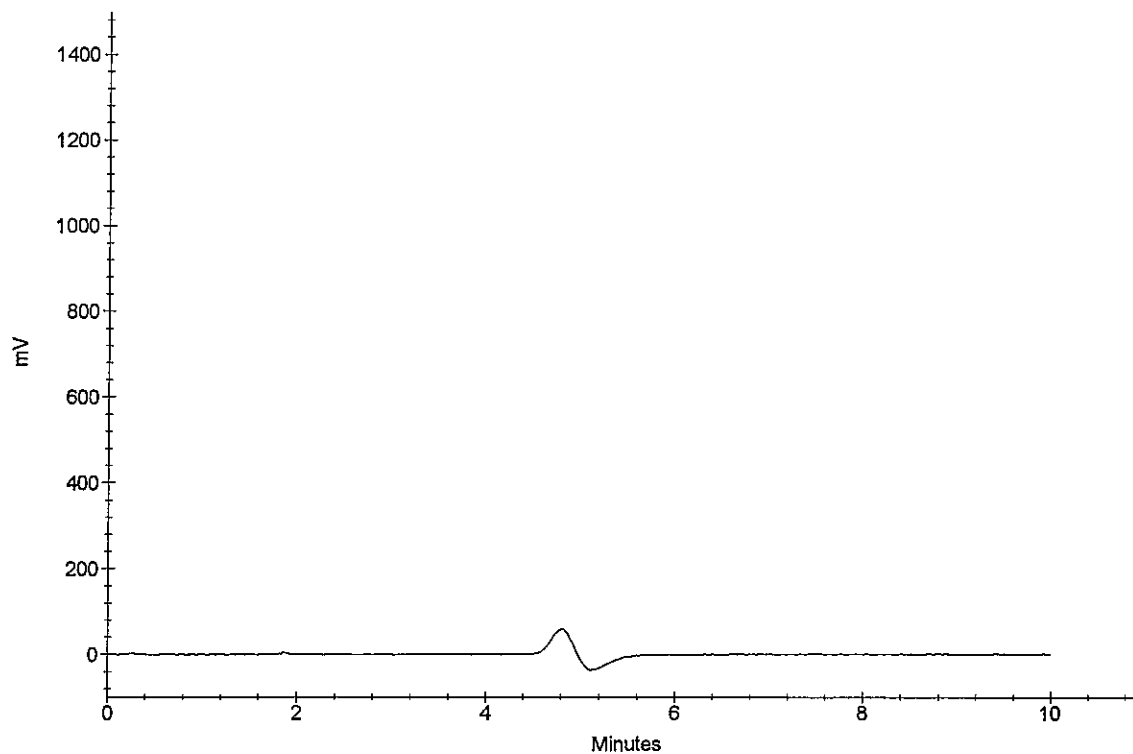
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199/218.6

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
0	0.00	(null)	0.0000	0

OK
CCB
10/26/09



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Sample Name : R0905567-019
Data File Name : ...O26_027.DXD
Method File Name : ...1-1022.met
Date Time Collected : 10/26/09 21:12:11

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

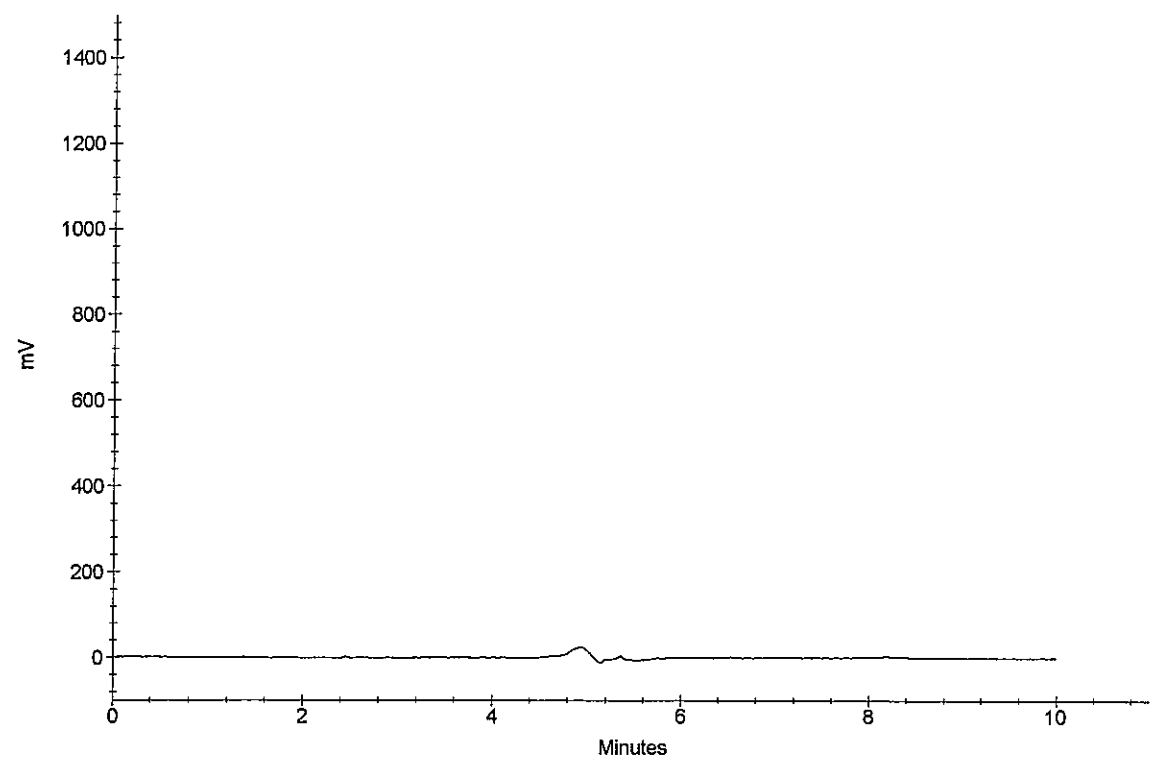
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
0	0.00	(null)	0.0000	0

OK
CVT
10/26/09
R0905567-019



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Sample Name : R0905567-019
Data File Name : ...O26_028.DXD
Method File Name : ...1-1022.met
Date Time Collected : 10/26/09 21:22:36

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

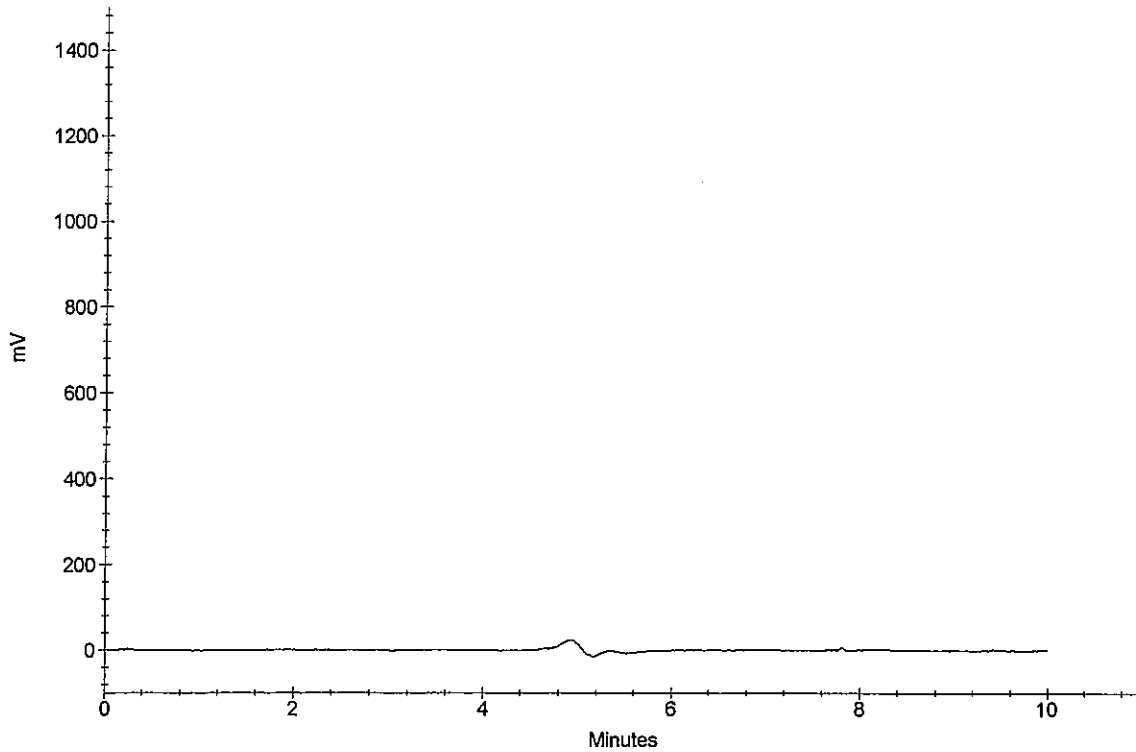
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199 REPLICATE

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
0	0.00	(null)	0.0000	0

OK
10/27/09
R0905567-019



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Sample Name : R0905567-020
Data File Name : ...O26_029.DXD
Method File Name : ...1-1022.met
Date Time Collected : 10/26/09 21:33:00

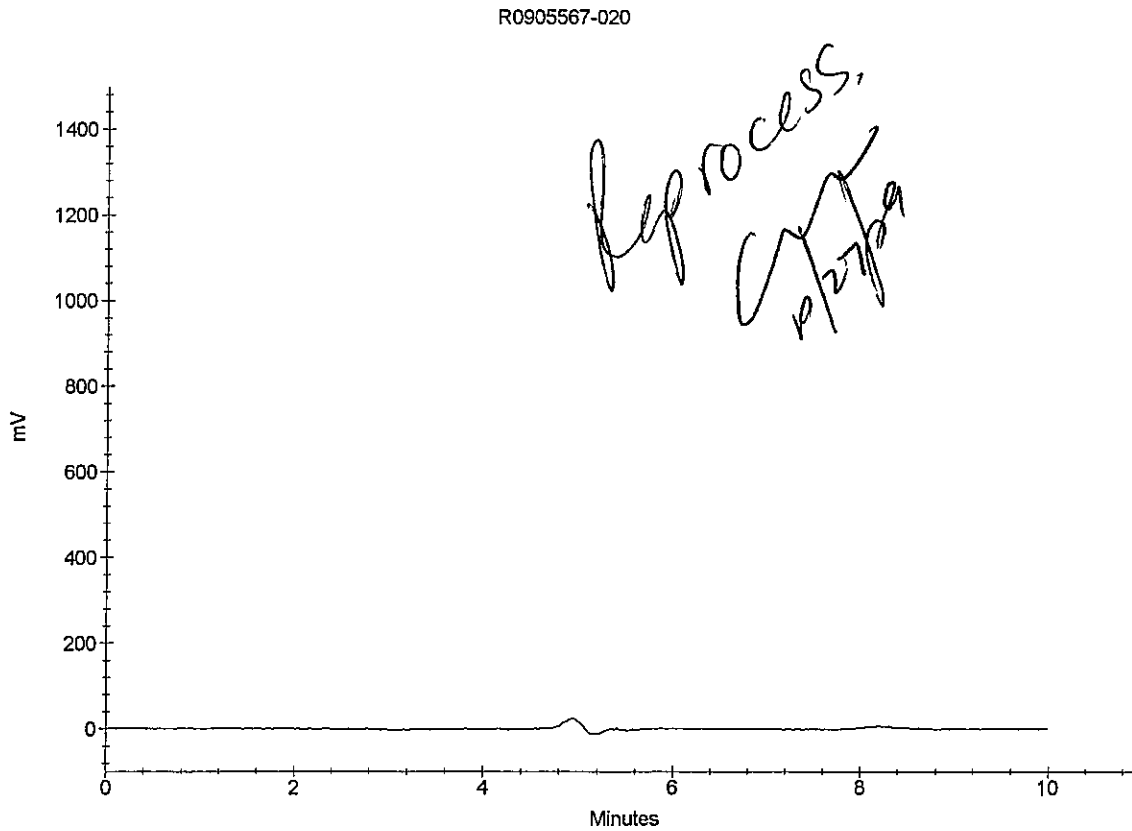
Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
0	0.00	(null)	0.0000	0



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Sample Name : R0905567-020
Data File Name : ...\\O26_029.DXD
Method File Name : ...\\1-1022.met
Date Time Collected : 10/26/09 21:33:00

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

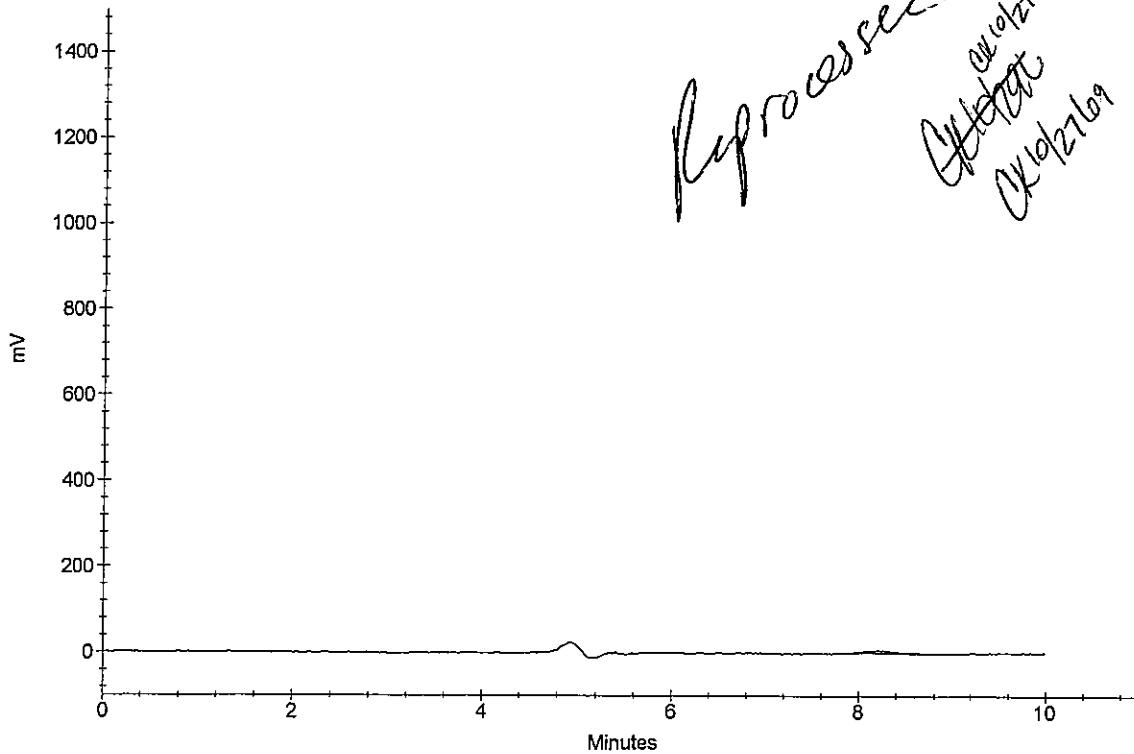
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.20	Hexavalent Chromi	0.0029	157794

R0905567-020



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Sample Name : R0905567-020
Data File Name : ... \O26_030.DXD
Method File Name : ... \1-1022.met
Date Time Collected : 10/26/09 21:43:24

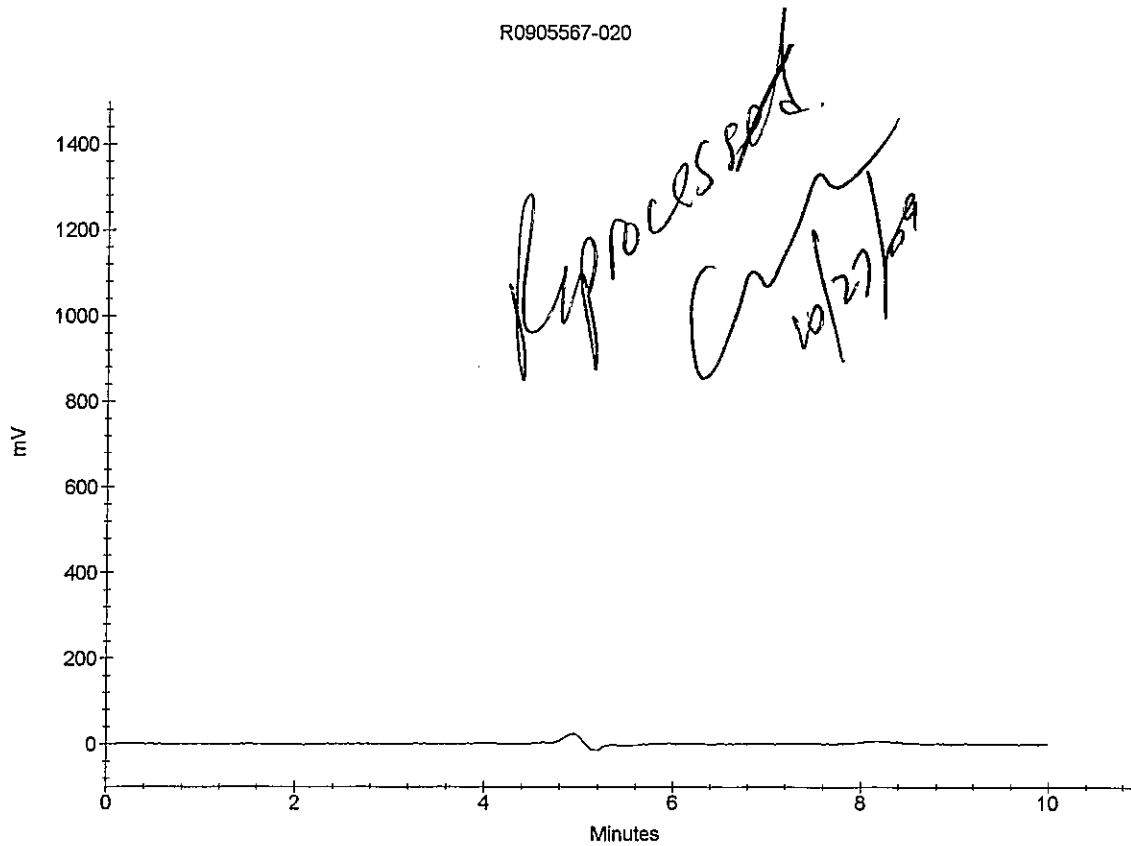
Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199 REPLICATE

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
0	0.00	(null)	0.0000	0



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Sample Name : R0905567-020
Data File Name : ...\\O26_030.DXD
Method File Name : ...\\1-1022.met
Date Time Collected : 10/26/09 21:43:24

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

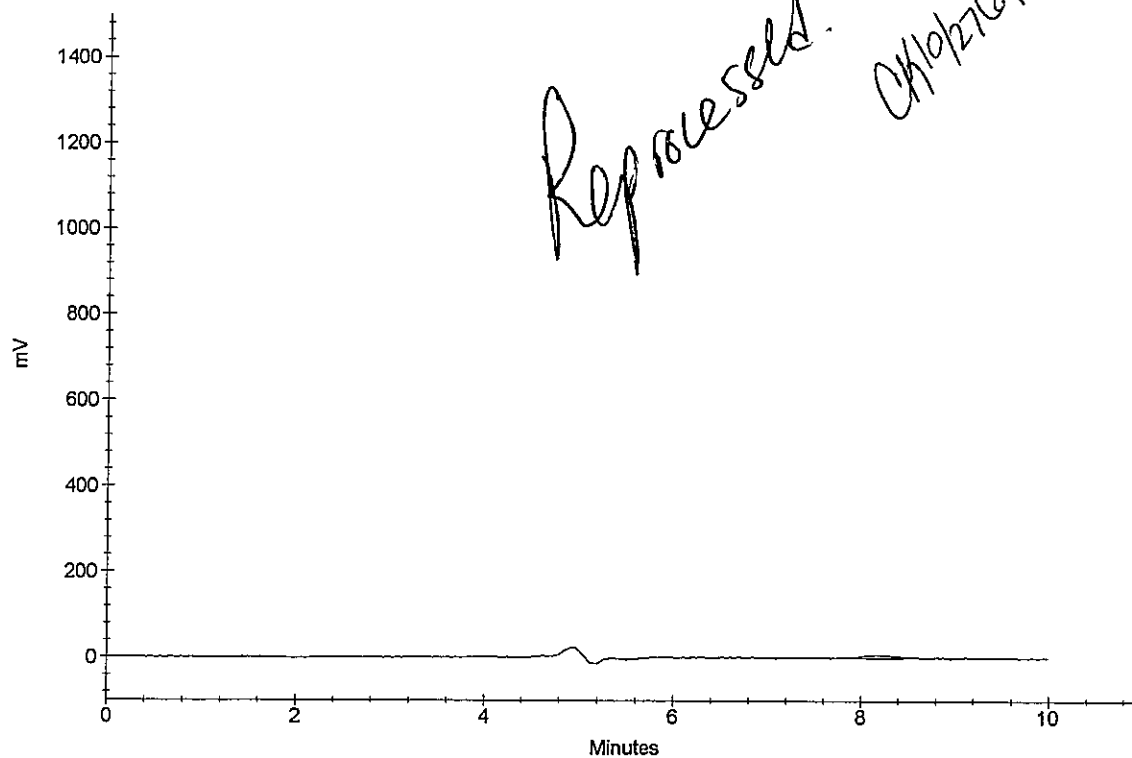
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199 REPLICATE

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.15	Hexavalent Chromi	0.0029	157433

R0905567-020



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Sample Name : R0905567-021
Data File Name : ... \O26_031.DXD
Method File Name : ... \1-1022.met
Date Time Collected : 10/26/09 21:53:47

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199

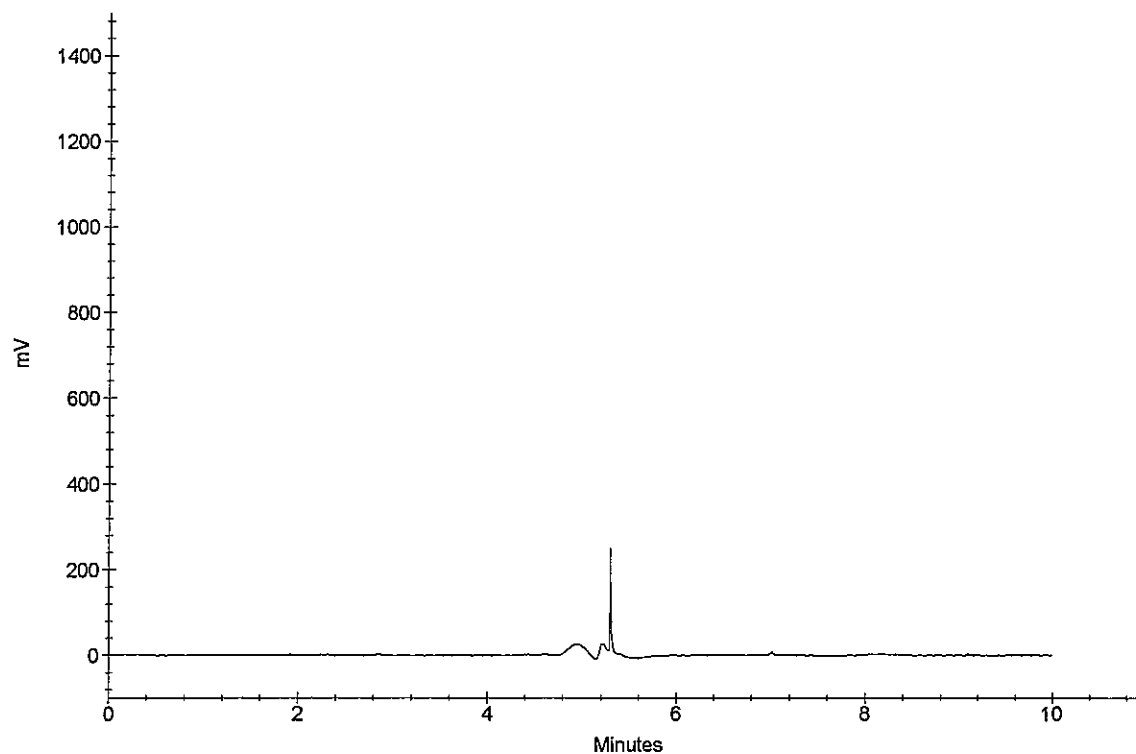
Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
0	0.00	(null)	0.0000	0

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Sample Name : R0905567-021
Data File Name : ...O26_032.DXD
Method File Name : ...1-1022.met
Date Time Collected : 10/26/09 22:04:11

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

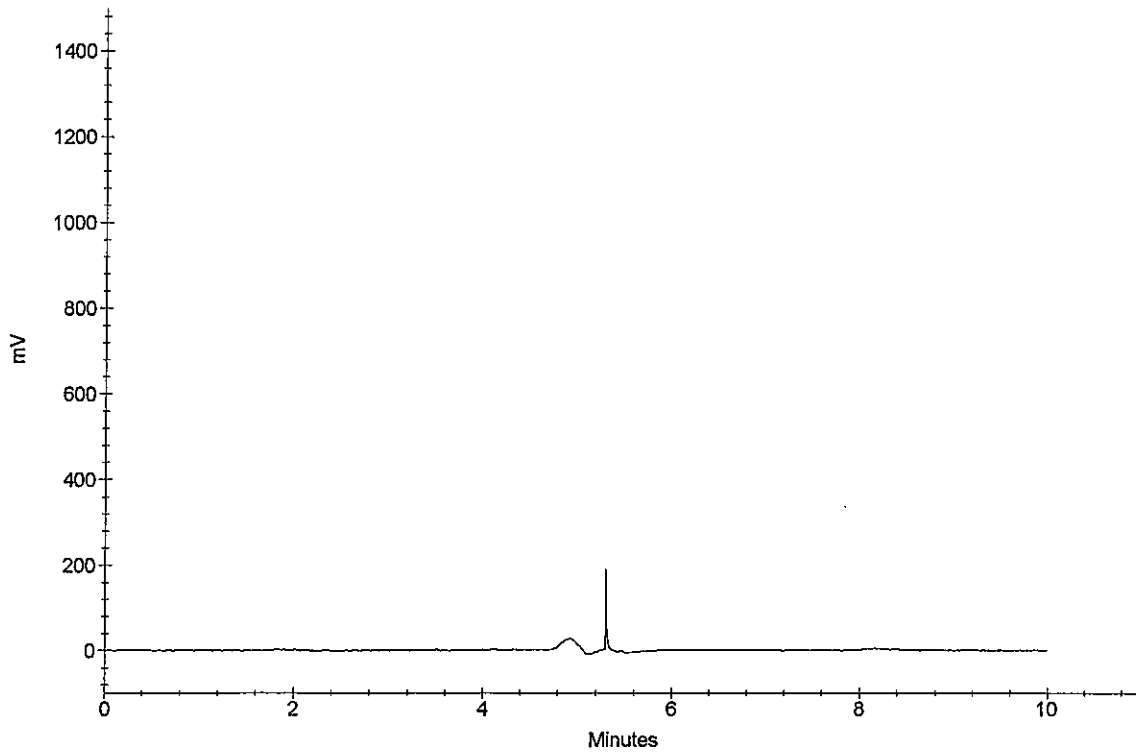
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199 REPLICATE

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
0	0.00	(null)	0.0000	0

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Sample Name : R0905567-022
Data File Name : ...O26_033.DXD
Method File Name : ...1-1022.met
Date Time Collected : 10/26/09 22:14:35

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199

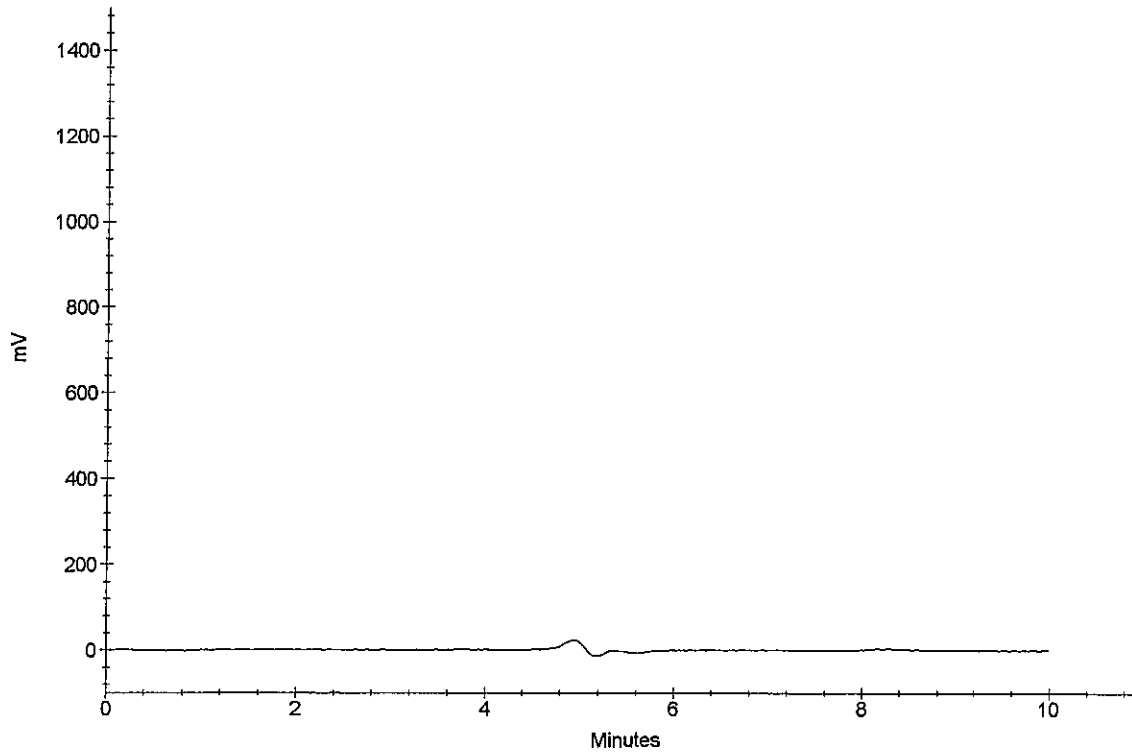
Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
0	0.00	(null)	0.0000	0

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Sample Name : R0905567-022
Data File Name : ...O26_034.DXD
Method File Name : ...1-1022.met
Date Time Collected : 10/26/09 22:24:59

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199 REPLICATE

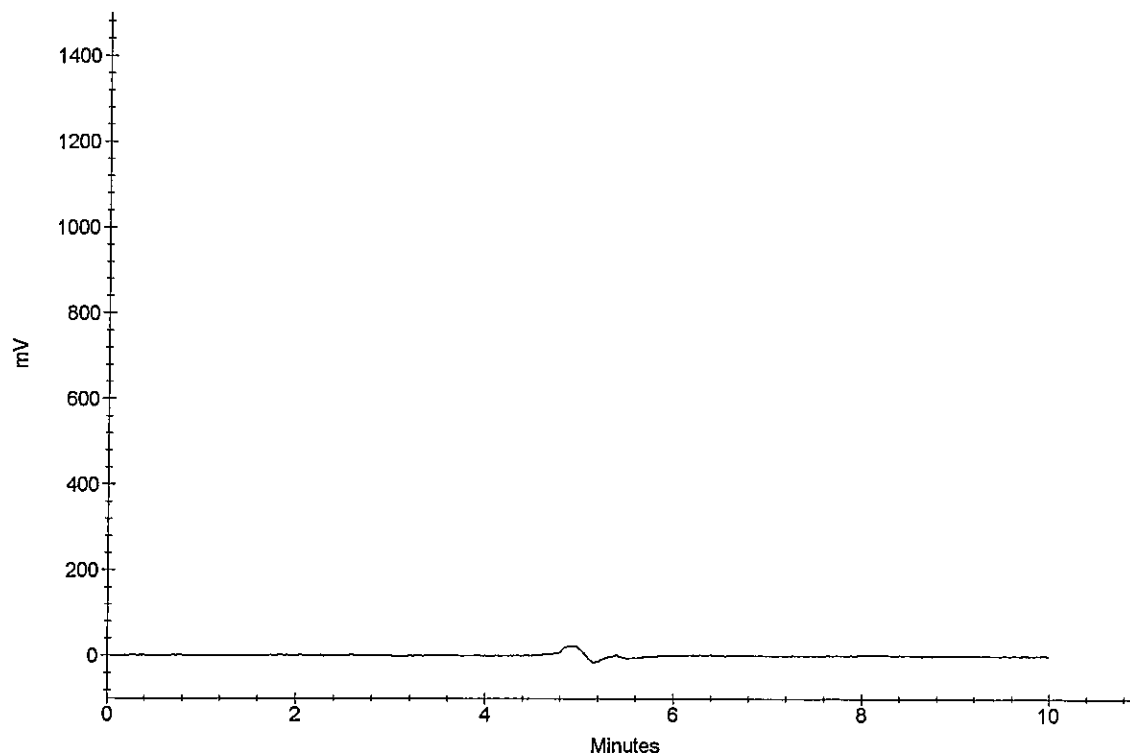
Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
0	0.00	(null)	0.0000	0

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Sample Name : R0905635-002
Data File Name : ... \O26_035.DXD
Method File Name : ... \1-1022.met
Date Time Collected : 10/26/09 22:35:23

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

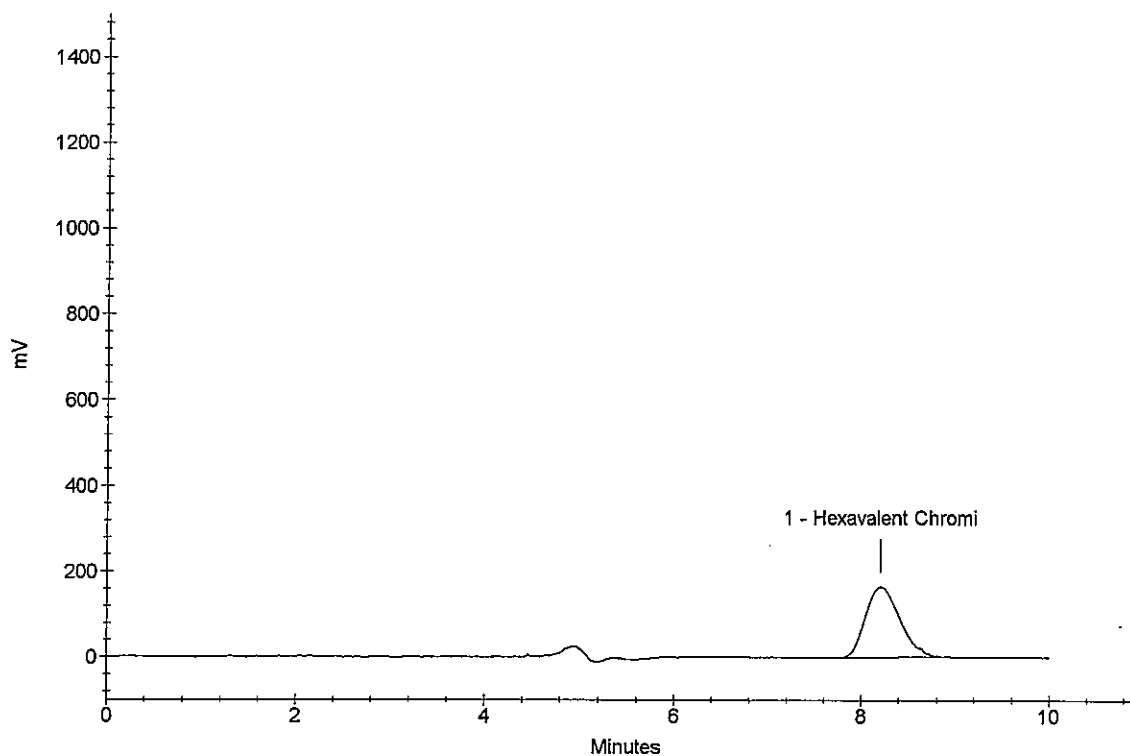
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.20	Hexavalent Chromi <i>AK</i>	0.1298	4178667

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Sample Name : R0905635-002
Data File Name : ...\\O26_036.DXD
Method File Name : ...\\1-1022.met
Date Time Collected : 10/26/09 22:45:47

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

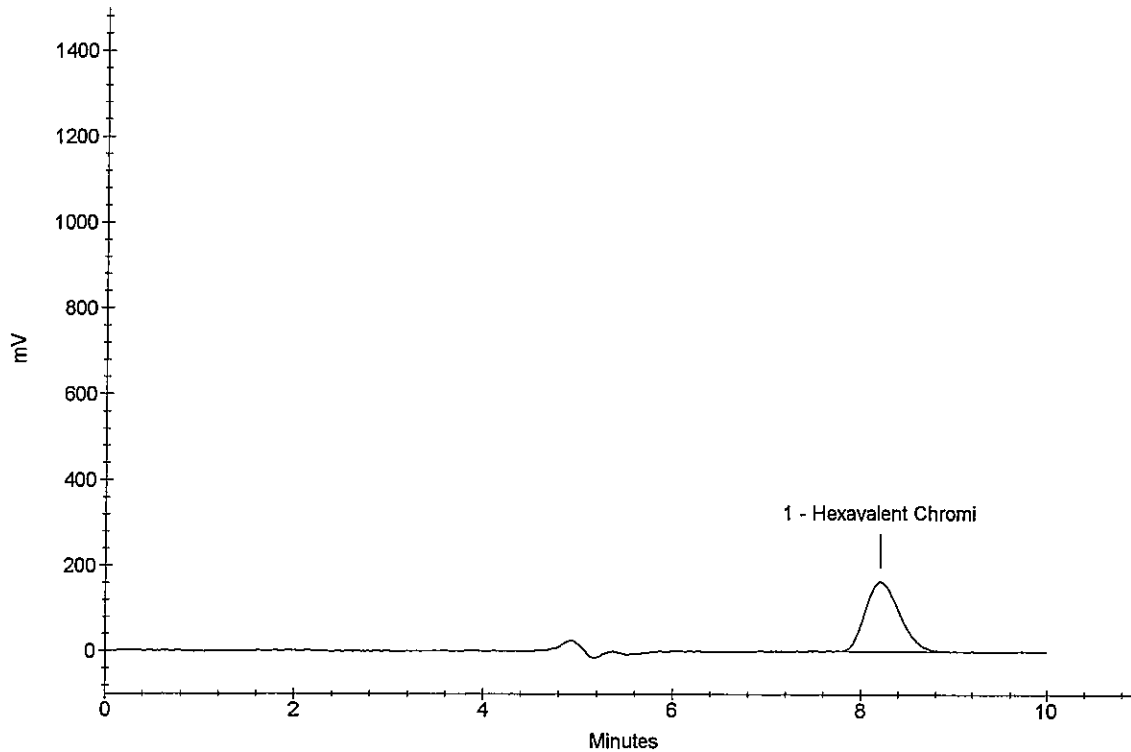
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199 REPLICATE

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.20	Hexavalent Chromi <i>OK</i>	0.1302	4193369

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Sample Name : CCV
Data File Name : ... \O26_037.DXD
Method File Name : ... \1-1022.met
Date Time Collected : 10/26/09 22:56:11

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

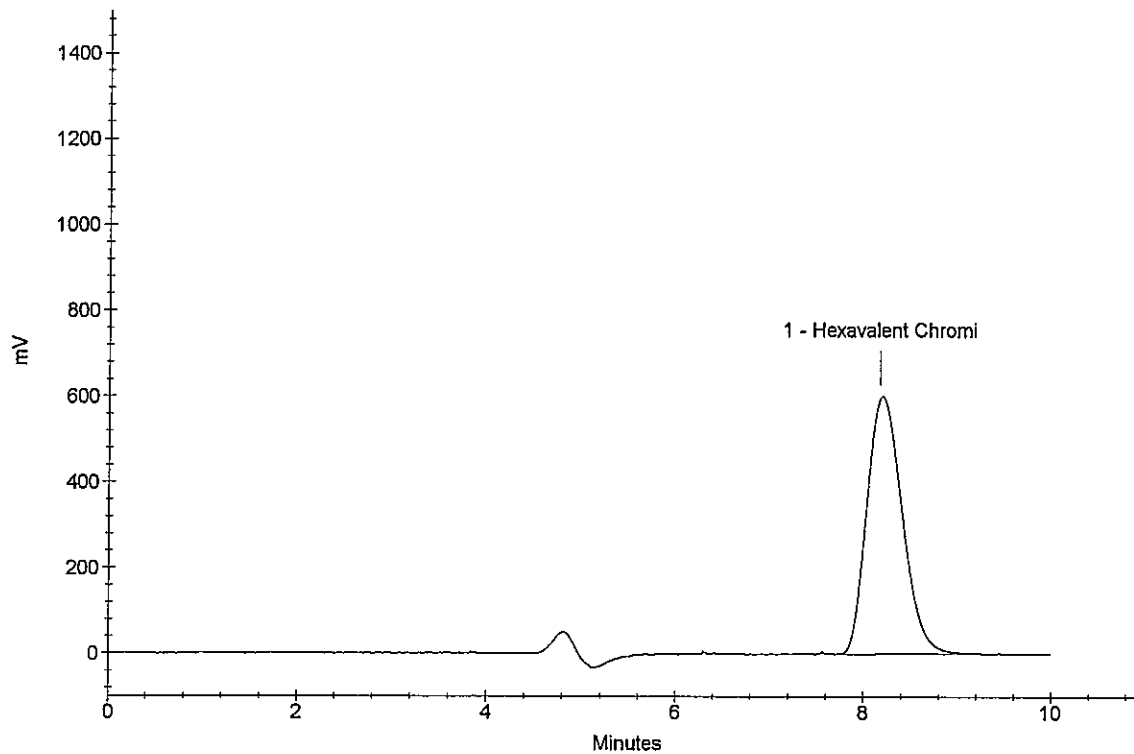
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199/218.6

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.18	Hexavalent Chromi <i>OK</i>	0.4900	15596907

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Sample Name : CCB
Data File Name : ...O26_038.DXD
Method File Name : ...1-1022.met
Date Time Collected : 10/26/09 23:06:35

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

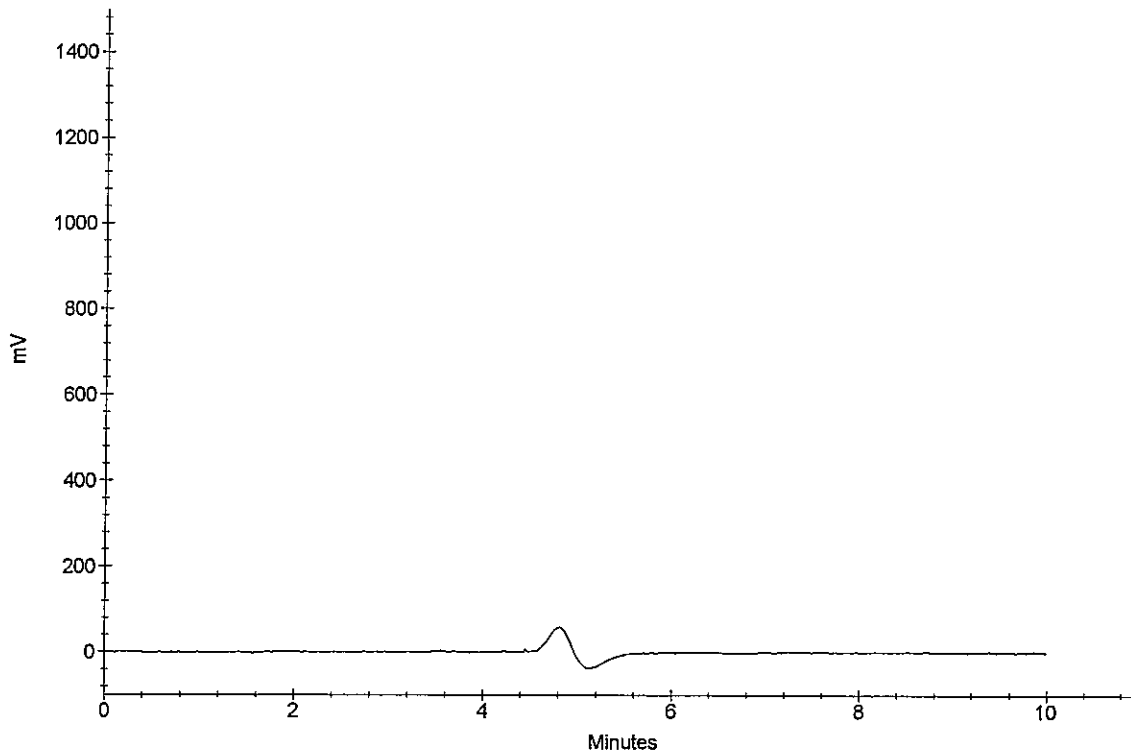
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199/218.6

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
0	0.00	(null)	0.0000	0

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Sample Name : R0905635-003
Data File Name : ...O26_039.DXD
Method File Name : ...1-1022.met
Date Time Collected : 10/26/09 23:16:59

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

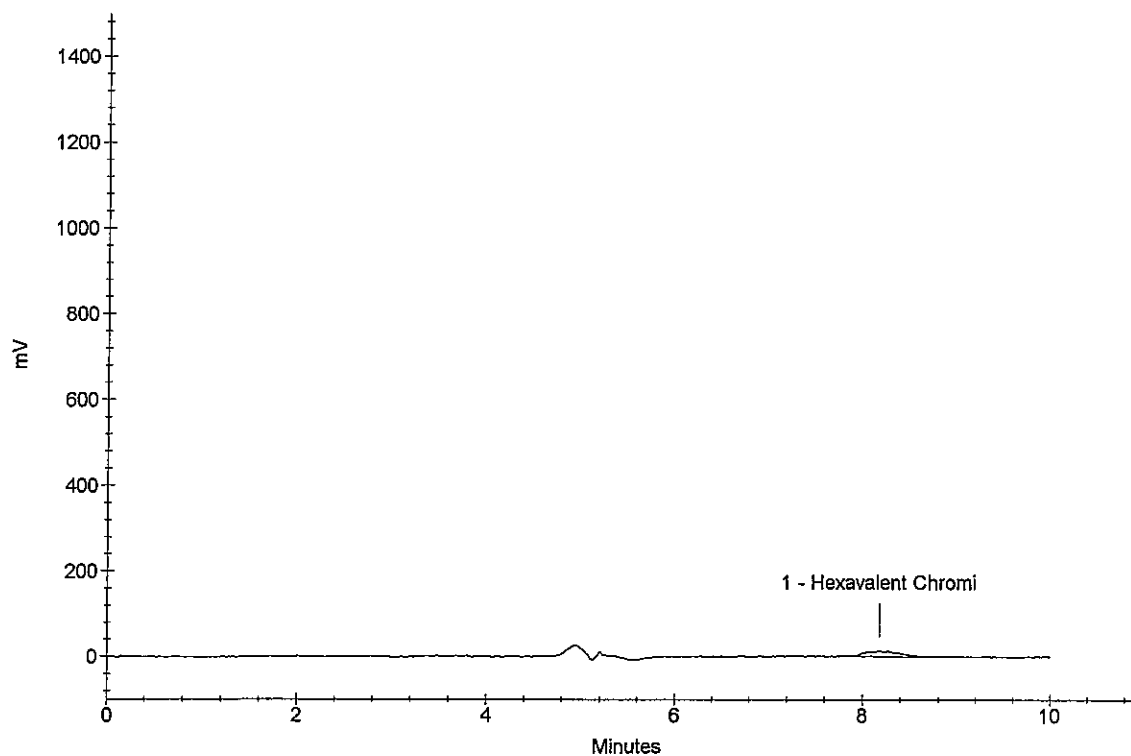
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.18	Hexavalent Chromi <i>OK</i>	0.0085	334999

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Sample Name : R0905635-003
Data File Name : ...\\O26_040.DXD
Method File Name : ...\\1-1022.met
Date Time Collected : 10/26/09 23:27:23

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

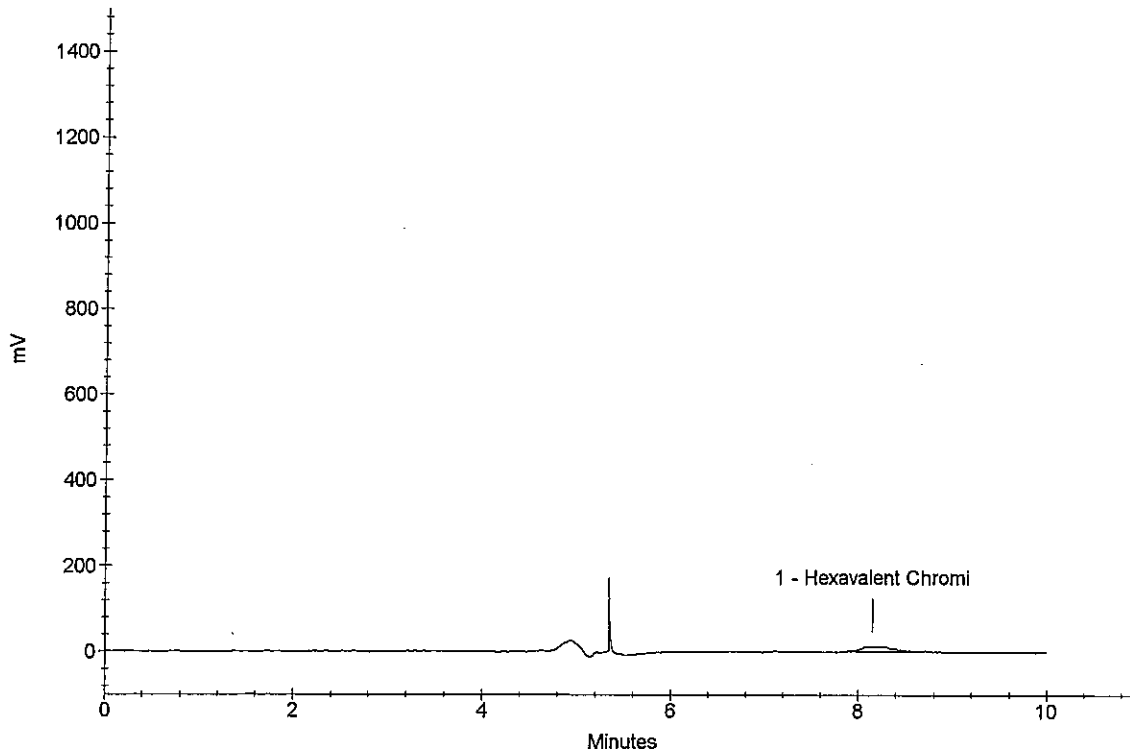
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199 REPLICATE

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.15	Hexavalent Chromi	0.0062	260687

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Sample Name : R0905635-004
Data File Name : ...O26_041.DXD
Method File Name : ...1-1022.met
Date Time Collected : 10/26/09 23:37:47

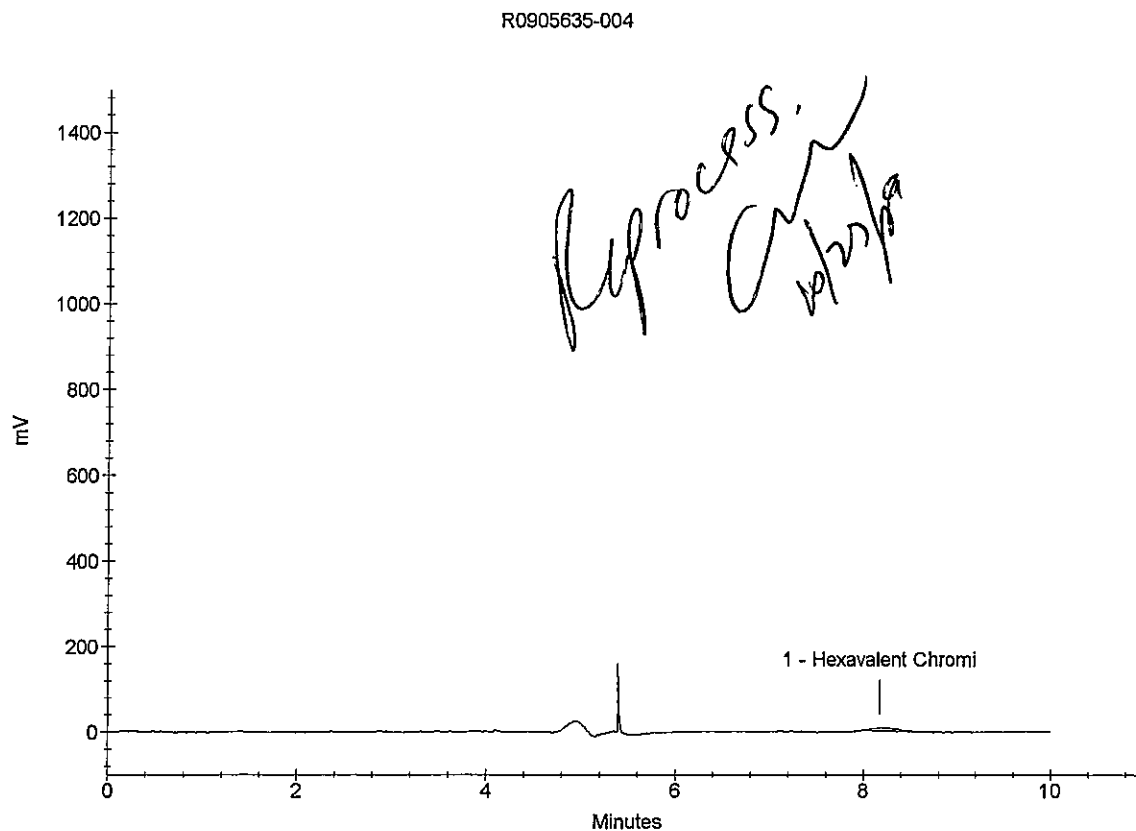
Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.18	Hexavalent Chromi	0.0019	125266



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Sample Name : R0905635-004
Data File Name : ...\\O26_041.DXD
Method File Name : ...\\1-1022.met
Date Time Collected : 10/26/09 23:37:47

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

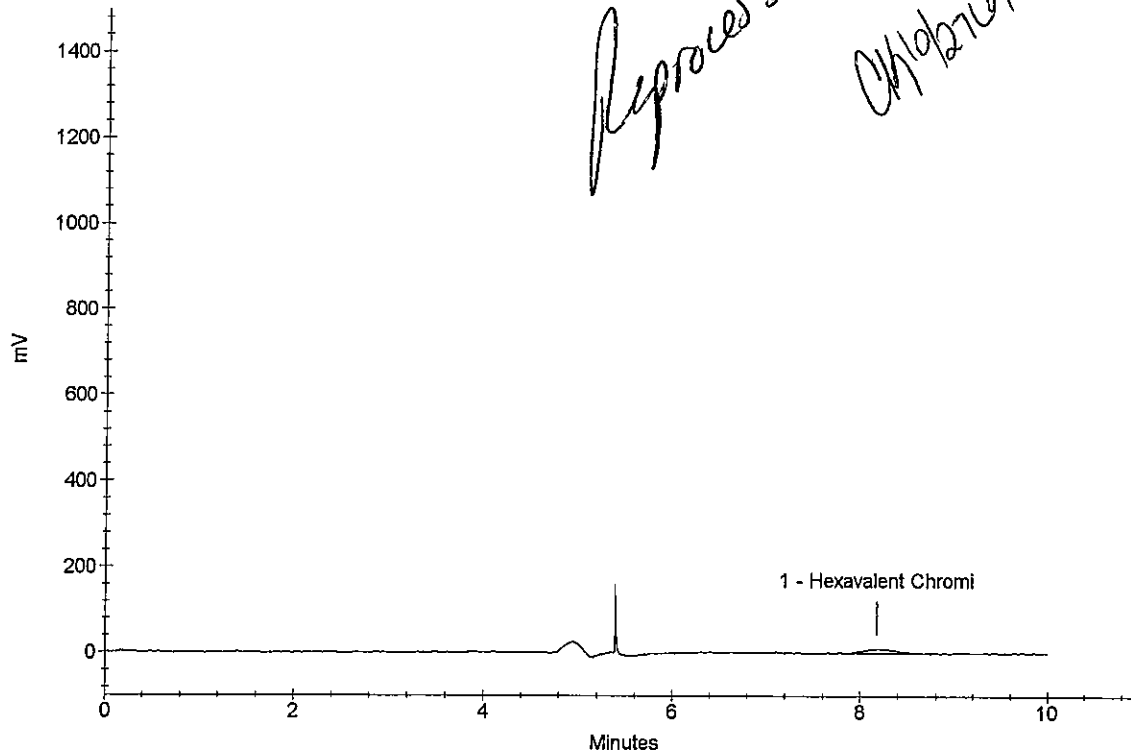
Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.18	Hexavalent Chromi	0.0053	234540

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Reprocessed.

OK 10/27/09



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Sample Name : R0905635-004
Data File Name : ...O26_042.DXD
Method File Name : ...1-1022.met
Date Time Collected : 10/26/09 23:48:12

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

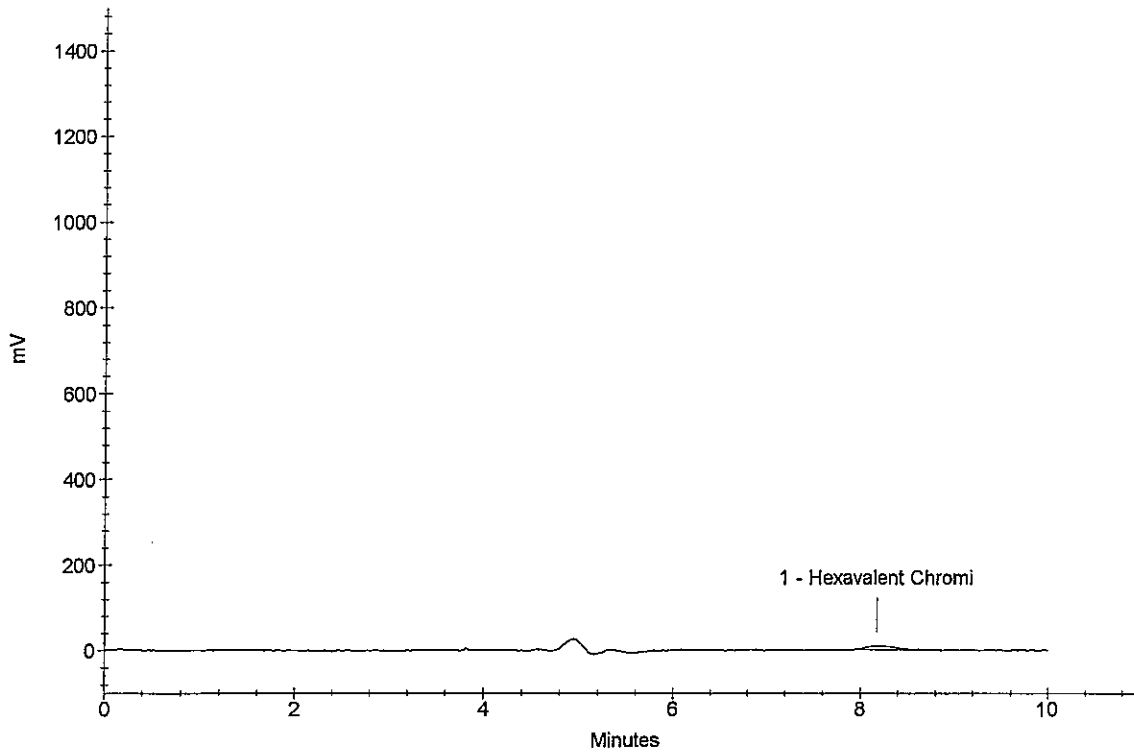
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199 REPLICATE

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.18	Hexavalent Chromi <i>α</i>	0.0042	197177

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Sample Name : R0905635-005
Data File Name : ...O26_043.DXD
Method File Name : ...1-1022.met
Date Time Collected : 10/26/09 23:58:36

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

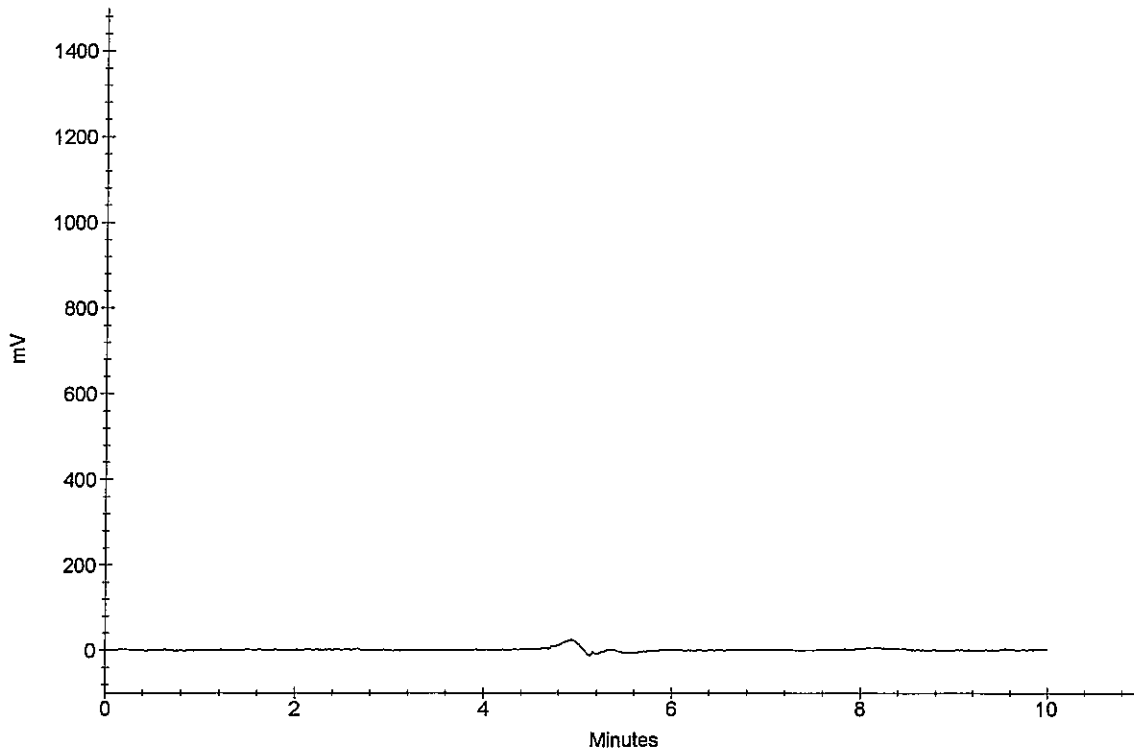
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
0	0.00	(null)	0.0000	0

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Sample Name : R0905635-005
Data File Name : ...O26_044.DXD
Method File Name : ...1-1022.met
Date Time Collected : 10/27/09 00:09:00

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

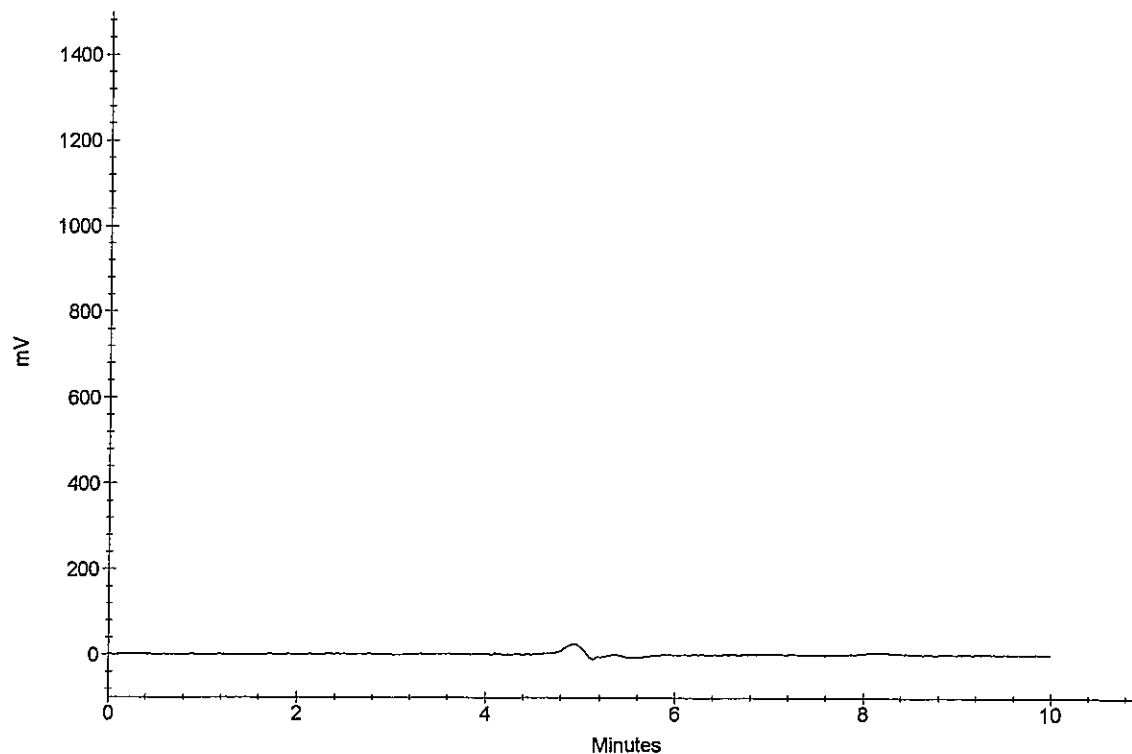
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199 REPLICATE

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
0	0.00	(null)	0.0000	0

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Sample Name : R0905635-007
Data File Name : ... \O26_045.DXD
Method File Name : ... \1-1022.met
Date Time Collected : 10/27/09 00:19:24

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

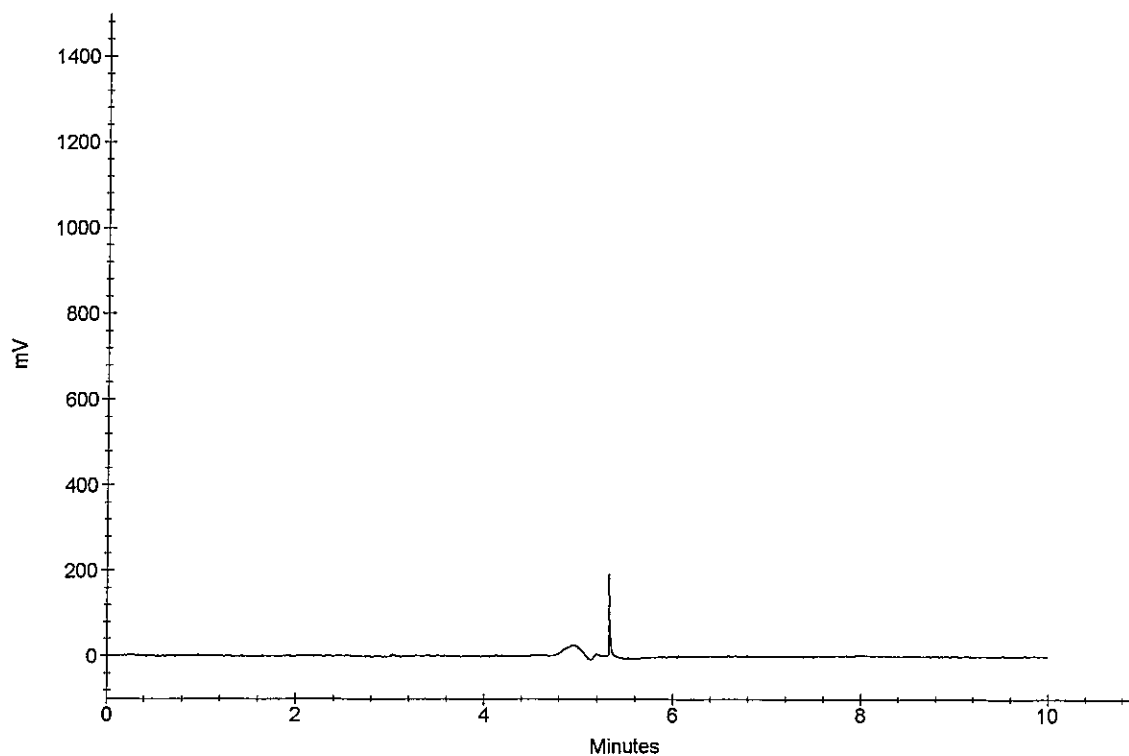
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
0	0.00	(null)	0.0000	0

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Sample Name : R0905635-007
Data File Name : ... \O26_046.DXD
Method File Name : ... \1-1022.met
Date Time Collected : 10/27/09 00:29:48

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

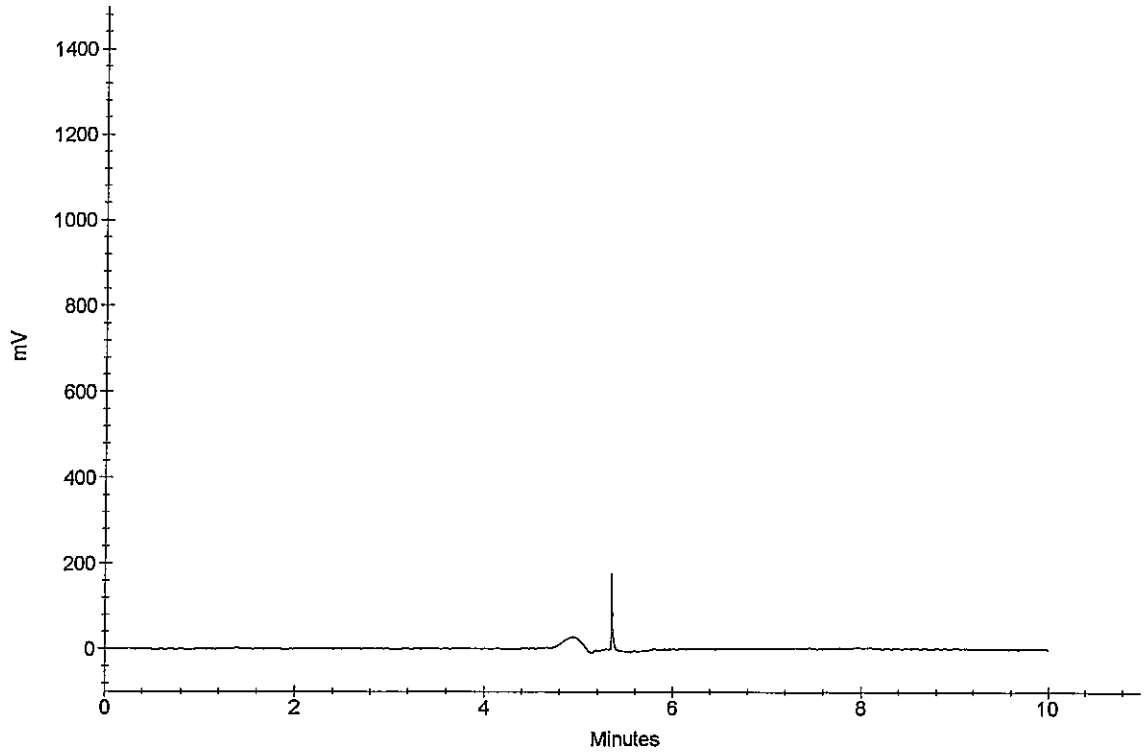
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199 REPLICATE

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
0	0.00	(null)	0.0000	0

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Sample Name : R0905635-008
Data File Name : ... \O26_047.DXD
Method File Name : ... \1-1022.met
Date Time Collected : 10/27/09 00:40:12

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

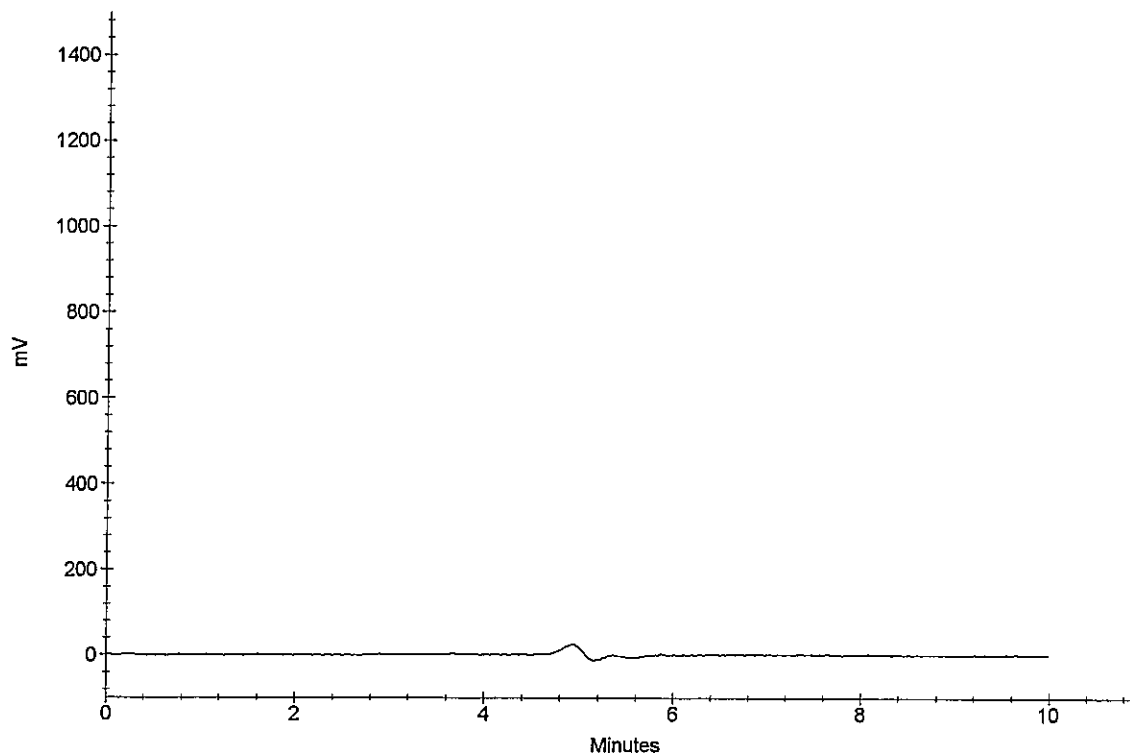
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
0	0.00	(null)	0.0000	0

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Sample Name : R0905635-008
Data File Name : ...O26_048.DXD
Method File Name : ...I-1022.met
Date Time Collected : 10/27/09 00:50:36

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

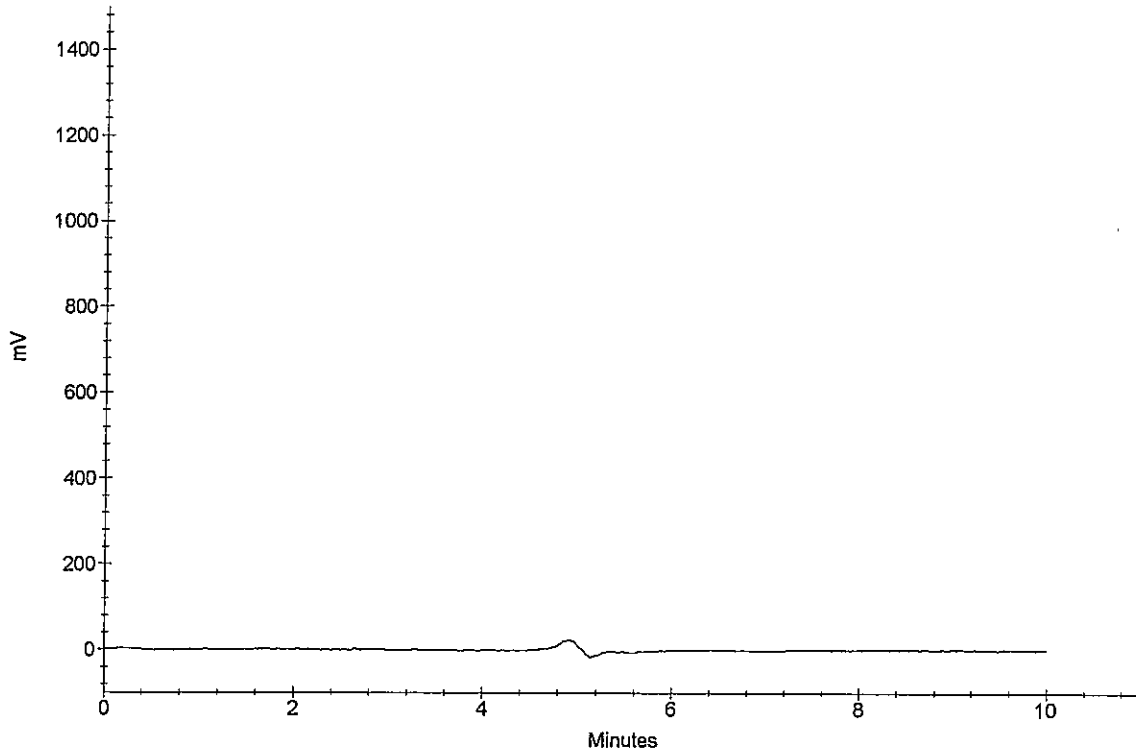
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199 REPLICATE

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
0	0.00	(null)	0.0000	0

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Sample Name : CCV
Data File Name : ...\\O26_049.DXD
Method File Name : ...\\1-1022.met
Date Time Collected : 10/27/09 01:01:00

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

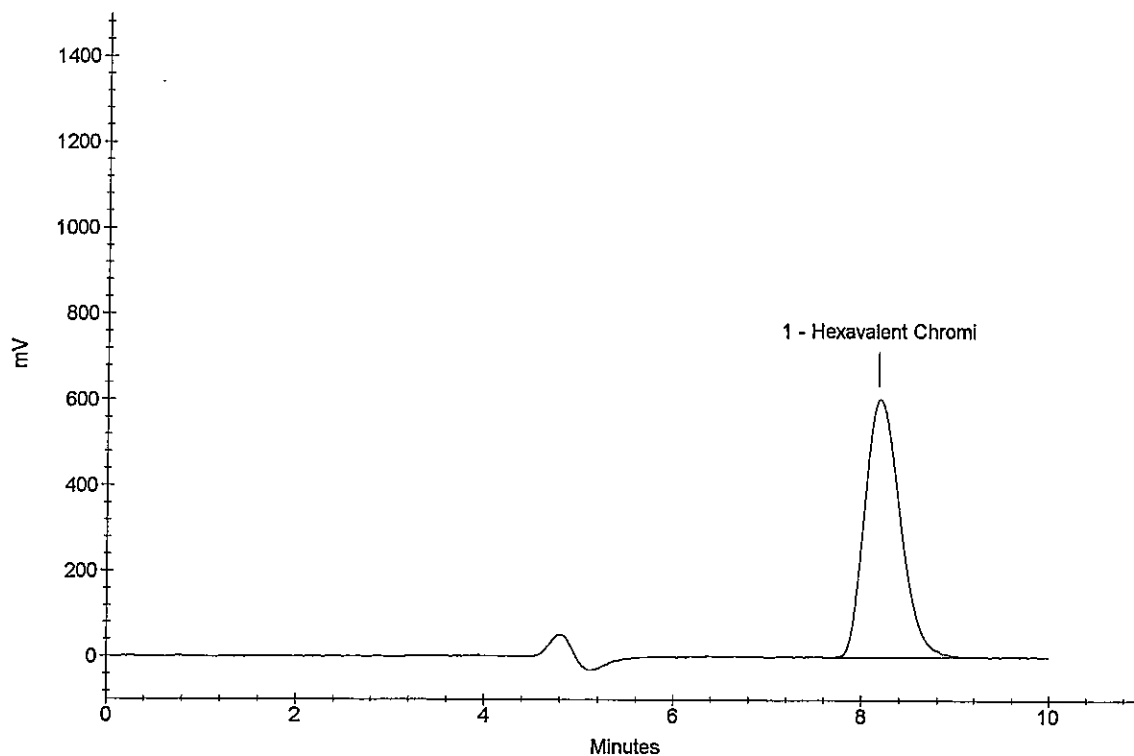
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199/218.6

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.18	Hexavalent Chromi <i>OK</i>	0.4960	15786172

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Sample Name : CCB
Data File Name : ...\\O26_050.DXD
Method File Name : ...\\1-1022.met
Date Time Collected : 10/27/09 01:11:24

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

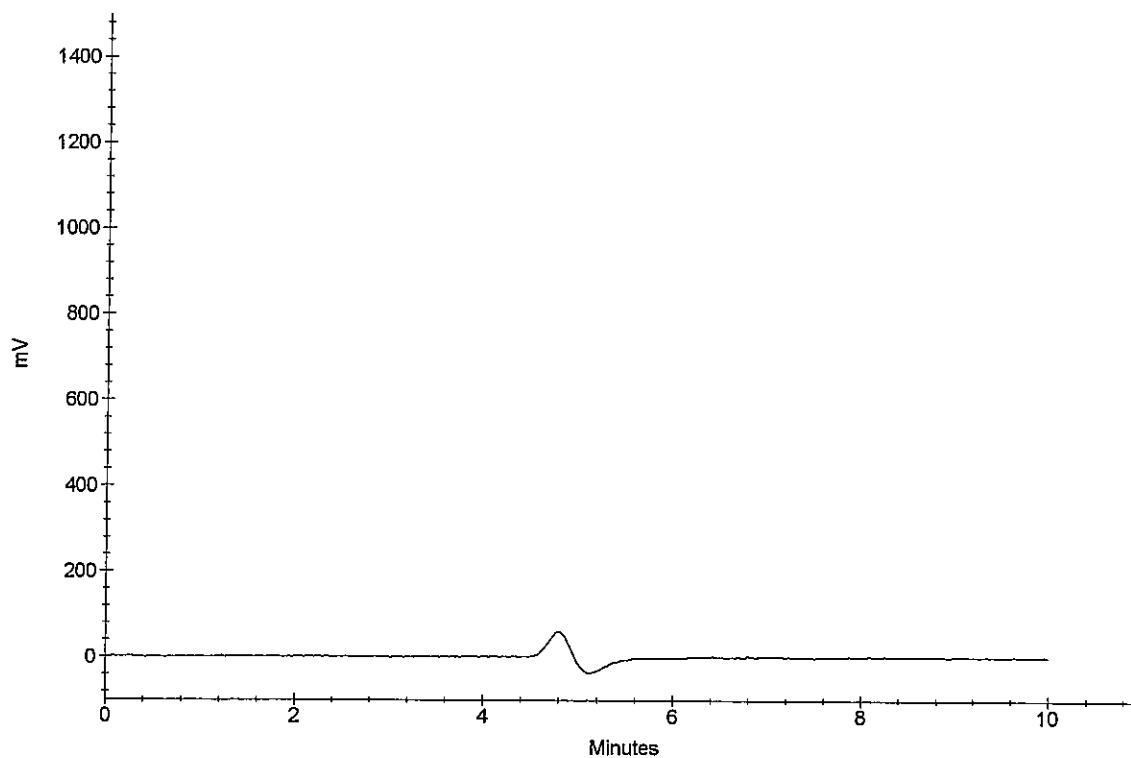
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199/218.6

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
0	0.00	(null)	0.0000	0

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Sample Name : R0905635-009
Data File Name : ...\\O26_051.DXD
Method File Name : ...\\1-1022.met
Date Time Collected : 10/27/09 01:21:48

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

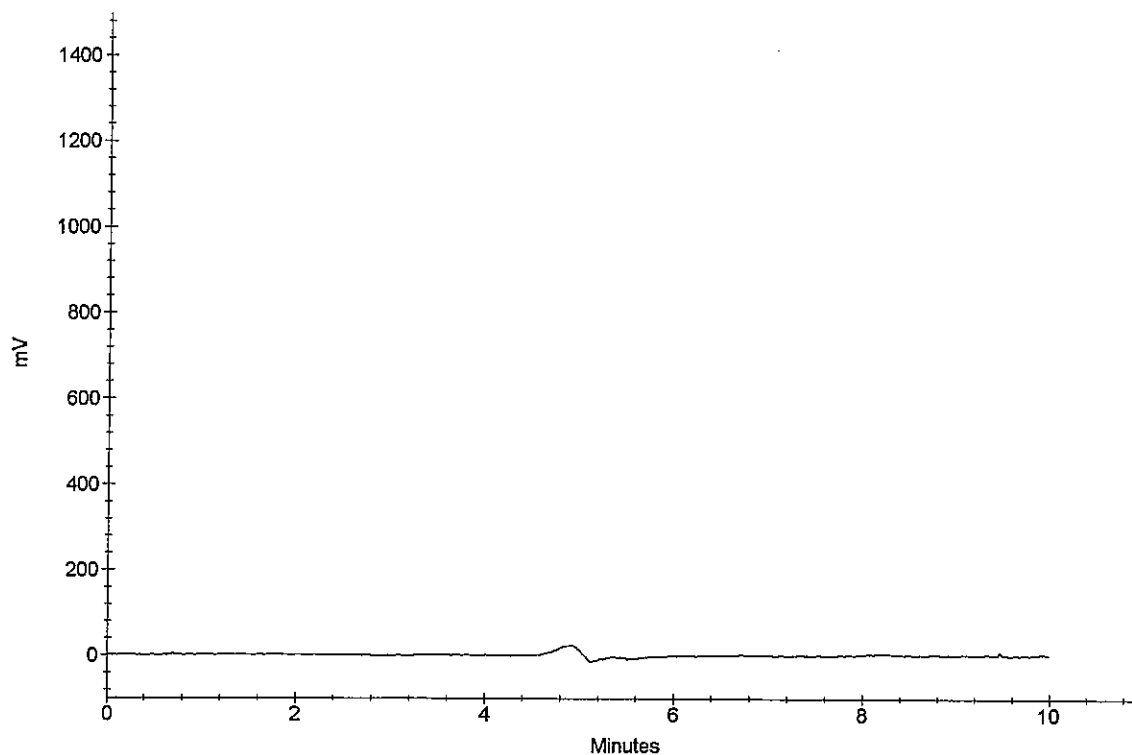
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
0	0.00	(null)	0.0000	0

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Sample Name : R0905635-009
Data File Name : ...\\O26_052.DXD
Method File Name : ...\\1-1022.met
Date Time Collected : 10/27/09 01:32:12

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

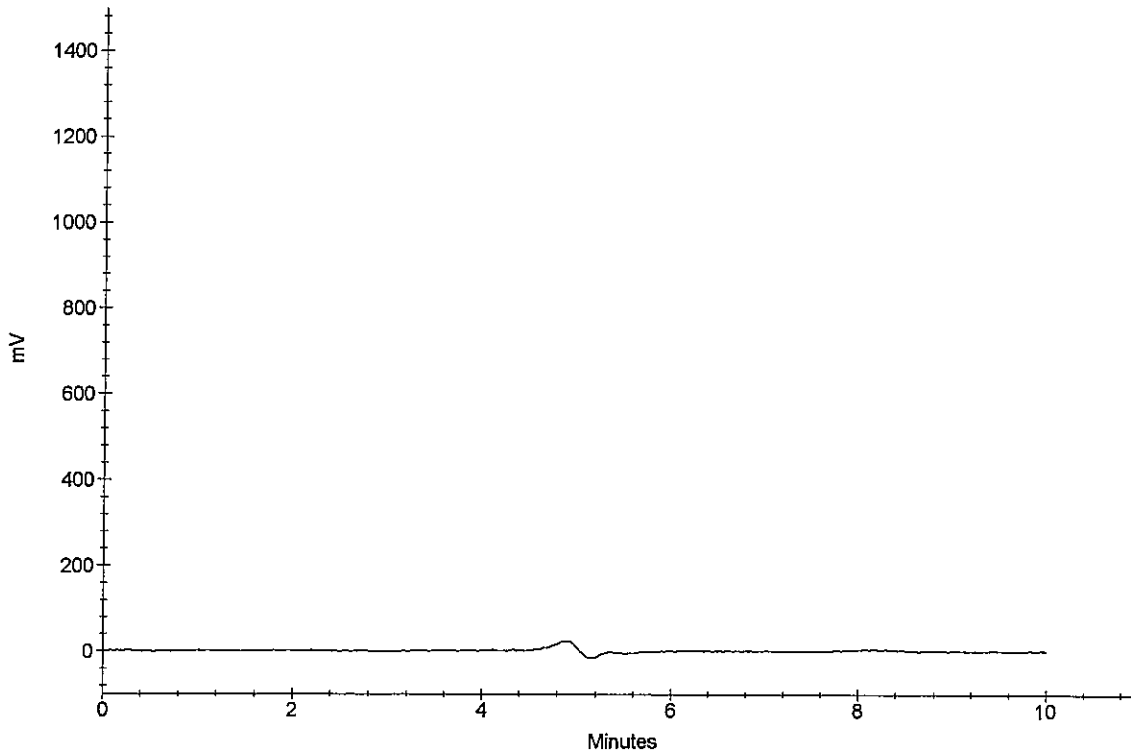
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199 REPLICATE

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
0	0.00	(null)	0.0000	0

OK
10/22/09
R0905635-009



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : R0905635-013
Data File Name : ...\\O26_053.DXD
Method File Name : ...\\1-1022.met
Date Time Collected : 10/27/09 01:42:36

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

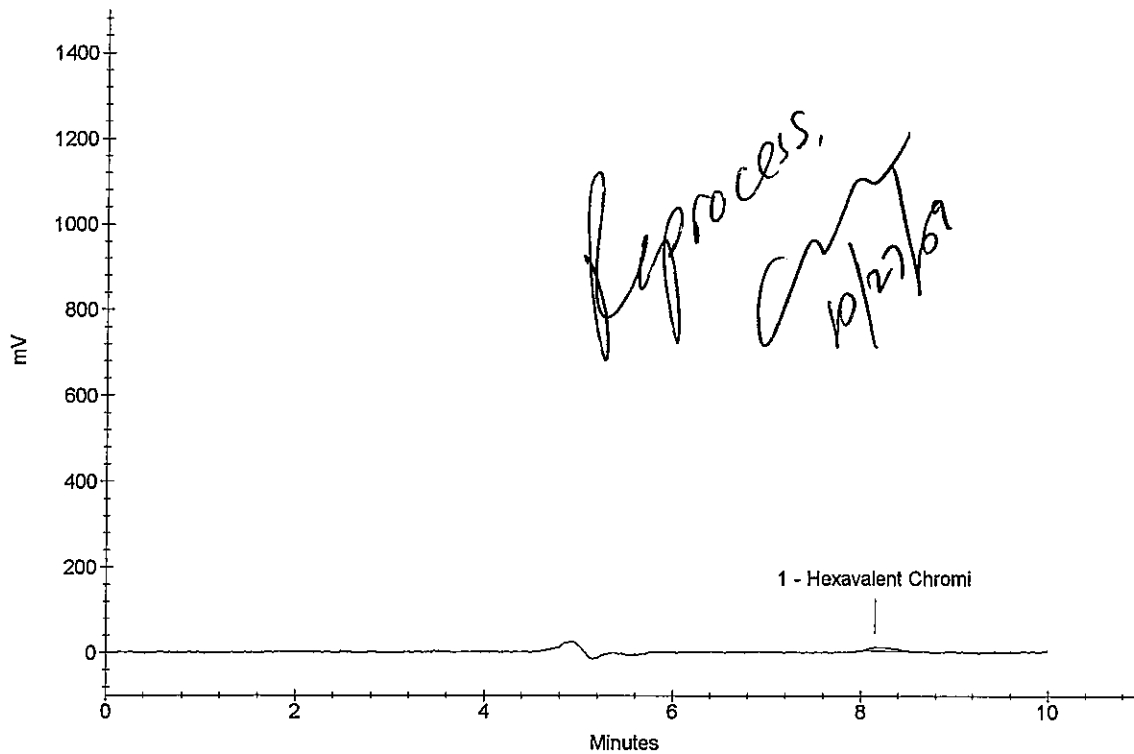
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.15	Hexavalent Chromi	0.0028	154193

R0905635-013



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : R0905635-013
Data File Name : ...\\O26_053.DXD
Method File Name : ...\\1-1022.met
Date Time Collected : 10/27/09 01:42:36

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

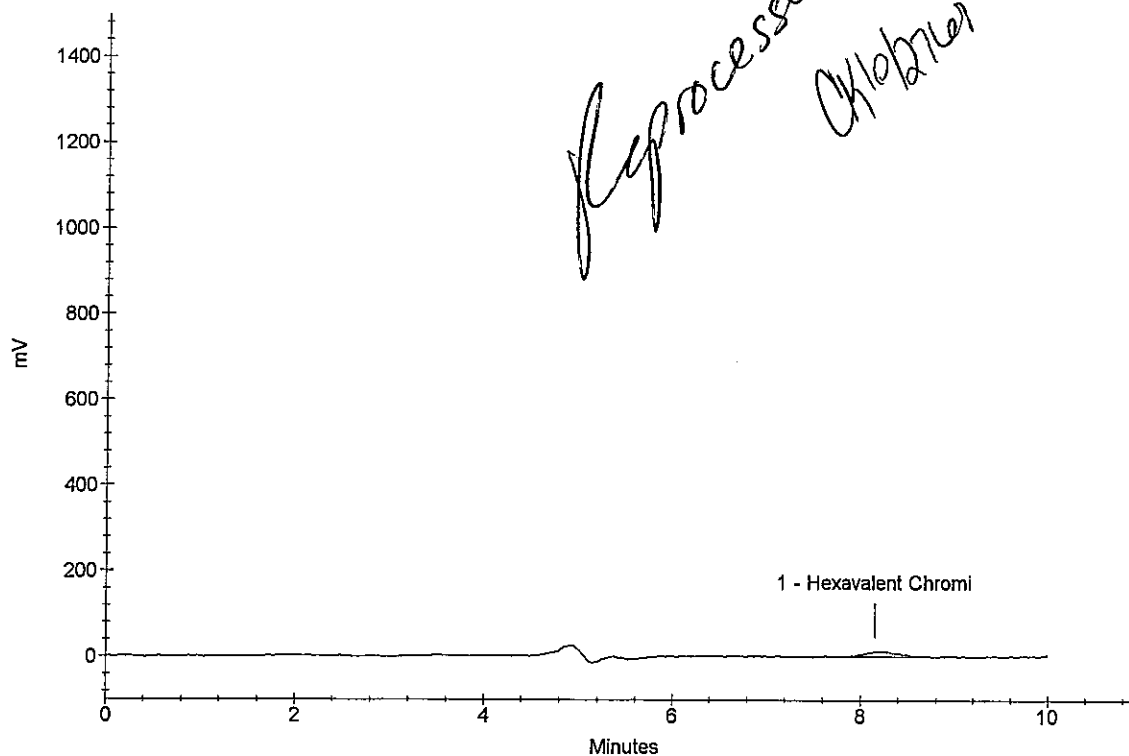
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.15	Hexavalent Chromi <i>OK</i>	0.0083	328402

OK
10/27/09
R0905635-013



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : R0905635-013
Data File Name : ...\\O26_054.DXD
Method File Name : ...\\1-1022.met
Date Time Collected : 10/27/09 01:53:00

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199 REPLICATE

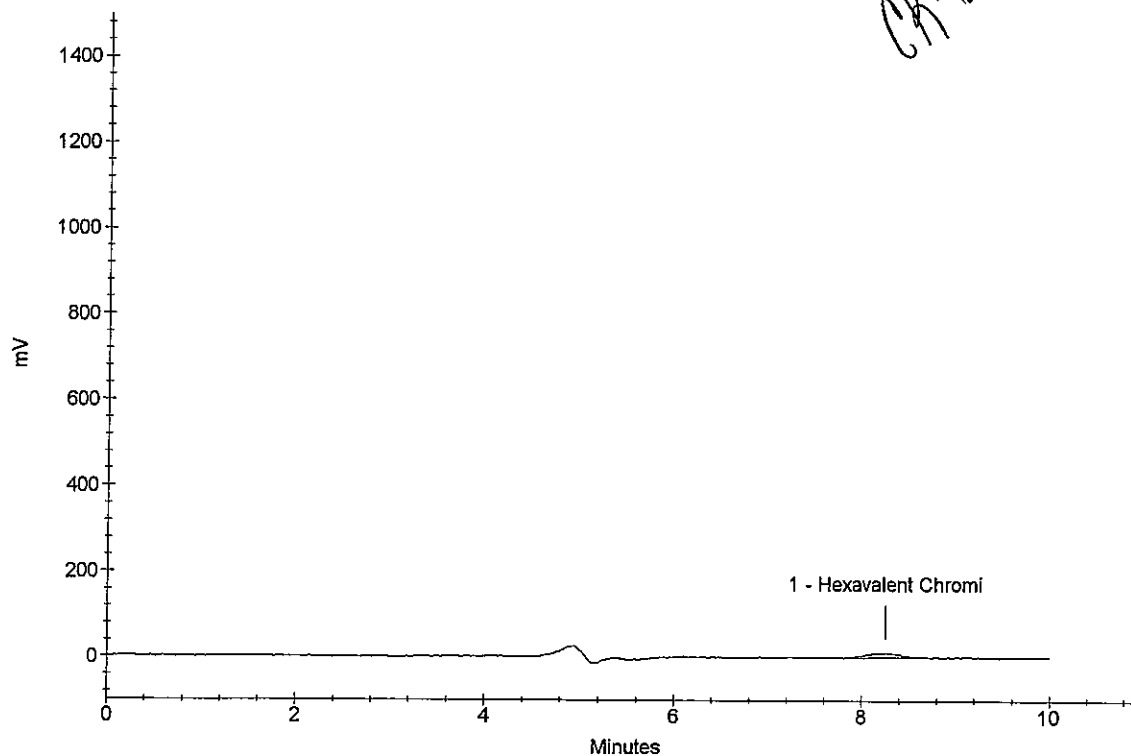
Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.25	Hexavalent Chromi	0.0066	273208

OK
10/27/09
R0905635-013

OK 10/27/09



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : R0905635-014
Data File Name : ...\\O26_055.DXD
Method File Name : ...\\1-1022.met
Date Time Collected : 10/27/09 02:03:24

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

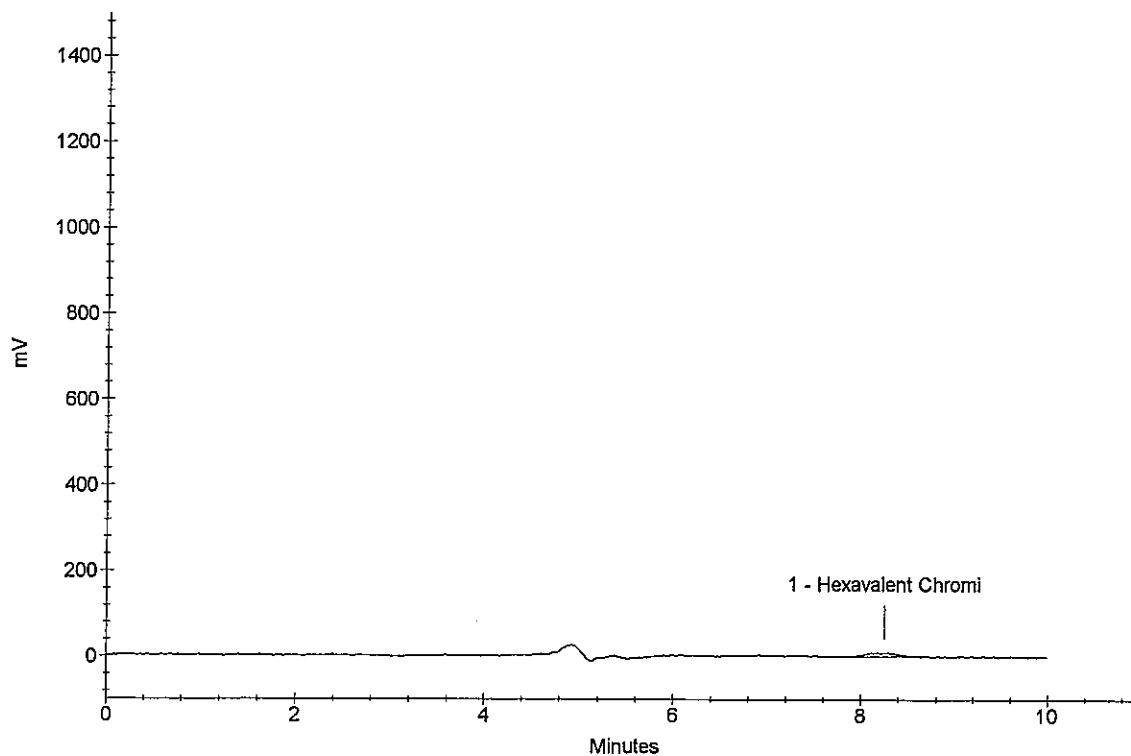
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.25	Hexavalent Chromi	0.0043	202118

R0905635-014



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : R0905635-014
Data File Name : ...\\O26_056.DXD
Method File Name : ...\\1-1022.met
Date Time Collected : 10/27/09 02:13:48

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

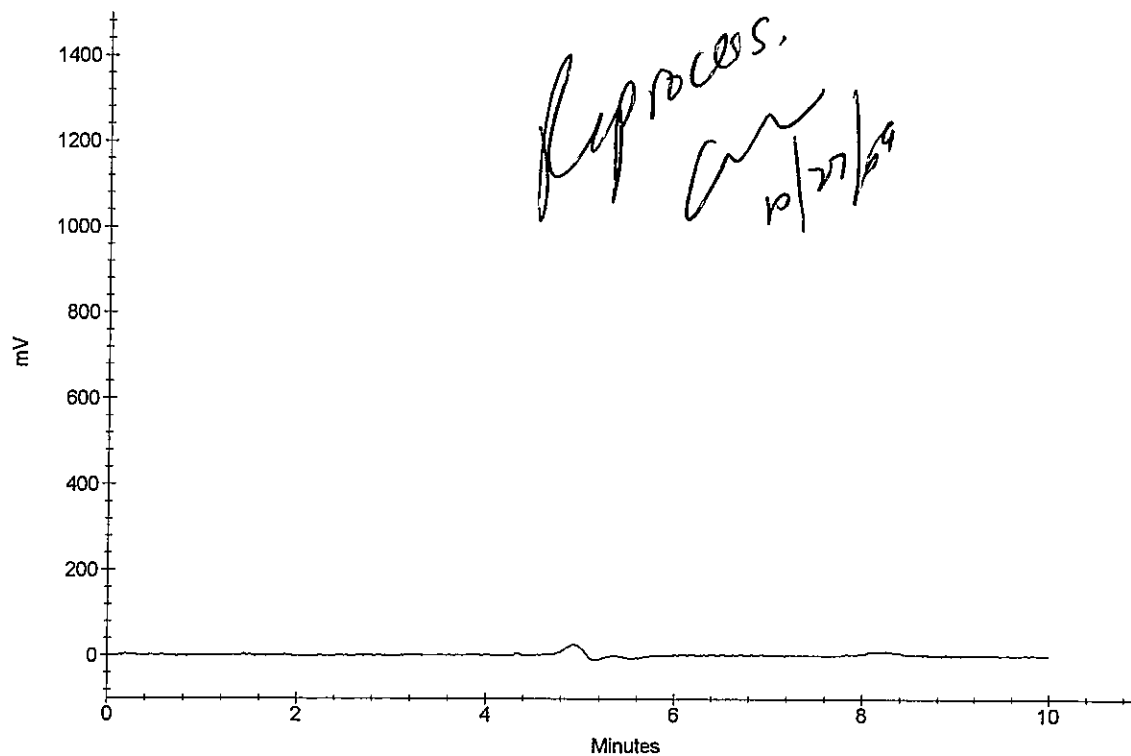
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199 REPLICATE

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
0	0.00	(null)	0.0000	0

R0905635-014



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : R0905635-014
Data File Name : ...\\O26_056.DXD
Method File Name : ...\\1-1022.met
Date Time Collected : 10/27/09 02:13:48

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199 REPLICATE

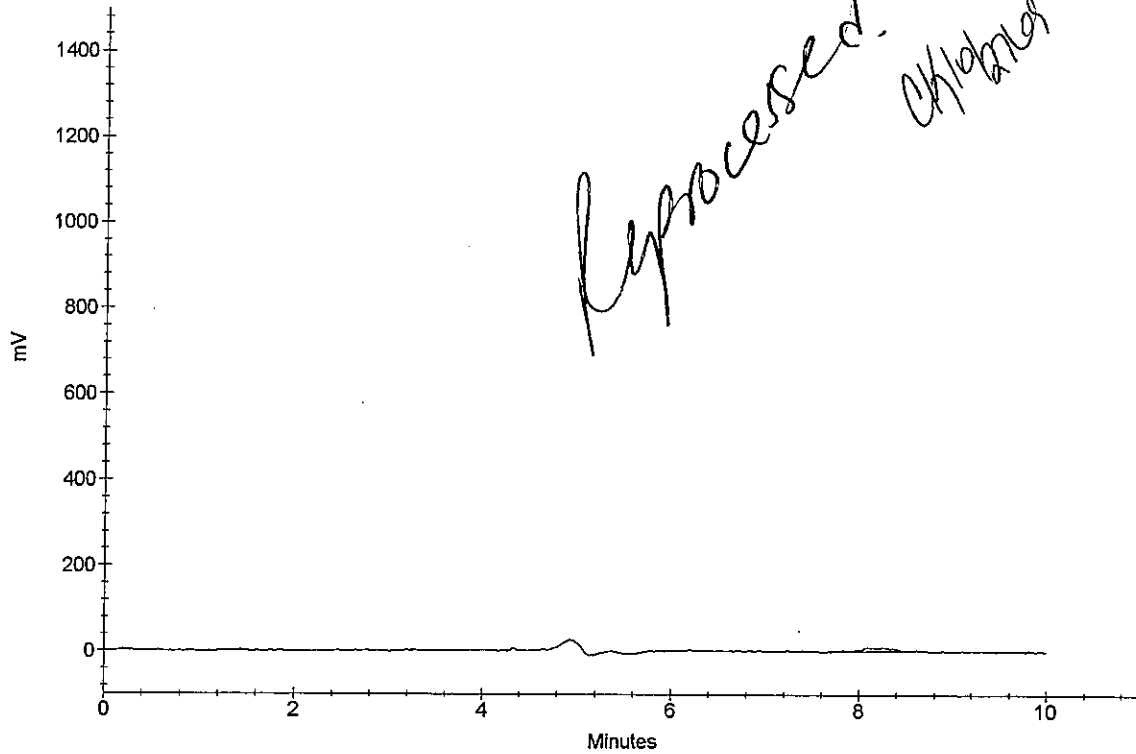
Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.07	Hexavalent Chromi	0.0041	196401

OK
10/27/09

R0905635-014



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : R0905635-016
Data File Name : ...\\O26_057.DXD
Method File Name : ...\\1-1022.met
Date Time Collected : 10/27/09 02:24:12

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199

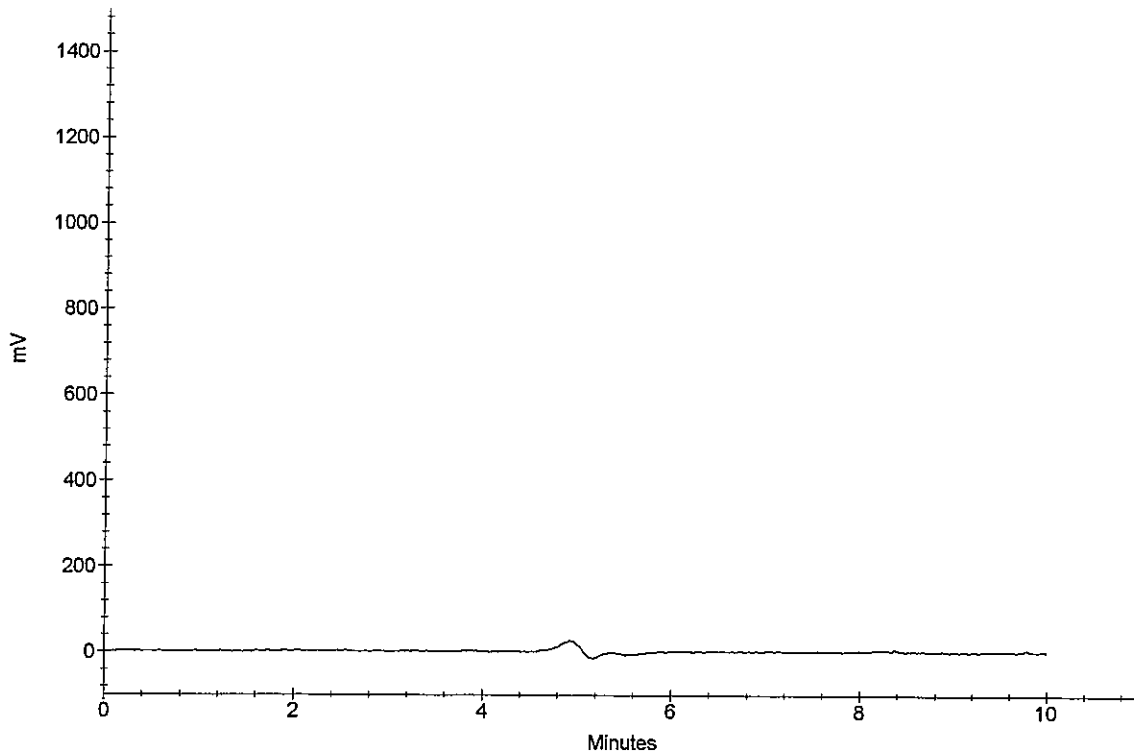
Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
0	0.00	(null)	0.0000	0

OK
10/27/09

R0905635-016



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : R0905635-016
Data File Name : ...\\O26_058.DXD
Method File Name : ...\\1-1022.met
Date Time Collected : 10/27/09 02:34:36

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

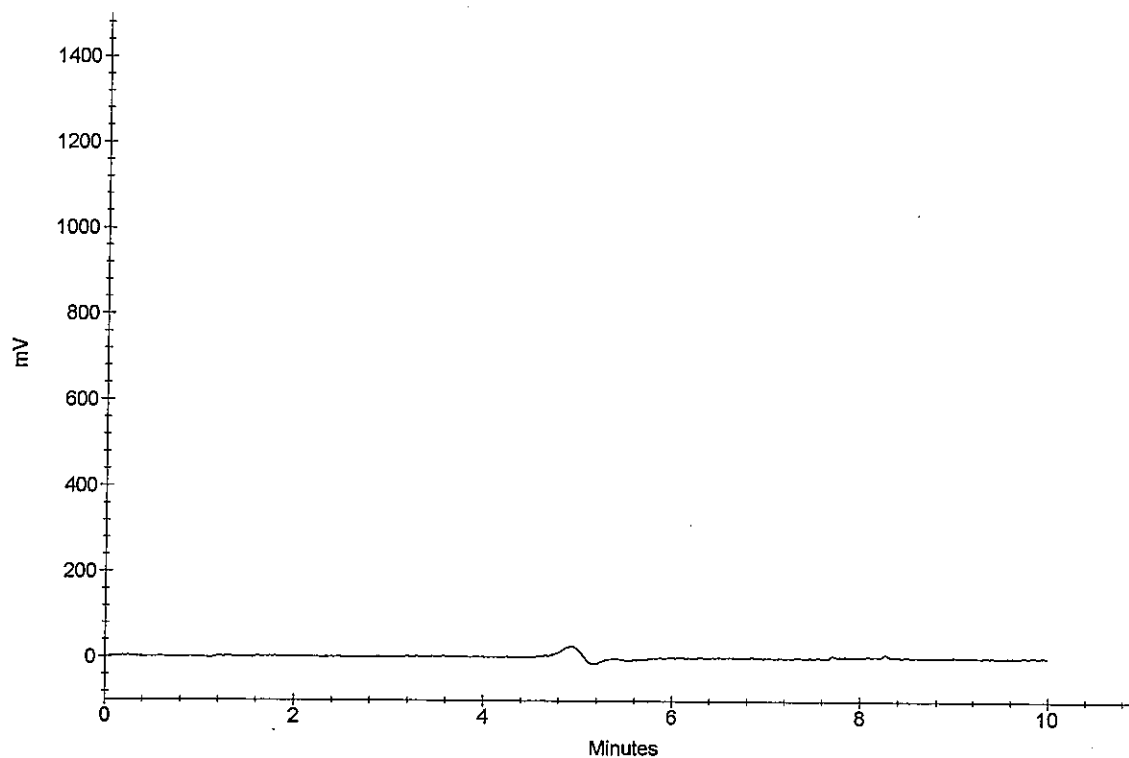
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199 REPLICATE

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
0	0.00	(null)	0.0000	0

OK
10/27/09
R0905635-016



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : R0905635-017
Data File Name : ...\\O26_059.DXD
Method File Name : ...\\1-1022.met
Date Time Collected : 10/27/09 02:45:00

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

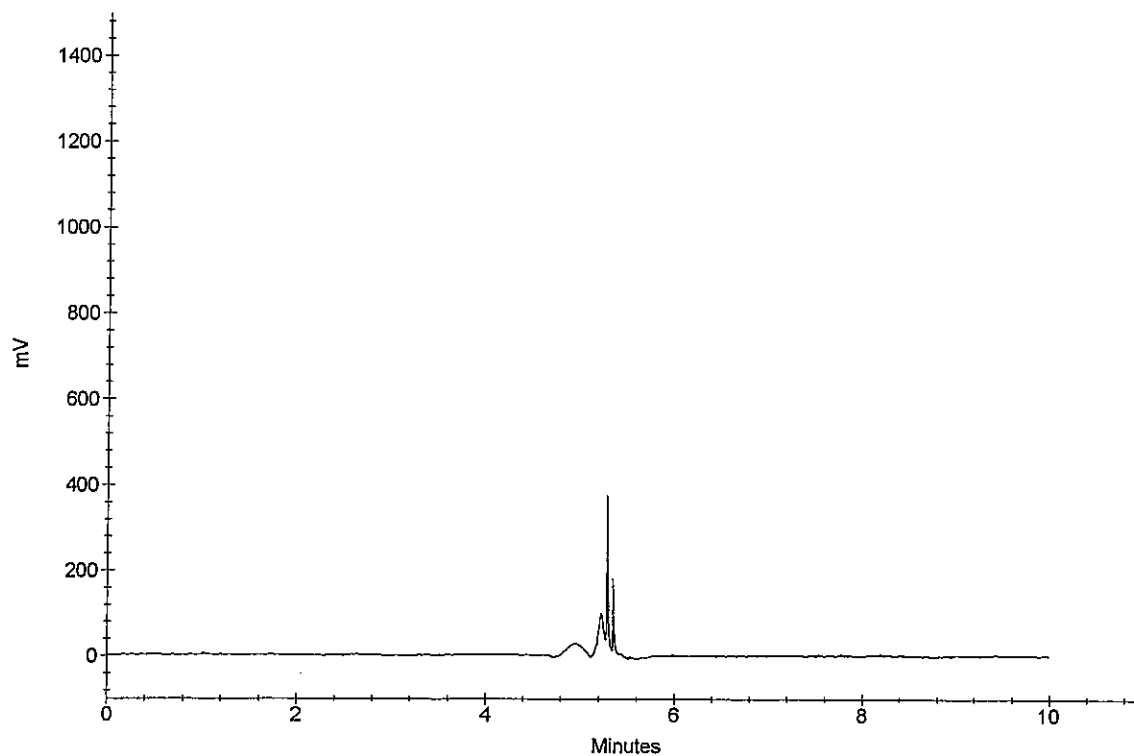
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
0	0.00	(null)	0.0000	0

OK
10/27/09
R0905635-017



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : R0905635-017
Data File Name : ...\\O26_060.DXD
Method File Name : ...\\1-1022.met
Date Time Collected : 10/27/09 02:55:24

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199 REPLICATE

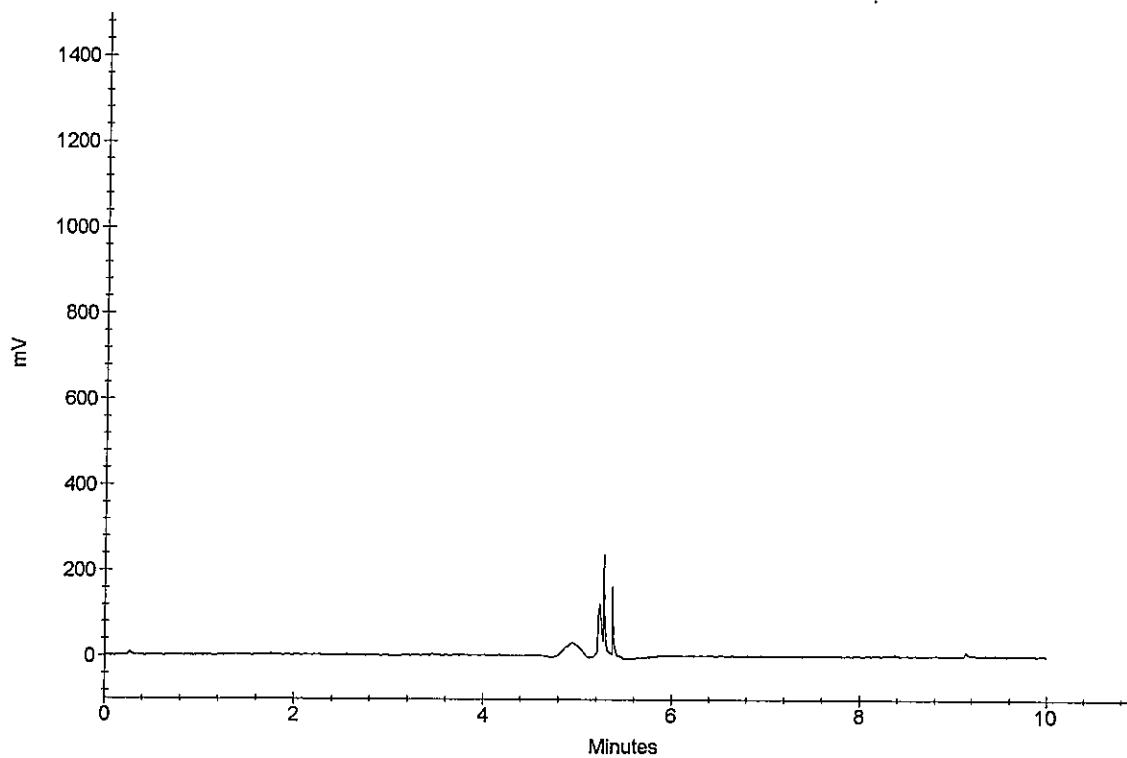
Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
0	0.00	(null)	0.0000	0

OK
10/27/09

R0905635-017



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : CCV
Data File Name : ...\\O26_061.DXD
Method File Name : ...\\1-1022.met
Date Time Collected : 10/27/09 03:05:48

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

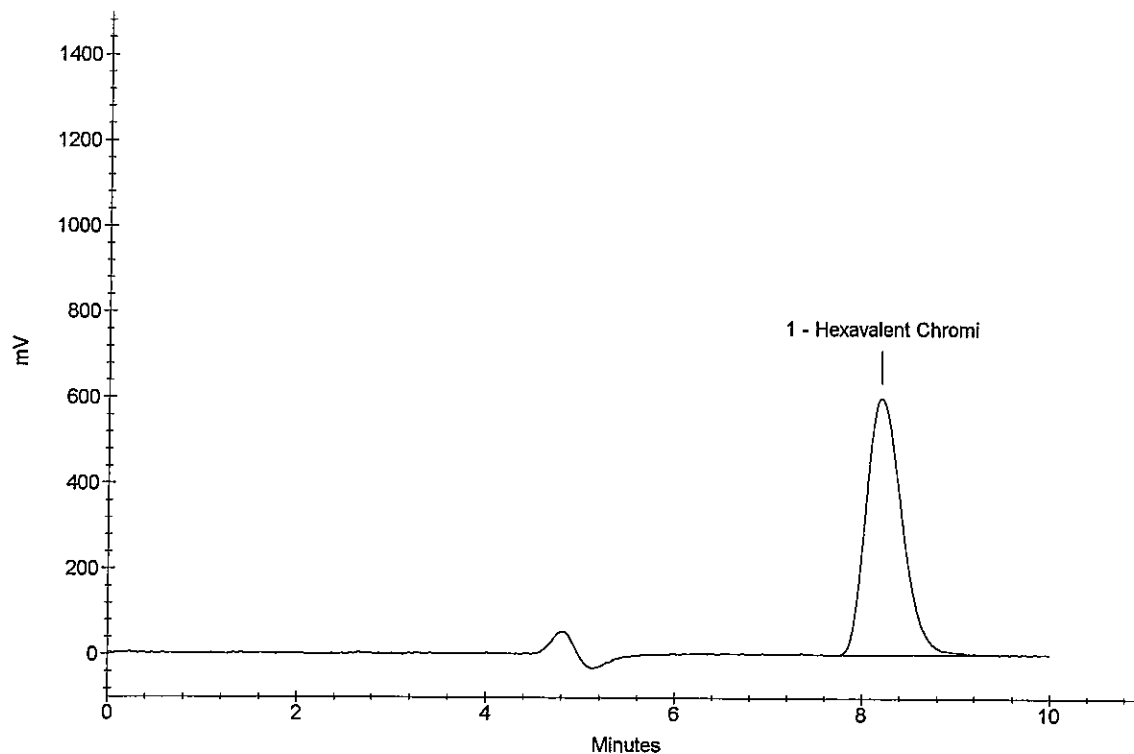
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199/218.6

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.20	Hexavalent Chromi <i>OK</i>	0.4990	15883787

CCV
10/27/09



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : CCB
Data File Name : ...\\O26_062.DXD
Method File Name : ...\\1-1022.met
Date Time Collected : 10/27/09 03:16:12

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

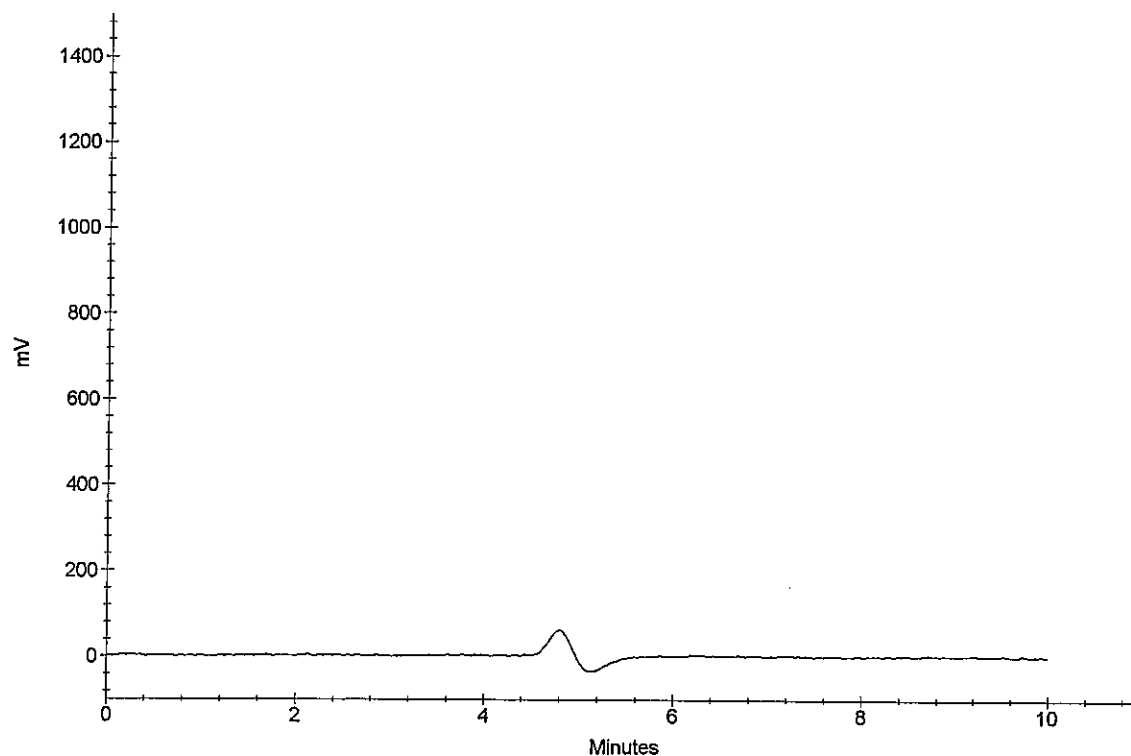
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199/218.6

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
0	0.00	(null)	0.0000	0

OK
CCB
10/27/09



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : R0905635-018
Data File Name : ...\\O26_063.DXD
Method File Name : ...\\1-1022.met
Date Time Collected : 10/27/09 03:26:35

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199

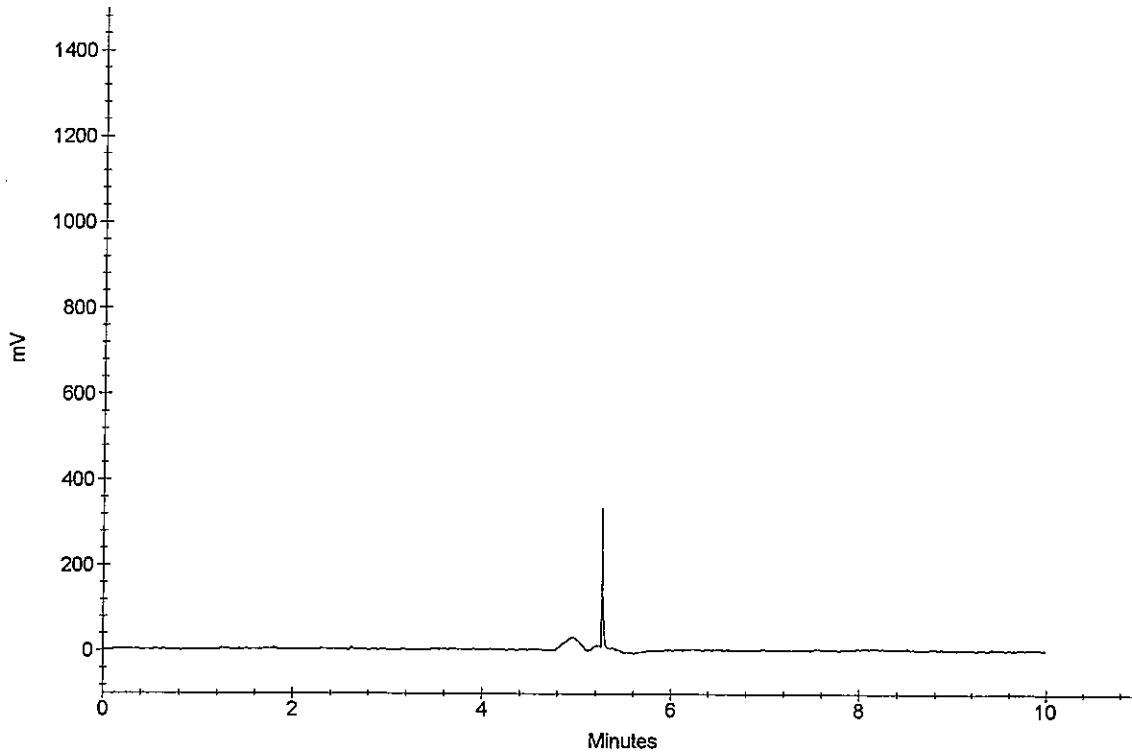
Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
0	0.00	(null)	0.0000	0

OK
10/27/09

R0905635-018



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : R0905635-018
Data File Name : ...\\O26_064.DXD
Method File Name : ...\\1-1022.met
Date Time Collected : 10/27/09 03:36:58

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

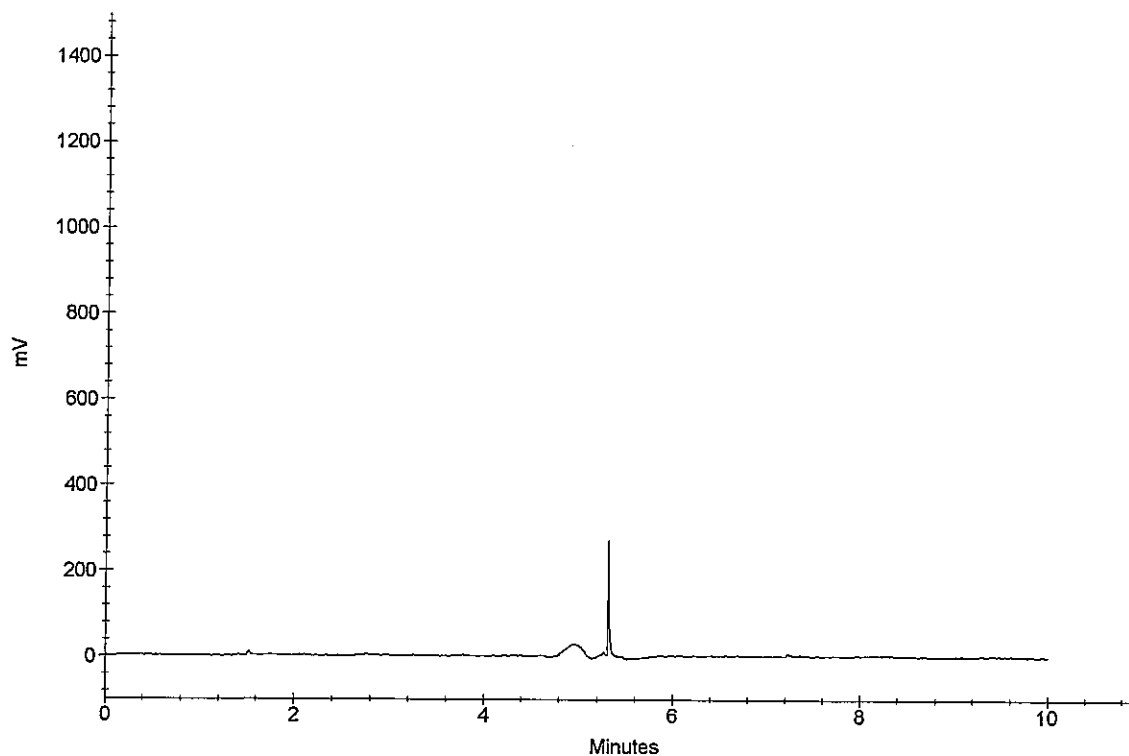
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199 REPLICATE

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
0	0.00	(null)	0.0000	0

OK
cm
10/27/09
R0905635-018



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : R0905635-019
Data File Name : ...\\O26_065.DXD
Method File Name : ...\\1-1022.met
Date Time Collected : 10/27/09 03:47:21

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199

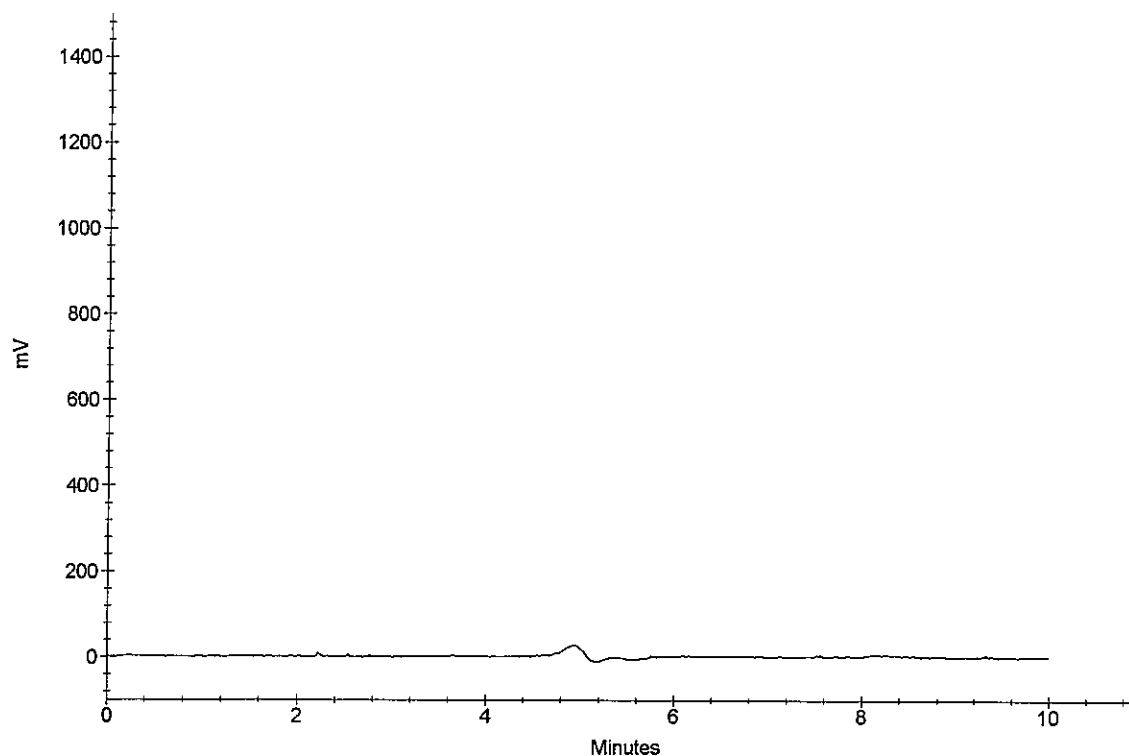
Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
0	0.00	(null)	0.0000	0

OK
CM
10/27/09

R0905635-019



Ion Chromatography Analytical Report
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Sample Name : R0905635-019
Data File Name : ...\\O26_066.DXD
Method File Name : ...\\1-1022.met
Date Time Collected : 10/27/09 03:57:45

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199 REPLICATE

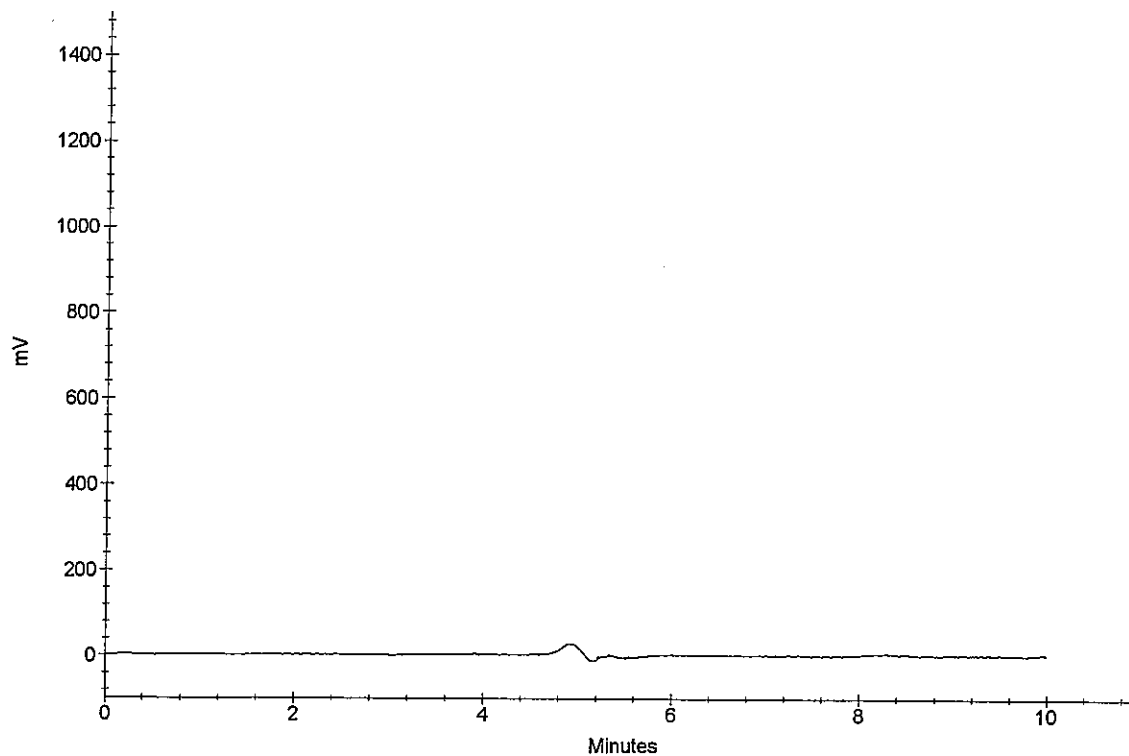
Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
0	0.00	(null)	0.0000	0

OK
CM
10/27/09

R0905635-019



Ion Chromatography Analytical Report
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Sample Name : R0905635-020
Data File Name : ...\\O26_067.DXD
Method File Name : ...\\1-1022.met
Date Time Collected : 10/27/09 04:08:09

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

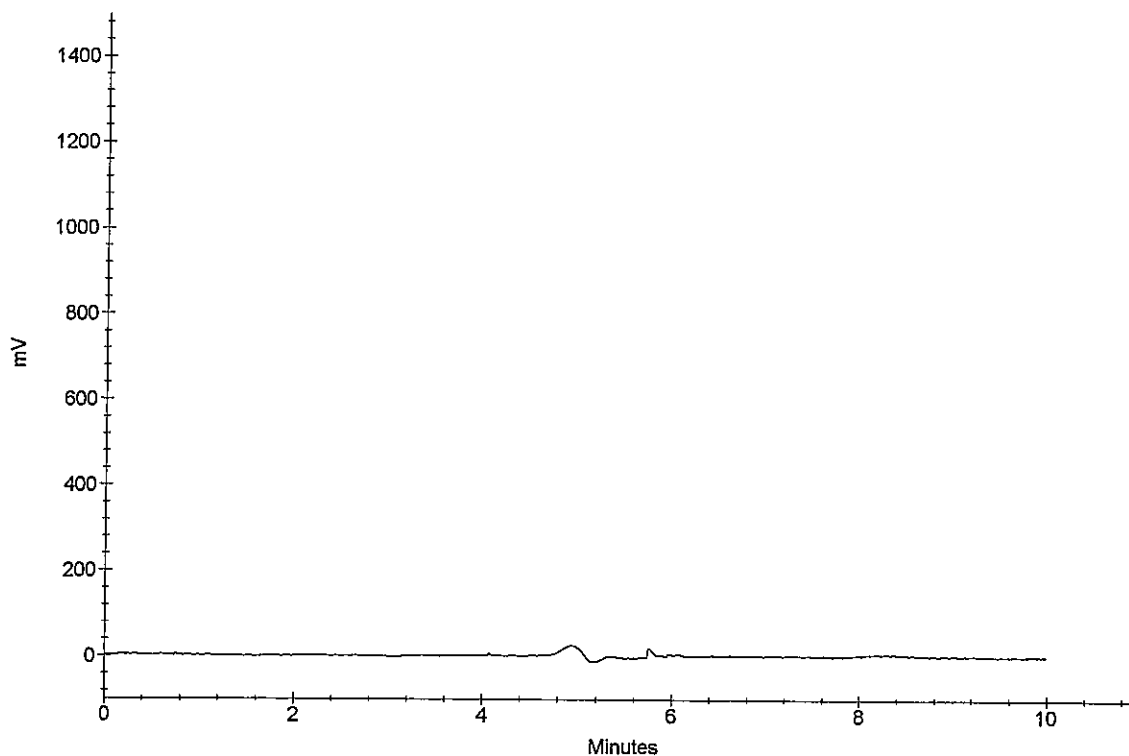
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
0	0.00	(null)	0.0000	0

OK
C. M. [unclear]
10/27/09
R0905635-020



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : R0905635-020
Data File Name : ...O26_068.DXD
Method File Name : ...1-1022.met
Date Time Collected : 10/27/09 04:18:33

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199 REPLICATE

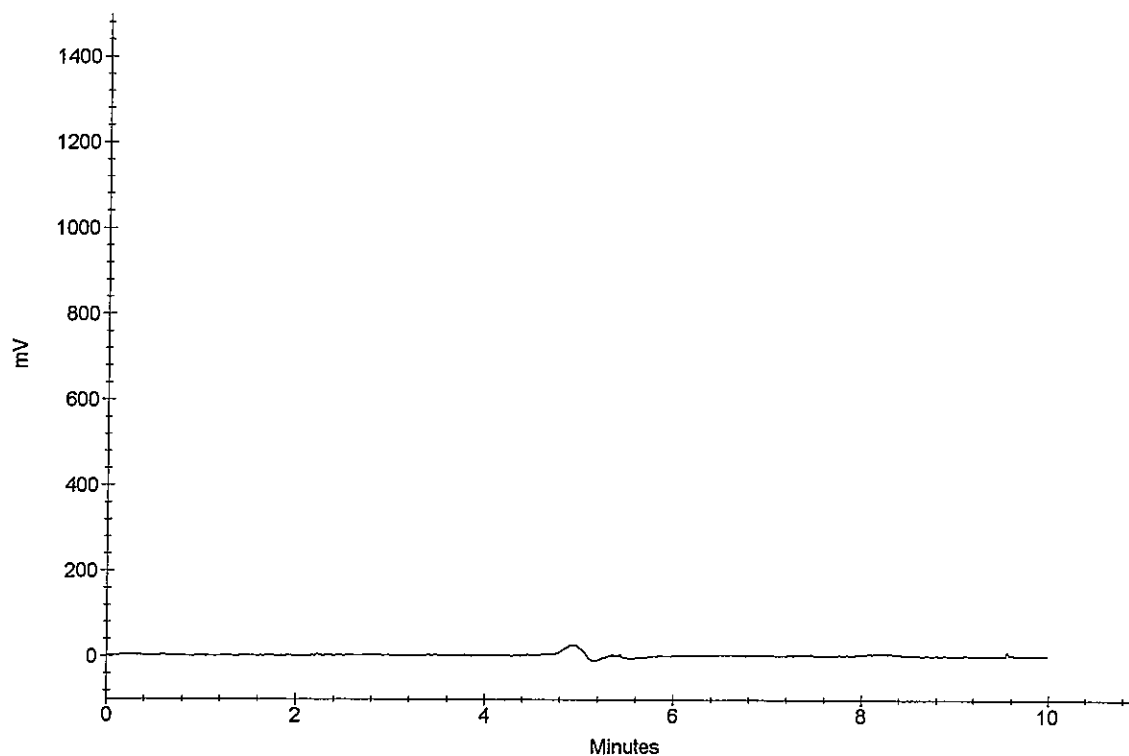
Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
0	0.00	(null)	0.0000	0

OK
10/27/09

R0905635-020



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : CCV
Data File Name : ...\\O26_069.DXD
Method File Name : ...\\1-1022.met
Date Time Collected : 10/27/09 04:28:56

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

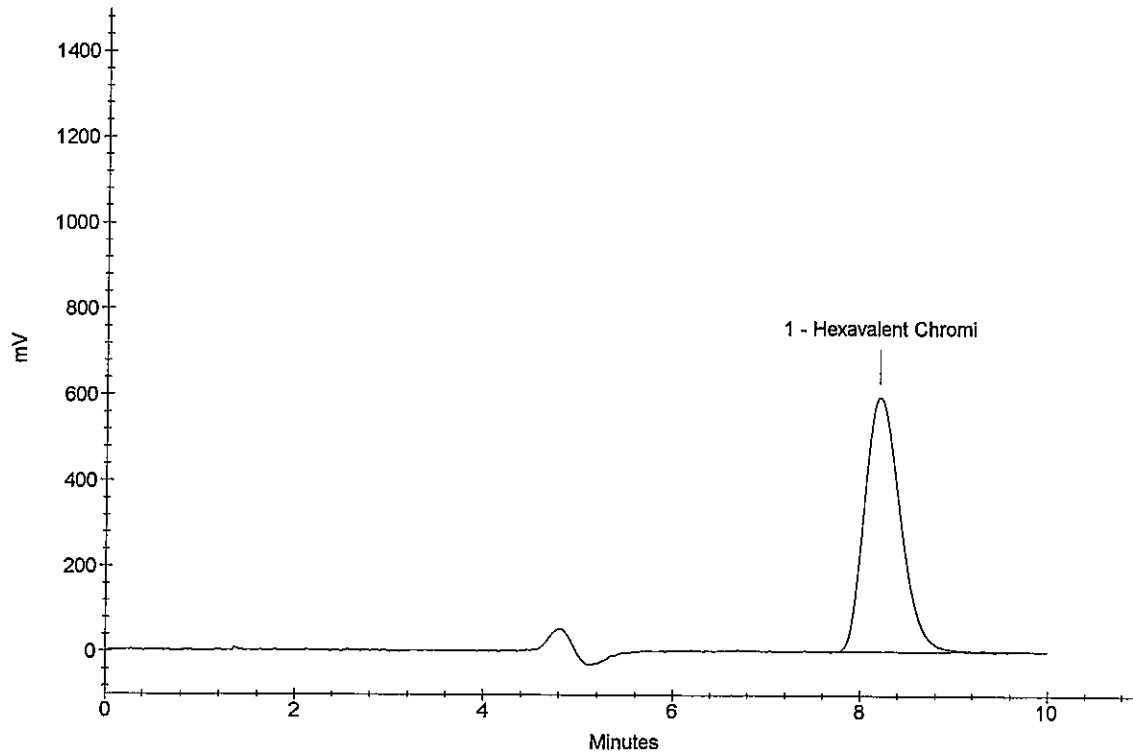
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199/218.6

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.20	Hexavalent Chromi	0.4973	15827279

OK
CCV
10/27/09



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : CCB
Data File Name : ...\\O26_070.DXD
Method File Name : ...\\1-1022.met
Date Time Collected : 10/27/09 04:39:21

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

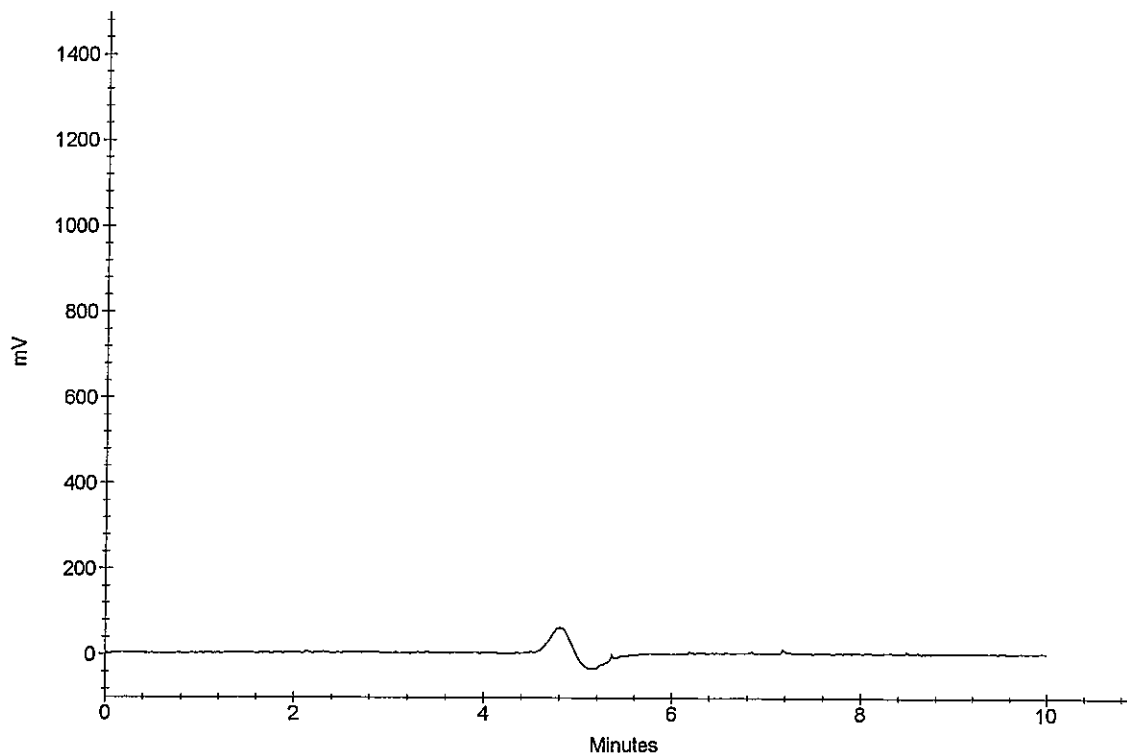
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199/218.6

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
0	0.00	(null)	0.0000	0

OK
CCB 10/27/09



Ion Chromatography Cover Sheet

Instrument: Dionex 1000I, IC #1

Column: AS7 Analytical Column, NG-1 Guard Column, 4mm, 06/02/08

Curve Date: 10/22/09

Loop size: 100 uL Loop

Analyst: C Woods

Analysis Date: 10/26/09

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	02/05/09	WC85265C	Calibration Stds	10/22/09	SAME AS WC85303E
LCS / MS Soluble Stock	02/05/09	WC85265C	Soluble MS	Daily	SAME AS WC85304B
I/CCV Standard Stock	02/05/09	WC85265D	I/CCV	Daily	SAME AS WC85303F
LCS / MS Insoluble Stock	01/11/08	WC85095H Soils Only	Insoluble LCS/MS	Daily	SAME AS WC85304C
LCS for Waters	Daily	SAME AS WC85304A	MS for Waters	Daily	SAME AS WC85304B

Comments: _____

Ion Chromatography Calibration Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : STANDARD 1
Sample Type : Calibration Update
Data File Name : ...\\O22_001.DXD
Method File Name : ...\\1-1022.met

Date Time Collected : 10/22/09 10:03:56
Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Analyst : CMW

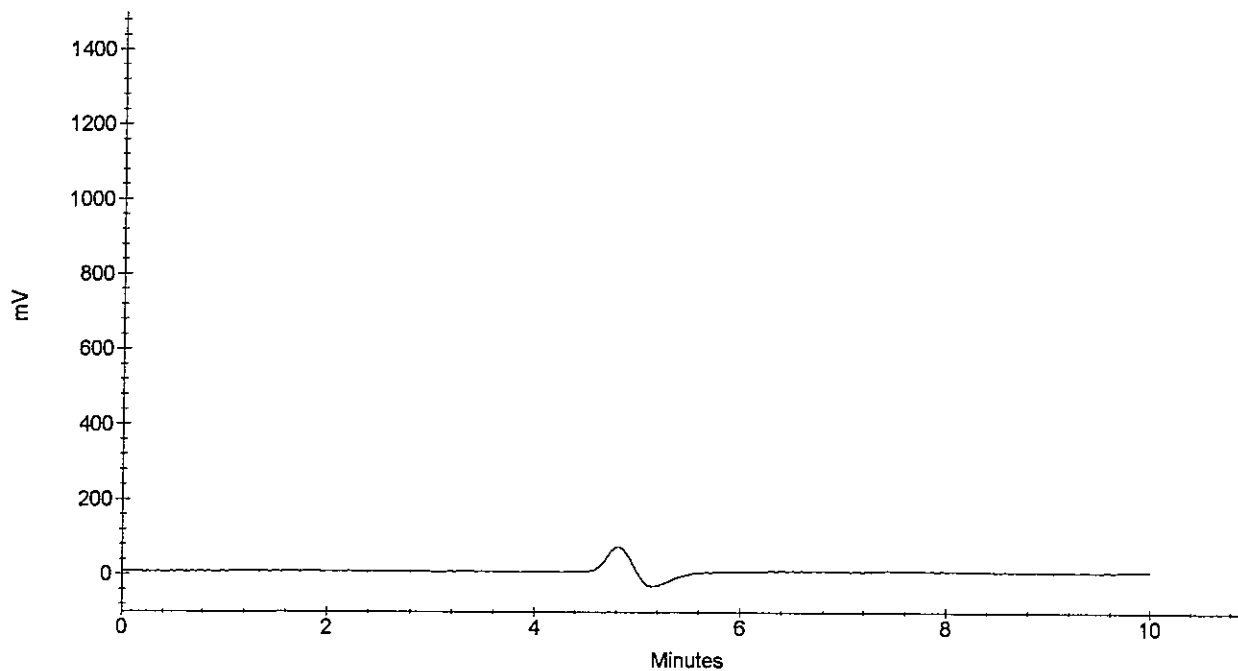
Dilution Factor : 1.00
Sample Comment : 7199/218.6
Data Collection Rate : 20.00 Hz

Calibration Type : EXTERNAL
Calibration Level : 1

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
0	0.00	(null)	0.000	0

OK
CMW
10/23/09
STANDARD 1



Ion Chromatography Calibration Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : STANDARD 2
Sample Type : Calibration Update
Data File Name : ... \O22_002.DXD
Method File Name : ... \1-1022.met

Date Time Collected : 10/22/09 10:14:21
Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Analyst : CMW

Dilution Factor : 1.00
Sample Comment : 7199/218.6
Data Collection Rate : 20.00 Hz

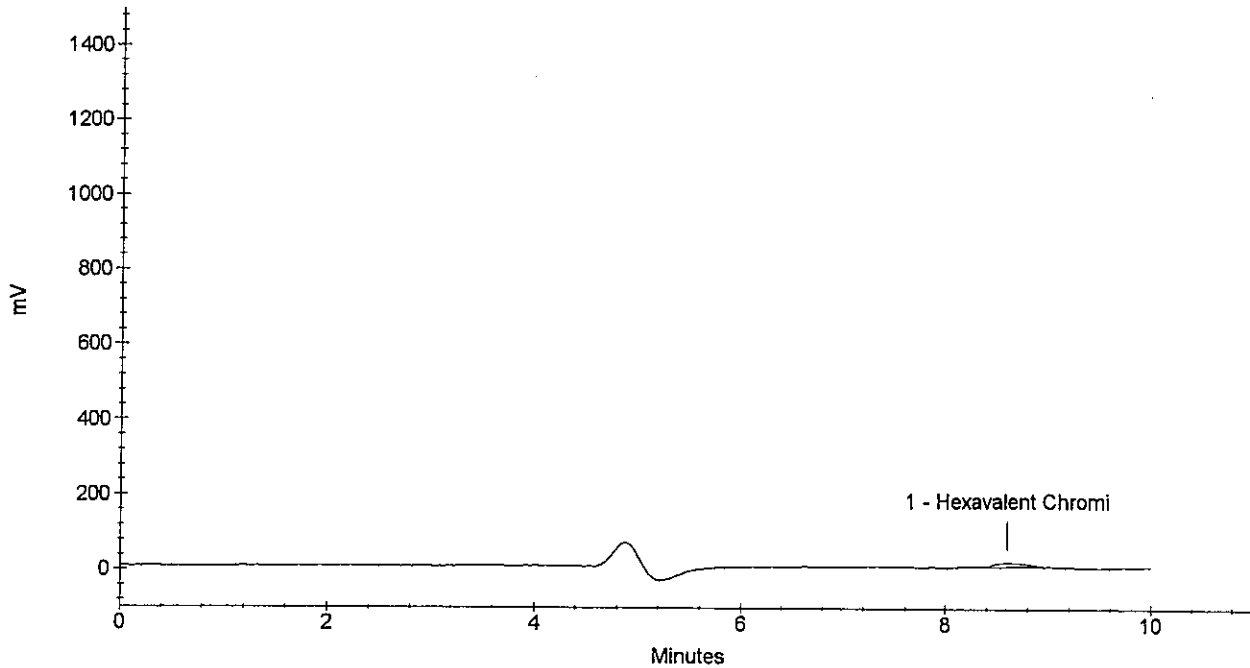
Calibration Type : EXTERNAL
Calibration Level : 2

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.60	Hexavalent Chromi	0.010	224648

OK
CMW
10/22/09

STANDARD 2



Ion Chromatography Calibration Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : STANDARD 3
Sample Type : Calibration Update
Data File Name : ... \O22_003.DXD
Method File Name : ... \1-1022.met

Date Time Collected : 10/22/09 10:24:45
Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1.(020261)
Method Analyst : CMW

Dilution Factor : 1.00
Sample Comment : 7199/218.6
Data Collection Rate : 20.00 Hz

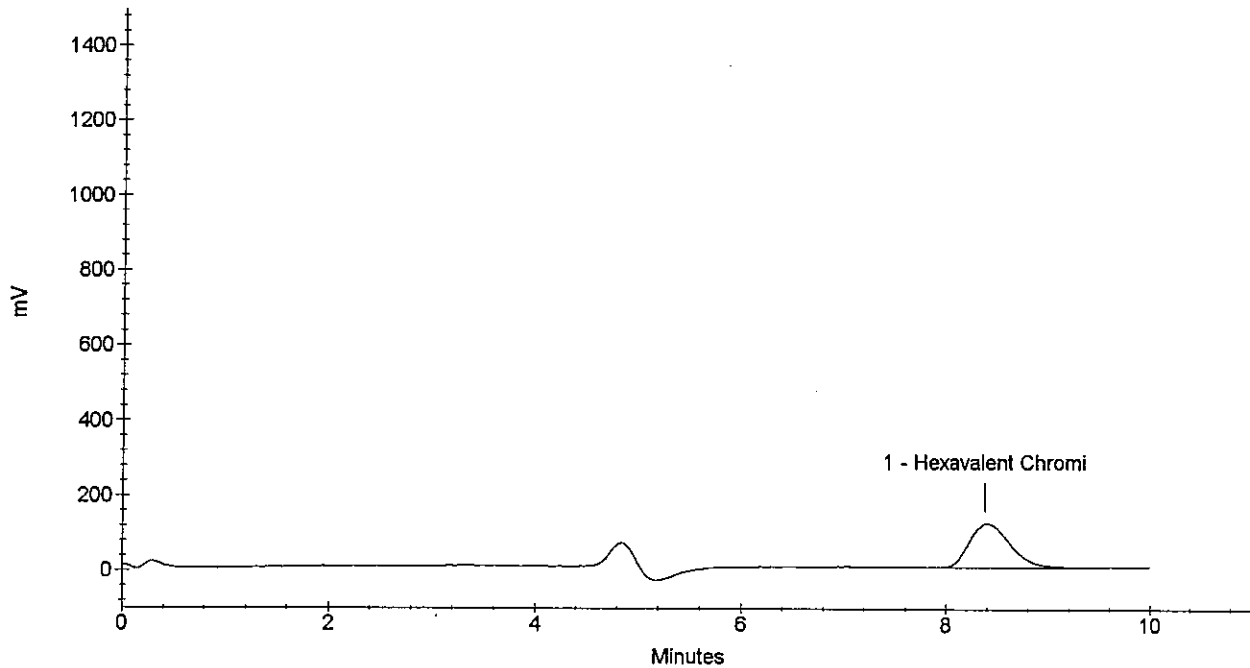
Calibration Type : EXTERNAL
Calibration Level : 3

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.38	Hexavalent Chromi	0.100	3238235

OK
CMW
10/22/09

STANDARD 3



Ion Chromatography Calibration Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : STANDARD 4
Sample Type : Calibration Update
Data File Name : ... \O22_004.DXD
Method File Name : ... \1-1022.met

Date Time Collected : 10/22/09 10:35:09
Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Analyst : CMW

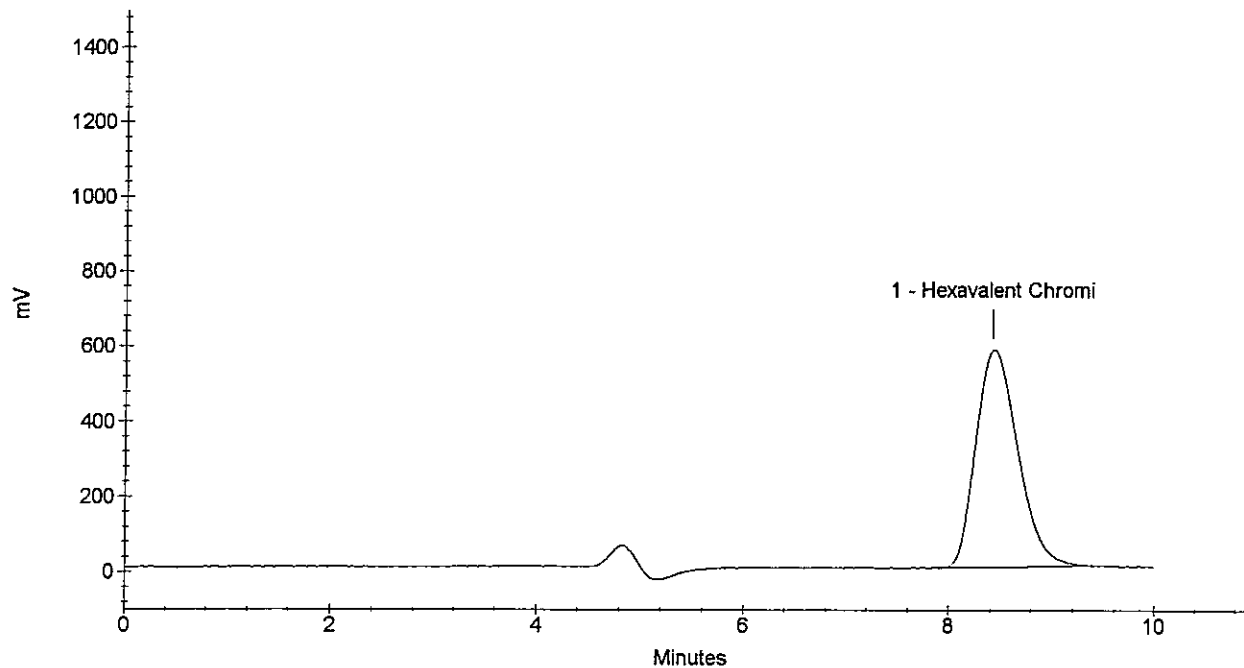
Dilution Factor : 1.00
Sample Comment : 7199/218.6
Data Collection Rate : 20.00 Hz

Calibration Type : EXTERNAL
Calibration Level : 4

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.43	Hexavalent Chromi	0.500	16376437

OK
CMW
10/22/09
STANDARD 4



Ion Chromatography Calibration Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : STANDARD 5
Sample Type : Calibration Update
Data File Name : ... \O22_005.DXD
Method File Name : ... \1-1022.met

Date Time Collected : 10/22/09 10:45:33
Detector Name : UV/Vis
Column ID : AS7.(012190) NG-1 (020261)
Method Analyst : CMW

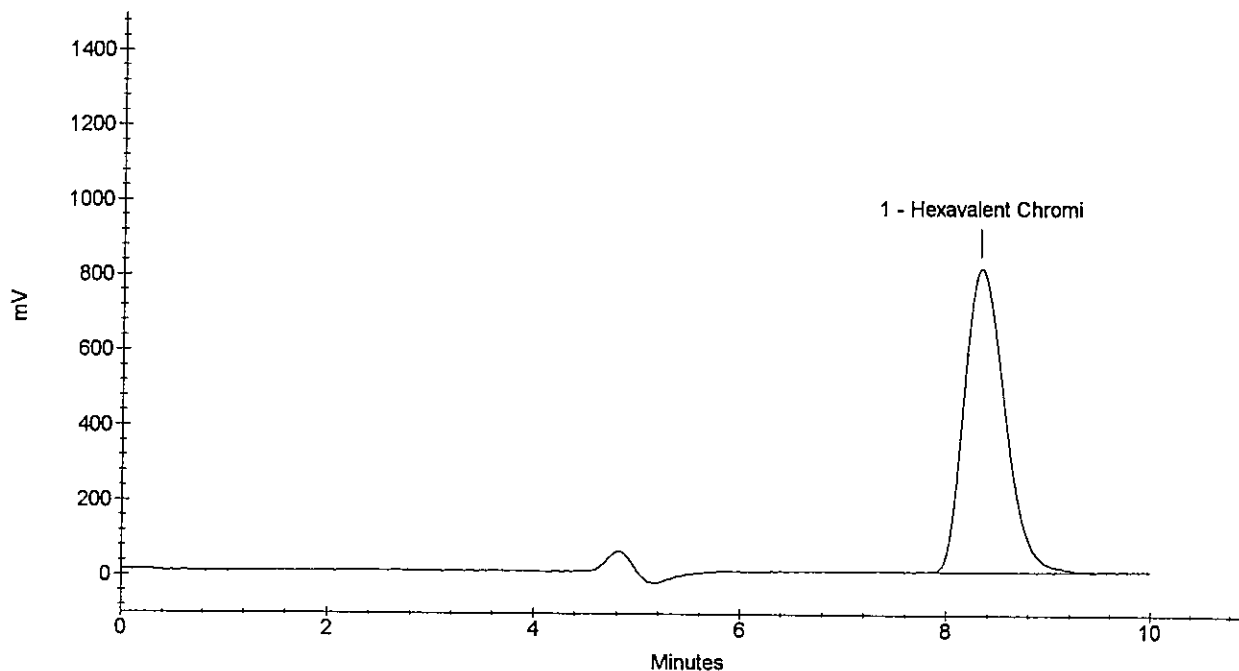
Dilution Factor : 1.00
Sample Comment : 7199/218.6
Data Collection Rate : 20.00 Hz

Calibration Type : EXTERNAL
Calibration Level : 5

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.32	Hexavalent Chromi	0.700	22244818

CMW
10/23/09
STANDARD 5



Ion Chromatography Calibration Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : STANDARD 6
Sample Type : Calibration Update
Data File Name : ... \O22_006.DXD
Method File Name : ... \1-1022.met

Date Time Collected : 10/22/09 10:55:56
Detector Name : UV/Vis
Column ID : AS7 (012190)-NG-1-(020261)
Method Analyst : CMW

Dilution Factor : 1.00
Sample Comment : 7199/218.6
Data Collection Rate : 20.00 Hz

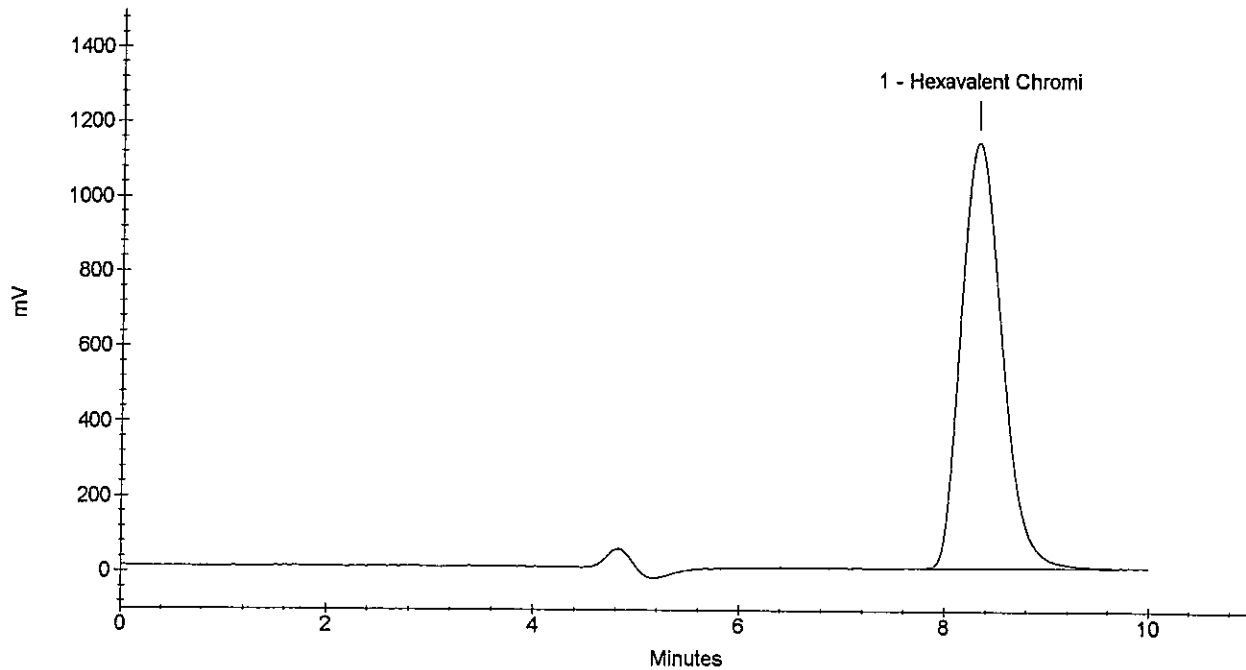
Calibration Type : EXTERNAL
Calibration Level : 6

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.32	Hexavalent Chromi <i>OK</i>	1.000	31530713

CMW
10/23/09

STANDARD 6



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : ICV
Data File Name : ...O22_007.DXD
Method File Name : ...1-1022.met
Date Time Collected : 10/22/09 11:06:20

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

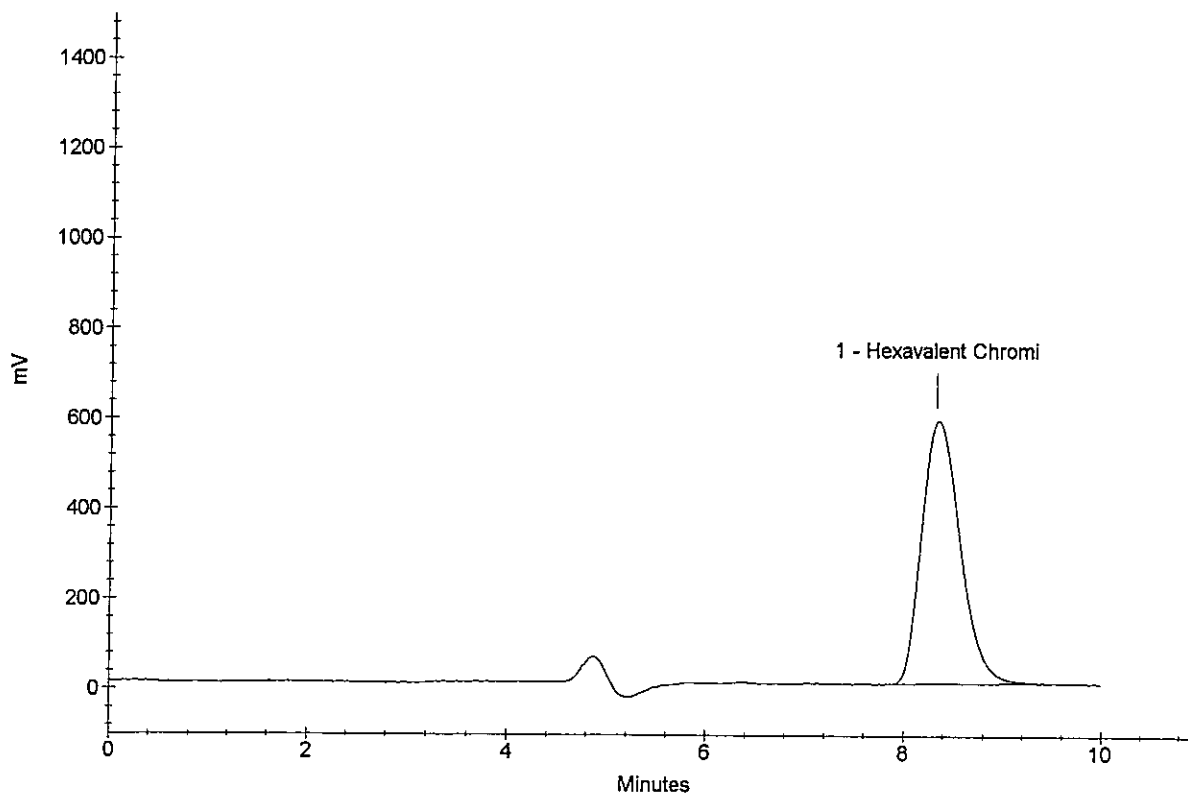
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199/218.6

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.32	Hexavalent Chromi <i>OK</i>	0.4980	15850591

OK
10/22/09
ICV



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : ICB
Data File Name : ...\\O22_008.DXD
Method File Name : ...\\1-1022.met

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

Date Time Collected : 10/22/09 11:16:44

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199/218.6

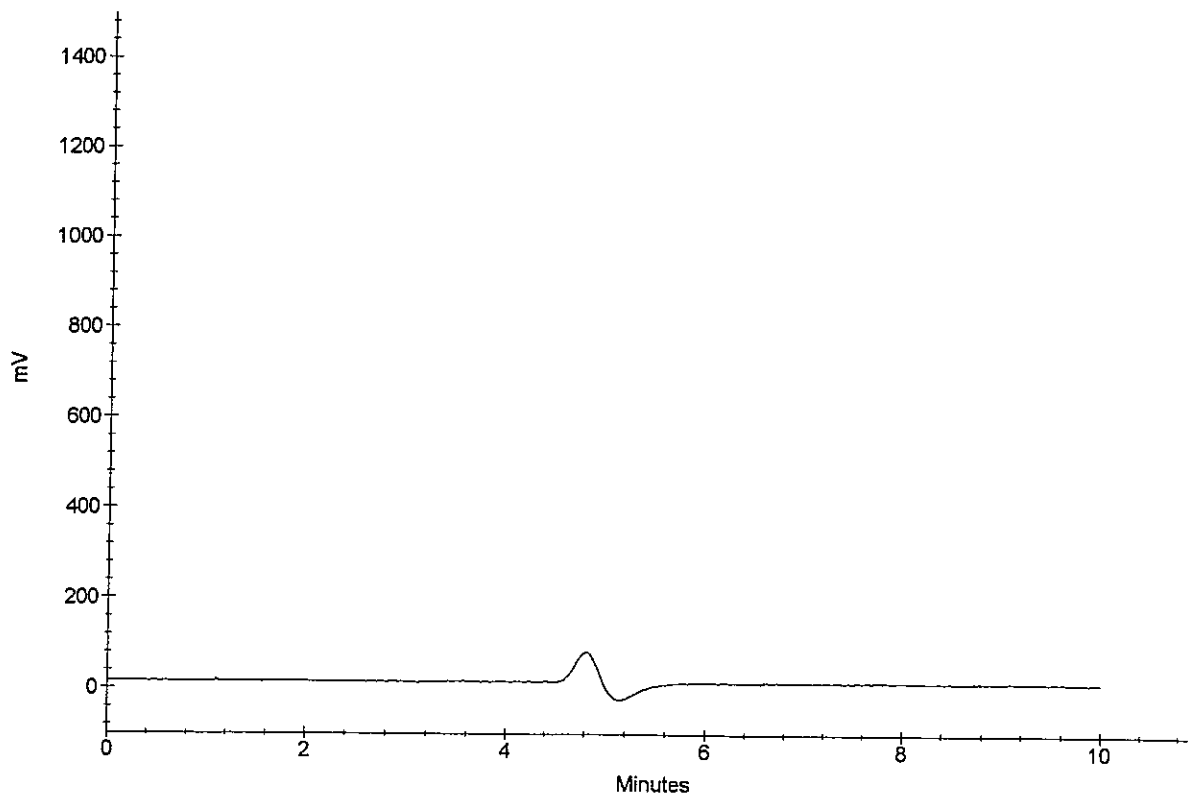
Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
-------------	---------------------	----------------	------------------------	-----------

0	0.00	(null)	0.0000	0
---	------	--------	--------	---

OK
10/23/09
ICB



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : LCS
Data File Name : ...\\O22_009.DXD
Method File Name : ...\\1-1022.met
Date Time Collected : 10/22/09 11:27:08

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

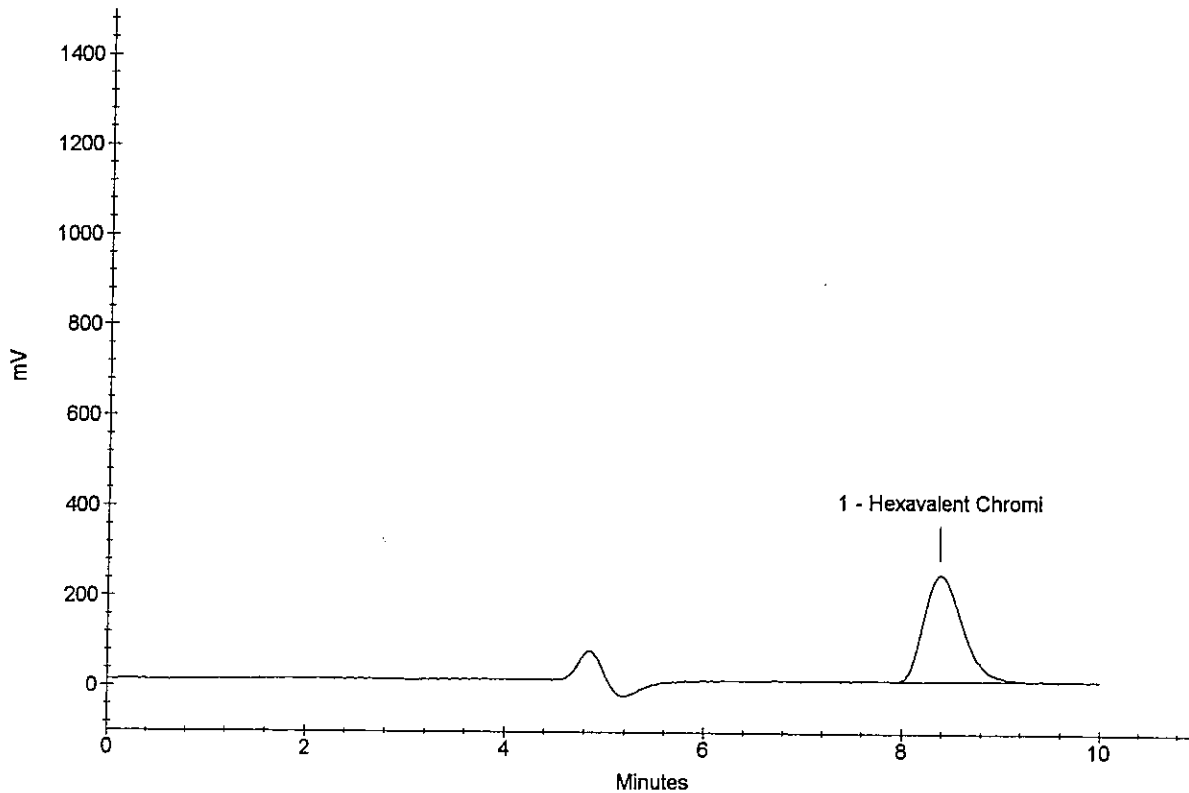
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199/218.6

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.38	Hexavalent Chromi	0.2018	6461626

OK
CW
10/23/09
LCS



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : LCS
Data File Name : ... \O22_010.DXD
Method File Name : ... \1-1022.met
Date Time Collected : 10/22/09 11:37:32

Detector Name : UV/Vis
Column ID : AS7 (012190) NG-1 (020261)
Method Comment : Cal.: IC#1, 10/22/09 50uL Loop

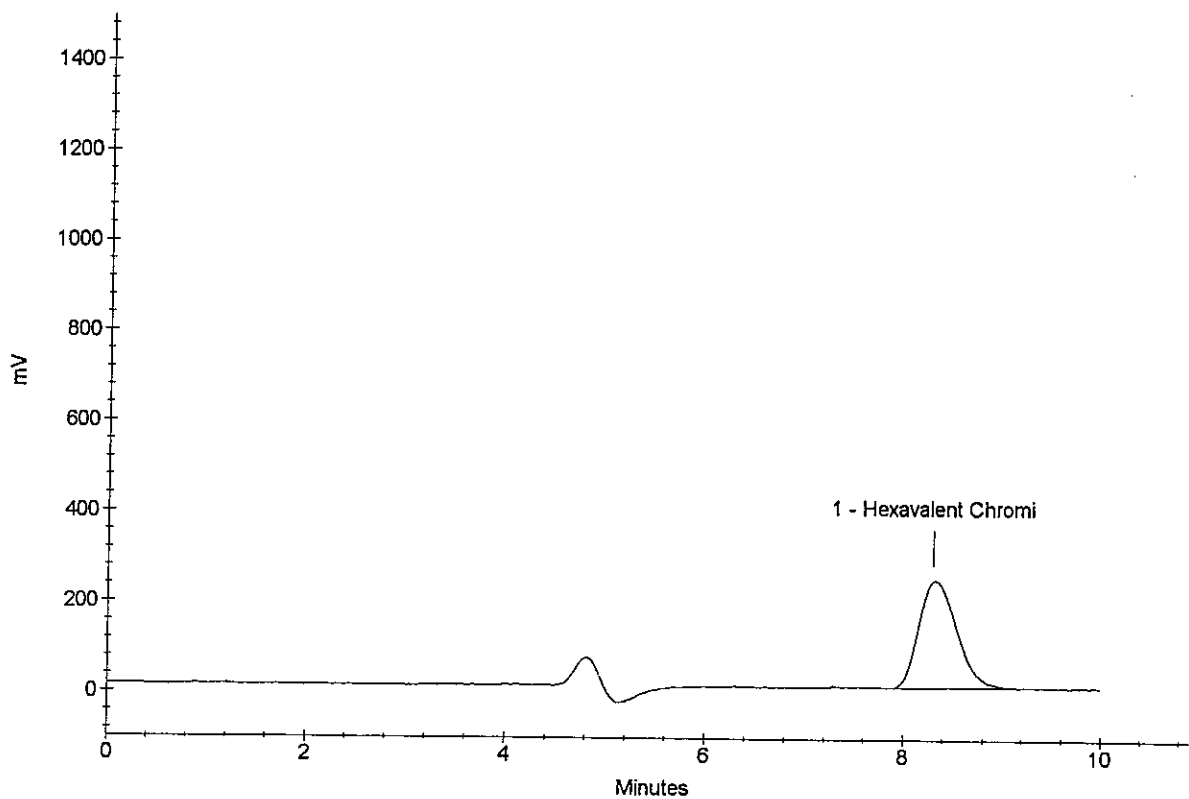
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 7199/218.6

Data Collection Rate : 20.00 Hz
Data Collection Period : 600.00 seconds
Component Amount Units : PPM

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (PPM)	Peak Area
1	8.30	Hexavalent Chromi	0.1991	6377765

Handwritten signature
10/22/09
LCS



DIONEX ACI METHOD PARAMETERS - 1-1022.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, 10/22/09 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) : 15.00
Peak threshold : 5.00
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
0.00	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	8.32 min	1.00 min	

AI450 Component Quantitation Table

Component	Retention	Low Limit	High Limit
Hexavalent Chromi	8.32 min	0	0

AI450 Component Calibration Table

Component	Retention Time	Curve Fit	Origin	Cal. by	Response Component	Relative Factor
Hexavalent Chromi	8.32 min	Linear	Include	Area		0.00

AI450 Component = Hexavalent Chromi Levels Table

Retention Time : 8.32 min

Amount units : PPM

Replicate unit type : Area

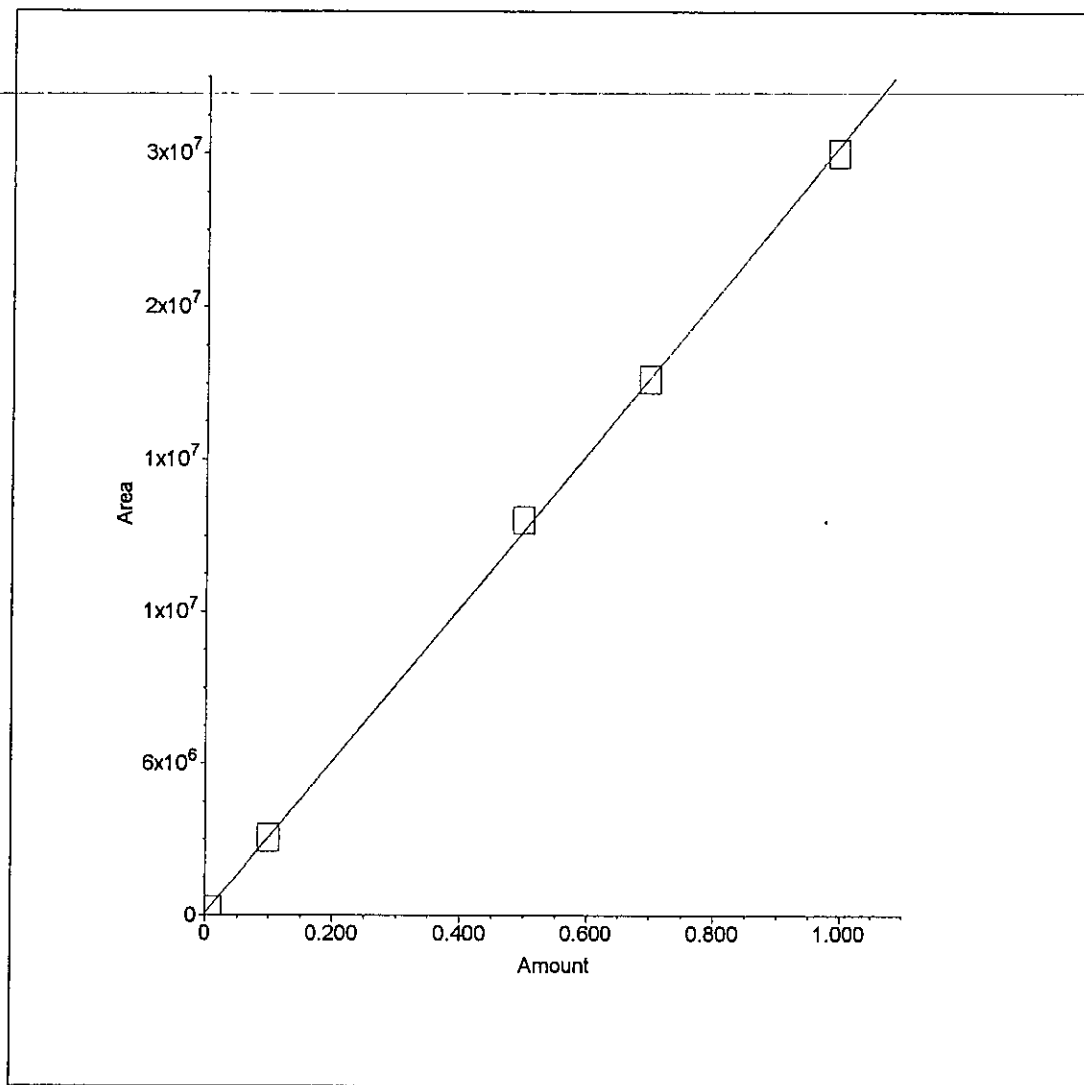
Number of levels : 6

Number of replicates : 1

Level	Amount	Replicate 1
1	0.00	16802.4 No PEAK
2	0.01	224648
3	0.10	3.23823e+006
4	0.50	1.63764e+007
5	0.70	2.22448e+007
6	1.00	3.15307e+007

AI450 XY Data Parameters

1. Component: Hexavalent Chromi
Standard: External Fit Type: Linear
Origin: Include Calibration: Area
 $r^2=0.999657$
Amt= $3.155e-008 * Resp + -0.002064$



Ion Chromatography Cover Sheet

Instrument: Dionex 1000I, IC #1
 Column: AS7 Analytical Column, NG-1 Guard Column, 4mm, 06/02/08
 Curve Date: 10/22/09 Loop size: 100 uL Loop
 Analyst: C. Woods Analysis Date: 10/22/09

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	02/05/09	WC85265C	Calibration Stds	10/22/09	SAME AS WC85303E
LCS / MS Soluble Stock	02/05/09	WC85265C	Soluble MS	Daily	SAME AS WC85304B
I/CCV Standard Stock	02/05/09	WC85265D	I/CCV	Daily	SAME AS WC85303F
LCS / MS Insoluble Stock	01/11/08	WC85095H Soils Only	Insoluble LCS/MS	Daily	SAME AS WC85304C
LCS for Waters	Daily	SAME AS WC85304A	MS for Waters	Daily	SAME AS WC85304B

Comments: _____

sh-ucli run.

2/5/09
30

Received from HACH

(A) 3) x 25 BOD Nutrient Buffered Phosphate, Cat. 14863-98, HACH Lot # A8339, CAS# Same as W085017H. Store @ R.T. Expires 12/31/2013

(B) (2) x 150 COD Digestion Solution Yields, 0-1500 ppm, Cat # 21259-15, HACH Lot # A9017, CAS # Same as W085003D Store w/ cool, dark place. Expires 1/31/2014

5-Ni2CO3 (W085210D)

IX2

Received from Thermo-Fisher

(C) (1) x 500 mL Chromium Reference Std Soln., 1000 mg/L. Cat # SC192-500, Fisher Lot # 076763, CAS # 7778-50-9 Store @ R.T. Expires 1/31/2010 7980

0.2 ml volume (W0852003)

Received from Environmental Express

(D) (1) x 250 mL Chromium Std Soln., 1000 mg/L. Cat # HP100012-7, EE Lot # 0804608, CAS # 7778-50-9 Store @ R.T. Expires 7/30/2010 7981

0.5 ml (W0852156)

exp 2/2010

Received from VWR

(E) (1) x 500 mL Phenol, liquid, Cat # PX0511-1, EMD Lot # 48112, CAS# 108-95-2. Store in flammable cabinet. Expires 2/5/2014 7983

1 ml (W0850185)

exp 2/2014

(F) (1) x 6 Membrane Express assembled for BOD, Cat # YSI5906, YSI Lot # ^{12/2/09} 54608M10071. Store @ RT. Exp: not listed.

510g 45Cl₂ · 6H₂O
Store @ RT

2/5/09

30

(G) 0.00564N Na₂S₂O₃

Same as W085256I. Fresh per run.

(H) Stock Chlorine - Cl₂ Residual

Same as W085256J Fresh per run

(I) DPD Indicator

Same as W085256K store at 4°C. Exp 2/5/10 or when discolored

1 run.

Digest

1:10 L

p.l.g. run, 2/5/10

2/6/09

NM

~~(J) 0.00564 N Sodium thiosulfate - Chlorine Demand~~

~~- Same as W085344 Exp. 2 weeks, 2/20/09. 2/20/09.~~

~~(K) Std. KIO₃ Titrant - Chlorine Demand~~

~~nm 2/6/09~~

1/10/08 ~~A~~ ^{TC 11/10/08} DPD Indicator

TC In a 500 mL vol flask, dissolve 0.50g DPD (WC16015F) and 0.100g EDTAC and 4mL 1 + 3 H₂SO₄ (WC85027B) in UPDI, Bring to vol. Store @ RT in amber glass. Exp 1 yr. or when discolored, 1/10/09.

1/10/08 (B) Sodium Phenolate - NH₃
NM - same as WC85088F. Exp. 1 year, 1/10/09.

1/11/08 (C) Eriochrome Black-T Indicator (Hardness)
NM - same as WC85075H. Exp. 5/31/08.

1/11/08 (D) ISS Reference
KB 0.2152g Kudin (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) Creat Soils Buffer
In a 500 mL vol. flask dissolve
- 43.545g K₂HPO₄ (WC76227G)
- 34.02g KH₂PO₄ (WC85054G)
in ~400 mL DI. Bring to vol. w/ DI. Store @ 4°C.
Exp. 1 yr. 1/11/09.

(F) Creat Soils Digest Solution
20.0g NaOH pellets (WC85072G) and 30.0g Na₂CO₃ (WC76232D) dissolved in DI Bring to 1 liter volumetrically w/ DI
Exp. 1 month, 2/11/08.

1/11/08 (G) 0.0250 Na₂S₂O₃ - sulfides
TC Dilute 50 mL 1.0N Na₂S₂O₃ (WC85067D) → 200 mL volumetrically w/ DI. Store for 2 weeks @ 4°C. Exp. 1/25/08.

1/11/08 (H) Received from Jeff Row
KB (H) 1 x 100g Yead I Chromate. Cat # 14125, 44 Lot # J03Q063, CAS # 7758-97-6. Store @ R.T. Expires 1/11/13

AS 10/10/09
Cristina Chang

5 cmw
5/15/09

① LCS for Cr⁶⁺ Waters (TV=0.2 ppm)

To 10 mL of DI water, add 0.2 mL of 10 ppm Std. ~~Std. (WC85303C)~~ (WC85303C). Mix thoroughly. Prepare as needed.

② Matrix Spike for Cr⁶⁺ Waters (TV=0.2 ppm)

To 10 mL of sample, add 0.2 mL of 10 ppm Std. (WC85303C). Mix thoroughly + analyze.

③ LCS for Cr⁶⁺ Soils

To digestate add approximately 10 mg of Lead (II) Chromate (WC85095H) + digest as normal.

$$TV = \frac{(\text{mg PbCrO}_4)}{(\text{kg sample})} \times 0.161$$

④ Matrix Spike for Cr⁶⁺ Soils

To digestate add approximately 10 mg of Lead (II) Chromate (WC85095H) + digest as normal.

$$TV = \frac{(\text{mg PbCrO}_4)}{(\text{kg sample})} \times 0.161$$

⑤ Post-Verification Spike (PVS) for Cr⁶⁺ Soils

A - If a sample has no value, take a 45 mL aliquot of digestate and add 0.45 mL of 100 ppm Std. (WC85304F). Analyze as usual. TV = 1.00 ppm (Needs to be run @ dilution on IC)

B - If a sample has a value, use the following to determine the amount of spike.

$$(\text{Amount of spike, mL}) = \frac{(45 \text{ mLs}) (2) (\text{Sample Value, mg/L})}{(100 \text{ ppm})}$$

Spike a 45 mL aliquot w/ the calculated amount of 100 ppm Standard (WC85304F). Spike with whichever amount is greater, A or B.

⑥ 100 ppm Standard Working Stock

Do a 1/10 serial dilution of 1000 ppm Standard Stock (WC85265C). Prepare fresh as needed

Review
10 -
100

Cmw
5/15/09Ⓐ Cr⁶⁺ 7199 Eluent

Dissolve 33g of Ammonium Sulfate (wc85040B) in 500 mL of DI and add 6.5 mL of Ammonium hydroxide (wc85188I). Dilute to 1L volumetrically w/ DI. Degas prior to use. Store @ RT. Expires 6/15/09.

Ⓑ Cr⁶⁺ 7199 Post-Column Color Reagent

Dissolve 0.5g of 1,5-diphenylcarbohydrazide (wc85190E) in 100 mL HPLC grade methanol (wc85284G) in a 1L volumetric flask. In a separate container add about 500 mL DI then add 28 mL of conc. H₂SO₄ (wc85276C), mix + degas before adding to diphenylcarbohydrazide solution. Dilute to volume w/ DI water. Store @ 4°C. Degas prior to use. Expires ~~6/15/09~~ ^{6/15/09}.

Cr⁶⁺ 7199/218.6 Calibration on IC # 5Ⓒ 10ppm Standard Working Stock

Do two (2) 1/10 serial dilutions of 1000ppm Std. Stock (wc85265C). Prepare as needed.

Ⓓ 10ppm Reference Working Stock

Do two (2) 1/10 serial dilutions of 1000ppm Ref. Stock (wc85265D). Prepare as needed.

Ⓔ Calibration Standards

Std #	mLs 10ppm Std. (wc85303C)	mLs DI	concentration (ppm)
6	1.0	9.0	1.00
5	0.70	9.3	0.70
4	0.10 0.50	9.9 9.5	0.10 0.50
3	0.10	9.9	0.10
2	1/10 dilution of Std. # 3		0.010
1	0.0	10	0.00

Ⓕ ICV/CCV (TV=0.50ppm) [waters + soils]

To 9.5 mLs of DI add 0.5 mLs of 10ppm Reference Stock (wc85303D). Mix + analyze. Prepare as needed.

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: 10-3-09

Conductivity holding time is 48 hrs from sample date

pH holding time is 15 minutes from collection

Sub. #	Order #	pH 150.1/4500H*B 9040B	Corrsivity 9045C	CONDUCTIVITY 120			TEMP °C	Analyst	Time	HT** (y/n)	Meter J/VWR
				raw data	units	mhos/cm					
CCB/DI		6.561					KE	12:00		J	
1-76B	CP 218.6 R-76.36	9.436							YES		
76009B		9.495							↓		
3160209 -A2	↓	9.544							NO		
1-76B		7.683		6.28	MS	6280			YES		
1-76B dup		7.693		6.26	MS	6260			↓		
1-76009B		7.735		6.27	MS	6270			↓		
3160209 -A2		6.488		1.838	MS	1838			NO		
3160209 S01A4		6.291							NO		
CCV 4.01/2767		4.040		2.72	MS	2720		↓	↓	↓	
CCB 7.00	KE 10-3-09	6.969		0.254	MS	0254		↓	↓	↓	
CCV 7.00		6.969					KE	12:50		J	
1211-05B	R-50.35		8.332						YES		
1211-05B dup			8.398						↓		
1211-11B			8.707						↓		
1211-25B			8.742						↓		
1211-43B			8.132						↓		
1169-05B			8.471						↓		
1169-25B			8.925						↓		
1169-42B			8.297						↓		
CCV 4.01		4.044						↓	↓	↓	
KE 10-3-09											

*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 #: BDB2694H BDB2695A BDB2694I

Conductivity Meter Calibration (calibrate to 1412 and test 2767 & 146.9 standard)

N KCL: 1412 Calibrated (Yes / NO) LOT #: BDB2695F

Cell Constant: 1.101

N KCL: 2767 LOT #: BDB2695D Reading 2720

10% Limits: 2490.3 to 3043.7

N KCL: 146.9 LOT #: BDB2694B Reading 148.8

10% Limits: 132.2 TO 161.6

uS = 1 umhos/cm mS = 1,000 umhos/cm S = 1,000,000 umhos/cm

Analyst: KE DATE: 10-3-09 TIME: 11:50

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: 10/8/09 pg. 1

Sub. #	Order #	pH 150.1/4500H*B 9040B	Corrsivity 9045C	CONDUCTIVITY		TEMP °C	Analyst	Time	HT** (y/n)	Meter J/VWR
				raw data	units					
cr ⁶⁺	MG-94B	9.456					MRP	0815	yes	J
CCV	7.00	7.038					↓	↓	↓	↓
DI check	CCB			0.687	µS	0.687				
CCV	4.0 / 2767	4.101		2.73	mS	2730	21°	1000		J
CCB		7.209 ^{10/21/09}		0.561	µS	0.561	22°	1935		
RO9-5727	001	7.209 7.244		0.448	µS	0.448	18°		Y	
	002	7.225		0.298	µS	0.298				
	003	6.854 6.398		0.375	µS	0.375				
	003dup	6.364		0.378	µS	0.378				
	004	6.327		0.293	µS	0.293			↓	
RO9-5701	001			0.279	mS	279			N*	
RO9-5703	008	7.174							Y	
	009	7.316								
RO9-5751	001	7.311								
	002	8.309								
RO9-5771	001	7.667								
RO9-5765	001	7.487								
RO9-5764	001	8.060								
RO9-5636	006	7.230		14.40	mS	14400				
RO9-5752	001	6.760								
RO9-5693	017		9.211							
	018		8.106							
	018QC		8.059							

*sample missed analyst error

*Meters used will be designated by "J" for Jenway or "VWR" for the VWR meter, **HT = holding time
 pH Meter Calibration (R) Recalibrated at 1930 by MRP ICV 7.00 7.020 19.2°C
 7.014

STANDARDS 4.00 ✓ 10.00 ✓ ICV check 7.00 TEMP. 21.2°C
 LOT #: BDB2694H BDB2695H BDB2694I

Conductivity Meter Calibration (calibrate to 1412 and test 2767 & 146.9 standard)

N KCL: 1412 Calibrated (Yes) NO) LOT #: BDB2695F @1930
 Cell Constant: 1.107 | 1.101

N KCL: 2767 LOT #: BDB2695D Reading 2730 | 2720
 10% Limits: 2490.3 to 3043.7

N KCL: 146.9 LOT #: BDB2694B Reading 149.1 | 148.5
 10% Limits: 132.2 TO 161.6
 uS = 1 umhos/cm mS = 1,000 umhos/cm S = 1,000,000 umhos/cm.

Analyst: MRP DATE: TIME:
 (pH calibration) Columbia Analytical Services, (10/8/09) (0815)

01198 0005

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: 10/8/09 pg. 2

Sub. #	Order #	pH		CONDUCTIVITY			TEMP °C	Analyst	Time	HT** (y/n)	Meter J/VWR
		150.1/4500H*B 9040B	Corrsivity 9045C	raw data	units	umhos/cm					
RO9-5693	019		8.378				18°	RJ	1935	Y	J
	↓		8.792				17°			↓	
CCV	4.0 / 146.9	4.048		148.6	μS	148.6	18°				
CCB				0.601	μS	0.601	21°		↓		
RO9-5693	010		10.006				17°		2035	Y	
	010 dup		10.086								
	021		8.330								
	021 dup		8.264								
	022		8.401								
	↓		8.410								
RO9-5744	001		8.583				↓				
	002		8.259				18°				
	003		8.275								
	004		8.464								
	005		8.250								
	006		9.394								
	007		9.045								
	007 QC		9.104								
	008		7.986								
	↓		8.170								
CCV	7.0	7.036					↓	↓	↓	↓	↓
RJ 10/16/09											

*Meters used will be designated by "J" for Jenway or "VWR" for the VWR meter, **HT = holding time

pH Meter Calibration (H) Recall to high range by RJ @ 2030

STANDARDS 7.00 ✓ 10.00 ✓ 12.45 ✓ 9.978
 LOT #: 7.00 BDB2694I 12.45 BDB2694A 9.978 BDB2695A
 ICV check 7.00 10.0 TEMP.

Conductivity Meter Calibration (calibrate to 1412 and test 2767 & 146.9 standard)

N KCL: 1412 Calibrated (Yes / NO) LOT #:

N KCL: 2767 LOT #: Cell Constant:

N KCL: 146.9 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:

Analytical Results Summary

Instrument Name: R-Discrete-01

Analyst: HLOVEJOY

Analysis Lot: 174539

Method/Testcode: 335.4/CN T

Lab Code	Target Analytes	QC Type	Parent Sample	Matrix	Raw Result	Sample Amt	Final Result	Dil	POL	% Rec	% RSD	Date Analyzed	QC? Tier
RQ0909825-01	Cyanide, Total	MB		Water	0.00 mg/L	50 mL	0.010 mg/L U	1	0.010			10/13/09 11:35:07	N II
RQ0909825-01	Cyanide, Total	MB		Water	0.00 mg/L	50 mL	0.010 mg/L U	1	0.010			10/13/09 11:35:07	N II
RQ0909825-02	Cyanide, Total	LCS		Water	0.11 mg/L	50 mL	0.106 mg/L	1	0.010	106		10/13/09 11:35:08	N II
RQ0909825-02	Cyanide, Total	LCS		Water	0.11 mg/L	50 mL	0.106 mg/L	1	0.010	106		10/13/09 11:35:08	N II
RQ0909825-03	Cyanide, Total	LCS		Water	0.43 mg/L	50 mL	0.431 mg/L	1	0.010	108		10/13/09 11:35:09	N II
RQ0909825-03	Cyanide, Total	LCS		Water	0.43 mg/L	50 mL	0.431 mg/L	1	0.010	108		10/13/09 11:35:09	N II
R0905670-001	Cyanide, Total	N/A		Water	0.00 mg/L	50 mL	0.010 mg/L U	1	0.010			10/13/09 11:35:13	N I
R0905764-002	Cyanide, Total	N/A		Water	0.00 mg/L	50 mL	0.010 mg/L U	1	0.010			10/13/09 11:35:14	N I
R0905784-001	Cyanide, Total	N/A		Water	0.00 mg/L	50 mL	0.010 mg/L U	1	0.010			10/13/09 11:35:15	N II
R0905636-001	Cyanide, Total	N/A		Water	0.00 mg/L	50 mL	0.010 mg/L U	1	0.010			10/13/09 11:42:40	N IV
R0905636-006	Cyanide, Total	N/A		Water	0.00 mg/L	50 mL	0.010 mg/L U	1	0.010			10/13/09 11:42:45	N IV
R0905723-028	Cyanide, Total	N/A		Water	0.74 mg/L	50 mL	0.744 mg/L	1	0.010			10/13/09 11:42:46	N II
R0905723-029	Cyanide, Total	N/A		Water	0.00 mg/L	50 mL	0.010 mg/L U	1	0.010			10/13/09 11:42:47	N II
R0905639-001	Cyanide, Total	N/A		Water	0.06 mg/L	50 mL	0.056 mg/L	1	0.010			10/13/09 11:42:48	N II
R0905639-003	Cyanide, Total	N/A		Water	0.02 mg/L	50 mL	0.017 mg/L	1	0.010			10/13/09 11:42:49	N II
R0905639-002	Cyanide, Total	N/A		Water	0.10 mg/L	50 mL	0.104 mg/L	1	0.010			10/13/09 11:42:50	N II
RQ0909825-06	Cyanide, Total	MS	R0905639-002	Water	0.20 mg/L	50 mL	0.203 mg/L	1	0.010	99		10/13/09 11:50:16	N II
RQ0909825-07	Cyanide, Total	DMS	R0905639-002	Water	0.20 mg/L	50 mL	0.202 mg/L	1	0.010	98		10/13/09 11:50:17	N II
R0905639-004	Cyanide, Total	N/A		Water	0.03 mg/L	50 mL	0.025 mg/L	1	0.010			10/13/09 11:50:20	N II
R0905639-005	Cyanide, Total	N/A		Water	0.25 mg/L	50 mL	0.246 mg/L	1	0.010			10/13/09 11:50:21	N II
R0905639-006	Cyanide, Total	N/A		Water	0.07 mg/L	50 mL	0.074 mg/L	1	0.010			10/13/09 11:50:22	N II
R0905678-005	Cyanide, Total	N/A		Water	0.00 mg/L	50 mL	0.010 mg/L U	1	0.010			10/13/09 11:50:23	N IV
R0905635-001	Cyanide, Total	N/A		Water	0.05 mg/L	50 mL	0.055 mg/L	1	0.010			10/13/09 11:50:24	N IV
R0905192-001	Cyanide, Total	N/A		Soil	0.00 mg/L	50.000 mL	0.010 mg/L U	1	0.010			10/13/09 11:50:25	N IV
R0905192-003	Cyanide, Total	N/A		Soil	0.00 mg/L	50.000 mL	0.010 mg/L U	1	0.010			10/13/09 11:50:26	N IV
R0905745-001	Cyanide, Total	N/A		Water	0.00 mg/L	50 mL	0.010 mg/L U	1	0.010			10/13/09 12:20:33	N II
RQ0909825-04	Cyanide, Total	DUP	R0905745-001	Water	0.00 mg/L	50 mL	0.010 mg/L U	1	0.010			10/13/09 12:20:33	N II
RQ0909825-05	Cyanide, Total	MS	R0905745-001	Water	0.10 mg/L	50 mL	0.105 mg/L	1	0.010	105		10/13/09 12:20:35	N II
R0905636-002	Cyanide, Total	N/A		Water	0.00 mg/L	50 mL	0.050 mg/L U	5	0.050			10/13/09 13:12:58	N IV
R0905636-003	Cyanide, Total	N/A		Water	0.00 mg/L	50 mL	0.050 mg/L U	5	0.050			10/13/09 13:12:59	N IV

Reviewed & Approved

By: S. Devo

Date: 10/13/09

R2636
R5778
R5778
R5778

Preparation Information Benchsheet

Prep Run#: 98133
 Team: GenChem/HLOVEJOY

Prep WorkFlow: Gen Dist CN
 Prep Method: Method

Status: Prepped
 Prep Date/Time: 10/12/09 08:00 AM

#	Lab Code	Client ID	B#	Amt. Ext.	Method /Test	pH	AE	BN	Final Vol	Sample Desc. (Initial/Final)	SpikeAmt./Inv. ID	Comments
1	RQ0909825-01	MB		50mL	335.4/CN T				50.00mL			
2	RQ0909825-01	MB		50mL	9012A/CN Tot				50.00mL			
3	RQ0909825-02	LCS		50mL	335.4/CN T				50.00mL		0.5000 mL/11016	
4	RQ0909825-02	LCS		50mL	9012A/CN Tot				50.00mL		0.5000 mL/11016	
5	RQ0909825-03	LCS		50mL	335.4/CN T				50.00mL		2.0000 mL/11016	
6	RQ0909825-03	LCS		50mL	9012A/CN Tot				50.00mL		2.0000 mL/11016	
7	R0905745-001	B325 Final Eff 24Hr Comp	.08	50mL	335.4/CN T				50.00mL			
8	RQ0909825-04	R0905745-001 DUP	.08	50mL	335.4/CN T				50.00mL			
9	RQ0909825-05	R0905745-001 MS	.08	50mL	335.4/CN T				50.00mL		0.5000 mL/11016	
10	R0905670-001	Effluent Composite	.03	50mL	335.4/CN T				50.00mL			
11	R0905764-002	4 Grab Composite	.04	50mL	335.4/CN T				50.00mL			
12	R0905784-001	ICM-EFF-100709	.04	50mL	335.4/CN T				50.00mL			
13	R0905636-001	PB100209-A2	.13	50mL	9012A/CN Tot				50.00mL			
14	R0905636-002	M-76B	.13	50mL	9012A/CN Tot				50.00mL			
15	R0905636-003	M-76009B	.13	50mL	9012A/CN Tot				50.00mL			
16	R0905636-006	MC-94B	.13	50mL	9012A/CN Tot				50.00mL			
17	R0905723-028	CRA-2428-100109-JRR-007	.06	50mL	9012A/CN Tot				50.00mL			
18	R0905723-029	CRA-2428-100109-JRR-008	.06	50mL	9012A/CN Tot				50.00mL			
19	R0905639-001	CRA-2428-100109-JRR-009	.06	50mL	9012A/CN Tot				50.00mL			
20	R0905639-003	CRA-2428-100109-JRR-009	.06	50mL	9012A/CN Tot				50.00mL			
21	R0905639-002	CRA-2428-100109-JRR-009	.06	50mL	9012A/CN Tot				50.00mL			
22	RQ0909825-06	R0905639-002 MS	.06	50mL	9012A/CN Tot				50.00mL		0.5000 mL/11016	
23	RQ0909825-07	R0905639-002 DMS	.06	50mL	9012A/CN Tot				50.00mL		0.5000 mL/11016	
24	R0905639-004	CRA-2428-100109-JRR-009	.06	50mL	9012A/CN Tot				50.00mL			
25	R0905639-005	CRA-2428-100109-JRR-009	.06	50mL	9012A/CN Tot				50.00mL			
26	R0905639-006	CRA-2428-100109-JRR-009	.06	50mL	9012A/CN Tot				50.00mL			
27	R0905678-005	WW1006-01	.07	50mL	9012A/CN Tot				50.00mL			
28	R0905635-001	EB100209-SO1A4	.15	50mL	9012A/CN Tot				50.00mL			
29	R0905192-001RA	SA102-10BSPJP2	.12		9012A/CN Tot SPLP							

01201

Preparation Information Benchsheet

Prep Run#: 98133 **Prep WorkFlow:** Gen Dist CN **Status:** Prepped
Team: GenChem/HLOVEJOY **Prep Method:** Method **Prep Date/Time:** 10/12/09 08:00 AM
30R0905192-003RA SA102-30BSPLP2 .12 9012A/CN Tot SPLP

Spiking Solutions

Name: Cyanide 10 ppm as CN **Inventory ID:** 11016 **Logbook Ref:** FRESH PER RUN **Expires On:** 07/10/2010

Preparation Steps

Step: Distillation
Started: 10/12/09 08:00
Finished: 10/12/09 09:30
By: HLOVEJOY

Comments: _____

Reviewed By: _____ **Date:** _____ **Spike Witness:** DBOND **Date:** _____

Chain of Custody

Relinquished By: _____	Date: _____		Extracts Examined	
Received By: _____	Date: _____		Yes No	

01202

Midi-Cyanide Distillation Sheet

Analyst: A. Lovelace
 Date: 10/2/09
 Chiller Temp: 10°C
 Midi Block #1 Temp: 140°C
 Midi Block #2 Temp: 135°C

Stock ppm: _____

Date Std'n: _____

10 ppm Spike Solution: _____

Date made: _____

mL used: _____

Pipette ID: _____

Start: 1230

Stop: 1400

Spk witness: _____

3

Still #	QC type	Order #	Dist. Vol.	Final Vol.	Method	pH	H2S +/-	Comments
1	Prep Blk		1.0	50	9012	NA		
2	LCS-LL		1.0	50	9012	NA		+ 0.5 ml 10 ppm
3	LCS-HL		1.0	50	9012	NA		+ 2.0 ml 10 ppm
4		R0905567-022	1.02	50	9012	NA		
5		5567-022 DUP	1.04	50	9012	NA		
6		5567-022 SPK	1.06	50	9012	NA		+ 0.5 ml 10 ppm
7		R0905778-001	1.29	50	9012	NA		
8		R0905778-002	1.21	50	9012	NA		
9		R0905778-003	1.77	50	9012	NA		
10		R0905778-004	2.25	50	9012	NA		
11		R0905778-005	1.20	50	9012	NA		
12		R0905635-008	1.01	50	9012	NA		
13		R0905635-002	1.23	50	9012	NA		
14		R0905635-003	1.25	50	9012	NA		
15		R0905635-004	1.14	50	9012	NA		
16		R0905635-005	1.01	50	9012	NA		
17		R0905635-007	1.04	50	9012	NA		
18		R0905635-006	1.06	50	9012	NA		
19		5635-006 DUP	1.04	50	9012	NA		
20		5635-006 SPK	1.08	50	9012	NA		+ 0.5 ml 10 ppm

Midi-Cyanide Distillation Sheet

Analyst: H Lovejoy
 Date: 10/12/09
 Chiller Temp: 11°C
 Midi Block #1 Temp: 140°C
 Midi Block #2 Temp: 135°C

Stock ppm: _____
 Date Std'n: _____
 10 ppm Spike Solution: _____
 Date made: _____
 mL used: _____
 Pipette ID: _____

Start: 10:20
 Stop: 11:50

spk/wt (mg):

2

Still #	QC type	Order #	Dist. Vol.	Final Vol.	Method	pH	H2S +/-	Comments
1		R0905639-004	50	50	9012	12	-	
2		R0905639-005	50	50	9012	12	-	
3		R0905639-006	50	50	9012	12	-	
4		R0905678-005	50	50	9012	12	-	
5		R0905635-001	50	50	9012	12	-	
6		R0905192-001	50	50	9012	12	-	
7		R0905192-003	50	50	9012	12	-	
8	Prep Blk		1.0	50	335.4/9012	NA	-	
9	LCS-LL		1.0	50	335.4/9012	NA	-	+ 0.5 ml 10 ppm
10	LCS-HL		1.0	50	335.4/9012	NA	-	+ 2.0 ml 10 ppm
11		R0905678-001	1.04	50	9012	NA	-	
12		R0905678-002	1.00	50	9012	NA	-	
13		R0905678-003	1.31	50	9012	NA	-	
14		5678-003 DUP	1.02	50	9012	NA	-	
15		5678-003 SPK	1.19	50	9012	NA	-	+ 0.5 ml 10 ppm
16		R0905678-004	1.12	50	9012	NA	-	
17		R0905567-018	1.04	50	9012	NA	-	
18		R0905567-019	1.03	50	9012	NA	-	
19		R0905567-020	1.04	50	9012	NA	-	
20		R0905567-021	1.16	50	9012	NA	-	

Midi-Cyanide Distillation Sheet

Stock ppm: 1016.370

Analyst: H. V. Lopez

Date Std'n: 7/10/09

Date: 10/12/09

10 ppm Spike Solution:

Start: 8:00
Stop: 9:30

Chiller Temp: 6°C

Date made: 10/12/09

Midi Block #1 Temp: 140°C

mL used: 0.9839

Midi Block #2 Temp: 135°C

Pipette ID: 01 Blue

Spk. witness:

1

Still #	QC type	Order #	Dist. Vol.	Final Vol.	Method	pH	H2S +/-	Comments
1	Prep Blk		50	50	335.4/9012	NA	-	
2	LCS-LL		50	50	335.4/9012	NA	-	+ 0.5 ml 10 ppm
3	LCS-HL		50	50	335.4/9012	NA	-	+ 2.0 ml 10 ppm
4		R0905745-001	50	50	335.4	12	-	
5		5745-001 DUP	50	50	335.4	12	-	
6		5745-001 SPK	50	50	335.4	12	-	+ 0.5 ml 10 ppm
7		R0905670-001	50	50	335.4	12	-	
8		R0905764-002	50	50	335.4	12	-	
9		R0905784-001	50	50	335.4	12	-	
10		R0905636-001	50	50	9012	12	-	
11		R0905636-002	50	50	9012	12	-	
12		R0905636-003	50	50	9012	12	-	
13		R0905636-006	50	50	9012	12	-	
14		R0905723-028	50	50	9012	8	-	
15		R0905723-029	50	50	9012	12	-	
16		R0905639-001	50	50	9012	9	-	
17		R0905639-003	50	50	9012	12	-	
18		R0905639-002	50	50	9012	12	-	
19		5639-002 MS	50	50	9012	12	-	+ 0.5ml 10ppm
20		5639-002 MSD	50	50	9012	12	-	+ 0.5ml 10ppm

Midi-Cyanide Distillation Sheet

Stock ppm: _____

Analyst: GN MFA

Date Std'n: _____

Date: 10/06/09

10 ppm Spike Solution: _____

Chiller Temp: 110C

Date made: _____

Midi Block #1 Temp: 140°C

mL used: _____

Midi Block #2 Temp: 135°C

Pipette ID: _____

spk witness: GNM

2

Still #	QC type	Order #	Dist. Vol.	Final Vol.	Method	pH	H2S +/-	Comments
1		R0905539-012	1.17	50	9012	N/A	—	
2		R0905539-013	1.12	50	9012	N/A	—	
3		R0905539-014	1.20	50	9012	N/A	—	
4		R0905539-015	1.16	50	9012	N/A	—	
5		R0905539-016	1.22	50	9012	N/A	—	
6		R0905539-017	1.08	50	9012	N/A	—	
7		R0905539-018	1.29	50	9012	N/A	—	
8	Prep Blk		1.00	50	9012	N/A	N/A	
9	LCS-LL		1.00	50	9012	N/A	N/A	+ 0.5 ml 10 ppm
10	LCS-HL		1.00	50	9012	N/A	N/A	+ 2.0 ml 10 ppm
11		R0905539-019	1.24	50	9012	N/A	—	
12		5539-019 DUP	1.04	50	9012	N/A	—	
13		5539-019 SPK	1.06	50	9012	N/A	—	+ 0.5 ml 10 ppm
14		R0905539-020	1.08	50	9012	N/A	—	
15		R0905539-021	1.03	50	9012	N/A	—	
16		R0905539-022	1.05	50	9012	N/A	—	
17		R0905567-002	1.08	50	9012	N/A	—	
18		R0905567-003	1.17	50	9012	N/A	—	
19		R0905567-004	1.14	50	9012	N/A	—	
20		R0905567-005	1.09	50	9012	N/A	—	

Midi-Cyanide Distillation Sheet

Analyst: GN ITA

Date: 10/06/09

Chiller Temp: 10°C

Midi Block #1 Temp: 14°C

Midi Block #2 Temp: 13°C

Stock ppm: _____

Date Std'n: _____

10 ppm Spike Solution: _____

Date made: _____

mL used: _____

Pipette ID: _____

3

Still #	QC type	Order #	Dist. Vol.	Final Vol.	Method	pH	H2S +/-	Comments
1		R0905567-010	1.15	50	9012	N/A	—	
2		5567-010 DUP	1.15	50	9012	N/A	—	
3		5567-010 SPK	1.22	50	9012	N/A	—	+ 0.5 ml 10 ppm ✓
4		R0905567-006	1.08	50	9012	N/A	—	
5		R0905567-007	1.24	50	9012	N/A	—	
6		R0905567-008	1.17	50	9012	N/A	—	
7		R0905567-009	1.14	50	9012	N/A	—	
8		R0905567-011	1.10	50	9012	N/A	—	
9		R0905567-012	1.12	50	9012	N/A	—	
10		R0905567-013	1.35	50	9012	N/A	—	
11		R0905567-014	1.10	50	9012	N/A	—	
12		R0905567-015	1.38	50	9012	N/A	—	
13				50	9012			
14				50	9012			
15		GN 10/06/09		50	9012			
16				50	9012			
17				50	9012			
18				50	9012			
19				50	9012			
20				50	9012			+ 0.5 ml 10 ppm

Columbia Analytical Services
 Rochester, NY 14607
 Analyst: H Lovejoy
 Pipette: OI Bive

Date : 10/13/2009

Time : 13:45

Test Unit	TCN mg/L				
Sample ID:	Resp.	Result	Man.dilut	Dilut	Date and Time
1 ICV-TCN	0.500	0.50797			10/13/2009 11:03
2 ICB-TCN	0.007	-0.00110			10/13/2009 11:03
3 CCV-TCN	0.508	0.51603			10/13/2009 11:35
4 CCB-TCN	0.008	-0.00071			10/13/2009 11:35
PB 1	0.008	-0.00072			10/13/2009 11:35
LCS-LL 1	0.111	0.10648			10/13/2009 11:35
LCS-HL 1	0.426	0.43146			10/13/2009 11:35
R0905745-001	0.009	0.00117			10/13/2009 11:35
5745-001 DUP	0.030	0.02261			10/13/2009 11:35
5745-001 SPK	0.160	0.15696			10/13/2009 11:35
R0905670-001	0.008	-0.00032			10/13/2009 11:35
R0905764-002	0.008	-0.00050			10/13/2009 11:35
R0905784-001	0.007	-0.00079			10/13/2009 11:35
R0905636-001	0.008	-0.00053			10/13/2009 11:42
3 CCV-TCN	0.512	0.52061			10/13/2009 11:42
4 CCB-TCN	0.007	-0.00121			10/13/2009 11:42
R0905636-002	-0.400	-0.42209			10/13/2009 11:42
R0905636-003	-0.707	-0.73935			10/13/2009 11:42
R0905636-006	0.008	0.00010			10/13/2009 11:42
R0905723-028	0.729	0.74444			10/13/2009 11:42
R0905723-029	0.009	0.00051			10/13/2009 11:42
R0905639-001	0.063	0.05616			10/13/2009 11:42
R0905639-003	0.025	0.01741			10/13/2009 11:42
R0905639-002	0.109	0.10386			10/13/2009 11:42
5639-002 MS	0.204	0.20268			10/13/2009 11:50
5639-002 MSD	0.203	0.20166			10/13/2009 11:50
3 CCV-TCN	0.479	0.48624			10/13/2009 11:50
4 CCB-TCN	0.016	0.00753			10/13/2009 11:50
R0905639-004	0.032	0.02497			10/13/2009 11:50
R0905639-005	0.246	0.24558			10/13/2009 11:50
R0905639-006	0.079	0.07357			10/13/2009 11:50
R0905678-005	0.008	-0.00036			10/13/2009 11:50
R0905635-001	0.061	0.05480			10/13/2009 11:50
R0905192-001	0.008	-0.00045			10/13/2009 11:50
R0905192-003	0.006	-0.00218			10/13/2009 11:50
PB 2	0.008	-0.00056			10/13/2009 11:57
LCS-LL 2	0.114	0.10977			10/13/2009 11:57
LCS-HL 2	0.417	0.42266			10/13/2009 11:57
3 CCV-TCN	0.523	0.53166			10/13/2009 11:57
4 CCB-TCN	0.007	-0.00084			10/13/2009 11:57
R0905678-001	0.007	-0.00097			10/13/2009 11:57
R0905678-002	0.008	-0.00050			10/13/2009 11:57
R0905678-003	0.008	-0.00012			10/13/2009 11:57
5678-003 DUP	0.008	-0.00028			10/13/2009 11:57
5678-003 SPK	0.144	0.14006			10/13/2009 11:57
R0905678-004	0.008	0.00002			10/13/2009 11:58
R0905567-018	0.008	-0.00043			10/13/2009 12:05
R0905567-019	0.010	0.00156			10/13/2009 12:05
R0905567-020	-0.006	-0.01471			10/13/2009 12:05
R0905567-021	0.008	-0.00041			10/13/2009 12:05

} dup did not confirm. all repeated

} unknown sp. repeated for confirmation

Columbia Analytical Services
 Rochester, NY 14607
 Analyst: HLWeyen
 Pipette: 0.1 mL

Date : 10/13/2009

Time : 13:45

Test Unit	TCN mg/L			
Sample ID:	Resp.	Result	Man.dilut Dilut	Date and Time
3 CCV-TCN	0.538	0.54702		10/13/2009 12:05
4 CCB-TCN	0.018	0.00981		10/13/2009 12:05
PB 3	0.008	-0.00055		10/13/2009 12:05
LCS-LL 3	0.109	0.10403		10/13/2009 12:05
LCS-HL 3	0.384	0.38797		10/13/2009 12:05
R0905567-022	0.008	-0.00002		10/13/2009 12:05
5567-022 DUP	0.009	0.00037		10/13/2009 12:05
5567-022 SPK	0.108	0.10320		10/13/2009 12:12
R0905778-001	0.008	-0.00043		10/13/2009 12:12
R0905778-002	0.009	0.00060		10/13/2009 12:13
R0905778-003	0.008	-0.00025		10/13/2009 12:13
R0905778-004	0.008	-0.00000		10/13/2009 12:13
3 CCV-TCN	0.510	0.51897		10/13/2009 12:13
4 CCB-TCN	0.008	-0.00054		10/13/2009 12:13
R0905778-005	0.008	-0.00027		10/13/2009 12:13
R0905635-008	0.008	-0.00041		10/13/2009 12:13
R0905635-002	0.008	-0.00039		10/13/2009 12:13
R0905635-003	0.008	0.00013		10/13/2009 12:13
R0905745-001	0.009	0.00064		10/13/2009 12:20
5745-001 DUP	0.008	-0.00031		10/13/2009 12:20
5745-001 SPK	0.110	0.10481		10/13/2009 12:20
R0905635-004	0.008	-0.00070		10/13/2009 12:20
R0905635-005	0.008	-0.00048		10/13/2009 12:20
R0905635-007	0.007	-0.00077		10/13/2009 12:20
3 CCV-TCN	0.498	0.50579		10/13/2009 12:20
4 CCB-TCN	0.007	-0.00168		10/13/2009 12:20
R0905635-006	0.008	-0.00074		10/13/2009 12:20
5635-006 DUP	0.008	-0.00012		10/13/2009 12:20
5635-006 SPK	0.106	0.10150		10/13/2009 12:20
R0905636-002	-0.592	-0.62070	} confirmation only. repeated at dilution	10/13/2009 12:23
R0905636-003	-0.841	-0.87789		10/13/2009 12:23
3 CCV-TCN	0.509	0.51743		10/13/2009 12:26
4 CCB-TCN	0.008	0.00024		10/13/2009 12:26
3 CCV-TCN	0.485	0.49253		10/13/2009 13:12
4 CCB-TCN	0.007	-0.00087		10/13/2009 13:12
5636-002 1/5	0.008	-0.00056 x5 = -0.0028		10/13/2009 13:12
5636-003 1/5	0.008	-0.00043 x5 = -0.00215		10/13/2009 13:12
PB 10/6 2	0.007	-0.00087		10/13/2009 13:13
LCS-LL 10/6 2	0.102	0.09702		10/13/2009 13:13
LCS-HL 10/6 2	0.371	0.37483		10/13/2009 13:13
R0905567-014	0.008	-0.00056		10/13/2009 13:13
5567-014 REP	0.008	-0.00076	repeated for confirmation only.	10/13/2009 13:13
3 CCV-TCN	0.518	0.52657		10/13/2009 13:16
4 CCB-TCN	0.007	-0.00092		10/13/2009 13:16

Columbia Analytical Services
 Rochester, NY 14607
 Analyst: A. Lovejoy
 Pipette: 0.5 mL

10/13/2009 11:09

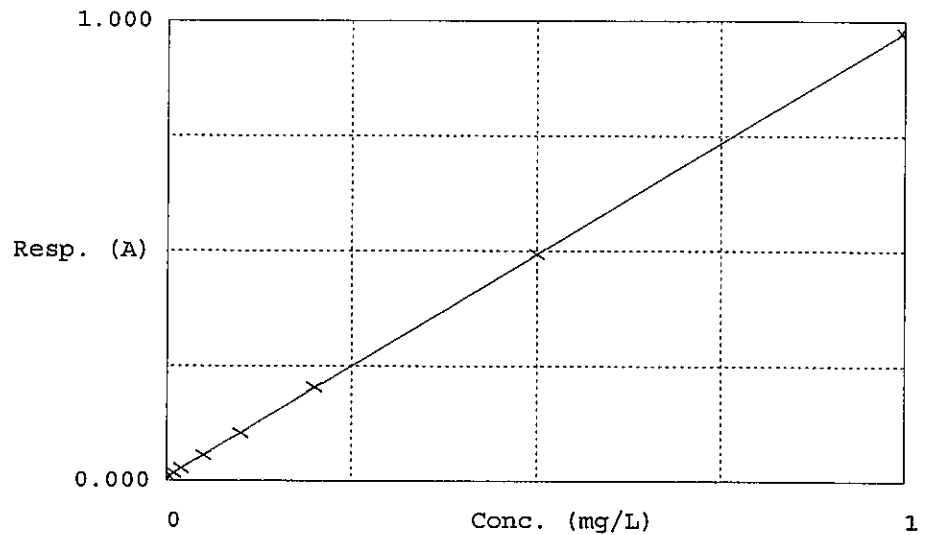
Test TCN

Accepted 10/13/2009 11:09

Factor 1.03343
 Bias 0.00824

Coeff. of det. 0.999986

Errors



	Calibrator	Response	Calc. con.	Conc.	Errors
1	CN- 0	0.00789	-0.00036	0.00000	
2	CN- 0.01	0.01717	0.00923	0.01000	
3	CN- 0.02	0.02743	0.01984	0.02000	
4	CN- 0.05	0.05609	0.04945	0.05000	
5	CN- 0.10	0.10404	0.09900	0.10000	
6	CN- 0.20	0.20471	0.20304	0.20000	
7	CN- 0.5	0.49261	0.50057	0.50000	
8	CN- 1.0	0.97516	0.99925	1.00000	
9	1 ICV-TCN(contr	0.49978	0.50797	0.50000	
10	2 ICB-TCN(contr	0.00718	-0.00110	0.00000	

Analyst: H Lovejoy

Distillation Date: 10/12/09

Analysis: Total Cyanide Instrument: AquaKem 200

Analyzer Date: 10/13/09

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	0.9839	1016.371	100	10.0
b) I/CCV (Ref.) Prep.:	WC92067D, 8/20/09	0.5	10	10	0.500
10 ppm Working Stock:	WC85134C, 4/3/08	0.98	1020.365	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	50	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 7/10/09, WC92037C, standardized 7/10/09, WC91033A
1000 mg/L TCN Ref. Stock prepared 7/10/09, WC92037D, standardized 7/10/09, WC91033B

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 WCC85271B diluted to 2L with DI

Reagents, Distillation:	Log Book #	Comments
Sulfamic Acid	<u>WC92089E</u>	
Sulfuric Acid, 1:1	<u>WC92089F</u>	
Magnesium Chloride	<u>WC92093C</u>	
Calcium Hypochlorite	NA	
Ascorbic Acid	NA	
Acetate Buffer	NA	
Zinc Acetate	NA	
Acetic Acid	NA	
Cadmium Carbonate	NA	
Anti-foam	NA	

Reagents, Autoanalyzer:	
Buffer	
Pyridine Barbituric Acid	

Chloramine-T, fresh daily: 2.00 g Chloramine-T WC76197G diluted to 200 mL with DI

Comments: _____

4/3/08

(A) 0.25N NaOH

26.14 mls conc. NaOH (WC85011C) → Liter w/ DI.
Fresh per run.

(B) 10ppm TCN Std. Stock

1.022 mls of the 978.432 ppm TCN Std. Stock (WC85007E)
→ 100 mls w/ 0.25N NaOH (WC85134A)

(C) 10ppm TCN Ref. Stock

1.022 mls of the 998.4 ppm TCN Ref. Stock (WC85007F)
→ 100 mls w/ 0.25N NaOH (WC85134A)

(D) TCN Calibration Stds. Fresh per run

CONC.	mls 10ppm TCN Std. Stock (WC85134B)	mls 0.25N 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) ICN / CCV TV=0.70 Fresh per run

0.70 mls 10ppm TCN Ref. Stock (WC85134C) + 9.30 mls
0.25N NaOH (WC85134A)

4/3/08
NM

(F) NH₃ Carrier / Diluent

-same as WC85073F. Prepared solution X 3.

(G) Hypochlorite - NH₃

-same as WC85109F. Prepare fresh each run.

4/3/08
Q2

(F) Iodate - Iodate Titrant - Sulfate

0.4458g KIO₃ (WC85067E) + 4.25g KI (WC76272E) + 0.310g NaHCO₃ (WC70115E)
dissolved in DI in 1L volumetric flask and brought to volume. Store at 4°C exp 4/3/09

(G) Ascorbic Acid - Kinetal

Same as WC85113C Store at 4°C exp 2 weeks 4/17/08

4/3/08
NB

Revised
(A) (8) x
CPI
(B) (4) x
CPI

Revised
(C) (1) x
Erim
431.
E.g.p.

4/4/08
Nm

(D) Post-T
TO a 2-
(WC85133
Pour off 1.
w/UPDI.

(E) Hypochlo
-same as

4/4/08
Nm

(F) Color R
TO a -
-75.0g :
-0.50g :
-454g U
Stir until

(G) Buffer - T
-same as L

4/8/08
Nm

(H) Post-Dic
-same as S

(I) Hypochlo
-same as

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 10 ppm 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 10 ppm 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 10 ppm
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 10 ppm 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 10 ppm Standard working
stock (WC69160B). TV = 5.0 ppm

Ⓕ TCN 10 ppm 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

Ⓐ TCN AF

Conc. (mg)

- 0.500
- 0.400
- 0.300
- 0.200
- 0.100
- 0.050
- 0.020
- 0.010
- 0.000

Ⓑ CCV/I

• Add 0.3
to 9.7 mL
10 sample

8/3/04

CB

Ⓒ TDS Refe

0.9120g N
DI H₂O LV.
bottle @:

8/3/04

GN

Ⓓ Post -

Same

8/3/04

cmw

Ⓔ 10% P

Same

8/3/04

cmw

Ⓕ Phenols

Same

8/3/04

JJT

Ⓖ Rec'd. Exp

- Sam

8/4/04

DK

Ⓕ Total S

400.00
DI +
glass

TITLE PROJECT

Continued from page

7/10/09 (A) 0.02500N Iodine
in a 1L vol flask dissolve 20.25g KI (WC85285J) in ~500ml DI. Add 3.2g Iodine (WC85262G) and bring to volume with DI. Stir until dissolved. Store in amber glass at 4°C. Exp 7/11/10. Standardized with each run.

7/10/09 (B) Ascorbic Acid - TPO4
EN - Same as WC92004A. Exp 1WK 7/17/09

7/10/09 (C) 1000ppm TCN Stock #1: Standard Stock
BB To a tared 500ml volumetric flask, add:
1.26g KEN (WC76005C)
1.00g KOH (WC76005D)
~400ml DI
Dissolve and bring to volume w/DI. Standardize, and store @ 4°C in amber glass. Expires 7/10/10.

(D) 1000ppm TCN Stock #2: Reference Stock
To a tared 500ml volumetric flask, add:
1.26g KEN (WC76007B)
1.00g KOH (WC76005D)
~400ml DI
Dissolve and bring to volume w/DI. Standardize, and store @ 4°C in amber glass. Expires 7/10/10.

(E) 0.0192N AgNO3
To a 500ml volumetric flask, add ~460ml DI and 1.6324g AgNO3 (WC85285D) which has been dried @ 104°C for 1 hour and stored in a desiccator. Mix to dissolve, then bring to volume w/DI. Use to standardize TCN stocks. Prepare fresh each use.

7/10/09 (F) TSS Reference
0.2150g Kaolin (WC69285G) brought to 1000g w/DI. Store in Plastic bottle @ 4°C.
TV = 215 mg/L Exp: 6/2/10 (10877) Continued to page

SIGNATURE

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

PROPRIETARY INFORMATION

7/10/07 TCN Stock Standardization

B5 (A) Std'n of 1000 ppm Stock #1 (WC92037C)

Trial #	mLs Stock #1 (WC92037E)	mLs 0.0192N $AgNO_3$	- BIK
BIK	0.0	0.03	-
1	5.0	5.13	5.10
2	5.0	5.11	5.08
3	5.0	5.12	<u>5.09</u>

$$\bar{x} = 5.09 \text{ mLs}$$

$$\text{mg/L } CN^- = \frac{(5.09 \text{ mL})(0.0192 \text{ N})(52)(1000)}{5.0 \text{ mL Stock \#1}} = 1016.3712$$

$$\text{Dil'n Factor} = \frac{1000}{1016.3712} = 0.9839 \text{ mL} \rightarrow 100 \text{ mL for } 10 \text{ ppm}$$

(B) Std'n of 1000 ppm Stock #2 (WC92037D)

Trial #	mLs Stock #2 (WC92037E)	mLs 0.0192N $AgNO_3$	- BIK
BIK	0.0	0.03	-
1	5.0	5.14	5.11
2	5.0	5.14	5.11
3	5.0	5.14	<u>5.11</u>

$$\bar{x} = 5.11 \text{ mLs}$$

$$\text{mg/L } CN^- = \frac{(5.11 \text{ mL})(0.0192 \text{ N})(52)(1000)}{5.0 \text{ mL Stock \#2}} = 1020.3648$$

$$\text{Dil'n Factor} = \frac{1000}{1020.3648} = 0.9800 \text{ mL} \rightarrow 100 \text{ mL for } 10 \text{ ppm}$$

Continued from page

8/20/09 (A) TDS Reference
 EW 0.9153g NaCl (WC85215H) diluted volumetrically
 to 1 liter w/ DI. Store in plastic bottle @ 4°C
 TV = 915 mg/L Exp: 8/20/10 (11634)

8/20/09 (B) Color Reagent - TKN
 NM - same as WC92059G. Exp. 1 month, 9/20/09.

(C) NH3 Carrier/Diluent
 TO a 2 liter plastic bottle add:
 - 998g UPDI
 - 3.68g conc. instra-analyzed H2SO4 (WC92064B)
 Prepared solution x4.

8/20/09 As of 8/18/09 for kenelab.

(D) ICV/CCV TKN TV = 0.50
 0.50 mlb 18ppm TKN Ref Stock (WC85134C) + 9.50 mlb 0.25N NaOH (WC85134H)
 from 8/20/09

(E) ICV/CCV NH4-N TV = 0.45
 0.25 mlb 1.80ppm NH4 Ref Stock (WC85130G) + 9.75 mlb UPDI

(E) ICV/CCV NH4 TV = 0.36
 0.25 mlb 18.0ppm NH4 Ref Stock (WC85130F) + 9.75 mlb UPDI
 0.20 ml 9.80

(E) ICV/CCV NO2 TV = 0.45
 0.25 mlb 18.0ppm NO2 Ref Stock (1/10 dil of WC85135B) + 9.75 mlb UPDI
 WC72007G, 8/20/09

(H) ICV/CCV Cr⁶⁺ TV = 0.25
 0.25 mlb 10ppm Cr⁶⁺ Ref Stock (WC85129G) + 9.75 mlb UPDI

(I) ICV/CCV NH3 TV = 0.90
 0.30 mlb 18ppm NH3 Reference Stock (1/10 dil of WC85257G) + 9.50 mlb diluent (WC92045D)

8/20/09 (J) ICV/CCV TKN'S (TV=4.00)
 N Mead 9.9mls PDMM + 0.1mls 400ppm Reference working stock
 (WC9420C)

SIGNATURE

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

PROPRIETARY INFORMATION


v

Analytical Results Summary

Instrument Name: R-Discrete-01 Analyst: HLOVEIOY Analysis Lot: 173313 Method/Testcode: 353.2/NO2

Lab Code	Target Analytes	QC Type	Parent Sample	Matrix	Raw Result	Sample Amt	Final Result	Dil	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ0909501-01	Nitrite as Nitrogen	MB		Water	0.00 mg/L	10 mL	0.010 mg/L U	1	0.010			10/3/09 15:30:43	N	IV
RQ0909501-02	Nitrite as Nitrogen	LCS		Water	0.25 mg/L	10 mL	0.247 mg/L	1	0.010	99		10/3/09 15:30:44	N	IV
R0905636-002	Nitrite as Nitrogen	N/A		Water	0.02 mg/L	10 mL	0.022 mg/L	1	0.010			10/3/09 15:33:09	N	IV
RQ0909501-03	Nitrite as Nitrogen	DUP	R0905636-002	Water	0.02 mg/L	10 mL	0.023 mg/L	1	0.010		1	10/3/09 15:33:10	N	IV
RQ0909501-04	Nitrite as Nitrogen	MS	R0905636-002	Water	0.28 mg/L	10 mL	0.280 mg/L	1	0.010	103		10/3/09 15:33:11	N	IV
R0905636-003	Nitrite as Nitrogen	N/A		Water	0.02 mg/L	10 mL	0.021 mg/L	1	0.010			10/3/09 15:35:36	N	IV
R0905636-001	Nitrite as Nitrogen	N/A		Water	0.00 mg/L	10 mL	0.010 mg/L U	1	0.010			10/3/09 15:35:37	N	IV
R0905635-001	Nitrite as Nitrogen	N/A		Water	0.00 mg/L	10 mL	0.010 mg/L U	1	0.010			10/3/09 15:35:38	N	IV

2-Copies
R 5635
R 5636

Reviewed & Approved
By: 
Date: 10/6/09

01217

Columbia Analytical Services
 Rochester, NY 14607
 Analyst: H Lovgren
 Pipette: 01 Blue

Date : 10/3/2009
 Time : 15:41

 Test NO2 353.2
 Unit mg/L

Sample ID:	Resp.	Result	Man.dilut	Dilut	Date and Time
1 ICV-NO2	0.385	_____			-
2 ICB-NO2	0.014	_____			-
1 ICV-NO2	0.380	_____			-
2 ICB-NO2	0.013	_____			-
1 ICV-NO2	0.295	0.4366			10/3/2009 15:14
2 ICB-NO2	0.006	0.0032			10/3/2009 15:16
3 CCV-NO2	0.294	0.4355			10/3/2009 15:30
4 CCB-NO2	0.006	0.0034			10/3/2009 15:30
LCS NO2	0.169	0.2469			10/3/2009 15:30
1636-002 M-76B	0.019	0.0223			10/3/2009 15:33
-002 M-76B DUP	0.019	0.0226			10/3/2009 15:33
-002 M-76B SPK	0.191	0.2803			10/3/2009 15:33
-003 M-76009B	0.018	0.0215			10/3/2009 15:35
-001 PB100209-A2	0.005	0.0023			10/3/2009 15:35
1635-001 EB100209-S01A4	0.006	0.0038			10/3/2009 15:35
3 CCV-NO2	0.301	0.4459			10/3/2009 15:37
4 CCB-NO2	0.006	0.0036			10/3/2009 15:37

Columbia Analytical Services
 Rochester, NY 14607
 Analyst: Hlevay
 Pipette: 0.1 Ave

10/3/2009 15:16

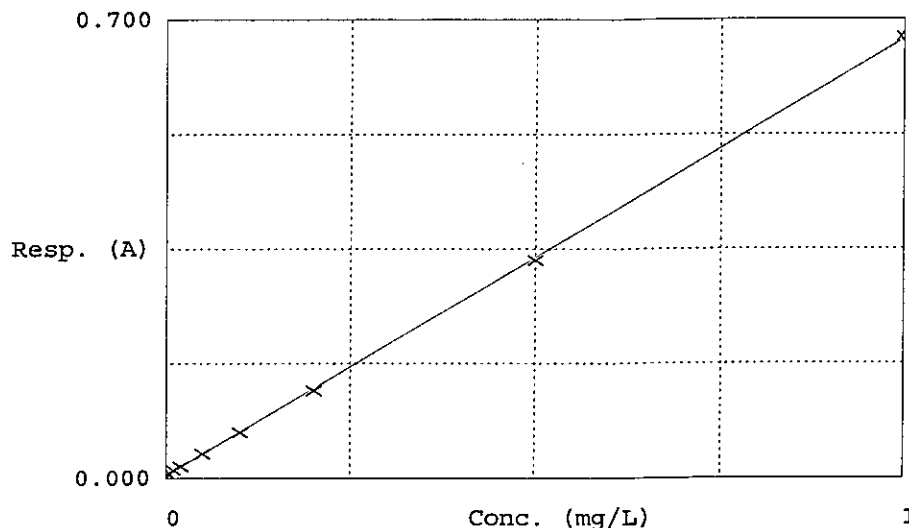
Test NO2 353.2

Accepted 10/3/2009 15:16

Factor 1.50001
 Bias 0.00391

Coeff. of det. 0.999854

Errors



	Calibrator	Response	Calc. con.	Conc.	Errors
1	NO2- 0.0	0.00644	0.00380	0.00000	
2	NO2- 0.01	0.01296	0.01358	0.01000	
3	NO2- 0.02	0.01825	0.02152	0.02000	
4	NO2- 0.05	0.03732	0.05012	0.05000	
5	NO2- 0.10	0.06957	0.09849	0.10000	
6	NO2- 0.20	0.13374	0.19475	0.20000	
7	NO2- 0.5	0.33271	0.49322	0.50000	
8	NO2- 1.00	0.67358	1.00452	1.00000	
9	1 ICV-NO2 (contr	0.29498	0.43662	0.45000	
10	2 ICB-NO2 (contr	0.00607	0.00324	0.00000	

Columbia Analytical Services
 1 Mustard St., Rochester NY 14609

General Chemistry Analytical Run Cover Sheet

Analyst: H. Lovejoy

Date: 10/2/09

Analysis: Nitrite

Instrument: Aquakem

Quality Control:

	Same as Log#, Date,	Stocks Prep. Log#, Date,	Stock Sol (mLs)	Stock Sol (mg/L)	Final Vol (mLs)	True Value (mg/L)
a) Standards Prep.:	WC65144E, 3/5/03	WC72002F, 1/26/09				
b) ICV Preparation:	WC92067G, 8/20/09	WC72007G, 1/26/09	0.25	18	10	0.45
c) LCS Preparation:	WC65144G, 3/5/03	WC72002F, 1/26/09	0.25	10	10	0.25
d) Matrix Spike Prep.:	WC65144G, 3/5/03	WC72002F, 1/26/09	0.25	10	10	0.25

Instrument log filled in? (Y) (N)

Packages: Copy and attach Standards Preparation

Comments:

Production:

	Start Time	End Time	Total (minutes)
Preparation Time :			
Analytical Time:			
Finish Time:			

of Samples (including Mtx QC): _____
 Repeats due to Sample: _____
 Repeats due to Error: _____

REFERENCE (ICV / CCV) STOCK PREP
(Fluoride and Bromide are purchased 1000ppm standards)

Reviewed & Approved

By: *CK SJ / CK JB*

Date: *10/16/06 5/16/07 / 9/10/07 7/16/08*

5/16/08

Chloride 650ppm Stock: 1.070g 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 Reference Stock ID
A					
B					
C					
D					
E					

Nitrite 180ppm Stock: 1.09g 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 Reference Stock ID
F	<i>WC76097D</i>	<i>NM</i>	<i>1/31/08</i>	<i>1/31/09</i>	<i>WC72007F (3902)</i>
G	<i>WC25094D</i>	<i>CK</i>	<i>1/26/09</i>	<i>1/26/10</i>	<i>WC72007G (7740)</i>
H					
I					
J					

Nitrate 180ppm Stock: 1.30g 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.

CK 10/5/04

ID Letter	KNO3 Source	Chloroform Source ID	Analyst	Date Prepared	Date Expires	Final NO3 Reference Stock ID
K	<i>WC76115G</i>	<i>WC76170J</i>	<i>FN</i>	<i>10/5/06</i>	<i>4/5/07</i>	<i>WC72007K</i>
L	<i>WC76115G</i>	<i>WC76234A</i>	<i>FN</i>	<i>3/26/07</i>	<i>9/26/07</i>	<i>WC72007L</i>
M	<i>WC76115G</i>	<i>WC76234A</i>	<i>NM</i>	<i>9/21/07</i>	<i>3/21/08</i>	<i>WC72007M</i>
N	<i>WC76115G</i>	<i>WC76234A</i>	<i>CK</i>	<i>3/25/08</i>	<i>9/25/08</i>	<i>WC72007N</i>
O						

OPO4 180ppm Stock: 0.790g granular 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 Reference Stock ID
P	<i>WC 65 196E</i>	<i>TC</i>	<i>2/23/07</i>	<i>11/3/07</i>	<i>WC72007P</i>
Q	<i>WC085054G</i>	<i>AB</i>	<i>11/30/07</i>	<i>11/30/08</i>	<i>WC72007Q</i>
R	<i>WC 85085E</i>	<i>RP</i>	<i>2/14/08</i>	<i>2/14/09</i>	<i>WC72007R</i>
S	<i>WC25054G</i>	<i>CK</i>	<i>1/26/09</i>	<i>1/26/10</i>	<i>WC72007S (7738)</i>
T					

Sulfate 3200ppm Stock: 5.80g K2SO4 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	K2SO4 Source	Analyst	Date Prepared	Date Expires	Final SO4 Reference Stock ID
U					
V					
W					
X					
Y					

STANDARD STOCK PREP

(Fluoride and Bromide are purchased 1000ppm standards)

Reviewed & Approved

By: CK SD / CK SD 1/7/08Date: 10/16/06 5/1/07 / 9/10/07

5/1/2008

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	WL 76259E	CK	1/26/09	1/26/10	WC72002A CK 1/26/09
B					
C					
D					
E					

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	KNO ₂ Source	Analyst	Date Prepared	Date Expires	Final NO ₂ 1000ppm Stock ID
F	WC76097D	CK	1/26/09	1/26/10	WC72002F (7741)
G					
H					
I					
J					

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.

CK 10/16/06

ID Letter	KNO ₃ Source	Chloroform Source ID	Analyst	Date Prepared	Date Expires	Final NO ₃ 1000ppm Stock ID
K	WC76114C	WC76170J	FN	10/5/06	4/5/07	WC72002K
L	WC76114C	WC76234A	FN	3/26/07	9/26/07	WC72002L
M	WC76114C	WC76234A	NYM	9/21/07	3/21/08	WC72002M
N	WC76114C	WC76234A	CKLV	3/25/08	7/25/08	WC72002N
O						

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	KH ₂ PO ₄ Source	Analyst	Date Prepared	Date Expires	Final OPO ₄ /TPO ₄ 1000ppm Stock ID
P	WC65085E	CK	1/26/09	1/26/10	WC72002P (7742)
Q					
R					
S					
T					

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	Na ₂ SO ₄ Source	Analyst	Date Prepared	Date Expires	Final SO ₄ 1000ppm Stock ID
U					
V					
W					
X					
Y					

3/5/03 NM (A) 4-AAP - Phends
 -same as WCL65126H. Prepare fresh each run.

3/5/03 DMG (B) NH₄OH Buffer (TOTN + NO₂)
 To a tared 1L amber jar add:
 • 778.5 g DI
 • 113.4 g HCl (WCL65093I, EIM Lot # 42167)
 • 76.5g NH₄OH (WCL55209B, EIM Lot # 228141705, 033)
 • 0.90g EDTA (WCL65079D, EIM Lot # 42081224)
 Stir until dissolved. Cool. Adjust pH to 8.5 w/conc. HCl or NaOH. Store @ RT. Exp. 1 year, 3/5/04.

(C) Sulfanilamide Color Reagent (TOTN) + (NO₂)
 To a tared 1L amber jar add:
 • 788g DI
 • 153g H₃PO₄ (WCL65027F, EIM Lot # 40341226)
 • 0.90g NED (WCL55231B, Baker Lot # T03600)
 • 36g Sulfanilamide (WCL6497C, Baker Lot # 409438)
 Stir until dissolved. Store @ RT. Exp. 1 month, 4/5/03

3/5/03 DMG Nitrite (NO₂) (Lachat: PQL = 0.010 mg/L):

(D) 10 ppm Working Stock: do (2) two 1/10 serial dilutions of 1000 ppm STD Stock (WCL65135A)

(E) Standards

STD.	Conc (mg/L)	mls 10ppm (WCL65144D)	mls DI
A	1.000	1.00	9.00
B	0.5000	0.50	9.50
C	0.200	0.20	9.80
D	0.100	1/10 dil'n of STD A.) 1.000	
E	0.050	1/10 dil'n of STD B.) 0.500	
F	0.020	1/10 dil'n of STD C.) 0.200	
G	0.010	1/10 dil'n of STD D.) 0.100	
H	0.000	10 mls DI	

Reviewed & Approved

By: [Signature]
 Date: 6/30/03

(F) ICV/CCV (TV = 0.900 mg/L)

Add 0.50 mls 18.0 ppm Reference Stock (1) one 1/10 dilution of 180 ppm Reference Stock (WCL65135B) to 9.5 mls DI.

(G) LES/Matrix Spike: (TV = 0.250 mg/L)

Add 0.25 mls 10 ppm working stock (WCL65144D) to 10 mls DI or Sample.

3/5/03 DMG (A) Nitrate
 10 ppm dilutions & make fr

(B) Standards

Std	Conc
A	2
B	1.0
C	0.5
D	0.2
E	0.10
F	0.05
G	0.02
H	0.01
I	0.00

(C) Reference
 make to NO₃ Ref

(D) LES/MI
 Add 0.0 dilution to 10 m

(E) Column
 1.00 ppm
 1.00 ppm

TITLE

PROJECT

Continued from page

8/20/09 (A) TDS Reference
 EW 0.9153g NaCl (WC85215H) diluted volumetrically
 to 1 liter DI. Store in plastic bottle @ 4°C.
 TV = 915 mg/L Exp: 8/20/10 (11634)

8/20/09 (B) Color Reagent - TKN
 NM - same as WC92059G. Exp. month, 9/20/09.

(C) NH3 Carrier/Diluent
 TO a 2 liter plastic bottle add:
 - 998g UPDI
 - 3.68g conc. instra-analyzed H2SO4 (WC92064B)
 Prepared solution x4.

8/20/09 As of 8/18/09 for kernelab.

(D) ICV/CCV TKN TV = 0.50
 0.50 ml 10ppm TKN Ref Stock (WC5134C) + 9.50 ml 0.25N NCH (WC5134I)

(E) ICV/CCV Cr⁶⁺ TV = 0.45
 0.25 ml 18.0ppm Cr⁶⁺ Ref Stock (WC5130G) + 9.75 ml UPDI

(F) ICV/CCV Cr⁶⁺ TV = 0.36
 0.25 ml 18.0ppm Cr⁶⁺ Ref Stock (WC5130F) + 9.75 ml UPDI

(G) ICV/CCV NO₂ TV = 0.45
 0.25 ml 18.0ppm NO₂ Ref Stock (1/10 dil of WC5135B) + 9.75 ml UPDI

(H) ICV/CCV Cr⁶⁺ TV = 0.25
 0.25 ml 10ppm Cr⁶⁺ Ref Stock (WC5124G) + 9.75 ml UPDI

(I) ICV/CCV NH₃ TV = 0.10
 0.10 ml 18ppm NH₃ Reference Stock (1/10 dil of WC5257G) + 9.90 ml diluent (WC1204SD)

8/20/09 (J) ICV/CCV TKN'S (TV=4.00)
 N Mead 9.9mls PDMM + 0.1mls 400ppm Reference work^{stock}

SIGNATURE

DATE

(WC420C)

DISCLOSED TO AND UNDERSTOOD BY

DATE

PROPRIETARY INFORMATION

Analytical Results Summary

Instrument Name: R-Discrete-01	Analyst: HLOVEJOY	Analysis Lot: 174215	Method/Testcode: 353.2/N02	ALUNS									
Lab Code	Target Analytes	QC Type	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	PQL	% Rec	% RSD	Date Analyzed	QC? Tier
3Q0909772-01	Nitrite as Nitrogen	MB		Water	0.00 mg/L	10 mL	0.010 mg/L U	1	0.010			10/9/09 11:42:06	N IV
3Q0909772-02	Nitrite as Nitrogen	LCS		Water	0.25 mg/L	10 mL	0.246 mg/L	1	0.010	98		10/9/09 11:46:43	N IV
3Q0905661-006	Nitrite as Nitrogen	N/A		Water	0.00 mg/L	10 mL	0.010 mg/L U	1	0.010			10/9/09 11:46:44	N IV
3Q0905661-007	Nitrite as Nitrogen	N/A		Water	0.00 mg/L	10 mL	0.010 mg/L U	1	0.010			10/9/09 11:57:53	Y IV
3Q0909772-03	Nitrite as Nitrogen	DUP	R0905661-007	Water	0.00 mg/L	10 mL	0.010 mg/L U	1	0.010		NC	10/9/09 11:57:54	N IV
3Q0909772-04	Nitrite as Nitrogen	MS	R0905661-007	Water	0.25 mg/L	10 mL	0.254 mg/L	1	0.010	101		10/9/09 11:59:45	N IV
3Q0905661-008	Nitrite as Nitrogen	N/A		Water	0.00 mg/L	10 mL	0.010 mg/L U	1	0.010			10/9/09 11:59:46	N IV
3Q0905693-001	Nitrite as Nitrogen	N/A		Water	0.00 mg/L	10 mL	0.010 mg/L U	1	0.010			10/9/09 11:59:47	N IV
3Q0905636-006	Nitrite as Nitrogen	N/A		Water	0.07 mg/L	10 mL	0.065 mg/L	1	0.010			10/9/09 12:02:12	N IV
3Q0905713-001	Nitrite as Nitrogen	N/A		Water	0.03 mg/L	10 mL	0.028 mg/L	1	0.010			10/9/09 12:02:13	N I
3Q0905713-002	Nitrite as Nitrogen	N/A		Water	0.02 mg/L	10 mL	0.025 mg/L	1	0.010			10/9/09 12:02:14	N I
3Q0905744-011	Nitrite as Nitrogen	N/A		Water	0.00 mg/L	10 mL	0.010 mg/L U	1	0.010			10/9/09 12:14:41	N IV
3Q0905661-009	Nitrite as Nitrogen	N/A		Water	0.00 mg/L	10 mL	0.010 mg/L U	1	0.010			10/9/09 12:16:40	N IV
3Q0909772-05	Nitrite as Nitrogen	DUP	R0905661-009	Water	0.00 mg/L	10 mL	0.010 mg/L U	1	0.010		NC	10/9/09 12:16:41	N IV
3Q0909772-06	Nitrite as Nitrogen	MS	R0905661-009	Water	0.24 mg/L	10 mL	0.236 mg/L	1	0.010	95		10/9/09 12:16:42	N IV
3Q0905661-010	Nitrite as Nitrogen	N/A		Water	0.01 mg/L	10 mL	0.010 mg/L U	1	0.010			10/9/09 12:19:07	N IV
3Q0905661-011	Nitrite as Nitrogen	N/A		Water	0.02 mg/L	10 mL	0.018 mg/L	1	0.010			10/9/09 12:19:08	N IV
3Q0905661-012	Nitrite as Nitrogen	N/A		Water	0.01 mg/L	10 mL	0.013 mg/L	1	0.010			10/9/09 12:19:09	N IV

R 5661
 R 5693
 R 5744
 R 5348
 R 5387
 R 5402
 ✓ cmk

Reviewed & Approved

By: 
 Date: 10/15/09

01225

Columbia Analytical Services
 Rochester, NY 14607
 Analyst: H Loveyn
 Pipette: a Blue

Date : 10/9/2009

Time : 22:18

Test NO2 353.2
 Unit mg/L

Sample ID:	Resp.	Result	Man.dilut Dilut	Date and Time
1 ICV-NO2	0.290	0.4558		10/9/2009 11:02
2 ICB-NO2	0.005	0.0031		10/9/2009 11:04
3 CCV-NO2	0.237	0.3717		10/9/2009 11:19
4 CCB-NO2	0.005	0.0029		10/9/2009 11:19
LCS NO2	0.153	0.2381		10/9/2009 11:20
R0905661-006	0.005	0.0027		10/9/2009 11:22
3 CCV-NO2	0.284	0.4462		10/9/2009 11:22
4 CCB-NO2	0.005	0.0037		10/9/2009 11:22
R0905661-007	0.005	0.0024		10/9/2009 11:24
3 CCV-NO2	0.284	0.4465		10/9/2009 11:25
4 CCB-NO2	0.005	0.0038		10/9/2009 11:25
5661-007 DUP	0.005	0.0028		10/9/2009 11:27
3 CCV-NO2	0.284	0.4456		10/9/2009 11:27
4 CCB-NO2	0.005	0.0036		10/9/2009 11:27
5661-007 SPK	0.162	0.2525		10/9/2009 11:29
3 CCV-NO2	0.283	0.4452		10/9/2009 11:29
4 CCB-NO2	0.005	0.0037		10/9/2009 11:29
R0905661-008	0.006	0.0039		10/9/2009 11:32
3 CCV-NO2	0.286	0.4499		10/9/2009 11:32
4 CCB-NO2	0.006	0.0041		10/9/2009 11:32
R0905693-001	0.005	0.0028		10/9/2009 11:34
3 CCV-NO2	0.285	0.4475		10/9/2009 11:34
4 CCB-NO2	0.005	0.0038		10/9/2009 11:34
R0905636-006	0.008	0.0085		10/9/2009 11:37
R0905713-001	0.071	0.1080		10/9/2009 11:37
R0905713-002	0.019	0.0245		10/9/2009 11:37
EB100809	0.005	0.0031		10/9/2009 11:39
10054100	0.005	0.0033		10/9/2009 11:39
10054100 DUP	0.005	0.0034		10/9/2009 11:39
10054100 SPK	0.155	0.2405		10/9/2009 11:42
3 CCV-NO2	0.284	0.4458		10/9/2009 11:42
4 CCB-NO2	0.005	0.0031		10/9/2009 11:42
10053201	0.007	0.0058		10/9/2009 11:44
10052204	0.009	0.0091		10/9/2009 11:44
10051600	0.011	0.0118		10/9/2009 11:44
LCS NO2	0.158	0.2460		10/9/2009 11:46
R0905661-006	0.005	0.0032		10/9/2009 11:46
3 CCV-NO2	0.288	0.4533		10/9/2009 11:48
4 CCB-NO2	0.005	0.0038		10/9/2009 11:48
R0905661-007	0.004	0.0018		10/9/2009 11:57
5661-007 DUP	0.005	0.0027		10/9/2009 11:57
5661-007 SPK	0.163	0.2536		10/9/2009 11:59
R0905661-008	0.005	0.0034		10/9/2009 11:59
R0905693-001	0.005	0.0033		10/9/2009 11:59
R0905636-006	0.044	0.0654		10/9/2009 12:02
R0905713-001	0.021	0.0284		10/9/2009 12:02
R0905713-002	0.019	0.0247		10/9/2009 12:02
3 CCV-NO2	0.288	0.4533		10/9/2009 12:04
4 CCB-NO2	0.005	0.0037		10/9/2009 12:04
EB100809	0.005	0.0024		10/9/2009 12:14

ccv prior to lcs
 mis injected. all
 samples repeated
 with good ccv/lcs.

Columbia Analytical Services

Rochester, NY 14607

Analyst: H. Lovejoy

Pipette: 01012

Date : 10/9/2009

Time : 22:18

Test NO2 353.2
Unit mg/L

Sample ID: Resp. Result Man.dilut Dilut Date and Time

Sample ID	Resp.	Result	Man.dilut	Dilut	Date and Time
5601-009 10054100	0.005	0.0031			10/9/2009 12:16
-009 10054100 DUP	0.005	0.0034			10/9/2009 12:16
-009 10054100 SPK	0.152	0.2364			10/9/2009 12:16
-010 10053201	0.007	0.0056			10/9/2009 12:19
-011 10052204	0.014	0.0176			10/9/2009 12:19
-012 10051600	0.011	0.0129			10/9/2009 12:19
3 CCV-NO2	0.288	0.4518			10/9/2009 12:21
4 CCB-NO2	0.005	0.0036			10/9/2009 12:21
3 CCV-NO2	0.280	0.4406			10/9/2009 12:34
4 CCB-NO2	0.005	0.0034			10/9/2009 12:34
LCS NO2 2	0.157	0.2451			10/9/2009 12:34
LCS NO2 3	0.153	0.2388			10/9/2009 12:37
9613-01 MB	0.030	0.0432	repeated		10/9/2009 12:37
R0905348-003	0.006	0.0039			10/9/2009 12:37
5348-003 DUP	0.006	0.0041			10/9/2009 12:39
5348-003 SPK	0.153	0.2374			10/9/2009 12:39
R0905387-002	0.006	0.0045			10/9/2009 12:39
3 CCV-NO2	0.284	0.4468			10/9/2009 12:41
4 CCB-NO2	0.005	0.0037			10/9/2009 12:41
R0905387-003	0.008	0.0071			10/9/2009 12:46
R0905387-004	0.008	0.0076			10/9/2009 12:46
R0905387-005	0.006	0.0050			10/9/2009 12:46
R0905387-006	0.007	0.0055			10/9/2009 12:48
R0905387-007	0.007	0.0055			10/9/2009 12:49
R0905387-008	0.005	0.0030			10/9/2009 12:49
R0905387-009	0.006	0.0050			10/9/2009 12:50
3 CCV-NO2	0.287	0.4504			10/9/2009 12:52
4 CCB-NO2	0.005	0.0037			10/9/2009 12:52
R0905387-011	0.014	0.0170			10/9/2009 13:01
R0905387-012	0.007	0.0054			10/9/2009 13:01
R0905387-013	0.005	0.0031			10/9/2009 13:01
R0905387-014	0.006	0.0050			10/9/2009 13:04
R0905387-015	0.006	0.0041			10/9/2009 13:04
LCS NO2 4	0.157	0.2450			10/9/2009 13:04
LCS NO2 5	0.158	0.2463			10/9/2009 13:05
3 CCV-NO2	0.290	0.4555			10/9/2009 13:07
4 CCB-NO2	0.005	0.0037			10/9/2009 13:07
9665-01 MB	0.005	0.0034			10/9/2009 13:14
R0905387-016	0.023	0.0320			10/9/2009 13:14
R0905387-017	0.006	0.0052			10/9/2009 13:16
R0905402-001	0.005	0.0026			10/9/2009 13:16
R0905402-002	0.006	0.0039			10/9/2009 13:16
R0905402-003	0.006	0.0048			10/9/2009 13:18
R0905402-004	0.006	0.0051			10/9/2009 13:18
3 CCV-NO2	0.291	0.4574			10/9/2009 13:20
4 CCB-NO2	0.006	0.0042			10/9/2009 13:20
5402-004 DUP	0.006	0.0040			10/9/2009 13:25
5402-004 SPK	0.148	0.2300			10/9/2009 13:25
R0905402-005	0.006	0.0050			10/9/2009 13:27
R0905402-006	0.005	0.0034			10/9/2009 13:27

Columbia Analytical Services
 Rochester, NY 14607
 Analyst: #LaveyM
 Pipette: OIBLW

Date : 10/9/2009

Time : 22:18

Test NO2 353.2
 Unit mg/L

Sample ID:	Resp.	Result	Man.dilut Dilut	Date and Time
R0905402-007	0.007	0.0056		10/9/2009 13:27
R0905402-008	0.007	0.0063		10/9/2009 13:28
3 CCV-NO2	0.284	0.4455		10/9/2009 13:31
4 CCB-NO2	0.005	0.0036		10/9/2009 13:31
R0905402-009	0.006	0.0053		10/9/2009 13:33
9613-01 MB	0.007	0.0056		10/9/2009 13:36
R0905402-010	0.006	0.0040		10/9/2009 13:36
R0905402-011	0.005	0.0029		10/9/2009 13:36
3 CCV-NO2	0.287	0.4503		10/9/2009 13:38
4 CCB-NO2	0.006	0.0043		10/9/2009 13:38
3 CCV-NO2	0.294	0.4623		10/9/2009 21:34
4 CCB-NO2	0.006	0.0052		10/9/2009 21:34
LCS NO2 7	0.159	0.2482		10/9/2009 21:34
LCS NO2 8	0.157	0.2440		10/9/2009 21:36
9726-01 MB	0.022	0.0303	reanalyzed	10/9/2009 21:36
R0905402-012	0.004	0.0021		10/9/2009 21:36
R0905402-013	0.007	0.0059		10/9/2009 21:39
R0905402-017	0.006	0.0048		10/9/2009 21:39
R0905402-018	0.016	0.0213		10/9/2009 21:39
R0905402-019	0.006	0.0039		10/9/2009 21:40
3 CCV-NO2	0.296	0.4649		10/9/2009 21:42
4 CCB-NO2	0.006	0.0053		10/9/2009 21:42
3 CCV-NO2	0.292	0.4586		10/9/2009 21:56
4 CCB-NO2	0.006	0.0049		10/9/2009 21:56
9726-01 MB	0.006	0.0042	} ccv misinjection. repeated.	10/9/2009 21:56
3 CCV-NO2	0.318	0.5006		10/9/2009 21:58
4 CCB-NO2	0.006	0.0049		10/9/2009 21:58
3 CCV-NO2	0.299	0.4693		10/9/2009 22:12
4 CCB-NO2	0.006	0.0052		10/9/2009 22:12
9726-01 MB	0.006	0.0047		10/9/2009 22:12
3 CCV-NO2	0.294	0.4620		10/9/2009 22:14
4 CCB-NO2	0.006	0.0050		10/9/2009 22:14

Columbia Analytical Services
 Rochester, NY 14607
 Analyst: H. Lopez
 Pipette: 0.1 GIVE

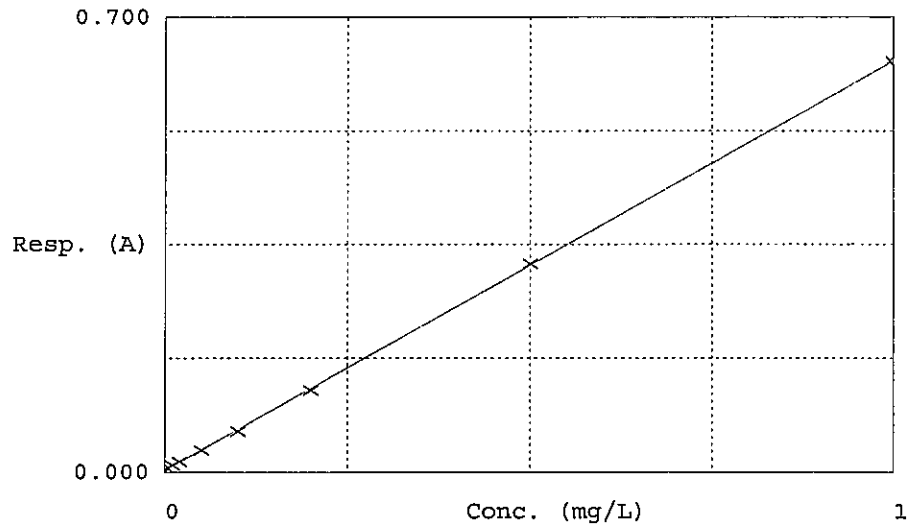
10/9/2009 11:06

Test NO2 353.2

Accepted 10/9/2009 11:06
 Factor 1.58841
 Bias 0.00310

Coeff. of det. 0.999900

Errors



	Calibrator	Response	Calc. con.	Conc.	Errors
1	NO2- 0.0	0.00536	0.00359	0.00000	
2	NO2- 0.01	0.01129	0.01301	0.01000	
3	NO2- 0.02	0.01659	0.02142	0.02000	
4	NO2- 0.05	0.03395	0.04900	0.05000	
5	NO2- 0.10	0.06288	0.09495	0.10000	
6	NO2- 0.20	0.12581	0.19492	0.20000	
7	NO2- 0.5	0.31988	0.50317	0.50000	
8	NO2- 1.00	0.63262	0.99993	1.00000	
9	1 ICV-NO2 (contr	0.29004	0.45577	0.45000	
10	2 ICB-NO2 (contr	0.00507	0.00313	0.00000	

Columbia Analytical Services
 1 Mustard St., Rochester NY 14609

General Chemistry Analytical Run Cover Sheet

Analyst: H. Lovely

Date: 10/2/09

Analysis: Nitrite

Instrument: Aquakem

Quality Control:

	Same as Log#, Date,	Stocks Prep. Log#, Date,	Stock Sol (mLs)	Stock Sol (mg/L)	Final Vol (mLs)	True Value (mg/L)
a) Standards Prep.:	WC65144E, 3/5/03	WC72002F, 1/26/09				
b) ICV Preparation:	WC92067G, 8/20/09	WC72007G, 1/26/09	0.25	18	10	0.45
c) LCS Preparation:	WC65144G, 3/5/03	WC72002F, 1/26/09	0.25	10	10	0.25
d) Matrix Spike Prep.:	WC65144G, 3/5/03	WC72002F, 1/26/09	0.25	10	10	0.25

Instrument log filled in? (Y) (N)

Packages: Copy and attach Standards Preparation

Comments:

Production:

	Start Time	End Time	Total (minutes)
Preparation Time :			
Analytical Time:			
Finish Time:			

of Samples (including Mtx QC): _____
 Repeats due to Sample: _____
 Repeats due to Error: _____

p:\greg\forms\cover.no2

REFERENCE (ICV / CCV) STOCK PREP
(Fluoride and Bromide are purchased 1000ppm standards)

Reviewed & Approved

By: *CK SJ / CK SB*

Date: *10/16/07 5/16 / 9/10/07 7/15*

5/16/08

Chloride 650ppm Stock: 1.070g 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 Reference Stock ID
A					
B					
C					
D					
E					

Nitrite 180ppm Stock: 1.09g 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 Reference Stock ID
F	<i>WC76097D</i>	<i>NM</i>	<i>1/31/08</i>	<i>1/31/09</i>	<i>WC72007F (3902)</i>
G	<i>WC85099D</i>	<i>CK</i>	<i>1/26/09</i>	<i>1/26/10</i>	<i>WC720007G (7740)</i>
H					
I					
J					

Nitrate 180ppm Stock: 1.30g 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	<i>CK 10/5/04</i> KNO3 Source KND3	Chloroform Source ID	Analyst	Date Prepared	Date Expires	Final NO3 Reference Stock ID
K	<i>WC76115G</i>	<i>WC76170J</i>	<i>FN</i>	<i>10/5/06</i>	<i>4/5/07</i>	<i>WC72007K</i>
L	<i>WC76115G</i>	<i>WC76234A</i>	<i>FN</i>	<i>3/26/07</i>	<i>9/26/07</i>	<i>WC72007L</i>
M	<i>WC76115G</i>	<i>WC76234A</i>	<i>NM</i>	<i>9/21/07</i>	<i>3/21/08</i>	<i>WC72007M</i>
N	<i>WC76115G</i>	<i>WC76234A</i>	<i>CK</i>	<i>3/25/08</i>	<i>9/25/08</i>	<i>WC72007N</i>
O						

OPO4 180ppm Stock: 0.7909g granular 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 Reference Stock ID
P	<i>WC 65 196E</i>	<i>TC</i>	<i>2/23/07</i>	<i>11/3/07</i>	<i>WC72007P</i>
Q	<i>WC85054G</i>	<i>AB</i>	<i>11/30/07</i>	<i>11/30/08</i>	<i>WC72007Q</i>
R	<i>WC85085E</i>	<i>RP</i>	<i>2/14/08</i>	<i>2/14/09</i>	<i>WC72007R</i>
S	<i>WC85054G</i>	<i>CK</i>	<i>1/26/09</i>	<i>1/26/10</i>	<i>WC72007S (7738)</i>
T					

Sulfate 3200ppm Stock: 5.80g K2SO4 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	K2SO4 Source	Analyst	Date Prepared	Date Expires	Final SO4 Reference Stock ID
U					
V					
W					
X					
Y					

Reviewed & Approved
 By: CK SD / CK SD 1/17/08
 Date: 10/16/06 ^{5/1/07} / 9/10/07 ^{5/21/08}

STANDARD STOCK PREP

(Fluoride and Bromide are purchased 1000ppm standards)

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	WC76259E	CK	1/26/09	1/26/10	WC72002A ^{CK 1/26/09}
B					
C					
D					
E					

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	KNO ₂ Source	Analyst	Date Prepared	Date Expires	Final NO ₂ 1000ppm Stock ID
F	WC76097D	CK	1/26/09	1/26/10	WC72002F (7741)
G					
H					
I					
J					

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	KNO ₃ Source	Chloroform Source ID	Analyst	Date Prepared	Date Expires	Final NO ₃ 1000ppm Stock ID
K	WC76114C	WC76170J	FN	10/5/06	4/5/07	WC72002K
L	WC76114C	WC76234A	FN	3/26/07	9/26/07	WC72002L
M	WC76114C	WC76234A	NM	9/21/07	3/21/08	WC72002M
N	WC76114C	WC76234A	CMW	3/25/08	9/25/08	WC72002N
O						

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	KH ₂ PO ₄ Source	Analyst	Date Prepared	Date Expires	Final OPO ₄ /TPO ₄ 1000ppm Stock ID
P	WC65085E	CK	1/26/09	1/26/10	WC72002P (7742)
Q					
R					
S					
T					

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	Na ₂ SO ₄ Source	Analyst	Date Prepared	Date Expires	Final SO ₄ 1000ppm Stock ID
U					
V					
W					
X					
Y					

3/5/03 NM (A) 4-AAP - Phenols
 same as WCL65126H. Prepare fresh each run.

3/5/03 D.M.G (B) NH₄OH Buffer (TOTN + NO₂)
 To a tared 1L amber jar add:
 • 778.5g DI
 • 113.4g HCl (WCL65093J, EIM Lot # 42107)
 • 76.5g NH₄OH (WCL55209B, EIM Lot # K28141705, 033)
 • 0.90g EDTA (WCL65079D, EIM Lot # 42081224)
 Stir until dissolved. Cool. Adjust pH to 8.5 w/cone.
 HCl or NaOH. Store @ RT. Exp. 1 year, 3/5/04.

(C) Sulfanilamide Color Reagent (TOTN) + (NO₂)
 To a tared 1L amber jar add:
 • 758g DI
 • 153g H₃PO₄ (WCL65027F, EIM Lot # 40341226)
 • 0.90g NED (WCL55231B, Baker Lot # T03600)
 • 36g Sulfanilamide (WCL6497C, Baker Lot # 409H38)
 Stir until dissolved. Store @ RT. Exp. 1 month, 4/5/03

3/5/03 D.M.G Nitrite (NO₂) (Lachat: PwL=0.010 mg/L):

(D) 10ppm Working Stock: do (2) two 1/10 serial dilutions of 1000ppm STD Stock (WCL65135A)

(E) Standards

STD.	Concl (mg/L)	mls 10ppm (WCL65144D)	mls DI
A	1.000	1.00	9.00
B	0.5000	0.50	9.50
C	0.200	0.20	9.80
D	0.100	1/10 dil'n of STD A.) 1.000	
E	0.050	1/10 dil'n of STD B.) 0.500	
F	0.020	1/10 dil'n of STD C.) 0.200	
G	0.010	1/10 dil'n of STD D.) 0.100	
H	0.000	10 mls DI	

(F) ICV/CCV (TV=0.900 mg/L)

Add 0.50 mls 18.0ppm Reference Stock (1) one 1/10 dilution of 180ppm Reference Stock (WCL65135B) to 9.5 mls DI.

(G) ICV/Matrix Spike: (TV=0.250 mg/L)

Add 0.25 mls 10ppm working stock (WCL65144D) to 10 mls DI or sample.

Reviewed & Approved

By: [Signature]
 Date: 3/30/03

3/5/03 D.M.G ^{2018 3/5/03} (A) Nitrate

(A) 10ppm
 dilutions o.
 make fr

(B) Standard

Std	Conc
A	2.1
B	1.0
C	0.51
D	0.20
E	0.101
F	0.05
G	0.021
H	0.010
I	0.000

(C) Reference
 make tu
 NO₃ Refe

(D) LCS/MIA
 Add 0.05
 dilution o.
 to 10 ml.

(E) Column
 1.00 ppm
 1.00 ppm

Revi
 By: -
 Date

TITLE PROJECT

Continued from page

8/20/09 (A) TDS Reference
EW 0.9153g NaCl (WC85215H) diluted volumetrically to 1 liter w/ DI. Store in plastic bottle @ 4°C!
TV = 915 mg/L Exp: 8/20/10 (11634)

8/20/09 (B) Color Reagent - TKN
NM - same as WC920596. Exp. 1 month, 9/20/09.

(C) NH₃ Carrier/Diluent
TO a 2 liter plastic bottle add:
- 998g UPDI
- 3.68g conc. instra-analyzed H₂SO₄ (WC92064B)
Prepared solution x4.

8/20/09 As of 8/18/09 for kanelab.

(D) ICV/CCV TKN TV = 0.50
0.50 ml 180ppm TKN Ref Stock (WC85134C) + 9.50 ml 0.25N NaOH (WC85134H)
Exp: 8/20/09

(E) ICV/CCV Cr^{VI} TV = 0.45
0.25 ml 180ppm Cr^{VI} Ref Stock (WC85130G) + 9.75 ml UPDI

(F) ICV/CCV Cr^{VI} TV = 0.36
0.25 ml 180ppm Cr^{VI} Ref Stock (WC85130F) + 9.75 ml UPDI
0.20 ml

(G) ICV/CCV NO₂ TV = 0.45
0.25 ml 180ppm NO₂ Ref Stock (1/10 dil of WC85135B) + 9.75 ml UPDI
WC720079, 8/20/09

(H) ICV/CCV Cr^{VI} TV = 0.25
0.25 ml 10ppm Cr^{VI} Ref Stock (WC85129G) + 9.75 ml UPDI

(I) ICV/CCV NH₃ TV = 0.90
0.50 ml 180ppm NH₃ Reference Stock (1/10 dil of WC85257G) + 9.50 ml diluent (WC92045D)

8/20/09 (J) ICV/CCV TKN'S (TV = 4.00)
N Mead 9.9 ml PDMM + 0.1 ml 400ppm Reference working stock
SIGNATURE DATE (WC920420C)

DISCLOSED TO AND UNDERSTOOD BY

DATE

PROPRIETARY INFORMATION

A

Analytical Results Summary

Instrument Name: R-FIA-01	Analyst: NMEAD	Analysis Lot: 175911	Method/Testcode: 365.1/Tot Phos T										
Lab Code	Target Analytes	QC Type	Parent Sample	Matrix	Raw Result	Sample Amt	Final Result	Dil	POL	% Rec	% RSD	Date Analyzed	QC? Tier
RQ0910234-01	Phosphorus, Total	MB		Water	0.00 mg/L ✓	25.0000 mL	0.050 mg/L U ✓	1	0.050			10/22/09 10:54:52	N IV
RQ0910234-02	Phosphorus, Total	LCS		Water	0.77 mg/L ✓	25.0000 mL	0.774 mg/L ✓	1	0.050	97		10/22/09 10:55:35	N IV
R0905636-001	Phosphorus, Total	N/A		Water	0.01 mg/L ✓	25.0000 mL	0.007 mg/L J ✓	1	0.050			10/22/09 11:20:33	N IV
R0905636-002	Phosphorus, Total	N/A		Water	0.01 mg/L ✓	25.0000 mL	0.014 mg/L J ✓	1	0.050			10/22/09 11:21:16	N IV
RQ0910234-03	Phosphorus, Total	DUP	R0905636-002	Water	0.02 mg/L ✓	25.0000 mL	0.016 mg/L J ✓	1	0.050	97	14	10/22/09 11:21:58	N IV
RQ0910234-04	Phosphorus, Total	MS	R0905636-002	Water	0.79 mg/L ✓	25.0000 mL	0.789 mg/L J ✓	1	0.050			10/22/09 11:22:41	N IV
R0905636-003	Phosphorus, Total	N/A		Water	0.02 mg/L ✓	25.0000 mL	0.015 mg/L J ✓	1	0.050			10/22/09 11:23:23	N IV
R0905636-006	Phosphorus, Total	N/A		Water	0.36 mg/L ✓	25.0000 mL	0.360 mg/L ✓	1	0.050			10/22/09 11:24:06	N IV
R0905744-011	Phosphorus, Total	N/A		Water	0.01 mg/L ✓	25.0000 mL	0.008 mg/L J ✓	1	0.050			10/22/09 11:24:48	N IV
R0905784-001	Phosphorus, Total	N/A		Water	0.01 mg/L ✓	25.0000 mL	0.050 mg/L U ✓	1	0.050			10/22/09 11:25:32	N II
RQ0910234-05	Phosphorus, Total	DUP	R0905784-001	Water	0.01 mg/L ✓	25.0000 mL	0.009 mg/L J ✓	1	0.050		NC	10/22/09 11:26:16	N II
RQ0910234-06	Phosphorus, Total	MS	R0905784-001	Water	0.78 mg/L ✓	25.0000 mL	0.784 mg/L ✓	1	0.050	98		10/22/09 11:26:59	N II
R0905829-009	Phosphorus, Total	N/A		Water	0.01 mg/L ✓	25.0000 mL	0.007 mg/L J ✓	1	0.050			10/22/09 11:29:10	N IV
R0905882-006	Phosphorus, Total	N/A		Water	0.00 mg/L ✓	25.0000 mL	0.050 mg/L U ✓	1	0.050			10/22/09 11:29:54	N IV
R0905858-001	Phosphorus, Total	N/A		Water	1.06 mg/L ✓	25.0000 mL	4.23 mg/L ✓	4	0.20			10/22/09 11:30:37	N I
R0905858-002	Phosphorus, Total	N/A		Water	0.75 mg/L ✓	25.0000 mL	3.01 mg/L ✓	4	0.20			10/22/09 11:31:21	N I
R0905858-003	Phosphorus, Total	N/A		Water	1.04 mg/L ✓	25.0000 mL	4.15 mg/L ✓	4	0.20			10/22/09 11:32:03	N I
R0905858-004	Phosphorus, Total	N/A		Water	0.79 mg/L ✓	25.0000 mL	3.16 mg/L ✓	4	0.20			10/22/09 11:32:46	N I

01235

Preparation Information Benchsheet

Prep Run#: 98854 **GenChem/SROBINSON** **Prep WorkFlow:** Gen Dig Phos **Status:** Prepped
Team: **MB #1** **Prep Method:** Method **Prep Date/Time:** 10/21/09 06:30 PM
Regular Level Water **Run# 175911**

#	Lab Code	Client ID	B#	Amt. Ext.	Method / Test	pH	AE	BN	Final Vol	Sample Desc. (Initial/Final)	Spike Amt./Inv. ID	Comments
1	RQ0910234-01	MB		25mL	365.1/Tot Phos T				25.00mL			
2	RQ0910234-02	LCS		25mL	365.1/Tot Phos T				25.00mL		0.2000 mL/11400	
3	R0905636-001	PB100209-A2	.12	25mL	365.1/Tot Phos T				25.00mL			
4	R0905636-002	M-76B	.12	25mL	365.1/Tot Phos T				25.00mL			
5	RQ0910234-03	R0905636-002 DUP	.12	25mL	365.1/Tot Phos T				25.00mL			
6	RQ0910234-04	R0905636-002 MS	.12	25mL	365.1/Tot Phos T				25.00mL		0.2000 mL/11400	
7	R0905636-003	M-76009B	.12	25mL	365.1/Tot Phos T				25.00mL			
8	R0905636-006	MC-94B	.12	25mL	365.1/Tot Phos T				25.00mL			
9	R0905744-011	EB100809-SO1A3	.13	25mL	365.1/Tot Phos T				25.00mL			
10	R0905784-001	ICM-EFF-100709	.03	25mL	365.1/Tot Phos T				25.00mL			
11	RQ0910234-05	R0905784-001 DUP	.03	25mL	365.1/Tot Phos T				25.00mL			
12	RQ0910234-06	R0905784-001 MS	.03	25mL	365.1/Tot Phos T				25.00mL		0.2000 mL/11400	
13	R0905829-009	EB101209-SO1A3	.13	25mL	365.1/Tot Phos T				25.00mL			
14	R0905882-006	EB101409-SO1A3	.11	25mL	365.1/Tot Phos T				25.00mL			
15	R0905858-001	MFC1 Influent	.02	25mL	365.1/Tot Phos T				25.00mL			
16	R0905858-002	MFC1 Effluent	.02	25mL	365.1/Tot Phos T				25.00mL			
17	R0905858-003	MFC3 Influent	.02	25mL	365.1/Tot Phos T				25.00mL			
18	R0905858-004	MFC3 Effluent	.02	25mL	365.1/Tot Phos T				25.00mL			

Spiking Solutions

Name: Phosphorous (Total) 100 ppm **Inventory ID:** 11400 **Expires On:** 01/26/2010
Logbook Ref: Fresh Daily

Preparation Materials

Water Deionized H2O Millipore System (2263) **Sulfuric Acid, 5.6M** WC92077E (12064) **Ammonium Persulfate RG** WC92090C (12462)
 (NH4)2S2O8

Preparation Steps

Step: Digestion
Started: 10/21/09 18:30
Finished: 10/21/09 19:15
By: SROBINSON

01236

Preparation Information Benchsheet

Prep Run#: 98854
Team: GenChem/SROBINSON

Prep WorkFlow: Gen Dig Phos
Prep Method: Method

Status: Prepped
Prep Date/Time: 10/21/09 06:30 PM

Comments: _____

Reviewed By: _____ Date: _____ Spike Witness: HLOVEJOY Date: _____

Chain of Custody

Relinquished By: _____ Date: _____

Received By: _____ Date: _____

Extracts Examined
Yes No

01237

Columbia Analytical Services
 1 Mustard Street
 Rochester, NY 14609

Analyte: TPO4 Digest

Low Level Regular Level *Water*

Analyst: SBR

Date: 10/21/09

Pipet ID: Aquaman, Lucy

Spk Witness: am

#	Misc.	Order #	Sample Amt	Dilution	Spk Amount	Comments
1		PB 1 RL WATER	25	1		
②		LCS 1 INORG RL	25	1	0.20 mL	100 ppm
③		LCS 1 ORG RL	25	1	0.20 mL	100 ppm
4	SPLP MB	RQ0909850-01	25	1		
5	SPLP	R0905626-001	25	1		
6	SPLP	R0905626-003	25	1		
7	SPLP	R0905626-005	25	1		
8	SPLP	R0905626-007	25	1		
9	SPLP MB	RQ0909961-01	25	1		
10	SPLP	R0905626-002	25	1		
11	SPLP	R0905626-004	25	1		
12	SPLP	R0905626-006	25	1		
13	SPLP	R0905626-008	25	1		
14		R0905636-001	25	1		
15		R0905636-002	25	1		
16		5636-002 DUP	25	1		
①7		5636-002 SPK	25	1	0.20 mL	100 ppm
18		R0905636-003	25	1		
19		R0905636-006	25	1		
20		R0905744-011	25	1		
21		R0905784-001	25	1		
22		5784-001 DUP	25	1		
②3		5784-001 SPK	25	1	0.20 mL	100 ppm
24		R0905829-009	25	1		
25		R0905882-006	25	1		
26	4	R0905858-001	25	1		
27	4	R0905858-002	25	1		
28	4	R0905858-003	25	1		
29	4	R0905858-004	25	1		
30		PB 2 RL WATER	25	1		
③1		LCS 2 INORG RL	25	1	0.20 mL	100 ppm
③2		LCS 2 ORG RL	25	1	0.20 mL	100 ppm
33	4	R0905858-005	25	1		
34	4	R0905858-006	25	1		
35	2	R0905906-001	25	1		
36	4	R0905932-002	25	1		
37	4	R0905935-001	25	1		
38	4	R0905935-002	25	1		
39		5935-002 DUP	25	1		
④0		5935-002 SPK	25	1	0.20 mL	100 ppm
41	2	R0905935-003	25	1		
42	4	R0905959-001	25	1		
43		R0905963-009	25	1		
44		R0906000-001	25	1		
45						
46						
47						
48						
49						
50						

SBR 10/21/09

Columbia Analytical Services
 1 Mustard Street
 Rochester, NY 14609

Analyte: TPO4 Digest

Low Level Regular Level

Soil

Analyst: SBR

Date: 10/21/09

Pipet ID: Aquaman, Lucy

Spk Witness: ew

#	Misc.	Order #	Sample Amt	Dilution	Spk Amount	Comments
1		PB 1 SOIL	0.25 → 25			
2		LCS 1 INORG SOIL	0.25		0.20 mL	100 ppm
3		LCS 1 ORG SOIL	0.25		0.20 mL	100 ppm
4		R0905744-007	0.26			
5		5744-007 DUP	0.27			
6		5744-007 SPK	0.25		0.20 mL	100 ppm
7		R0905744-008	0.25			
8		R0905744-009	0.26			
9		R0905744-012	0.26			
10		R0905744-013	0.30			
11		R0905744-014	0.25			
12		R0905744-015	0.26			
13		R0905744-016	0.27			
14		R0905744-017	0.29			
15		R0905744-018	0.27			
16		R0905744-019	0.28			
17		R0905888-001	0.29			
18		5888-001 DUP	0.29			
19		5888-001 SPK	0.26		0.20 mL	100 ppm
20		R0905888-002	0.25			
21		R0905888-003	0.26			
22		R0905888-004	0.32			
23		R0905888-005	0.26			
24		R0905888-006	0.25			
25		R0905888-007	0.27			
26		R0905888-008	0.25			
27		R0905829-001	0.26			
28		PB 2 SOIL	0.25			
29		LCS 2 INORG SOIL	0.25		0.20 mL	100 ppm
30		LCS 2 ORG SOIL	0.25		0.20 mL	100 ppm
31		R0905829-002	0.28			
32		R0905829-003	0.27			
33		5829-003 DUP	0.25			
34		5829-003 SPK	0.28		0.20 mL	100 ppm
35		R0905829-004	0.28			
36		R0905829-005	0.25			
37		R0905829-006	0.30			
38		R0905829-007	0.27			
39		R0905829-010	0.25			
40		R0905829-011	0.26			
41		R0905829-012	0.29			
42		R0905829-013	0.31			
43		R0905829-014	0.30			
44		R0905829-015	0.26			
45		R0905829-016	0.27			
46		R0905829-017	0.30			
47		R0905829-018	0.26			
48		R0905882-001	0.25			
49		5882-001 DUP	0.25			
50		5882-001 SPK	0.27 ↓		0.20 mL	100 ppm

Columbia Analytical Services
 1 Mustard Street
 Rochester, NY 14609

Analyte: TPO4 Digest

Low Level Regular Level

SOIL

Analyst: SBR

Date: 10/21/09

Pipet ID: Aguaman, Lucy

Spk Witness: SAJ

#	Misc.	Order #	Sample Amt	Dilution	Spk Amount	Comments
1		R0905882-002	0.29 → 25			
2		R0905882-003	0.30			
3		R0905882-004	0.29			
4		R0905882-007	0.27			
5		PB 3 SOIL	0.25 ^{see 10/23/09}			
6		LCS 3 INORG SOIL	0.25 ^{see 10/23/09} 0.25 → 25		0.20 mL	100 ppm
7		LCS 3 ORG SOIL	0.25		0.20 mL	100 ppm
8		R0905882-008	0.29			
9		5882-008 DUP	0.27			
10		5882-008 SPK	0.29		0.20 mL	100 ppm
11		R0905882-009	0.26			
12		R0905882-010	0.30			
13		R0905882-011	0.30			
14		R0905882-012	0.28			
15		R0905882-013	0.29			
16		R0905882-014	0.30			
17		R0905882-015	0.28			
18		R0905882-018	0.30			
19		R0905882-019	0.27			
20		R0905882-020	0.27			
21		R0905882-021	0.26			
22		R0905882-022	0.29			
23		R0905882-023	0.30			
24		R0905882-024	0.26			
25		R0905882-025	0.28			
26		5882-025 DUP	0.27			
27		5882-025 SPK	0.27		0.20 mL	100 ppm
28		R0905901-001	0.28			
29		R0905901-002	0.28			
30		R0905901-003	0.31			
31		R0905901-004	0.25			
32		PB 4 SOIL	0.25			
33		LCS 4 INORG SOIL	0.25		0.20 mL	100 ppm
34		LCS 4 ORG SOIL	0.25		0.20 mL	100 ppm
35		R0905901-005	0.30			
36		R0905901-006	0.34			
37		R0905963-001	0.26			
38		5963-001 DUP	0.25			
39		5963-001 SPK	0.26		0.20 mL	100 ppm
40		R0905963-002	0.29			
41		R0905963-003	0.27			
42		R0905963-004	0.27			
43		R0905963-005	0.29			
44		R0905963-006	0.31			
45		R0905963-007	0.30			
46		R0905963-010	0.28			
47						
48						
49						
50						

Creator: NMEAD
 Creation Date: Oct 22, 2009 8:49:56
 Last Modified: Oct 22, 2009 13:03:25
 Description: QC 8000 365.1 TPO4 - RUN LOG - TPO4B 0910220A

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 = 0.8	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-1 SOIL	1.0000	Unknown	
10	LCS-1 SOIL INORG TV = 80	1.0000	Unknown	0.25g → 25 mL
11	LCS-1 SOIL ORG TV = 80	1.0000	Unknown	↓ ↓
12	PB-2 SOIL	1.0000	Unknown	
13	CCV	1.0000	Unknown	
14	CCB	1.0000	Unknown	
15	LCS-2 SOIL INORG	1.0000	Unknown	0.25g → 25 mL
16	LCS-2 SOIL ORG	1.0000	Unknown	↓ ↓
17	PB-3 SOIL	1.0000	Unknown	- air spike - plot #173
18	LCS-3 SOIL INORG	1.0000	Unknown	0.25g → 25 mL
19	LCS-3 SOIL ORG	1.0000	Unknown	
20	PB-4 SOIL	1.0000	Unknown	↓ ↓
21	LCS-4 SOIL INORG	1.0000	Unknown	
22	LCS-4 SOIL ORG	1.0000	Unknown	
23	CRDL - 0.100	1.0000	Unknown	
24	CRDL - 0.050	1.0000	Unknown	
25	CCV	1.0000	Unknown	
26	CCB	1.0000	Unknown	
27	RQ0909850-01 MB	1.0000	Unknown	
28	R0905626-001	1.0000	Unknown	
29	R0905626-003	1.0000	Unknown	
30	R0905626-005	1.0000	Unknown	
31	R0905626-007	1.0000	Unknown	
32	RQ0909961-01 MB	1.0000	Unknown	

Cup #	Sample ID	Manual Dilution	Sample Type	
33	R0905626-002	1.0000	Unknown	
34	R0905626-004	1.0000	Unknown	
35	R0905626-006	1.0000	Unknown	
36	R0905626-008	1.0000	Unknown	
37	CCV	1.0000	Unknown	
38	CCB	1.0000	Unknown	
39	R0905636-001	1.0000	Unknown	
40	R0905636-002	1.0000	Unknown	
41	5636-002 DUP	1.0000	Unknown	
42	5636-002 SPK TV = 0.8	1.0000	Unknown	
43	R0905636-003	1.0000	Unknown	
44	R0905636-006	1.0000	Unknown	
45	R0905744-011	1.0000	Unknown	
46	R0905784-001	1.0000	Unknown	
47	5784-001 DUP	1.0000	Unknown	
48	5784-001 SPK TV = 0.8	1.0000	Unknown	
49	CCV	1.0000	Unknown	
50	CCB	1.0000	Unknown	
51	R0905829-009	1.0000	Unknown	
52	R0905882-006	1.0000	Unknown	
53	R0905858-001	4.0000	Unknown	
54	R0905858-002	4.0000	Unknown	
55	R0905858-003	4.0000	Unknown	
56	R0905858-004	4.0000	Unknown	
57	R0905858-005	4.0000	Unknown	
58	R0905858-006	4.0000	Unknown	
59	R0905906-001	2.0000	Unknown	- rpt @ # 174 - str.
60	R0905932-002	4.0000	Unknown	
61	CCV	1.0000	Unknown	
62	CCB	1.0000	Unknown	
63	R0905935-001	4.0000	Unknown	- rpt @ # 175 - str.
64	R0905935-002	4.0000	Unknown	
65	5935-002 DUP	4.0000	Unknown	
66	5935-002 SPK TV = 0.8	4.0000	Unknown	
67	R0905935-003	2.0000	Unknown	
68	R0905959-001	4.0000	Unknown	
69	R0905963-009	1.0000	Unknown	
70	R0906000-001	1.0000	Unknown	- rpt @ # 176 - 1/10
71	R0905744-007	10.0000	Unknown	0.26g → 25 mL
72	5744-007 DUP	10.0000	Unknown	0.27g → ↓
73	CCV	1.0000	Unknown	
74	CCB	1.0000	Unknown	
75	5744-007 SPK TV = 80.0	10.0000	Unknown	0.25g → 25 mL
76	R0905744-008	10.0000	Unknown	- rpt @ # 177 str
77	R0905744-009	10.0000	Unknown	0.26g → 25 mL

Cup #	Sample ID	Manual Dilution	Sample Type	
78	R0905744-012	10.0000	Unknown	0.26g → 25mL
79	R0905744-013	10.0000	Unknown	0.30g →
80	R0905744-014	10.0000	Unknown	0.25g →
81	R0905744-015	10.0000	Unknown	0.26g → ↓
82	R0905744-016	10.0000	Unknown	- rpt #178 - str
83	R0905744-017	10.0000	Unknown	0.29g → 25mL
84	R0905744-018	10.0000	Unknown	0.27g → ↓
85	CCV	1.0000	Unknown	
86	CCB	1.0000	Unknown	
87	R0905744-019	10.0000	Unknown	0.28g → 25mL
88	R0905888-001	2.0000	Unknown	} rpt #179, 180, 183 - 1/4
89	5888-001 DUP	2.0000	Unknown	
90	5888-001 SPK TV = 76.9	2.0000	Unknown	
91	R0905888-002	2.0000	Unknown	- rpt #184 - str
92	R0905888-003	2.0000	Unknown	- rpt #185 - str
93	R0905888-004	2.0000	Unknown	- rpt #186 - str
94	R0905888-005	2.0000	Unknown	- rpt #187 - str
95	R0905888-006	2.0000	Unknown	- rpt #188 - str
96	R0905888-007	2.0000	Unknown	0.27g → 25mL
97	CCV	1.0000	Unknown	
98	CCB	1.0000	Unknown	
99	R0905888-008	2.0000	Unknown	- rpt #189 - str
100	R0905829-001	10.0000	Unknown	0.26g → 25mL
101	R0905829-002	10.0000	Unknown	0.28g →
102	R0905829-003	10.0000	Unknown	0.27g →
103	5829-003 DUP	10.0000	Unknown	0.25g →
104	5829-003 SPK TV = 71.4	10.0000	Unknown	0.28g →
105	R0905829-004	10.0000	Unknown	0.28g →
106	R0905829-005	10.0000	Unknown	0.25g →
107	R0905829-006	10.0000	Unknown	0.30g →
108	R0905829-007	10.0000	Unknown	0.27g → ↓
109	CCV	1.0000	Unknown	
110	CCB	1.0000	Unknown	
111	R0905829-010	10.0000	Unknown	0.25g → 25mL
112	R0905829-011	10.0000	Unknown	0.26g →
113	R0905829-012	10.0000	Unknown	0.29g →
114	R0905829-013	10.0000	Unknown	0.31g →
115	R0905829-014	10.0000	Unknown	0.30g →
116	R0905829-015	10.0000	Unknown	0.26g → ↓
117	R0905829-016	10.0000	Unknown	0.26g → air seke - rpt #190
118	R0905829-017	10.0000	Unknown	0.30g → 25mL
119	R0905829-018	10.0000	Unknown	0.26g →
120	R0905882-001	10.0000	Unknown	0.25g → ↓
121	CCV	1.0000	Unknown	
122	CCB	1.0000	Unknown	

Cup #	Sample ID	Manual Dilution	Sample Type	
123	5882-001 DUP	10.0000	Unknown	0.25g → 25mL
124	5882-001 SPK TV = 74.1	10.0000	Unknown	0.27g →
125	R0905882-002	10.0000	Unknown	0.29g →
126	R0905882-003	10.0000	Unknown	0.30g →
127	R0905882-004	10.0000	Unknown	0.29g →
128	R0905882-007	10.0000	Unknown	0.27g →
129	R0905882-008	10.0000	Unknown	0.29g →
130	5882-008 DUP	10.0000	Unknown	0.27g →
131	5882-008 SPK TV = 69.0	10.0000	Unknown	0.29g →
132	R0905882-009	10.0000	Unknown	0.26g →
133	CCV	1.0000	Unknown	
134	CCB	1.0000	Unknown	
135	R0905882-010	10.0000	Unknown	- air spike - rpt # 191
136	R0905882-011	10.0000	Unknown	0.30g → 25mL
137	R0905882-012	10.0000	Unknown	0.28g →
138	R0905882-013	10.0000	Unknown	0.29g →
139	R0905882-014	10.0000	Unknown	0.30g →
140	R0905882-015	10.0000	Unknown	0.28g →
141	R0905882-018	10.0000	Unknown	0.30g →
142	R0905882-019	10.0000	Unknown	0.27g →
143	R0905882-020	10.0000	Unknown	0.27g →
144	R0905882-021	10.0000	Unknown	0.26g →
145	CCV	1.0000	Unknown	
146	CCB	1.0000	Unknown	
147	R0905882-022	10.0000	Unknown	0.29g → 25mL
148	R0905882-023	10.0000	Unknown	0.30g →
149	R0905882-024	10.0000	Unknown	0.26g →
150	R0905882-025	10.0000	Unknown	0.28g →
151	5882-025 DUP	10.0000	Unknown	0.27g →
152	5882-025 SPK TV = 74.1	10.0000	Unknown	0.27g →
153	R0905901-001	2.0000	Unknown	- rpt # 192 - str
154	R0905901-002	2.0000	Unknown	- rpt # 195 - str
155	R0905901-003	2.0000	Unknown	- rpt # 196 - str
156	R0905901-004	2.0000	Unknown	- rpt # 197 - str
157	CCV	1.0000	Unknown	
158	CCB	1.0000	Unknown	
159	R0905901-005	2.0000	Unknown	- rpt # 198 - str
160	R0905901-006	2.0000	Unknown	- rpt # 199 - str
161	R0905963-001	10.0000	Unknown	0.26g → 25mL
162	5963-001 DUP	10.0000	Unknown	0.25g →
163	5963-001 SPK TV = 76.9	10.0000	Unknown	0.26g →
164	R0905963-002	10.0000	Unknown	0.29g →
165	R0905963-003	10.0000	Unknown	0.27g →
166	R0905963-004	10.0000	Unknown	0.27g →
167	R0905963-005	10.0000	Unknown	0.29g →

Cup #	Sample ID	Manual Dilution	Sample Type	
168	R0905963-006	10.0000	Unknown	0.31g → 25mL
169	CCV	1.0000	Unknown	
170	CCB	1.0000	Unknown	
171	R0905963-007	10.0000	Unknown	0.30g → 25mL
172	R0905963-010	10.0000	Unknown	0.28g → 25mL
173	PB-3 SOIL RPT	1.0000	Unknown	0.25g → 25mL
174	R0905906-001 RPT STR	1.0000	Unknown	
175	R0905935-001 RPT STR	1.0000	Unknown	
176	R0906000-001 RPT 1/10	10.0000	Unknown	
177	R0905744-008 RPT STR	1.0000	Unknown	0.25g → 25mL
178	R0905744-016 RPT STR	1.0000	Unknown	0.27g → ↓
179	R0905888-001 RPT 1/4	4.0000	Unknown	0.29g → ↓
180	5888-001 DUP RPT 1/4	4.0000	Unknown	0.29g → ↓
181	CCV	1.0000	Unknown	
182	CCB	1.0000	Unknown	
183	5888-001SPKRPT1/4TV = 76.9	4.0000	Unknown	0.26g → 25mL
184	R0905888-002 RPT STR	1.0000	Unknown	0.25g → ↓
185	R0905888-003 RPT STR	1.0000	Unknown	0.26g → ↓
186	R0905888-004 RPT STR	1.0000	Unknown	0.32g → ↓
187	R0905888-005 RPT STR	1.0000	Unknown	0.26g → ↓
188	R0905888-006 RPT STR	1.0000	Unknown	0.25g → ↓
189	R0905888-008 RPT STR	1.0000	Unknown	0.25g → ↓
190	R0905829-016 RPT 1/10	10.0000	Unknown	0.27g → ↓
191	R0905882-010 RPT 1/10	10.0000	Unknown	0.30g → ↓
192	R0905901-001 RPT STR	1.0000	Unknown	0.28g → ↓
193	CCV	1.0000	Unknown	
194	CCB	1.0000	Unknown	
195	R0905901-002 RPT STR	1.0000	Unknown	0.28g → 25mL
196	R0905901-003 RPT STR	1.0000	Unknown	0.31g → ↓
197	R0905901-004 SPT STR	1.0000	Unknown	0.25g → ↓
198	R0905901-005 RPT STR	1.0000	Unknown	0.30g → ↓
199	CCV	1.0000	Unknown	
200	CCB	1.0000	Unknown	

Creator: NMEAD
Creation Date: Oct 22, 2009 13:21:45
Last Modified: Oct 22, 2009 13:21:45
Description: QC 8000 365.1 TPO4 - RUN LOG - TPO4B 091022A2

Cup #	Sample ID	Manual Dilution	Sample Type	
1	R0905901-006 RPT 1/4	4.0000	Unknown	0.34g → 25 mL
2	CCV	1.0000	Unknown	
3	CCB	1.0000	Unknown	

OPERATOR: NMEAD
 ACQ. TIME: Oct 22, 2009 10:53:22
 DATA FILENAME: C:\OMNION\DATA\091022A1.FDT
 TRAY FILENAME: C:\OMNION\TRAYS\0910220A.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= 0.8	22 Oct 2009	10:53:25	1	0.7753	1.0	1.00
2	ICB	22 Oct 2009	10:54:08	1	0.0027	1.0	1.00
3	PB-1	22 Oct 2009	10:54:52	1	0.0027	1.0	1.00
4	LCS-1 INORG. TV= 0.8	22 Oct 2009	10:55:35	1	0.7737	1.0	1.00
5	LCS-1 ORG. TV= 0.8	22 Oct 2009	10:56:19	1	0.8124	1.0	1.00
6	PB-2	22 Oct 2009	10:57:01	1	0.0027	1.0	1.00
7	LCS-2 INORG.	22 Oct 2009	10:57:44	1	0.7845	1.0	1.00
8	LCS-2 ORG.	22 Oct 2009	10:58:26	1	0.7892	1.0	1.00
9	PB-1 SOIL	22 Oct 2009	10:59:09	1	0.0036	1.0	1.00 = 45.00
10	LCS-1 SOIL INORG TV=80	22 Oct 2009	10:59:51	1	0.7894	1.0	1.00 = 78.94
11	LCS-1 SOIL ORG TV= 80	22 Oct 2009	11:00:34	1	0.8072	1.0	1.00 = 80.72
12	PB-2 SOIL	22 Oct 2009	11:01:17	1	0.0127	1.0	1.00 = 45.00
13	CCV	22 Oct 2009	11:01:58	1	0.7605	1.0	1.00 x
14	CCB	22 Oct 2009	11:02:40	1	0.0027	1.0	1.00
15	LCS-2 SOIL INORG	22 Oct 2009	11:03:21	1	0.7721	1.0	1.00 = 77.21
16	LCS-2 SOIL ORG	22 Oct 2009	11:04:05	1	0.7726	1.0	1.00 = 77.26
17	PB-3 SOIL	22 Oct 2009	11:04:48	1	0.0187	1.0	1.00 - air spike - rpt #173
18	LCS-3 SOIL INORG	22 Oct 2009	11:05:32	1	0.7956	1.0	1.00 = 79.56
19	LCS-3 SOIL ORG	22 Oct 2009	11:06:16	1	0.7830	1.0	1.00 = 78.30
20	PB-4 SOIL	22 Oct 2009	11:06:59	1	0.0154	1.0	1.00 = 45.00
21	LCS-4 SOIL INORG	22 Oct 2009	11:07:43	1	0.7863	1.0	1.00 = 78.63
22	LCS-4 SOIL ORG	22 Oct 2009	11:08:25	1	0.7839	1.0	1.00 = 78.39
23	CRDL - 0.100	22 Oct 2009	11:09:08	1	0.0973	1.0	1.00
24	CRDL - 0.050	22 Oct 2009	11:09:50	1	0.0493	1.0	1.00
25	CCV	22 Oct 2009	11:10:33	1	0.7699	1.0	1.00

OPERATOR: NMEAD
 ACQ. TIME: Oct 22, 2009 10:53:22
 DATA FILENAME: C:\OMNION\DATA\091022A1.FDT
 TRAY FILENAME: C:\OMNION\TRAYS\0910220A.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	CCB	22 Oct 2009	11:11:15	1	0.0027	1.0	1.00
27	RQ0909850-01 MB	22 Oct 2009	11:11:58	1	0.0098	1.0	1.00
28	R0905626-001	22 Oct 2009	11:12:40	1	0.0260	1.0	1.00
29	R0905626-003	22 Oct 2009	11:13:21	1	0.0068	1.0	1.00
30	R0905626-005	22 Oct 2009	11:14:03	1	0.0511	1.0	1.00
31	R0905626-007	22 Oct 2009	11:14:46	1	0.0073	1.0	1.00
32	RQ0909961-01 MB	22 Oct 2009	11:15:30	1	0.0086	1.0	1.00
33	R0905626-002	22 Oct 2009	11:16:13	1	0.0201	1.0	1.00
34	R0905626-004	22 Oct 2009	11:16:57	1	0.0078	1.0	1.00
35	R0905626-006	22 Oct 2009	11:17:41	1	0.0073	1.0	1.00
36	R0905626-008	22 Oct 2009	11:18:24	1	0.0087	1.0	1.00
37	CCV	22 Oct 2009	11:19:08	1	0.7729	1.0	1.00
38	CCB	22 Oct 2009	11:19:50	1	0.0027	1.0	1.00
39	R0905636-001	22 Oct 2009	11:20:33	1	0.0067	1.0	1.00
40	R0905636-002	22 Oct 2009	11:21:16	1	0.0138	1.0	1.00
41	5636-002 DUP	22 Oct 2009	11:21:58	1	0.0159	1.0	1.00
42	5636-002 SPK TV= 0.8	22 Oct 2009	11:22:41	1	0.7892	1.0	1.00
43	R0905636-003	22 Oct 2009	11:23:23	1	0.0150	1.0	1.00
44	R0905636-006	22 Oct 2009	11:24:06	1	0.3602	1.0	1.00
45	R0905744-011	22 Oct 2009	11:24:48	1	0.0079	1.0	1.00
46	R0905784-001	22 Oct 2009	11:25:32	1	0.0089	1.0	1.00
47	5784-001 DUP	22 Oct 2009	11:26:16	1	0.0086	1.0	1.00
48	5784-001 SPK TV= 0.8	22 Oct 2009	11:26:59	1	0.7837	1.0	1.00
49	CCV	22 Oct 2009	11:27:43	1	0.7716	1.0	1.00
50	CCB	22 Oct 2009	11:28:26	1	0.0027	1.0	1.00

OPERATOR: NMEAD
 ACQ. TIME: Oct 22, 2009 10:53:22
 DATA FILENAME: C:\OMNION\DATA\091022A1.FDT
 TRAY FILENAME: C:\OMNION\TRAYS\0910220A.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	R0905829-009	22 Oct 2009	11:29:10	1	0.0069	1.0	1.00
52	R0905882-006	22 Oct 2009	11:29:54	1	0.0027	1.0	1.00
53	R0905858-001	22 Oct 2009	11:30:37	1	4.2301	4.0	1.00
54	R0905858-002	22 Oct 2009	11:31:21	1	3.0076	4.0	1.00
55	R0905858-003	22 Oct 2009	11:32:03	1	4.1539	4.0	1.00
56	R0905858-004	22 Oct 2009	11:32:46	1	3.1558	4.0	1.00
57	R0905858-005	22 Oct 2009	11:33:28	1	3.9962	4.0	1.00
58	R0905858-006	22 Oct 2009	11:34:11	1	3.5794	4.0	1.00
59	R0905906-001	22 Oct 2009	11:34:53	1	0.6349	2.0	1.00 - rpt @ #174-str.
60	R0905932-002	22 Oct 2009	11:35:36	1	4.2602	4.0	1.00
61	CCV	22 Oct 2009	11:36:20	1	0.7733	1.0	1.00
62	CCB	22 Oct 2009	11:37:04	1	0.0027	1.0	1.00
63	R0905935-001	22 Oct 2009	11:37:48	1	1.5027	4.0	1.00 - rpt @ #175-str.
64	R0905935-002	22 Oct 2009	11:38:32	1	2.0417	4.0	1.00
65	5935-002 DUP	22 Oct 2009	11:39:15	1	2.0890	4.0	1.00
66	5935-002 SPK TV= 0.8	22 Oct 2009	11:39:59	1	2.8145	4.0	1.00
67	R0905935-003	22 Oct 2009	11:40:42	1	2.2285	2.0	1.00
68	R0905959-001	22 Oct 2009	11:41:26	1	4.5302	4.0	1.00
69	R0905963-009	22 Oct 2009	11:42:10	1	0.0058	1.0	1.00
70	R0906000-001	22 Oct 2009	11:42:53	1	9.1590	1.0	1.00 - rpt @ #176-1/10
0.26g 71	R0905744-007	22 Oct 2009	11:43:36	1	6.9618	10.0	1.00 = 669.42
0.27g 72	5744-007 DUP	22 Oct 2009	11:44:18	1	7.0008	10.0	1.00 = 648.24
73	CCV	22 Oct 2009	11:45:01	1	0.7762	1.0	1.00
74	CCB	22 Oct 2009	11:45:43	1	0.0027	1.0	1.00
0.25g 75	5744-007 SPK TV= 80.0	22 Oct 2009	11:46:26	1	7.1451	10.0	1.00 = 714.50

OPERATOR: NMEAD
 ACQ. TIME: Oct 22, 2009 10:53:22
 DATA FILENAME: C:\OMNION\DATA\091022A1.FDT
 TRAY FILENAME: C:\OMNION\TRAYS\0910220A.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 365.1 Total Phosphorus (mg/L)	Man Dil Factor	Auto Dil Factor	
	76	R0905744-008	22 Oct 2009	11:47:11	1	1.7793	10.0	1.00 - rpt @ #177-str
1.26g	77	R0905744-009	22 Oct 2009	11:47:55	1	3.7099	10.0	1.00 = 356.72
1.26g	78	R0905744-012	22 Oct 2009	11:48:40	1	8.5094	10.0	1.00 = 818.21
1.30g	79	R0905744-013	22 Oct 2009	11:49:23	1	12.2010	10.0	1.00 = 1016.75
1.25g	80	R0905744-014	22 Oct 2009	11:50:07	1	5.1252	10.0	1.00 = 512.52
1.26g	81	R0905744-015	22 Oct 2009	11:50:50	1	8.4906	10.0	1.00 = 816.40
	82	R0905744-016	22 Oct 2009	11:51:34	1	1.7105	10.0	1.00 - rpt @ #178-str.
1.29g	83	R0905744-017	22 Oct 2009	11:52:17	1	11.2588	10.0	1.00 = 970.59
1.27g	84	R0905744-018	22 Oct 2009	11:53:01	1	6.6525	10.0	1.00 = 615.97
	85	CCV	22 Oct 2009	11:53:45	1	0.7779	1.0	1.00
	86	CCB	22 Oct 2009	11:54:27	1	0.0027	1.0	1.00
1.28g	87	R0905744-019	22 Oct 2009	11:55:10	1	7.7776	10.0	1.00 = 694.43
	88	R0905888-001	22 Oct 2009	11:55:52	1	4.5668	2.0	1.00
	89	5888-001 DUP	22 Oct 2009	11:56:35	1	4.1224	2.0	1.00 } rpt @ #179,180,183-1/4
	90	5888-001 SPK TV= 76.9	22 Oct 2009	11:57:17	1	4.6771	2.0	1.00
	91	R0905888-002	22 Oct 2009	11:58:02	1	0.3539	2.0	1.00 - rpt @ #184-str.
	92	R0905888-003	22 Oct 2009	11:58:47	1	0.5469	2.0	1.00 - rpt @ #185-str.
	93	R0905888-004	22 Oct 2009	11:59:32	1	1.1235	2.0	1.00 - rpt @ #186-str.
	94	R0905888-005	22 Oct 2009	12:00:16	1	0.3481	2.0	1.00 - rpt @ #187-str.
	95	R0905888-006	22 Oct 2009	12:01:01	1	0.4552	2.0	1.00 - rpt @ #188-str.
1.27g	96	R0905888-007	22 Oct 2009	12:01:44	1	2.2931	2.0	1.00 = 212.32
	97	CCV	22 Oct 2009	12:02:28	1	0.7710	1.0	1.00
	98	CCB	22 Oct 2009	12:03:11	1	0.0027	1.0	1.00
	99	R0905888-008	22 Oct 2009	12:03:55	1	1.2689	2.0	1.00 - rpt @ #189-str.
1.26g	100	R0905829-001	22 Oct 2009	12:04:38	1	5.4936	10.0	1.00 = 528.23

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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 365.1 Total Phosphorus (mg/L)	Man Dil Factor	Auto Dil Factor	
1.28g	101 R0905829-002	22 Oct 2009	12:05:22	1	10.6549	10.0	1.00	= 951.33
1.27g	102 R0905829-003	22 Oct 2009	12:06:06	1	8.4896	10.0	1.00	= 786.11
1.25g	103 5829-003 DUP	22 Oct 2009	12:06:48	1	9.1478	10.0	1.00	= 914.8
1.28g	104 5829-003 SPK TV= 71.4	22 Oct 2009	12:07:31	1	9.3770	10.0	1.00	= 837.23
1.28g	105 R0905829-004	22 Oct 2009	12:08:13	1	6.2637	10.0	1.00	= 559.26
1.25g	106 R0905829-005	22 Oct 2009	12:08:58	1	5.6840	10.0	1.00	= 568.40
1.30g	107 R0905829-006	22 Oct 2009	12:09:43	1	6.7177	10.0	1.00	= 559.81
1.27g	108 R0905829-007	22 Oct 2009	12:10:27	1	3.6572	10.0	1.00	= 338.63
	109 CCV	22 Oct 2009	12:11:12	1	0.7645	1.0	1.00	
	110 CCB	22 Oct 2009	12:11:56	1	0.0027	1.0	1.00	
1.25g	111 R0905829-010	22 Oct 2009	12:12:40	1	10.9418	10.0	1.00	= 1094.18
1.26g	112 R0905829-011	22 Oct 2009	12:13:24	1	7.9683	10.0	1.00	= 766.18
1.29g	113 R0905829-012	22 Oct 2009	12:14:07	1	8.9876	10.0	1.00	= 774.79
1.31g	114 R0905829-013	22 Oct 2009	12:14:51	1	8.0969	10.0	1.00	= 652.98
1.30g	115 R0905829-014	22 Oct 2009	12:15:34	1	3.9967	10.0	1.00	= 333.06
1.26g	116 R0905829-015	22 Oct 2009	12:16:18	1	8.0385	10.0	1.00	= 772.93
	117 R0905829-016	22 Oct 2009	12:17:02	1	5.2401	10.0	1.00	-air spike - rpt #190
1.30g	118 R0905829-017	22 Oct 2009	12:17:45	1	10.1385	10.0	1.00	= 844.88
1.26g	119 R0905829-018	22 Oct 2009	12:18:29	1	4.6807	10.0	1.00	= 450.07
1.25g	120 R0905882-001	22 Oct 2009	12:19:11	1	18.6001	10.0	1.00	= 1860.01
	121 CCV	22 Oct 2009	12:19:56	1	0.7723	1.0	1.00	
	122 CCB	22 Oct 2009	12:20:41	1	0.0027	1.0	1.00	
1.25g	123 5882-001 DUP	22 Oct 2009	12:21:25	1	16.4059	10.0	1.00	= 1640.6
1.27g	124 5882-001 SPK TV= 74.1	22 Oct 2009	12:22:10	1	18.9083	10.0	1.00	= 1750.74
0.29g	125 R0905882-002	22 Oct 2009	12:22:54	1	7.3224	10.0	1.00	= 631.24

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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 365.1 Total Phosphorus (mg/L)	Man Dil Factor	Auto Dil Factor	
1.30g	126 R0905882-003	22 Oct 2009	12:23:39	1	7.1147	10.0	1.00	= 592.89
1.29g	127 R0905882-004	22 Oct 2009	12:24:24	1	6.1037	10.0	1.00	= 526.18
0.27g	128 R0905882-007	22 Oct 2009	12:25:07	1	14.0582	10.0	1.00	= 1301.69
1.29g	129 R0905882-008	22 Oct 2009	12:25:51	1	8.6061	10.0	1.00	= 741.90
1.27g	130 5882-008 DUP	22 Oct 2009	12:26:35	1	8.2893	10.0	1.00	= 767.50
1.29g	131 5882-008 SPK TV= 69.0	22 Oct 2009	12:27:18	1	8.8743	10.0	1.00	= 765.00
1.26g	132 R0905882-009	22 Oct 2009	12:28:02	1	7.4296	10.0	1.00	= 714.38
	133 CCV	22 Oct 2009	12:28:45	1	0.7760	1.0	1.00	
	134 CCB	22 Oct 2009	12:29:29	1	0.0027	1.0	1.00	
	135 R0905882-010	22 Oct 2009	12:30:11	1	4.1926	10.0	1.00	-air spike - rpt c #191
1.30g	136 R0905882-011	22 Oct 2009	12:30:56	1	8.1909	10.0	1.00	= 682.58
1.28g	137 R0905882-012	22 Oct 2009	12:31:41	1	9.1089	10.0	1.00	= 813.29
1.29g	138 R0905882-013	22 Oct 2009	12:32:25	1	6.8993	10.0	1.00	= 594.77
1.30g	139 R0905882-014	22 Oct 2009	12:33:10	1	8.1221	10.0	1.00	= 676.84
1.28g	140 R0905882-015	22 Oct 2009	12:33:55	1	6.0823	10.0	1.00	= 543.06
1.30g	141 R0905882-018	22 Oct 2009	12:34:39	1	7.8412	10.0	1.00	= 653.43
1.27g	142 R0905882-019	22 Oct 2009	12:35:24	1	7.9683	10.0	1.00	= 737.81
0.27g	143 R0905882-020	22 Oct 2009	12:36:08	1	6.4352	10.0	1.00	= 595.85
1.26g	144 R0905882-021	22 Oct 2009	12:36:52	1	7.3339	10.0	1.00	= 705.18
	145 CCV	22 Oct 2009	12:37:35	1	0.7792	1.0	1.00	
	146 CCB	22 Oct 2009	12:38:19	1	0.0027	1.0	1.00	
1.29g	147 R0905882-022	22 Oct 2009	12:39:03	1	5.9567	10.0	1.00	= 513.51
1.30g	148 R0905882-023	22 Oct 2009	12:39:46	1	9.4510	10.0	1.00	= 787.58
1.26g	149 R0905882-024	22 Oct 2009	12:40:30	1	5.2035	10.0	1.00	= 500.34
1.28g	150 R0905882-025	22 Oct 2009	12:41:13	1	6.0545	10.0	1.00	= 540.58

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 ACQ. TIME: Oct 22, 2009 10:53:22
 DATA FILENAME: C:\OMNION\DATA\091022A1.FDT
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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 365.1 Total Phosphorus (mg/L)	Man Dil Factor	Auto Dil Factor	
0.27g	151 5882-025 DUP	22 Oct 2009	12:41:59	1	6.9716	10.0	1.00	= 645.52
0.27g	152 5882-025 SPK TV= 74.1	22 Oct 2009	12:42:45	1	5.7139	10.0	1.00	= 529.06
	153 R0905901-001	22 Oct 2009	12:43:29	1	0.1054	2.0	1.00	- rpt @ # 192-str
	154 R0905901-002	22 Oct 2009	12:44:14	1	0.3940	2.0	1.00	- rpt @ # 195-str.
	155 R0905901-003	22 Oct 2009	12:44:59	1	0.4969	2.0	1.00	- rpt @ # 196-str.
	156 R0905901-004	22 Oct 2009	12:45:43	1	0.5851	2.0	1.00	- rpt @ # 197-str.
	157 CCV	22 Oct 2009	12:46:28	1	0.7763	1.0	1.00	
	158 CCB	22 Oct 2009	12:47:12	1	0.0049	1.0	1.00	
	159 R0905901-005	22 Oct 2009	12:47:57	1	0.8006	2.0	1.00	- rpt @ # 198-str.
	160 R0905901-006	22 Oct 2009	12:48:41	1	5.5298	2.0	1.00	- rpt @ # 1 tray 2 - 1/4
0.26g	161 R0905963-001	22 Oct 2009	12:49:24	1	9.3602	10.0	1.00	= 900.02
0.25g	162 5963-001 DUP	22 Oct 2009	12:50:08	1	9.3985	10.0	1.00	= 939.85
0.26g	163 5963-001 SPK TV= 76.9	22 Oct 2009	12:50:51	1	9.4610	10.0	1.00	= 909.71
0.24g	164 R0905963-002	22 Oct 2009	12:51:35	1	9.7875	10.0	1.00	= 843.75
0.27g	165 R0905963-003	22 Oct 2009	12:52:18	1	5.3774	10.0	1.00	= 497.91
0.27g	166 R0905963-004	22 Oct 2009	12:53:04	1	8.5631	10.0	1.00	= 792.88
0.24g	167 R0905963-005	22 Oct 2009	12:53:50	1	9.5151	10.0	1.00	= 820.27
0.31g	168 R0905963-006	22 Oct 2009	12:54:35	1	8.0707	10.0	1.00	= 650.86
	169 CCV	22 Oct 2009	12:55:19	1	0.7747	1.0	1.00	
	170 CCB	22 Oct 2009	12:56:04	1	0.0027	1.0	1.00	
0.30g	171 R0905963-007	22 Oct 2009	12:56:48	1	7.9412	10.0	1.00	= 661.77
0.28g	172 R0905963-010	22 Oct 2009	12:57:33	1	8.2797	10.0	1.00	= 739.26
0.25g	173 PB-3 SOIL RPT	22 Oct 2009	12:58:17	1	0.0133	1.0	1.00	= 45.00
	174 R0905906-001 RPT STR	22 Oct 2009	12:59:02	1	0.6330	1.0	1.00	
	175 R0905935-001 RPT STR	22 Oct 2009	12:59:46	1	1.4826	1.0	1.00	

OPERATOR: NMEAD
 ACQ. TIME: Oct 22, 2009 10:53:22
 DATA FILENAME: C:\OMNION\DATA\091022A1.FDT
 TRAY FILENAME: C:\OMNION\TRAYS\0910220A.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 365.1 Total Phosphorus (mg/L)	Man Dil Factor	Auto Dil Factor
	176 R0906000-001 RPT 1/10	22 Oct 2009	13:00:29	1	10.8858	10.0	1.00
2.25g	177 R0905744-008 RPT STR	22 Oct 2009	13:01:13	1	1.9358	1.0	1.00 = 193.58
2.27g	178 R0905744-016 RPT STR	22 Oct 2009	13:01:56	1	1.7098	1.0	1.00 = 170.98 158.31
2.24g	179 R0905888-001 RPT 1/4	22 Oct 2009	13:02:40	1	4.6055	4.0	1.00 = 397.03
2.24g	180 5888-001 DUP RPT 1/4	22 Oct 2009	13:03:23	1	4.1186	4.0	1.00 = 355.07
	181 CCV	22 Oct 2009	13:04:09	1	0.7742	1.0	1.00
	182 CCB	22 Oct 2009	13:04:55	1	0.0027	1.0	1.00
0.26g	183 5888-001SPKRPT1/4TV=76.9	22 Oct 2009	13:05:41	1	4.8464	4.0	1.00 = 406.00
2.25g	184 R0905888-002 RPT STR	22 Oct 2009	13:06:26	1	0.3670	1.0	1.00 = 36.70
0.26g	185 R0905888-003 RPT STR	22 Oct 2009	13:07:11	1	0.5541	1.0	1.00 = 53.28
1.32g	186 R0905888-004 RPT STR	22 Oct 2009	13:07:56	1	1.1279	1.0	1.00 = 88.12
1.26g	187 R0905888-005 RPT STR	22 Oct 2009	13:08:40	1	0.3717	1.0	1.00 = 35.74
2.25g	188 R0905888-006 RPT STR	22 Oct 2009	13:09:25	1	0.4533	1.0	1.00 = 45.33
2.25g	189 R0905888-008 RPT STR	22 Oct 2009	13:10:09	1	1.2896	1.0	1.00 = 128.96
2.27g	190 R0905829-016 RPT 1/10	22 Oct 2009	13:10:54	1	5.4925	10.0	1.00 = 508.61
1.30g	191 R0905882-010 RPT 1/10	22 Oct 2009	13:11:39	1	4.1322	10.0	1.00 = 344.33
2.28g	192 R0905901-001 RPT STR	22 Oct 2009	13:12:22	1	0.1030	1.0	1.00 = 9.20
	193 CCV	22 Oct 2009	13:13:06	1	0.7796	1.0	1.00
	194 CCB	22 Oct 2009	13:13:49	1	0.0027	1.0	1.00
2.28g	195 R0905901-002 RPT STR	22 Oct 2009	13:14:33	1	0.3987	1.0	1.00 = 35.60
1.31g	196 R0905901-003 RPT STR	22 Oct 2009	13:15:19	1	0.5068	1.0	1.00 = 40.87
2.25g	197 R0905901-004 SPT STR	22 Oct 2009	13:16:06	1	0.5949	1.0	1.00 = 59.49
1.30g	198 R0905901-005 RPT STR	22 Oct 2009	13:16:51	1	0.8061	1.0	1.00 = 67.18
	199 CCV	22 Oct 2009	13:17:37	1	0.7797	1.0	1.00
	200 CCB	22 Oct 2009	13:18:23	1	0.0027	1.0	1.00

OPERATOR: NMEAD
ACQ. TIME: Oct 22, 2009 13:22:33
DATA FILENAME: C:\OMNION\DATA\091022A2.FDT
TRAY FILENAME: C:\OMNION\TRAYS\091022A2.TRA

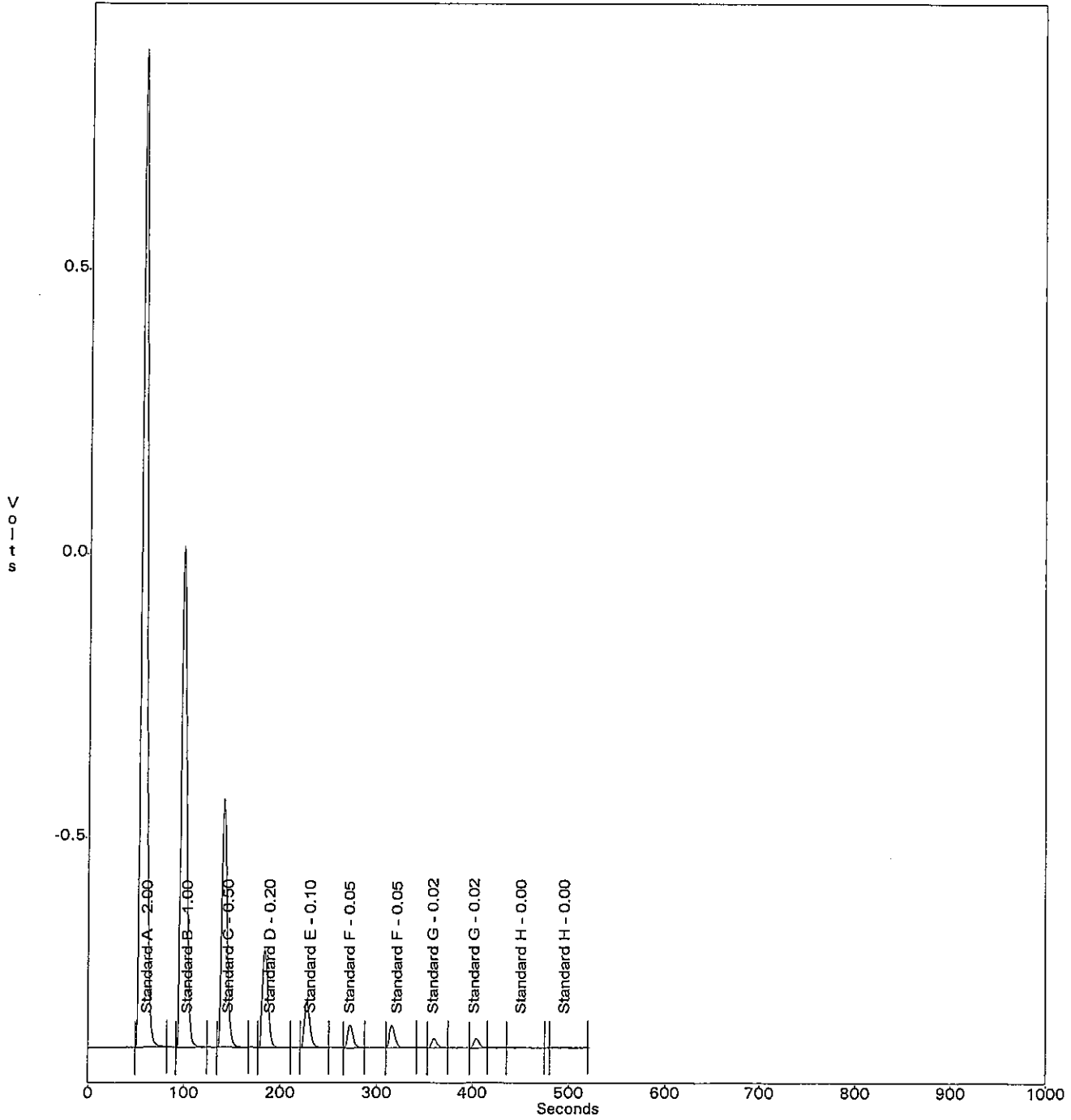
Multi-Channel Table
Type: Unknowns
Channel Range: 1 to 8 -- Cup Range: 1 to 25

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	QC 8000 365.1 Total Phosphorus (mg/L)	Man Dil Factor	Auto Dil Factor
1.34g	1 R0905901-006 RPT 1/4	22 Oct 2009	13:22:36	1	5.7291	4.0	1.00
2	CCV	22 Oct 2009	13:23:19	1	0.7851	1.0	1.00
3	CCB	22 Oct 2009	13:24:03	1	0.0027	1.0	1.00

= 421.26

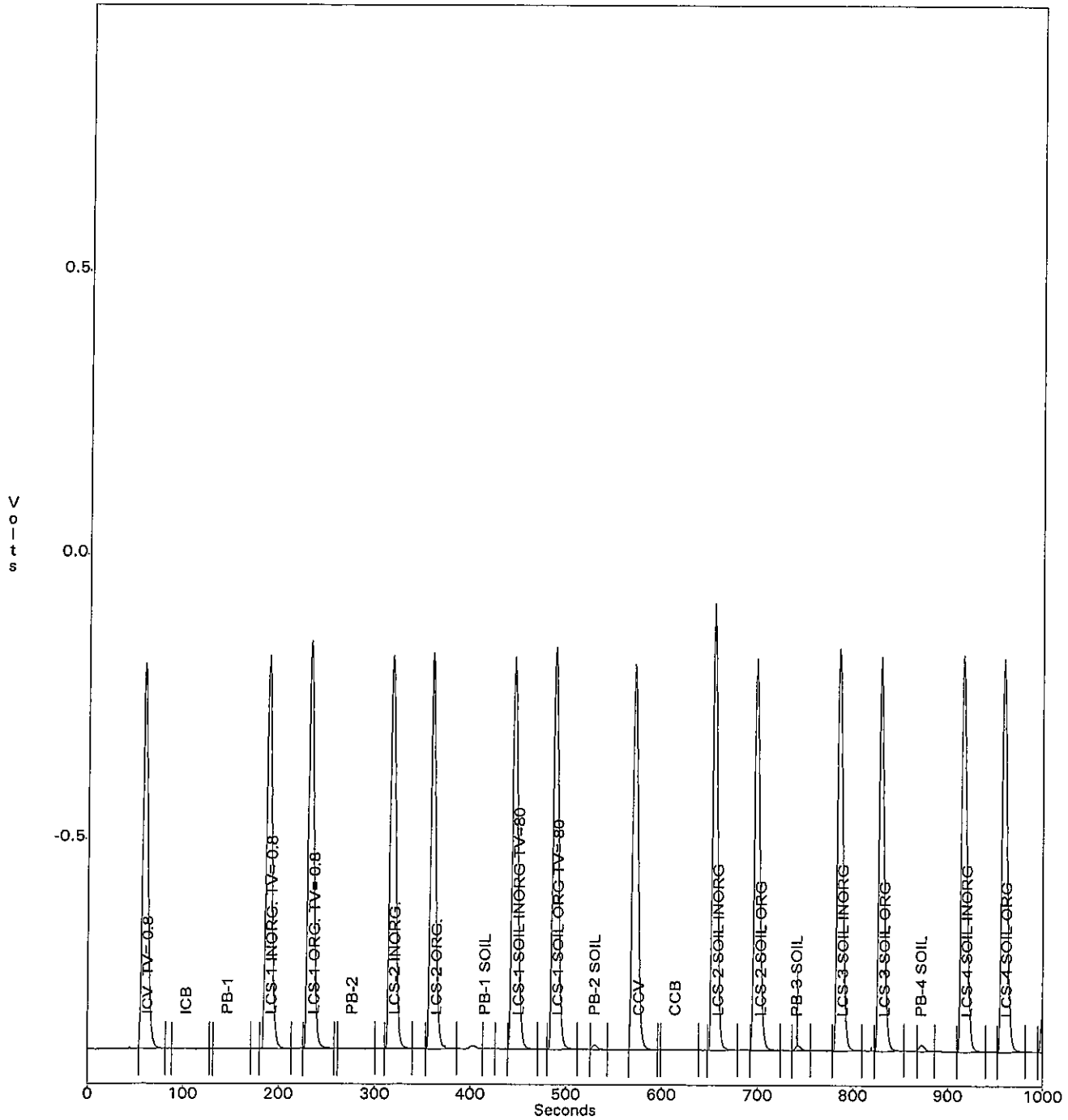
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TRAY FILENAME: C:\OMNION\TRAYS\0910220A.TRA

Channel 1 - QC 8000 365.1 Total Phosphorus



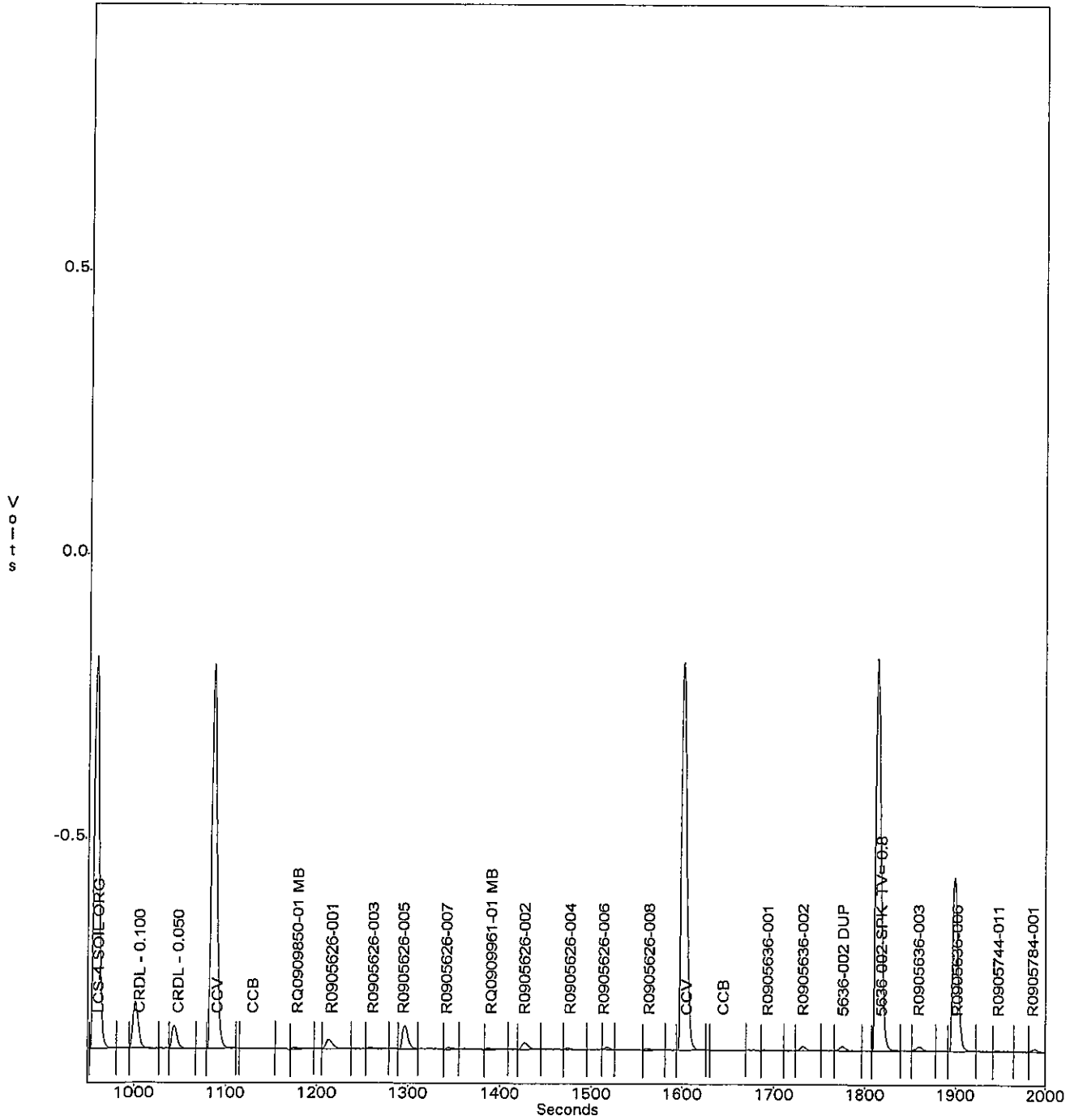
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TRAY FILENAME: C:\OMNION\TRAYS\0910220A.TRA

Channel 1 - QC 8000 365.1 Total Phosphorus



OPERATOR: NMEAD
ACQ. TIME: Oct 22, 2009 10:53:22
DATA FILENAME: C:\OMNION\DATA\091022A1.FDT
TRAY FILENAME: C:\OMNION\TRAYS\0910220A.TRA

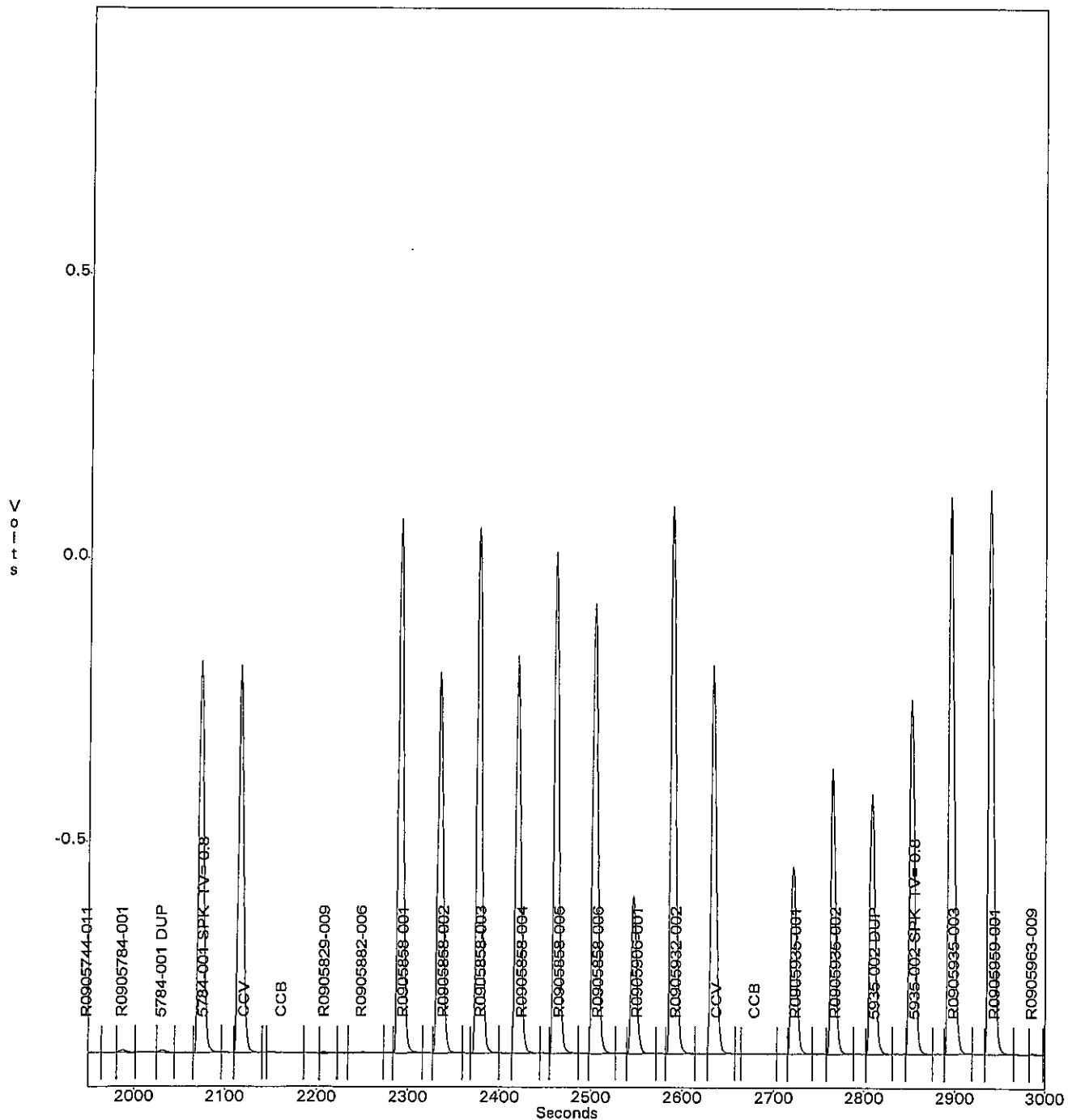
Channel 1 - QC 8000 365.1 Total Phosphorus



OPERATOR:
ACQ. TIME:
DATA FILENAME:
TRAY FILENAME:

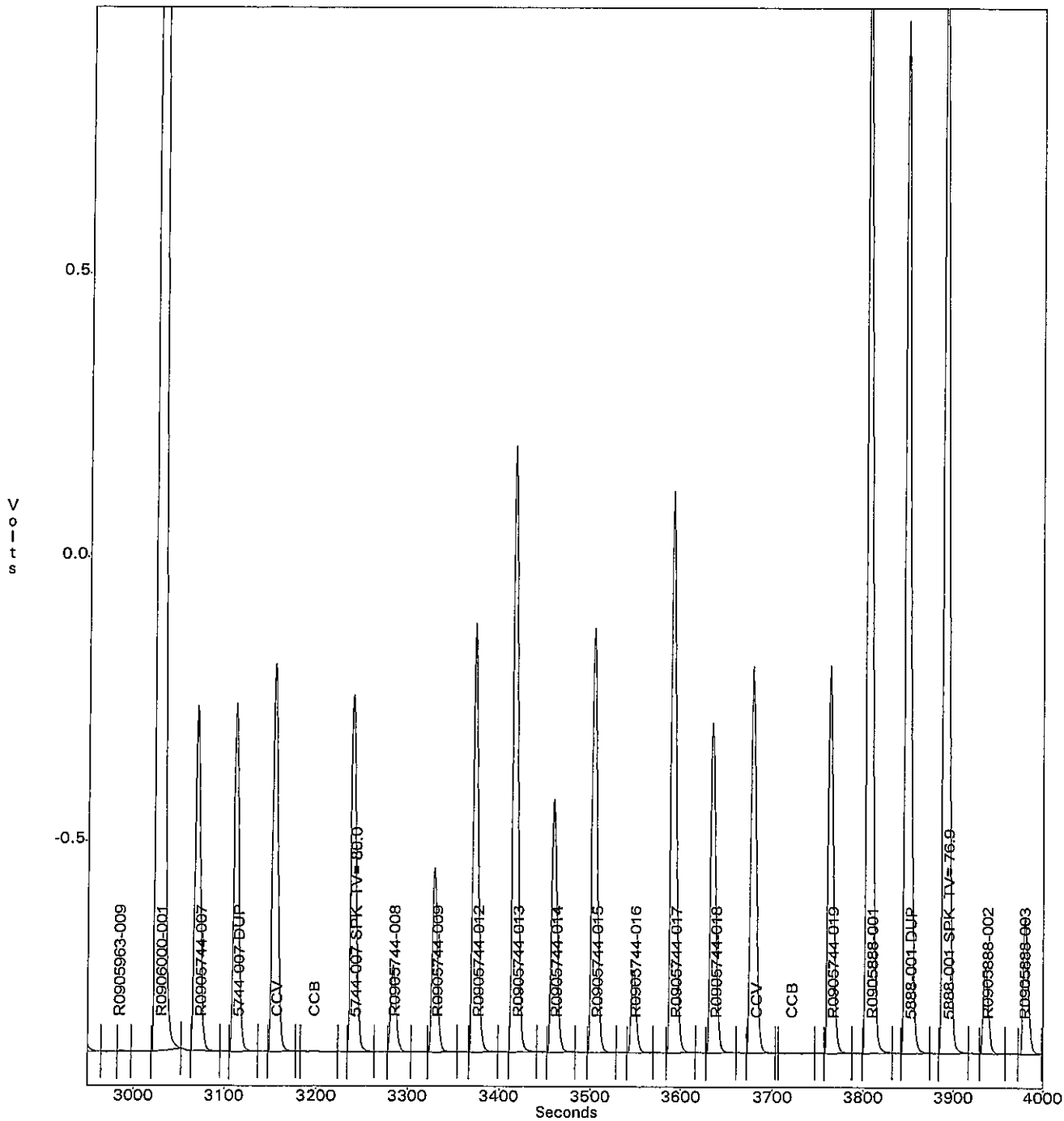
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Oct 22, 2009 10:53:22
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Channel 1 - QC 8000 365.1 Total Phosphorus



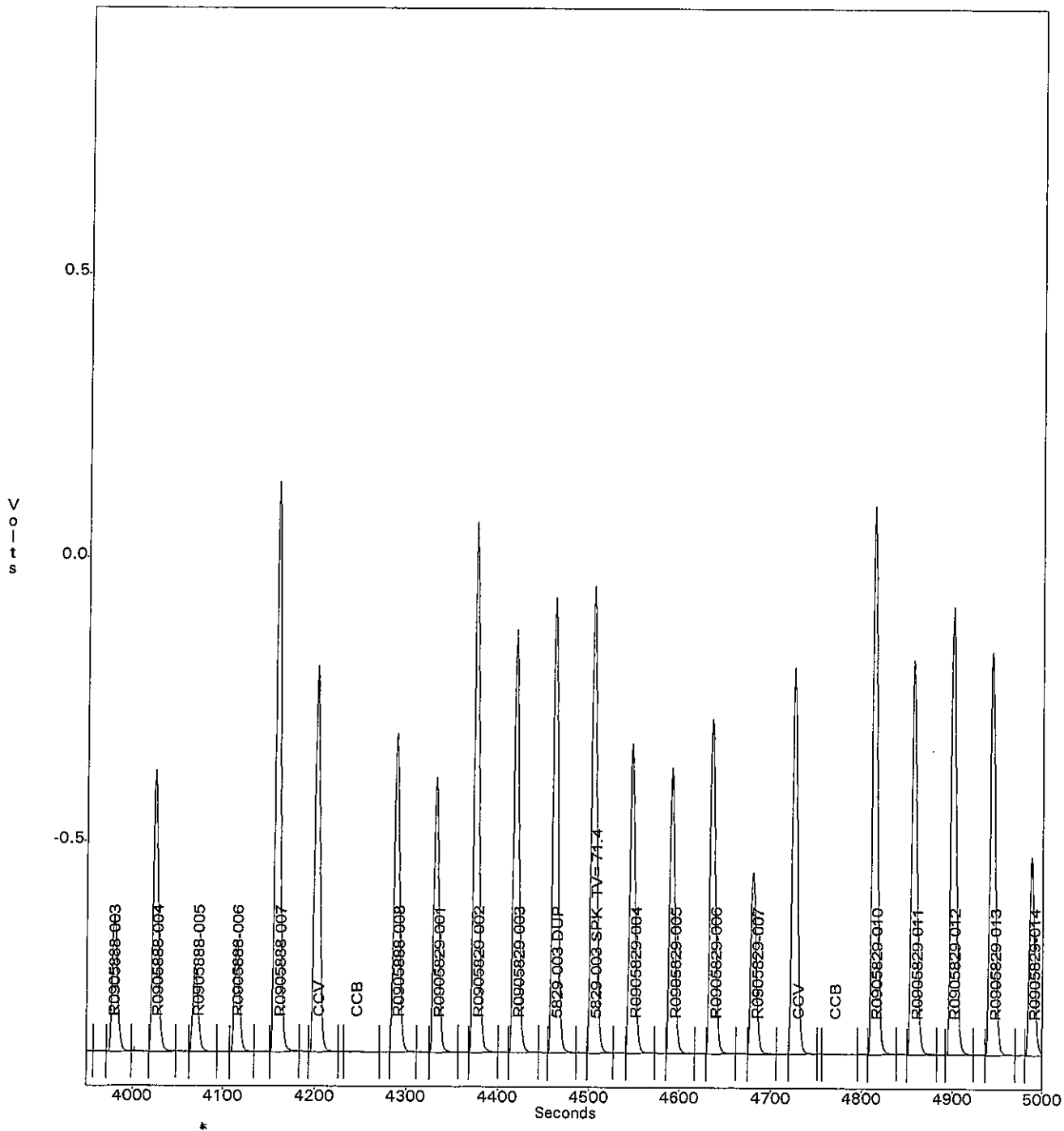
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DATA FILENAME: C:\OMNION\DATA\091022A1.FDT
TRAY FILENAME: C:\OMNION\TRAYS\0910220A.TRA

Channel 1 - QC 8000 365.1 Total Phosphorus



OPERATOR: NMEAD
ACQ. TIME: Oct 22, 2009 10:53:22
DATA FILENAME: C:\OMNION\DATA\091022A1.FDT
TRAY FILENAME: C:\OMNION\TRAYS\0910220A.TRA

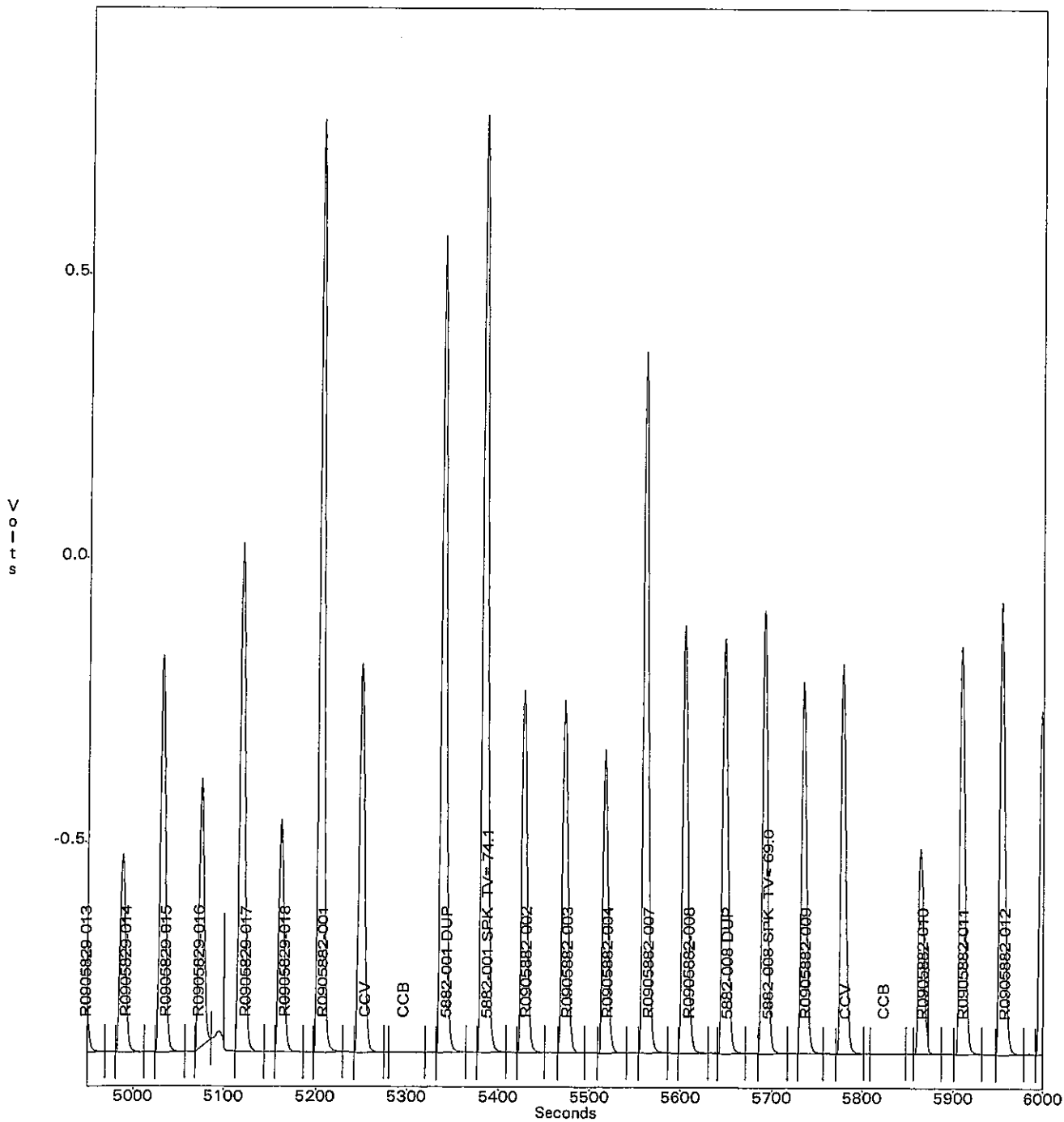
Channel 1 - QC 8000 365.1 Total Phosphorus



OPERATOR:
ACQ. TIME:
DATA FILENAME:
TRAY FILENAME:

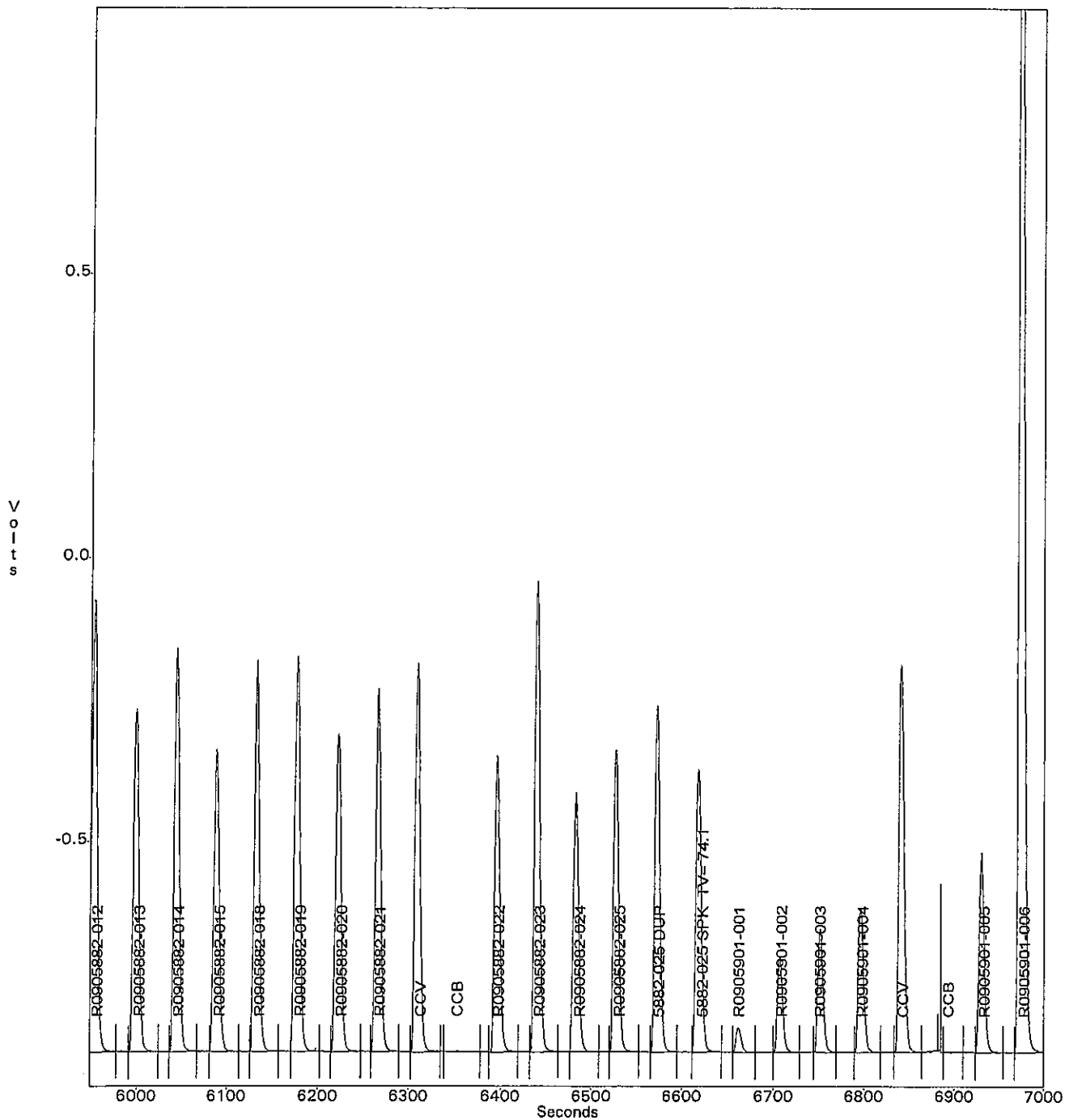
NMEAD
Oct 22, 2009 10:53:22
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C:\OMNION\TRAYS\0910220A.TRA

Channel 1 - QC 8000 365.1 Total Phosphorus



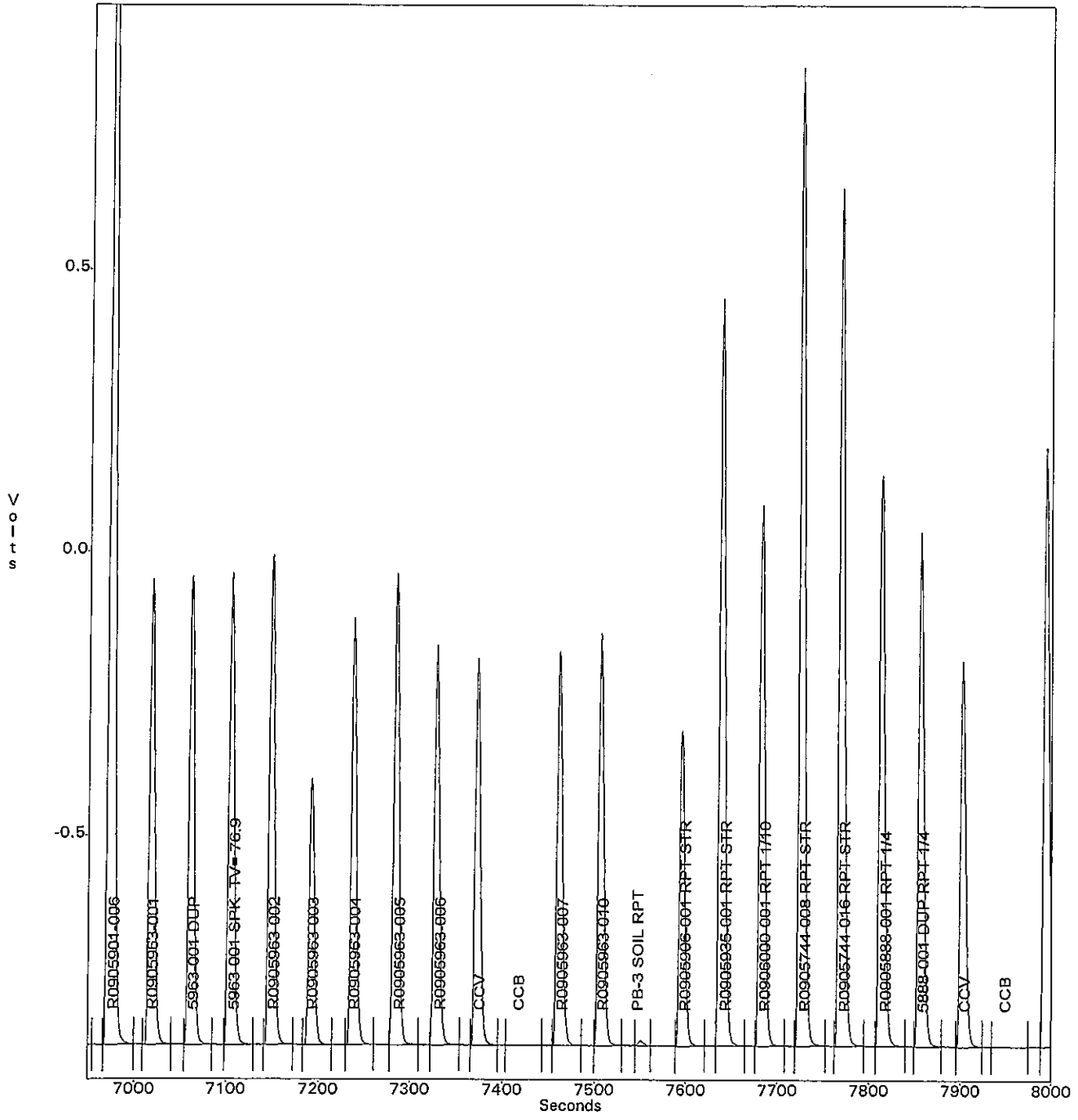
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TRAY FILENAME: C:\OMNION\TRAYS\0910220A.TRA

Channel 1 - QC 8000 365.1 Total Phosphorus



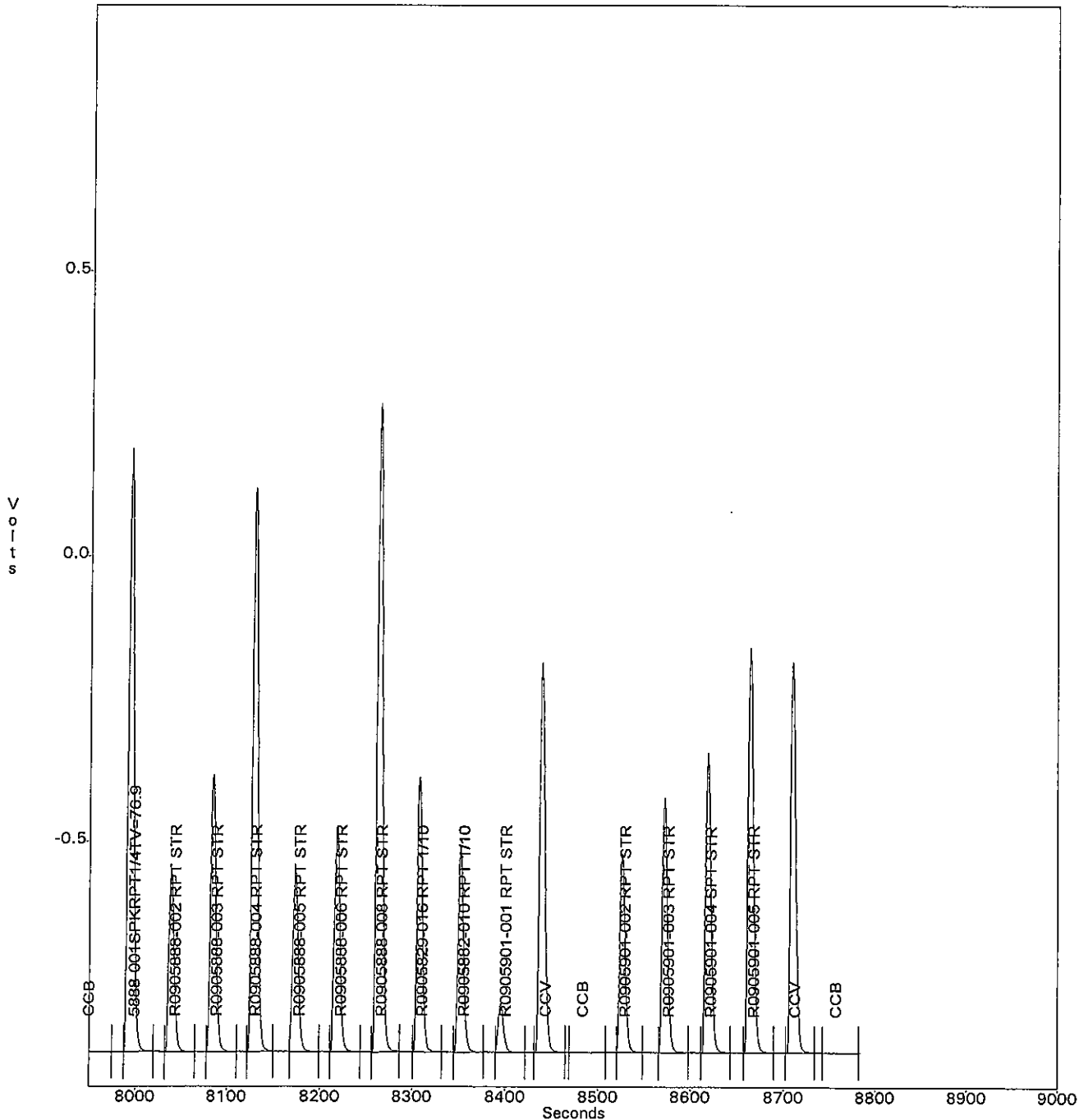
OPERATOR: NMEAD
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DATA FILENAME: C:\OMNION\DATA\091022A1.FDT
TRAY FILENAME: C:\OMNION\TRAYS\0910220A.TRA

Channel 1 - QC 8000 365.1 Total Phosphorus



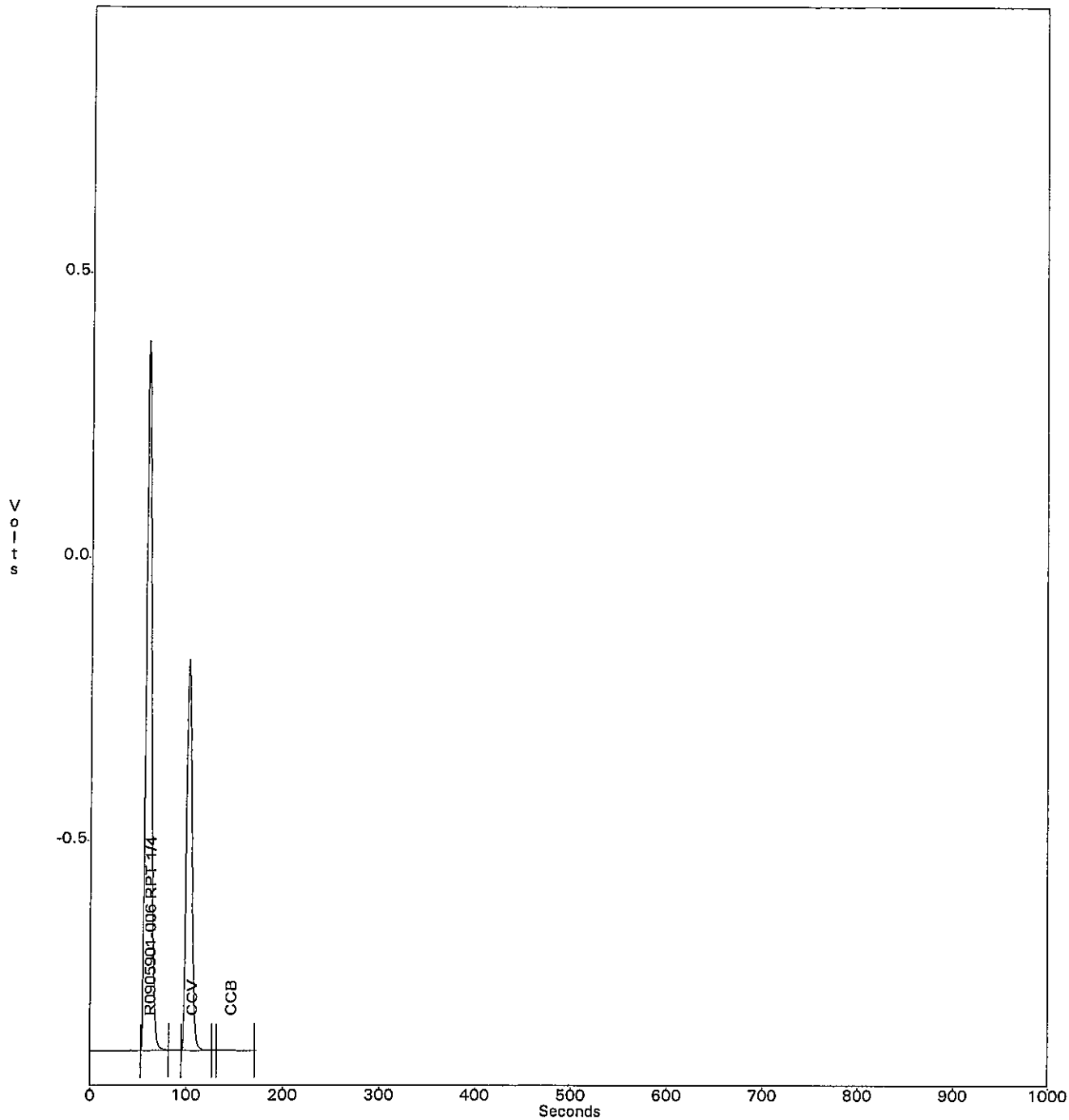
OPERATOR: NMEAD
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DATA FILENAME: C:\OMNION\DATA\091022A1.FDT
TRAY FILENAME: C:\OMNION\TRAYS\0910220A.TRA

Channel 1 - QC 8000 365.1 Total Phosphorus



OPERATOR: NMEAD
ACQ. TIME: Oct 22, 2009 13:22:33
DATA FILENAME: C:\OMNION\DATA\091022A2.FDT
TRAY FILENAME: C:\OMNION\TRAYS\091022A2.TRA

Channel 1 - QC 8000 365.1 Total Phosphorus



OPERATOR: NMEAD
ACQ. TIME: Oct 22, 2009 10:43:29
DATA FILENAME: C:\OMNION\DATA\0910220A.FDT
METHOD FILENAME: C:\OMNION\METHODS\TPO4B.MET
TRAY FILENAME: C:\OMNION\TRAYS\0910220A.TRA

TRAY DESCRIPTION:

Created: Oct 22, 2009 8:49:56
Modified: Oct 22, 2009 8:49:56
QC 8000 365.1 TPO4 - RUN LOG - TPO4B 0910220A

DATA DESCRIPTION:

Created: Oct 22, 2009 10:43:29
Modified: Oct 22, 2009 10:43:29

Method - Ch. 1 (QC 8000 365.1 Total Phosphorus)

METHOD DESCRIPTION:

Created: Feb 25, 2008 14:38:43
Modified: Oct 16, 2009 11:32:20
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): 11.0
Peak Base Width (s): 18.000
% 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 Through Zero: No
Weighting Method: None
Concentration Scaling: None

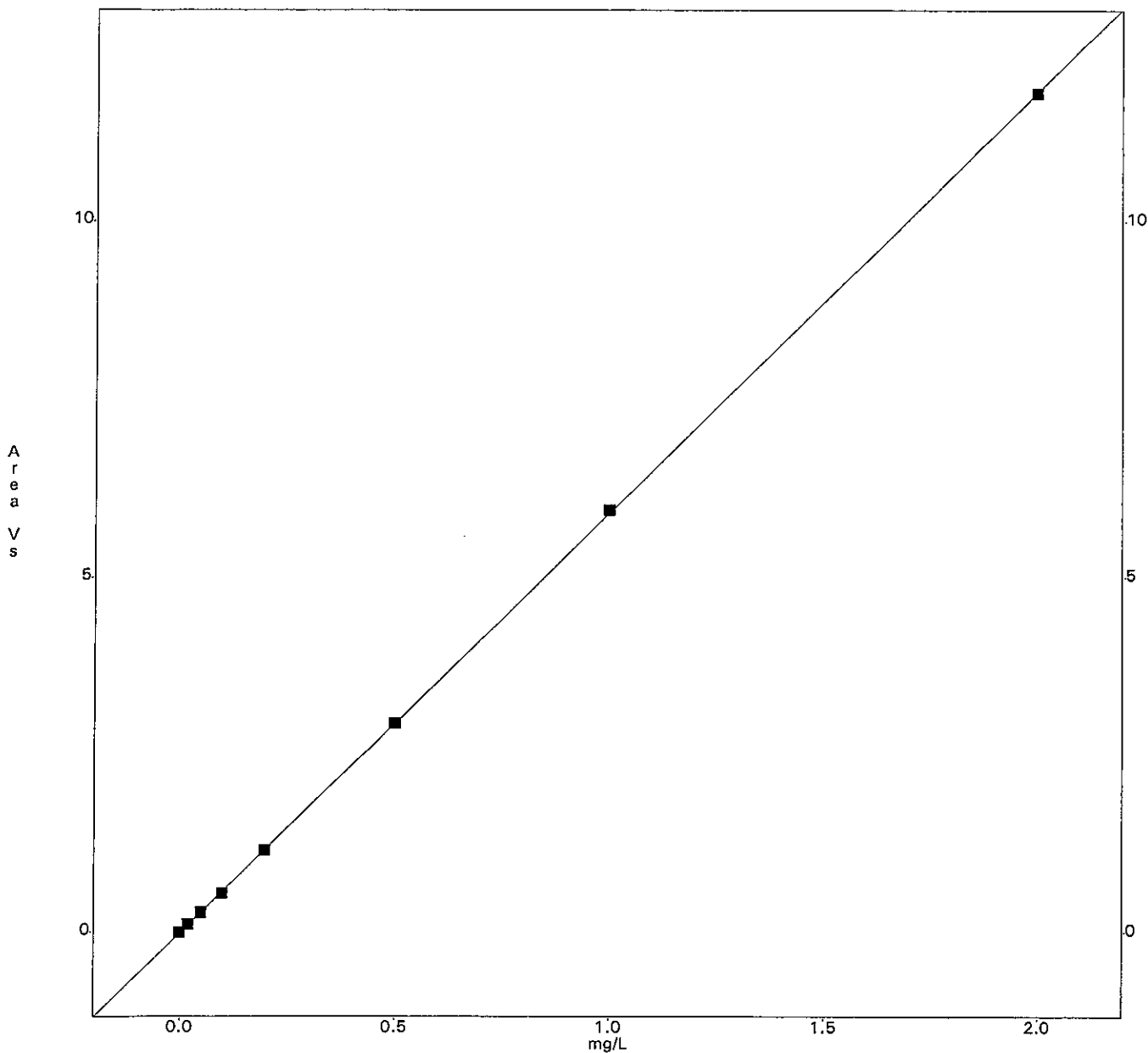
QC 8000 365.1 Total Phosphorus

Lvl	Area	mg/L	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Replic STD	Replic % RSD	Residual 1st Poly
1	11806074	2.00	11806074					0.0	0.0	0.1
2	5944330	1.00	5944330					0.0	0.0	-0.7
3	2944127	0.50	2944127					0.0	0.0	-0.0
4	1149494	0.20	1149494					0.0	0.0	1.6
5	548032	0.10	548032					0.0	0.0	4.8
6	277205	0.05	280397	274013				4514.2	1.6	1.0
7	113233	0.02	114726	111739				2112.1	1.9	-9.0
8	0	0.00	0	0				0.0	0.0	

1st Order Poly
 Conc = 1.689e-007 Area + 2.669e-003
 r = 1.0000

pipette ID: E2

Scaling: None - Weighting: None



General Chemistry Analytical Run Cover Sheet

Analyst: N. Mead

Date: 10/22/09

Analysis: Total Phosphorus, 0.05 - 2.0 mg/L

Instrument: Lachat

Quality Control:

	Same as Log#, Date,	Stocks Prep. Log#, Date,	Stock Sol (mLs)	Stock Sol (mg/L)	Final Vol (mLs)	True Value (mg/L)
a) Standards Prep.:	WC85114C, 02/25/08	WC72002P, 1/26/09				
b) I/CCV Preparation:	WC92069F, 08/24/09	WC85232H, 11/11/08	0.8	10	10	0.80
c) Inorganic LCS Prep:	WC85114F, 2/25/08	WC72002P, 1/26/09	0.2	100	25	0.80
d) Organic LCS Prep:	WC85052A, 10/10/07	WC85221B, 10/14/08	0.2	100	25	0.80
e) Matrix Spike Prep.:	WC85114F, 2/25/08	WC72002P, 1/26/09	0.2	100	25	0.80

Instrument log filled in? (Y) (N)

Packages:

Copy and attach Standards Preparation.

Comments:

TITLE

PROJECT

Continued from page

8/24/09 (A) TKN Digest Reagent

SBR To a 2L vol. flask, add 268g K_2SO_4 (WC92055E) and 14.6g $CuSO_4$ (WC85271E). Fill ~ 1/2 way with UPDI. Slowly add 268ml anhydrate H_2SO_4 (WC92064B). Allow to dissolve and cool. Bring to vol with UPDI. Store @ RT in amber glass. Exp 9/24/09

8/24/09 Received from EMD

DPW (B) 4x4L chloroform, Cat#: CX1054-1, lot#: 4871. Store @ RT, exp: 8/24/2012, Cas#: 67-66-3.

(C) MBAS Wash Solution

To a tared 2L vol. flask add: 100g sodium phosphate monobasic monohydrate (WC92035H) and 13.7ml conc. H_2SO_4 (WC92040B). Bring to vol. w/ DI, store @ RT. Prep'd: 8/21/09, exp: 8/21/2010

(D) MBAS Color Reagent

To a tared 2L vol. flask add: 100g sodium phosphate monobasic monohydrate (WC92035H), 13.7ml conc. H_2SO_4 (WC92040B) and 60ml of methylene blue stock (WC92017E). Bring to volume w/ DI, store @ RT. Prep'd: 8/21/09 exp: 8/21/2010.

(E) 1.0ppm LAS Working Standard Stock

Dilute 1.0ml of 1000ppm LAS Standard Stock (WC85268F) to 1L volumetrically w/ DI. Store @ 4°C, exp: 8/24/2010.

8/24/09 (F) TPO₄ - RL - ICV/CCV, TV = 0.80 ppm

GN Add 0.8mls of 10ppm Reference Stock (Two 1/10 serial dilution of 1000ppm Reference Stock (WC85232H)) to 9.2mls carrier / diluent. Make fresh each run

SIGNATURE

Continued to page

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

PROPRIETARY INFORMATION

2/26/08 (A) 0.0250N $\text{Na}_2\text{S}_2\text{O}_3$ - SulAdes

RP 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

TC 2/26/08 (B) TPO_4 Reg. Level Calibration for 008000

TC (B) make a 100 ppm Standard Working Stock by preparing two serial dilutions of the 1000 ppm TPO_4 Standard Stock (WC120001T)

(C) Cal. Standards - flush per run

Std	Std Conc. (mg/L)	mls of 100ppm Working Stock	mls of Carrier/Diluent
A	2.00	2.0	8.0
B	1.00	1.0	9.0
C	0.50	0.50	9.5
D	0.20	1/5 dilution of Std A	
E	0.10	1/5 dilution of Std B	
F	0.050	1/5 dilution of Std C	
G	0.020	1/5 dilution of Std D	
H	0.000	use Carrier/Diluent only	

(D) ~~ICV/CCV~~ TV=1.50
Add

(D) make a 10 ppm Reference Working Stock by preparing two serial dilutions of the 1000 ppm TPO_4 Reference Stock (WC50011F)

(E) ~~ICV/CCV~~ TV=1.50

Add 1.50 mls of the 10 ppm Reference Working Stock (WC500114D) to 8.5 mls Carrier/Diluent. Fresh per run.

(F) ~~TPO₄ - RL LCS/MS~~ TV=0.80 ppm

To 25 mls sample of LIPDI add 0.20 mls of 100 ppm Standard Stock (prepared by making a 1/5 dilution of the 1000 ppm Standard Stock (WC120001T))
Original LCS is prepared from 100 ppm Organic Standard (WC150014)

10/10/07

TC

(A) TP04-RL Organic LCS $n=1.40$

To 25 mL UPDI in vial add 0.35 mL 100 ppm
Organic Standard (WC85051H)

(B) Organic TP04 Working Standard 10 ppm

-make a 1/10 dilution of 100 ppm Organic Phosphorous
Standard (WC85051H).

(C) TP04-LL Organic LCS $n=0.025$

To 20 mL UPDI in vial add 0.05 mL 10 ppm Organic
TP04 Working Standard (WC85052B)

11/7/08
NM(A) Buffer - TOTN

-same as WC85226F. Exp. 1 year, 11/7/09.

11/7/08
AB

Received from VWR

(B) (2) x 50g Urease Unit, Cat. # 0938-07,
JT. Baker Lot # G29421, CAS # 50-81-7. Store @ RT.
Expires 11/7/1311/10/08
GN(C) Sulfide ReferenceTo a tared amber jar add ~ 0.4 Na₂S (WC8230B) and dilute to 100g w/DI. Mix until dissolved. Store at 4°C for 2 weeks. Exp 11/24/08. Standardize w/each use11/10/08
GN(D) 0.02500 N Na₂S₂O₃ - SulfidesWhite solids 0.1N Na₂S₂O₃ (WC8472L) w/DI volumetrically. Store at 4°C for 2 weeks. Exp 11/24/0811/10/08
SBR(E) TKN Digest Reagent

-same as WC85228G. Exp 12/10/08

11/11/08
NM(F) Post-Digestion Matrix Match - TKN

To a 2-L vol. flask add 800 mL TKN Digest Reagent (WC85232E) and bring to volume w/UPDI. Mix thoroughly. Pour off 100 mL and discard. Bring back to volume w/UPDI. Mix thoroughly. Store @ RT in amber glass. Exp. 12/10/08.

(G) Hypochlorite - TKN

-Same as WC85220H. Prepare fresh each run.

11/11/08
NM(H) TPO₄ 1000ppm Reference Stock4.394g KH₂PO₄ (WC85054G) previously dried for 2 hours @ 104°C. Dissolve in ~ 800 mLs DI in a 1 liter vol. flask. Bring to volume w/DI. Store in amber glass @ 4°C. for 1 year. Expires 11/10/09.

108
JR
 (A) TPO₄ Low Level 56M H₂SO₄
 In a 1 liter amber bottle, slowly add ^{SBR 10/14/08} 550 554g omnitrace
 H₂SO₄ (WC85194F) to 600g UPDI. Allow to cool. Store @
 4°C for 1 yr. Exp 10/14/09

↓
 (B) 100 ppm Organic Phosphorous Standard- TPO₄
 - same as WC85051H. Exp 1 yr 10/14/09

08
 (C) NH₃ Carrier/Diluent
 - same as WC85197E. Prepared solution x 3.

↓
 (D) Hypochlorite- NH₃
 - same as WC85217G. Prepare fresh each run,

1LB
11/14/08
 (E) Eriochrome Black T: Hardness Indicator
 Add 50g NaCl (WC85109J) and 0.25g Eriochrome Black T
 (WC85 WC69284E) to a tared B-cup. cap and shake well
 to mix. Store at r.t. exp. 5/31/10

d volumetrically
bottle. @ 4°C

10/9/07
NM

(A) NH₃ Carrier / Diluent
- same as WC85035A. Prepared solution x 3.



(B) Hypochlorite - NH₃ - To a tared 1-L amber jar add
- 350 mLs Sodium Hypochlorite (WC85047B)
- 350 mLs UPDI
Prepare fresh each run.

10/10/07
TC

(C) TKN Digest Reagent
To a 2 liter vol. flask add:
- 208.0 g K₂SO₄ (WC85037A)
- 14.6 g Copper II Sulfate (WC85040A)
to ~ 700 mL UPDI
Slowly add 208 mL conc. in situ analyzed H₂SO₄
(WC85024E)
Stir until dissolved. Allow to cool. Exp. 1 month 11/11

add
v.

10/10/07
NM

(D) Buffer - NH₃
- same as WC85021D. Exp 1 year, 10/9/08.

10/10/07
GN

(E) NO₂ Color Reagent - KOLLAB
- same as WC85032A. exp 1 month 11/10/07

1g
(WC85050DE)

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.

1. Cat # ZX0048-1,
5-6. Store @ RT.



(G) Hypochlorite - TKN
- same as ~~WC85047~~ WC85049G. Prepare fresh each run.

12. Cat # 2533-35,
WC85017G.

10/10/07
TC

(H) 100ppm Organic Phosphorous Standard - TAO4
in a 1 liter vol. flask dissolve 0.7885g
β-Glycerophosphoric Acid, Disodium Salt, 5-Hydrate
(WC76143D) w/ DI. Bring to vol. w/ DI. Store in
amber glass @ 4°C. Exp. 1 yr. 10/10/08.

245 # 18-15-2.
28



STANDARD STOCK PREP

(Fluoride and Bromide are purchased 1000ppm standards)

Reviewed & Approved

By: CK SD / CK SD 1/17/05

Date: 10/16/06 5/1/07 / 9/10/07 5/21/07

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	WC76259E	CK	1/20/09	1/20/10	WC720002A (CK) 1/20/09
B					
C					
D					
E					

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
F	WC76097D	CK	1/20/09	1/20/10	WC720002F (7741)
G					
H					
I					
J					

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
K	WC76114C	WC76170J	FJ	10/5/06	4/5/07	WC72002K
L	WC76114C	WC76234A	FJ	3/26/07	9/26/07	WC72002L
M	WC76114C	WC76234A	NM	9/21/07	3/21/08	WC72002M
N	WC76114C	WC76234A	CMW	3/25/08	9/23/08	WC72002N
O						

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
P	WC65085E	CK	1/20/09	1/20/10	WC720002P (7742)
Q					
R					
S					
T					

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
U	WC76153E	CK	1/27/09	1/27/10	WC720002U (1052)
V					
W					
X					
Y					

Analytical Results Summary

Instrument Name: R-Balance-02 Analyst: EWOLFE Analysis Lot: 173533 Method/Testcode: SM 2540 C/TDS

Lab Code	Target Analytes	QC Type	Parent Sample	Matrix	Raw Result	Sample Amt	Final Result	Dil	PQL	% Rec	% RSD	Date Analyzed	QC? Tier
RQ0909585-01	Solids, Total Dissolved	MB		Water	3.00 mg/L	100 mL	10 mg/L U	1	10			10/6/09 11:10	N II
RQ0909585-02	Solids, Total Dissolved	LCS		Water	905.36 mg/L ✓	56 mL	905 mg/L	1	18	99		10/6/09 11:10	N II
R0905628-005	Solids, Total Dissolved	N/A		Water	532.00 mg/L ✓	100 mL	532 mg/L	1	10			10/6/09 11:10	N II
R0905628-006	Solids, Total Dissolved	N/A		Water	708.00 mg/L ✓	100 mL	708 mg/L	1	10			10/6/09 11:10	N II
R0905628-007	Solids, Total Dissolved	N/A		Water	516.00 mg/L ✓	100 mL	516 mg/L	1	10			10/6/09 11:10	N II
R0905628-008	Solids, Total Dissolved	N/A		Water	346.00 mg/L ✓	100 mL	346 mg/L	1	10			10/6/09 11:10	N II
R0905628-009	Solids, Total Dissolved	N/A		Water	1947.06 mg/L ✓	34 mL	1950 mg/L	1	29			10/6/09 11:10	N II
R0905628-010	Solids, Total Dissolved	N/A		Water	955.56 mg/L ✓	99 mL	956 mg/L	1	10			10/6/09 11:10	N II
R0905628-011	Solids, Total Dissolved	N/A		Water	526.00 mg/L ✓	100 mL	526 mg/L	1	10			10/6/09 11:10	N II
R0905628-012	Solids, Total Dissolved	N/A		Water	1845.65 mg/L ✓	46 mL	1850 mg/L	1	22			10/6/09 11:10	N II
RQ0909585-03	Solids, Total Dissolved	DUP	R0905628-012	Water	1877.78 mg/L ✓	45 mL	1880 mg/L	1	22		2	10/6/09 11:10	N II
R0905628-013	Solids, Total Dissolved	N/A		Water	916.87 mg/L ✓	83 mL	917 mg/L	1	12			10/6/09 11:10	N II
R0905628-014	Solids, Total Dissolved	N/A		Water	1736.73 mg/L ✓	49 mL	1740 mg/L	1	20			10/6/09 11:10	N II
R0905636-001	Solids, Total Dissolved	N/A		Water	2.00 mg/L ✓	100 mL	10 mg/L U	1	10			10/6/09 11:10	N IV
R0905636-002	Solids, Total Dissolved	N/A		Water	4380.00 mg/L ✓	25 mL	4380 mg/L	1	40			10/6/09 11:10	N IV
RQ0909585-04	Solids, Total Dissolved	DUP	R0905636-002	Water	4416.00 mg/L ✓	25 mL	4420 mg/L	1	40		1	10/6/09 11:10	N IV
R0905636-003	Solids, Total Dissolved	N/A		Water	4220.00 mg/L ✓	20 mL	4220 mg/L	1	50			10/6/09 11:10	N IV

01277

Analyte: Total Suspended Solids (TSS)

Analyst: E. WOLFE

Date: 10/6/09

Method: SM20 2540D

Pipet: DISPOSABLE

Time: 11:10

Analyte: Total Dissolved Solids (TDS)

Method: SM20 2540C

TS _____ TDS X TSS _____

Analyte: Total Solids (TS)

Method SM20 2540B

LCS Lot: WC92067A

TV: 915 Balance ID: AE240

Filter Lot: WC92092B

Oven ID: 1

*Lower tare weight used unless marked: _____

Misc.	Order #	Dish ID	Sample Vol. (mLs)	Used all	Raw Data			Total Solids (mg/L)
1	MB	LA	100		Gross (A) 1:	88.2015	Gross (A) 3:	1.00
					Gross (A) 2:	88.2010		
					B)	88.2009	A-B=	
2	LCS	AT	54		Gross (A) 1:	73.0156	Gross (A) 3:	900.00
					Gross (A) 2:	73.0156		
					B)	72.9670	A-B=	
3	R0905523-045	AM	100		Gross (A) 1:	81.6484	Gross (A) 3:	85.00
					Gross (A) 2:	81.6483		
					B)	81.6398	A-B=	
4	R0905523-045 DUP	30	100		Gross (A) 1:	86.8151	Gross (A) 3:	84.00
					Gross (A) 2:	86.8149		
					B)	86.8065	A-B=	
5	R0905523-046	L6	100		Gross (A) 1:	82.1681	Gross (A) 3:	195.00
					Gross (A) 2:	82.1677		
					B)	82.1482	A-B=	
6	R0905523-047	EW	100		Gross (A) 1:	74.4897	Gross (A) 3:	326.00
					Gross (A) 2:	74.4892		
					B)	74.4566	A-B=	
7	R0905523-048	TC	100		Gross (A) 1:	72.1118	Gross (A) 3:	90.00
					Gross (A) 2:	72.1110		
					B)	72.1020	A-B=	
8	R0905523-049	ER	100		Gross (A) 1:	81.9476	Gross (A) 3:	114.00
					Gross (A) 2:	81.9469		
					B)	81.9355	A-B=	
9	R0905574-001	HOT	100		Gross (A) 1:	80.5935	Gross (A) 3:	203.00
					Gross (A) 2:	80.5932		
					B)	80.5729	A-B=	
10	R0905574-002	CK	100		Gross (A) 1:	79.9109	Gross (A) 3:	603.00
					Gross (A) 2:	79.9106		
					B)	79.8503	A-B=	
11	R0905574-003	TX	100		Gross (A) 1:	68.8632	Gross (A) 3:	121.00
					Gross (A) 2:	68.8629		
					B)	68.8508	A-B=	
12	R0905574-004	V9	74		Gross (A) 1:	81.6936	Gross (A) 3:	921.62
					Gross (A) 2:	81.6930		
					B)	81.6248	A-B=	
13	R0905594-002	P1	3.2		Gross (A) 1:	81.1158	Gross (A) 3:	30156.25
					Gross (A) 2:	81.1156		
					B)	81.0191	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: 10/6/09

Method: SM20 2540D

Pipet: DISPOSABLE

Time: 11:10

Analyte: Total Dissolved Solids (TDS)

Method: SM20 2540C

TS _____

TDS X

TSS _____

Analyte: Total Solids (TS)

Method SM20 2540B

LCS Lot: WC92067A

TV: 915 Balance ID: AE240

Filter Lot: WC92092B

Oven ID: 1

*Lower tare weight used unless marked: _____

Misc.	Order #	Dish ID	Sample Vol. (mLs)	Used all	Raw Data			Total Solids (mg/L)
14	R0905594-002 DUP	RN	3.3		Gross (A) 1:	77.2060	Gross (A) 3:	30242.42
					Gross (A) 2:	77.2055		
					B)	77.1057	A-B=	
15	R0905598-001	VV	100		Gross (A) 1:	93.4056	Gross (A) 3:	354.00
					Gross (A) 2:	93.4043		
					B)	93.3689	A-B=	
16	R0905598-002	F8	100		Gross (A) 1:	82.7668	Gross (A) 3:	279.00
					Gross (A) 2:	82.7665		
					B)	82.7386	A-B=	
17	R0905598-003	VA	100		Gross (A) 1:	71.6719	Gross (A) 3:	259.00
					Gross (A) 2:	71.6717		
					B)	71.6458	A-B=	
18	R0905598-004	TM	100		Gross (A) 1:	76.0654	Gross (A) 3:	274.00
					Gross (A) 2:	76.0650		
					B)	76.0376	A-B=	
19	R0905598-005	SR	100		Gross (A) 1:	66.7357	Gross (A) 3:	344.00
					Gross (A) 2:	66.7352		
					B)	66.7008	A-B=	
20	R0905598-006	13	100		Gross (A) 1:	80.8539	Gross (A) 3:	148.00
					Gross (A) 2:	80.8534		
					B)	80.8386	A-B=	
21	R0905628-001	ZX	80		Gross (A) 1:	81.9228	Gross (A) 3:	992.50
					Gross (A) 2:	81.9220		
					B)	81.8426	A-B=	
22	R0905628-002	VS	66		Gross (A) 1:	80.5493	Gross (A) 3:	1256.06
					Gross (A) 2:	80.5490		
					B)	80.4661	A-B=	
23	R0905628-003	JP	74		Gross (A) 1:	75.9681	Gross (A) 3:	1291.89
					Gross (A) 2:	75.9672		
					B)	75.8716	A-B=	
24	R0905628-004	HH	100		Gross (A) 1:	81.7176	Gross (A) 3:	581.00
					Gross (A) 2:	81.7171		
					B)	81.6590	A-B=	
25	MB	18	100		Gross (A) 1:	86.6986	Gross (A) 3:	3.00
					Gross (A) 2:	86.6984		
					B)	86.6981	A-B=	
26	LCS	OS	56		Gross (A) 1:	76.9876	Gross (A) 3:	905.36
					Gross (A) 2:	76.9874		
					B)	76.9367	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: 10/6/09

Method: SM20 2540D

Pipet: DISPOSABLE

Time: 11:10

Analyte: Total Dissolved Solids (TDS)

Method: SM20 2540C

TS _____

TDS X

TSS _____

Analyte: Total Solids (TS)

Method SM20 2540B

LCS Lot: WC92067A

TV: 915 Balance ID: AE240

Filter Lot: WC92092B

Oven ID: 1

*Lower tare weight used unless marked: _____

Misc.	Order #	Dish ID	Sample Vol. (mLs)	Used all	Raw Data			Total Solids (mg/L)
					Gross (A) 1:	Gross (A) 2:	Gross (A) 3:	
27	R0905628-005	C5	100		Gross (A) 1:	74.1015	Gross (A) 3:	532.00
					Gross (A) 2:	74.1012		
					B)	74.0480	A-B=	
28	R0905628-006	43	100		Gross (A) 1:	83.2901	Gross (A) 3:	708.00
					Gross (A) 2:	83.2895		
					B)	83.2187	A-B=	
29	R0905628-007	51	100		Gross (A) 1:	87.9654	Gross (A) 3:	516.00
					Gross (A) 2:	87.9649		
					B)	87.9133	A-B=	
30	R0905628-008	HL	100		Gross (A) 1:	71.4702	Gross (A) 3:	346.00
					Gross (A) 2:	71.4697		
					B)	71.4351	A-B=	
31	R0905628-009	AC	34		Gross (A) 1:	84.5169	Gross (A) 3:	1947.06
					Gross (A) 2:	84.5153		
					B)	84.4491	A-B=	
32	R0905628-010	OO	99		Gross (A) 1:	82.2138	Gross (A) 3:	955.56
					Gross (A) 2:	82.2124		
					B)	82.1178	A-B=	
33	R0905628-011	AS	100		Gross (A) 1:	80.4344	Gross (A) 3:	526.00
					Gross (A) 2:	80.4342		
					B)	80.3816	A-B=	
34	R0905628-012	ND	46		Gross (A) 1:	78.3494	Gross (A) 3:	1845.65
					Gross (A) 2:	78.3488		
					B)	78.2639	A-B=	
35	R0905628-012 DUP	73	45		Gross (A) 1:	85.6450	Gross (A) 3:	1877.78
					Gross (A) 2:	85.6443		
					B)	85.5598	A-B=	
36	R0905628-013	Z2	83		Gross (A) 1:	85.1371	Gross (A) 3:	916.87
					Gross (A) 2:	85.1364		
					B)	85.0603	A-B=	
37	R0905628-014	SD	49		Gross (A) 1:	82.7631	Gross (A) 3:	1736.73
					Gross (A) 2:	82.7611		
					B)	82.6760	A-B=	
38	R0905636-001	75	100		Gross (A) 1:	86.2812	Gross (A) 3:	2.00
					Gross (A) 2:	86.2810		
					B)	86.2808	A-B=	
39	R0905636-002	DA	25		Gross (A) 1:	89.3345	Gross (A) 3:	4380.00
					Gross (A) 2:	89.3332		
					B)	89.2237	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: 10/6/09

Method: SM20 2540D

Pipet: DISPOSABLE

Time: 11:10

Analyte: Total Dissolved Solids (TDS)

Method: SM20 2540C

TS _____

TDS X

TSS _____

Analyte: Total Solids (TS)

Method SM20 2540B

LCS Lot: WC92067A

TV: 915 Balance ID: AE240

Filter Lot: WC92092B

Oven ID: 1

*Lower tare weight used unless marked: _____

Misc.	Order #	Dish ID	Sample Vol. (mLs)	Used all	Raw Data			Total Solids (mg/L)
40	R0905636-002 DUP	53	25		Gross (A) 1:	87.5790	Gross (A) 3:	4416.00
					Gross (A) 2:	87.5780		
					B)	87.4676	A-B=	
41	R0905636-003	A14	20		Gross (A) 1:	85.4418	Gross (A) 3:	4220.00
					Gross (A) 2:	85.4414		
					B)	85.3570	A-B=	
42	R0905434-002	64	100		Gross (A) 1:	85.8010	Gross (A) 3:	67.00
					Gross (A) 2:	85.8008		
					B)	85.7941	A-B=	
43	R0905434-004	FE	100		Gross (A) 1:	86.3784	Gross (A) 3:	153.00
					Gross (A) 2:	86.3778		
					B)	86.3625	A-B=	
44	MB R0909328-01 ew 10/8/09	A4	100		Gross (A) 1:	86.3266	Gross (A) 3:	-2.00
					Gross (A) 2:	86.3260		
					B)	86.3262	A-B=	

CK10/809

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, INC

Tare Weights:

Instrument: X Mettler AE240 Analytical Balance
 Mettler AG204 Analytical Balance

Analyst: E. WOLFE
 Date: 10/6/09

Drying Tins: Dish 104°C: Weight Actual
 Crucible 550°C: Dish 550°C: s Weights (s): 99.9999 g 100 g
 Dish 180°C: X G/O Dishes: g g

ID Number	Weight	
L6	82.1485	82.1482
LA	88.2011	88.2009
30	86.8069	86.8065
V9	81.6248	81.6248
ER	81.9356	81.9355
AM	81.6401	81.6398
TC	72.1022	72.1020
EW	74.4569	74.4566
JP	75.8717	75.8716
SR	66.7009	66.7008
VS	80.4661	80.4662
C5	74.0480	74.0480
TM	76.0376	76.0376
AC	84.4493	84.4491
OS	76.9369	76.9367
HL	71.4351	71.4351
75	86.2811	86.2808
ND	78.2640	78.2639
SD	82.6761	82.6760
A14	85.3571	85.3570
73	85.5598	85.5598
A4	86.3262	86.3262

ID Number	Weight	
F8	82.7387	82.7386
HOT	80.5731	80.5729
TX	68.8510	68.8508
P1	81.0191	81.0192
CK	79.8503	79.8504
RN	77.1058	77.1057
VV	93.3692	93.3689
AT	72.9671	72.9670
VA	71.6458	71.6459
HH	81.6590	81.6592
18	86.6983	86.6981
OO	82.1180	82.1178
13	80.8387	80.8386
ZX	81.8427	81.8426
43	83.2189	83.2187
51	87.9134	87.9133
Z2	85.0603	85.0605
64	85.7943	85.7941
FE	86.3625	86.3625
DA	89.2239	89.2237
AS	80.3816	80.3816
53	87.4677	87.4676

Columbia Analytical Services
1 Mustard St., Rochester, NY 14609-0859

General Chemistry Analytical Run Cover Sheet

Analyst: EW

Date: 10/6/09

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:	WC92067A	8/20/2009				915
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.

TITLE

PROJECT

Continued from page

8/20/09 (A) TDS Reference
EW 0.9153g NaCl (WC85215H) diluted volumetrically
to 1 liter w/ DI. store in plastic bottle @ 4°C
TV = 915 mg/L Exp: 8/20/10 (11634)

8/20/09 (B) Color Reagent - TKN
NM - same as WC920596. Exp. 1 month, 9/20/09.

(C) NH₃ Carrier/Diluent
TO a 2 liter plastic bottle add:
- 998g UPDI
- 3.68g conc. instra-analyzed H₂SO₄ (WC92064B)
Prepared solution x4.

8/20/09 As of 8/18/09 for Konelab:

(D) ICV/CCV TKN TV = 0.50
0.50 ml 10ppm TKN Ref Stock (WC85134C) + 9.50 ml 0.25N NaOH (WC85134H)
Exp 8/20/09

(E) ICV/CCV OPD₄-H TV = 0.45
0.25 ml 1.80ppm OPD₄ Ref Stock (WC85130G) + 9.75 ml UPDI

(F) ICV/CCV OPD₄ TV = 0.45
0.25 ml 18.0ppm OPD₄ Ref Stock (WC85130F) + 9.75 ml UPDI
0.20 ml 9.00

(G) ICV/CCV NO₂ TV = 0.45
0.25 ml 18.0 ppm NO₂ Ref Stock (1/10 dil of WC85135B) + 9.75 ml UPDI
WC72007G Exp 8/20/09

(H) ICV/CCV Cr^{VI} TV = 0.25
0.25 ml 10 ppm Cr^{VI} Ref Stock (WC85129G) + 9.75 ml UPDI

(I) ICV/CCV NH₃ TV = 0.90
0.50 ml 180 ppm NH₃ Reference Stock (1/10 dil of WC85257G) + 9.50 ml diluent (WC92045D)

8/20/09 (J) ICV/CCV TKN'S (TV=4.00)
N Mead 9.9 ml PDMM + 0.1 ml 400 ppm Reference working stock
SIGNATURE DATE (WC420C)

DISCLOSED TO AND UNDERSTOOD BY

DATE

PROPRIETARY INFORMATION

Analytical Results Summary

2 runs

Instrument Name: R-Balance-02 Analyst: EWOLFE Analysis Lot: 174373 Method/Testcode: SM 2540 C/TDS

Lab Code	Target Analytes	QC Type	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	PQL	% Rec	% RSD	Date Analyzed	QC? Tier
3Q0909809-01	Solids, Total Dissolved	MB		Water	3.00 mg/L	100 mL	10 mg/L U	1	10			10/12/09 10:30	N IV
3Q0909809-02	Solids, Total Dissolved	LCS		Water	889.09 mg/L	55 mL	889 mg/L	1	18	97		10/12/09 10:30	N IV
3Q0905636-006	Solids, Total Dissolved	N/A		Water	8991.67 mg/L	12 mL	8990 mg/L	1	83			10/12/09 10:30	N IV
3Q0905661-009	Solids, Total Dissolved	N/A		Water	83.00 mg/L	100 mL	83 mg/L	1	10			10/12/09 10:30	N IV
3Q0905661-010	Solids, Total Dissolved	N/A		Water	212.00 mg/L	100 mL	212 mg/L	1	10			10/12/09 10:30	N IV
3Q0909809-03	Solids, Total Dissolved	DUP	R0905661-010	Water	212.00 mg/L	100 mL	212 mg/L	1	10		<1	10/12/09 10:30	N IV
3Q0905661-011	Solids, Total Dissolved	N/A		Water	219.00 mg/L	100 mL	219 mg/L	1	10			10/12/09 10:30	N IV
3Q0905661-012	Solids, Total Dissolved	N/A		Water	206.00 mg/L	100 mL	206 mg/L	1	10			10/12/09 10:30	N IV
3Q0905701-001	Solids, Total Dissolved	N/A		Drinking Water	157.00 mg/L	100 mL	157 mg/L	1	10			10/12/09 10:30	N II
3Q0905729-001	Solids, Total Dissolved	N/A		Water	835.00 mg/L	100 mL	835 mg/L	1	10			10/12/09 10:30	N II
3Q0905729-002	Solids, Total Dissolved	N/A		Water	373.00 mg/L	100 mL	373 mg/L	1	10			10/12/09 10:30	N II
3Q0905729-003	Solids, Total Dissolved	N/A		Water	401.00 mg/L	100 mL	401 mg/L	1	10			10/12/09 10:30	N II
3Q0905729-004	Solids, Total Dissolved	N/A		Water	484.00 mg/L	100 mL	484 mg/L	1	10			10/12/09 10:30	N II
3Q0905729-005	Solids, Total Dissolved	N/A		Water	378.00 mg/L	100 mL	378 mg/L	1	10			10/12/09 10:30	N II
3Q0905731-001	Solids, Total Dissolved	N/A		Water	186.00 mg/L	100 mL	186 mg/L	1	10			10/12/09 10:30	N II
3Q0905731-002	Solids, Total Dissolved	N/A		Water	376.00 mg/L	100 mL	376 mg/L	1	10			10/12/09 10:30	N II
3Q0905731-003	Solids, Total Dissolved	N/A		Water	1231.37 mg/L	51 mL	1230 mg/L	1	20			10/12/09 10:30	N II
3Q0909809-04	Solids, Total Dissolved	DUP	R0905731-003	Water	1239.22 mg/L	51 mL	1240 mg/L	1	20		1	10/12/09 10:30	N IV
3Q0905731-004	Solids, Total Dissolved	N/A		Water	541.00 mg/L	100 mL	541 mg/L	1	10			10/12/09 10:30	N II
3Q0905731-005	Solids, Total Dissolved	N/A		Water	704.00 mg/L	100 mL	704 mg/L	1	10			10/12/09 10:30	N II
3Q0905732-001	Solids, Total Dissolved	N/A		Water	75.00 mg/L	100 mL	75 mg/L	1	10			10/12/09 10:30	N II
3Q0905732-002	Solids, Total Dissolved	N/A		Water	82.00 mg/L	100 mL	82 mg/L	1	10			10/12/09 10:30	N II
3Q0905692-035	Solids, Total Dissolved	N/A		Water	76.00 mg/L	100 mL	76 mg/L	1	10			10/12/09 10:30	N I
3Q0905692-036	Solids, Total Dissolved	N/A		Water	97.00 mg/L	100 mL	97 mg/L	1	10			10/12/09 10:30	N I
3Q0909809-05	Solids, Total Dissolved	MB		Drinking Water	3.00 mg/L	100 mL	10 mg/L U	1	10			10/12/09 10:30	N II
3Q0909809-06	Solids, Total Dissolved	LCS		Drinking Water	889.09 mg/L	55 mL	889 mg/L	1	18	97		10/12/09 10:30	N II

Reviewed & Approved
 By: *S. Sabet*
 Date: *10/15/09*

R. Sobel

✓

01285

Analyte: Total Suspended Solids (TSS)

Analyst: E. WOLFE

Date: 10/12/09

Method: SM20 2540D

Pipet: DISPOSABLE

Time: 10:30

Analyte: Total Dissolved Solids (TDS)

Method: SM20 2540C

TS _____ TDS X TSS _____

Analyte: Total Solids (TS)

Method SM20 2540B

LCS Lot: WC92067A

TV: 915 Balance ID: AE240

Filter Lot: WC92092B Oven ID: 1 *Lower tare weight used unless marked;

Misc.	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	Z2	100		Gross (A) 1:	85.0604	Gross (A) 3:	3.00
					Gross (A) 2:	85.0603		
					B)	85.0600	A-B=	
2	LCS	RN	55		Gross (A) 1:	77.1545	Gross (A) 3:	889.09
					Gross (A) 2:	77.1542		
					B)	77.1053	A-B=	
3	R0905636-006	AT	12		Gross (A) 1:	73.0755	Gross (A) 3:	8991.67
					Gross (A) 2:	73.0747		
					B)	72.9668	A-B=	
4	R0905661-009	73	100		Gross (A) 1:	85.5677	Gross (A) 3:	83.00
					Gross (A) 2:	85.5673		
					B)	85.5590	A-B=	
5	R0905661-010	XC	100		Gross (A) 1:	83.2489	Gross (A) 3:	212.00
					Gross (A) 2:	83.2485		
					B)	83.2273	A-B=	
6	R0905661-010 DUP	ND	100		Gross (A) 1:	78.2839	Gross (A) 3:	212.00
					Gross (A) 2:	78.2836		
					B)	78.2624	A-B=	
7	R0905661-011	CK	100		Gross (A) 1:	79.8718	Gross (A) 3:	219.00
					Gross (A) 2:	79.8712		
					B)	79.8493	A-B=	
8	R0905661-012	DA	100		Gross (A) 1:	89.2449	Gross (A) 3:	206.00
					Gross (A) 2:	89.2446		
					B)	89.2240	A-B=	
9	R0905701-001	DW	100		Gross (A) 1:	84.1913	Gross (A) 3:	157.00
					Gross (A) 2:	84.1911		
					B)	84.1754	A-B=	
10	R0905729-001	SR	100		Gross (A) 1:	66.7859	Gross (A) 3:	835.00
					Gross (A) 2:	66.7855		
					B)	66.7020	A-B=	
11	R0905729-002	TM	100		Gross (A) 1:	76.0761	Gross (A) 3:	373.00
					Gross (A) 2:	76.0758		
					B)	76.0385	A-B=	
12	R0905729-003	A14	100		Gross (A) 1:	85.3975	Gross (A) 3:	401.00
					Gross (A) 2:	85.3974		
					B)	85.3573	A-B=	
13	R0905729-004	ID	100		Gross (A) 1:	89.9699	Gross (A) 3:	484.00
					Gross (A) 2:	89.9695		
					B)	89.9211	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: 10/12/09

Method: SM20 2540D

Pipet: DISPOSABLE

Time: 10:30

Analyte: Total Dissolved Solids (TDS)

Method: SM20 2540C

TS _____ TDS X TSS _____

Analyte: Total Solids (TS)

Method SM20 2540B

LCS Lot: WC92067A

TV: 915 Balance ID: AE240

Filter Lot: WC92092B

Oven ID: 1

*Lower tare weight used unless marked:

Misc.	Order #	Dish ID	Sample Vol. (mLs)	Used all	Raw Data			Total Solids (mg/L)
14	R0905729-005	EW	100		Gross (A) 1:	74.4940	Gross (A) 3:	378.00
					Gross (A) 2:	74.4935		
					B)	74.4557	A-B=	
15	R0905731-001	TC	100		Gross (A) 1:	72.1211	Gross (A) 3:	186.00
					Gross (A) 2:	72.1205		
					B)	72.1019	A-B=	
16	R0905731-002	13	100		Gross (A) 1:	80.8767	Gross (A) 3:	376.00
					Gross (A) 2:	80.8761		
					B)	80.8385	A-B=	
17	R0905731-003	58	51		Gross (A) 1:	87.1685	Gross (A) 3:	1231.37
					Gross (A) 2:	87.1677		
					B)	87.1049	A-B=	
18	R0905731-003 DUP	TX	51		Gross (A) 1:	68.9155	Gross (A) 3:	1239.22
					Gross (A) 2:	68.9146		
					B)	68.8514	A-B=	
19	R0905731-004	C5	100		Gross (A) 1:	74.1038	Gross (A) 3:	541.00
					Gross (A) 2:	74.1031		
					B)	74.0490	A-B=	
20	R0905731-005	X5	100		Gross (A) 1:	87.9299	Gross (A) 3:	704.00
					Gross (A) 2:	87.9291		
					B)	87.8587	A-B=	
21	R0905732-001	FE	100		Gross (A) 1:	86.3732	Gross (A) 3:	75.00
					Gross (A) 2:	86.3724		
					B)	86.3649	A-B=	
22	R0905732-002	HL	100		Gross (A) 1:	71.4441	Gross (A) 3:	82.00
					Gross (A) 2:	71.4436		
					B)	71.4354	A-B=	
23	R0905692-035	ZX	100		Gross (A) 1:	81.8501	Gross (A) 3:	76.00
					Gross (A) 2:	81.8499		
					B)	81.8423	A-B=	
24	R0905629-036 EW 10/14/09	VAN	100		Gross (A) 1:	79.2151	Gross (A) 3:	97.00
					Gross (A) 2:	79.2148		
					B)	79.2051	A-B=	
25	MB	FN	100		Gross (A) 1:	82.1474	Gross (A) 3:	-2.00
					Gross (A) 2:	82.1472		
					B)	82.1474	A-B=	
26	LCS	P1	51		Gross (A) 1:	81.0640	Gross (A) 3:	880.39
					Gross (A) 2:	81.0636		
					B)	81.0187	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)

Analytst: E. WOLFE

Date: 10/12/09

Method: SM20 2540D

Pipet: DISPOSABLE

Time: 10:30

Analyte: Total Dissolved Solids (TDS)

Method: SM20 2540C

TS _____ TDS X TSS _____

Analyte: Total Solids (TS)

Method SM20 2540B

LCS Lot: WC92067A

TV: 915 Balance ID: AE240

Filter Lot: WC92092B Oven ID: 1 *Lower tare weight used unless marked:

Misc.	Order #	Dish ID	Sample Vol. (mLs)	Used all	Raw Data			Total Solids (mg/L)
27	R0905714-001	F8	100		Gross (A) 1:	82.7847	Gross (A) 3:	454.00
					Gross (A) 2:	82.7841		
					B)	82.7387	A-B=	
28	R0905714-002	VA	100		Gross (A) 1:	71.6888	Gross (A) 3:	425.00
					Gross (A) 2:	71.6885		
					B)	71.6460	A-B=	
29	R0905714-003	30	100		Gross (A) 1:	86.8711	Gross (A) 3:	645.00
					Gross (A) 2:	86.8707		
					B)	86.8062	A-B=	
30	R0905714-004	64	36		Gross (A) 1:	85.8875	Gross (A) 3:	2541.67
					Gross (A) 2:	85.8867		
					B)	85.7952	A-B=	
31	R0905714-004 DUP	A1	38		Gross (A) 1:	80.2633	Gross (A) 3:	2500.00
					Gross (A) 2:	80.2630		
					B)	80.1680	A-B=	
32	R0905714-005	LA	100		Gross (A) 1:	88.2374	Gross (A) 3:	366.00
					Gross (A) 2:	88.2369		
					B)	88.2003	A-B=	
33	R0905714-006	AS	65		Gross (A) 1:	80.4804	Gross (A) 3:	1515.38
					Gross (A) 2:	80.4799		
					B)	80.3814	A-B=	
34	R0905714-007	JP	100		Gross (A) 1:	75.9364	Gross (A) 3:	622.00
					Gross (A) 2:	75.9354		
					B)	75.8732	A-B=	
35	R0905714-008	AM	100		Gross (A) 1:	81.6656	Gross (A) 3:	268.00
					Gross (A) 2:	81.6654		
					B)	81.6386	A-B=	
36	R0905714-009	L6	79		Gross (A) 1:	82.1861	Gross (A) 3:	481.01
					Gross (A) 2:	82.1857		
					B)	82.1477	A-B=	
37	R0905714-010	G	47		Gross (A) 1:	85.2188	Gross (A) 3:	1834.04
					Gross (A) 2:	85.2179		
					B)	85.1317	A-B=	
38	R0905714-011	VS	69		Gross (A) 1:	80.5830	Gross (A) 3:	1673.91
					Gross (A) 2:	80.5822		
					B)	80.4667	A-B=	
39	R0905714-012	VV	100		Gross (A) 1:	93.4014	Gross (A) 3:	322.00
					Gross (A) 2:	93.4009		
					B)	93.3687	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: 10/12/09

Method: SM20 2540D

Pipet: DISPOSABLE

Time: 10:30

Analyte: Total Dissolved Solids (TDS)

Method: SM20 2540C

TS _____ TDS X TSS _____

Analyte: Total Solids (TS)

Method SM20 2540B

LCS Lot: WC92067A

TV: 915 Balance ID: AE240

Filter Lot: WC92092B Oven ID: 1

*Lower tare weight used unless marked:

Misc.	Order #	Dish ID	Sample Vol. (mLs)	Used all	Raw Data			Total Solids (mg/L)
					Gross (A) 1:	Gross (A) 2:	Gross (A) 3:	
40	R0905716-001	V9	76		Gross (A) 1:	81.6954	Gross (A) 3:	928.95
					Gross (A) 2:	81.6945		
					B)	81.6239	A-B=	
41	R0905716-002	SD	51		Gross (A) 1:	82.7417	Gross (A) 3:	1292.16
					Gross (A) 2:	82.7415		
					B)	82.6756	A-B=	
42	R0905716-003	OS	100		Gross (A) 1:	76.9966	Gross (A) 3:	595.00
					Gross (A) 2:	76.9962		
					B)	76.9367	A-B=	
43	R0905716-004	AC	100		Gross (A) 1:	84.5133	Gross (A) 3:	642.00
					Gross (A) 2:	84.5127		
					B)	84.4485	A-B=	
44	R0905745-001	ER	50		Gross (A) 1:	82.0237	Gross (A) 3:	1758.00
					Gross (A) 2:	82.0232		
					B)	81.9353	A-B=	
45	R0905767-001	TT	100		Gross (A) 1:	88.7620	Gross (A) 3:	568.00
					Gross (A) 2:	88.7617		
					B)	88.7049	A-B=	
46	R0905768-001	75	100		Gross (A) 1:	86.3373	Gross (A) 3:	569.00
					Gross (A) 2:	86.3370		
					B)	86.2801	A-B=	
47	R0905782-002	53	3		Gross (A) 1:	87.5576	Gross (A) 3:	29933.33
					Gross (A) 2:	87.5573		
					B)	87.4675	A-B=	
48	R0905782-002 DUP	HOT	3		Gross (A) 1:	80.6619	Gross (A) 3:	29633.33
					Gross (A) 2:	80.6616		
					B)	80.5727	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

COLUMBIA ANALYTICAL SERVICES, INC

Tare Weights:

Instrument: X Mettler AE240 Analytical Balance
 Mettler AG204 Analytical Balance

Analyst: E. WOLFE
 Date: 10/12/09

Drying Tins: Dish 104°C: Weight Actual
 Crucible 550°C: Dish 550°C: s Weights (s): 100 g 100 g
 Dish 180°C: X G/O Dishes: g g

ID Number	Weight	
CK	79.8493	79.8493
RN	77.1054	77.1053
AT	72.9668	72.9669
ND	78.2626	78.2624
TM	76.0385	76.0385
SR	66.7021	66.7020
DA	89.2241	89.2240
73	85.5591	85.5590
HL	71.4356	71.4354
A1	80.1683	80.1680
C5	74.0494	74.0490
TX	68.8515	68.8514
FN	82.1476	82.1474
VAN	79.2051	79.2051
58	87.1050	87.1049
X5	87.8588	87.8587
HOT	80.5727	80.5728
V9	81.6239	81.6239
ER	81.9357	81.9353
JP	75.8733	75.8732
AM	81.6388	81.6386
OS	76.9367	76.9367
VV	93.3687	93.3688
L6	82.1477	82.1479

ID Number	Weight	
XC	83.2273	83.2274
Z2	85.0600	85.0600
A14	85.3573	85.3574
13	80.8387	80.8385
TC	72.1019	72.1022
EW	74.4557	74.4558
DW	84.1754	84.1755
ID	89.9212	89.9211
F8	82.7389	82.7387
FE	86.3651	86.3649
VA	71.6460	71.6460
64	85.7954	85.7952
LA	88.2005	88.2003
P1	81.0187	81.0187
ZX	81.8423	81.8424
30	86.8063	86.8062
53	87.4675	87.4676
VS	80.4667	80.4668
AC	84.4487	84.4485
G	85.1319	85.1317
75	86.2801	86.2802
SD	82.6756	82.6759
TT	88.7050	88.7049
AS	80.3815	80.3814

Columbia Analytical Services
1 Mustard St., Rochester, NY 14609-0859

General Chemistry Analytical Run Cover Sheet

Analyst: EW

Date: 10/12/09

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:	WC92067A	8/20/2009				915
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.

TITLE PROJECT

Continued from page

8/20/09 (A) TDS Reference
EW 0.9153g NaCl (WC85215H) diluted volumetrically to 1 liter w/ DI. Store in plastic bottle @ 4°C
TV = 915 mg/L Exp: 8/20/10 (11634)

8/20/09 (B) Color Reagent - TKN
NM - same as WC92059G. Exp. 1 month, 9/20/09.

(C) NH₃ Carrier/Diluent
To a 2 liter plastic bottle add:
- 998g UPDI
- 3.68g conc. instra-analyzed H₂SO₄ (WC92064B)
Prepared solution x4.

As of 8/20/09 for Kanelab.

(D) ICV/CCV TKN TV = 0.50
0.50 ml 10ppm TKN Ref Stock (WC85134C) + 9.50 ml 0.25N HCl (WC85134H)

(E) ICV/CCV Cr^{VI} TV = 0.45
0.25 ml 1.80ppm Cr^{VI} Ref Stock (WC85130G) + 9.75 ml UPDI

(F) ICV/CCV Cr^{VI} TV = 0.34
0.25 ml 18.0ppm Cr^{VI} Ref Stock (WC85130F) + 9.75 ml UPDI

(G) ICV/CCV NO₂ TV = 0.45
0.25 ml 18.0ppm NO₂ Ref Stock (1/10 dil of WC85135B) + 9.75 ml UPDI

(H) ICV/CCV Cr^{VI} TV = 0.25
0.25 ml 10ppm Cr^{VI} Ref Stock (WC85129G) + 9.75 ml UPDI

(I) ICV/CCV NH₃ TV = 0.90
0.50 ml 180ppm NH₃ Reference Stock (10x dil of WC85257G) + 9.50 ml diluent (WC42045D)

8/20/09 (J) ICV/CCV TKN'S (TV=4.00)
N Mead 9.9mls PDMM + 0.1mls 400ppm Reference w/king stock
SIGNATURE DATE (WC420C)

DISCLOSED TO AND UNDERSTOOD BY

DATE

PROPRIETARY INFORMATION

Analytical Results Summary

2 runs

Instrument Name: R-Balance-02	Analyst: EWOLFE	Analysis Lot:	173714	Method/Testcode: SM 2540 D/TSS								
Lab Code	Target Analytes	QC Type/Parent Sample	Matrix	Raw Result	Sample Amt	Final Result	Dil	PQL	% Rec	% RSD	Date Analyzed	QC? Tier
RQ0909632-01	Solids, Total Suspended (TSS) MB	LCS	Water	0.00 mg/L	1000 mL	1.0 mg/L U	1	1.0			10/7/09 15:05	N IV
RQ0909632-02	Solids, Total Suspended (TSS) N/A	N/A	Water	164.00 mg/L	100 mL	164 mg/L	1	1.0	77*		10/7/09 15:05	N IV
R0905675-001	Solids, Total Suspended (TSS) N/A	N/A	Water	2.22 mg/L	450 mL	2.2 mg/L	1	2.2			10/7/09 15:05	N IV
R0905675-002	Solids, Total Suspended (TSS) N/A	N/A	Water	7.39 mg/L	460 mL	7.4 mg/L	1	2.2			10/7/09 15:05	N IV
R0905675-003	Solids, Total Suspended (TSS) N/A	N/A	Water	2.80 mg/L	465 mL	2.8 mg/L	1	2.2			10/7/09 15:05	N IV
R0905675-004	Solids, Total Suspended (TSS) N/A	N/A	Water	2.17 mg/L	415 mL	2.4 mg/L U	1	2.4			10/7/09 15:05	N IV
R0905675-005	Solids, Total Suspended (TSS) N/A	N/A	Water	3.40 mg/L	470 mL	3.4 mg/L	1	2.1			10/7/09 15:05	N IV
R0905675-006	Solids, Total Suspended (TSS) N/A	N/A	Water	2.82 mg/L	425 mL	2.8 mg/L	1	2.4			10/7/09 15:05	N IV
R0905555-001	Solids, Total Suspended (TSS) N/A	N/A	Water	19.60 mg/L	250 mL	19.6 mg/L	1	4.0			10/7/09 15:05	N I
R0905562-001	Solids, Total Suspended (TSS) N/A	N/A	Water	1.81 mg/L	940 mL	1.8 mg/L	1	1.1			10/7/09 15:05	N I
R0905562-002	Solids, Total Suspended (TSS) N/A	N/A	Water	0.81 mg/L	985 mL	1.0 mg/L U	1	1.0			10/7/09 15:05	N I
R0905562-004	Solids, Total Suspended (TSS) N/A	N/A	Water	1.21 mg/L	990 mL	1.2 mg/L	1	1.0			10/7/09 15:05	N I
R0905562-006	Solids, Total Suspended (TSS) N/A	N/A	Water	1.06 mg/L	940 mL	1.1 mg/L U	1	1.1			10/7/09 15:05	N I
R0905594-001	Solids, Total Suspended (TSS) N/A	N/A	Water	0.80 mg/L	1000 mL	1.0 mg/L U	1	1.0			10/7/09 15:05	N II
R0905630-001	Solids, Total Suspended (TSS) N/A	N/A	Water	406.45 mg/L	31 mL	406 mg/L	1	32			10/7/09 15:05	N I
R0905592-002	Solids, Total Suspended (TSS) N/A	N/A	Water	126.79 mg/L	56 mL	127 mg/L	1	18			10/7/09 15:05	N II
R0905604-002	Solids, Total Suspended (TSS) N/A	N/A	Water	74.17 mg/L	151 mL	74.2 mg/L	1	6.6			10/7/09 15:05	N I
R0905604-006	Solids, Total Suspended (TSS) N/A	N/A	Water	175.00 mg/L	56 mL	175 mg/L	1	18			10/7/09 15:05	N I
R0905604-009	Solids, Total Suspended (TSS) N/A	N/A	Water	66.03 mg/L	156 mL	66.0 mg/L	1	6.4			10/7/09 15:05	N I
R0905622-001	Solids, Total Suspended (TSS) N/A	N/A	Water	2.32 mg/L	990 mL	2.3 mg/L	1	1.0			10/7/09 15:05	N II
RQ0909632-04	Solids, Total Suspended (TSS) DUP	R0905622-001	Water	2.35 mg/L	980 mL	2.3 mg/L	1	1.0		1	10/7/09 15:05	N II
R0905636-001	Solids, Total Suspended (TSS) N/A	N/A	Water	-0.20 mg/L	1000 mL	1.0 mg/L U	1	1.0			10/7/09 15:05	N IV

R5675
R5636

Reviewed & Approved
By: S. Letto
Date: 10/12/09

01290

Analytical Results Summary

Instrument Name: R-Balance-02

Analyst: EWOLFE

173716

Method/Testcode: SM 2540 D/TSS

Analysis Lot:

Lab Code	Target Analytes	QC Type	Parent Sample	Matrix	Raw Result	Sample Amt	Final Result	Dil	POL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ0909634-01	— Solids, Total Suspended (TSS) MB	MB		Water	-0.20 mg/L	1000 mL	1.0 mg/L U	1	1.0			10/7/09 15:05	N	IV
RQ0909634-02	— Solids, Total Suspended (TSS) LCS	LCS		Water	202.00 mg/L	100 mL	202 mg/L	1	10	95		10/7/09 15:05	N	IV
R0905636-002	— Solids, Total Suspended (TSS) N/A	N/A		Water	2.10 mg/L	1000 mL	2.1 mg/L	1	1.0			10/7/09 15:05	N	IV
R0905636-003	— Solids, Total Suspended (TSS) N/A	N/A		Water	2.30 mg/L	1000 mL	2.3 mg/L	1	1.0			10/7/09 15:05	N	IV
R0905655-001	— Solids, Total Suspended (TSS) N/A	N/A		Water	0.70 mg/L	1000 mL	1.0 mg/L U	1	1.0			10/7/09 15:05	N	II
R0905643-001	— Solids, Total Suspended (TSS) N/A	N/A		Water	1.10 mg/L	1000 mL	1.1 mg/L	1	1.0			10/7/09 15:05	N	I
R0905654-001	— Solids, Total Suspended (TSS) N/A	N/A		Water	3.32 mg/L	995 mL	3.3 mg/L	1	1.0			10/7/09 15:05	N	II
R0905661-001	— Solids, Total Suspended (TSS) N/A	N/A		Water	3.23 mg/L	650 mL	3.2 mg/L	1	1.5			10/7/09 15:05	N	IV
R0905661-003	— Solids, Total Suspended (TSS) N/A	N/A		Water	1.70 mg/L	1000 mL	1.7 mg/L	1	1.0			10/7/09 15:05	N	IV
R0905661-005	— Solids, Total Suspended (TSS) N/A	N/A		Water	3.20 mg/L	1000 mL	3.2 mg/L	1	1.0			10/7/09 15:05	N	IV
R0905664-002	— Solids, Total Suspended (TSS) N/A	N/A		Water	32.05 mg/L	365 mL	32.1 mg/L	1	2.7			10/7/09 15:05	N	II
R0905665-003	— Solids, Total Suspended (TSS) N/A	N/A		Water	0.10 mg/L	1000 mL	1.0 mg/L U	1	1.0			10/7/09 15:05	N	II
R0905665-004	— Solids, Total Suspended (TSS) N/A	N/A		Water	0.30 mg/L	1000 mL	1.0 mg/L U	1	1.0			10/7/09 15:05	N	II
R0905665-010	— Solids, Total Suspended (TSS) N/A	N/A		Water	1.80 mg/L	1000 mL	1.8 mg/L	1	1.0			10/7/09 15:05	N	II
R0905670-001	— Solids, Total Suspended (TSS) N/A	N/A		Water	420.69 mg/L	29 mL	421 mg/L	1	34			10/7/09 15:05	N	I
R0905687-001	— Solids, Total Suspended (TSS) N/A	N/A		Water	1420.00 mg/L	10 mL	1420 mg/L	1	100			10/7/09 15:05	N	I
RQ0909634-03	— Solids, Total Suspended (TSS) DUP	DUP	R0905687-001	Water	1347.37 mg/L	9.5 mL	1350 mg/L	1	110		5	10/7/09 15:05	N	I
R0905687-002	— Solids, Total Suspended (TSS) N/A	N/A		Water	30.40 mg/L	250 mL	30.4 mg/L	1	4.0			10/7/09 15:05	N	I
R0905687-003	— Solids, Total Suspended (TSS) N/A	N/A		Water	7333.33 mg/L	1.2 mL	7330 mg/L	1	830			10/7/09 15:05	N	I
R0905687-004	— Solids, Total Suspended (TSS) N/A	N/A		Water	48.44 mg/L	225 mL	48.4 mg/L	1	4.4			10/7/09 15:05	N	I
R0905688-009	— Solids, Total Suspended (TSS) N/A	N/A		Water	3217.39 mg/L	2.3 mL	3220 mg/L	1	430			10/7/09 15:05	N	I
R0905688-010	— Solids, Total Suspended (TSS) N/A	N/A		Water	2500.00 mg/L	2.6 mL	2500 mg/L	1	380			10/7/09 15:05	N	I
R0905688-011	— Solids, Total Suspended (TSS) N/A	N/A		Water	5000.00 mg/L	1.9 mL	5000 mg/L	1	530			10/7/09 15:05	N	I
RQ0909634-04	— Solids, Total Suspended (TSS) DUP	DUP	R0905688-011	Water	4875.00 mg/L	1.6 mL	4880 mg/L	1	630		3	10/7/09 15:05	N	I

Analyte: Total Suspended Solids (TSS)

Analyst: E. WOLFE

Date: 10/7/09

Method: SM20 2540D

Pipet: NA

Time: 15:05

Analyte: Total Dissolved Solids (TDS)

Method: SM20 2540C

TS _____ TDS _____ TSS X

Analyte: Total Solids (TS)

Method SM20 2540B

LCS Lot: WC92084F

TV: 213 Balance ID: AE240

Filter Lot: WC92092B

Oven ID: 2

*Lower tare weight used unless marked: _____

Misc.	Order #	Dish ID	Sample Vol. (mLs)	Used all	Raw Data			Total Solids (mg/L)
1	MB	14	1000		Gross (A) 1:	1.3708	Gross (A) 3:	0.00
					Gross (A) 2:	1.3707		
					B)	1.3707	A-B=	
2	LCS	15	100		Gross (A) 1:	1.3917	Gross (A) 3:	164.00
					Gross (A) 2:	1.3917		
					B)	1.3753	A-B=	
3	R0905675-001	16	450	X	Gross (A) 1:	1.3707	Gross (A) 3:	2.22
					Gross (A) 2:	1.3706		
					B)	1.3696	A-B=	
4	R0905675-002	17	460	X	Gross (A) 1:	1.3909	Gross (A) 3:	7.39
					Gross (A) 2:	1.3910		
					B)	1.3875	A-B=	
5	R0905675-003	18	465	X	Gross (A) 1:	1.3942	Gross (A) 3:	2.80
					Gross (A) 2:	1.3942		
					B)	1.3929	A-B=	
6	R0905675-004	19	415	X	Gross (A) 1:	1.3941	Gross (A) 3:	2.17
					Gross (A) 2:	1.3941		
					B)	1.3932	A-B=	
7	R0905675-005	20	470	X	Gross (A) 1:	1.4021	Gross (A) 3:	3.40
					Gross (A) 2:	1.4021		
					B)	1.4005	A-B=	
8	R0905675-006	21	425	X	Gross (A) 1:	1.3824	Gross (A) 3:	2.82
					Gross (A) 2:	1.3824		
					B)	1.3812	A-B=	
9	R0905555-001	22	250		Gross (A) 1:	1.3789	Gross (A) 3:	19.60
					Gross (A) 2:	1.3788		
					B)	1.3739	A-B=	
10	R0905562-001	23	940	X	Gross (A) 1:	1.4065	Gross (A) 3:	1.81
					Gross (A) 2:	1.4064		
					B)	1.4047	A-B=	
11	R0905562-002	24	985	X	Gross (A) 1:	1.3989	Gross (A) 3:	0.81
					Gross (A) 2:	1.3986		
					B)	1.3978	A-B=	
12	R0905562-004	25	990	X	Gross (A) 1:	1.3962	Gross (A) 3:	1.21
					Gross (A) 2:	1.3960		
					B)	1.3948	A-B=	
13	R0905562-006	26	940	X	Gross (A) 1:	1.3678	Gross (A) 3:	1.06
					Gross (A) 2:	1.3676		
					B)	1.3666	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: 10/7/09

Method: SM20 2540D

Pipet: NA

Time: 15:05

Analyte: Total Dissolved Solids (TDS)

Method: SM20 2540C

TS

TDS

TSS

X

Analyte: Total Solids (TS)

Method SM20 2540B

LCS Lot: WC92084F

TV: 213

Balance ID: AE240

Filter Lot: WC92092B

Oven ID: 2

*Lower tare weight used unless marked:

Misc.	Order #	Dish ID	Sample Vol. (mLs)	Used all	Raw Data			Total Solids (mg/L)
					Gross (A) 1:	Gross (A) 2:	Gross (A) 3:	
14	R0905594-001	27	1000		Gross (A) 1:	1.3885	Gross (A) 3:	0.80
					Gross (A) 2:	1.3881		
					B)	1.3873	A-B=	
15	R0905630-001	28	31		Gross (A) 1:	1.4091	Gross (A) 3:	406.45
					Gross (A) 2:	1.4091		
					B)	1.3965	A-B=	
16	R0905630-002	29	27		Gross (A) 1:	1.4090	Gross (A) 3:	400.00
					Gross (A) 2:	1.4089		
					B)	1.3981	A-B=	
17	R0905630-002 DUP	30	30		Gross (A) 1:	1.3955	Gross (A) 3:	413.33
					Gross (A) 2:	1.3957		
					B)	1.3831	A-B=	
18	R0905592-002	31	56		Gross (A) 1:	1.4054	Gross (A) 3:	126.79
					Gross (A) 2:	1.4052		
					B)	1.3981	A-B=	
19	R0905604-002	32	151		Gross (A) 1:	1.4010	Gross (A) 3:	74.17
					Gross (A) 2:	1.4011		
					B)	1.3898	A-B=	
20	R0905604-006 EW 10/9/09	33	56		Gross (A) 1:	1.4057	Gross (A) 3:	175.00
					Gross (A) 2:	1.4056		
					B)	1.3958	A-B=	
21	R0905604-009	34	156		Gross (A) 1:	1.4139	Gross (A) 3:	66.03
					Gross (A) 2:	1.4138		
					B)	1.4035	A-B=	
22	R0905622-001	35	990	X	Gross (A) 1:	1.4034	Gross (A) 3:	2.32
					Gross (A) 2:	1.4033		
					B)	1.4010	A-B=	
23	R0905622-001 DUP	36	980	X	Gross (A) 1:	1.3688	Gross (A) 3:	2.35
					Gross (A) 2:	1.3687		
					B)	1.3664	A-B=	
24	R0905636-001	37	1000		Gross (A) 1:	1.4009	Gross (A) 3:	-0.20
					Gross (A) 2:	1.4006		
					B)	1.4008	A-B=	
25	MB	38	1000		Gross (A) 1:	1.4008	Gross (A) 3:	-0.20
					Gross (A) 2:	1.4005		
					B)	1.4007	A-B=	
26	LCS	39	100		Gross (A) 1:	1.4121	Gross (A) 3:	202.00
					Gross (A) 2:	1.4118		
					B)	1.3916	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: 10/7/09

Method: SM20 2540D

Pipet: NA

Time: 15:05

Analyte: Total Dissolved Solids (TDS)

Method: SM20 2540C

TS

TDS

TSS

X

Analyte: Total Solids (TS)

Method SM20 2540B

LCS Lot: WC92084F

TV: 213 Balance ID: AE240

Filter Lot: WC92092B

Oven ID: 2

*Lower tare weight used unless marked:

Misc.	Order #	Dish ID	Sample Vol. (mLs)	Used all	Raw Data			Total Solids (mg/L)
27	R0905636-002	40	1000		Gross (A) 1:	1.4033	Gross (A) 3:	2.10
					Gross (A) 2:	1.4030		
					B)	1.4009	A-B=	
28	R0905636-003	41	1000		Gross (A) 1:	1.3755	Gross (A) 3:	2.30
					Gross (A) 2:	1.3753		
					B)	1.3730	A-B=	
29	R0905655-001	42	1000		Gross (A) 1:	1.4015	Gross (A) 3:	0.70
					Gross (A) 2:	1.4011		
					B)	1.4004	A-B=	
30	R0905643-001	43	1000		Gross (A) 1:	1.3710	Gross (A) 3:	1.10
					Gross (A) 2:	1.3708		
					B)	1.3697	A-B=	
31	R0905654-001	44	995	X	Gross (A) 1:	1.3802	Gross (A) 3:	3.32
					Gross (A) 2:	1.3799		
					B)	1.3766	A-B=	
32	R0905661-001	45	650		Gross (A) 1:	1.4010	Gross (A) 3:	3.23
					Gross (A) 2:	1.4005		
					B)	1.3984	A-B=	
33	R0906551-003 566 ع و 10/9/09	46	1000		Gross (A) 1:	1.3952	Gross (A) 3:	1.70
					Gross (A) 2:	1.3948		
					B)	1.3931	A-B=	
34	R0906551-005 566 ع و 10/9/09	47	1000		Gross (A) 1:	1.3805	Gross (A) 3:	3.20
					Gross (A) 2:	1.3806		
					B)	1.3773	A-B=	
35	R0905664-002	48	365		Gross (A) 1:	1.4130	Gross (A) 3:	32.05
					Gross (A) 2:	1.4129		
					B)	1.4012	A-B=	
36	R0905665-003	49	1000		Gross (A) 1:	1.3954	Gross (A) 3:	0.10
					Gross (A) 2:	1.3951		
					B)	1.3950	A-B=	
37	R0905665-004	50	1000		Gross (A) 1:	1.3678	Gross (A) 3:	0.30
					Gross (A) 2:	1.3675		
					B)	1.3672	A-B=	
38	R0905665-010	51	1000		Gross (A) 1:	1.3796	Gross (A) 3:	1.80
					Gross (A) 2:	1.3794		
					B)	1.3776	A-B=	
39	R0905670-001	52	29		Gross (A) 1:	1.3947	Gross (A) 3:	420.69
					Gross (A) 2:	1.3946		
					B)	1.3824	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: 10/7/09

Method: SM20 2540D

Pipet: NA

Time: 15:05

Analyte: Total Dissolved Solids (TDS)

Method: SM20 2540C

TS _____

TDS _____

TSS _____

X _____

Analyte: Total Solids (TS)

Method SM20 2540B

LCS Lot: WC92084F

TV: 213

Balance ID: AE240

Filter Lot: WC92092B

Oven ID: 2

*Lower tare weight used unless marked: _____

Misc.	Order #	Dish ID	Sample Vol. (mLs)	Used all	Raw Data			Total Solids (mg/L)
40	R0905687-001	53	10		Gross (A) 1:	1.3941	Gross (A) 3:	1420.00
					Gross (A) 2:	1.3942		
					B)	1.3799	A-B=	
41	R0905687-001 DUP	54	9.5		Gross (A) 1:	1.3944	Gross (A) 3:	1347.37
					Gross (A) 2:	1.3944		
					B)	1.3816	A-B=	
42	R0905687-002	55	250		Gross (A) 1:	1.3810	Gross (A) 3:	30.40
					Gross (A) 2:	1.3810		
					B)	1.3734	A-B=	
43	R0905687-003	56	1.2		Gross (A) 1:	1.3849	Gross (A) 3:	7333.33
					Gross (A) 2:	1.3847		
					B)	1.3759	A-B=	
44	R0905687-004	57	225		Gross (A) 1:	1.3919	Gross (A) 3:	48.44
					Gross (A) 2:	1.3920		
					B)	1.3810	A-B=	
45	R0905688-009	58	2.3		Gross (A) 1:	1.3856	Gross (A) 3:	3217.39
					Gross (A) 2:	1.3855		
					B)	1.3781	A-B=	
46	R0905688-010	59	2.6		Gross (A) 1:	1.3768	Gross (A) 3:	2500.00
					Gross (A) 2:	1.3767		
					B)	1.3702	A-B=	
47	R0905688-011	60	1.9		Gross (A) 1:	1.3764	Gross (A) 3:	5000.00
					Gross (A) 2:	1.3762		
					B)	1.3667	A-B=	
48	R0905688-011 DUP	61	1.6		Gross (A) 1:	1.3855	Gross (A) 3:	4875.00
					Gross (A) 2:	1.3852		
					B)	1.3774	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

COLUMBIA ANALYTICAL SERVICES, INC

Tare Weights:

Instrument: X Mettler AE240 Analytical Balance
 Mettler AG204 Analytical Balance

Analyst: E. WOLFE
 Date: 10/7/09

Drying Tins: X Dish 104°C: **Weight** **Actual**
 Crucible 550°C: Dish 550°C: s Weights (s): 0.9999 g 1 g
 Dish 180°C: G/O Dishes: g g

ID Number	Weight	
14	1.3707	1.3707
15	1.3753	1.3753
16	1.3696	1.3696
17	1.3875	1.3875
18	1.3929	1.3929
19	1.3933	1.3932
20	1.4005	1.4005
21	1.3812	1.3813
22	1.3739	1.3739
23	1.4047	1.4047
24	1.3978	1.3979
25	1.3948	1.3948
26	1.3666	1.3666
27	1.3873	1.3873
28	1.3965	1.3965
29	1.3981	1.3981
30	1.3831	1.3831
31	1.3981	1.3981
32	1.3898	1.3899
33	1.3958	1.3959
34	1.4036	1.4035
35	1.4010	1.4011
36	1.3664	1.3664
37	1.4008	1.4008

ID Number	Weight	
38	1.4008	1.4007
39	1.3917	1.3916
40	1.4010	1.4009
41	1.3730	1.3730
42	1.4004	1.4004
43	1.3697	1.3698
44	1.3767	1.3766
45	1.3984	1.3984
46	1.3931	1.3931
47	1.3773	1.3773
48	1.4012	1.4012
49	1.3951	1.3950
50	1.3672	1.3672
51	1.3776	1.3776
52	1.3824	1.3824
53	1.3799	1.3799
54	1.3816	1.3818
55	1.3734	1.3734
56	1.3759	1.3759
57	1.3810	1.3811
58	1.3781	1.3781
59	1.3702	1.3702
60	1.3667	1.3667
61	1.3774	1.3774

Columbia Analytical Services
1 Mustard St., Rochester, NY 14609-0859

General Chemistry Analytical Run Cover Sheet

Analyst: EW

Date: 10/17/09

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:	WC92084F	9/21/2009				213
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.

Continued from page

9/18/09 (A) Buffer-TOTN

NM To a tared 1-L amber bottle add:

- 778.5g DE

- 113.4g HCl (WC92080C)

- 76.5g NH₄OH (WC85188 I)

- 0.90g EDTA (WC92039F)

Stir until dissolved. Adjust pH to 8.5 w/ conc. HCl or NaOH.

Exp. 1 year, 9/18/10.

(B) Color Reagent-TOTN

- same as WC920726. Exp. 1 month, 10/18/09.

EW 9/21/09

9/18/09 (C) Methylene Blue Stock-MBAS

DPW To a 1L vol. flask add 1.0g of Methylene Blue chloride (WC92017B), and bring to volume w/ DI, store @ RT, exp: 9/18/2010.

9/18/09 (D) NH₃ Carrier/Diluent

NM - same as WC92067C. Prepared solution x2.

9/18/09 (E) MBAS Color Reagent

DPW To a tared 2L vol. flask add; 100g sodium phosphate monobasic monohydrate (WC92062D), 13.7ml of conc. H₂SO₄ (WC92040B) and 60ml of methylene blue stock (WC92084C). Bring to volume w/ DI, store @ RT. Exp: 9/18/2010

9/21/09 (F) TSS Reference

EW 0.2130g Kadin (WC69285G) brought to 1000g w/ DI. Store in plastic bottle @ 4°C.
TV = 213 mg/L Exp: 6/2/10 (12305)

Continued to page

SIGNATURE

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

PROPRIETARY INFORMATION

Analytical Results Summary

Handwritten: 4 runs

Instrument Name: R-Balance-02 Analyst: EWOLFE

Analysis Lot: 174259 Method/Testcode: SM 2540 D/TSS

Lab Code	Target Analytes	QC Type	Parent Sample	Matrix	Raw Result	Sample Amt	Final Result	Dil	PQL	% Rec	% RSD	Date Analyzed	QC? Tier
RQ0909780-01	Solids, Total Suspended (TSS) MB			Water	-0.40 mg/L	1000 mL	1.0 mg/L U	1	1.0			10/9/09 15:00	N IV
RQ0909780-02	Solids, Total Suspended (TSS) LCS			Water	208.00 mg/L	100 mL	208 mg/L	1	10	98		10/9/09 15:00	N IV
R0905636-006	Solids, Total Suspended (TSS) N/A			Water	0.70 mg/L	1000 mL	1.0 mg/L U	1	1.0			10/9/09 15:00	N IV
R0905661-006	Solids, Total Suspended (TSS) N/A			Water	1.44 mg/L	905 mL	1.4 mg/L	1	1.1			10/9/09 15:00	N IV
R0905661-007	Solids, Total Suspended (TSS) N/A			Water	2.95 mg/L	645 mL	2.9 mg/L	1	1.6			10/9/09 15:00	Y IV
RQ0909780-03	Solids, Total Suspended (TSS) DUP		R0905661-007	Water	2.97 mg/L	640 mL	3.0 mg/L	1	1.6		1	10/9/09 15:00	N IV
R0905661-008	Solids, Total Suspended (TSS) N/A			Water	1.50 mg/L	1000 mL	1.5 mg/L	1	1.0			10/9/09 15:00	N IV
R0905681-002	Solids, Total Suspended (TSS) N/A			Water	1892.16 mg/L	10.2 mL	1890 mg/L	1	98			10/9/09 15:00	N IV
R0905684-004	Solids, Total Suspended (TSS) N/A			Water	1.53 mg/L	980 mL	1.5 mg/L	1	1.0			10/9/09 15:00	N II
R0905684-005	Solids, Total Suspended (TSS) N/A			Water	2.14 mg/L	980 mL	2.1 mg/L	1	1.0			10/9/09 15:00	N II
R0905691-001	Solids, Total Suspended (TSS) N/A			Water	1150.00 mg/L	20 mL	1150 mg/L	1	50			10/9/09 15:00	N II
R0905694-001	Solids, Total Suspended (TSS) N/A			Water	9.29 mg/L	840 mL	9.3 mg/L	1	1.2			10/9/09 15:00	N II
RQ0909780-04	Solids, Total Suspended (TSS) DUP		R0905694-001	Water	9.47 mg/L	845 mL	9.5 mg/L	1	1.2		2	10/9/09 15:00	N II
R0905703-001	Solids, Total Suspended (TSS) N/A			Water	1.50 mg/L	1000 mL	1.5 mg/L	1	1.0			10/9/09 15:00	N II
R0905703-002	Solids, Total Suspended (TSS) N/A			Water	0.90 mg/L	1000 mL	1.0 mg/L U	1	1.0			10/9/09 15:00	N IV
R0905703-003	Solids, Total Suspended (TSS) N/A			Water	0.70 mg/L	1000 mL	1.0 mg/L U	1	1.0			10/9/09 15:00	N IV
R0905703-004	Solids, Total Suspended (TSS) N/A			Water	4.23 mg/L	970 mL	4.2 mg/L	1	1.0			10/9/09 15:00	N IV
R0905703-005	Solids, Total Suspended (TSS) N/A			Water	1.70 mg/L	1000 mL	1.7 mg/L	1	1.0			10/9/09 15:00	N IV
R0905703-006	Solids, Total Suspended (TSS) N/A			Water	0.50 mg/L	1000 mL	1.0 mg/L U	1	1.0			10/9/09 15:00	N IV
R0905703-007	Solids, Total Suspended (TSS) N/A			Water	1.60 mg/L	1000 mL	1.6 mg/L	1	1.0			10/9/09 15:00	N IV
R0905703-008	Solids, Total Suspended (TSS) N/A			Water	0.62 mg/L	970 mL	1.0 mg/L U	1	1.0			10/9/09 15:00	N IV
R0905703-009	Solids, Total Suspended (TSS) N/A			Water	0.60 mg/L	1000 mL	1.0 mg/L U	1	1.0			10/9/09 15:00	N IV
R0905712-001	Solids, Total Suspended (TSS) N/A			Water	-0.59 mg/L	510 mL	2.0 mg/L U	1	2.0			10/9/09 15:00	N II
R0905734-001	Solids, Total Suspended (TSS) N/A			Water	3.11 mg/L	965 mL	3.1 mg/L	1	1.0			10/9/09 15:00	N II

Reviewed & Approved
 Date: 10/11/09
 By: [Signature]

Handwritten notes:
 R5636
 R5661
 R5703
 3 copies

01302

Analyte: Total Suspended Solids (TSS)

Analyst: E. WOLFE

Date: 10/26/09 ^{9/10/09} *EW*

Method: SM20 2540D

Pipet: NA

Time: 15:00 ^{10/16}

Analyte: Total Dissolved Solids (TDS)

TS _____ TDS _____ TSS X

Method: SM20 2540C

Analyte: Total Solids (TS)

Method SM20 2540B

LCS Lot: WC92084F

TV: 213 Balance ID: AE240

Filter Lot: WC92092B

Oven ID: 2

*Lower tare weight used unless marked:

Misc.	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	62	1000		Gross (A) 1:	1.3759	Gross (A) 3:	-0.40
					Gross (A) 2:	1.3760		
					B)	1.3763	A-B=	
2	LCS	63	100		Gross (A) 1:	1.3985	Gross (A) 3:	208.00
					Gross (A) 2:	1.3986		
					B)	1.3777	A-B=	
3	R0905636-006	64	1000		Gross (A) 1:	1.3809	Gross (A) 3:	0.70
					Gross (A) 2:	1.3810		
					B)	1.3802	A-B=	
4	R0905661-006	65	905	X	Gross (A) 1:	1.3793	Gross (A) 3:	1.44
					Gross (A) 2:	1.3794		
					B)	1.3780	A-B=	
5	R0905661-007	66	645		Gross (A) 1:	1.3766	Gross (A) 3:	2.95
					Gross (A) 2:	1.3767		
					B)	1.3747	A-B=	
6	R0905661-007 DUP	67	640		Gross (A) 1:	1.4037	Gross (A) 3:	2.97
					Gross (A) 2:	1.4039		
					B)	1.4018	A-B=	
7	R0905661-008	68	1000		Gross (A) 1:	1.3957	Gross (A) 3:	1.50
					Gross (A) 2:	1.3959		
					B)	1.3942	A-B=	
8	R0905681-002	69	10.2		Gross (A) 1:	1.3987	Gross (A) 3:	1892.16
					Gross (A) 2:	1.3989		
					B)	1.3794	A-B=	
9	R0905684-004	70	980	X	Gross (A) 1:	1.3877	Gross (A) 3:	1.53
					Gross (A) 2:	1.3878		
					B)	1.3862	A-B=	
10	R0905684-005	71	980	X	Gross (A) 1:	1.3695	Gross (A) 3:	2.14
					Gross (A) 2:	1.3697		
					B)	1.3674	A-B=	
11	R0905691-001	72	20		Gross (A) 1:	1.3980	Gross (A) 3:	1150.00
					Gross (A) 2:	1.3981		
					B)	1.3750	A-B=	
12	R0905694-001	73	840		Gross (A) 1:	1.3763	Gross (A) 3:	9.29
					Gross (A) 2:	1.3767		
					B)	1.3685	A-B=	
13	R0905694-001 DUP	74	845		Gross (A) 1:	1.3885	Gross (A) 3:	9.47
					Gross (A) 2:	1.3887		
					B)	1.3805	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: 10/90/9

Method: SM20 2540D

Pipet: NA

Time: 15:00

Analyte: Total Dissolved Solids (TDS)

Method: SM20 2540C

TS _____ TDS _____ TSS X

Analyte: Total Solids (TS)

Method SM20 2540B

LCS Lot: WC92084F

TV: 213 Balance ID: AE240

Filter Lot: WC92092B

Oven ID: 2

*Lower tare weight used unless marked: _____

Misc.	Order #	Dish ID	Sample Vol. (mLs)	Used all	Raw Data			Total Solids (mg/L)
					Gross (A) 1:	Gross (A) 2:	Gross (A) 3:	
14	R0905703-001	75	1000		Gross (A) 1:	1.3694	Gross (A) 3:	1.50
					Gross (A) 2:	1.3695		
					B)	1.3679	A-B=	
15	R0905703-002	76	1000		Gross (A) 1:	1.3995	Gross (A) 3:	0.90
					Gross (A) 2:	1.3996		
					B)	1.3986	A-B=	
16	R0905703-003	77	1000		Gross (A) 1:	1.3891	Gross (A) 3:	0.70
					Gross (A) 2:	1.3892		
					B)	1.3884	A-B=	
17	R0905703-004	78	970	X	Gross (A) 1:	1.4100	Gross (A) 3:	4.23
					Gross (A) 2:	1.4102		
					B)	1.4059	A-B=	
18	R0905703-005	79	1000		Gross (A) 1:	1.3946	Gross (A) 3:	1.70
					Gross (A) 2:	1.3946		
					B)	1.3929	A-B=	
19	R0905703-006	80	1000		Gross (A) 1:	1.4095	Gross (A) 3:	0.50
					Gross (A) 2:	1.4097		
					B)	1.4090	A-B=	
20	R0905703-007	81	1000		Gross (A) 1:	1.3815	Gross (A) 3:	1.60
					Gross (A) 2:	1.3816		
					B)	1.3799	A-B=	
21	R0905703-008	82	970	X	Gross (A) 1:	1.3702	Gross (A) 3:	0.62
					Gross (A) 2:	1.3704		
					B)	1.3696	A-B=	
22	R0905703-009	83	1000		Gross (A) 1:	1.4082	Gross (A) 3:	0.60
					Gross (A) 2:	1.4085		
					B)	1.4076	A-B=	
23	R0905712-001	84	510	X	Gross (A) 1:	1.4018	Gross (A) 3:	-0.59
					Gross (A) 2:	1.4019		
					B)	1.4021	A-B=	
24	R0905734-001	85	965	X	Gross (A) 1:	1.3676	Gross (A) 3:	3.11
					Gross (A) 2:	1.3678		
					B)	1.3646	A-B=	
25	MB	86	1000		Gross (A) 1:	1.3697	Gross (A) 3:	-0.20
					Gross (A) 2:	1.3698		
					B)	1.3699	A-B=	
26	LCS	87	100		Gross (A) 1:	1.4163	Gross (A) 3:	211.00
					Gross (A) 2:	1.4165		
					B)	1.3952	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: 10/90/9

Method: SM20 2540D

Pipet: NA

Time: 15:00

Analyte: Total Dissolved Solids (TDS)

Method: SM20 2540C

TS _____ TDS _____ TSS X

Analyte: Total Solids (TS)

Method SM20 2540B

LCS Lot: WC92084F

TV: 213 Balance ID: AE240

Filter Lot: WC92092B

Oven ID: 2

*Lower tare weight used unless marked:

Misc.	Order #	Dish ID	Sample Vol. (mLs)	Used all	Raw Data			Total Solids (mg/L)
					Gross (A) 1:	Gross (A) 2:	Gross (A) 3:	
27	R0905734-005	88	975	X	Gross (A) 1:	1.3685	Gross (A) 3:	3.79
					Gross (A) 2:	1.3687		
					B)	1.3646	A-B=	
28	R0905734-009	89	1000		Gross (A) 1:	1.4030	Gross (A) 3:	2.30
					Gross (A) 2:	1.4031		
					B)	1.4007	A-B=	
29	R0905734-013	90	985	X	Gross (A) 1:	1.4013	Gross (A) 3:	2.74
					Gross (A) 2:	1.4014		
					B)	1.3986	A-B=	
30	R0905734-013 DUP	91	990	X	Gross (A) 1:	1.3941	Gross (A) 3:	2.83
					Gross (A) 2:	1.3942		
					B)	1.3913	A-B=	
31	R0905740-001	92	1000		Gross (A) 1:	1.4541	Gross (A) 3:	83.10
					Gross (A) 2:	1.4543		
					B)	1.3710	A-B=	
32	R0905740-002	93	1000		Gross (A) 1:	1.3721	Gross (A) 3:	4.30
					Gross (A) 2:	1.3723		
					B)	1.3678	A-B=	
33	R0905740-003	94	1000		Gross (A) 1:	1.3987	Gross (A) 3:	-0.10
					Gross (A) 2:	1.3989		
					B)	1.3988	A-B=	
34	R0905740-004	95	1000		Gross (A) 1:	1.3972	Gross (A) 3:	0.00
					Gross (A) 2:	1.3974		
					B)	1.3972	A-B=	
35	R0905741-001	96	1000		Gross (A) 1:	1.3744	Gross (A) 3:	4.00
					Gross (A) 2:	1.3745		
					B)	1.3704	A-B=	
36	R0905741-002	97	1000		Gross (A) 1:	1.4000	Gross (A) 3:	1.10
					Gross (A) 2:	1.3999		
					B)	1.3988	A-B=	
37	R0905741-003	98	1000		Gross (A) 1:	1.3968	Gross (A) 3:	1.00
					Gross (A) 2:	1.3969		
					B)	1.3958	A-B=	
38	R0905741-004	99	1000		Gross (A) 1:	1.3719	Gross (A) 3:	1.40
					Gross (A) 2:	1.3719		
					B)	1.3705	A-B=	
39	R0905745-001	1	350		Gross (A) 1:	1.3785	Gross (A) 3:	11.43
					Gross (A) 2:	1.3787		
					B)	1.3745	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: 10/90/9

Method: SM20 2540D

Pipet: NA

Time: 15:00

Analyte: Total Dissolved Solids (TDS)

TS _____ TDS _____ TSS X

Method: SM20 2540C

Analyte: Total Solids (TS)

Method SM20 2540B

LCS Lot: WC92084F

TV: 213 Balance ID: AE240

Filter Lot: WC92092B Oven ID: 2

*Lower tare weight used unless marked:

Misc.	Order #	Dish ID	Sample Vol. (mLs)	Used all	Raw Data			Total Solids (mg/L)
40	R0905751-001	2	70		Gross (A) 1:	1.4116	Gross (A) 3:	131.43
					Gross (A) 2:	1.4118		
					B)	1.4024	A-B=	
41	R0905751-002	3	328		Gross (A) 1:	1.3950	Gross (A) 3:	8.84
					Gross (A) 2:	1.3951		
					B)	1.3921	A-B=	
42	R0905754-001	4	95		Gross (A) 1:	1.3990	Gross (A) 3:	90.53
					Gross (A) 2:	1.3991		
					B)	1.3904	A-B=	
43	R0905754-008	5	38		Gross (A) 1:	1.3923	Gross (A) 3:	613.16
					Gross (A) 2:	1.3924		
					B)	1.3690	A-B=	
44	R0905764-001	6	1000		Gross (A) 1:	1.3929	Gross (A) 3:	1.20
					Gross (A) 2:	1.3930		
					B)	1.3917	A-B=	
45	R0905782-001	7	1000		Gross (A) 1:	1.3857	Gross (A) 3:	1.60
					Gross (A) 2:	1.3858		
					B)	1.3841	A-B=	
46	R0905784-001	8	1000		Gross (A) 1:	1.3704	Gross (A) 3:	-0.30
					Gross (A) 2:	1.3705		
					B)	1.3707	A-B=	
47	R0905765-001	9	227		Gross (A) 1:	1.4005	Gross (A) 3:	14.54
					Gross (A) 2:	1.4007		
					B)	1.3972	A-B=	
48	FSS MB	C5	1000		Gross (A) 1:	16.6532	Gross (A) 3:	-0.10
					Gross (A) 2:	16.6533		
					B)	16.6533	A-B=	
49	LCS	10	100		Gross (A) 1:	1.4279	Gross (A) 3:	214.00
					Gross (A) 2:	1.4279		
					B)	1.4065	A-B=	
50	R0905781-001	11	83		Gross (A) 1:	1.3730	Gross (A) 3:	56.63
					Gross (A) 2:	1.3731		
					B)	1.3683	A-B=	
51	R0905781-003	12	143		Gross (A) 1:	1.3769	Gross (A) 3:	37.06
					Gross (A) 2:	1.3770		
					B)	1.3716	A-B=	
52	R0905781-003 DUP	13	141		Gross (A) 1:	1.3739	Gross (A) 3:	42.55
					Gross (A) 2:	1.3740		
					B)	1.3679	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: 10/90/9

Method: SM20 2540D

Pipet: NA

Time: 15:00

Analyte: Total Dissolved Solids (TDS)

Method: SM20 2540C

TS _____ TDS _____ TSS X

Analyte: Total Solids (TS)

Method SM20 2540B

LCS Lot: WC92084F

TV: 213 Balance ID: AE240

Filter Lot: WC92092B Oven ID: 2 *Lower tare weight used unless marked: _____

Misc.	Order #	Dish ID	Sample Vol. (mLs)	Used all	Raw Data			Total Solids (mg/L)
					Gross (A) 1:	Gross (A) 2:	Gross (A) 3:	
53	R0905781-004	14	144		Gross (A) 1:	1.3832	Gross (A) 3:	11.11
					Gross (A) 2:	1.3833		
					B)	1.3816	A-B=	
54	R0905781-006	15	1000		Gross (A) 1:	1.3749	Gross (A) 3:	2.60
					Gross (A) 2:	1.3749		
					B)	1.3723	A-B=	
55	R0905555-001	16	250		Gross (A) 1:	1.3729	Gross (A) 3:	19.20
					Gross (A) 2:	1.3732		
					B)	1.3681	A-B=	
56	R0905630-001	17	32		Gross (A) 1:	1.3856	Gross (A) 3:	428.13
					Gross (A) 2:	1.3859		
					B)	1.3719	A-B=	
57	R0905630-002	18	23		Gross (A) 1:	1.3944	Gross (A) 3:	378.26
					Gross (A) 2:	1.3946		
					B)	1.3857	A-B=	
58	R0905630-002 DUP	19	24.8		Gross (A) 1:	1.3891	Gross (A) 3:	411.29
					Gross (A) 2:	1.3892		
					B)	1.3769	A-B=	
59	R0905592-002	20	56		Gross (A) 1:	1.4083	Gross (A) 3:	98.21
					Gross (A) 2:	1.4084		
					B)	1.4028	A-B=	
60	R0905604-002	21	151		Gross (A) 1:	1.4120	Gross (A) 3:	74.17
					Gross (A) 2:	1.4121		
					B)	1.4008	A-B=	
61	R0905604-006	22	57		Gross (A) 1:	1.4044	Gross (A) 3:	82.46
					Gross (A) 2:	1.4045		
					B)	1.3997	A-B=	
62	R0905604-009	23	156		Gross (A) 1:	1.3879	Gross (A) 3:	69.87
					Gross (A) 2:	1.3878		
					B)	1.3769	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: 10/9/09

Method: SM20 2540D

Pipet: na

Time: 15:00

Analytes: Volatile/Fixed Solids

*Lower tare weight used unless marked:

Method : EPA-600 160.4/SM 2540E

TSS x

VSS x

FSS x

LCS lot# WC92084F Filter ID: WC92092B

Balance ID: AE240 Oven ID: 2

TS TV: 213 TVS TV: NA

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)

Misc.	Order #	Dish ID	Sample Vol. (mLs)	Used all	Before Ignition (g)	After Ignition (g)	Volatile / Fixed Solids (mg/L)	Total Solids (mg/L)
1	FSS	MB	C5	1000	C)	Dry wgt (A): 16.6532	-0.20	-0.10
					B) 16.6533	Dry wgt (A): 16.6533		
					A-B= 0.0001	Dry wgt (A):		
					D-B= 0.0002	550 wgt (D): 16.6531		
		A-D= 0.0001						
2	FSS	R0905718-003	B3	195	C)	Dry wgt (A): 16.1948	12.31	37.44
					B) 16.1875	Dry wgt (A): 16.1949		
					A-B= 0.0073	Dry wgt (A):		
					D-B= 0.0024	550 wgt (D): 16.1899		
		A-D= 0.0049						
3	FSS	R0905718-004	C67	118	C)	Dry wgt (A): 17.8748	11.86	38.14
					B) 17.8703	Dry wgt (A): 17.8748		
					A-B= 0.0045	Dry wgt (A):		
					D-B= 0.0014	550 wgt (D): 17.8717		
		A-D= 0.0031						
4	FSS	R0905718-004 DUP	C8	118	C)	Dry wgt (A): 17.6718	12.71	38.98
					B) 17.6672	Dry wgt (A): 17.6718		
					A-B= 0.0046	Dry wgt (A):		
					D-B= 0.0015	550 wgt (D): 17.6687		
		A-D= 0.0031						

TSS =
RPD =
2.18%

EW
10/13/09

COLUMBIA ANALYTICAL SERVICES, INC

Tare Weights:

Instrument: X Mettler AE240 Analytical Balance
 Mettler AG204 Analytical Balance

Analyst: E. WOLFE
 Date: 10/90/9

Drying Tins: X Dish 104°C:
 Crucible 550°C: X Dish 550°C:
 Dish 180°C: G/O Dishes:

Weight Actual
s Weights (s): 1 g 1 g
 20.0001 g 20 g

ID Number	Weight	
62	1.3763	1.3763
63	1.3777	1.3777
64	1.3802	1.3802
65	1.3781	1.3780
66	1.3747	1.3747
67	1.4019	1.4018
68	1.3942	1.3942
69	1.3796	1.3794
70	1.3862	1.3862
71	1.3675	1.3674
72	1.3750	1.3750
73	1.3685	1.3685
74	1.3806	1.3805
75	1.3679	1.3679
76	1.3986	1.3986
77	1.3884	1.3884
78	1.4059	1.4059
79	1.3929	1.3929
80	1.4090	1.4090
81	1.3799	1.3799
82	1.3696	1.3697
83	1.4076	1.4076
84	1.4021	1.4021
85	1.3646	1.3646
86	1.3700	1.3699
87	1.3953	1.3952
88	1.3649	1.3648
89	1.4007	1.4007
90	1.3987	1.3986
91	1.3913	1.3914
92	1.3711	1.3710
93	1.3679	1.3678
94	1.3989	1.3988

ID Number	Weight	
95	1.3972	1.3972
96	1.3704	1.3705
97	1.3988	1.3988
98	1.3958	1.3959
99	1.3705	1.3705
1	1.3746	1.3745
2	1.4024	1.4025
3	1.3922	1.3921
4	1.3904	1.3904
5	1.3690	1.3690
6	1.3917	1.3917
7	1.3842	1.3841
8	1.3707	1.3708
9	1.3972	1.3972
10	1.4065	1.4065
11	1.3683	1.3684
12	1.3717	1.3716
13	1.3680	1.3679
14	1.3816	1.3816
15	1.3724	1.3723
16	1.3683	1.3681
17	1.3720	1.3719
18	1.3857	1.3857
19	1.3790	1.3789
20	1.4028	1.4028
21	1.4008	1.4008
22	1.3997	1.3997
23	1.3770	1.3769
24	1.3889	1.3888
C5	16.6533	16.6533
B3	16.1876	16.1875
C67	17.8703	17.8704
C8	17.6673	17.6672

Columbia Analytical Services
1 Mustard St., Rochester, NY 14609-0859

General Chemistry Analytical Run Cover Sheet

Analyst: EW

Date: 10/09/09

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:	WC92084F	9/21/2009				213
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.

Continued from page

9/18/09 (A) Buffer-TDTN

NM To a tared 1-L amber bottle add:

- 778.5g DI

- 113.4g HCl (WC92080C)

- 76.5g NH₄OH (WC85188 I)

- 0.90g EDTA (WC92039F)

stir until dissolved. Adjust pH to 8.5 w/ conc. HCl or NaOH.

Exp. 1 year, 9/18/10.

(B) Color Reagent - TDTN

- same as WC920726. Exp. 1 month, 10/18/09.

EW 9/21/09

9/18/09 (C) Methylene Blue Stock-MBAS

DPW To a 1L vol. flask add 1.0g of Methylene Blue chloride (WC92017B), and bring to volume w/ DI, store @ RT, exp: 9/18/2010.

9/18/09 (D) NH₃ Carrier/Diluent

NM - same as WC92067C. Prepared solution x2.

9/18/09 (E) MBAS Color Reagent

DPW In a tared 2L vol. flask add: 100g sodium phosphate monobasic monohydrate (WC92062D), 13.7ml of conc. H₂SO₄ (WC92040B) and 60ml of methylene blue stock (WC92084C). Bring to volume w/ DI, store @ RT. Exp: 9/18/2010

9/21/09 (F) TSS Reference

EW 0.2130g Kadin (WC69285G) brought to 1000g w/ DI. Store in plastic bottle @ 4°C. TV = 213 ng/L Exp: 6/2/10 (12305)

Continued to page

SIGNATURE

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

PROPRIETARY INFORMATION

Analytical Results Summary

Instrument Name: R-IC-03 Analyst: CSCHRADER Analysis Lot: 173332 Method/Testcode: 9056/NO3

Lab Code	Target Analytes	QC Type	Parent Sample	Matrix	Raw Result	Sample Amt	Final Result	Dil	PQL	% Rec	% RSD	Date Analyzed	QC? Tier
RQ0909515-01	Nitrate as Nitrogen	MB		Water	0.00 mg/L ✓	10 mL	0.050 mg/L U	1	0.050			10/3/09 10:16:09	N IV
RQ0909515-02	Nitrate as Nitrogen	LCS		Water	0.97 mg/L ✓	10 mL	0.971 mg/L	1	0.050	97		10/3/09 10:30:25	N IV
R0905636-002	Nitrate as Nitrogen	N/A		Water	8.85 mg/L ✓	10 mL	8.85 mg/L	10	0.50			10/3/09 11:34:24	N IV
RQ0909515-04	Nitrate as Nitrogen	DUP	R0905636-002	Water	8.36 mg/L ✓	10 mL	8.36 mg/L	10	0.50		6	10/3/09 11:49:01	N IV
RQ0909515-03	Nitrate as Nitrogen	MS	R0905636-002	Water	18.44 mg/L ✓	10 mL	18.4 mg/L	10	0.50	96		10/3/09 12:03:17	N IV
R0905636-001	Nitrate as Nitrogen	N/A		Water	0.00 mg/L ✓	10 mL	0.50 mg/L U	10	0.50			10/3/09 12:17:34	N IV
R0905635-001	Nitrate as Nitrogen	N/A		Water	0.00 mg/L ✓	10 mL	0.50 mg/L U	10	0.50			10/3/09 12:31:51	N IV

01312

10-03-09

IC#3

System	Ident	Vial	Volume	Dilution	Amount	Internal Standard Amount	Level	Injections	Done	Sample Info 1	Sample Info 2
metrohm.smt	CCF	100	1.0	1.0	1.0	100.0	0	1	1		
metrohm.smt	CCB	101	1.0	1.0	1.0	100.0	0	1	1		
metrohm.smt	LCS	102	1.0	1.0	1.0	100.0	0	1	1		
metrohm.smt	M-76B	103	1.0	10.0	1.0	100.0	0	1	1		
metrohm.smt	M-76B DUP	104	1.0	10.0	1.0	100.0	0	1	1		
metrohm.smt	M-76B SPK	105	1.0	10.0	1.0	100.0	0	1	1		
metrohm.smt	PBI00209-12	106	1.0	10.0	1.0	100.0	0	1	1		
metrohm.smt	EBI00209-SO1A4	107	1.0	10.0	1.0	100.0	0	1	1		
metrohm.smt	CCV	108	1.0	20.0	1.0	100.0	0	1	1		
metrohm.smt	M-76B	109	1.0	1.0	1.0	100.0	0	1	1		
metrohm.smt	CCB	110	1.0	1.0	1.0	100.0	0	1	1		

Analyst: C. Sehrader
 Pipets: Toef
 CS
 10/31/09
 Lucy
 Mine

Reviewed & Approved
 By: *CS*
 Date: 10/9/09

R5636
 R5635
 dupes

Report date: 10/3/2009 10:13:50 AM
 Printed by: User

Ident: CCV
 Analysis from: 10/3/2009 10:01:52 AM
 File: TA031001.CHW

Last save: 10/3/2009 10:13:51 AM

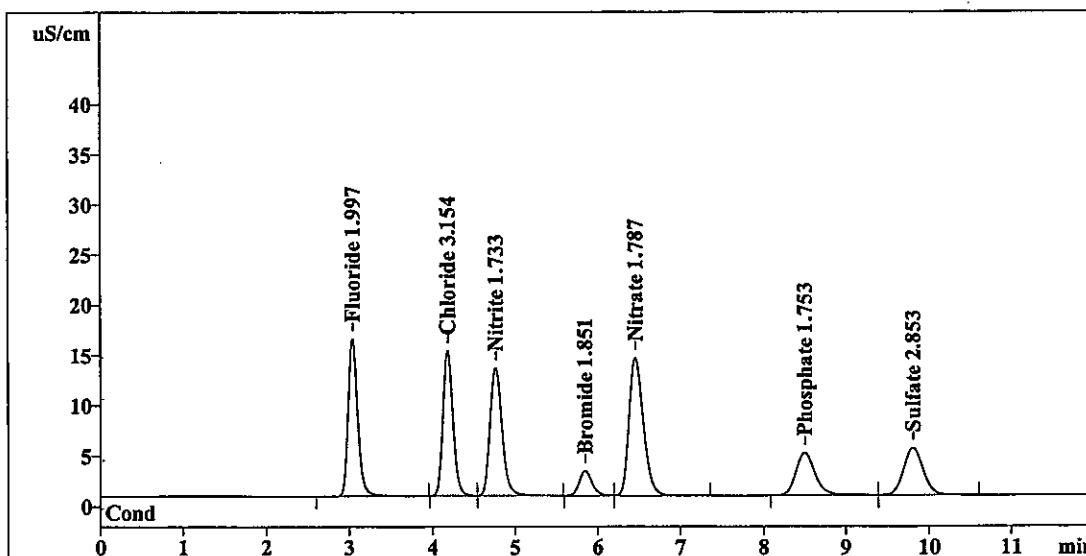
Method: 09-15-09CAL.mtw
 Run operator: User
 Analysis number: 8652

Last save: 10/3/2009 9:27:10

SAMPLE:

Vial number: 100
 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	3.04	125.396	1.997	Fluoride
2	4.18	118.504	3.154	Chloride
3	4.76	128.524	1.733	Nitrite
4	5.85	26.161	1.851	Bromide
5	6.46	165.337	1.787	Nitrate
6	8.50	68.770	1.753	Phosphate
7	9.81	76.547	2.853	Sulfate

OK ↓
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 OK ↓
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 OUT ↓

7 12.00 709.239 15.128

CS
 10/15/09

This report has been created by IC Net
 METROHM LTD

Report date: 10/3/2009 10:28:07 AM
 Printed by: User

Ident: CCB
 Analysis from: 10/3/2009 10:16:09 AM
 File: TA031016.CHW

Last save: 10/3/2009 10:28:07 AM

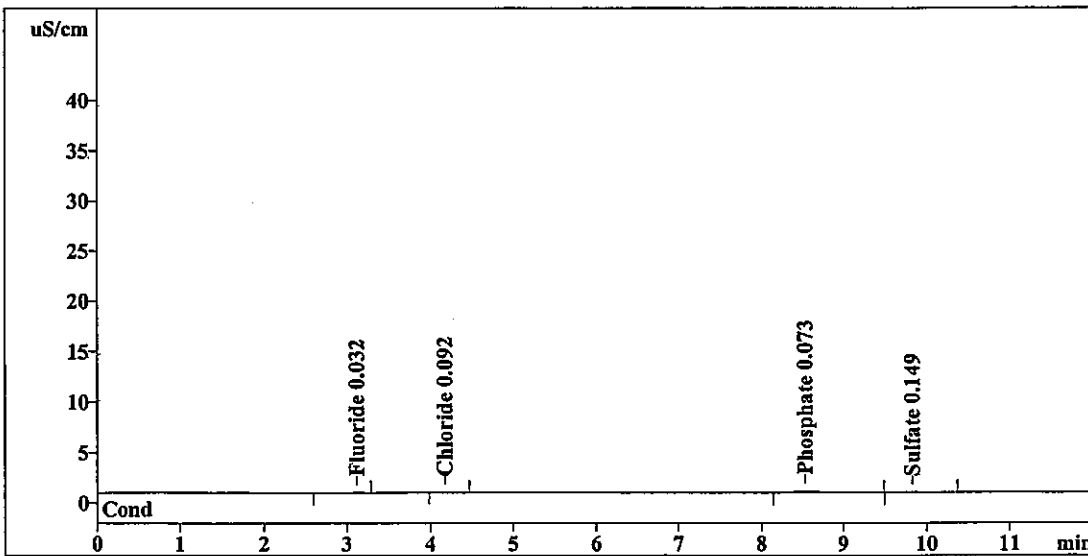
Method: 09-15-09CAL.mtw
 Run operator: User
 Analysis number: 8653

Last save: 10/3/2009 9:27:10

SAMPLE:

Vial number: 101
 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	3.12	0.102	0.032	Fluoride
2	4.18	0.225	0.092	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	8.53	2.812	0.073	Phosphate
7	9.83	0.536	0.149	Sulfate
7	12.00	3.675	0.345	

OK
 ↓
 OK
 ↓

CS
 10/5/09

This report has been created by IC Net
 METROHM LTD

Report date: 10/3/2009 10:42:24 AM
 Printed by: User

Ident: LCS
 Analysis from: 10/3/2009 10:30:25 AM
 File: TA031030.CHW

Last save: 10/3/2009 10:42:24 AM

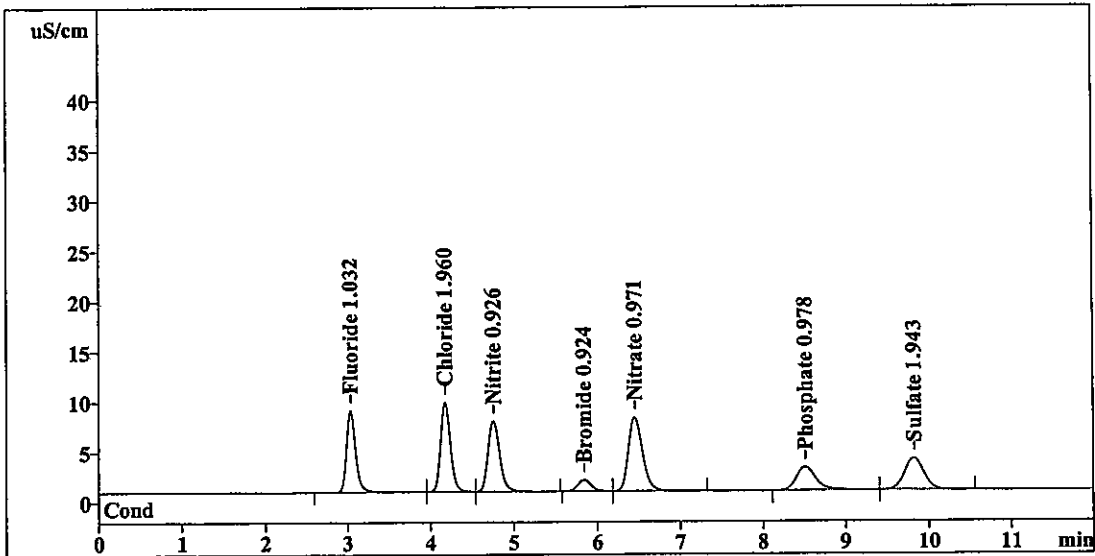
Method: 09-15-09CAL.mtw
 Run operator: User
 Analysis number: 8654

Last save: 10/3/2009 9:27:10

SAMPLE:

Vial number: 102
 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	3.04	63.876	1.032	Fluoride
2	4.18	72.365	1.960	Chloride
3	4.76	67.131	0.926	Nitrite
4	5.84	12.254	0.924	Bromide
5	6.46	86.897	0.971	Nitrate
6	8.51	38.357	0.978	Phosphate
7	9.82	50.971	1.943	Sulfate
7	12.00	391.852	8.734	

OK
 ↓
 OK
 ↓
 CS
 10/3/09

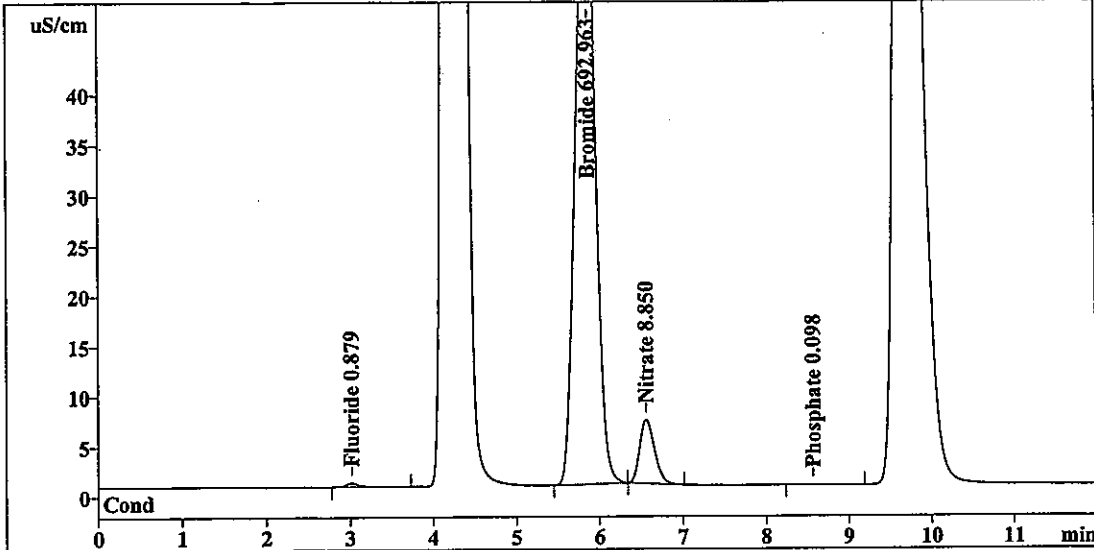
This report has been created by IC Net
 METROHM LTD

Report date: 10/3/2009 11:46:22 AM
 Printed by: User
 Ident: M-76B ~~R0905636-002~~ CS
 Analysis from: 10/3/2009 11:34:24 AM
 File: TA031134.CHW Last save: 10/3/2009 11:46:23 AM

Method: 09-15-09CAL.mtw Last save: 10/3/2009 9:27:10
 Run operator: User
 Analysis number: 8655

SAMPLE: CNS
 Vial number: 103
 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

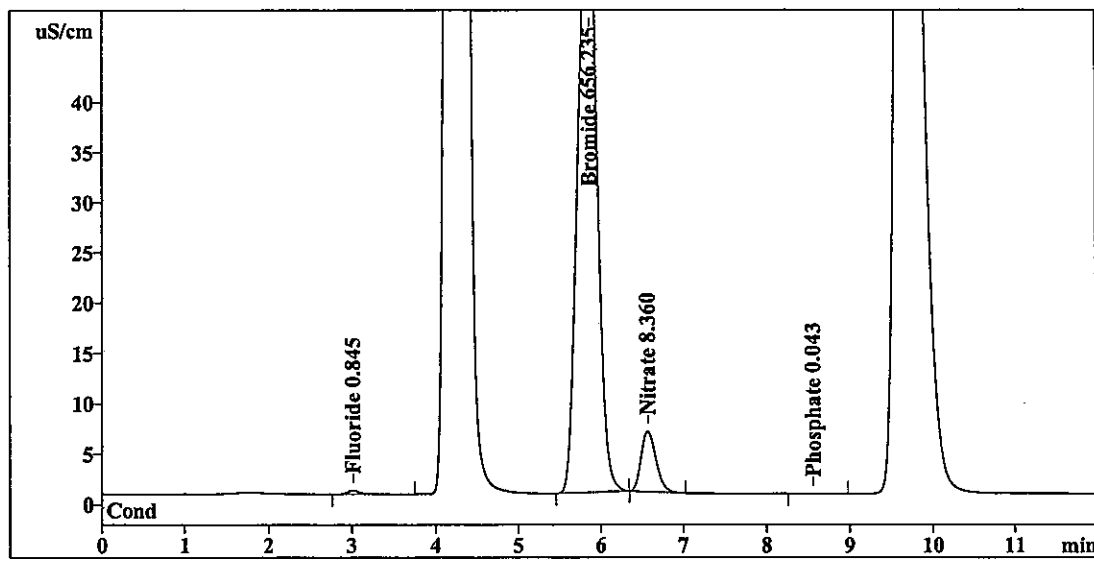


Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.02	3.666	0.879	Fluoride
2	0.00	0.000	1/200 0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.87	1037.314	- 692.963	Bromide
5	6.56	78.575	OK 8.850	Nitrate
6	8.57	0.343	0.098	Phosphate
7	0.00	0.000	1/200 0.000	Sulfate
<hr/>				
7	12.00	1119.898	CS 702.790 10/5/09	

This report has been created by IC Net
 METROHM LTD

Report date: 10/3/2009 12:00:59 PM
 Printed by: User
 Ident: M-76B DUP ~~R0905635~~ ^{R0905636-002} DUP
 Analysis from: 10/3/2009 11:49:01 AM
 File: TA031149.CHW ^{CS} _{10/5/09} Last save: 10/3/2009 12:00:59 PM
 Method: 09-15-09CAL.mtw Last save: 10/3/2009 9:27:10
 Run operator: User
 Analysis number: 8656
 SAMPLE: CNS
 Vial number: 104
 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

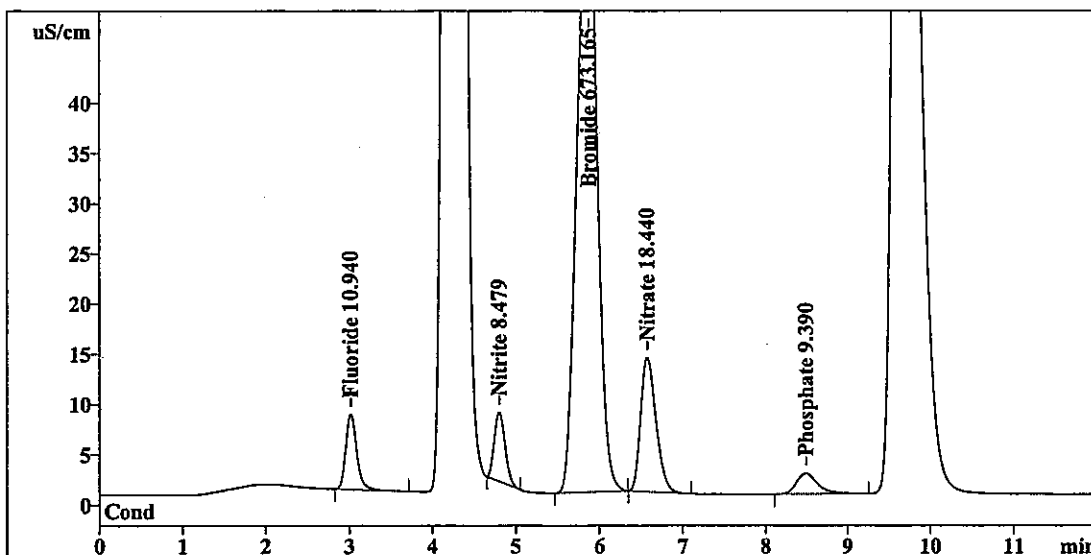


Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.02	3.453	0.845	Fluoride
2	0.00	0.000	1/200 0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.87	982.252	656.235	Bromide
5	6.58	73.863	OK 8.360	Nitrate
6	8.56	0.130	0.043	Phosphate
7	0.00	0.000	1/200 0.000	Sulfate
7	12.00	1059.697	^{CS} _{10/5/09} 665.484	

This report has been created by IC Net
 METROHM LTD

Report date: 10/3/2009 12:15:15 PM
 Printed by: User
 Ident: M-76B SPK ~~20905635~~ CS
 Analysis from: 10/3/2009 12:03:17 PM ~~10/5/09~~
 File: TA031203.CHW Last save: 10/3/2009 12:15:16 PM
 Method: 09-15-09CAL.mtw Last save: 10/3/2009 9:27:10
 Run operator: User
 Analysis number: 8657
 SAMPLE: CNS
 Vial number: 105
 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	3.02	67.810	10.940	Fluoride
2	0.00	0.000	0.000	Chloride
3	4.81	61.209	8.479	Nitrite
4	5.88	1007.632	673.165	Bromide
5	6.58	170.851	18.440	Nitrate
6	8.49	36.821	9.390	Phosphate
7	0.00	0.000	0.000	Sulfate
7	12.00	1344.324	720.413	

Handwritten notes: 1/200, OK, 1200, CS, 10/5/09

This report has been created by IC Net
 METROHM LTD

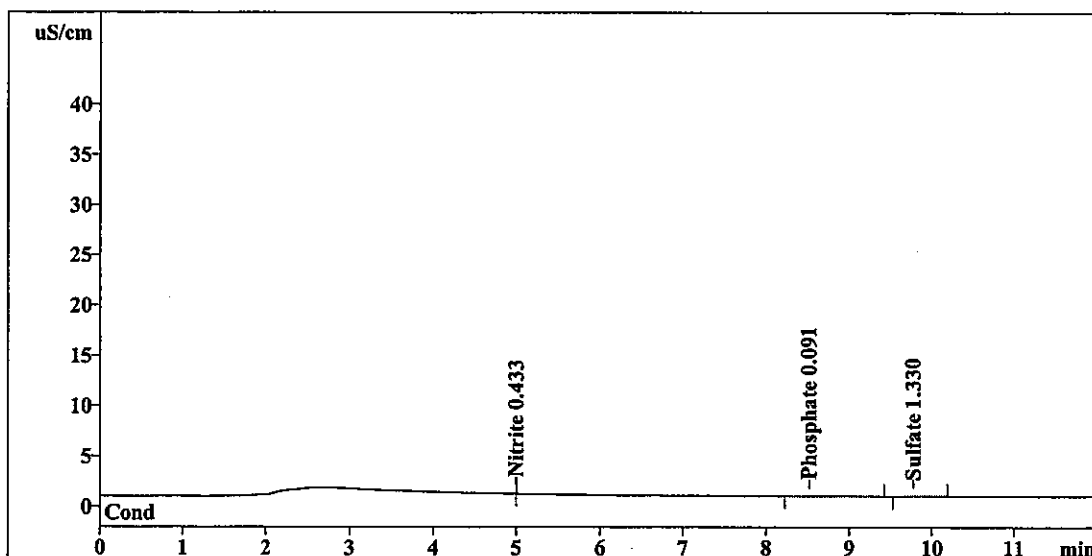
Report date: 10/3/2009 12:29:32 PM
Printed by: User

Ident: PB100209-A2 *20905636-001*
Analysis from: 10/3/2009 12:17:34 PM
File: TA031217.CHW Last save: 10/3/2009 12:29:33 PM

Method: 09-15-09CAL.mtw Last save: 10/3/2009 9:27:10
Run operator: User
Analysis number: 8658

SAMPLE: CNS
Vial number: 106
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	0.00	0.000	0.000	Fluoride
2	0.00	0.000	0.000	Chloride
3	5.00	-0.000	0.433	Nitrite
4	0.00	0.000	0.000	Bromide
5	0.00	0.000	0.000	Nitrate
6	8.52	0.316	0.091	Phosphate
7	9.79	0.094	1.330	Sulfate
7	12.00	0.411	1.854	

Handwritten notes: *1/10 OK* next to row 2; *OK* next to row 5; *1/10* next to row 7; *CS 1015109* next to the final row.

This report has been created by IC Net
METROHM LTD

Report date: 10/3/2009 12:43:50 PM
 Printed by: User

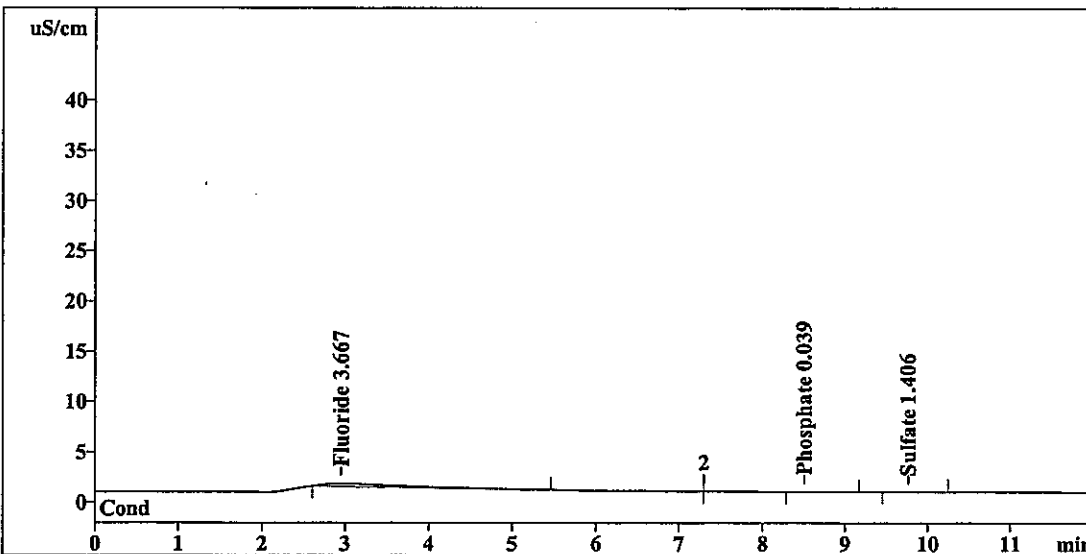
Ident: EB100209-S01A4 R0905635-001
 Analysis from: 10/3/2009 12:31:51 PM
 File: TA031231.CHW Last save: 10/3/2009 12:43:50 PM

Method: 09-15-09CAL.mtw Last save: 10/3/2009 9:27:10
 Run operator: User
 Analysis number: 8659

SAMPLE: CNS

Vial number: 107
 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	2.96	21.441	3.667	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	8.51	0.110	0.039	Phosphate
7	9.77	0.306	1.406	Sulfate
7	12.00	21.858	5.111	

Handwritten notes:
 1/10 OK (next to peak 1)
 CS 5.111 (next to peak 7)
 1015109 (below peak 7)

This report has been created by IC Net
 METROHM LTD

Report date: 10/3/2009 12:58:07 PM
Printed by: User

Ident: M-76B 20905636-002
Analysis from: 10/3/2009 12:46:08 PM
File: TA031246.CHW

Last save: 10/3/2009 12:58:07 PM

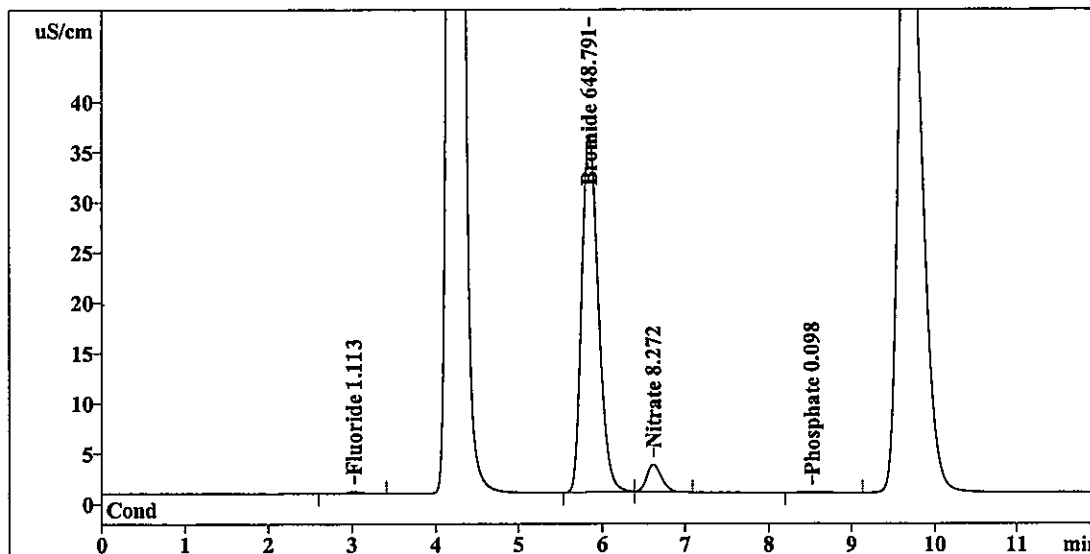
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8660

Last save: 10/3/2009 9:27:10

SAMPLE: CNS

Vial number: 108
Volume: 1.0 µL
Dilution: 20.00
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	3.03	1.611	1.113	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.87	484.749	648.791	Bromide
5	6.63	33.215	8.272	Nitrate
6	8.52	0.152	0.098	Phosphate
7	0.00	0.000	0.000	Sulfate
7	12.00	519.727	658.274	

Handwritten notes: 'confirms' with an arrow pointing to the Bromide peak; 'CS 10/5/09' written below the table.

This report has been created by IC Net
METROHM LTD

Report date: 10/3/2009 1:12:24 PM
Printed by: User

Ident: CCV
Analysis from: 10/3/2009 1:00:25 PM
File: TA031300.CHW

Last save: 10/3/2009 1:12:24 PM

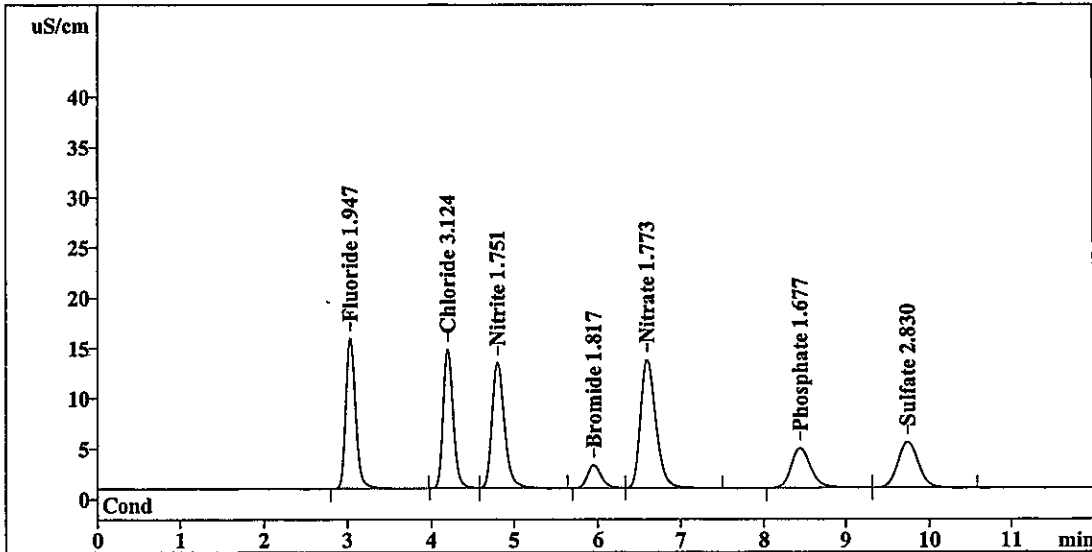
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8661

Last save: 10/3/2009 9:27:10

SAMPLE:

Vial number: 109
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	3.04	122.199	1.947	Fluoride
2	4.21	117.346	3.124	Chloride
3	4.81	129.914	1.751	Nitrite
4	5.96	25.647	1.817	Bromide
5	6.60	163.981	1.773	Nitrate
6	8.45	65.780	1.677	Phosphate
7	9.75	75.914	2.830	Sulfate
7	12.00	700.780	14.919	

OK ↓
OK ↓
OK ↓
OUT ↓
CS
10/5/09

This report has been created by IC Net
METROHM LTD

Report date: 10/3/2009 1:26:40 PM
Printed by: User

Ident: CCB
Analysis from: 10/3/2009 1:14:42 PM
File: TA031314.CHW

Last save: 10/3/2009 1:26:40 PM

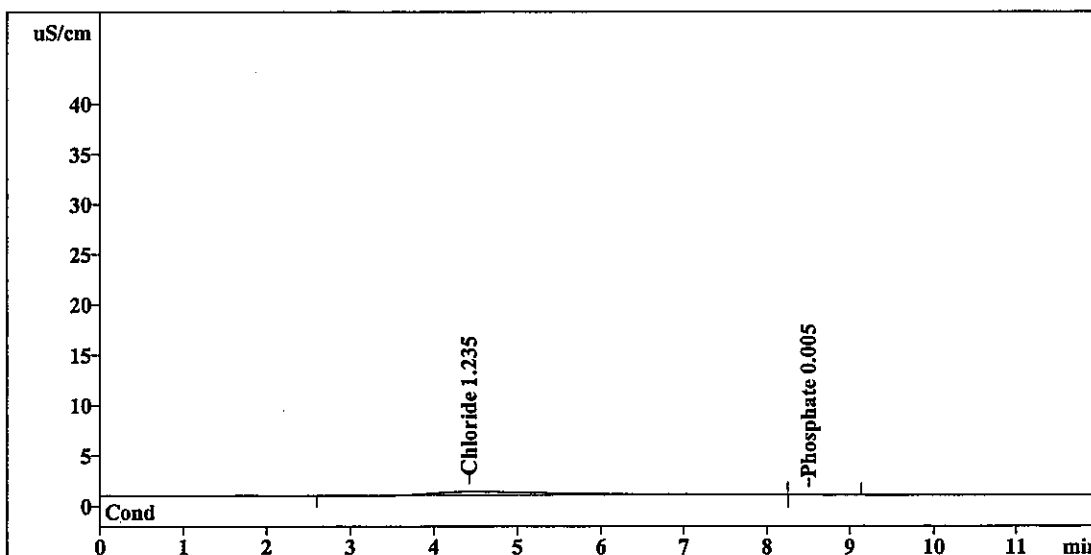
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8662

Last save: 10/3/2009 9:27:10

SAMPLE:

Vial number: 110
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	0.00	0.000	0.000	Fluoride
2	4.43	44.390	1.235	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	8.50	0.170	0.005	Phosphate
7	0.00	0.000	0.000	Sulfate
7	12.00	44.560	1.241	

This report has been created by IC Net
METROHM LTD

Ion Chromatography Cover Sheet

Instrument: Metrohm IC 861

Column: Metrosep A Supp 5 - 100, 4mm, 05/05/09

Curve Date: 09/15/09

Loop size: 25 uL Loop _____

Analyst: CS

Analysis Date: 10/3/09

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	09/10/09	WC90024A	Working Calibration Stds	09/15/09	WC90024H
LCS / MS Intermediate	09/10/09	WC90024A	Working LCS/MS Standard	10/02/09	WC90070P
ICV Intermediate	09/15/09	WC90107H	Working ICV Standard	09/15/09	WC90107H
CCV Intermediate	09/10/09	WC90107A	Working CCV Standard	DAILY	WC90107H

Comments

CURVE NOT VALID FOR BROMIDE

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	WC90027A	50	2.0	100	1.0	RP	9/10/09	A	9/17/09	WC90070A
Cl		100			2.0	RP	9/10/09	B	9/17/09	WC90070B
NO2		50			1.0	RP	9/11/09	C	9/18/09	WC90070C
Br		50			1.0	RP	9/12/09	D	9/19/09	WC90070D
NO3		50			1.0	RP	9/15/09	E		
OPO4		50			1.0	RP	9/15/09	F	9/22/09	WC90070F
SO4		100			2.0	RP	9/16/09	G	9/23/09	WC90070G
						RP	9/17/09	H	9/24/09	WC90070H
						RP	9/18/09	I	9/25/09	WC90070I
						RP	9/22/09	J	9/29/09	WC90070J
						RP	9/23/09	K	9/30/09	WC90070K
						RP	9/24/09	L	9/31/09	WC90070L
						RP	9/25/09	M	10/2/09	WC90070M
						RP	9/28/09	N	10/5/09	WC90070N
						RP	9/30/09	O	10/7/09	WC90070O
						RP	10/2/09	P	10/9/09	WC90070P
								Q	CS	10/5/09
								R		

* prepped in 0.07N NaOH

+ prepped in 0.01N H2SO4

Analytical Results Summary

Instrument Name: R-IC-03 Analyst: RPAWL Analysis Lot: 173543 Method/Testcode: 9056/NO3

Lab Code	Target Analytes	QC Type	Parent Sample	Matrix	Raw Result	Sample Amt	Final Result	Dil	PQL	% Rec	% RSD	Date Analyzed	QC? Tier
3Q0909587-03	Nitrate as Nitrogen	MB		Water	0.07 mg/L	10 mL	0.069 mg/L ✓	1	0.050			10/5/09 12:03:09	N IV
3Q0909587-03	Nitrite as Nitrogen	MB		Water	0.00 mg/L	10 mL	0.050 mg/L U ✓	1	0.050			10/5/09 12:03:09	N IV
3Q0909587-05	Chloride	MB		Drinking Water	0.09 mg/L	10 mL	0.09 mg/L J ✓	1	0.20			10/5/09 12:03:09	N I
3Q0909587-05	Nitrate as Nitrogen	MB		Drinking Water	0.07 mg/L	10 mL	0.069 mg/L ✓	1	0.050			10/5/09 12:03:09	N I
3Q0909587-04	Nitrate as Nitrogen	LCS		Water	0.97 mg/L	10 mL	0.966 mg/L ✓	1	0.050	97		10/5/09 12:17:26	N IV
3Q0909587-04	Nitrite as Nitrogen	LCS		Water	0.94 mg/L	10 mL	0.938 mg/L ✓	1	0.050	94		10/5/09 12:17:26	N IV
3Q0909587-06	Chloride	LCS		Drinking Water	1.95 mg/L	10 mL	1.95 mg/L ✓	1	0.20	97		10/5/09 12:17:26	N I
3Q0909587-06	Nitrate as Nitrogen	LCS		Drinking Water	0.97 mg/L	10 mL	0.966 mg/L ✓	1	0.050	97		10/5/09 12:17:26	N I
3Q0909587-01	Nitrite as Nitrogen	N/A		Water	6.62-59.54 mg/L	10 mL	6.62-59.54 mg/L ✓	100	5.0			10/5/09 13:00:16	N IV
3Q0909587-02	Nitrite as Nitrogen	N/A		Water	9.69 mg/L	10 mL	9.7 mg/L ✓	100	5.0			10/5/09 13:14:33	N IV
3Q0909587-03	Nitrate as Nitrogen	N/A		Water	7.86 mg/L	10 mL	7.86 mg/L ✓	10	0.50			10/5/09 15:13:45	N IV
3Q0909587-02	Chloride	N/A		Drinking Water	8.65 mg/L	10 mL	8.65 mg/L ✓	2	0.40			10/5/09 17:33:12	N I
3Q0909587-01	Nitrate as Nitrogen	N/A		Drinking Water	3.89 mg/L	10 mL	3.89 mg/L ✓	2	0.10			10/5/09 17:33:12	N I
3Q0909587-01	Chloride	DUP	R0905563-002	Drinking Water	8.51 mg/L	10 mL	8.51 mg/L ✓	2	0.40		2	10/5/09 17:47:29	N I
3Q0909587-01	Nitrate as Nitrogen	DUP	R0905563-002	Drinking Water	3.83 mg/L	10 mL	3.83 mg/L ✓	2	0.10		2	10/5/09 17:47:29	N I
3Q0909587-02	Chloride	MS	R0905563-002	Drinking Water	12.16 mg/L	10 mL	12.2 mg/L ✓	2	0.40	88		10/5/09 18:01:46	N I
3Q0909587-02	Nitrate as Nitrogen	MS	R0905563-002	Drinking Water	5.73 mg/L	10 mL	5.73 mg/L ✓	2	0.10	92		10/5/09 18:01:46	N I

01327

10-5-09 (#3)

System	Ident	Vial	Volume	Dilution	Amount	Internal Standard Amount	Level	Injections	Done	Sample Info 1	Sample Info 2
metrolm.sml	CCY	1	1.0	1.0	1.0	100.0	0	1	1		
metrolm.sml	CCB	2	1.0	1.0	1.0	100.0	0	1	1		
metrolm.sml	LCS	3	1.0	1.0	1.0	100.0	0	1	1		
metrolm.sml	R0905620-001	4	1.0	40.0	1.0	100.0	0	1	1	Analyst: R. Paul	
metrolm.sml	R0905620-002	5	1.0	40.0	1.0	100.0	0	1	1	N	
metrolm.sml	R0905620-001	6	1.0	100.0	1.0	100.0	0	1	1	N	
metrolm.sml	R0905620-002	7	1.0	100.0	1.0	100.0	0	1	1	N	
metrolm.sml	R0905636-005	8	1.0	10.0	1.0	100.0	0	1	1	N	
metrolm.sml	CCY	9	1.0	1.0	1.0	100.0	0	1	1		
metrolm.sml	CCB	10	1.0	1.0	1.0	100.0	0	1	1		
metrolm.sml	R090563-002	11	1.0	1.0	1.0	100.0	0	1	1	NFC	
metrolm.sml	R090563-002 DUP	12	1.0	1.0	1.0	100.0	0	1	1	NFC	
metrolm.sml	R090563-002 SPK	13	1.0	1.0	1.0	100.0	0	1	1	NFC	
metrolm.sml	R090563-002	14	1.0	2.0	1.0	100.0	0	1	1	NC	
metrolm.sml	R090563-002 DUP	15	1.0	2.0	1.0	100.0	0	1	1	NC	
metrolm.sml	R090563-002 SPK	16	1.0	2.0	1.0	100.0	0	1	1	NC	
metrolm.sml	CCY	17	1.0	1.0	1.0	100.0	0	1	1		
metrolm.sml	CCB	18	1.0	1.0	1.0	100.0	0	1	1		

Analyst: R. Paul
 Pipets: Lucy
 Mina

Revised

R-5620

R-5636

Reviewed & Approved
 By: B. Bove
 Date: 10/9/09

Report date: 10/5/2009 12:00:50 PM
Printed by: User

Ident: CCV
Analysis from: 10/5/2009 11:48:52 AM
File: TA051148.CHW

Last save: 10/5/2009 12:00:52 PM

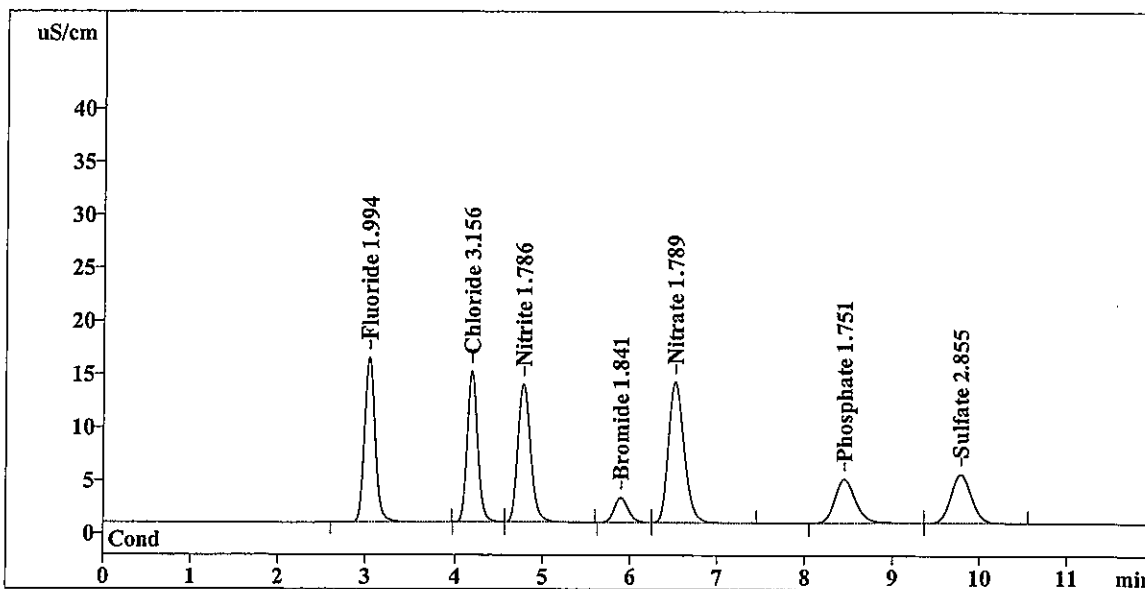
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8664

Last save: 10/5/2009 11:44:34

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	3.04	125.191	1.994	Fluoride
2	4.20	118.561	3.156	Chloride
3	4.78	132.557	1.786	Nitrite
4	5.90	26.005	1.841	Bromide
5	6.53	165.526	1.789	Nitrate
6	8.46	68.683	1.751	Phosphate
7	9.79	76.603	2.855	Sulfate
7	12.00	713.126	15.171	

OK
↓
1.786
—
1.841
OK
↓
1.751
—
OUT↓
2.855

RP 10/6/09

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Report date: 10/5/2009 12:15:07 PM
Printed by: User

Ident: CCB
Analysis from: 10/5/2009 12:03:09 PM
File: TA051203.CHW

Last save: 10/5/2009 12:15:09 PM

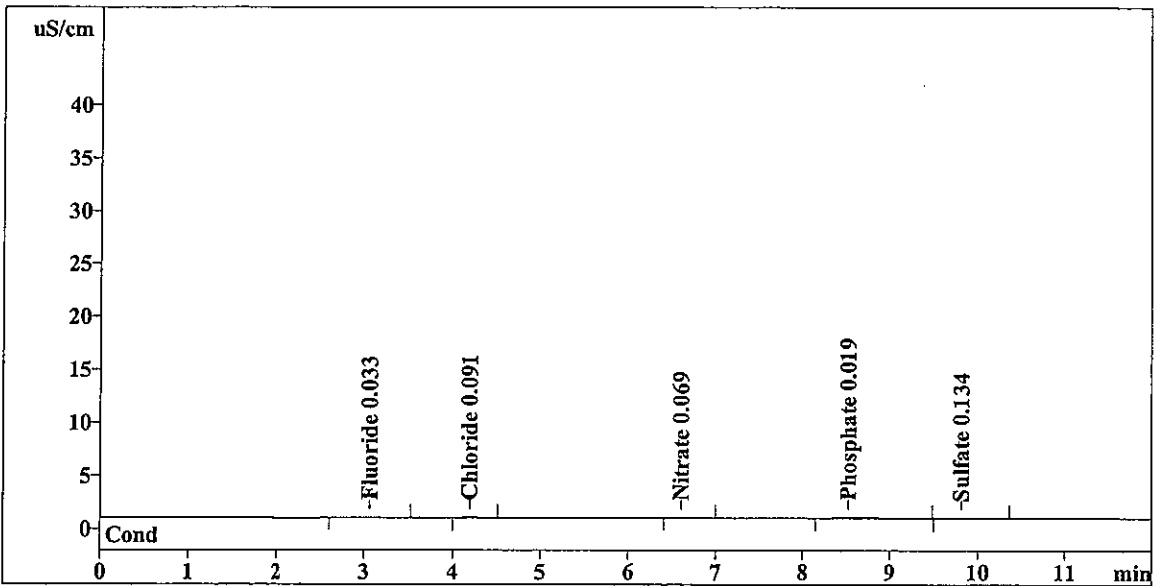
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8665

Last save: 10/5/2009 11:44:34

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	3.07	0.162	OK 0.033	Fluoride
2	4.20	0.205	OK 0.091	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.61	0.050	* JTT 0.069	Nitrate
6	8.52	0.692	OK 0.019	Phosphate
7	9.81	0.108	OK 0.134	Sulfate
<hr/>				
7	12.00	1.216	0.345	

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* can only report NO₃ greater than 0.90 .090 on curve.

RP 10/6/09

Report date: 10/5/2009 12:29:24 PM
Printed by: User

Ident: LCS
Analysis from: 10/5/2009 12:17:26 PM
File: TA051217.CHW

Last save: 10/5/2009 12:29:26 PM

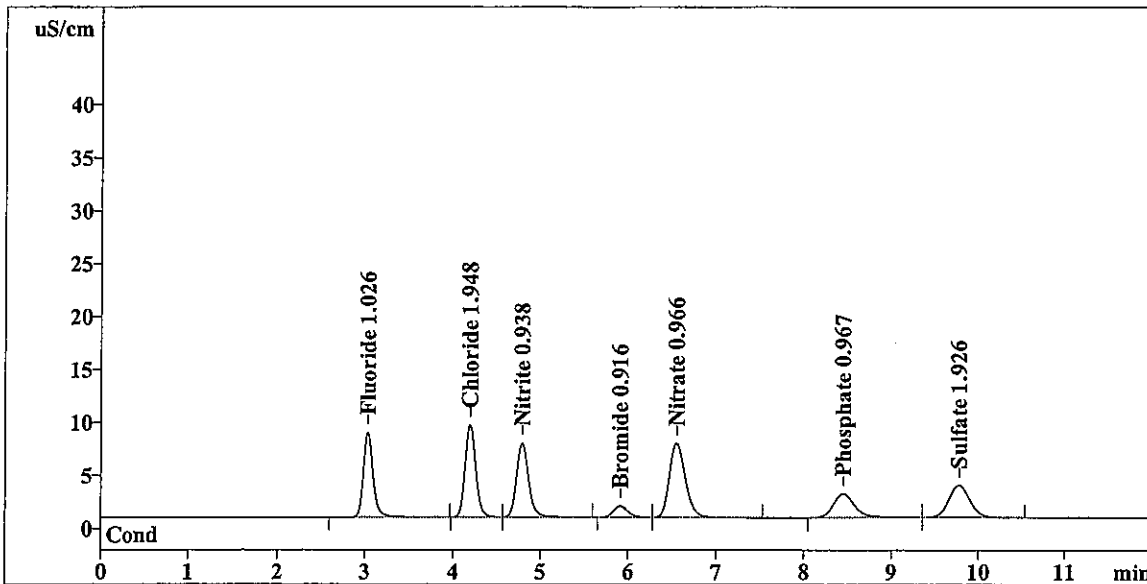
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8666

Last save: 10/5/2009 11:44:34

SAMPLE:

Vial number: 3
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	3.03	63.482	1.026	Fluoride
2	4.20	71.915	1.948	Chloride
3	4.79	68.045	0.938	Nitrite
4	5.92	12.135	0.916	Bromide
5	6.56	86.364	0.966	Nitrate
6	8.45	37.904	0.967	Phosphate
7	9.78	50.487	1.926	Sulfate
7	12.00	390.332	8.686	

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RP 10/16/09

Report date: 10/5/2009 12:43:41 PM
Printed by: User

Ident: R0905620-001
Analysis from: 10/5/2009 12:31:43 PM
File: TA051231.CHW

Last save: 10/5/2009 12:43:42 PM

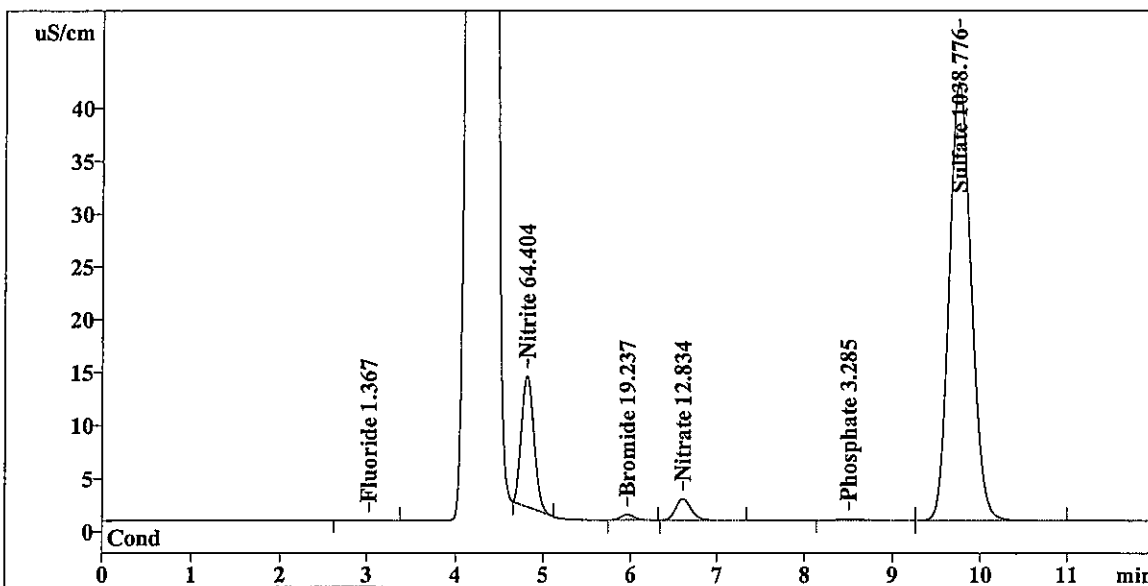
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8667

Last save: 10/5/2009 11:44:34

SAMPLE: N

Vial number: 4
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	3.02	0.242	1.367	Fluoride
2	0.00	0.000	0.000	Chloride
3	4.82	119.193	64.404	Nitrite
4	5.97	5.616	19.237	Bromide
5	6.61	24.292	12.834	Nitrate
6	8.50	3.183	3.285	Phosphate
7	9.77	726.321	1038.776	Sulfate
7	12.00	878.848	1139.903	

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RP 10/6/09

Report date: 10/5/2009 12:57:57 PM
Printed by: User

Ident: R0905620-002
Analysis from: 10/5/2009 12:45:59 PM
File: TA051245.CHW

Last save: 10/5/2009 12:57:59 PM

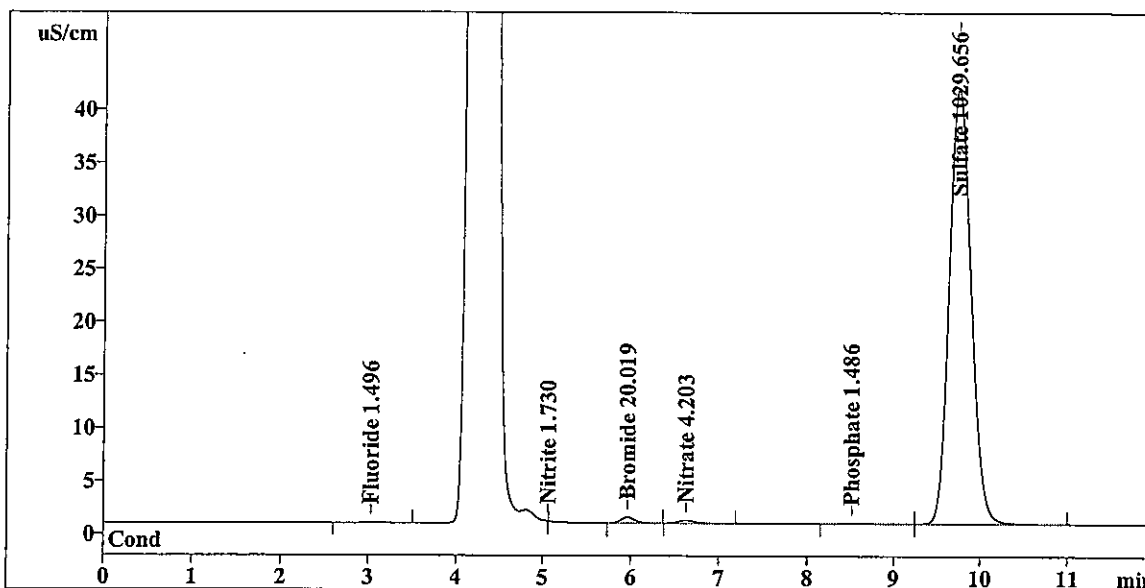
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8668

Last save: 10/5/2009 11:44:34

SAMPLE: N

Vial number: 5
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	3.03	0.447	1.496	Fluoride
2	0.00	0.000	0.000	Chloride
3	5.07	-0.000	1.730	Nitrite
4	5.97	5.910	20.019	Bromide
5	6.63	3.529	4.203	Nitrate
6	8.52	1.418	1.486	Phosphate
7	9.77	719.912	1029.656	Sulfate
7	12.00	731.216	1058.590	

report 100

RP labels

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Report date: 10/5/2009 1:12:14 PM
Printed by: User

Ident: R0905620-001
Analysis from: 10/5/2009 1:00:16 PM
File: TA051300.CHW

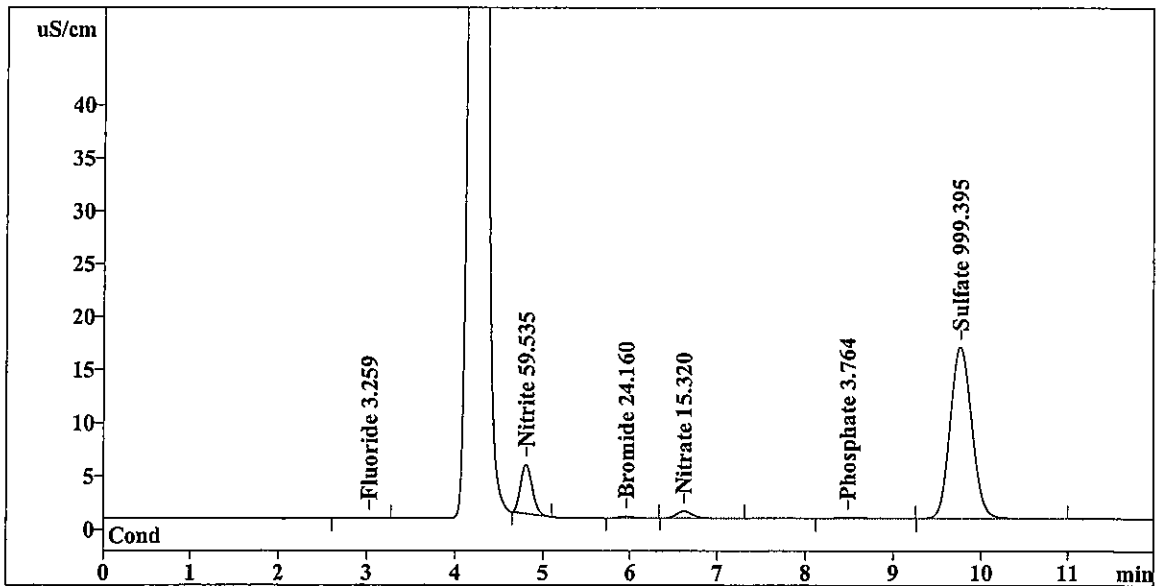
Last save: 10/5/2009 1:12:16 PM

Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8669

Last save: 10/5/2009 11:44:34

SAMPLE: N
Vial number: 6
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	3.03	0.142	3.259	Fluoride
2	0.00	0.000	0.000	Chloride
3	4.81	41.999	59.535	Nitrite
4	5.96	2.029	24.160	Bromide
5	6.63	8.161	15.320	Nitrate
6	8.49	1.437	3.764	Phosphate
7	9.77	277.272	999.395	Sulfate
7	12.00	331.038	1105.434	

OK

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RP 10/6/09
reprocess NO#2
BB 10/9/09

Report date: 10/9/2009 4:39:28 PM
Printed by: User

Ident: R0905620-001
Analysis from: 10/5/2009 1:00:16 PM
File: ta051300.chw

Last save: 10/6/2009 6:04:39 PM

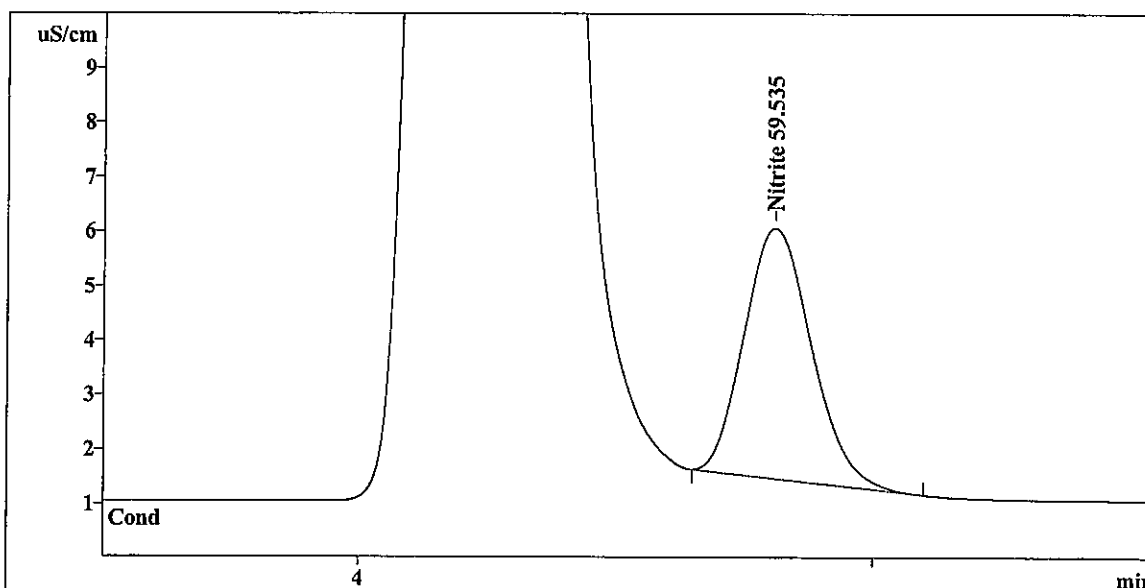
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8669

Last save: 10/5/2009 11:44:34

SAMPLE: N

Vial number: 6
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	3.03	0.142	3.259	Fluoride
2	0.00	0.000	0.000	Chloride
3	4.81	41.999	59.535	Nitrite
4	5.96	2.029	24.160	Bromide
5	6.63	8.161	15.320	Nitrate
6	8.49	1.437	3.764	Phosphate
7	9.77	277.272	999.395	Sulfate
7	12.00	331.038	1105.434	

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*Reprocess NO₂,
expanded view
AB 10/9/09*

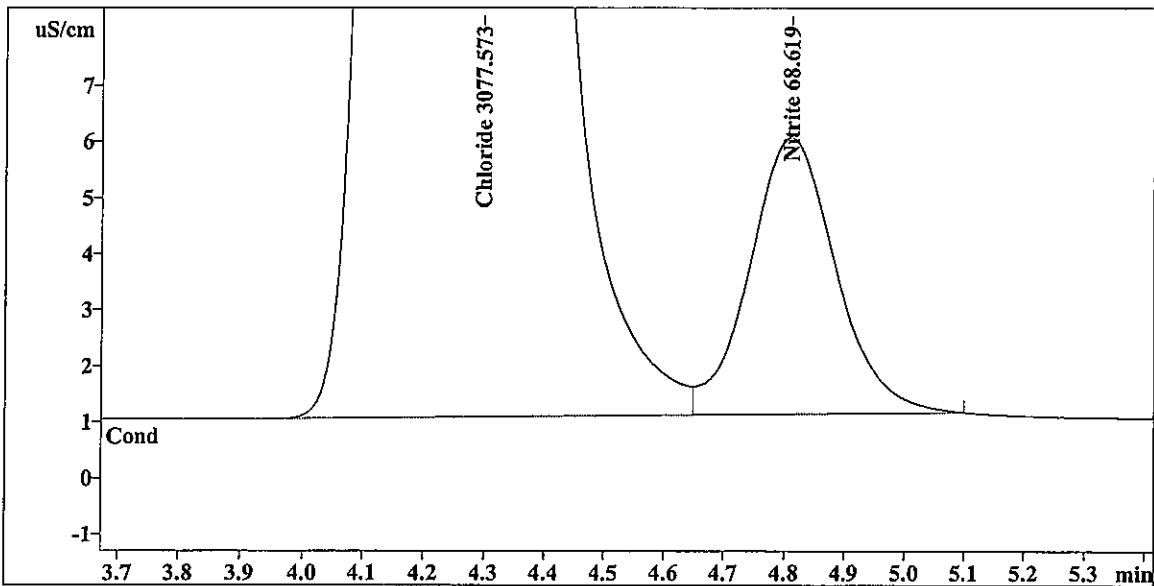
Report date: 10/9/2009 4:40:15 PM
Printed by: User

Ident: R0905620-001
Analysis from: 10/5/2009 1:00:16 PM
File: ta051300.chw Last save: 10/6/2009 6:04:39 PM
Modified! Manual peaks!
Method: 09-15-09CAL.mtw Last save: 10/5/2009 11:44:34
Run operator: User
Analysis number: 8669

SAMPLE: N

Vial number: 6
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	3.03	0.325	3.547	Fluoride
2	4.30	1185.299	3077.573	Chloride
3	4.81	48.910	DK 68.619	Nitrite
4	5.96	2.029	24.160	Bromide
5	6.63	8.161	15.320	Nitrate
6	8.49	1.437	3.764	Phosphate
7	9.77	277.272	999.395	Sulfate
7	12.00	1523.432	4192.379	

This report has been created by IC Net
METROHM LTD

*NO₂ reprocessed
expanded view*

RP 10/9/09

01336

10/9/09

Report date: 10/5/2009 1:26:31 PM
Printed by: User

Ident: R0905620-002
Analysis from: 10/5/2009 1:14:33 PM
File: TA051314.CHW

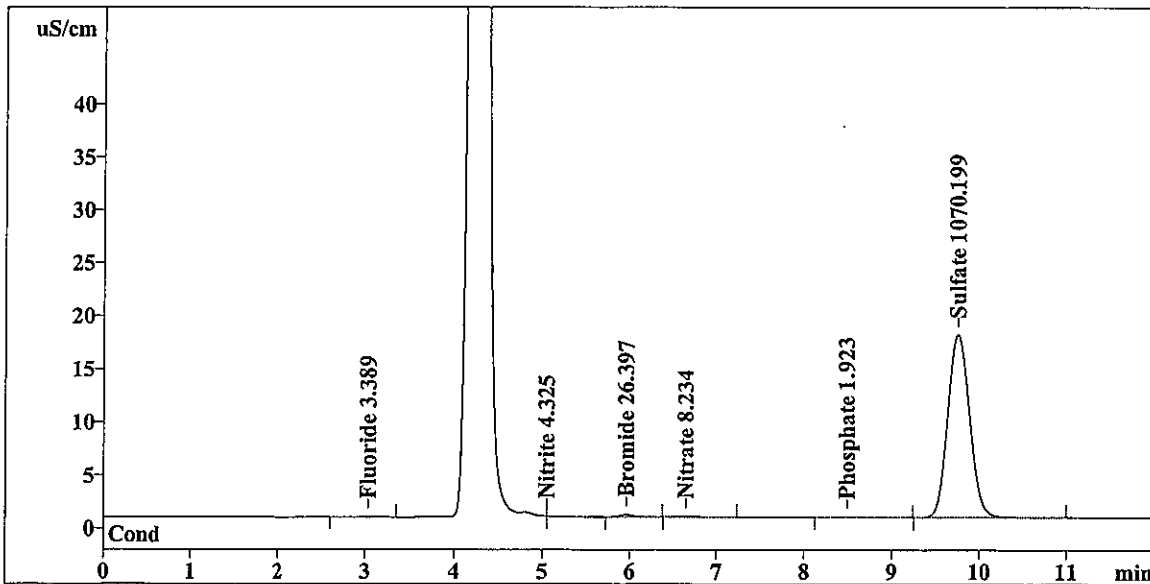
Last save: 10/5/2009 1:26:33 PM

Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8670

Last save: 10/5/2009 11:44:34

SAMPLE: N
:
Vial number: 7
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	3.03	0.224	3.389	Fluoride
2	0.00	0.000	0.000	Chloride
3	5.05	-0.000	4.325	Nitrite
4	5.97	2.364	26.397	Bromide
5	6.65	1.342	8.234	Nitrate
6	8.50	0.714	1.923	Phosphate
7	9.77	297.174	1070.199	Sulfate
7	12.00	301.818	1114.467	

This report has been created by IC Net
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*repress NO₂
at R/C 10/10/09*

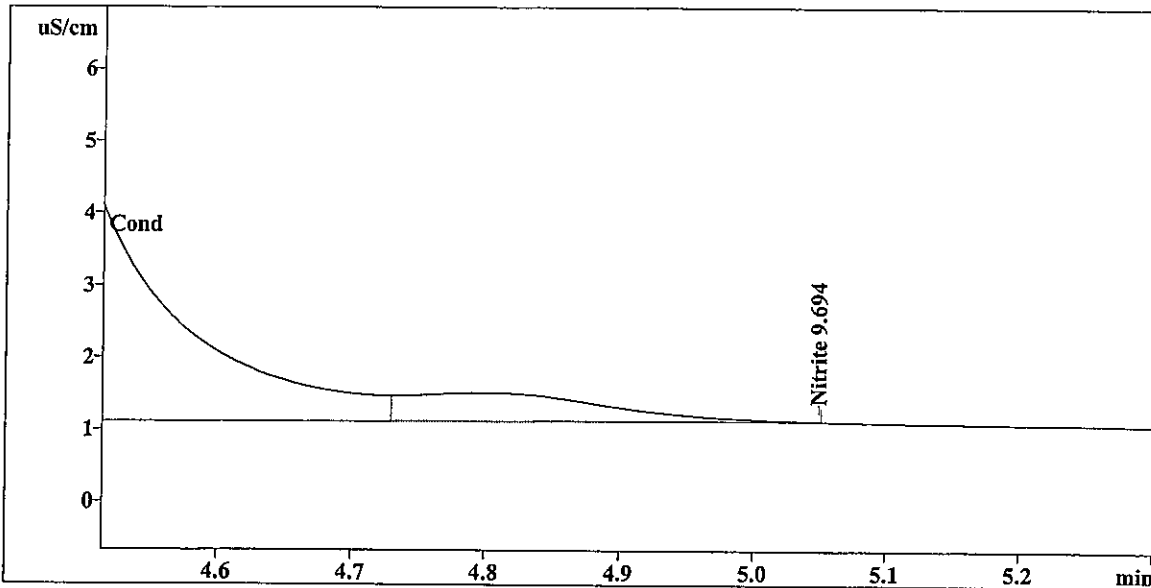
Report date: 10/6/2009 5:58:04 PM
Printed by: User

Ident: R0905620-002
Analysis from: 10/5/2009 1:14:33 PM
File: ta051314.chw
Modified! Manual peaks!
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8670

Last save: 10/5/2009 1:26:33 PM
Last save: 10/5/2009 11:44:34

SAMPLE: N
Vial number: 7
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	3.03	1257.672	1975.651	Fluoride
2	0.00	0.000	0.000	Chloride
3	5.05	4.084	9.694	Nitrite
4	5.97	2.364	26.397	Bromide
5	6.65	1.342	8.234	Nitrate
6	8.50	0.714	1.923	Phosphate
7	9.77	297.174	1070.199	Sulfate
7	12.00	1563.350	3092.097	

This report has been created by IC Net
METROHM LTD

*reprocessed
expanded
view
RP 10/6/09*

BB 10/9/09

01338

Report date: 10/6/2009 5:58:22 PM
Printed by: User

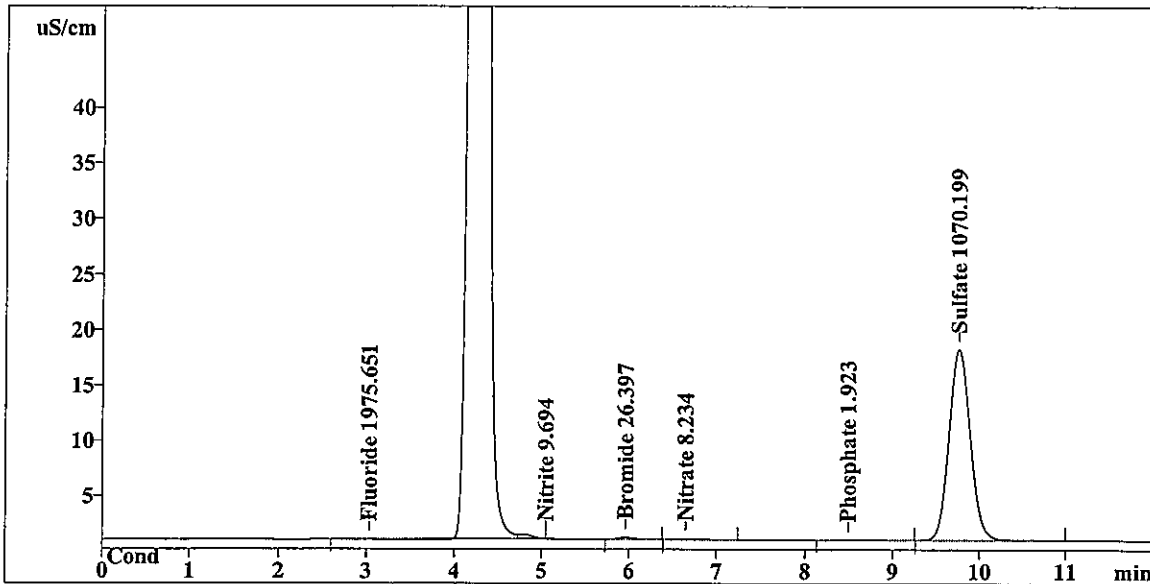
Ident: R0905620-002
Analysis from: 10/5/2009 1:14:33 PM
File: ta051314.chw
Modified! Manual peaks!
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8670

Last save: 10/5/2009 1:26:33 PM

Last save: 10/5/2009 11:44:34

SAMPLE: N
Vial number: 7
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	3.03	1257.672	1975.651	Fluoride
2	0.00	0.000	0.000	Chloride
3	5.05	4.084	9.694	Nitrite
4	5.97	2.364	26.397	Bromide
5	6.65	1.342	8.234	Nitrate
6	8.50	0.714	1.923	Phosphate
7	9.77	297.174	1070.199	Sulfate
7	12.00	1563.350	3092.097	

This report has been created by IC Net
METROHM LTD

*reprocessed
normal view
RP 10/6/09
BB 10/9/09*

01339

Report date: 10/5/2009 3:25:43 PM
Printed by: User

Ident: R0905636-003
Analysis from: 10/5/2009 3:13:45 PM
File: TA051513.CHW

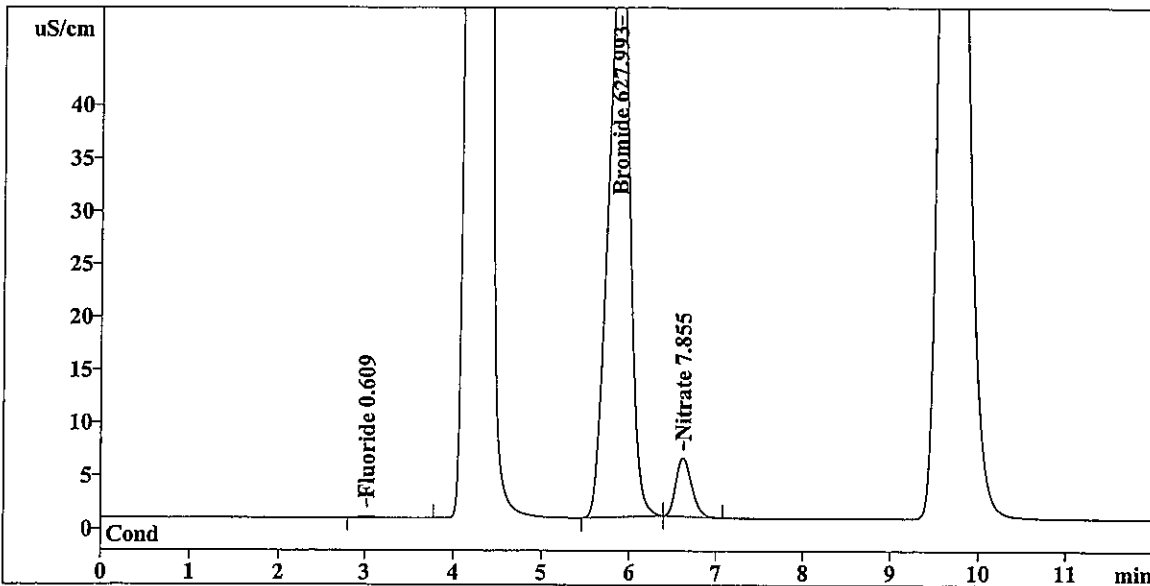
Last save: 10/5/2009 3:25:45 PM

Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8671

Last save: 10/5/2009 11:44:34

SAMPLE: N
Vial number: 8
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	3.02	1.943	0.609	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.90	939.910	627.993	Bromide
5	6.62	69.003	OK 7.855	Nitrate
6	0.00	0.000	0.000	Phosphate
7	0.00	0.000	0.000	Sulfate
7	12.00	1010.856	636.457	

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RP 10/16/09

Report date: 10/5/2009 3:54:21 PM
Printed by: User

Ident: CCV
Analysis from: 10/5/2009 3:42:23 PM
File: TA051542.CHW

Last save: 10/5/2009 3:54:23 PM

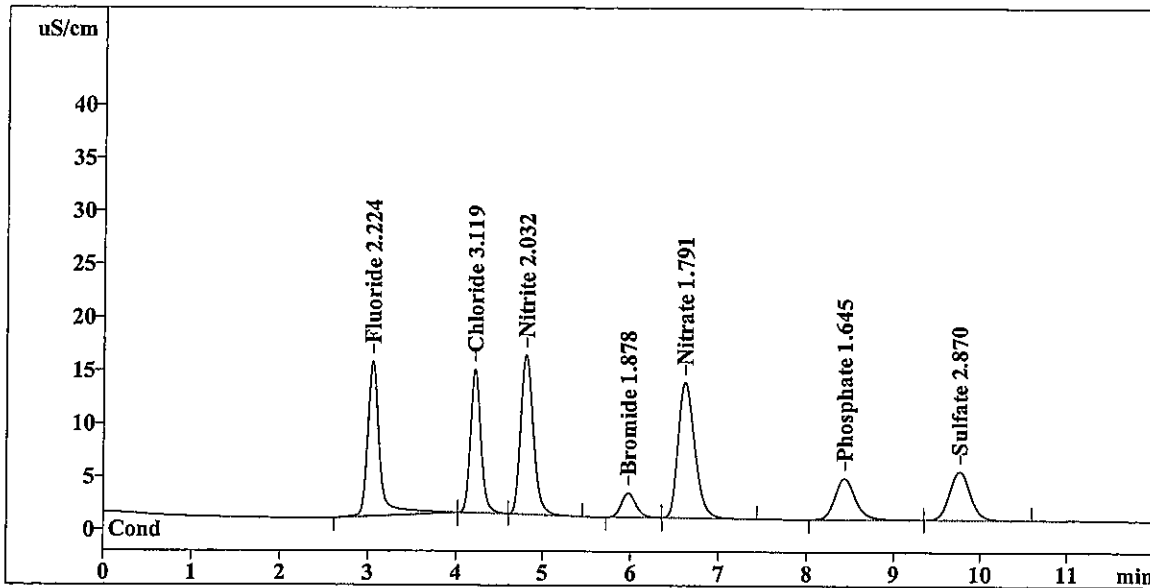
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8672

Last save: 10/5/2009 3:44:34

SAMPLE:

Vial number: 9
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	3.05	139.849	2.224	Fluoride
2	4.23	117.156	3.119	Chloride
3	4.82	151.270	2.032	Nitrite
4	5.98	26.562	1.878	Bromide
5	6.63	165.705	1.791	Nitrate
6	8.44	64.548	1.645	Phosphate
7	9.77	77.018	2.870	Sulfate
7	12.00	742.107	15.559	

OUT
OK
OK
OK
OK
OK
OUT

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Report date: 10/5/2009 4:08:38 PM
Printed by: User

Ident: CCB
Analysis from: 10/5/2009 3:56:40 PM
File: TA051556.CHW

Last save: 10/5/2009 4:08:40 PM

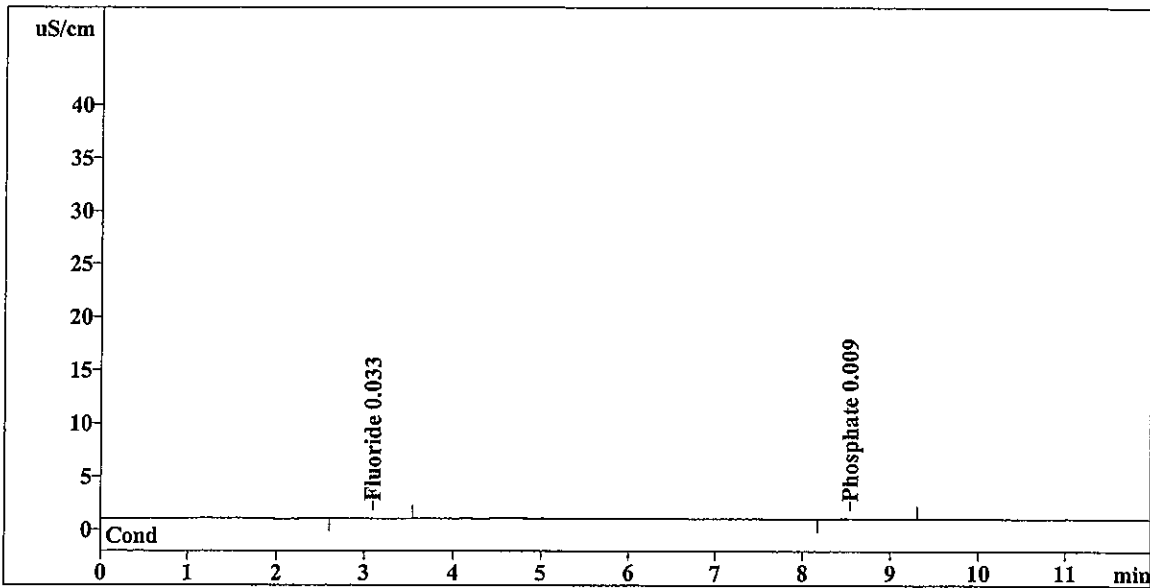
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8673

Last save: 10/5/2009 3:44:34

SAMPLE:

Vial number: 10
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	3.09	0.151	0.033	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	8.55	0.327	0.009	Phosphate
7	0.00	0.000	0.000	Sulfate
<hr/>				
7	12.00	0.478	0.042	

OK
↓

RR 10/6/09

This report has been created by IC Net
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Report date: 10/5/2009 5:02:12 PM
Printed by: User

Ident: R0905563-002
Analysis from: 10/5/2009 4:50:14 PM
File: TA051650.CHW

Last save: 10/5/2009 5:02:14 PM

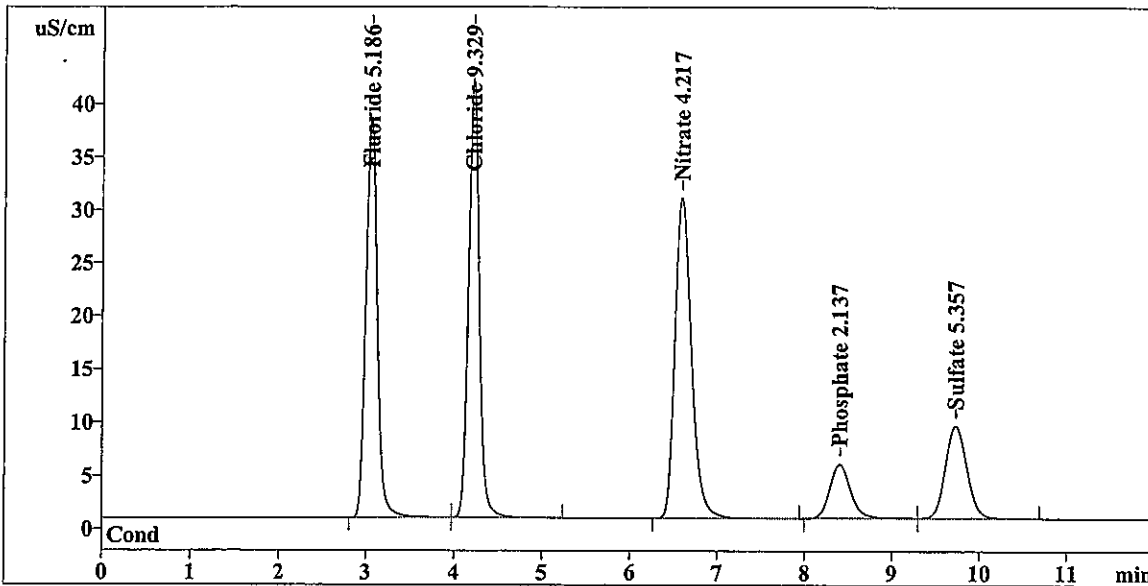
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8674

Last save: 10/5/2009 3:44:34

SAMPLE: NFC

Vial number: 11
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	3.06	328.715	5.186	Fluoride
2	4.21	356.997	9.329	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.60	399.182	4.217	Nitrate
6	8.41	83.868	2.137	Phosphate
7	9.74	146.936	5.357	Sulfate
7	12.00	1315.700	26.227	

This report has been created by IC Net
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RP 10/26/09

Report date: 10/5/2009 5:16:29 PM
Printed by: User

Ident: R0905563-002 DUP
Analysis from: 10/5/2009 5:04:31 PM
File: TA051704.CHW

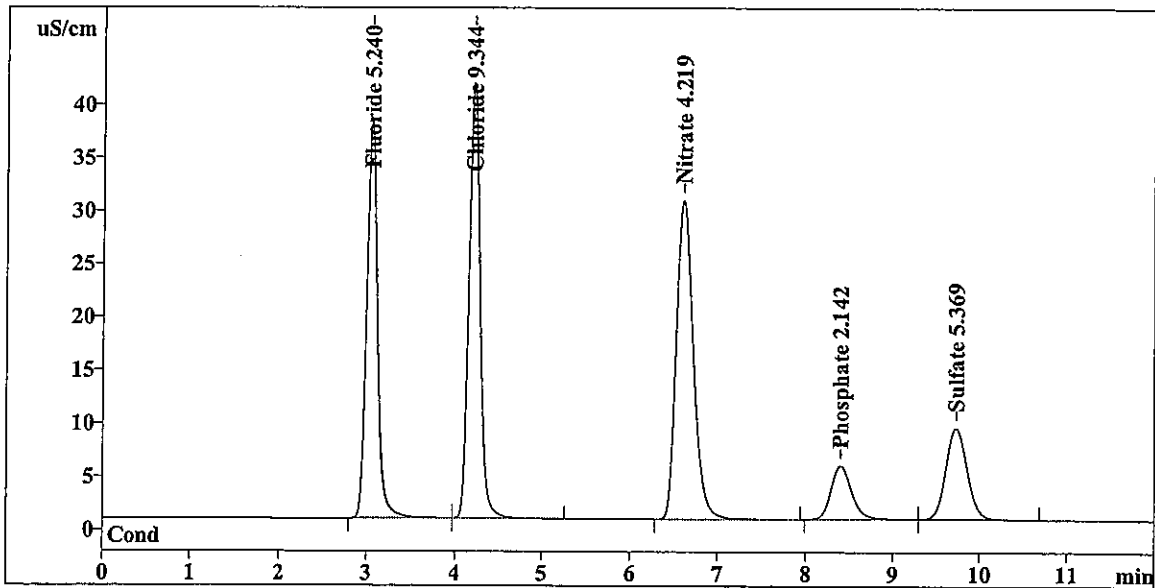
Last save: 10/5/2009 5:16:31 PM

Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8675

Last save: 10/5/2009 3:44:34

SAMPLE: NFC
:
Vial number: 12
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	3.06	332.156	5.240	Fluoride
2	4.22	357.565	1/2 9.344	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.61	399.355	1/2 4.219	Nitrate
6	8.41	84.062	2.142	Phosphate
7	9.74	147.284	5.369	Sulfate
<hr/>				
7	12.00	1320.422	26.315	

RP 10/10/09

This report has been created by IC Net
METROHM LTD

Report date: 10/5/2009 5:30:47 PM
Printed by: User

Ident: R0905563-002 SPK
Analysis from: 10/5/2009 5:18:48 PM
File: TA051718.CHW

Last save: 10/5/2009 5:30:48 PM

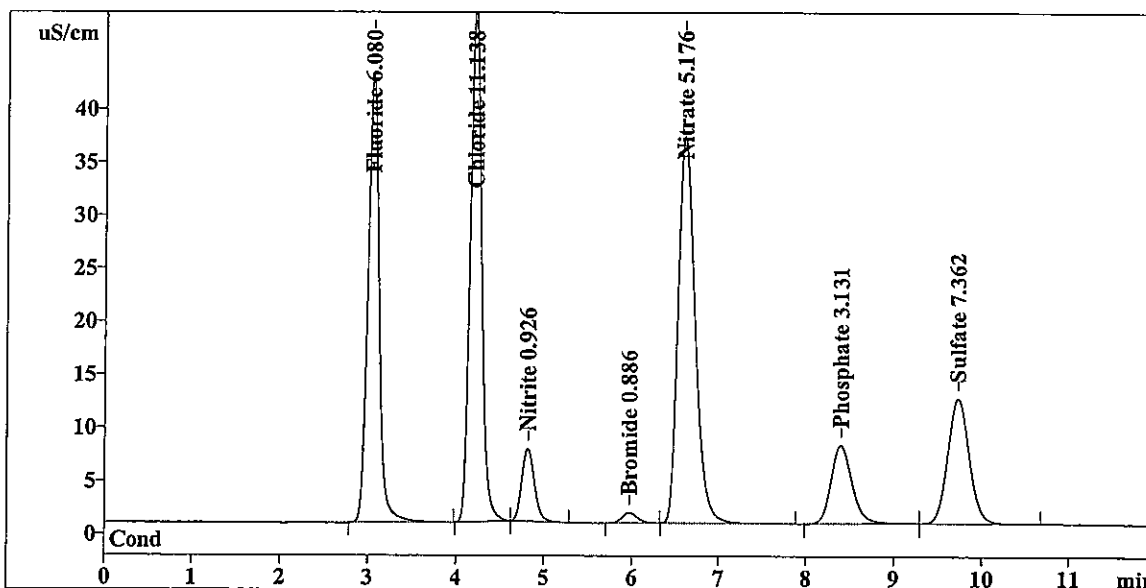
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8676

Last save: 10/5/2009 3:44:34

SAMPLE: NFC

Vial number: 13
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	3.06	385.713	6.080	Fluoride
2	4.22	426.837	11.138	Chloride
3	4.82	67.142	0.926	Nitrite
4	5.98	11.694	0.886	Bromide
5	6.61	491.499	5.176	Nitrate
6	8.40	122.862	3.131	Phosphate
7	9.74	203.281	7.362	Sulfate
7	12.00	1709.028	34.699	

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RP 10/6/09

Report date: 10/5/2009 5:45:10 PM
Printed by: User

Ident: R0905563-002
Analysis from: 10/5/2009 5:33:12 PM
File: TA051733.CHW

Last save: 10/5/2009 5:45:12 PM

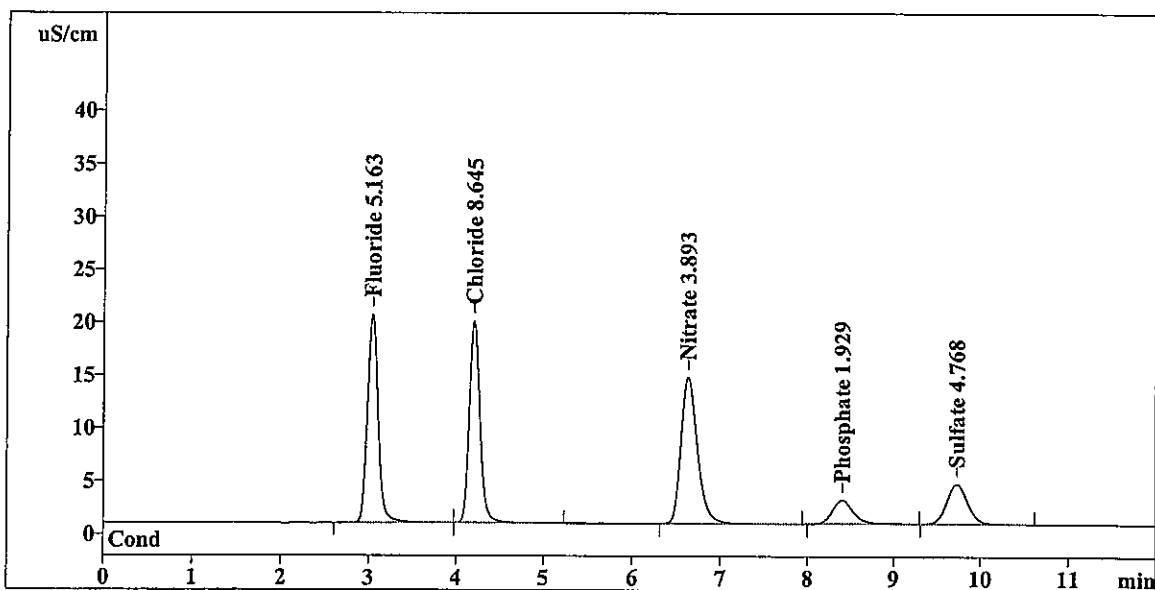
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8677

Last save: 10/5/2009 3:44:34

SAMPLE: NC

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	3.04	162.644	5.163	Fluoride
2	4.21	163.621	OK 8.645	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.64	180.701	OK 3.893	Nitrate
6	8.41	37.820	1.929	Phosphate
7	9.73	63.360	4.768	Sulfate
<hr/>				
7	12.00	608.146	24.397	

This report has been created by IC Net
METROHM LTD

RP 10/16/09

Report date: 10/5/2009 5:59:28 PM
Printed by: User

Ident: R0905563-002 DUP
Analysis from: 10/5/2009 5:47:29 PM
File: TA051747.CHW

Last save: 10/5/2009 5:59:29 PM

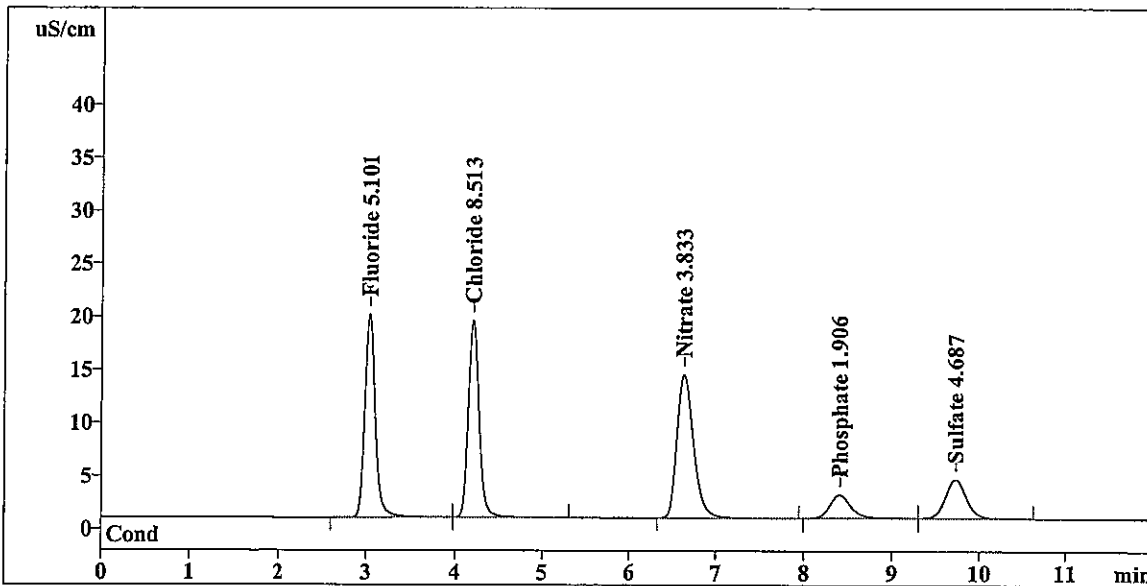
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8678

Last save: 10/5/2009 3:44:34

SAMPLE: NC

Vial number: 15
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	3.04	160.682	5.101	Fluoride
2	4.21	161.075	OK 8.513	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.64	177.807	OK 3.833	Nitrate
6	8.41	37.366	1.906	Phosphate
7	9.73	62.225	4.687	Sulfate
<hr/>				
7	12.00	599.155	24.040	

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RP 10/6/09

Report date: 10/5/2009 6:13:44 PM
 Printed by: User

Ident: R0905563-002 SPK
 Analysis from: 10/5/2009 6:01:46 PM
 File: TA051801.CHW

Last save: 10/5/2009 6:13:46 PM

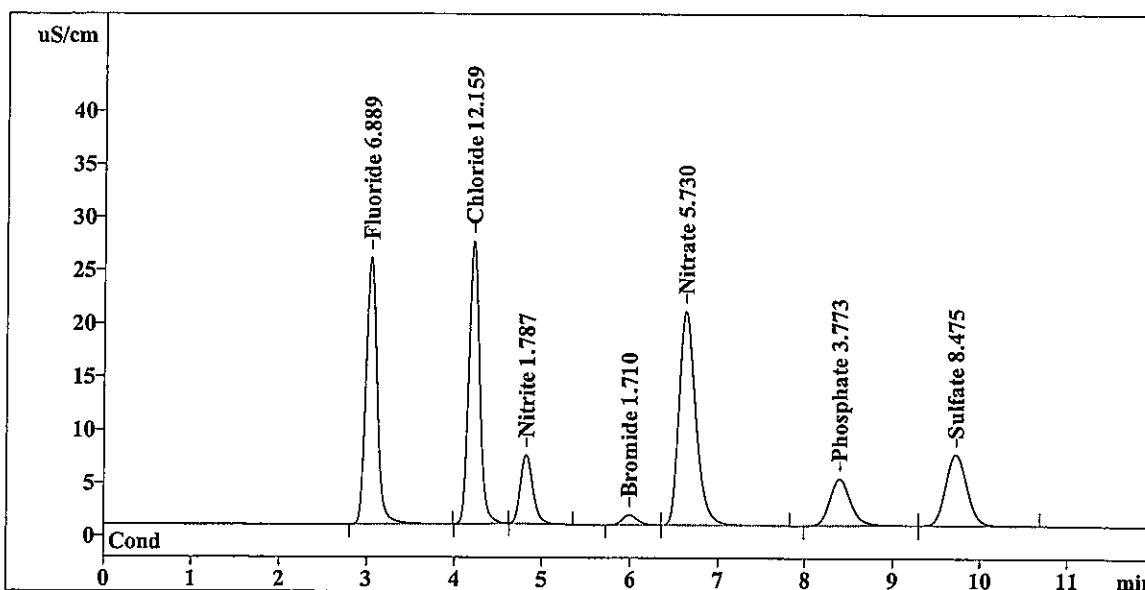
Method: 09-15-09CAL.mtw
 Run operator: User
 Analysis number: 8679

Last save: 10/5/2009 3:44:34

SAMPLE: NC

Vial number: 16
 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	3.04	217.666	6.889	Fluoride
2	4.22	231.486	12.159	Chloride
3	4.83	64.689	1.787	Nitrite
4	6.00	11.227	1.710	Bromide
5	6.64	269.116	5.730	Nitrate
6	8.40	74.026	3.773	Phosphate
7	9.73	115.467	8.475	Sulfate
<hr/>				
7	12.00	983.677	40.525	

OK

OK

RP 10/16/09

This report has been created by IC Net
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Report date: 10/5/2009 6:28:01 PM
Printed by: User

Ident: CCV
Analysis from: 10/5/2009 6:16:03 PM
File: TA051816.CHW

Last save: 10/5/2009 6:28:03 PM

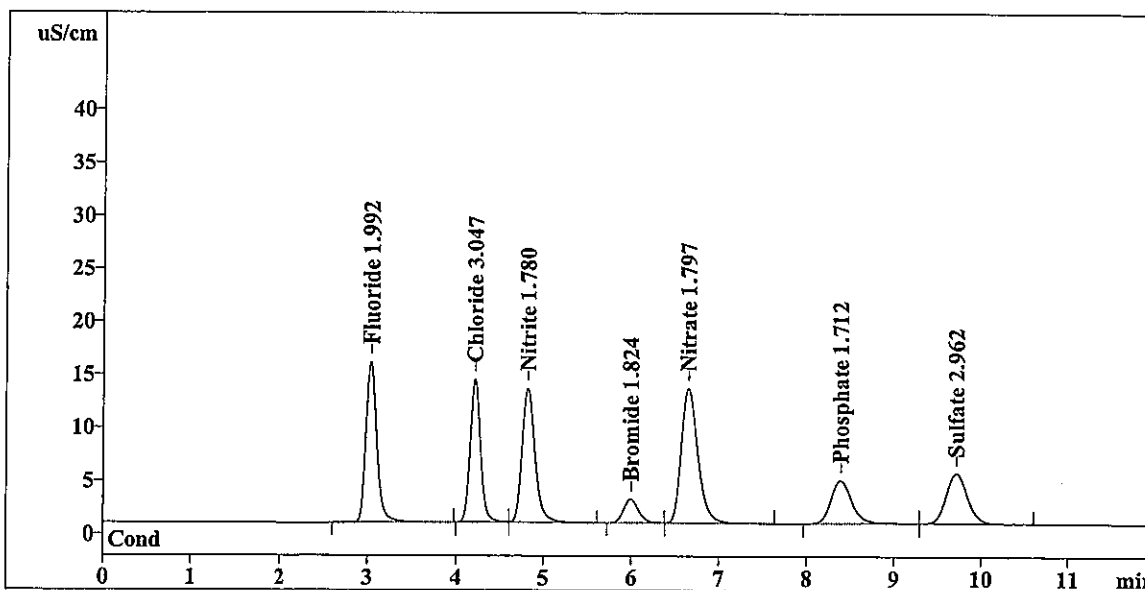
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8680

Last save: 10/5/2009 3:44:34

SAMPLE:

Vial number: 17
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	3.04	125.052	ok 1.992	Fluoride
2	4.21	114.362	↓ 3.047	Chloride
3	4.83	132.091	↓ 1.780	Nitrite
4	6.00	25.756	↓ 1.824	Bromide
5	6.66	166.300	ok 1.797	Nitrate
6	8.40	67.183	↓ 1.712	Phosphate
7	9.73	79.621	↓ 2.962	Sulfate
7	12.00	710.366	15.114	

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RR 10/6/09

Report date: 10/5/2009 6:42:18 PM
Printed by: User

Ident: CCB
Analysis from: 10/5/2009 6:30:20 PM
File: TA051830.CHW

Last save: 10/5/2009 6:42:20 PM

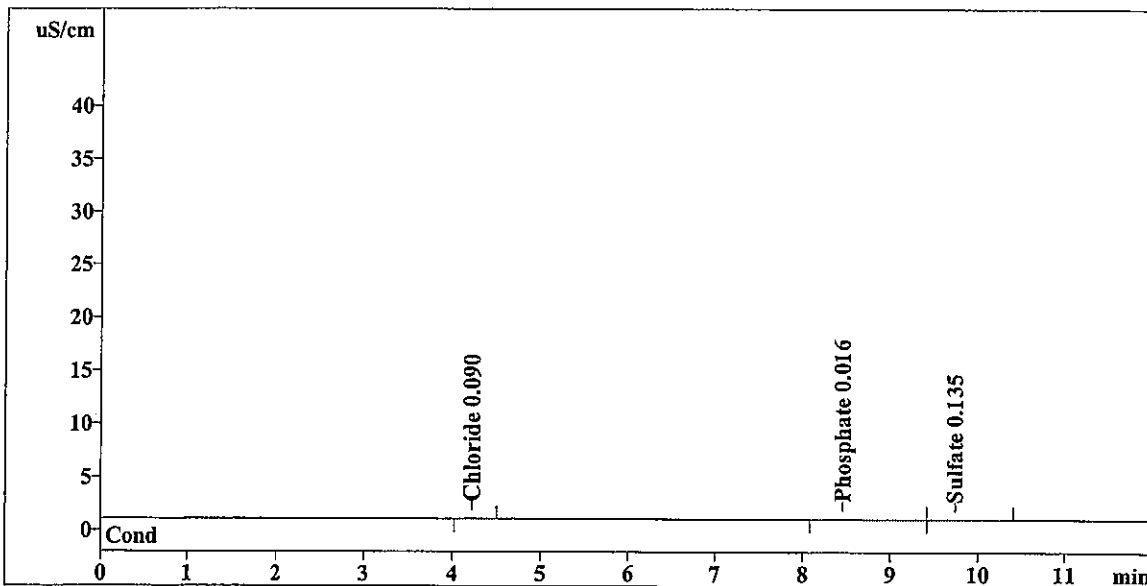
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8681

Last save: 10/5/2009 3:44:34

SAMPLE:

Vial number: 18
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	0.00	0.000	0.000	Fluoride
2	4.22	0.147	0.090	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	8.46	0.569	0.016	Phosphate
7	9.74	0.146	0.135	Sulfate
<hr/>				
7	12.00	0.862	0.240	

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RP 10/16/09

Ion Chromatography Cover Sheet

Instrument: Metrohm IC 861

Column: Metrosep A Supp 5 - 100, 4mm, 05/05/09

Curve Date: 09/15/09

Loop size: 25 uL Loop _____

Analyst: RF

Analysis Date: 10/5/09

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	09/10/09	WC90024A		Working Calibration Stds	09/15/09	WC90024H
LCS / MS Intermediate	09/10/09	WC90024A		Working LCS/MS Standard	10/05/09	WC94051C
ICV Intermediate	09/15/09	WC90107H		Working ICV Standard	09/15/09	WC90107H
CCV Intermediate	09/10/09	WC90107A		Working CCV Standard	DAILY	WC90107H

Comments

CURVE NOT VALID FOR BROMIDE

LCS PREP

(Stocks delivered using Volumetric glassware and brought to volume with DI. LCS expires after 7 days; if NO2 is needed, LCS must be prepared daily.)

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

Analyte	Calibration Intermediate Stock ID	Intermediate Stock Conc (mg/L)	mLs Intermediate Stock	Final Vol. mLs	Final Conc. (mg/L)	Analyst/ Date Prepped	Lot ID	Exp. Date	Matrix H2SO4 / NaOH / DI	H2SO4 / NaOH Lot #
F	WC94011A	50	2.0	100	1.0	RP/10/1/09	A	10/8/09	H2SO4	WC85294I
Cl		100			2.0	RP/10/2/09	B	10/9/09	DI	
NO2		50			1.0	RP/10/5/09	C	10/12/09	DI	
Br		50			1.0	RP/10/5/09	D	10/12/09	NaOH	W1900306
NO3		50			1.0	RP/10/10/09	E			
OPO4		50			1.0		F			
SO4		100			2.0		G			
							H			
							I			
							J			
							K			
							L			
							M			
							N			
							O			
							P			
							Q			
							R			

RP
10/10/09

0051

01352

Analytical Results Summary

Instrument Name: R-IC-07 Analyst: RPAWL Analysis Lot: 173778 Method/Testcode: 300.0/Br

Lab Code	Target Analytes	QC Type	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ0909649-01	Bromide	MB		Water	0.00 mg/L	10 mL	0.10 mg/L U✓	1	0.10			10/6/09 18:22:48	N	II
RQ0909649-01	Bromide	MB		Water	0.00 mg/L	10 mL	0.10 mg/L U✓	1	0.10			10/6/09 18:22:48	N	II
RQ0909649-01	Sulfate	MB		Water	0.00 mg/L	10 mL	0.20 mg/L U✓	1	0.20			10/6/09 18:22:48	N	II
RQ0909649-02	Bromide	LCS		Water	1.00 mg/L	10 mL	0.995 mg/L✓	1	0.10	100		10/6/09 18:37:37	N	II
RQ0909649-02	Bromide	LCS		Water	1.00 mg/L	10 mL	0.995 mg/L✓	1	0.10	100		10/6/09 18:37:37	N	II
RQ0909649-02	Sulfate	LCS		Water	1.98 mg/L	10 mL	1.98 mg/L✓	1	0.20	99		10/6/09 18:37:37	N	II
R0905349-001	Bromide	N/A		Water	0.96 mg/L	10 mL	1 mg/L J✓	10	1.0			10/6/09 22:05:09	N	II
R0905635-001	Bromide	N/A		Water	0.00 mg/L	10 mL	1.0 mg/L U✓	10	1.0			10/6/09 23:34:05	N	IV
R0905635-001	Sulfate	N/A		Water	0.00 mg/L	10 mL	2.0 mg/L U✓	10	2.0			10/6/09 23:34:05	N	IV
R0905636-001	Bromide	N/A		Water	0.00 mg/L	10 mL	1.0 mg/L U✓	10	1.0			10/6/09 23:48:54	N	IV
R0905636-001	Sulfate	N/A		Water	0.00 mg/L	10 mL	2.0 mg/L U✓	10	2.0			10/6/09 23:48:54	N	IV

01353

Analytical Results Summary

A

Instrument Name: R-IC-07

Analyst: RPAWL

Analysis Lot: 173781

Method/Testcode: 9056/Br

Lab Code	Target Analytes	QC Type	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	POL	% Rec	% RSD	Date Analyzed	QC?	Tier
3Q0909650-03	Bromide	MB		Water	0.00 mg/L	10 mL	0.10 mg/L U✓	1	0.10			10/7/09 00:18:33	N	IV
3Q0909650-03	Nitrate as Nitrogen	MB		Water	0.00 mg/L	10 mL	0.050 mg/L U✓	1	0.050			10/7/09 00:18:33	N	IV
3Q0909650-03	Nitrite as Nitrogen	MB		Water	0.00 mg/L	10 mL	0.050 mg/L U✓	1	0.050			10/7/09 00:18:33	N	IV
3Q0909650-04	Bromide	LCS		Water	0.99 mg/L	10 mL	0.990 mg/L ✓	1	0.10	99		10/7/09 00:33:23	N	IV
3Q0909650-04	Nitrate as Nitrogen	LCS		Water	0.91 mg/L	10 mL	0.911 mg/L ✓	1	0.050	91		10/7/09 00:33:23	N	IV
3Q0909650-04	Nitrite as Nitrogen	LCS		Water	0.96 mg/L	10 mL	0.964 mg/L ✓	1	0.050	97		10/7/09 00:33:23	N	IV
3Q0909650-002	Bromide	N/A		Water	1.51 mg/L	10 mL	1.5 mg/L ✓	10	1.0			10/7/09 00:48:12	N	IV
3Q0909650-003	Bromide	N/A		Water	1.54 mg/L	10 mL	1.5 mg/L ✓	10	1.0			10/7/09 01:03:03	N	IV
3Q0909650-001	Nitrate as Nitrogen	N/A		Water	3.53 mg/L	10 mL	3.53 mg/L ✓	10	0.50			10/7/09 03:31:32	N	I
3Q0909650-001	Nitrite as Nitrogen	N/A		Water	0.00 mg/L	10 mL	0.50 mg/L U✓	10	0.50			10/7/09 03:31:32	N	I
3Q0909650-002	Nitrate as Nitrogen	N/A		Water	19.32 mg/L	10 mL	19.3 mg/L ✓	10	0.50			10/7/09 03:46:23	N	I
3Q0909650-002	Nitrite as Nitrogen	N/A		Water	0.00 mg/L	10 mL	0.50 mg/L U✓	10	0.50			10/7/09 03:46:23	N	I
3Q0909650-01	Nitrate as Nitrogen	DUP	R0905688-002	Water	19.35 mg/L	10 mL	19.4 mg/L ✓	10	0.50			10/7/09 04:01:13	N	I
3Q0909650-01	Nitrite as Nitrogen	DUP	R0905688-002	Water	0.00 mg/L	10 mL	0.50 mg/L U✓	10	0.50			10/7/09 04:01:13	N	I
3Q0909650-02	Nitrate as Nitrogen	MS	R0905688-002	Water	28.42 mg/L	10 mL	28.4 mg/L ✓	10	0.50	91	<1	10/7/09 04:16:05	N	I
3Q0909650-02	Nitrite as Nitrogen	MS	R0905688-002	Water	9.32 mg/L	10 mL	9.32 mg/L ✓	10	0.50	93	NC	10/7/09 04:16:05	N	I
3Q0909650-003	Nitrate as Nitrogen	N/A		Water	0.00 mg/L	10 mL	0.50 mg/L U✓	10	0.50			10/7/09 04:30:56	N	I
3Q0909650-003	Nitrite as Nitrogen	N/A		Water	0.00 mg/L	10 mL	0.50 mg/L U✓	10	0.50			10/7/09 04:30:56	N	I
3Q0909650-004	Nitrate as Nitrogen	N/A		Water	0.00 mg/L	10 mL	0.50 mg/L U✓	10	0.50			10/7/09 04:45:48	N	I
3Q0909650-004	Nitrite as Nitrogen	N/A		Water	0.00 mg/L	10 mL	0.50 mg/L U✓	10	0.50			10/7/09 04:45:48	N	I
3Q0909650-005	Nitrate as Nitrogen	N/A		Water	0.00 mg/L	10 mL	0.50 mg/L U✓	10	0.50			10/7/09 05:00:38	N	I
3Q0909650-005	Nitrite as Nitrogen	N/A		Water	0.00 mg/L	10 mL	0.50 mg/L U✓	10	0.50			10/7/09 05:00:38	N	I
3Q0909650-006	Nitrate as Nitrogen	N/A		Water	0.00 mg/L	10 mL	0.50 mg/L U✓	10	0.50			10/7/09 05:15:29	N	I
3Q0909650-006	Nitrite as Nitrogen	N/A		Water	0.00 mg/L	10 mL	0.50 mg/L U✓	10	0.50			10/7/09 05:15:29	N	I
3Q0909650-007	Nitrate as Nitrogen	N/A		Water	2.46 mg/L	10 mL	2.46 mg/L ✓	10	0.50			10/7/09 05:30:19	N	I
3Q0909650-007	Nitrite as Nitrogen	N/A		Water	0.00 mg/L	10 mL	0.50 mg/L U✓	10	0.50			10/7/09 05:30:19	N	I
3Q0909650-008	Nitrate as Nitrogen	N/A		Water	5.96 mg/L	10 mL	5.96 mg/L ✓	10	0.50			10/7/09 05:45:12	N	I
3Q0909650-008	Nitrite as Nitrogen	N/A		Water	0.00 mg/L	10 mL	0.50 mg/L U✓	10	0.50			10/7/09 05:45:12	N	I

01054

10-6-09

(#7)

Analyst: R. Fawc
Pipets: Lucy
Mine

4 copies

R-5635
R-5260
R-5331
R-5636

Reviewed & Approved
By: B. B. Bue
Date: 10/9/09

10/7/09 9:15:02 AM

Line	Sample	Sample Type	Level	Method	Data File	Dilution	Comment
1	CCV	Sample		500-091809.met	1006_001.dxd	1	
2	CCB	Sample		500-091809.met	1006_002.dxd	1	
3	LCS	Sample		500-091809.met	1006_003.dxd	1	
4	EB100509-SO1A4	Sample		500-091809.met	1006_004.dxd	10	CBNS
5	HOUSE/MUSTER	Sample		500-091809.met	1006_005.dxd	10	NN
6	MB 9457-01	Sample		500-091809.met	1006_006.dxd	1	
7	LCS EXTRACTION	Sample		500-091809.met	1006_007.dxd	1	
8	R0905260-011	Sample		500-091809.met	1006_008.dxd	1	CBNS (EXT)
9	R0905260-011 DUP	Sample		500-091809.met	1006_009.dxd	1	CBNS (EXT)
10	R0905260-011 SPK	Sample		500-091809.met	1006_010.dxd	1	CBNS (EXT)
11	R0905260-015	Sample		500-091809.met	1006_011.dxd	1	CBNS (EXT)
12	R0905260-020	Sample		500-091809.met	1006_012.dxd	1	CBNS (EXT)
13	CCV	Sample		500-091809.met	1006_013.dxd	1	
14	CCB	Sample		500-091809.met	1006_014.dxd	1	
15	R0905260-021	Sample		500-091809.met	1006_015.dxd	1	CBNS (EXT)
16	R0905260-022	Sample		500-091809.met	1006_016.dxd	1	CBNS (EXT)
17	R0905260-023	Sample		500-091809.met	1006_017.dxd	1	CBNS (EXT)
18	R0905260-023 DUP AT IC	Sample		500-091809.met	1006_018.dxd	1	CBNS (EXT)
19	R0905260-023 SPK AT IC	Sample		500-091809.met	1006_019.dxd	1	CBNS (EXT)
20	R0905331-001	Sample		500-091809.met	1006	1	
21	R0905331-003	Sample		500-091809.met	1006_021.dxd	1	CBNS (EXT)
22	R0905331-004	Sample		500-091809.met	1006_022.dxd	1	CBNS (EXT)
23	R0905331-004	Sample		500-091809.met	1006_023.dxd	1	CBNS (EXT)
24	R0905331-005	Sample		500-091809.met	1006_024.dxd	1	CBNS (EXT)
25	CCV	Sample		500-091809.met	1006_025.dxd	1	
26	CCB	Sample		500-091809.met	1006_026.dxd	1	
27	LCS	Sample		500-091809.met	1006_027.dxd	1	
28	R0905331-006	Sample		500-091809.met	1006_028.dxd	1	CBNS (EXT)
29	R0905331-007	Sample		500-091809.met	1006_029.dxd	1	CBNS (EXT)
30	R0905331-008	Sample		500-091809.met	1006_030.dxd	1	CBNS (EXT)
31	R0904969-002A	Sample		500-091809.met	1006_031.dxd	10	%CL
32	R0904969-003A	Sample		500-091809.met	1006_032.dxd	100	%CL
33	R0904969-003B	Sample		500-091809.met	1006_033.dxd	100	%CL
34	R0904969-003A SPK	Sample		500-091809.met	1006_034.dxd	100	%CL
35	R0905192-001	Sample		500-091809.met	1006_035.dxd	4	B (SPLP)
36	R0905192-002	Sample		500-091809.met	1006_036.dxd	2	B (SPLP)
37	CCV	Sample		500-091809.met	1006_037.dxd	1	
38	CCB	Sample		500-091809.met	1006_038.dxd	1	
39	R0905192-003	Sample		500-091809.met	1006_039.dxd	4	B (SPLP)
40	R0905192-004	Sample		500-091809.met	1006_040.dxd	4	B (SPLP)
41	R0905349-001	Sample		500-091809.met	1006_041.dxd	10	B
42	R0905462-001	Sample		500-091809.met	1006_042.dxd	40	B
43	R0905462-001 DUP	Sample		500-091809.met	1006_043.dxd	40	B
44	R0905462-001 SPK	Sample		500-091809.met	1006_044.dxd	40	B
45	R0905462-003	Sample		500-091809.met	1006_045.dxd	40	B
46	R0905462-004	Sample		500-091809.met	1006_046.dxd	40	B
47	R0905635-001	Sample		500-091809.met	1006_047.dxd	10	CBS
48	R0905636-001	Sample		500-091809.met	1006_048.dxd	10	CBS
49	CCV	Sample		500-091809.met	1006_049.dxd	1	
50	CCB	Sample		500-091809.met	1006_050.dxd	1	
51	LCS	Sample		500-091809.met	1006_051.dxd	1	B
52	R0905636-002	Sample		500-091809.met	1006_052.dxd	10	B
53	R0905636-003	Sample		500-091809.met	1006_053.dxd	10	%CL
54	BLK0929	Sample		500-091809.met	1006_054.dxd	1	%CL
55	LCL0929	Sample		500-091809.met	1006_055.dxd	1	%CL
56	R0904969-008A	Sample		500-091809.met	1006_056.dxd	1	%CL
57	R0904969-010A	Sample		500-091809.met	1006_057.dxd	200	%CL
58	R0904969-010B	Sample		500-091809.met	1006_058.dxd	200	%CL
59	R0904969-010A SPK	Sample		500-091809.met	1006_059.dxd	200	%CL
60	R0905106-001A	Sample		500-091809.met	1006_060.dxd	1	%CL
61	CCV	Sample		500-091809.met	1006_061.dxd	1	
62	CCB	Sample		500-091809.met	1006_062.dxd	1	NN
63	MW #1	Sample		500-091809.met	1006_063.dxd	10	NN
64	MW #2	Sample		500-091809.met	1006_064.dxd	10	NN
65	MW #2 DUP	Sample		500-091809.met	1006_065.dxd	10	NN
66	MW #2 SPK	Sample		500-091809.met	1006_066.dxd	10	NN

PeakNet 5.2

010051

Line	Sample	Sample Type	Level	Method	Data File	Dilution	Comment
67	MW #5	Sample		500-091809.met	1006_067.dxd	10	NN
68	MW #7	Sample		500-091809.met	1006_068.dxd	10	NN
69	MW #8	Sample		500-091809.met	1006_069.dxd	10	NN
70	MW #9	Sample		500-091809.met	1006_070.dxd	10	NN
71	MW #10D	Sample		500-091809.met	1006_071.dxd	10	NN
72	MW #11D	Sample		500-091809.met	1006_072.dxd	10	NN
73	CCV	Sample		500-091809.met	1006_073.dxd	1	
74	CCB	Sample		500-091809.met	1006_074.dxd	1	
75	LCS	Sample		500-091809.met	1006_075.dxd	1	
76	PT EFF 001A	Sample		500-091809.met	1006_076.dxd	10	NN
77	PT EFF 001A DUP	Sample		500-091809.met	1006_077.dxd	10	NN
78	PT EFF 001A SPK	Sample		500-091809.met	1006_078.dxd	10	NN
79	CCV	Sample		500-091809.met	1006_079.dxd	1	
80	CCB	Sample		500-091809.met	1006_080.dxd	1	
81	END	Sample		j:\acquadata\1c\method.ac\1c#7\shutdownn.met	1006	1	

Default Method Path: J:\ACQU\DATA\1C\METHOD.AC\1C#7\DI METHODS

Default Data Path: J:\ACQU\DATA\1C\DATA\1C#7\1100609

Comment:

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Sample Name : CCV
 Data File Name : ...\\1006_001.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/6/09 11:22:55 AM

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

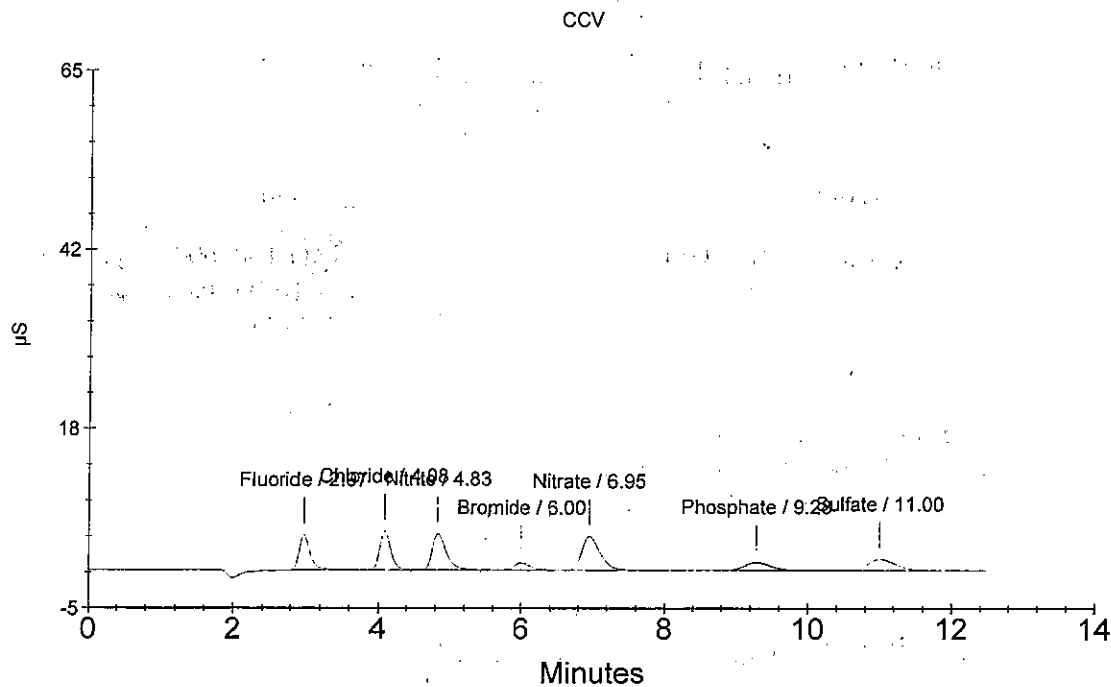
Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment :

Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.97	Fluoride	OK 1.897	459482
2	4.08	Chloride	2.932	548845
3	4.83	Nitrite	1.771	640970
4	6.00	Bromide	1.994	139954
5	6.95	Nitrate	1.787	779690
6	9.28	Phosphate	1.796	259867
7	11.00	Sulfate	3.200	397793

RP
 10/7/09



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Sample Name : CCB
Data File Name : ...\\1006_002.DXD
Method File Name : ...\\500-091809.met
Date Time Collected : 10/6/09 11:37:42 AM

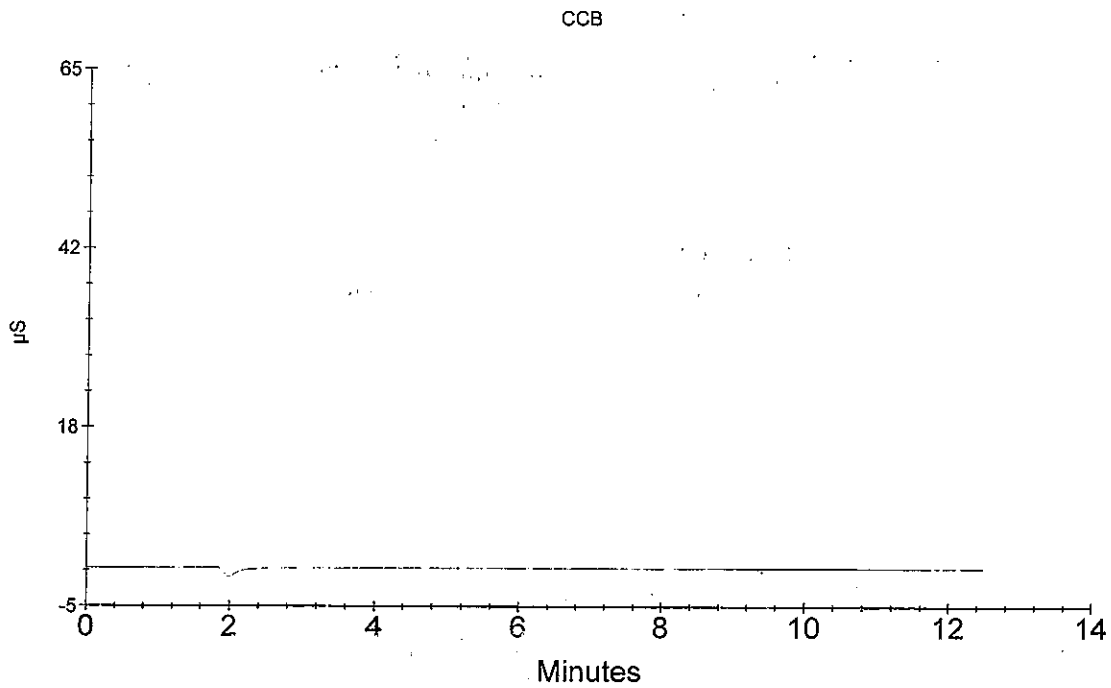
Detector Name :
Column ID : AS-14 / AG-14
Method Analyst :

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

Data Collection Rate : 5.00 Hz
Data Collection Period : 750.00 seconds
Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
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Sample Name : LCS
 Data File Name : ...\\1006_003.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/6/09 11:52:32 AM

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

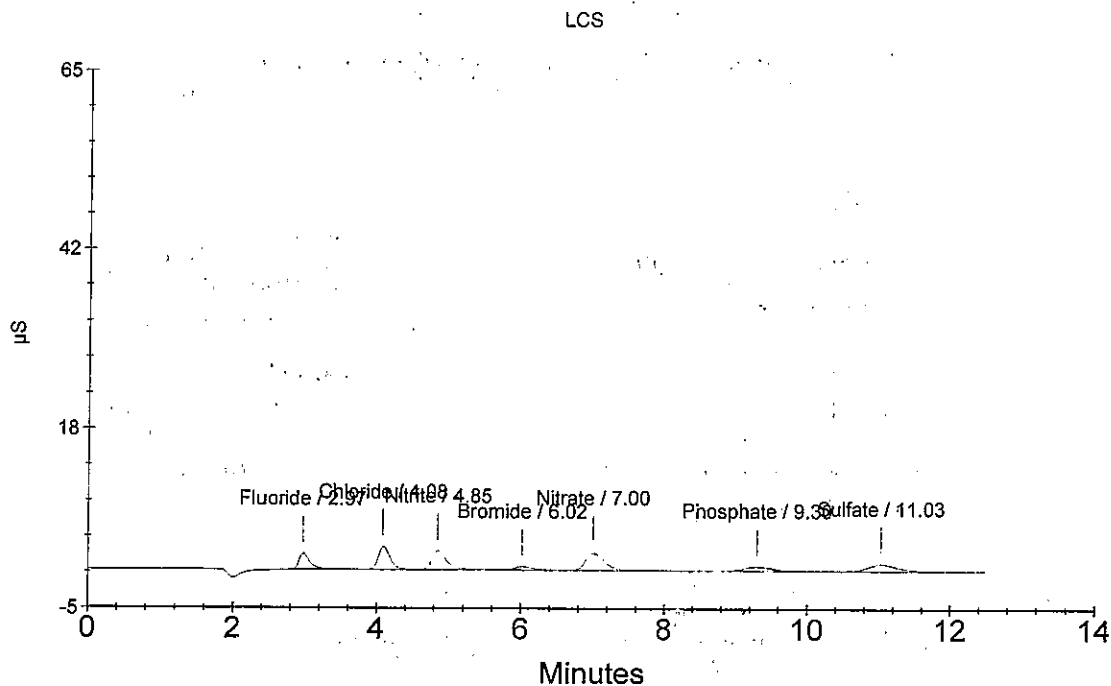
Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment :

Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.97	Fluoride	0.952	221048
2	4.08	Chloride	1.820	333714
3	4.85	Nitrite	0.965	337180
4	6.02	Bromide	0.985	67430
5	7.00	Nitrate	0.944	397651
6	9.30	Phosphate	0.978	137782
7	11.03	Sulfate	1.970	242088

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10/7/09



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Sample Name : EB100509-SO1A4 *09105035-012* Detector Name :
Data File Name : ...\\1006_004.DXD Column ID : AS-14 / AG-14
Method File Name : ...\\500-091809.met Method Analyst :
Date Time Collected : 10/6/09 12:56:45 PM

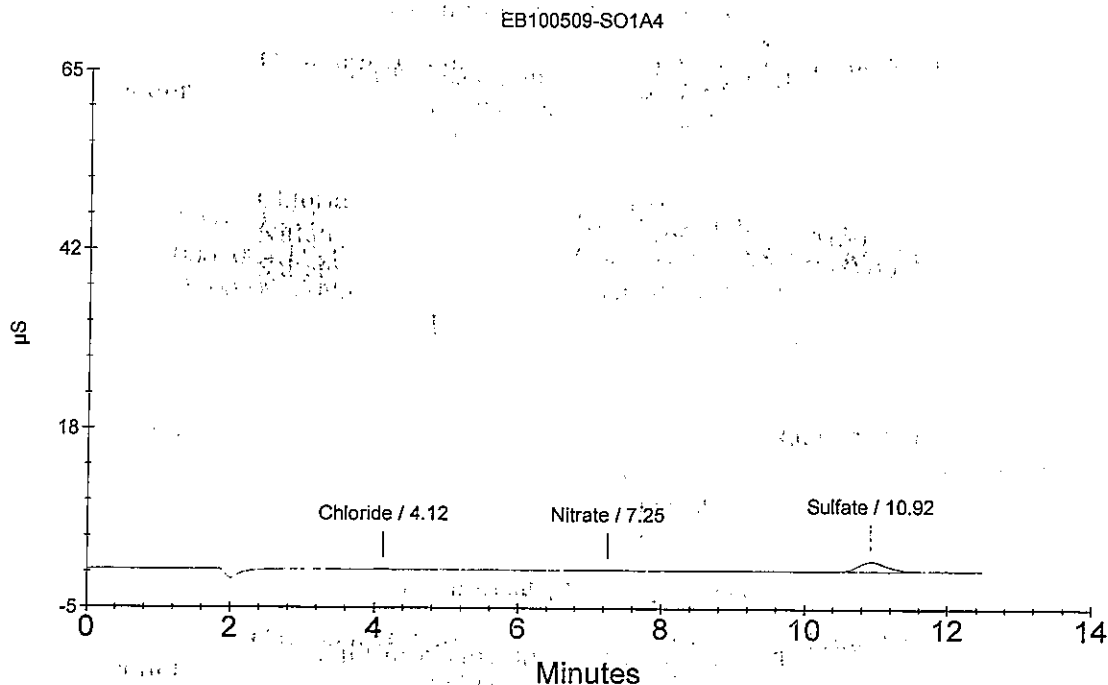
Dilution Factor : 10.00 Data Collection Rate : 5.00 Hz
Sample Type : Sample Analysis Data Collection Period : 750.00 seconds
Sample Comment : CBNS Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	4.12	Chloride	<i>STR</i> 1.630	13052
2	7.25	Nitrate	<i>OK</i> 0.766	5150
3	10.92	Sulfate	<i>OK</i> 28.680	355809

Br ok

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Sample Name : HOUSE/MUSTER #090507-001 Detector Name :
Data File Name : ...\\1006_005.DXD Column ID : AS-14 / AG-14
Method File Name : ...\\500-091809.met Method Analyst :
Date Time Collected : 10/6/09 1:11:33 PM

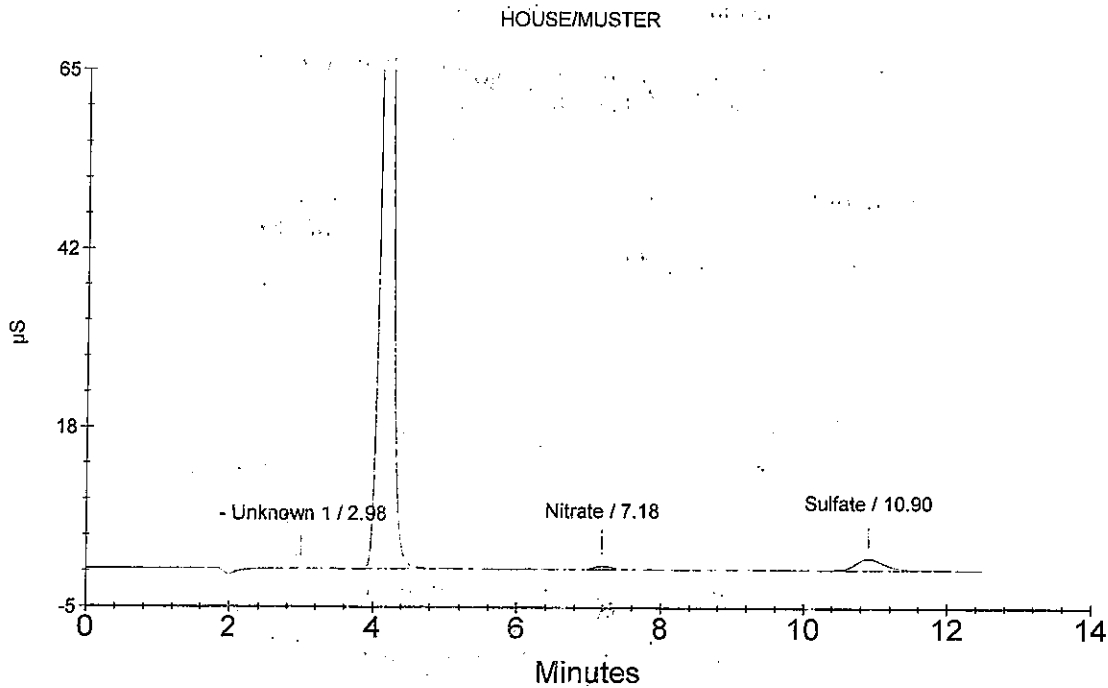
Dilution Factor : 10.00 Data Collection Rate : 5.00 Hz
Sample Type : Sample Analysis Data Collection Period : 750.00 seconds
Sample Comment : NN Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
2	4.18	Chloride	707.989	13678530
3	7.18	Nitrate	OK 2.339	76339
4	10.90	Sulfate	33.197	413009

NO₂ OK

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Sample Name : MB 9457-01
Data File Name : ...\\1006_006.DXD
Method File Name : ...\\500-091809.met
Date Time Collected : 10/6/09 1:26:23 PM

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

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

Data Collection Rate : 5.00 Hz
Data Collection Period : 750.00 seconds
Component Amount Units :

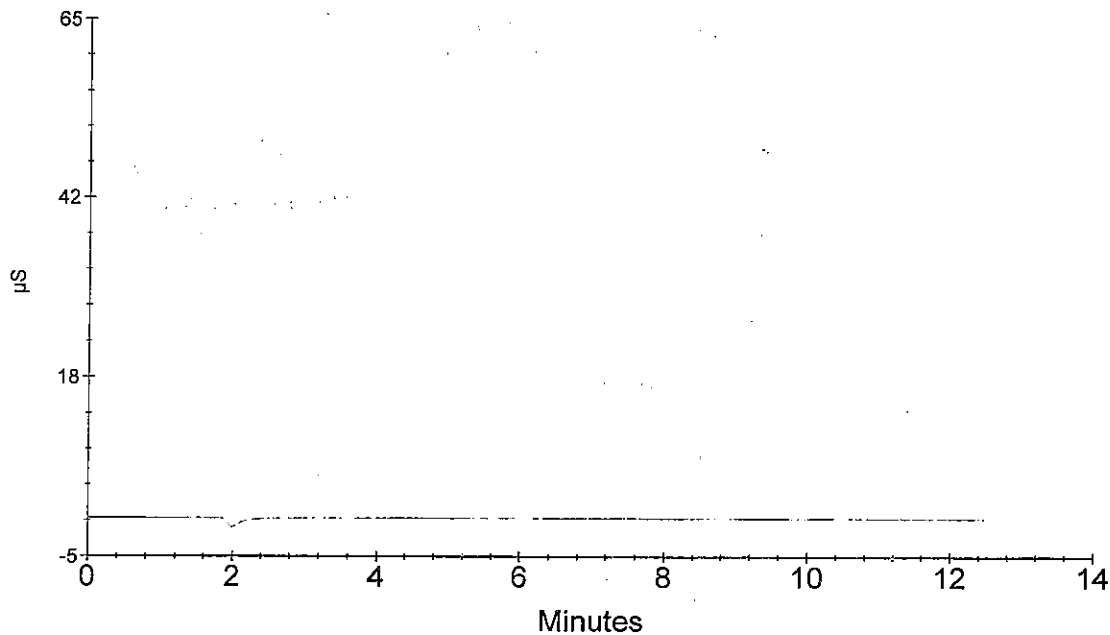
Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
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Chloride

*OK
REP
10/7/09*
*repeat
for Cl-*

MB 9457-01



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 Rochester, NY 14607

Sample Name : LCS EXTRACTION
 Data File Name : ...\\1006_007.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/6/09 1:41:13 PM

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

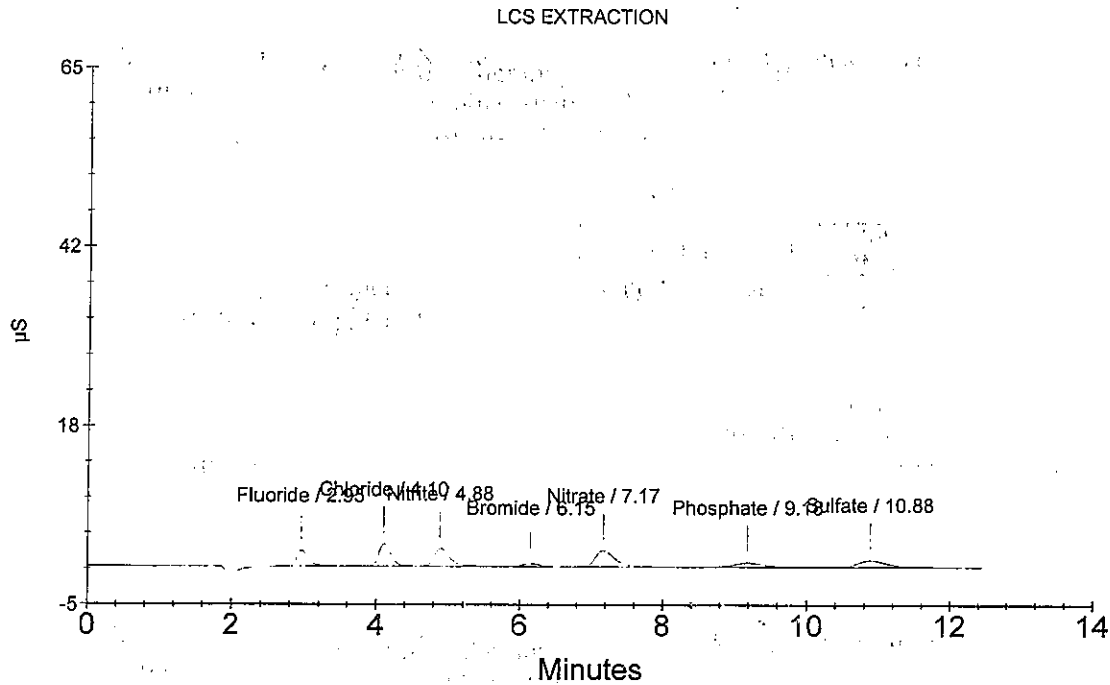
Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment :

Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.95	Fluoride	0.952	221107
2	4.10	Chloride	1.810	331750
3	4.88	Nitrite	0.971	339234
4	6.15	Bromide	0.979	66996
5	7.17	Nitrate	0.941	396618
6	9.18	Phosphate	0.978	137847
7	10.88	Sulfate	1.957	240461

RT 10/7/09



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Sample Name : R0905260-011
 Data File Name : ...\\1006_008.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/6/09 1:56:02 PM

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

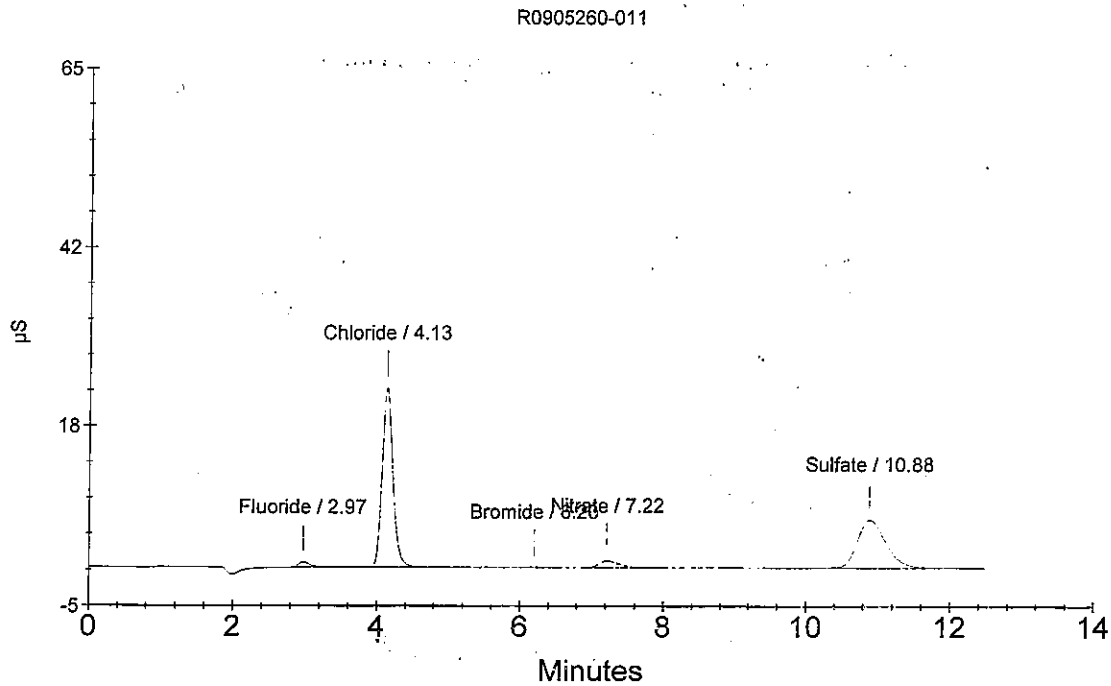
Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment : CBNS (EXT)

Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.97	Fluoride	0.354	70294
2	4.13	Chloride	1/2 13.024	2501151
3	6.20	Bromide	OK 0.090	3048
4	7.22	Nitrate	OK 0.435	167201
5	10.88	Sulfate	1/2 13.563	1710014

RP 10/7/09



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Sample Name : R0905260-011 DUP
 Data File Name : ...\\1006_009.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/6/09 2:10:52 PM

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

Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment : CBNS (EXT)

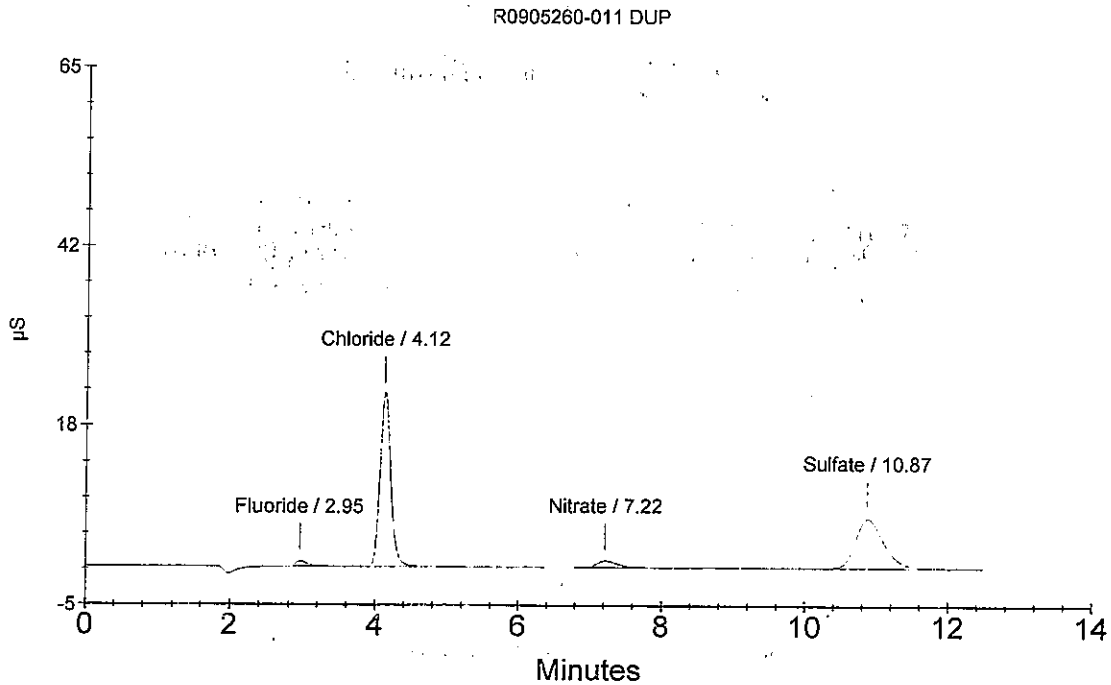
Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.95	Fluoride	0.371	74689
2	4.12	Chloride	1/2 12.665	2431667
3	7.22	Nitrate	OK 0.429	164582
4	10.87	Sulfate	1/2 13.991	1764190

Br OK

RP 10/7/09



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Sample Name : R0905260-011 SPK
 Data File Name : ...\\1006_010.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/6/09 2:25:41 PM

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

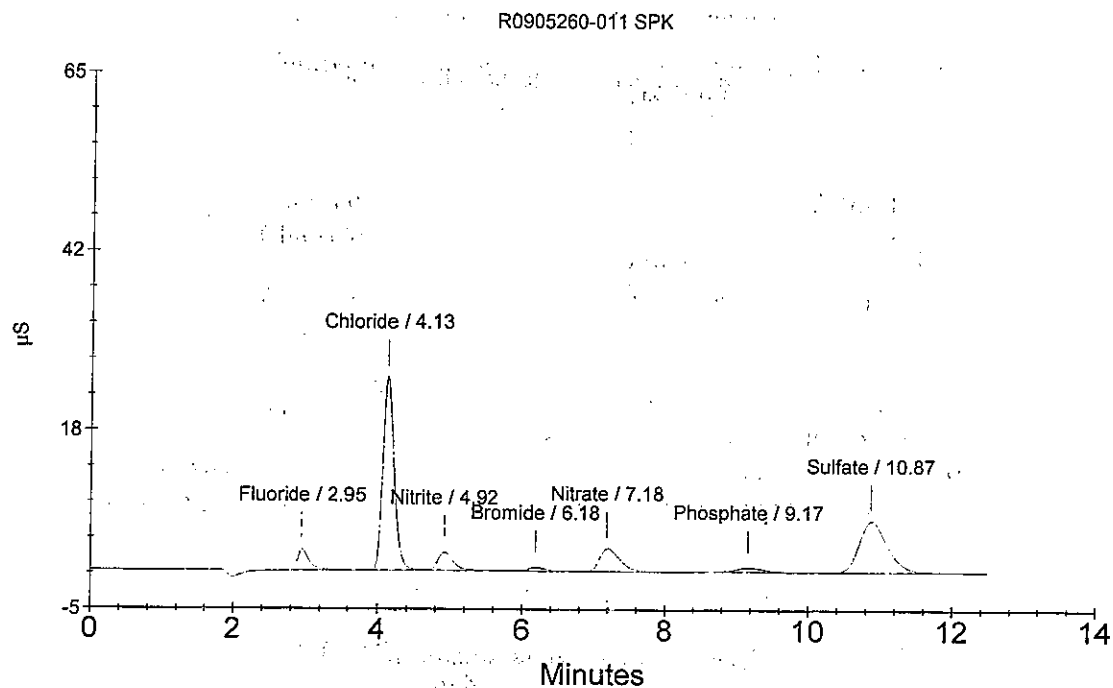
Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment : CBNS (EXT)

Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.95	Fluoride	1.223	289391
2	4.13	Chloride	1/2 14.084	2706271
3	4.92	Nitrite	0.977	341449
4	6.18	Bromide	OK 1.062	72897
5	7.18	Nitrate	OK 1.342	577826
6	9.17	Phosphate	0.981	138185
7	10.87	Sulfate	1/2 14.570	1837530

RP 10/7/09



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Sample Name : R0905260-015
 Data File Name : ... \1006_011.DXD
 Method File Name : ... \500-091809.met
 Date Time Collected : 10/6/09 2:40:31 PM

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

Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment : CBNS (EXT)

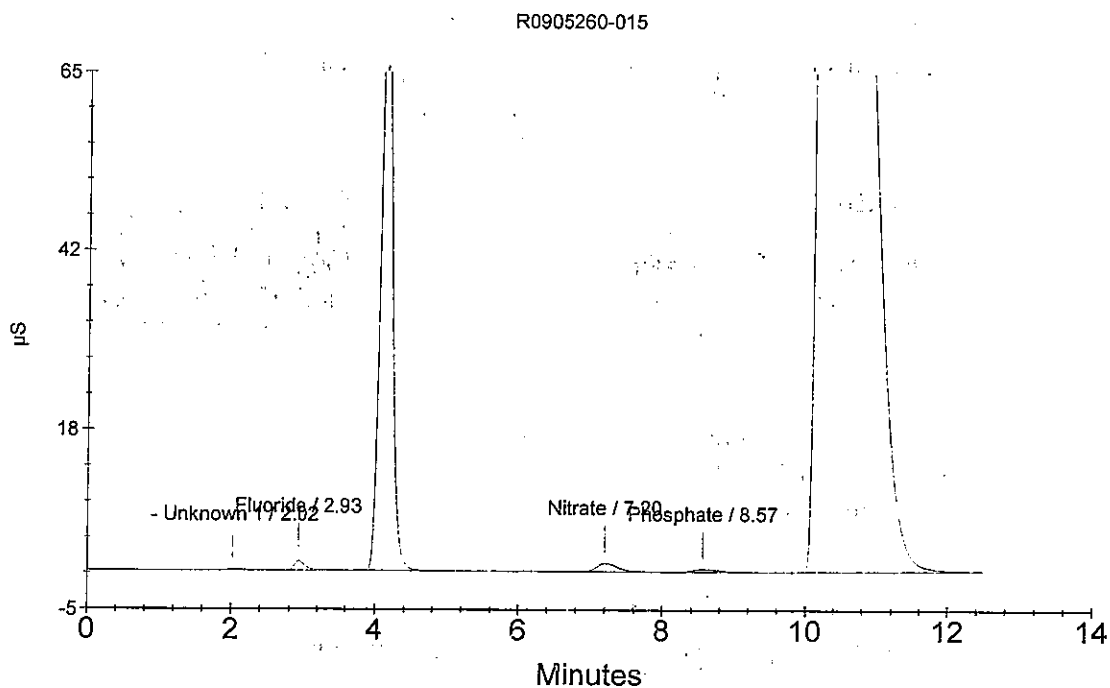
Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
2	2.93	Fluoride	0.655	146226
3	4.13	Chloride	44.555	8601209
4	7.20	Nitrate	0.550	219505
5	8.57	Phosphate	0.561	75560
6	10.32	Sulfate	761.614	96429827

BC OK

RP 10/7/09



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 Rochester, NY 14607

Sample Name : R0905260-020
 Data File Name : ...\\1006_012.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/6/09 2:55:20 PM

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

Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment : CBNS (EXT)

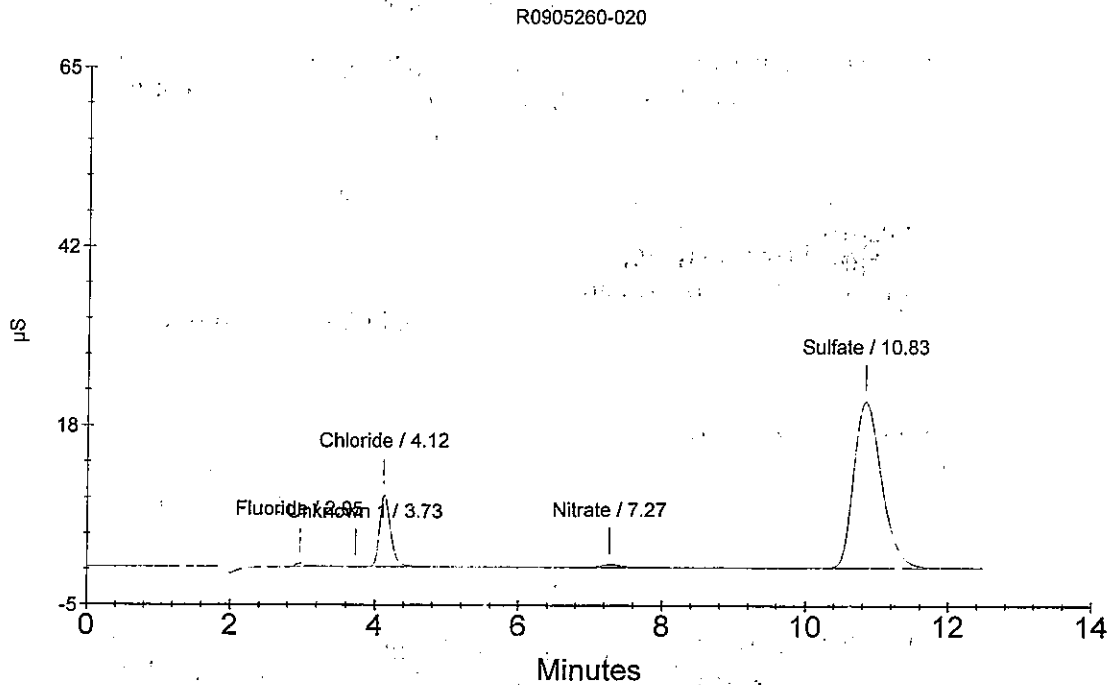
Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.95	Fluoride	0.262	47121
3	4.12	Chloride	5.349	1016299
4	7.27	Nitrate	0.219	69467
5	10.83	Sulfate	46.486	5878812

Br DK

R.P. 10/7/09



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Sample Name : CCV
 Data File Name : ...\\1006_013.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/6/09 3:10:09 PM

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

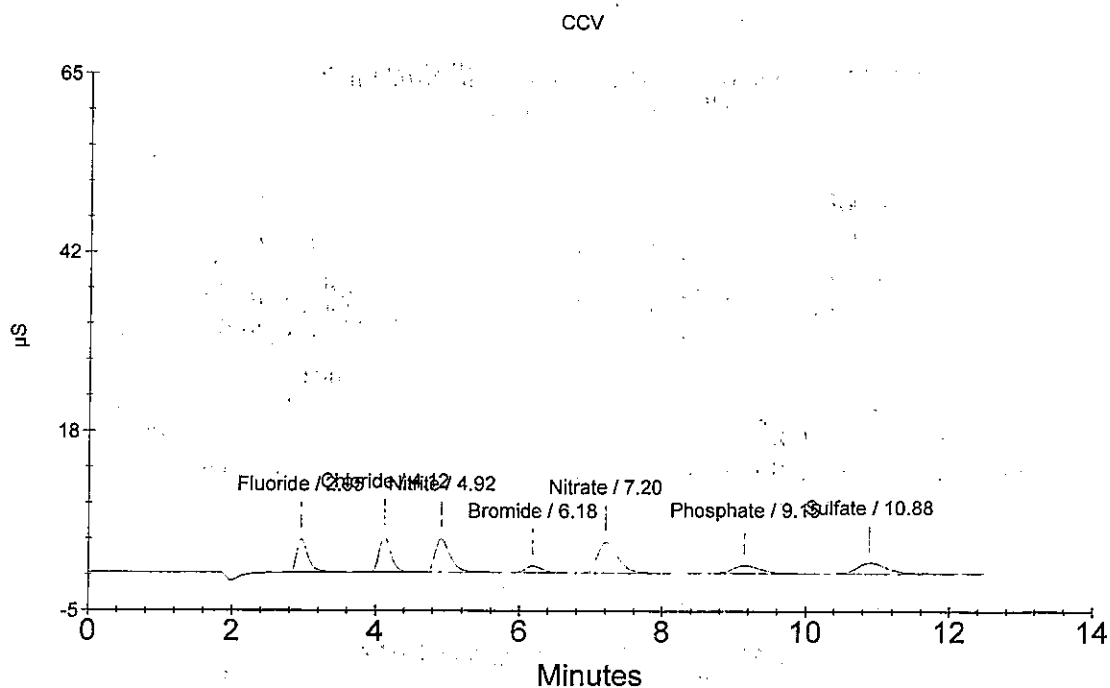
Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment :

Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.95	Fluoride	OK 1.884	456066
2	4.12	Chloride	OUT ↓ 2.887	540068
3	4.92	Nitrite	OK 1.773	641860
4	6.18	Bromide	2.007	140906
5	7.20	Nitrate	1.768	771130
6	9.15	Phosphate	1.768	255677
7	10.88	Sulfate	↓ 3.137	389889

RP 10/7/09



Ion Chromatography Analytical Report
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Sample Name : CCB
Data File Name : ...\\1006_014.DXD
Method File Name : ...\\500-091809.met
Date Time Collected : 10/6/09 3:24:58 PM

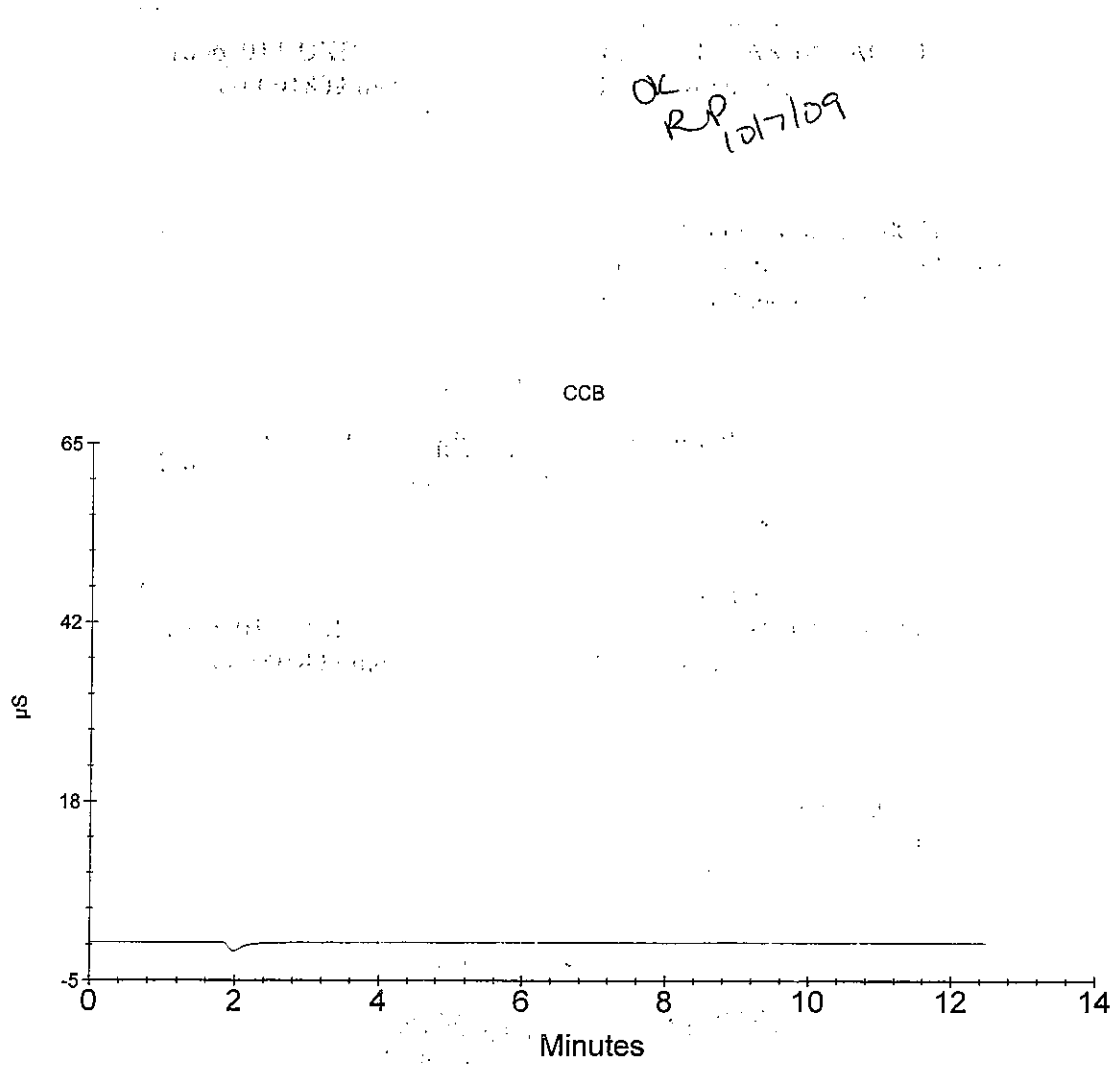
Detector Name :
Column ID : AS-14 / AG-14
Method Analyst :

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

Data Collection Rate : 5.00 Hz
Data Collection Period : 750.00 seconds
Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
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Ion Chromatography Analytical Report
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Sample Name : R0905260-021
 Data File Name : ...\\1006_015.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/6/09 3:39:46 PM

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

Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment : CBNS (EXT)

Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

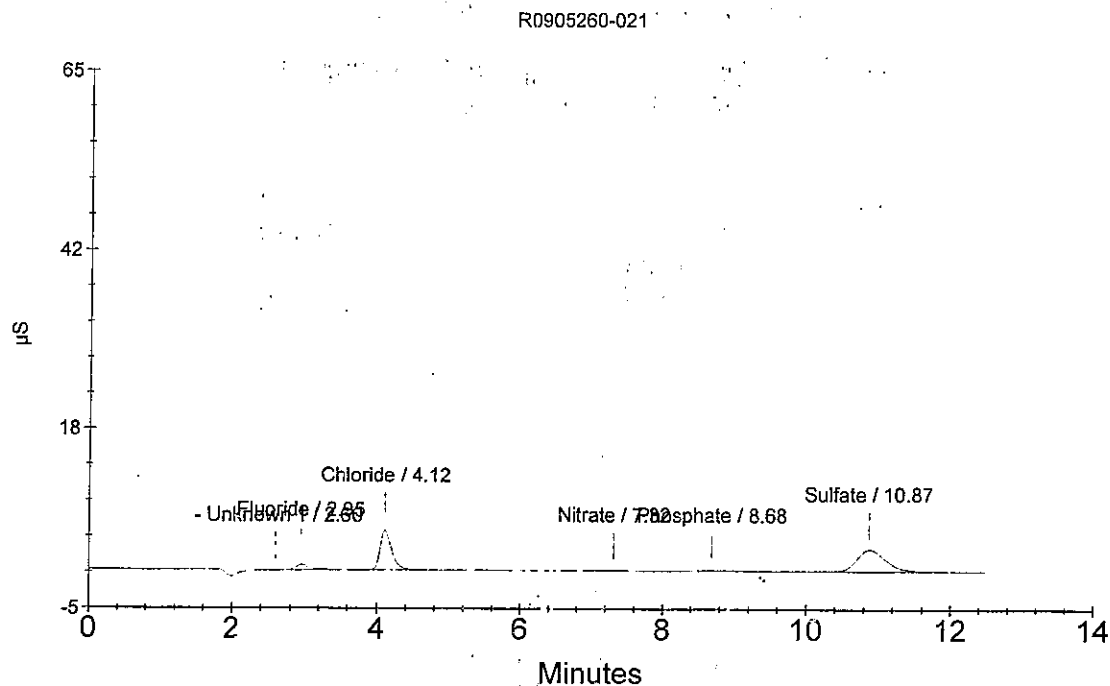
Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
2	2.95	Fluoride	0.415	85775
3	4.12	Chloride	STR 3.138	588628
4	7.32	Nitrate	OK 0.080	6523
5	8.68	Phosphate	0.112	8552
6	10.87	Sulfate	OK 6.286	788553

Br 214

RP

10/7/09



Ion Chromatography Analytical Report
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Sample Name : R0905260-022
 Data File Name : ...\\1006_016.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/6/09 3:54:36 PM

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

Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment : CBNS (EXT)

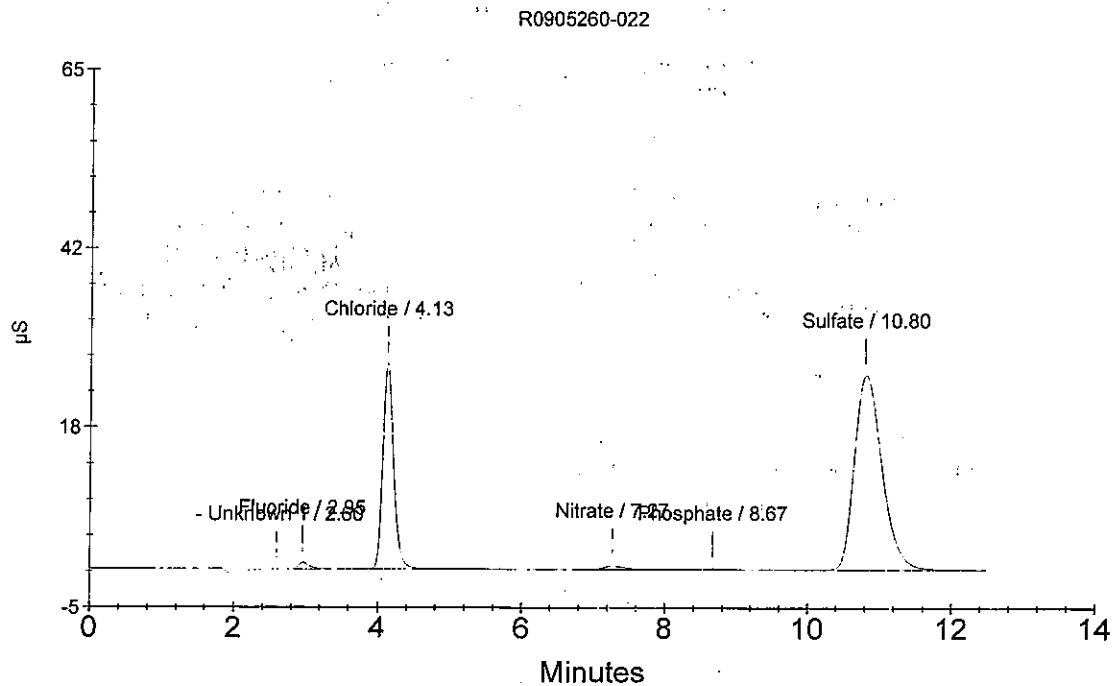
Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
2	2.95	Fluoride	0.480	102084
3	4.13	Chloride	1/2 14.752	2835495
4	7.27	Nitrate	OK 0.254	85325
5	8.67	Phosphate	0.253	29601
6	10.80	Sulfate	1/10 53.598	6779334

Br OK

RP 10/7/09



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Sample Name : R0905260-023
Data File Name : ...\1006_017.DXD
Method File Name : ...\500-091809.met
Date Time Collected : 10/6/09 4:09:26 PM

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

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : CBNS (EXT)

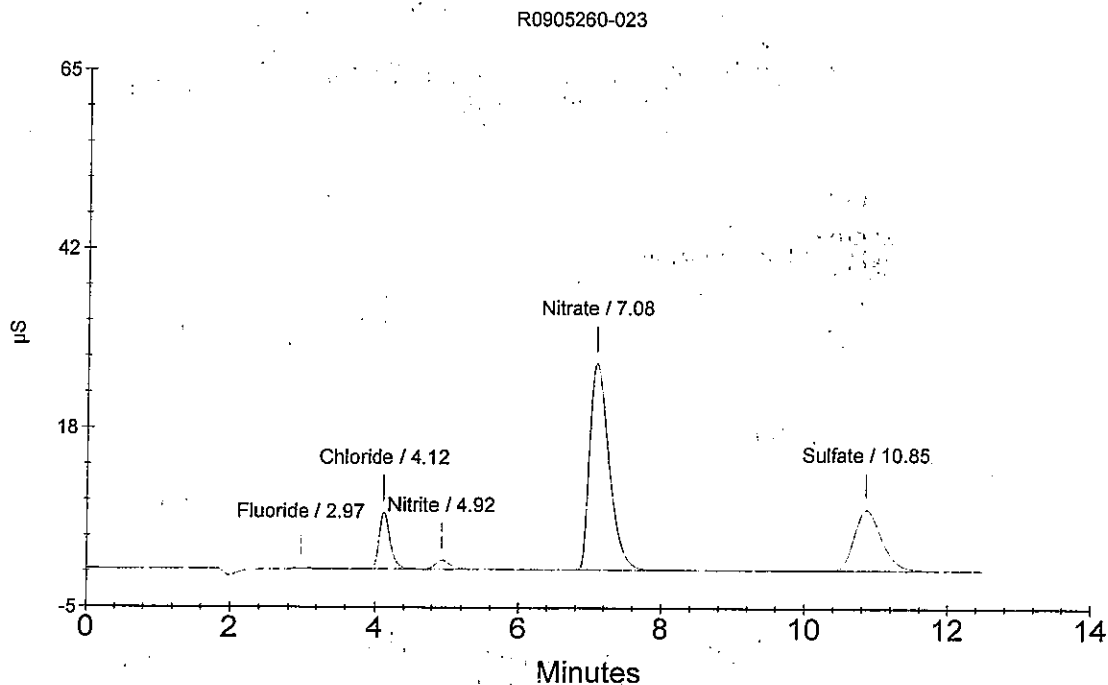
Data Collection Rate : 5.00 Hz
Data Collection Period : 750.00 seconds
Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.97	Fluoride	0.240	41597
2	4.12	Chloride	4.368	826522
3	4.92	Nitrite	0.522	169958
4	7.08	Nitrate	11.205	5043356
5	10.85	Sulfate	16.808	2120918

Br OK

RP 10/7/09



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Sample Name : R0905260-023 DUP AT IC
 Data File Name : ...\1006_018.DXD
 Method File Name : ...\500-091809.met
 Date Time Collected : 10/6/09 4:24:16 PM

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

Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment : CBNS (EXT)

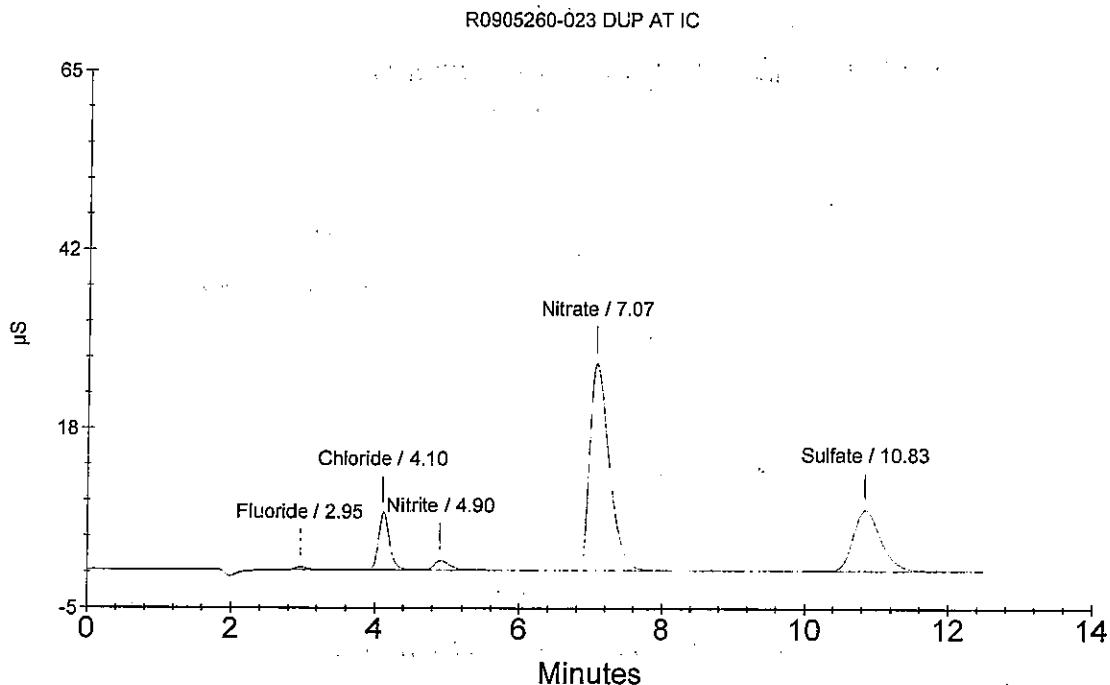
Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.95	Fluoride	0.223	37329
2	4.10	Chloride	5/12 4.363	825602
3	4.90	Nitrite	0.525	171029
4	7.07	Nitrate	1/4 11.232	5055904
5	10.83	Sulfate	1/2 16.824	2122943

Br OK

RP 10/7/09



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Sample Name : R0905260-023 SPK AT IC
 Data File Name : ...\\1006_019.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/6/09 4:39:04 PM

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

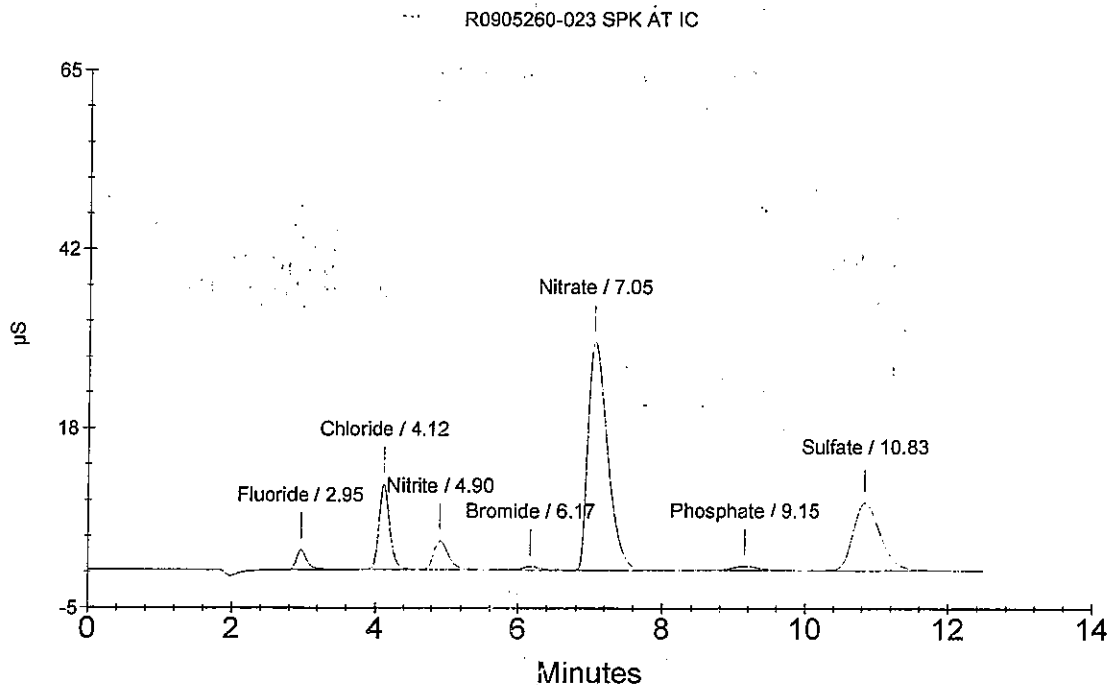
Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment : CBNS (EXT)

Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.95	Fluoride	1.128	265487
2	4.12	Chloride	STR 6.331	1206432
3	4.90	Nitrite	1.481	531569
4	6.17	Bromide	OK 1.034	70936
5	7.05	Nitrate	1/4 12.307	5542482
6	9.15	Phosphate	0.981	138180
7	10.83	Sulfate	1/2 18.765	2368694

RP
 10/7/09



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Sample Name : R0905260-024
 Data File Name : ...\\1006_020.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/6/09 4:53:54 PM

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

Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment : CBNS (EXT)

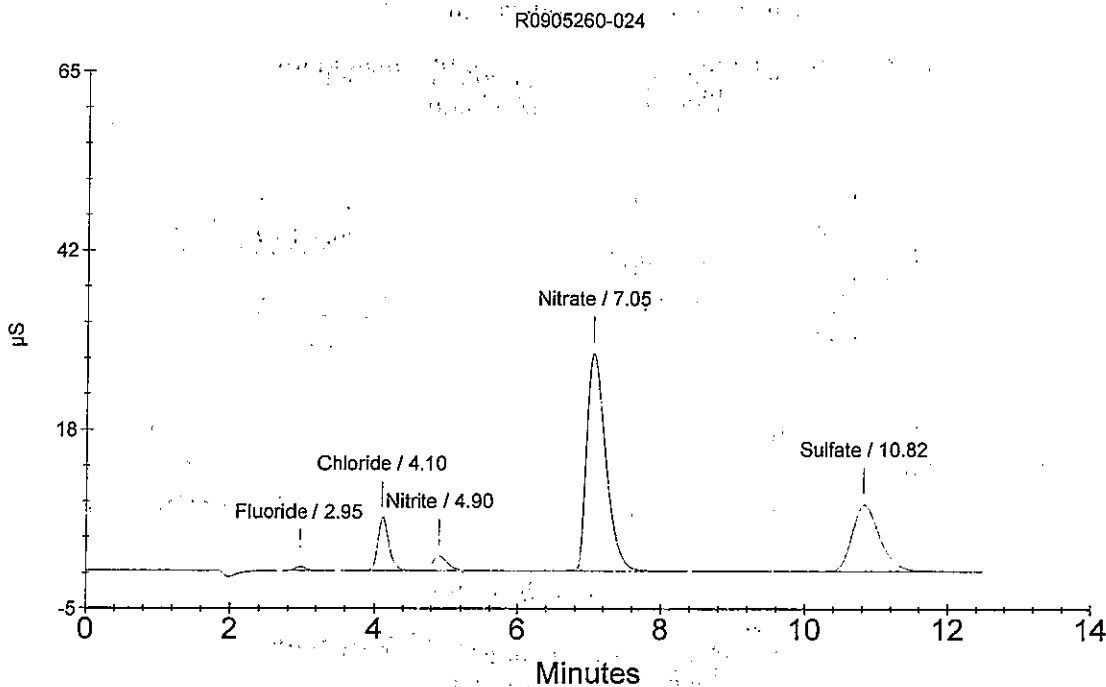
Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.95	Fluoride	0.293	55001
2	4.10	Chloride	STR 4.051	765291
3	4.90	Nitrite	0.775	265567
4	7.05	Nitrate	1/4 11.618	5230591
5	10.82	Sulfate	1/2 18.428	2326002

Br OK

RR 10/7/09



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Sample Name : R0905331-001
 Data File Name : ...\\1006_021.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/6/09 5:08:42 PM

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

Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment : CBNS (EXT)

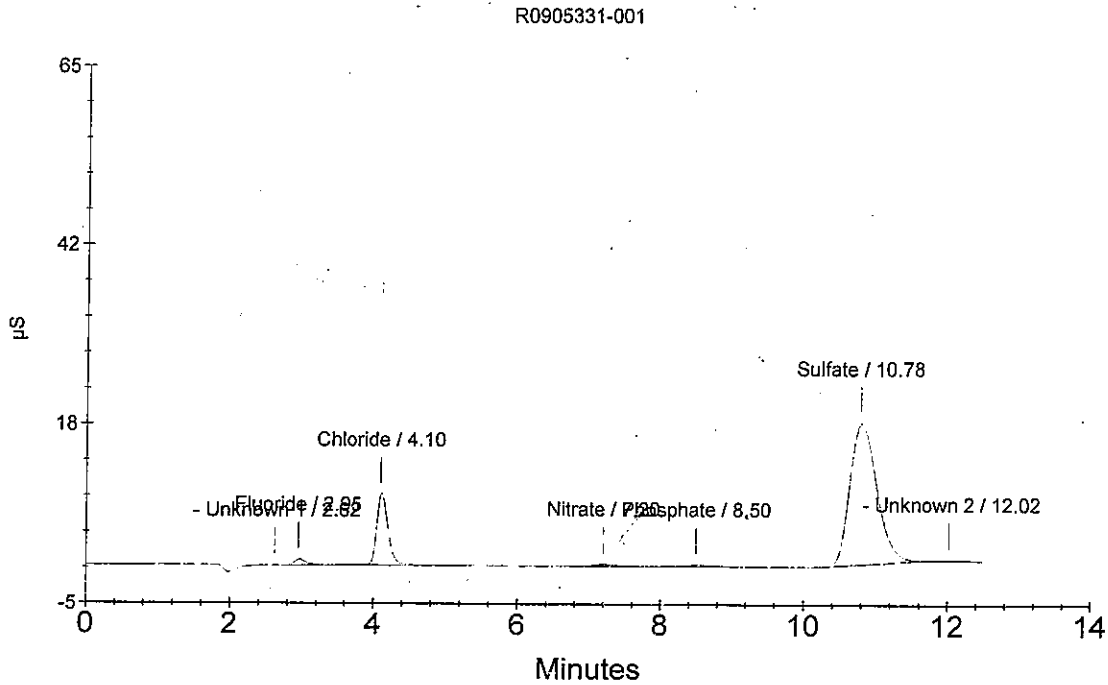
Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
2	2.95	Fluoride	0.433	90312
3	4.10	Chloride	5.388	1023810
4	7.20	Nitrate	0.159	42243
5	8.50	Phosphate	0.302	36951
6	10.78	Sulfate	37.908	4792617

Br OK

RP
 10/7/09



Ion Chromatography Analytical Report
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Sample Name : R0905331-003
 Data File Name : ...\\1006_022.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/6/09 5:23:32 PM

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

Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment : CBNS (EXT)

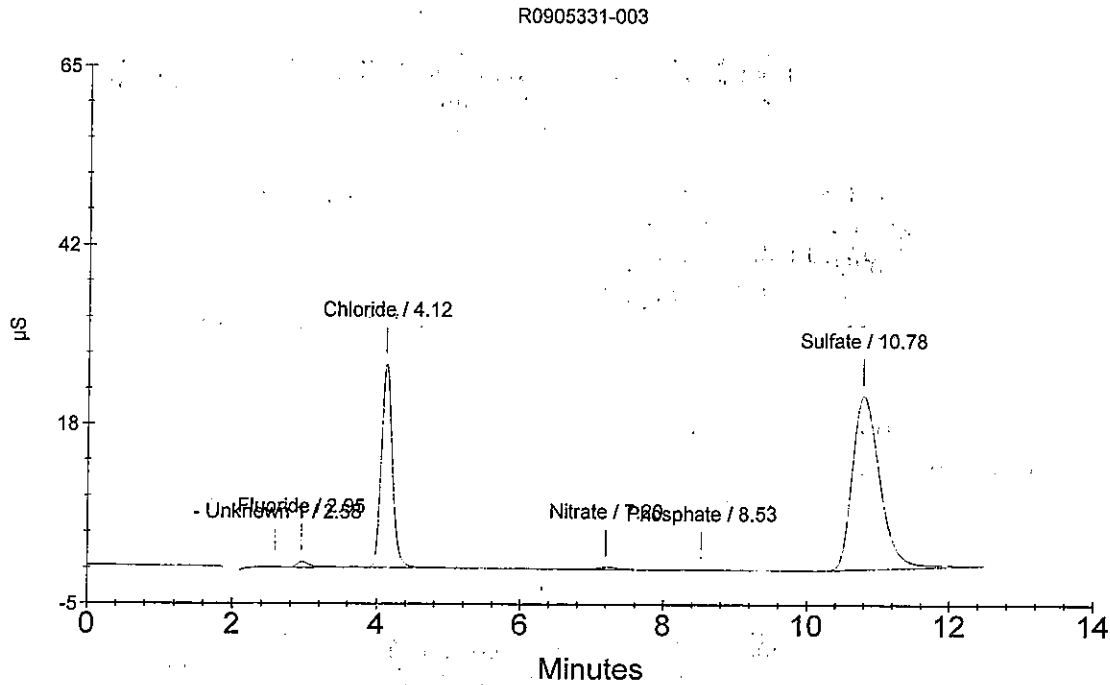
Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
2	2.95	Fluoride	0.436	90986
3	4.12	Chloride	1/2 14.727	2830648
4	7.20	Nitrate	OK 0.196	59296
5	8.53	Phosphate	0.158	15503
6	10.78	Sulfate	1/10 48.671	6155531

Br OK

RF 10/10/09



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Sample Name : R0905331-004
 Data File Name : ...\\1006_023.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/6/09 5:38:20 PM

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

Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment : CBNS (EXT)

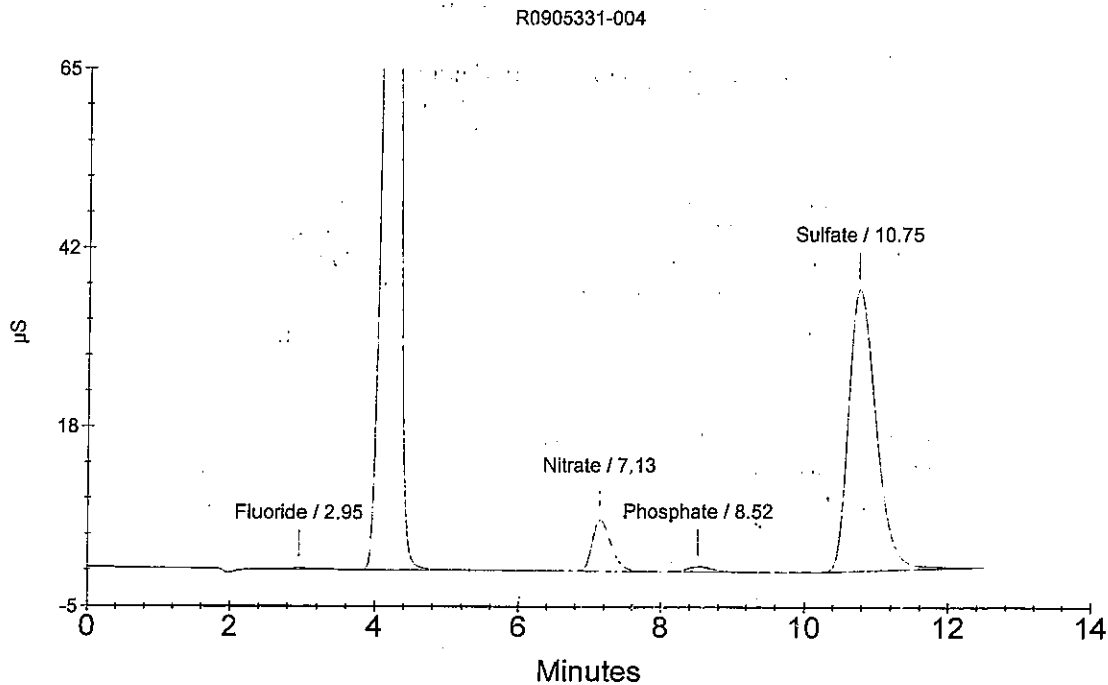
Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.95	Fluoride	0.170	23961
2	4.23	Chloride	1/20 135.437	26183546
3	7.13	Nitrate	OK 2.785	1231483
4	8.52	Phosphate	1.083	153466
5	10.75	Sulfate	1/10 78.209	9895672

Br OK

RP 1017109



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Sample Name : R0905331-005
 Data File Name : ...\\1006_024.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/6/09 5:53:10 PM

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

Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment : CBNS (EXT)

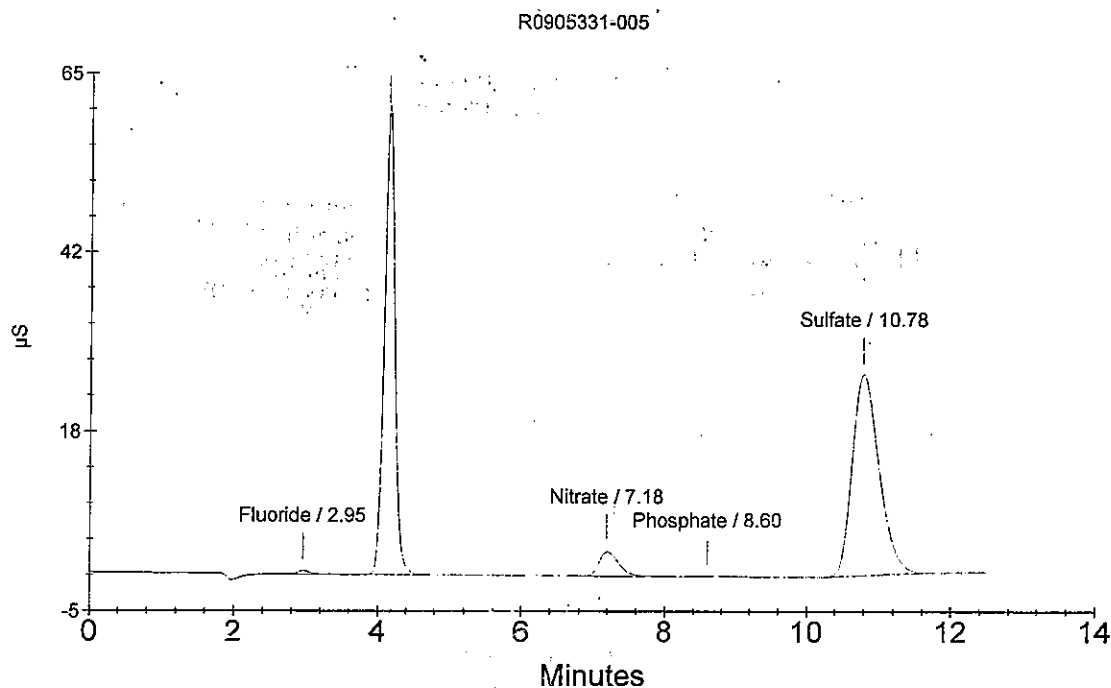
Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.95	Fluoride	0.320	61916
2	4.13	Chloride	33.984	6556124
3	7.18	Nitrate	1.396	602625
4	8.60	Phosphate	0.235	26934
5	10.78	Sulfate	53.995	6829624

Br OK

RP 10/7/09



Ion Chromatography Analytical Report
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 Rochester, NY 14607

Sample Name : CCV
 Data File Name : ...\\1006_025.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/6/09 6:07:59 PM

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

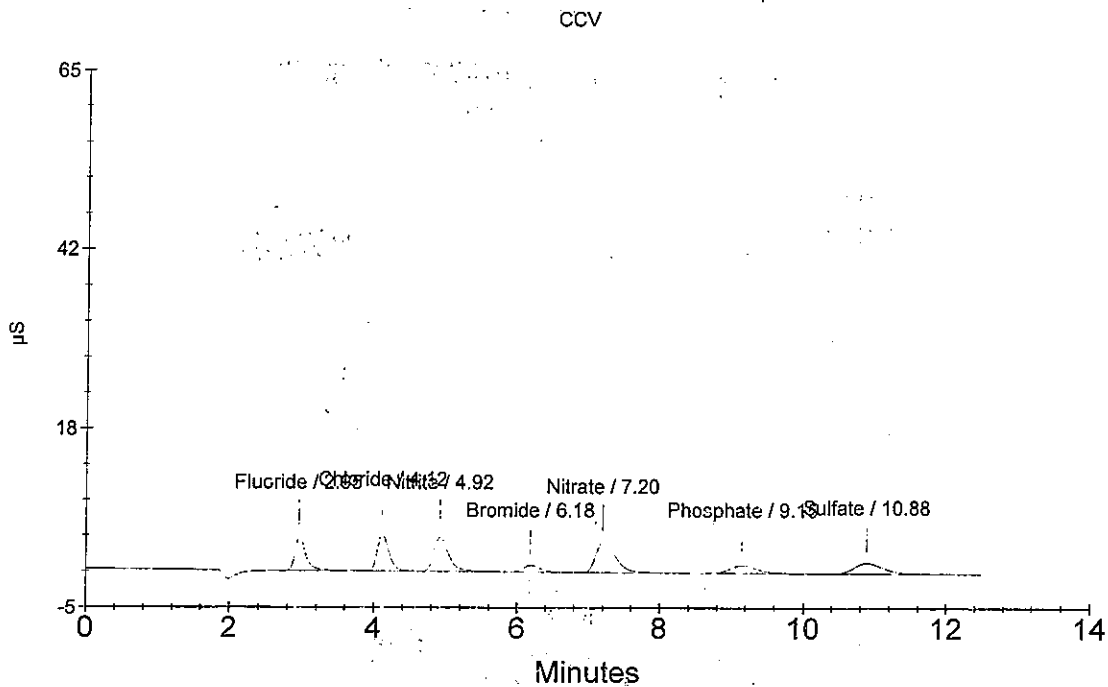
Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment :

Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.95	Fluoride	1.948	472287
2	4.12	Chloride	2.941	550452
3	4.92	Nitrite	1.785	646441
4	6.18	Bromide	2.021	141886
5	7.20	Nitrate	1.791	781162
6	9.15	Phosphate	1.795	259700
7	10.88	Sulfate	3.204	398375

RP 10/7/09



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Sample Name : CCB
Data File Name : ...\\1006_026.DXD
Method File Name : ...\\500-091809.met
Date Time Collected : 10/6/09 6:22:48 PM

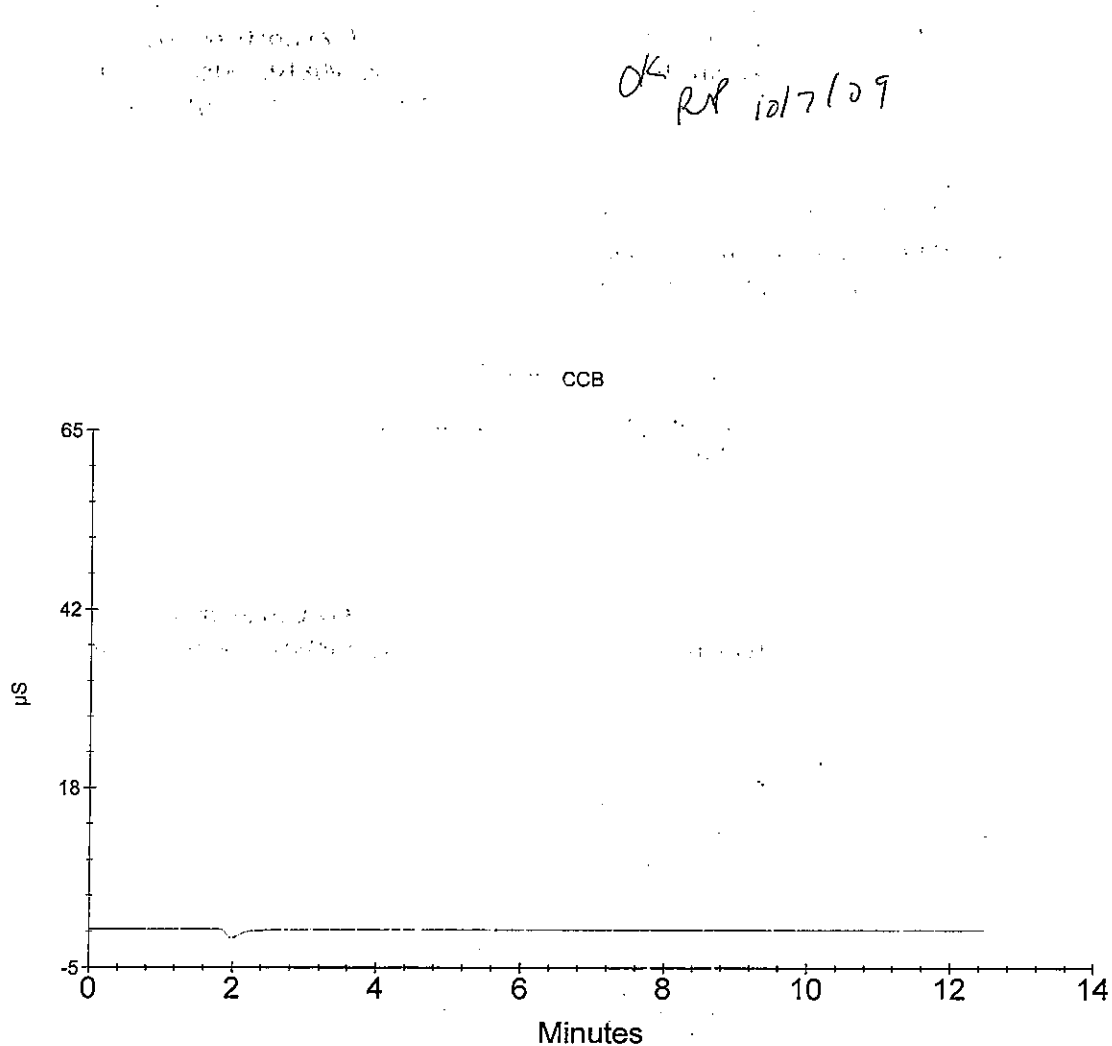
Detector Name :
Column ID : AS-14 / AG-14
Method Analyst :

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

Data Collection Rate : 5.00 Hz
Data Collection Period : 750.00 seconds
Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
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Ion Chromatography Analytical Report
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Sample Name : LCS
 Data File Name : ...\\1006_027.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/6/09 6:37:37 PM

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

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

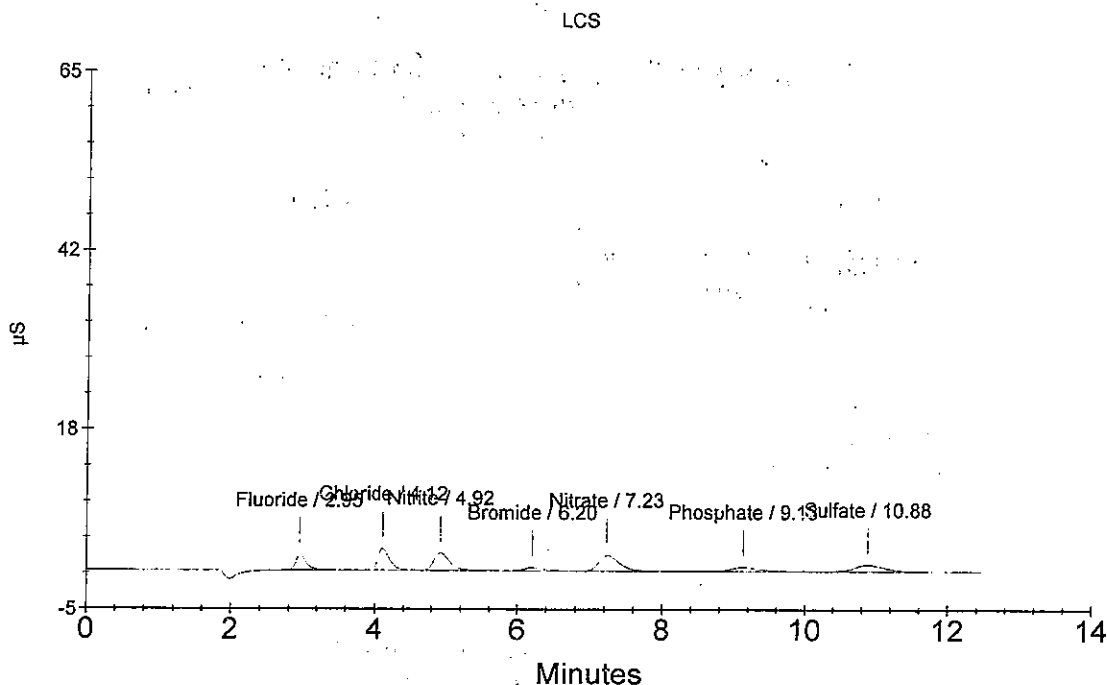
Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.95	Fluoride	0.941	218508
2	4.12	Chloride	1.806	330900
3	4.92	Nitrite	0.964	336622
4	6.20	Bromide	0.995	68151
5	7.23	Nitrate	0.938	395037
6	9.13	Phosphate	0.963	135505
7	10.88	Sulfate	1.981	243496

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RS 10/7/09



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Sample Name : R0905331-006
Data File Name : ...\\1006_028.DXD
Method File Name : ...\\500-091809.met
Date Time Collected : 10/6/09 6:52:27 PM

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

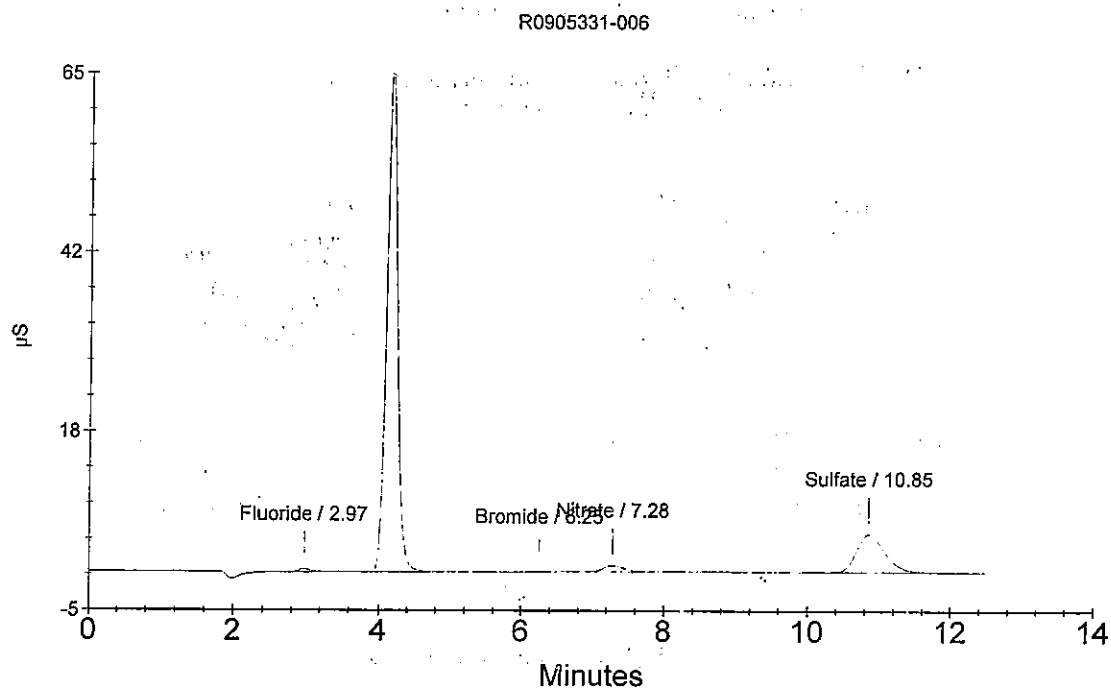
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : CBNS (EXT)

Data Collection Rate : 5.00 Hz
Data Collection Period : 750.00 seconds
Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.97	Fluoride	0.258	46232
2	4.15	Chloride	36.913	7122759
3	6.25	Bromide	0.130	5959
4	7.28	Nitrate	0.426	163146
5	10.85	Sulfate	10.926	1376079

RP 10/7/09



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Sample Name : R0905331-007
 Data File Name : ...\1006_029.DXD
 Method File Name : ...\500-091809.met
 Date Time Collected : 10/6/09 7:07:17 PM

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

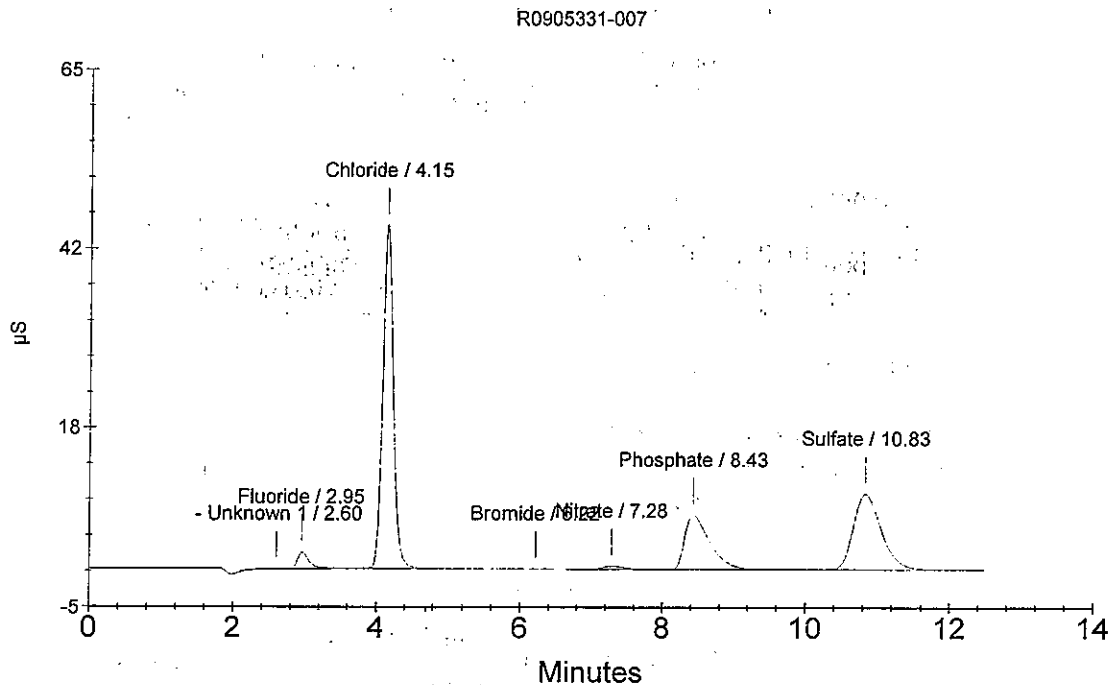
Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment : CBNS (EXT)

Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
2	2.95	Fluoride	1.061	248686
3	4.15	Chloride	1/4 24.823	4783882
4	6.22	Bromide	OK 0.103	3990
5	7.28	Nitrate	OK 0.231	74862
6	8.43	Phosphate	11.673	1733519
7	10.83	Sulfate	1/4 21.210	2678257

R0905331-007



Ion Chromatography Analytical Report
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Sample Name : R0905331-008
Data File Name : ...\\1006_030.DXD
Method File Name : ...\\500-091809.met
Date Time Collected : 10/6/09 7:22:06 PM

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

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : CBNS (EXT)

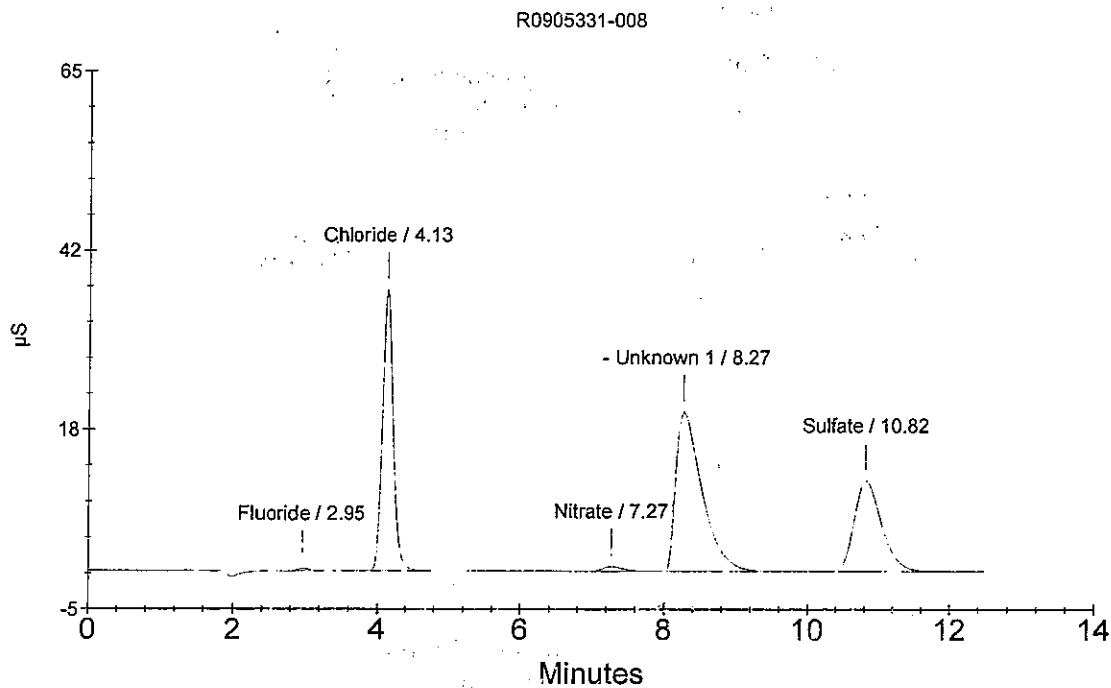
Data Collection Rate : 5.00 Hz
Data Collection Period : 750.00 seconds
Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.95	Fluoride	0.195	30228
2	4.13	Chloride	1/4 20.686	3983446
3	7.27	Nitrate	OK 0.310	110916
5	10.82	Sulfate	1/4 25.154	3177716

Br OK

RP 10/7/09



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Sample Name : R0904969-002A
Data File Name : ...\\1006_031.DXD
Method File Name : ...\\500-091809.met
Date Time Collected : 10/6/09 7:36:55 PM

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

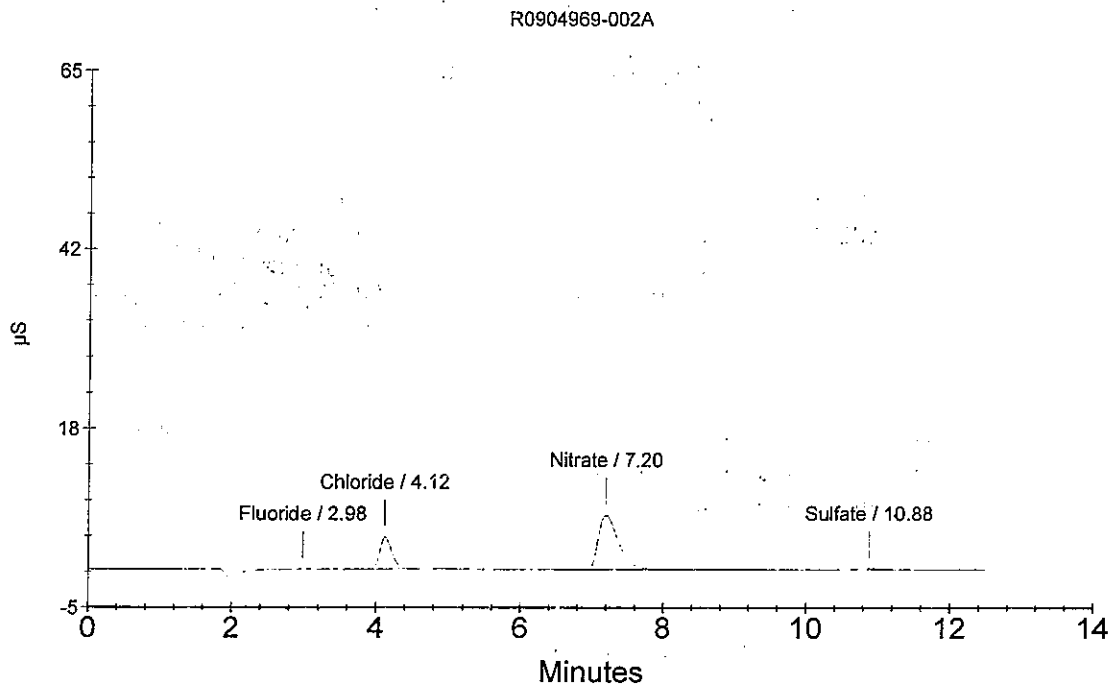
Dilution Factor : 10.00
Sample Type : Sample Analysis
Sample Comment : %CL

Data Collection Rate : 5.00 Hz
Data Collection Period : 750.00 seconds
Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.98	Fluoride	0.832	2159
2	4.12	Chloride	25.872	482057
3	7.20	Nitrate	31.059	1376647
4	10.88	Sulfate	2.748	27459

RP 10/7/09



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Sample Name : R0904969-003A
Data File Name : ...\\1006_032.DXD
Method File Name : ...\\500-091809.met
Date Time Collected : 10/6/09 7:51:45 PM

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

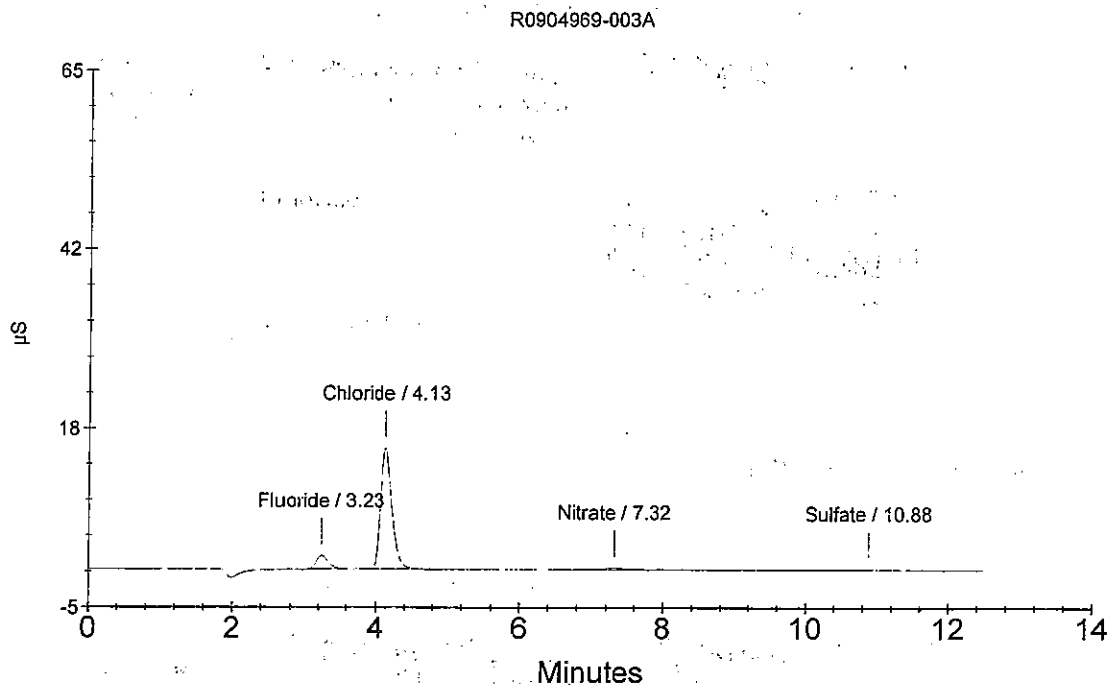
Dilution Factor : 100.00
Sample Type : Sample Analysis
Sample Comment : %CL

Data Collection Rate : 5.00 Hz
Data Collection Period : 750.00 seconds
Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	3.23	Fluoride	84.297	193679
2	4.13	Chloride	^{4/100} 902.670	1727860
3	7.32	Nitrate	15.927	42562
4	10.88	Sulfate	15.857	12738

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Sample Name : R0904969-003B
Data File Name : ...\\1006_033.DXD
Method File Name : ...\\500-091809.met
Date Time Collected : 10/6/09 8:06:34 PM

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

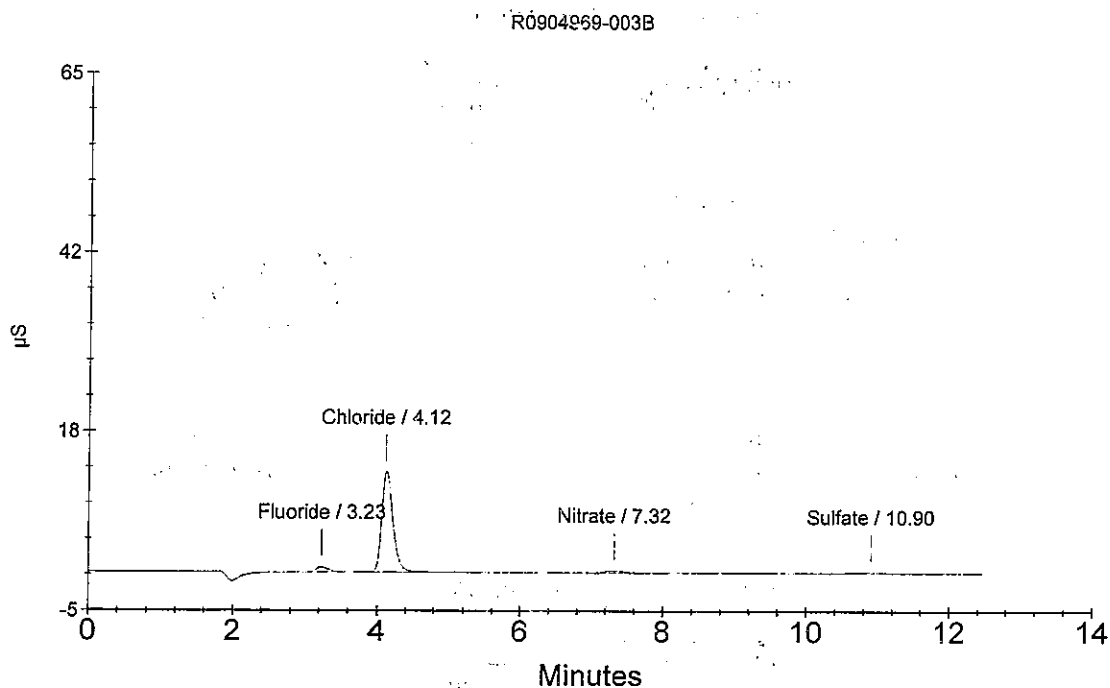
Dilution Factor : 100.00
Sample Type : Sample Analysis
Sample Comment : %CL

Data Collection Rate : 5.00 Hz
Data Collection Period : 750.00 seconds
Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	3.23	Fluoride	37.724	76276
2	4.12	Chloride	¹⁰⁰ 771.537	1474167
3	7.32	Nitrate	16.972	47297
4	10.90	Sulfate	25.093	24433

RR 10/7/09



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Sample Name : R0904969-003A SPK
 Data File Name : ...\1006_034.DXD
 Method File Name : ...\500-091809.met
 Date Time Collected : 10/6/09 8:21:23 PM

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

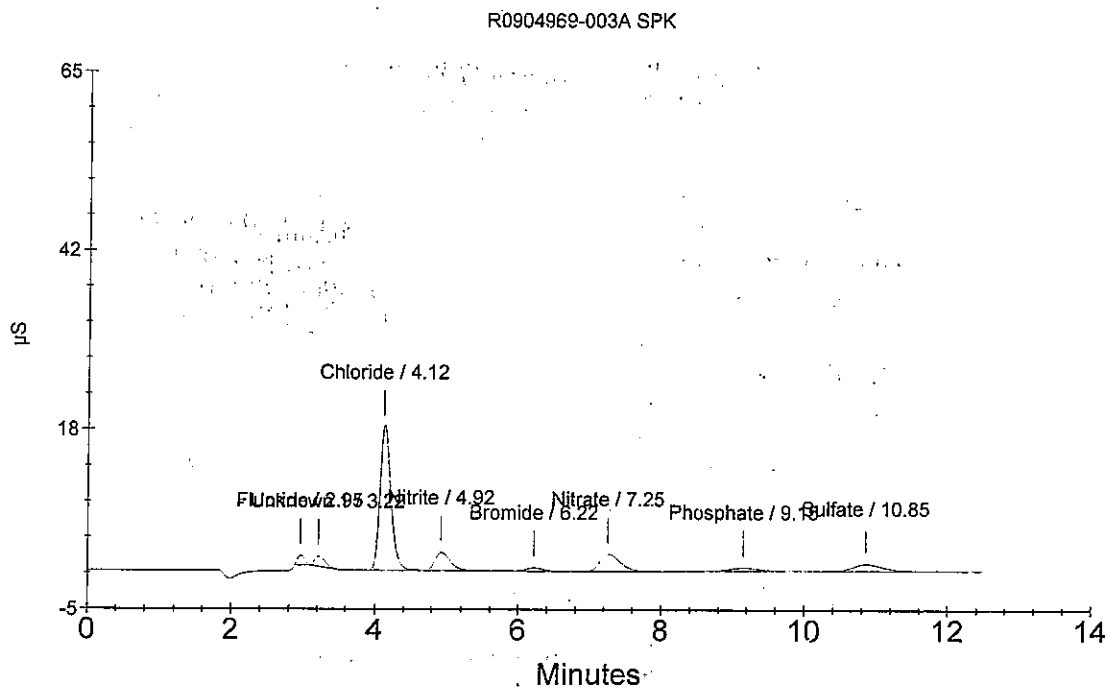
Dilution Factor : 100.00
 Sample Type : Sample Analysis
 Sample Comment : %CL

Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.95	Fluoride	41.751	86428
3	4.12	Chloride	$\frac{1}{100}$ 1078.586	2068194
4	4.92	Nitrite	98.125	343235
5	6.22	Bromide	96.618	66044
6	7.25	Nitrate	102.210	433204
7	9.15	Phosphate	86.024	120219
8	10.85	Sulfate	204.526	251635

RP 107109



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Sample Name : R0905192-001
Data File Name : ...\\1006_035.DXD
Method File Name : ...\\500-091809.met
Date Time Collected : 10/6/09 8:36:13 PM

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

Dilution Factor : 4.00
Sample Type : Sample Analysis
Sample Comment : B (SPLP)

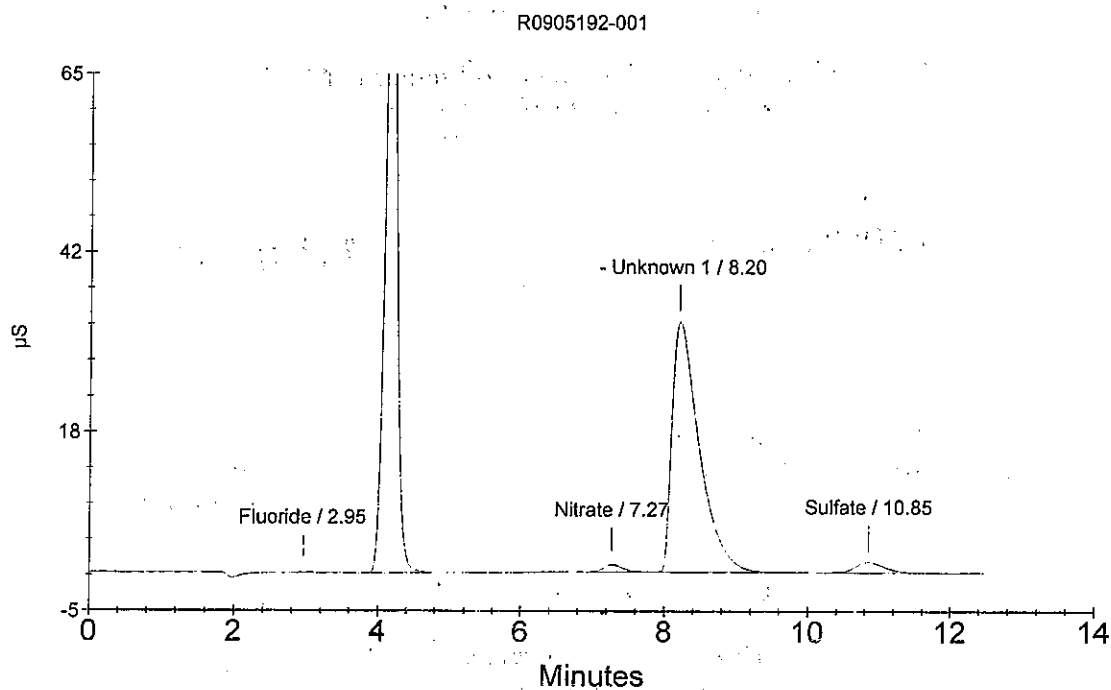
Data Collection Rate : 5.00 Hz
Data Collection Period : 750.00 seconds
Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.95	Fluoride	0.376	4892
2	4.17	Chloride	217.348	10493724
3	7.27	Nitrate	1.776	171459
5	10.85	Sulfate	12.097	375608

Br STR

RP 10/7/09



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : R0905192-002
Data File Name : ...1006_036.DXD
Method File Name : ...500-091809.met
Date Time Collected : 10/6/09 8:51:02 PM

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

Dilution Factor : 2.00
Sample Type : Sample Analysis
Sample Comment : B (SPLP)

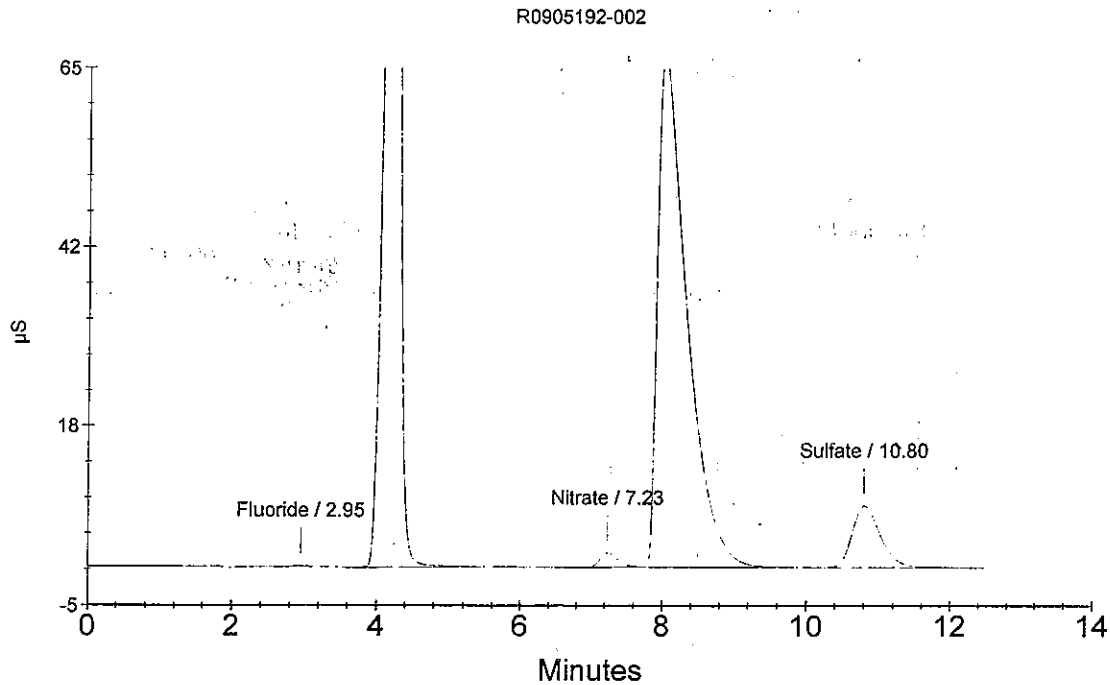
Data Collection Rate : 5.00 Hz
Data Collection Period : 750.00 seconds
Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.95	Fluoride	0.307	19907
2	4.22	Chloride	237.971	23000848
3	7.23	Nitrate	1.563	324192
5	10.80	Sulfate	34.931	2204191

Br STR

RP 10/7/09



Ion Chromatography Analytical Report
 Columbia Analytical Services
 Rochester, NY 14607

Sample Name : CCV
 Data File Name : ...\\1006_037.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/6/09 9:05:52 PM

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

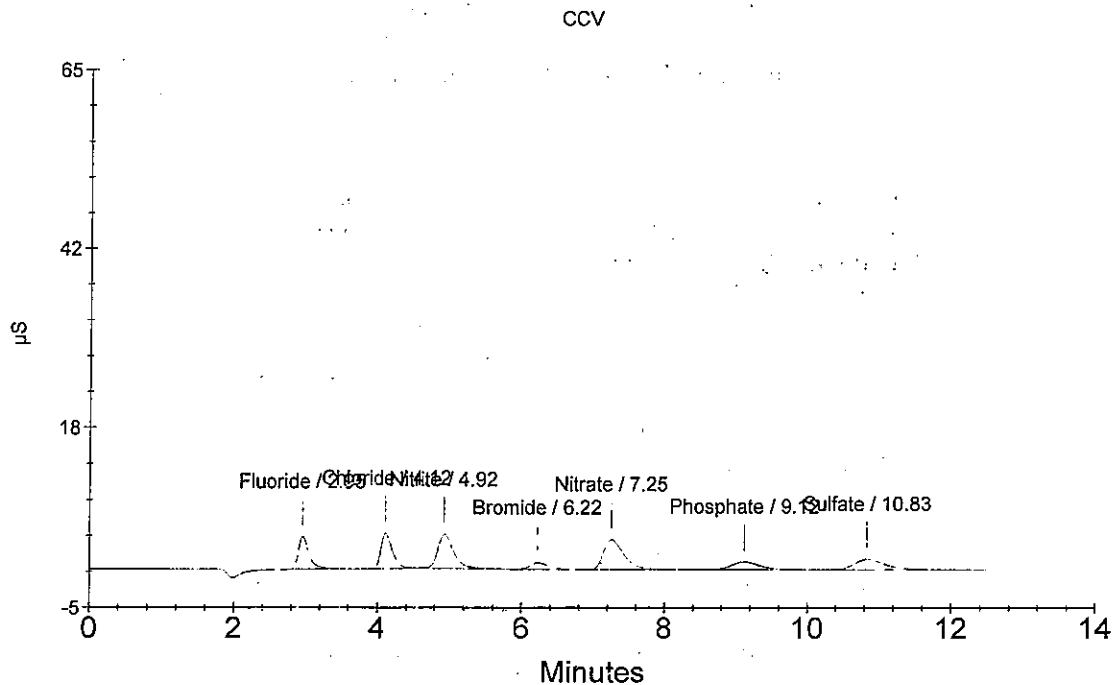
Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment :

Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.95	Fluoride	1.849	447200
2	4.12	Chloride	2.814	526024
3	4.92	Nitrite	1.874	679929
4	6.22	Bromide	1.972	138369
5	7.25	Nitrate	1.763	768498
6	9.12	Phosphate	1.808	261663
7	10.83	Sulfate	3.168	393828

RB 10/7/09



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : CCB
Data File Name : ...\\1006_038.DXD
Method File Name : ...\\500-091809.met
Date Time Collected : 10/6/09 9:20:41 PM

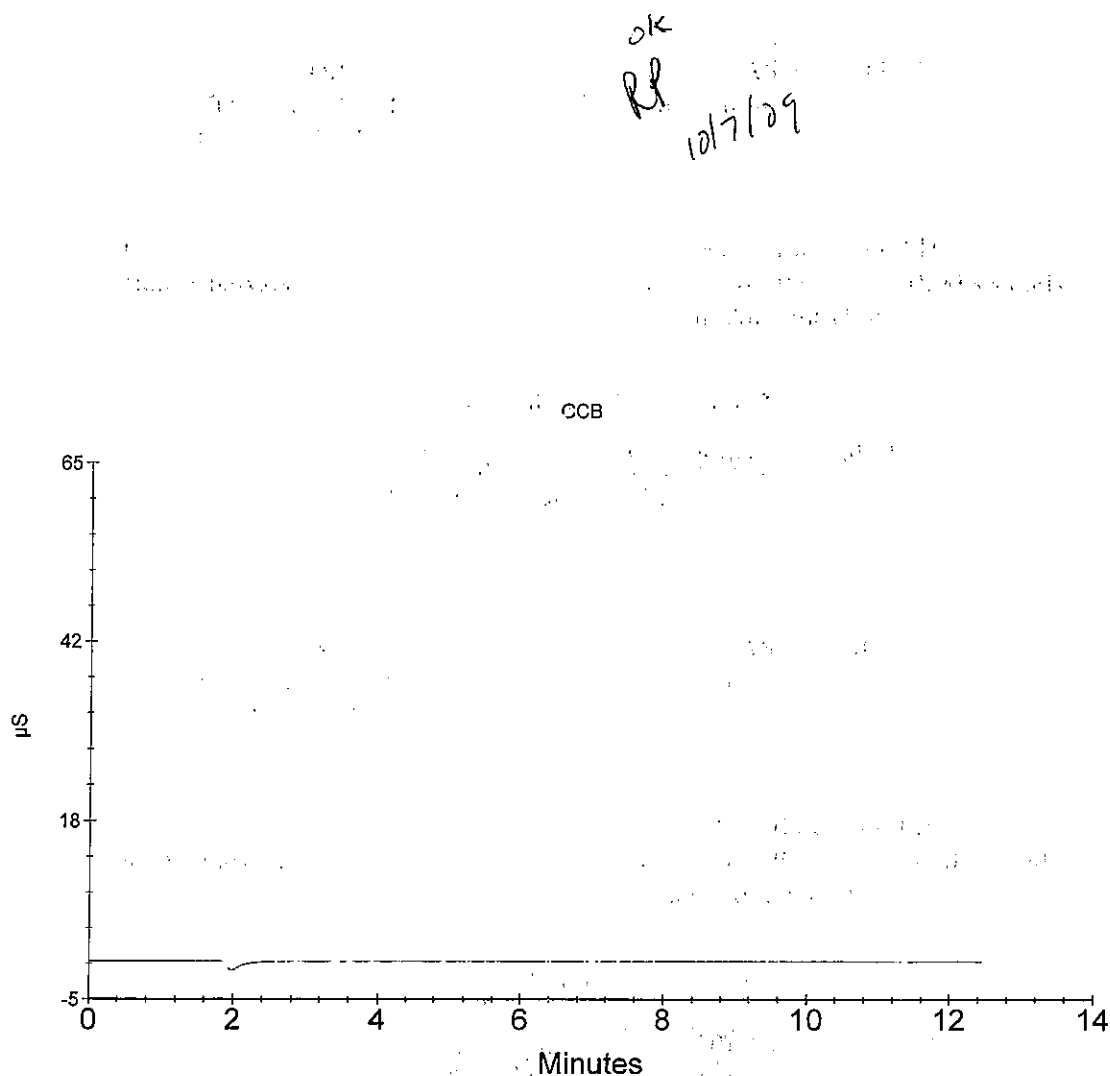
Detector Name :
Column ID : AS-14 / AG-14
Method Analyst :

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

Data Collection Rate : 5.00 Hz
Data Collection Period : 750.00 seconds
Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
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Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : R0905192-003
Data File Name : ...\\1006_039.DXD
Method File Name : ...\\500-091809.met
Date Time Collected : 10/6/09 9:35:31 PM

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

Dilution Factor : 4.00
Sample Type : Sample Analysis
Sample Comment : B (SPLP)

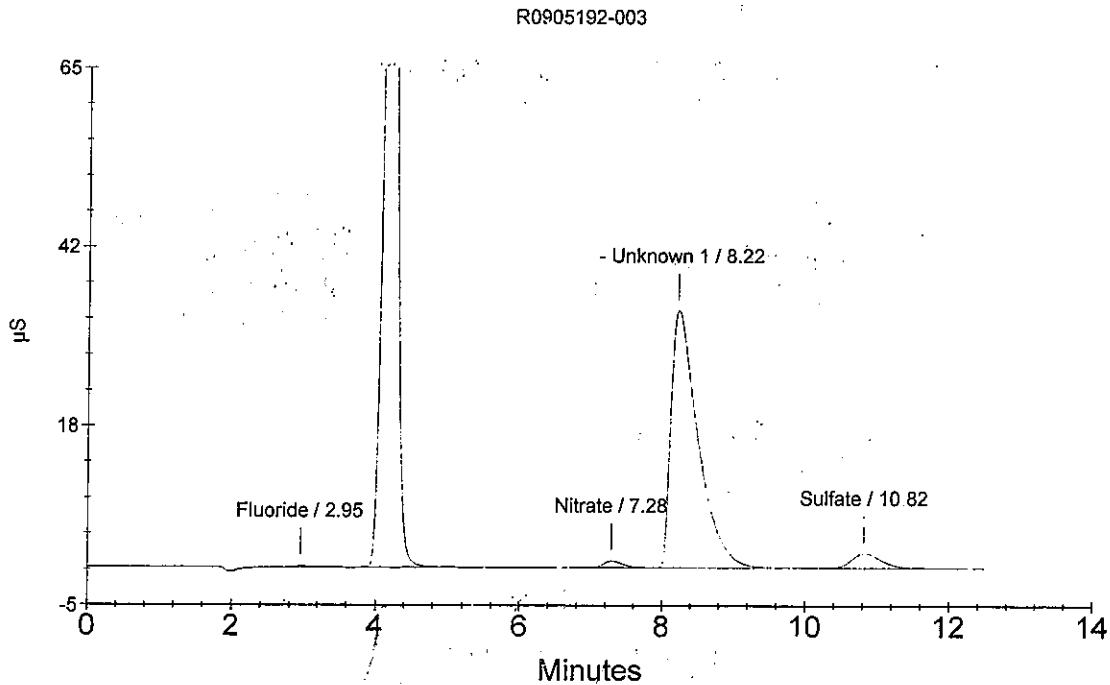
Data Collection Rate : 5.00 Hz
Data Collection Period : 750.00 seconds
Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.95	Fluoride	0.511	13390
2	4.20	Chloride	315.049	15219149
3	7.28	Nitrate	1.593	150777
5	10.82	Sulfate	16.631	519124

Br STR

RP 10/7/09



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : R0905192-004
Data File Name : ...\\1006_040.DXD
Method File Name : ...\\500-091809.met
Date Time Collected : 10/6/09 9:50:20 PM

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

Dilution Factor : 4.00
Sample Type : Sample Analysis
Sample Comment : B (SPLP)

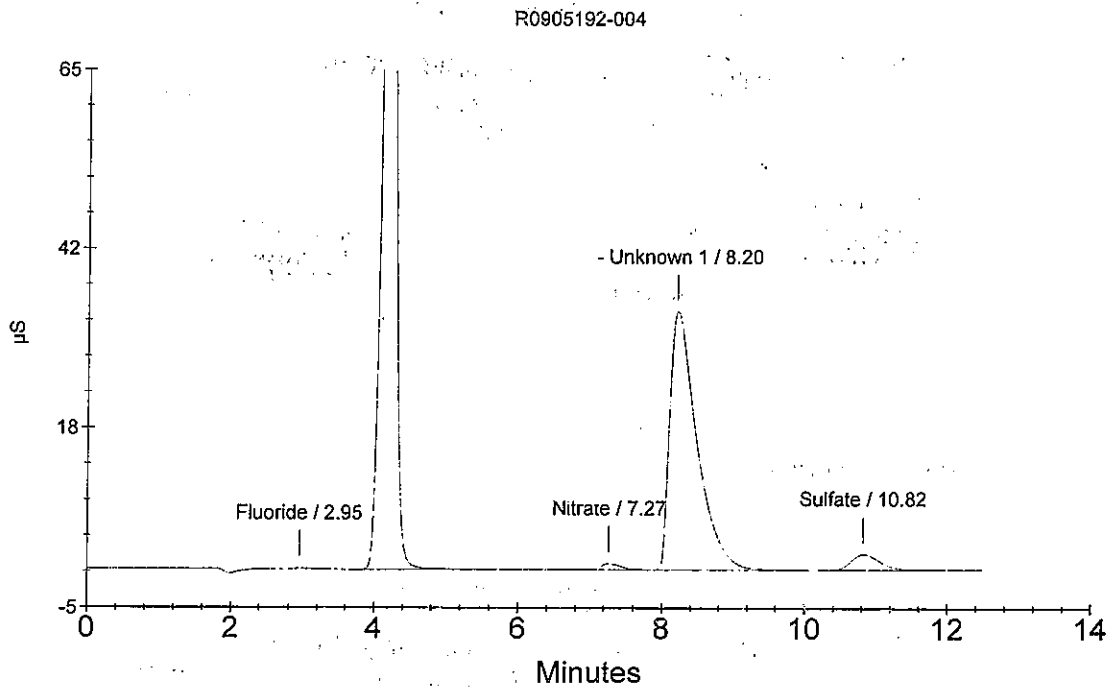
Data Collection Rate : 5.00 Hz
Data Collection Period : 750.00 seconds
Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.95	Fluoride	0.550	15847
2	4.18	Chloride	318.097	15366561
3	7.27	Nitrate	1.569	148077
5	10.82	Sulfate	18.286	571525

Br STR

RP 10/7/09



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : R0905349-001
Data File Name : ...\\1006_041.DXD
Method File Name : ...\\500-091809.met
Date Time Collected : 10/6/09 10:05:09 PM

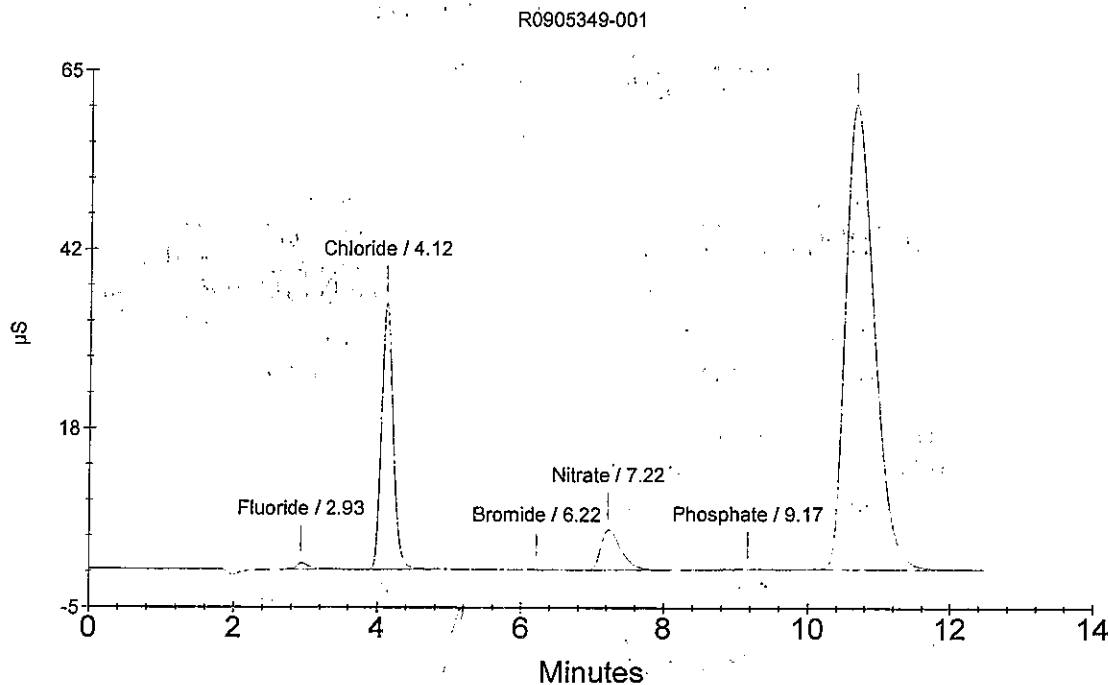
Detector Name :
Column ID : AS-14 / AG-14
Method Analyst :

Dilution Factor : 10.00
Sample Type : Sample Analysis
Sample Comment : B (SPLP)
RP 10/7/09

Data Collection Rate : 5.00 Hz
Data Collection Period : 750.00 seconds
Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.93	Fluoride	5.193	112090
2	4.12	Chloride	202.460	3898394
3	6.22	Bromide	<i>OK STR</i> 0.964	3509
4	7.22	Nitrate	23.640	1040757
5	9.17	Phosphate	1.331	11735
6	10.67	Sulfate	1348.712	17070346



Ion Chromatography Analytical Report
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Rochester, NY 14607

Sample Name : R0905462-001
Data File Name : ...\\1006_042.DXD
Method File Name : ...\\500-091809.met
Date Time Collected : 10/6/09 10:20:00 PM

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

Dilution Factor : 40.00
Sample Type : Sample Analysis
Sample Comment : B

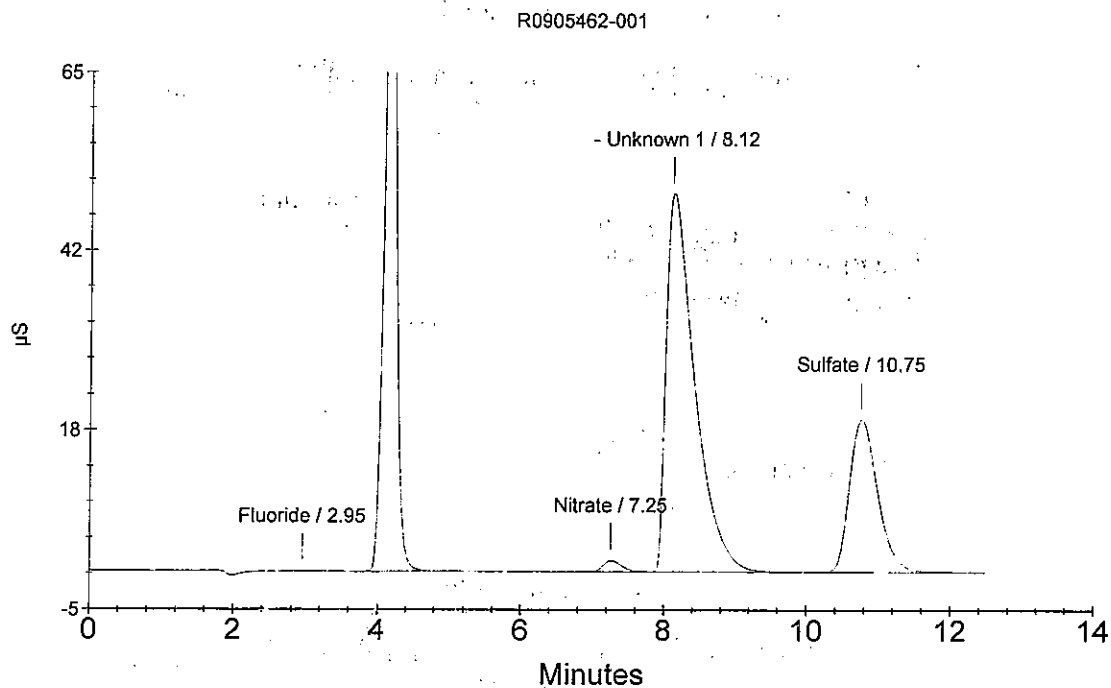
Data Collection Rate : 5.00 Hz
Data Collection Period : 750.00 seconds
Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.95	Fluoride	3.346	2270
2	4.15	Chloride	2313.820	11172513
3	7.25	Nitrate	25.689	261220
5	10.75	Sulfate	1714.790	5420918

Br 1/10

RP 10/7/09



Ion Chromatography Analytical Report
 Columbia Analytical Services
 Rochester, NY 14607

Sample Name : R0905462-001 DUP
 Data File Name : ...\\1006_043.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/6/09 10:34:48 PM

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

Dilution Factor : 40.00
 Sample Type : Sample Analysis
 Sample Comment : B

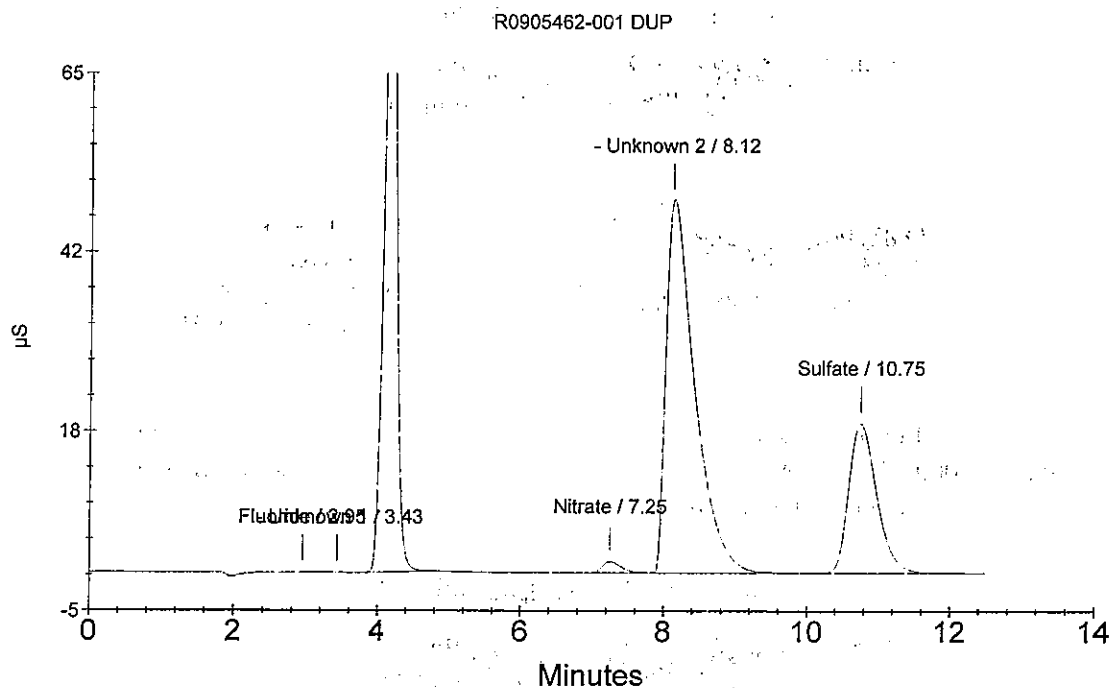
Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.95	Fluoride	3.324	2133
3	4.15	Chloride	2266.952	10945832
4	7.25	Nitrate	25.339	257256
6	10.75	Sulfate	1683.943	5323271

Bx 1/10

R.P. 10/7/09



Ion Chromatography Analytical Report
 Columbia Analytical Services
 Rochester, NY 14607

Sample Name : R0905462-001 SPK
 Data File Name : ...1006_044.DXD
 Method File Name : ...500-091809.met
 Date Time Collected : 10/6/09 10:49:36 PM

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

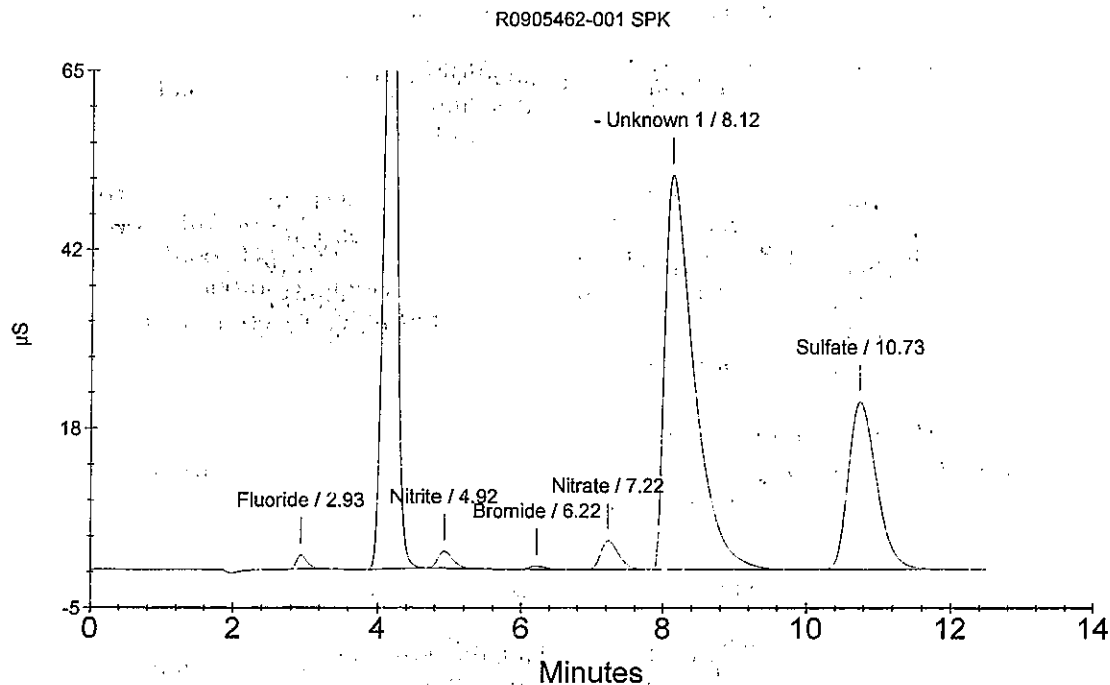
Dilution Factor : 40.00
 Sample Type : Sample Analysis
 Sample Comment : B

Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.93	Fluoride	33.233	190616
2	4.17	Chloride	2517.009	12155256
3	4.92	Nitrite	36.676	318962
4	6.22	Bromide	39.801	68116
5	7.22	Nitrate	62.325	675893
7	10.73	Sulfate	1888.408	5970517

Br 1/10
RP 10/7/09



Ion Chromatography Analytical Report
 Columbia Analytical Services
 Rochester, NY 14607

Sample Name : R0905462-003
 Data File Name : ...\1006_045.DXD
 Method File Name : ...\500-091809.met
 Date Time Collected : 10/6/09 11:04:26 PM

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

Dilution Factor : 40.00
 Sample Type : Sample Analysis
 Sample Comment : B

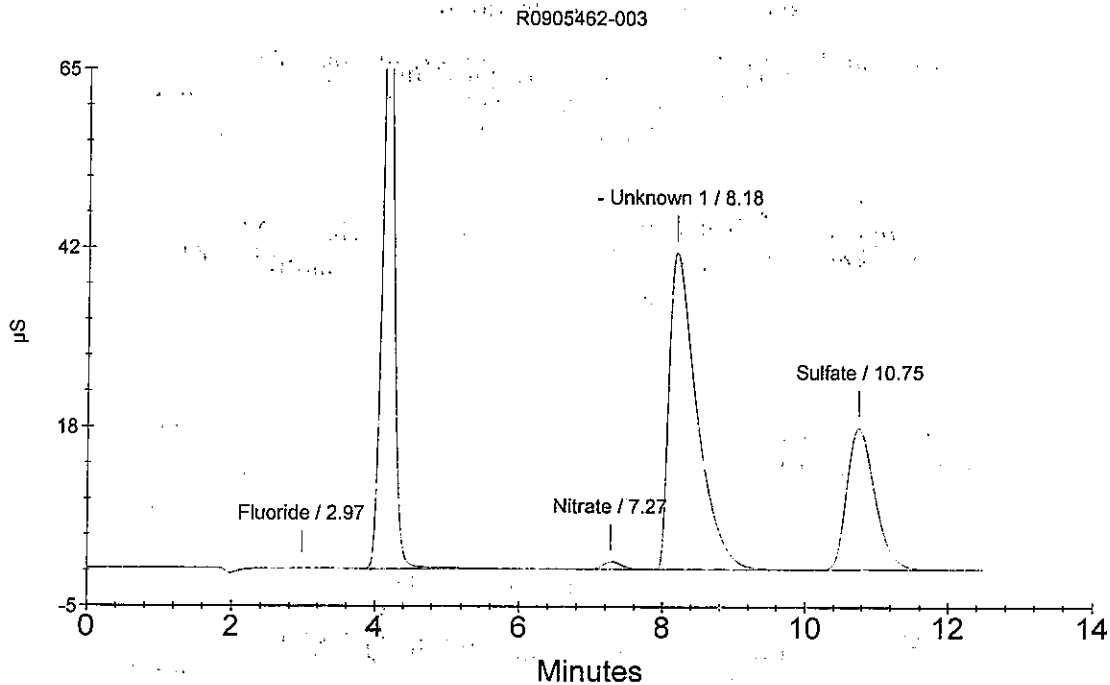
Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.97	Fluoride	3.236	1574
2	4.15	Chloride	1956.491	9444260
3	7.27	Nitrate	18.563	180569
5	10.75	Sulfate	1596.122	5045271

Br 1/10 + 1/20

RP 10/2/09



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : R0905462-004
Data File Name : ...\\1006_046.DXD
Method File Name : ...\\500-091809.met
Date Time Collected : 10/6/09 11:19:15 PM

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

Dilution Factor : 40.00
Sample Type : Sample Analysis
Sample Comment : B

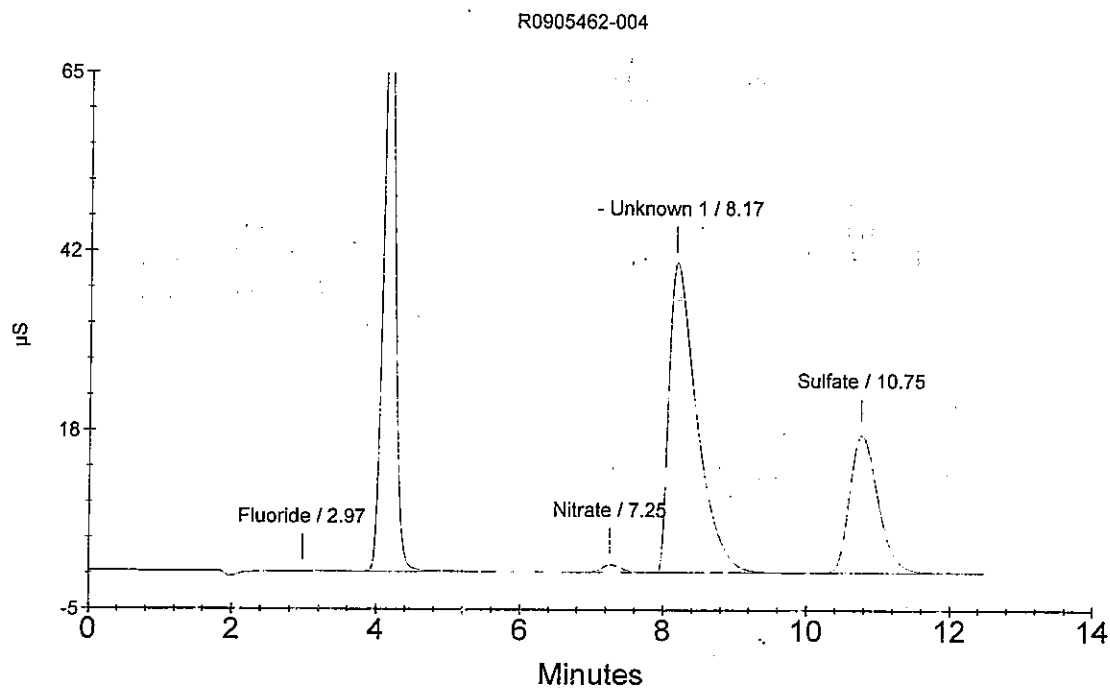
Data Collection Rate : 5.00 Hz
Data Collection Period : 750.00 seconds
Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.97	Fluoride	3.206	1386
2	4.15	Chloride	1896.044	9151907
3	7.25	Nitrate	18.232	176822
5	10.75	Sulfate	1555.182	4915672

Br 4/10 + 1/20

RP 10/17/09



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : R0905635-001
Data File Name : ...\1006_047.DXD
Method File Name : ...\500-091809.met
Date Time Collected : 10/6/09 11:34:05 PM

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

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

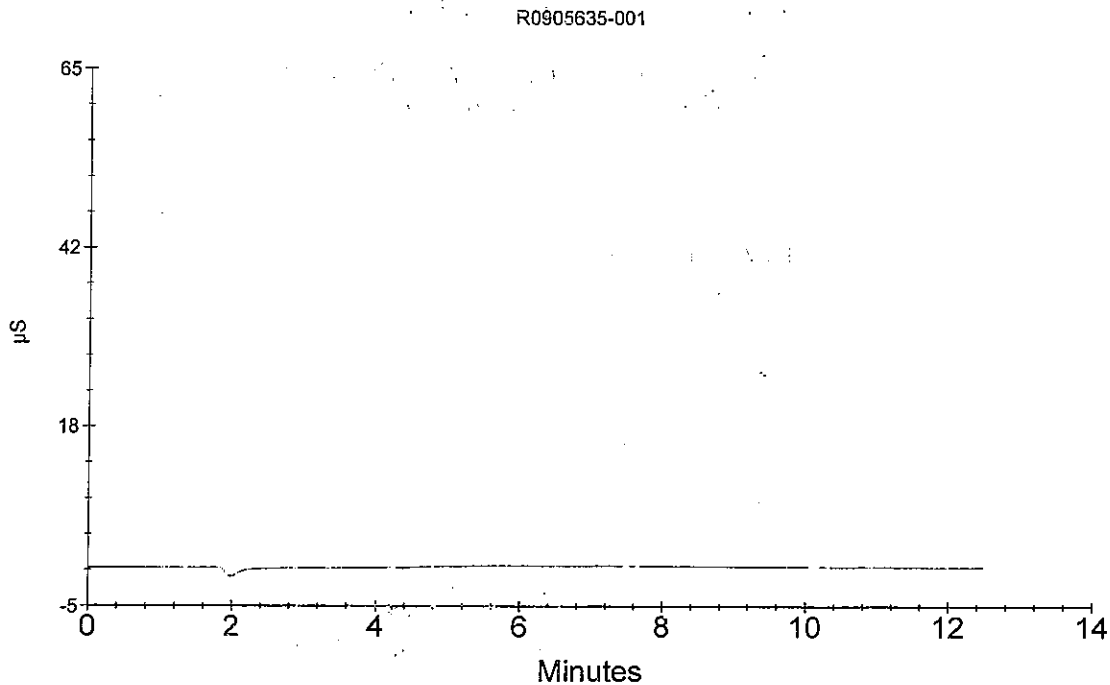
Data Collection Rate : 5.00 Hz
Data Collection Period : 750.00 seconds
Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
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Cl - 4.0
Br OK
SO₄ OK

RP 10/17/09



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : R0905636-001
Data File Name : ...\\1006_048.DXD
Method File Name : ...\\500-091809.met
Date Time Collected : 10/6/09 11:48:54 PM

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

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

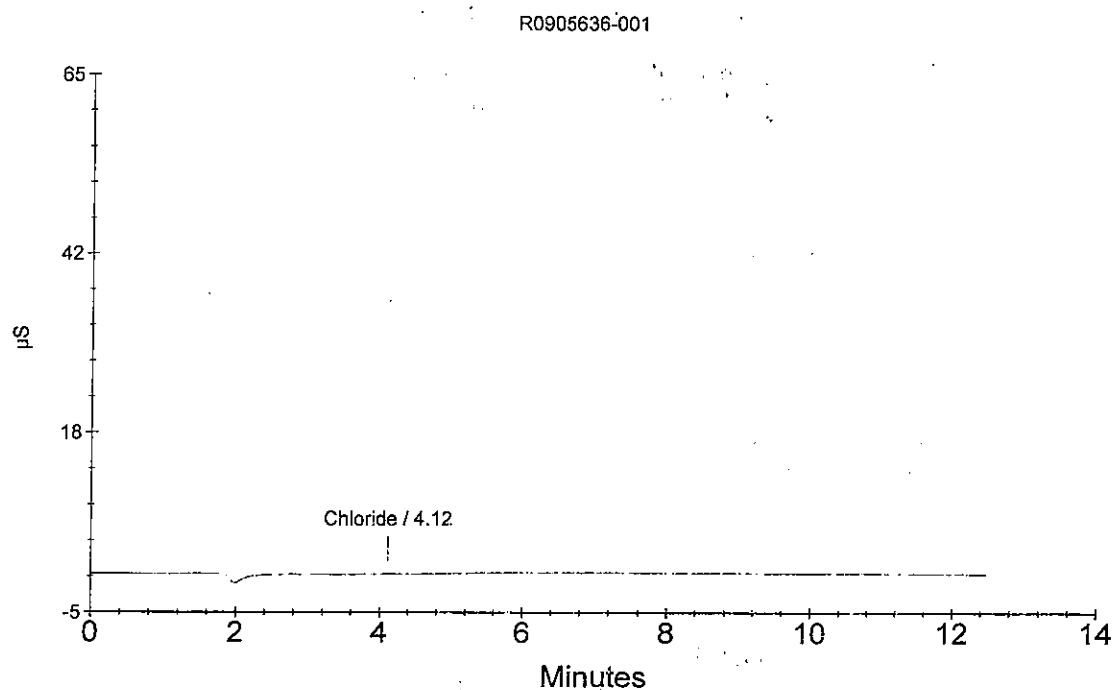
Data Collection Rate : 5.00 Hz
Data Collection Period : 750.00 seconds
Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	4.12	Chloride	1.177	4300

Br OK
SO₄ OK

RP 10/7/09



Ion Chromatography Analytical Report
 Columbia Analytical Services
 Rochester, NY 14607

Sample Name : CCV
 Data File Name : ...\\1006_049.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/7/09 12:03:44 AM

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

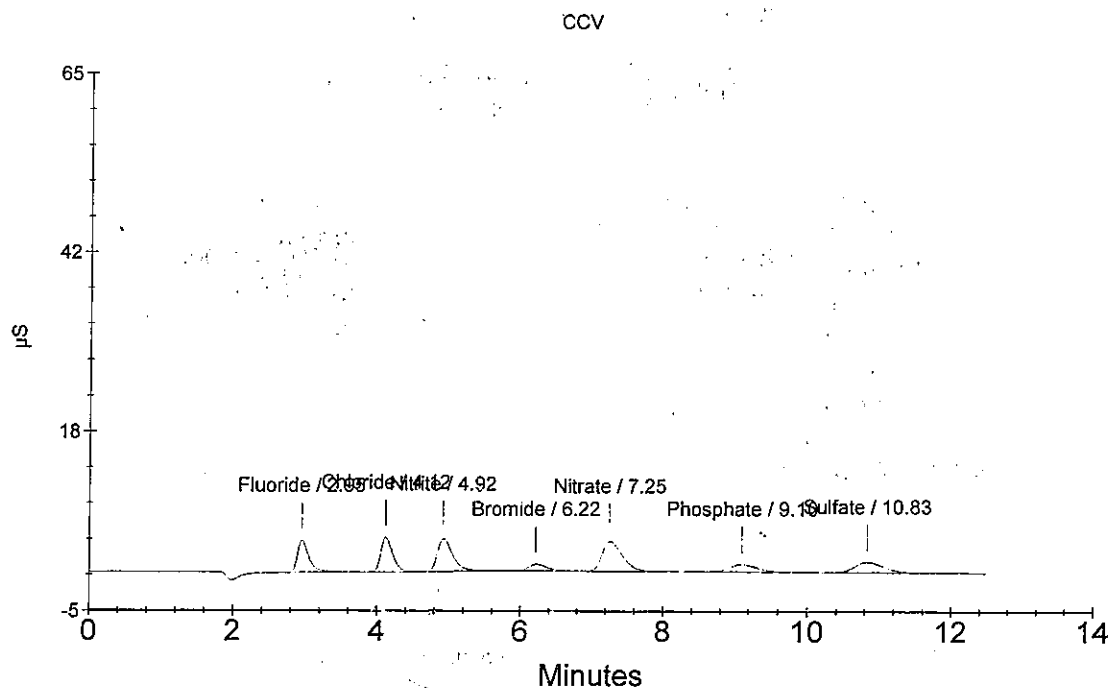
Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment :

Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.95	Fluoride	1.861	450354
2	4.12	Chloride	2.853	533471
3	4.92	Nitrite	1.802	652892
4	6.22	Bromide	2.065	145059
5	7.25	Nitrate	1.791	781413
6	9.10	Phosphate	1.812	262269
7	10.83	Sulfate	3.148	391281

RP 10/7/09



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : CCB
Data File Name : ...1006_050.DXD
Method File Name : ...500-091809.met
Date Time Collected : 10/7/09 12:18:33 AM

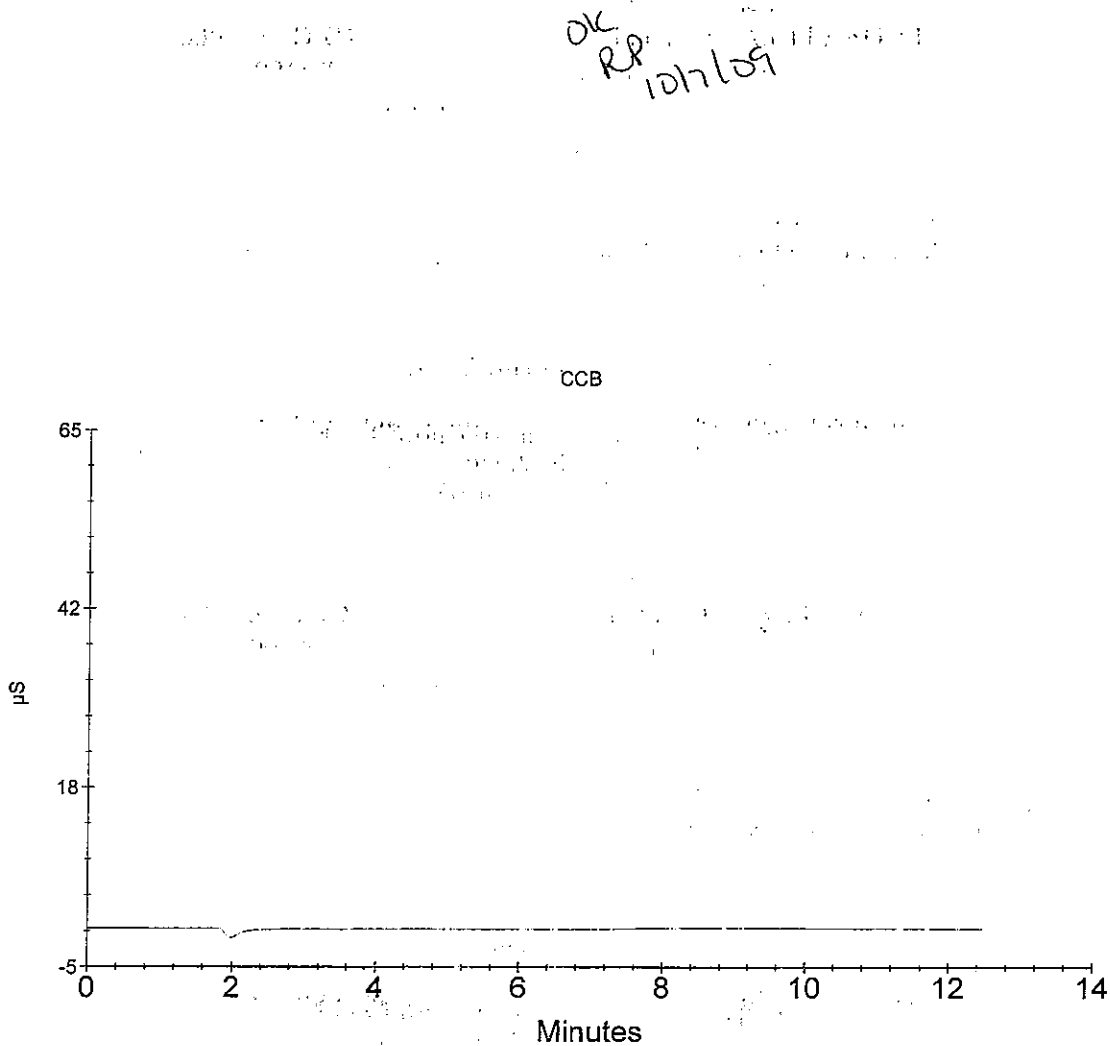
Detector Name :
Column ID : AS-14 / AG-14
Method Analyst :

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

Data Collection Rate : 5.00 Hz
Data Collection Period : 750.00 seconds
Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
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Ion Chromatography Analytical Report
 Columbia Analytical Services
 Rochester, NY 14607

Sample Name : LCS
 Data File Name : ...\\1006_051.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/7/09 12:33:23 AM

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

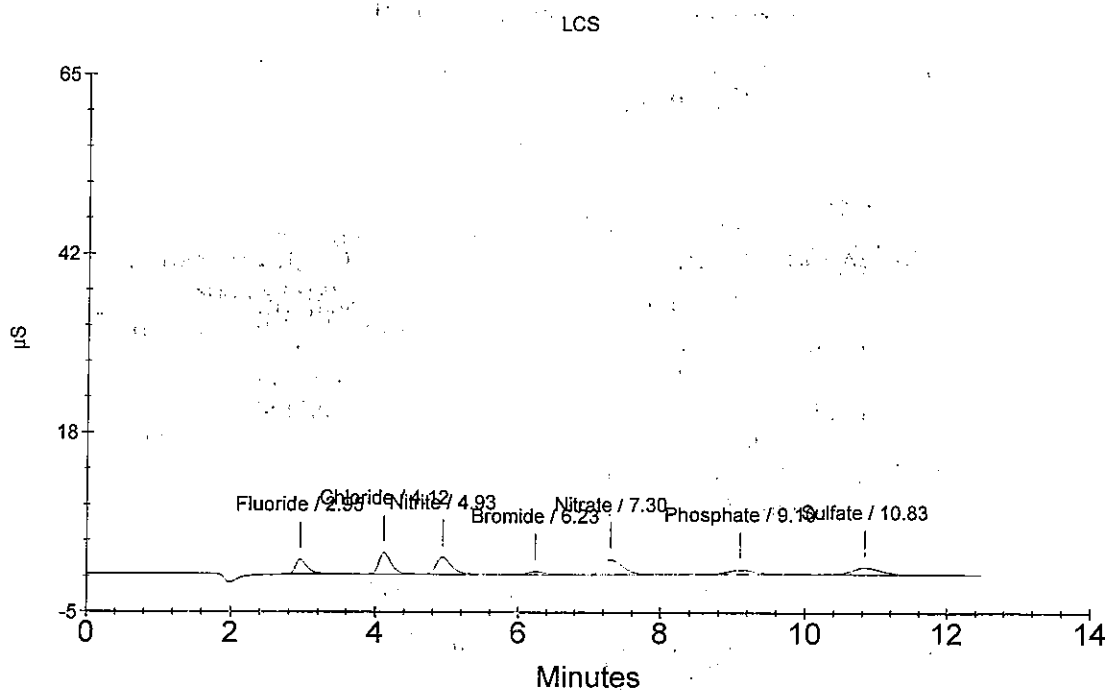
Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment :

Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.95	Fluoride	0.930	215505
2	4.12	Chloride	1.817	333080
3	4.93	Nitrite	0.964	336610
4	6.23	Bromide	0.990	67777
5	7.30	Nitrate	0.911	382833
6	9.10	Phosphate	1.018	143811
7	10.83	Sulfate	2.077	255642

RR 10/7/09



Ion Chromatography Analytical Report
 Columbia Analytical Services
 Rochester, NY 14607

Sample Name : R0905636-002
 Data File Name : ...\\1006_052.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/7/09 12:48:12 AM

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

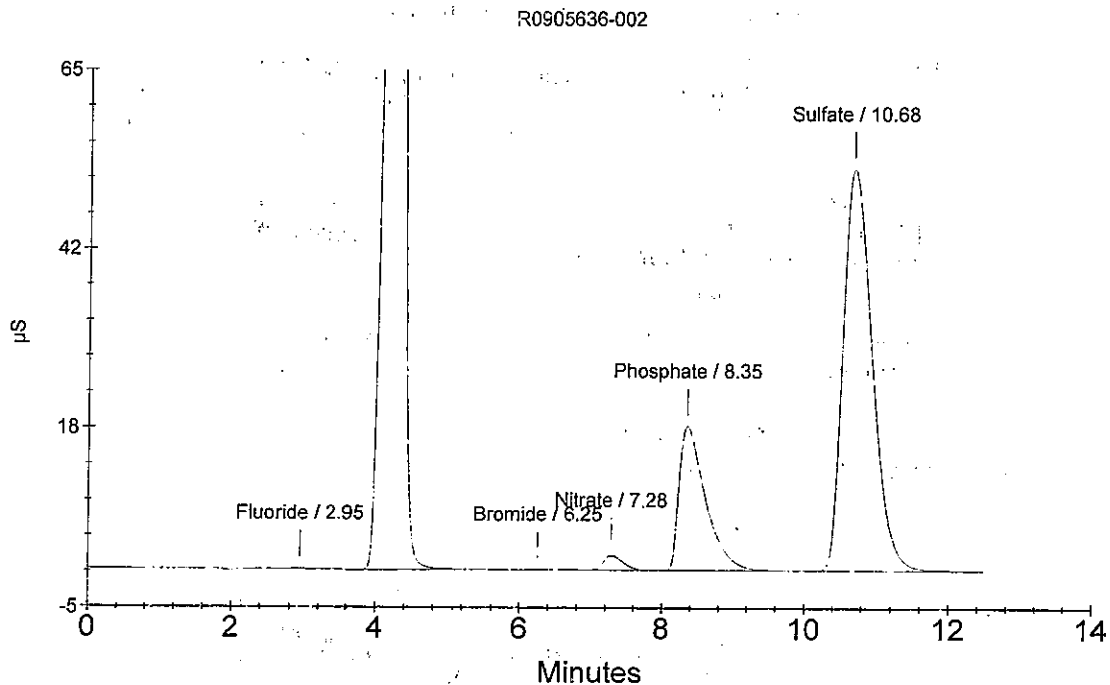
Dilution Factor : 10.00
 Sample Type : Sample Analysis
 Sample Comment : B

Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.95	Fluoride	1.270	13198
2	4.28	Chloride	1765.962	34146431
3	6.25	Bromide	OK 1.513	7453
4	7.28	Nitrate	8.771	367568
5	8.35	Phosphate	327.566	4879068
6	10.68	Sulfate	1157.639	14650931

RP 10/7/09



Ion Chromatography Analytical Report
 Columbia Analytical Services
 Rochester, NY 14607

Sample Name : R0905636-003
 Data File Name : ...\\1006_053.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/7/09 1:03:03 AM

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

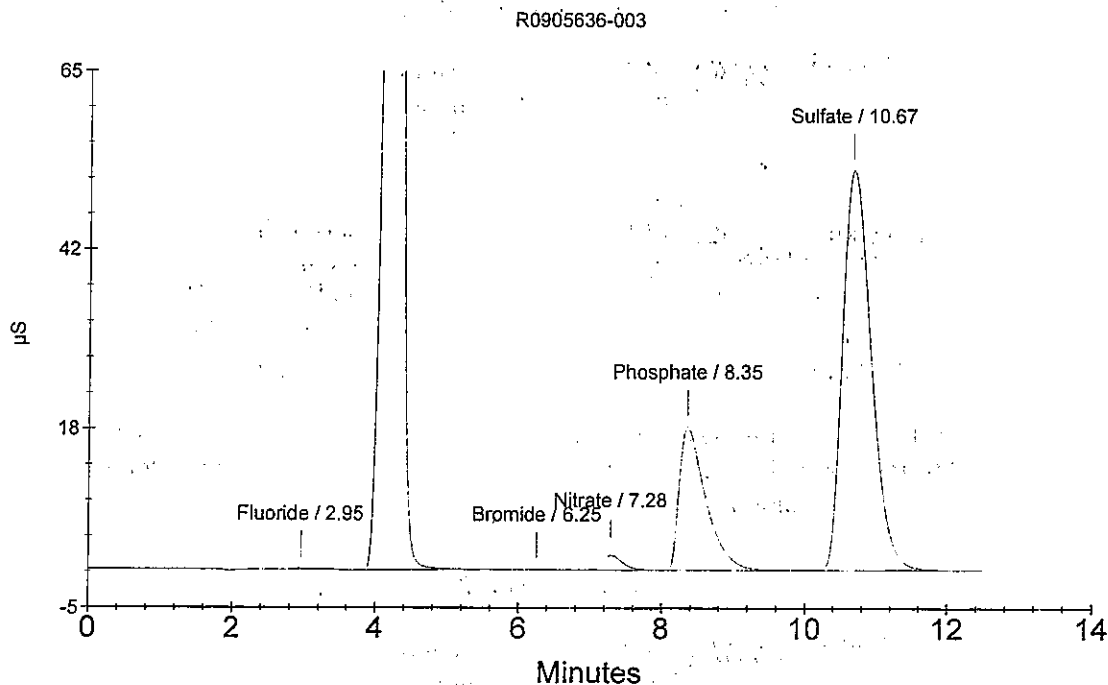
Dilution Factor : 10.00
 Sample Type : Sample Analysis
 Sample Comment : B

Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.95	Fluoride	1.240	12433
2	4.27	Chloride	1761.620	34062426
3	6.25	Bromide	1.541	7661
4	7.28	Nitrate	8.685	363667
5	8.35	Phosphate	325.743	4851881
6	10.67	Sulfate	1152.679	14588126

R0905636-003



Ion Chromatography Analytical Report
 Columbia Analytical Services
 Rochester, NY 14607

Sample Name : BLK0929
 Data File Name : ...\\1006_054.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/7/09 1:17:54 AM

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

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

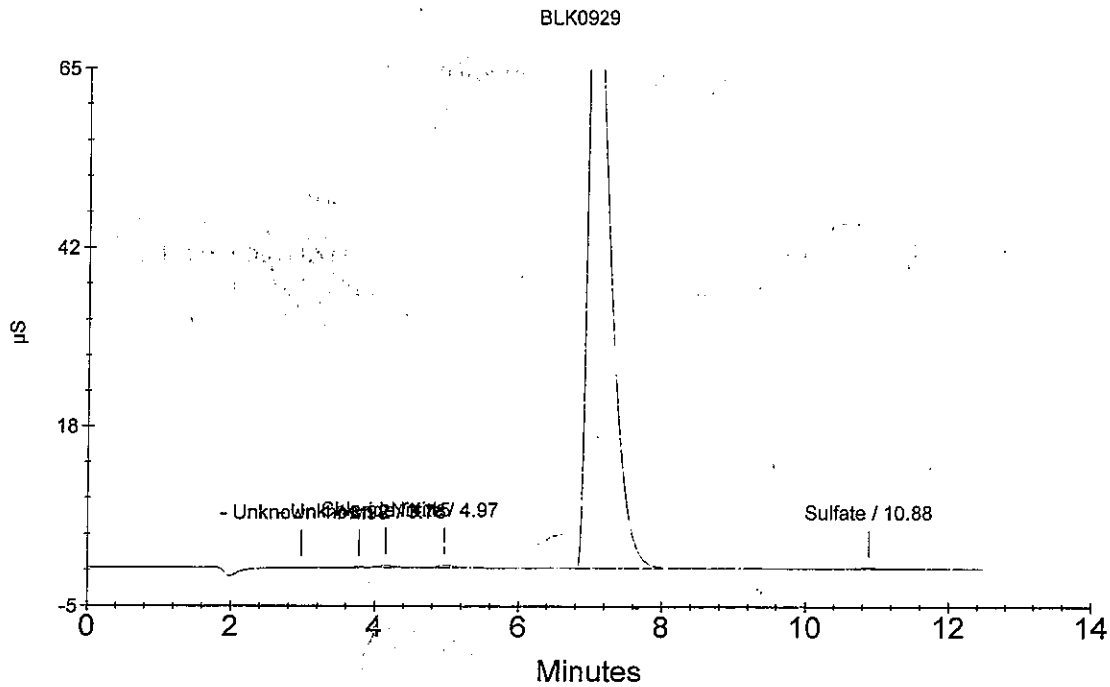
Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
3	4.15	Chloride	0.254	30568
4	4.97	Nitrite	0.198	47713
5	7.05	Nitrate	39.466	17838607
6	10.88	Sulfate	0.277	27792

STR

RP 10/7/09



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : LCL0929
Data File Name : ...\\1006_055.DXD
Method File Name : ...\\500-091809.met
Date Time Collected : 10/7/09 1:32:45 AM

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

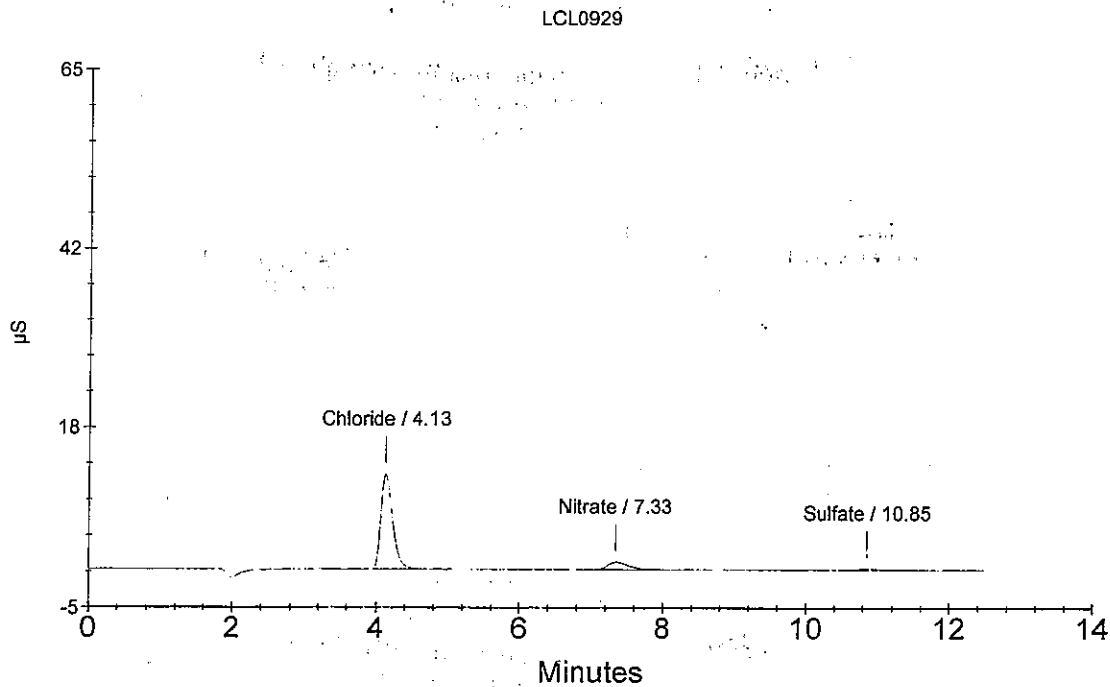
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : %CL

Data Collection Rate : 5.00 Hz
Data Collection Period : 750.00 seconds
Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	4.13	Chloride	7.334	1400381
2	7.33	Nitrate	0.499	196464
3	10.85	Sulfate	0.374	39967

RP 10/7/09



Ion Chromatography Analytical Report
 Columbia Analytical Services
 Rochester, NY 14607

Sample Name : R0904969-008A
 Data File Name : ...\\1006_056.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/7/09 1:47:35 AM

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

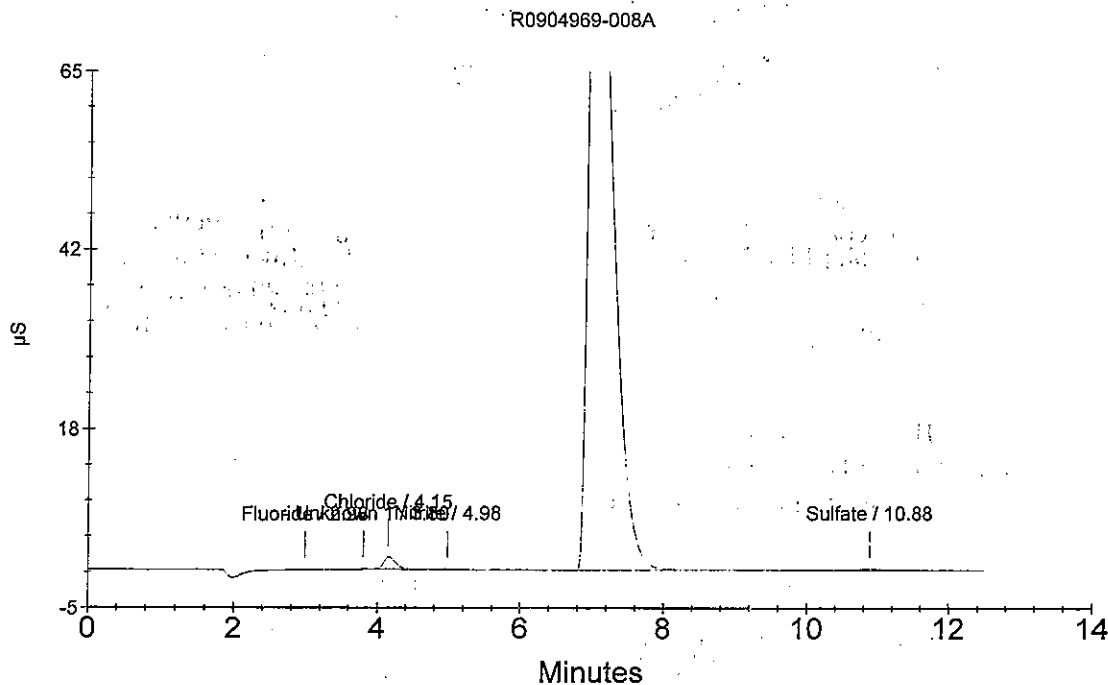
Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment : %CL

Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.98	Fluoride	0.097	5639
3	4.15	Chloride	1.031	180974
4	4.98	Nitrite	0.127	20926
5	7.02	Nitrate	50.733	22939723
6	10.88	Sulfate	0.453	50049

RP 10/7/09



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : R0904969-010A
Data File Name : ...\\1006_057.DXD
Method File Name : ...\\500-091809.met
Date Time Collected : 10/7/09 2:02:27 AM

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

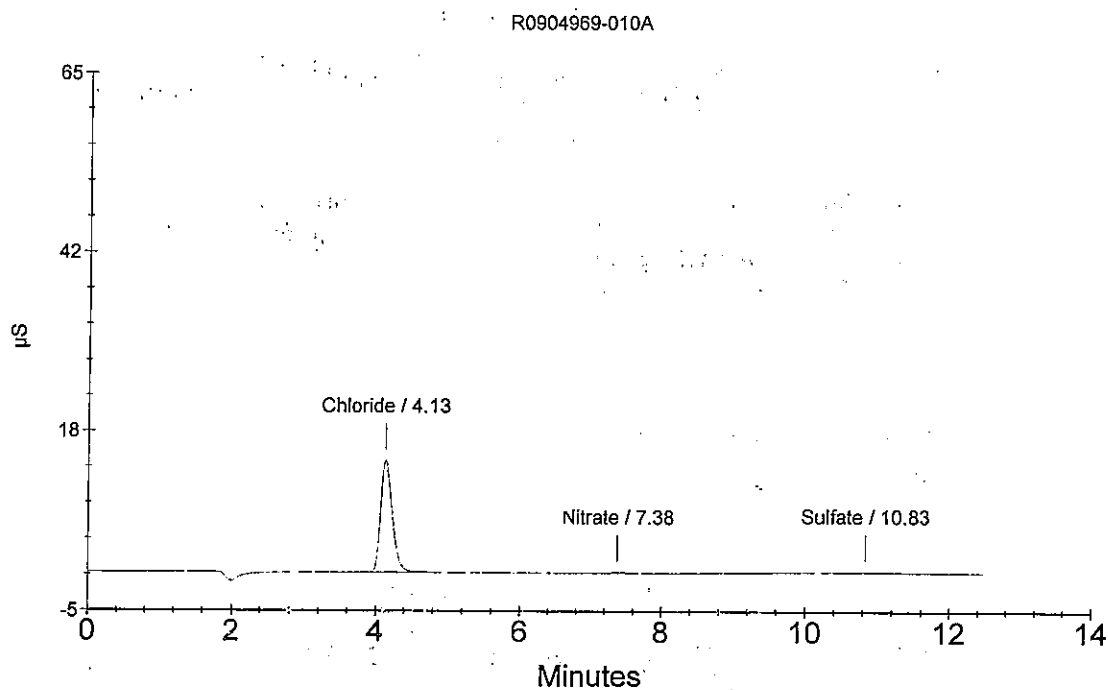
Dilution Factor : 200.00
Sample Type : Sample Analysis
Sample Comment : %CL

Data Collection Rate : 5.00 Hz
Data Collection Period : 750.00 seconds
Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	4.13	Chloride	1717.309	1642706
2	7.38	Nitrate	18.744	12887
3	10.83	Sulfate	41.987	19242

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Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : R0904969-010B
Data File Name : ...\\1006_058.DXD
Method File Name : ...\\500-091809.met
Date Time Collected : 10/7/09 2:17:17 AM

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

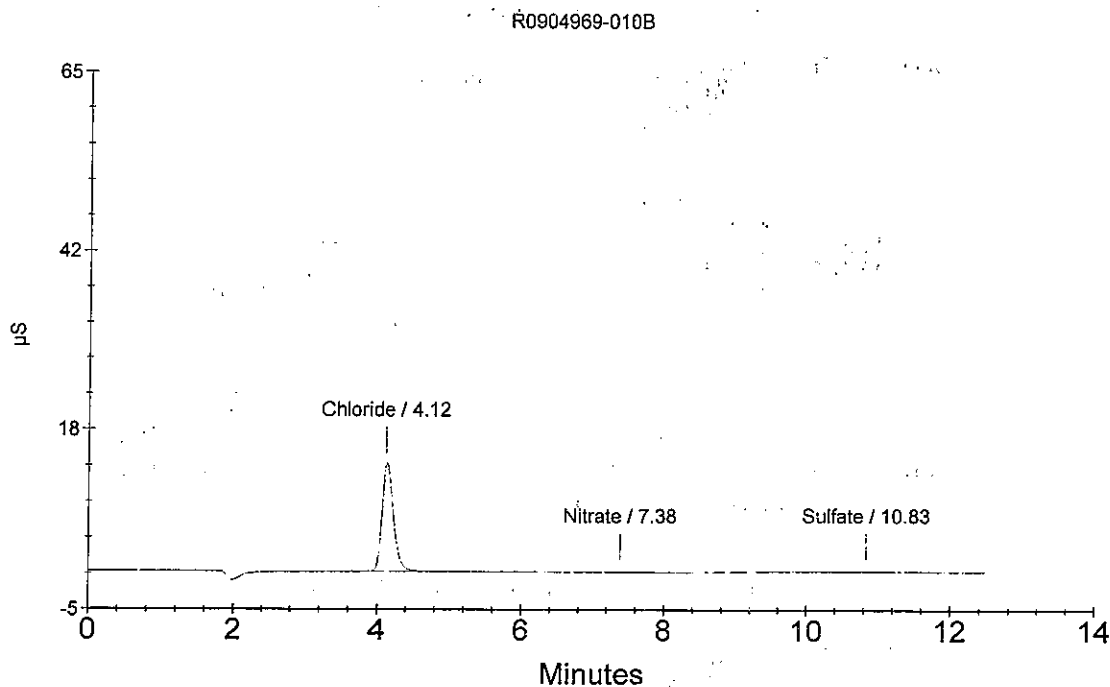
Dilution Factor : 200.00
Sample Type : Sample Analysis
Sample Comment : %CL

Data Collection Rate : 5.00 Hz
Data Collection Period : 750.00 seconds
Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	4.12	Chloride	^{1/200} 1672.672	1599528
2	7.38	Nitrate	22.388	21135
3	10.83	Sulfate	43.459	20174

RP 10/7/09



Ion Chromatography Analytical Report
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 Rochester, NY 14607

Sample Name : R0904969-010A SPK
 Data File Name : ...\\1006_059.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/7/09 2:32:10 AM

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

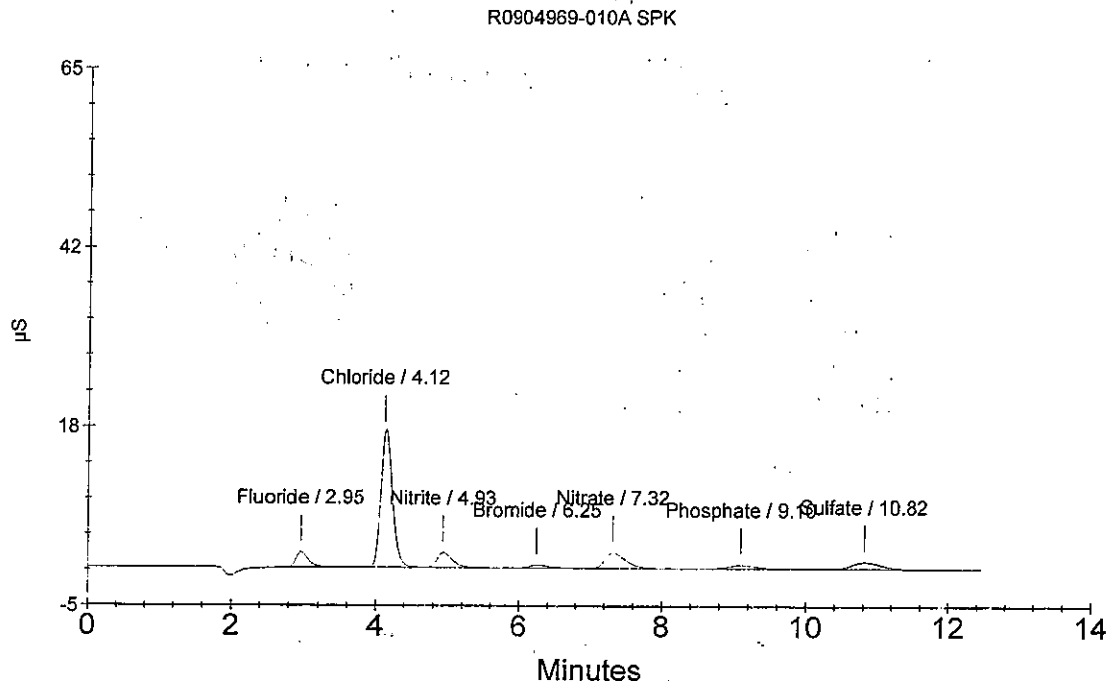
Dilution Factor : 200.00
 Sample Type : Sample Analysis
 Sample Comment : %CL

Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.95	Fluoride	192.089	223290
2	4.12	Chloride	4200 2108.671	2021278
3	4.93	Nitrite	166.988	288049
4	6.25	Bromide	197.341	67519
5	7.32	Nitrate	195.004	411890
6	9.10	Phosphate	173.087	120994
7	10.82	Sulfate	411.825	253391

RP
10/7/09



Ion Chromatography Analytical Report
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Sample Name : R0905106-001A
 Data File Name : ...\\1006_060.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/7/09 2:47:00 AM

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

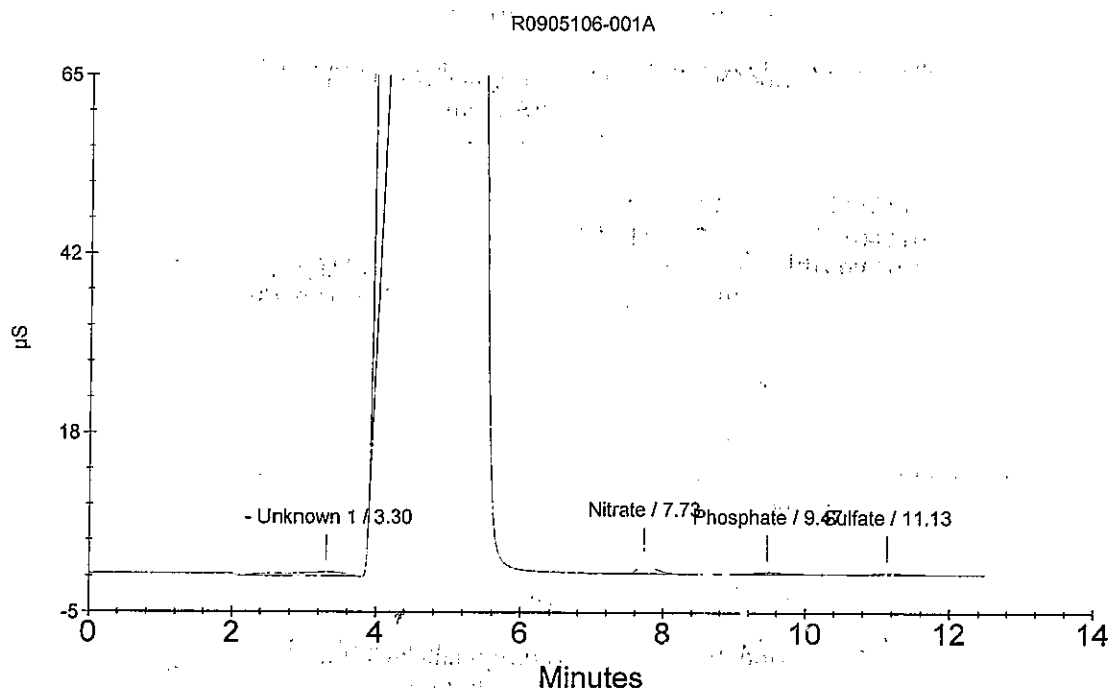
Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment : %CL

Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
2	4.55	Chloride	$\frac{1200}{100}$ 634.952	122821447
3	5.37	Nitrite	155.973	58804216
4	7.73	Nitrate	0.505	199251
5	9.47	Phosphate	0.530	70938
6	11.13	Sulfate	0.458	50635

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Ion Chromatography Analytical Report
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 Rochester, NY 14607

Sample Name : CCV
 Data File Name : ...\\1006_061.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/7/09 3:01:51 AM

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

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

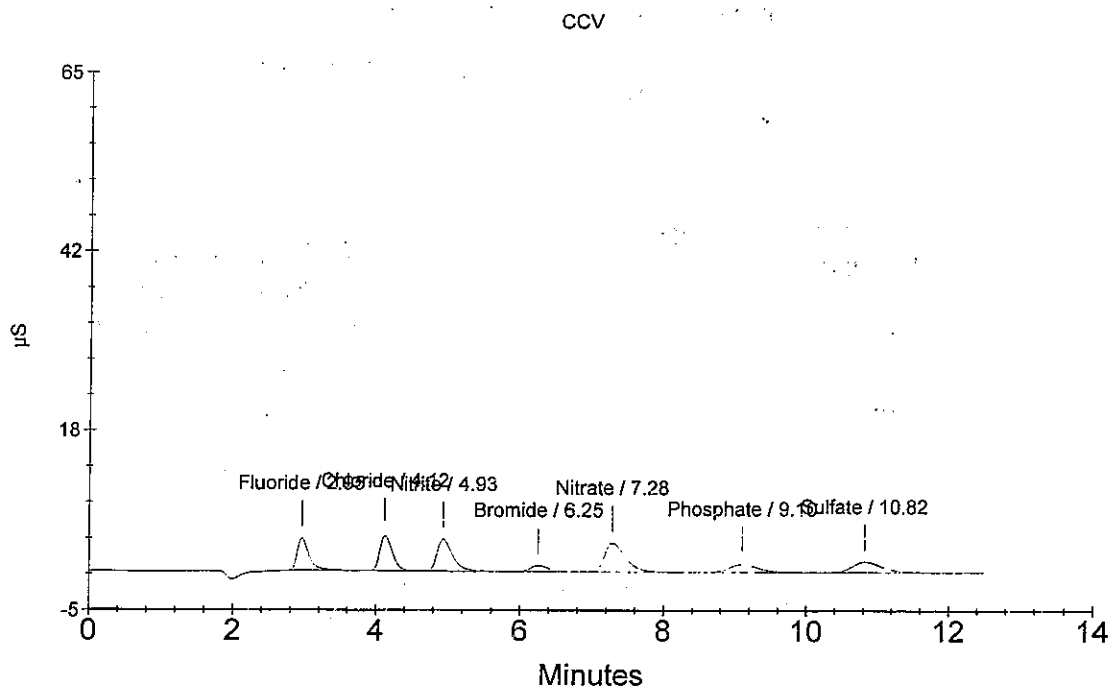
Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.95	Fluoride	1.956	474146
2	4.12	Chloride	2.926	547535
3	4.93	Nitrite	1.755	634983
4	6.25	Bromide	1.980	138930
5	7.28	Nitrate	1.765	769660
6	9.10	Phosphate	1.923	278719
7	10.82	Sulfate	3.195	397246

OK
 ↓

RL 10/7/09



Ion Chromatography Analytical Report
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Sample Name : CCB
Data File Name : ...\\1006_062.DXD
Method File Name : ...\\500-091809.met
Date Time Collected : 10/7/09 3:16:42 AM

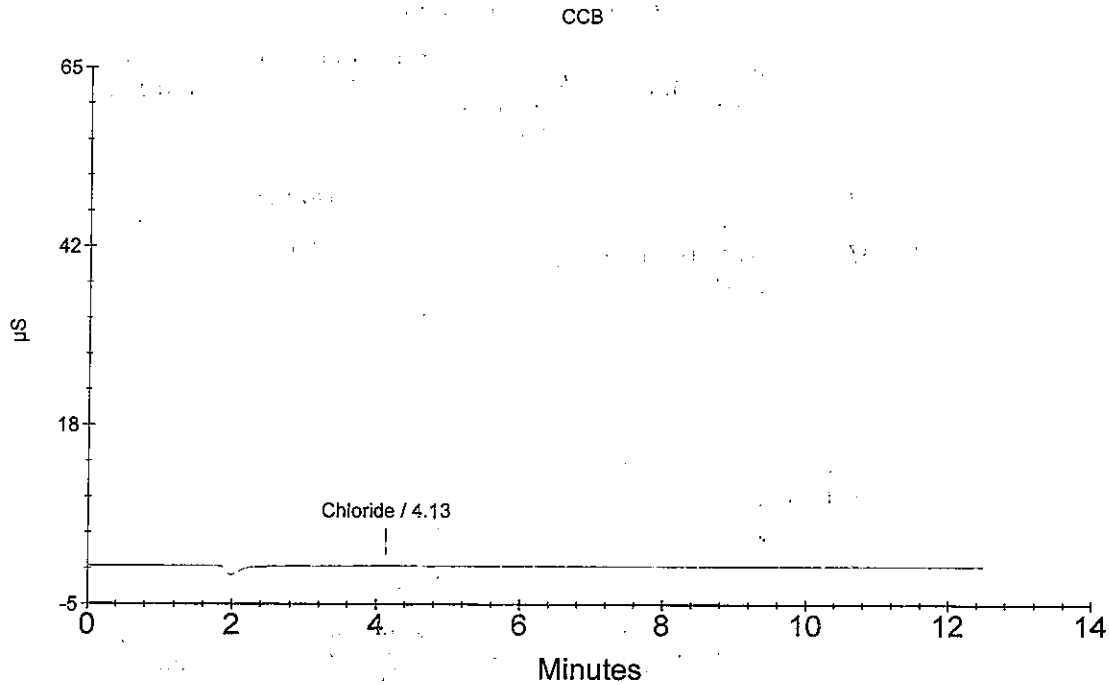
Detector Name :
Column ID : AS-14 / AG-14
Method Analyst :

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

Data Collection Rate : 5.00 Hz
Data Collection Period : 750.00 seconds
Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	4.13	Chloride	OK 0.108 RP 10/7/09	2408



Ion Chromatography Analytical Report
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Sample Name : MW #1 *PO9 D5U88-001*
Data File Name : ...\\1006_063.DXD
Method File Name : ...\\500-091809.met
Date Time Collected : 10/7/09 3:31:32 AM

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

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

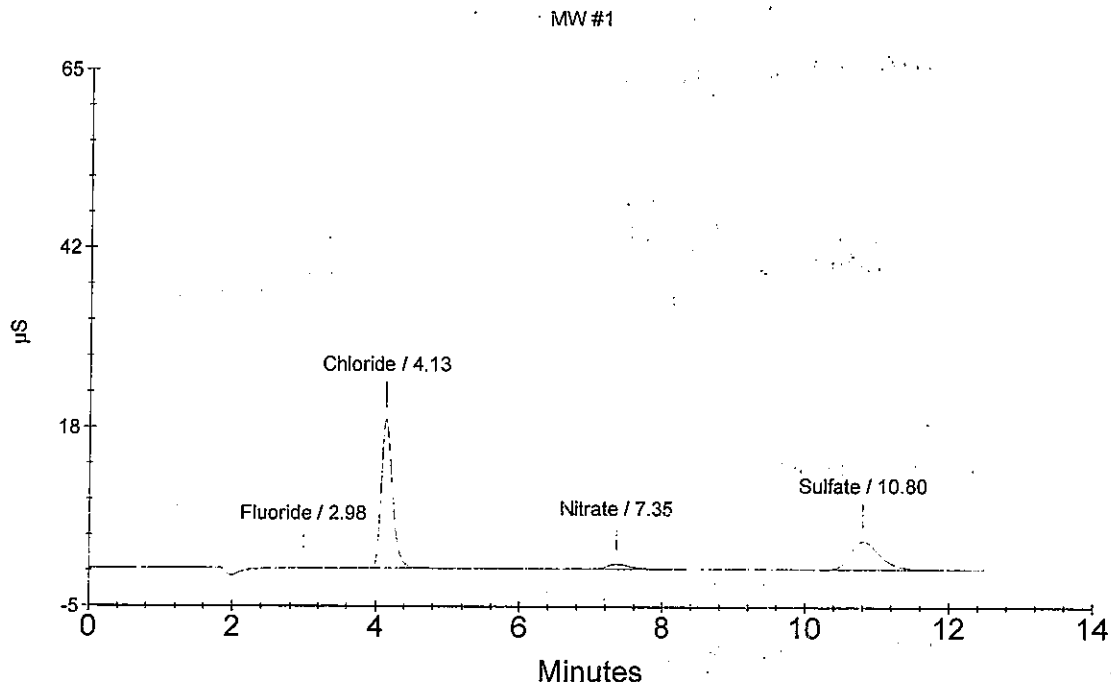
Data Collection Rate : 5.00 Hz
Data Collection Period : 750.00 seconds
Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.98	Fluoride	0.818	1814
2	4.13	Chloride	113.643	2180096
3	7.35	Nitrate	<i>OK</i> 3.530	130265
4	10.80	Sulfate	83.362	1048203

NO₂ OK

RP 10/7/09



Ion Chromatography Analytical Report
 Columbia Analytical Services
 Rochester, NY 14607

Sample Name : MW #2 P109050688-002
 Data File Name : ...\\1006_064.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/7/09 3:46:23 AM

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

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

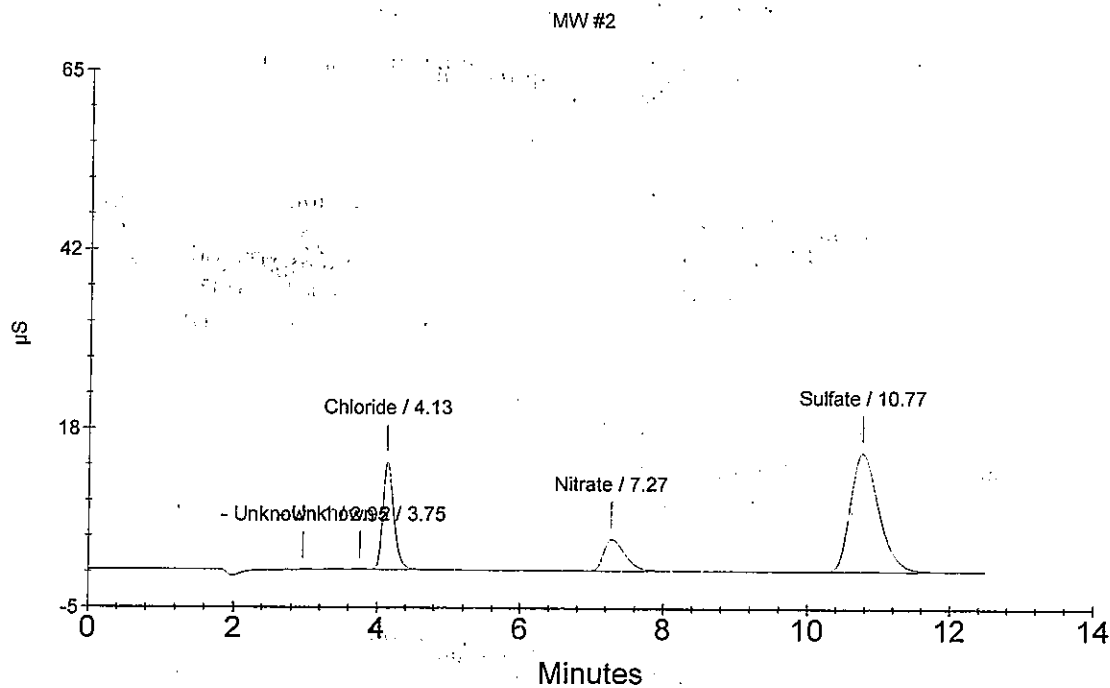
Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
3	4.13	Chloride	80.753	1543802
4	7.27	Nitrate	OK 19.323	845303
5	10.77	Sulfate	339.988	4297657

NO₂ OK

RP 10/7/09



Ion Chromatography Analytical Report
 Columbia Analytical Services
 Rochester, NY 14607

Sample Name : MW #2 DUP *AD905688-002* Detector Name :
 Data File Name : ...\\1006_065.DXD *DUP* Column ID : AS-14 / AG-14
 Method File Name : ...\\500-091809.met Method Analyst :
 Date Time Collected : 10/7/09 4:01:13 AM

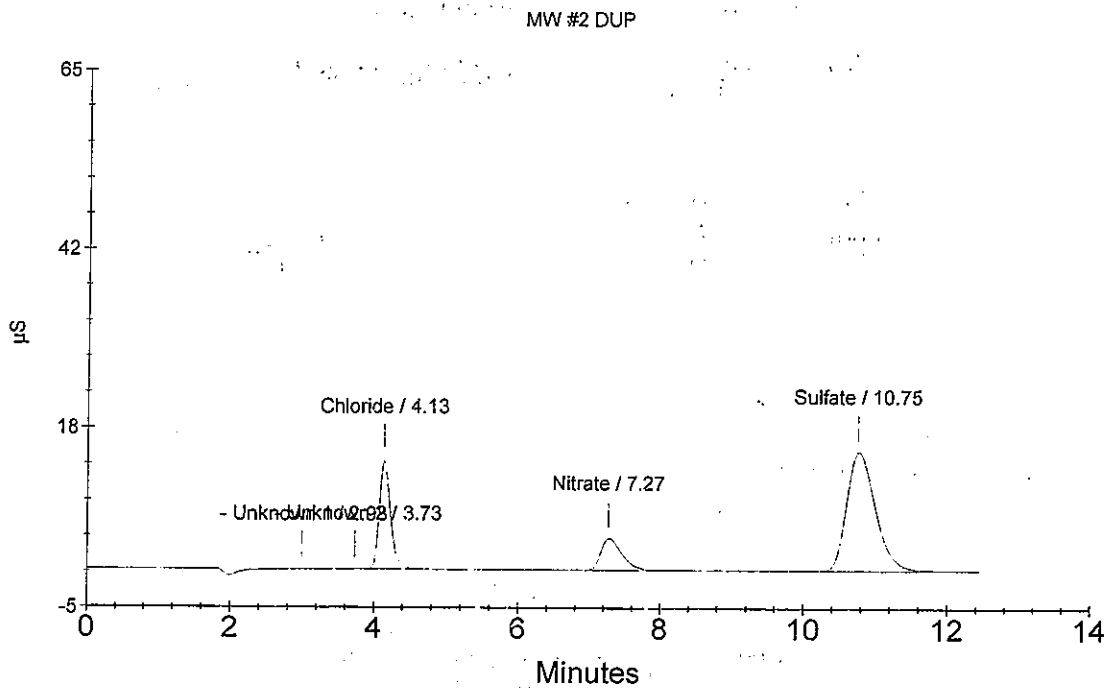
Dilution Factor : 10.00 Data Collection Rate : 5.00 Hz
 Sample Type : Sample Analysis Data Collection Period : 750.00 seconds
 Sample Comment : NN Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
3	4.13	Chloride	80.846	1545601
4	7.27	Nitrate	<i>OK</i> 19.353	846661
5	10.75	Sulfate	340.905	4309269

NO₃ OK

RP 10/7/09



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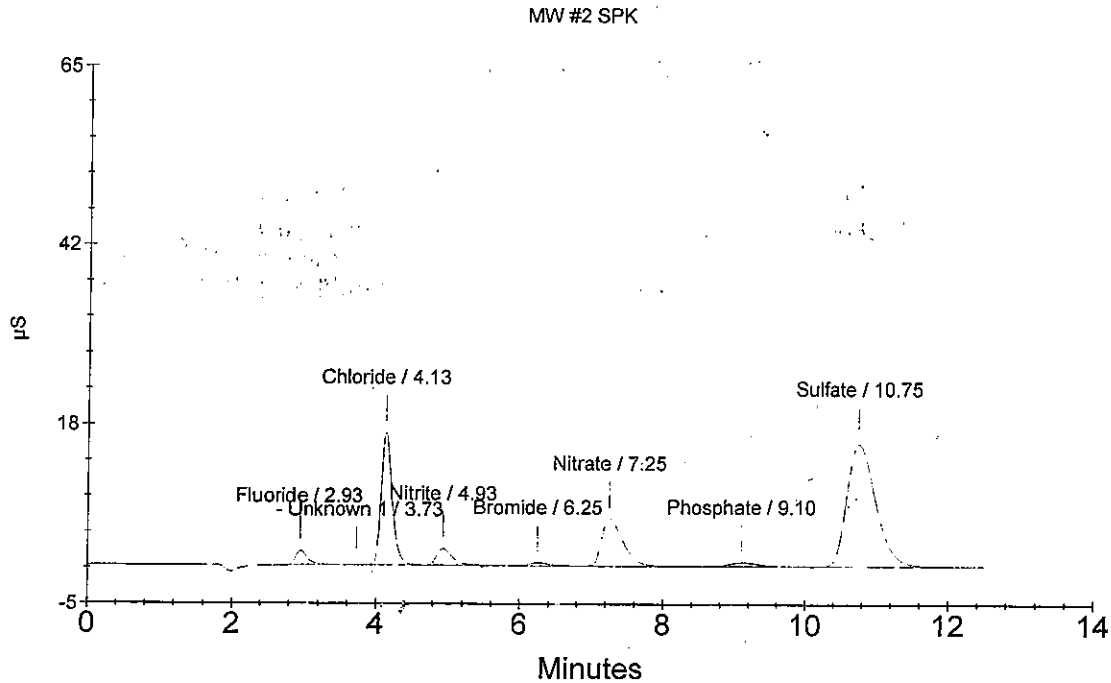
Sample Name : MW #2 SPK *RD9 DS088-002* Detector Name :
 Data File Name : ...\\1006_066.DXD *SPK* Column ID : AS-14 / AG-14
 Method File Name : ...\\500-091809.met Method Analyst :
 Date Time Collected : 10/7/09 4:16:05 AM

Dilution Factor : 10.00 Data Collection Rate : 5.00 Hz
 Sample Type : Sample Analysis Data Collection Period : 750.00 seconds
 Sample Comment : NN Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.93	Fluoride	8.871	204790
3	4.13	Chloride	<i>to</i> 99.333	1903251
4	4.93	Nitrite	<i>OK</i> 9.316	324492
5	6.25	Bromide	9.917	67880
6	7.25	Nitrate	<i>OK</i> 28.422	1257258
7	9.10	Phosphate	9.542	134241
8	10.75	Sulfate	352.482	4455867

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Ion Chromatography Analytical Report
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Sample Name : MW #5 P0905088-003
Data File Name : ...\\1006_067.DXD
Method File Name : ...\\500-091809.met
Date Time Collected : 10/7/09 4:30:56 AM

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

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

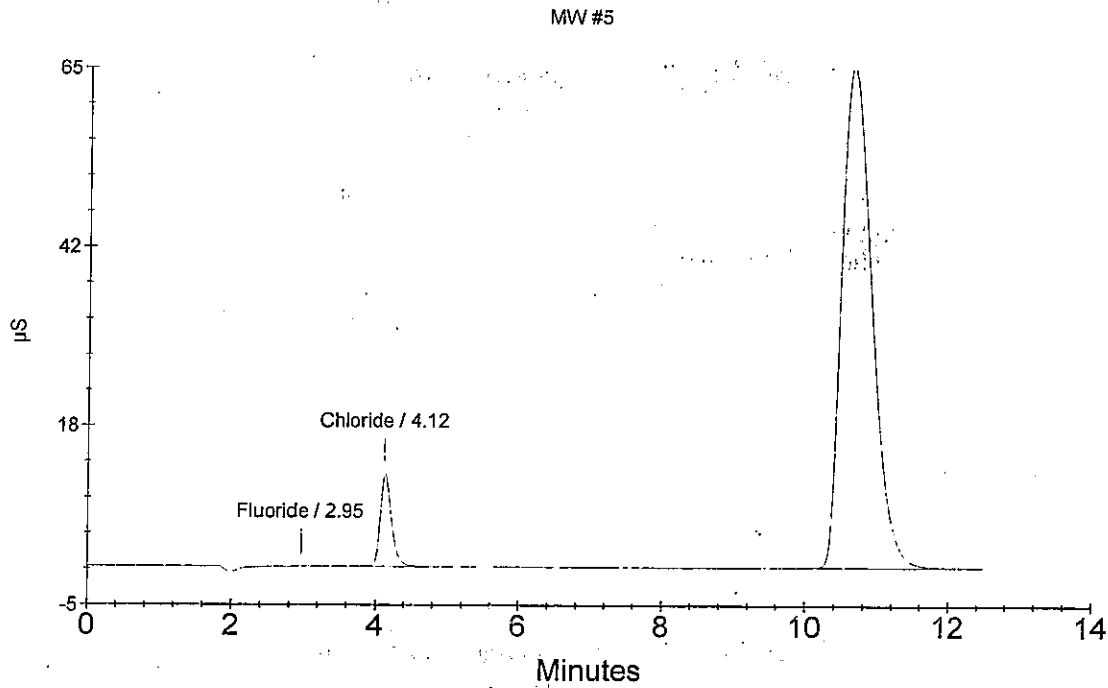
Data Collection Rate : 5.00 Hz
Data Collection Period : 750.00 seconds
Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.95	Fluoride	0.821	1884
2	4.12	Chloride	71.890	1372327
3	10.63	Sulfate	1498.255	18963888

NO₂ OK
NO₃ OK

RP 10/7/09



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : MW #7 ~~R0905068~~ - 004
Data File Name : ...\\1006_068.DXD
Method File Name : ...\\500-091809.met
Date Time Collected : 10/7/09 4:45:48 AM

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

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

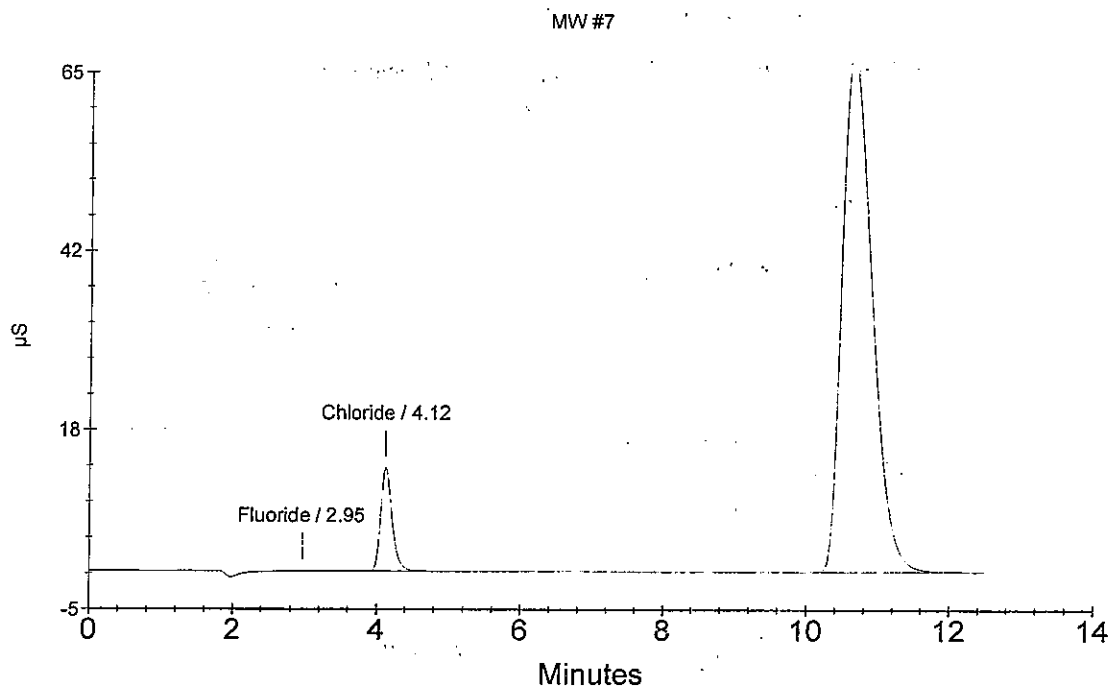
Data Collection Rate : 5.00 Hz
Data Collection Period : 750.00 seconds
Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.95	Fluoride	0.887	3554
2	4.12	Chloride	80.881	1546285
3	10.63	Sulfate	1551.221	19634553

NO3 OK
NO2 OK

RP: 10/7/09



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : MW #8 *10405088-005*
Data File Name : ... \1006_069.DXD
Method File Name : ... \500-091809.met
Date Time Collected : 10/7/09 5:00:38 AM

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

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

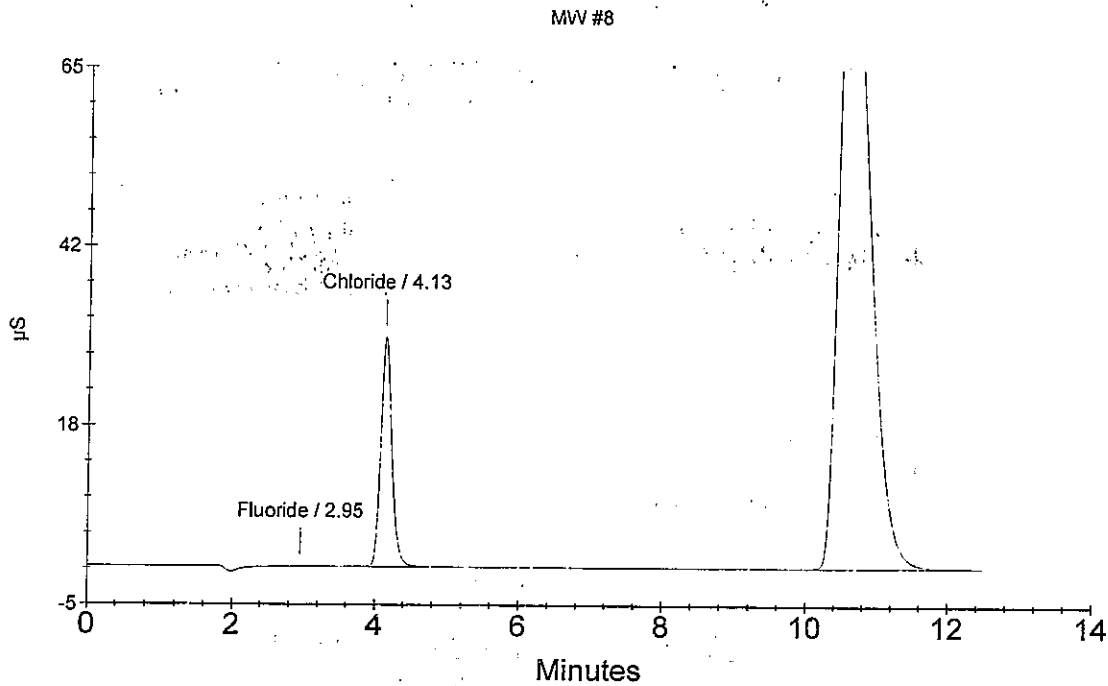
Data Collection Rate : 5.00 Hz
Data Collection Period : 750.00 seconds
Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.95	Fluoride	0.973	5715
2	4.13	Chloride	173.978	3347361
3	10.60	Sulfate	2052.478	25981572

*NO2 OK
NO3 OK*

RP 10/7/09



Ion Chromatography Analytical Report
 Columbia Analytical Services
 Rochester, NY 14607

Sample Name : MW #9 *RO105088-000*
 Data File Name : ...\\1006_070.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/7/09 5:15:29 AM

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

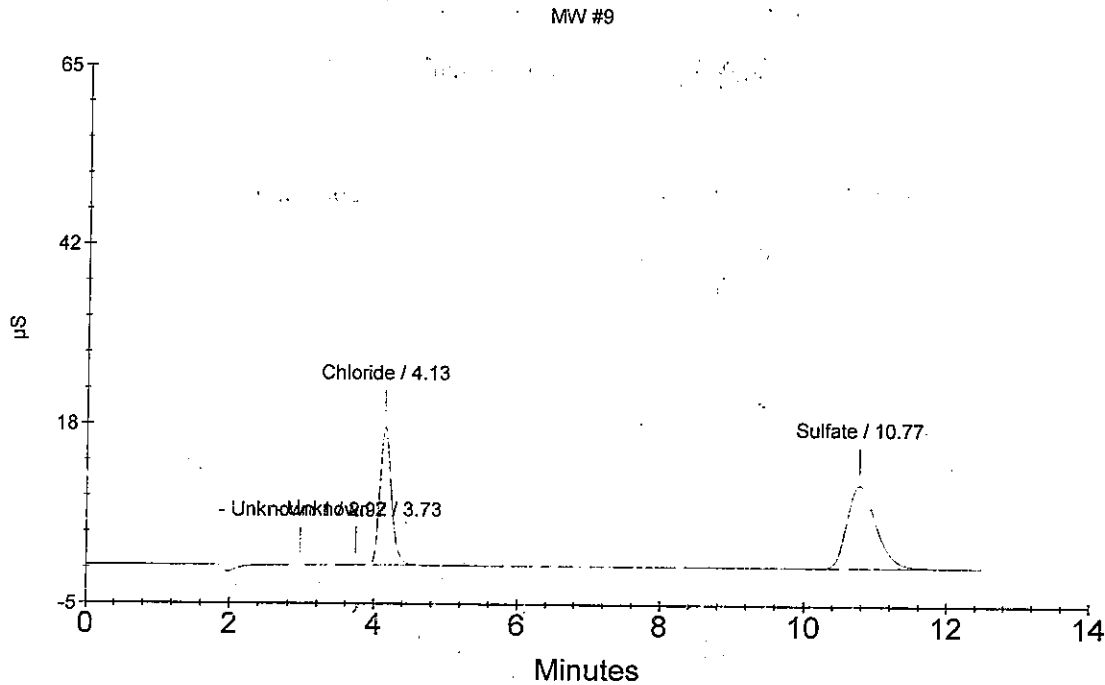
Dilution Factor : 10.00
 Sample Type : Sample Analysis
 Sample Comment : NN

Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
3	4.13	Chloride	103.294	1979880
4	10.77	Sulfate	240.884	3042788

NO2 OK
NO3 OK
RP 10/7/09



Ion Chromatography Analytical Report
 Columbia Analytical Services
 Rochester, NY 14607

Sample Name : MW #10D ~~109109078~~ 007
 Data File Name : ... \1006_071.DXD
 Method File Name : ... \500-091809.met
 Date Time Collected : 10/7/09 5:30:19 AM

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

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

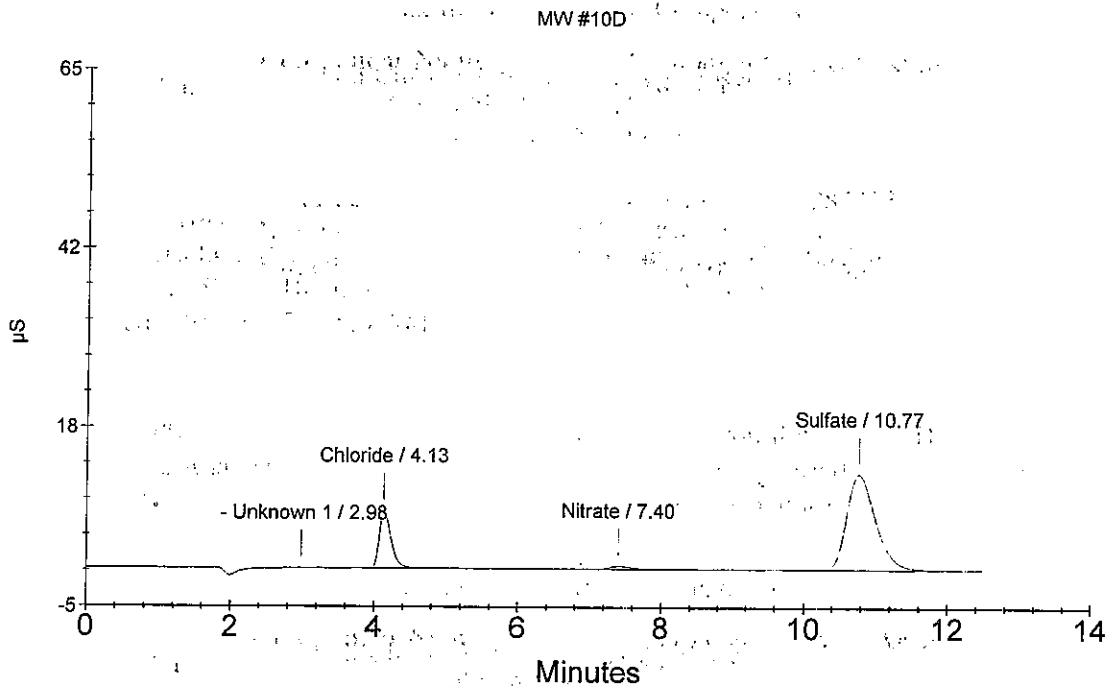
Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
2	4.13	Chloride	46.618	883413
3	7.40	Nitrate	OK 2.458	81726
4	10.77	Sulfate	276.620	3495285

NO₂ OK

RP 10/7/09



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : MW #11D *1090 5688-008*
Data File Name : ...\\1006_072.DXD
Method File Name : ...\\500-091809.met
Date Time Collected : 10/7/09 5:45:12 AM

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

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

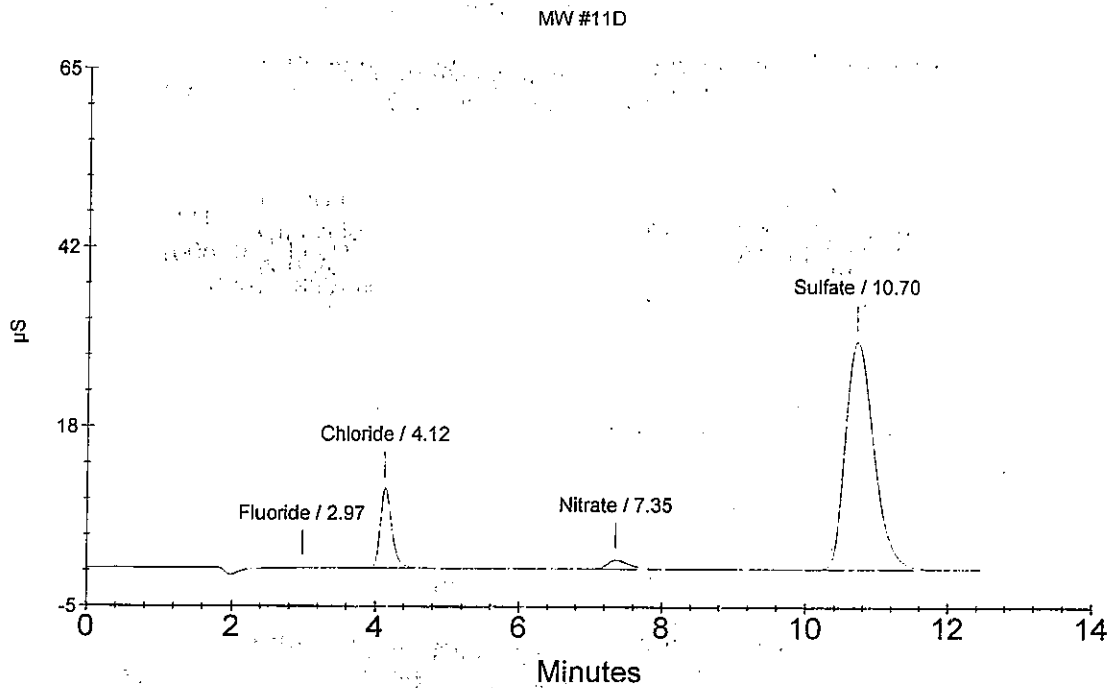
Data Collection Rate : 5.00 Hz
Data Collection Period : 750.00 seconds
Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.97	Fluoride	0.790	1085
2	4.12	Chloride	63.628	1212490
3	7.35	Nitrate	<i>OK</i> 5.957	240173
4	10.70	Sulfate	657.692	8320496

NO₂ OK

RP 10/1/09



Ion Chromatography Analytical Report
 Columbia Analytical Services
 Rochester, NY 14607

Sample Name : CCV
 Data File Name : ...\\1006_073.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/7/09 6:00:03 AM

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

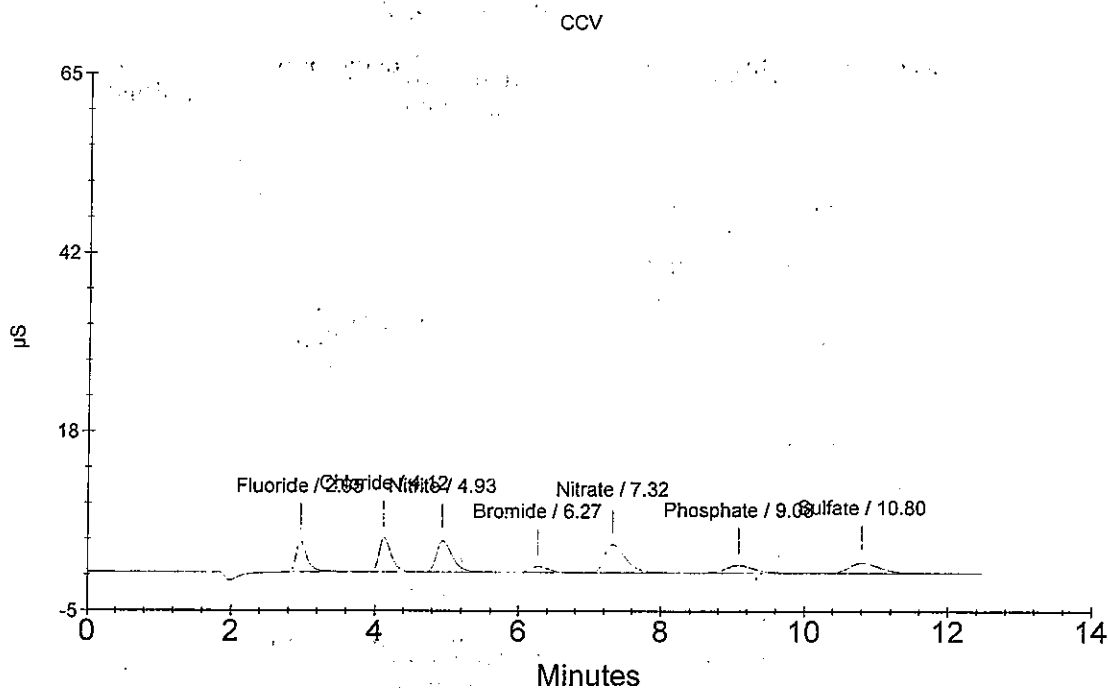
Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment :

Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.95	Fluoride	1.839	444708
2	4.12	Chloride	2.880	538692
3	4.93	Nitrite	1.739	629063
4	6.27	Bromide	1.966	137956
5	7.32	Nitrate	1.761	767572
6	9.08	Phosphate	1.834	265494
7	10.80	Sulfate	3.139	390146

RP 10/7/09



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : CCB
Data File Name : ...\\1006_074.DXD
Method File Name : ...\\500-091809.met
Date Time Collected : 10/7/09 6:14:53 AM

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

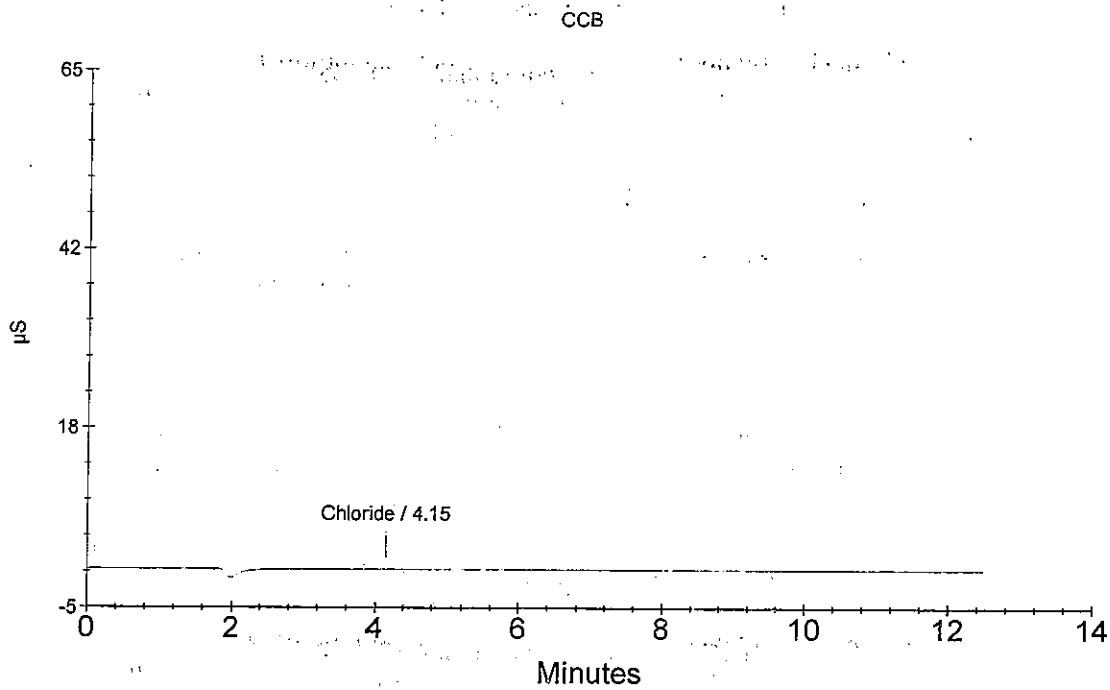
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment :

Data Collection Rate : 5.00 Hz
Data Collection Period : 750.00 seconds
Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	4.15	Chloride	ok 0.104	1550

RP 10/7/09



Ion Chromatography Analytical Report
 Columbia Analytical Services
 Rochester, NY 14607

Sample Name : LCS
 Data File Name : ...\\1006_075.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/7/09 6:29:45 AM

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

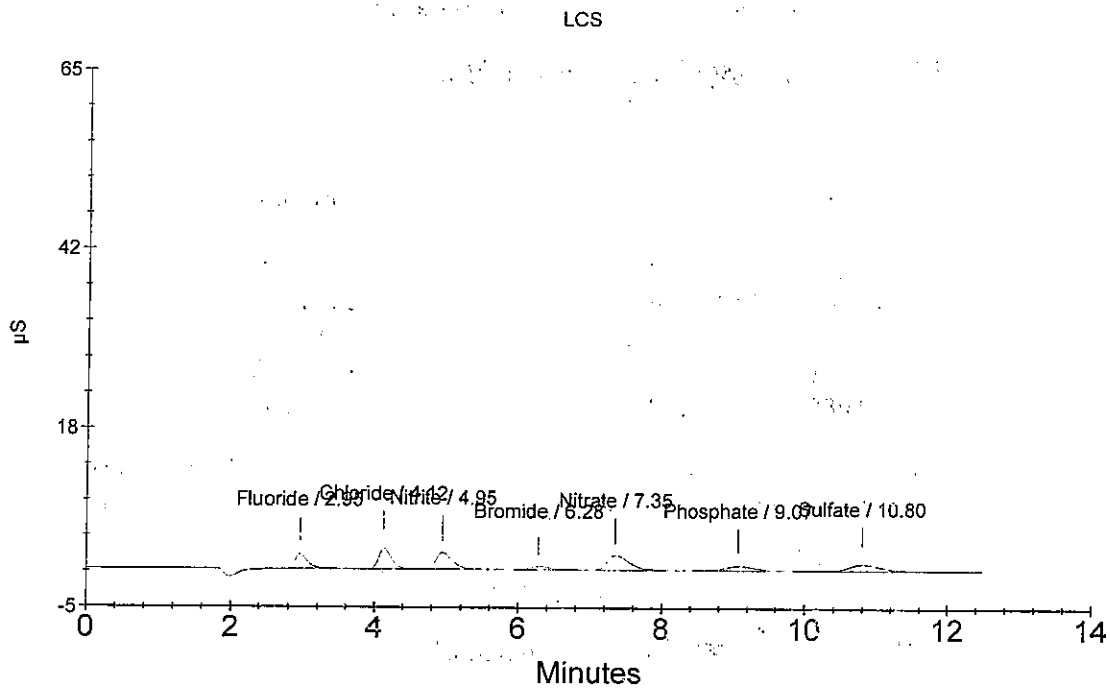
Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment :

Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.95	Fluoride	0.925	214240
2	4.12	Chloride	1.797	329138
3	4.95	Nitrite	0.955	333440
4	6.28	Bromide	0.964	65916
5	7.35	Nitrate	0.931	392102
6	9.07	Phosphate	1.015	143377
7	10.80	Sulfate	1.949	239408

RL 10/7/09



Ion Chromatography Analytical Report
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 Rochester, NY 14607

Sample Name : PT EFF 001A *10903088-09*
 Data File Name : ... \1006_076.DXD
 Method File Name : ... \500-091809.met
 Date Time Collected : 10/7/09 6:44:38 AM

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

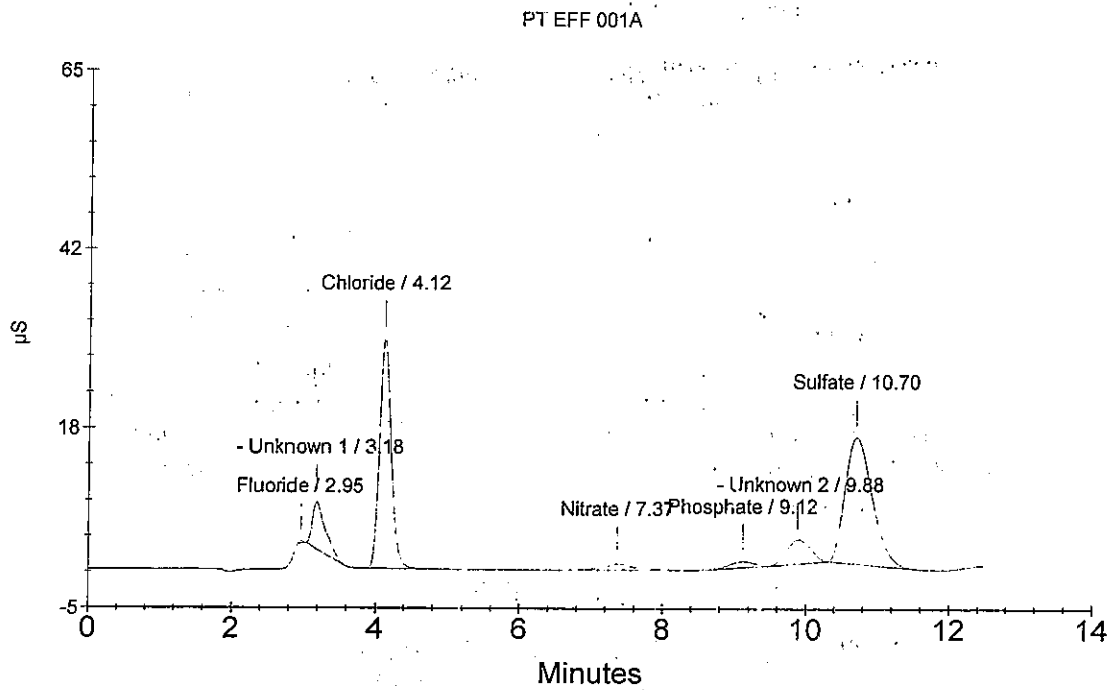
Dilution Factor : 10.00
 Sample Type : Sample Analysis
 Sample Comment : NN

Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.95	Fluoride	1.131	9691
3	4.12	Chloride	181.950	3501590
		Nitrite	<i>OK</i>	
		Bromide		
4	7.37	Nitrate	<i>OK</i> 5.905	237787
5	9.12	Phosphate	12.520	178670
7	10.70	Sulfate	347.163	4388509

RP
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Ion Chromatography Analytical Report
 Columbia Analytical Services
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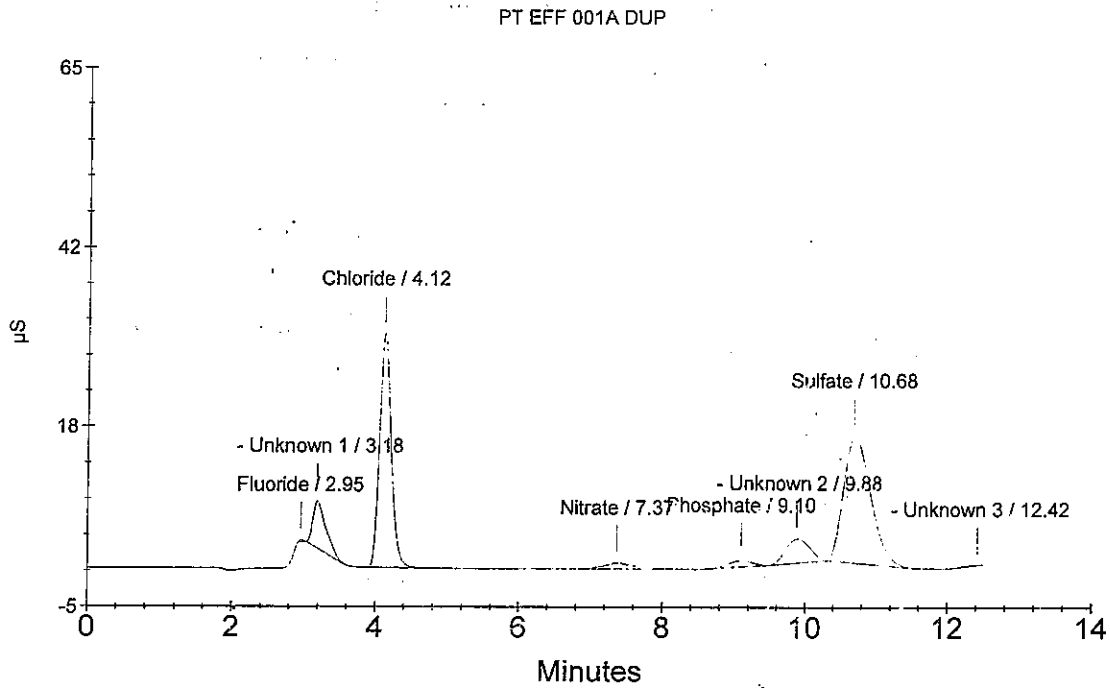
Sample Name : PT EFF 001A DUP ~~10905084-001~~ *DR* Detector Name :
 Data File Name : ...\\1006_077.DXD Column ID : AS-14 / AG-14
 Method File Name : ...\\500-091809.met Method Analyst :
 Date Time Collected : 10/7/09 6:59:29 AM

Dilution Factor : 10.00 Data Collection Rate : 5.00 Hz
 Sample Type : Sample Analysis Data Collection Period : 750.00 seconds
 Sample Comment : NN Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.95	Fluoride	1.085	8542
3	4.12	Chloride	182.041	3503351
		Nitrite	<i>OK</i>	
		Bromide		
4	7.37	Nitrate	<i>OK</i> 5.992	241733
5	9.10	Phosphate	13.228	189229
7	10.68	Sulfate	346.527	4380462

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 Columbia Analytical Services
 Rochester, NY 14607

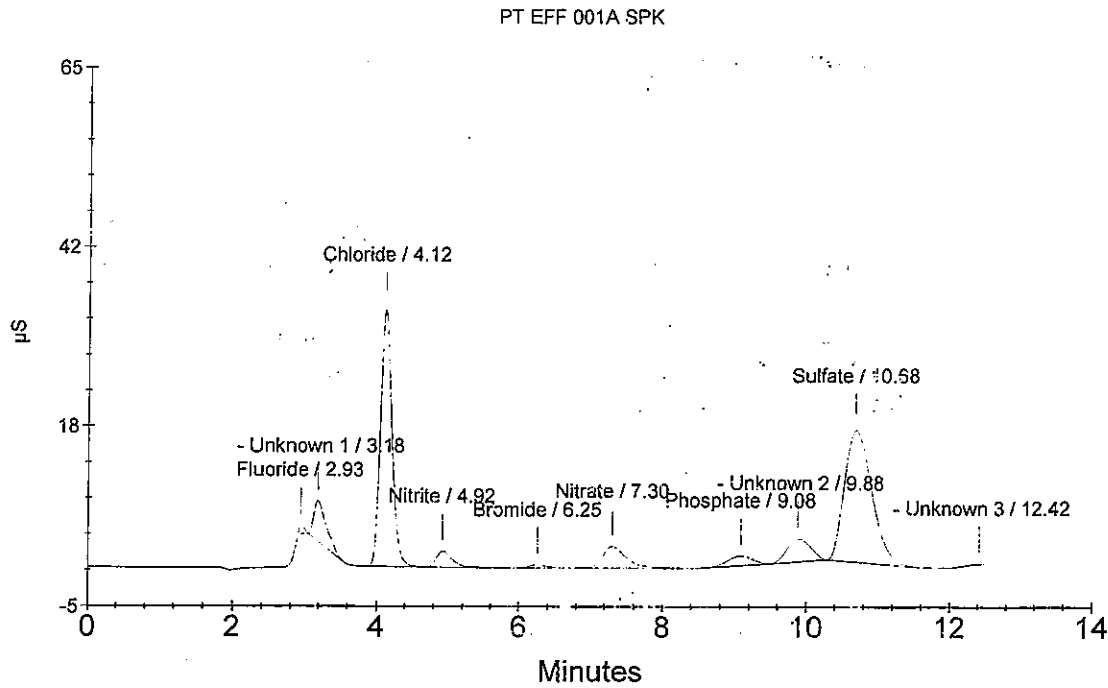
Sample Name : PT EFF 001A SPK ~~RP1012109-001~~ *SPK* Detector Name :
 Data File Name : ... \1006_078.DXD Column ID : AS-14 / AG-14
 Method File Name : ... \500-091809.met Method Analyst :
 Date Time Collected : 10/7/09 7:14:19 AM

Dilution Factor : 10.00 Data Collection Rate : 5.00 Hz
 Sample Type : Sample Analysis Data Collection Period : 750.00 seconds
 Sample Comment : NN Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.93	Fluoride	3.155	60713
3	4.12	Chloride	198.722	3826066
4	4.92	Nitrite	<i>OL</i> 9.101	316381
5	6.25	Bromide	9.181	62589
6	7.30	Nitrate	<i>OL</i> 14.393	622085
7	9.08	Phosphate	20.591	299091
9	10.68	Sulfate	358.965	4537957

RP 1012109



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 Rochester, NY 14607

Sample Name : CCV
 Data File Name : ...\1006_079.DXD
 Method File Name : ...\500-091809.met
 Date Time Collected : 10/7/09 7:29:11 AM

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

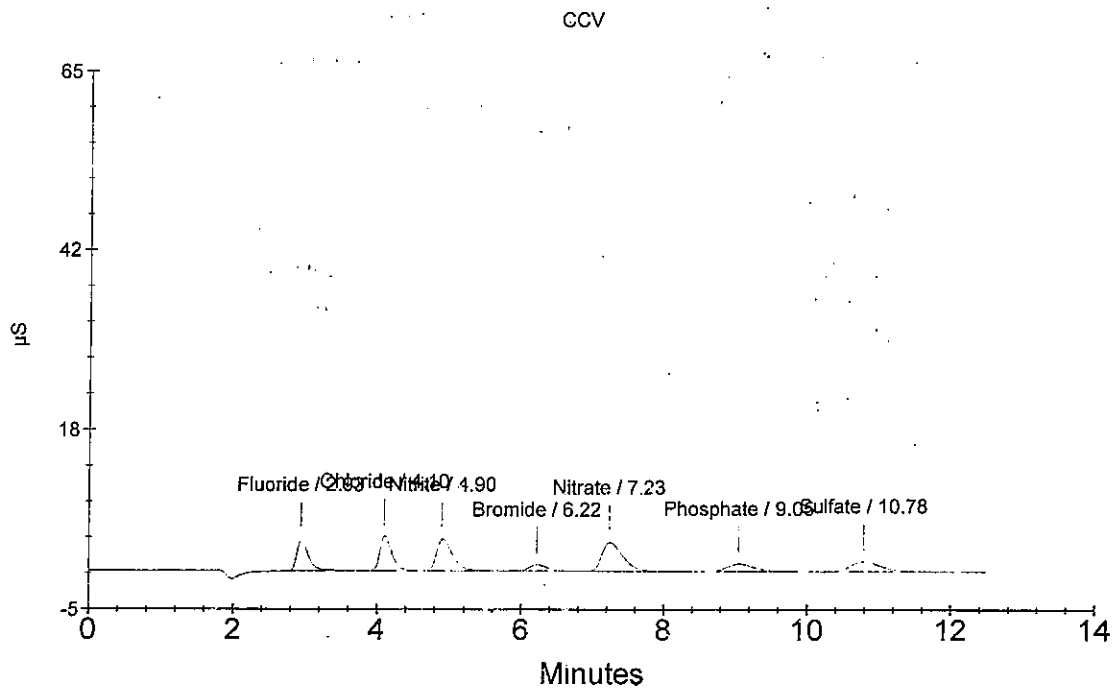
Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment :

Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.93	Fluoride	OK 1.840	444925
2	4.10	Chloride	OK 2.883	539310
3	4.90	Nitrite	OK 1.738	628737
4	6.22	Bromide	1.990	139683
5	7.23	Nitrate	1.757	765751
6	9.05	Phosphate	1.810	261968
7	10.78	Sulfate	3.102	385430

RR 10/7/09



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : CCB
Data File Name : ...\\1006_080.DXD
Method File Name : ...\\500-091809.met
Date Time Collected : 10/7/09 7:44:04 AM

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

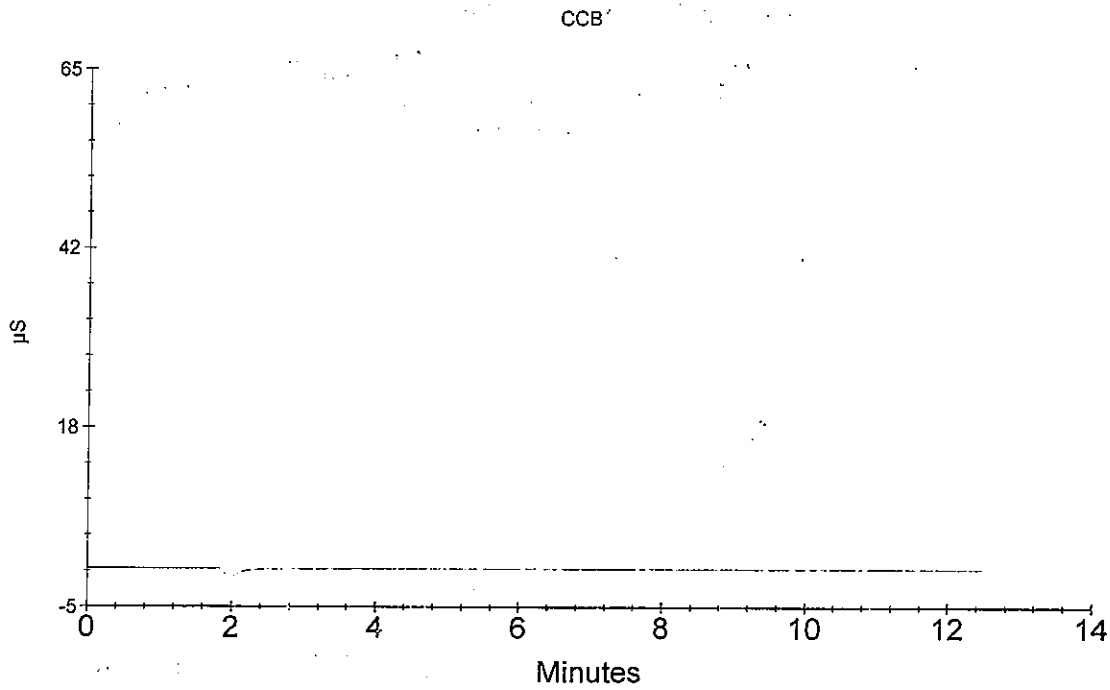
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment :

Data Collection Rate : 5.00 Hz
Data Collection Period : 750.00 seconds
Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
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OK
RR 10/7/09



Ion Chromatography Cover Sheet

Instrument: Dionex DX-500 Ion Chromatogram

Column: Dionex AS-14/AG-14, 08/04/09 – IC # 7

Curve Date: 09/18/09

Loop size: 50 uL

Analyst: RF

Analysis Date: 10/16/09

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	09/10/09	WC90024A		Working Calibration Stds	09/15/09	WC90024H
LCS / MS Intermediate	10/6/09	WC94011B		Working LCS/MS Standard	10/06/09	WC94052A
ICV Intermediate	09/10/09	WC90107A		Working ICV Standard	09/18/09	WC90107H
CCV Intermediate	09/22/09	WC94011H		Working CCV Standard	10/6/09	WC94026G

Comments:

LCS PREP

(Stocks delivered using Volumetric glassware and brought to volume with DI. LCS expires after 7 days; if NO2 is needed, LCS must be prepared daily.)

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

Analyte	Calibration Intermediate Stock ID	Intermediate Stock Conc (mg/L)	mLs Intermediate Stock	Final Vol. mLs	Final Conc. (mg/L)	Analyst/ Date Prepped	Lot ID	Exp. Date	Matrix H2SO4 / NaOH / DI	H2SO4 / NaOH Lot #
F	WC9408	50	2.0	100	1.0	RR / 10/6/09	A	10/13/09	DI	
Cl	011B	100			2.0	RR / 10/7/09	B	10/14/09	DI	
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			RR 10/7/09
							N			
							O			
							P			
							Q			
							R			

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// CCV PREP

1:2 dilution of the Reference Intermediate Stock is done daily)

anlyte	ICV / CCV Intermediate Stock ID	Conc. mg/L	mLs Stock	Final Vol. mL	Final Conc. mg/L	Analyst/ Date Prepped	Lot ID	Exp. Date	Matrix H2SO4 / NaOH / DI	H2SO4 / NaOH Lot #
F	WX94011H	4.00	5.0	10	2.00	RP	A	10/1/09	DI H2SO4	WC85294I
Cl		6.50			3.25	RP	B	10/2/09	DI H2SO4	WC85294I
NO2		3.60			1.80	RP	C	10/2/09	DI	
Br		4.00			2.00	CS	D	10/3/09	DI	
NO3		3.60			1.80	RP	E	10/5/09	DI	
PO4		3.60			1.80	RP	F	10/5/09	NaOH	WC90030G
SO4		6.40			3.20	RP	G	10/6/09	DI	
						RP	H	10/7/09	DI	
							I			
							J			
							K			
							L			
							M			
							N			RP 10/7/09
							O			
							P			
							Q			

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Analytical Results Summary

Instrument Name: R-IC-03	Analyst: RPAWL	174029	Method/Testcode: 300.0/Chloride	Analysis Lot:									
Lab Code	Target Analytes	QC Type	Parent Sample	Matrix	Raw Result	Sample Amt	Final Result	Dil	PQL	% Rec	% RSD	Date Analyzed	QC? Tier
3Q0909723-03	Chloride	MB		Water	0.00 mg/L	10 mL	0.20 mg/L U✓	1	0.20			10/8/09 09:09:44	N IV
3Q0909723-03	Chloride	MB		Water	0.00 mg/L	10 mL	0.20 mg/L U✓	1	0.20			10/8/09 09:09:44	N IV
3Q0909723-03	Sulfate	MB		Water	0.13 mg/L	10 mL	0.13 mg/L J✓	1	0.20			10/8/09 09:09:44	N IV
3Q0909723-03	Sulfate	MB		Water	0.13 mg/L	10 mL	0.13 mg/L J✓	1	0.20			10/8/09 09:09:44	N IV
3Q0909723-04	Chloride	LCS		Water	1.93 mg/L	10 mL	1.93 mg/L ✓	1	0.20	96		10/8/09 09:24:01	N IV
3Q0909723-04	Chloride	LCS		Water	1.93 mg/L	10 mL	1.93 mg/L ✓	1	0.20	96		10/8/09 09:24:01	N IV
3Q0909723-04	Sulfate	LCS		Water	1.87 mg/L	10 mL	1.87 mg/L ✓	1	0.20	93		10/8/09 09:24:01	N IV
3Q0909723-04	Sulfate	LCS		Water	1.87 mg/L	10 mL	1.87 mg/L ✓	1	0.20	93		10/8/09 09:24:01	N IV
3Q0909723-04	Chloride	N/A		Water	1.23 mg/L	10 mL	1.2 mg/L J✓	10	2.0			10/8/09 10:10:08	N IV
3Q0909723-04	Chloride	N/A		Water	414.55 mg/L	10 mL	415 mg/L ✓	100	20			10/8/09 10:24:25	N II
3Q0909723-04	Chloride	N/A		Water	1695.81 mg/L	10 mL	1700 mg/L ✓	200	40			10/8/09 10:38:42	Y IV
3Q0909723-04	Chloride	N/A		Water	1334.98 mg/L	10 mL	1330 mg/L ✓	200	40			10/8/09 10:38:42	Y IV
3Q0909723-01	Chloride	DUP	R0905462-001	Water	1681.34 mg/L	10 mL	1680 mg/L ✓	200	40		1	10/8/09 10:52:59	N IV
3Q0909723-01	Sulfate	DUP	R0905462-001	Water	1312.68 mg/L	10 mL	1310 mg/L ✓	200	40		2	10/8/09 10:52:59	N IV
3Q0909723-02	Chloride	MS	R0905462-001	Water	1801.06 mg/L	10 mL	1800 mg/L ✓	200	40	26*		10/8/09 11:07:16	N IV
3Q0909723-02	Sulfate	MS	R0905462-001	Water	1473.15 mg/L	10 mL	1470 mg/L ✓	200	40	35*		10/8/09 11:07:16	N IV
3Q0909723-03	Chloride	N/A		Water	1456.21 mg/L	10 mL	1460 mg/L ✓	200	40			10/8/09 11:21:33	N IV
3Q0909723-03	Sulfate	N/A		Water	1254.83 mg/L	10 mL	1250 mg/L ✓	200	40			10/8/09 11:21:33	N IV
3Q0909723-04	Chloride	N/A		Water	1356.48 mg/L	10 mL	1360 mg/L ✓	200	40			10/8/09 11:35:50	N IV
3Q0909723-04	Sulfate	N/A		Water	1163.61 mg/L	10 mL	1160 mg/L ✓	200	40			10/8/09 11:35:50	N IV
3Q0905635-001	Chloride	N/A		Water	0.94 mg/L	10 mL	0.9 mg/L J✓	10	2.0			10/8/09 11:50:10	N IV
3Q0905635-012	Chloride	N/A		Water	1.41 mg/L	10 mL	1.4 mg/L J✓	10	2.0			10/8/09 12:04:27	N IV
3Q0905636-001	Chloride	N/A		Water	0.88 mg/L	10 mL	0.9 mg/L J✓	10	2.0			10/8/09 12:47:18	N IV
3Q0905636-002	Chloride	N/A		Water	1161.50 mg/L	10 mL	1160 mg/L ✓	200	40			10/8/09 13:01:35	N IV
3Q0905636-002	Sulfate	N/A		Water	757.95 mg/L	10 mL	758 mg/L ✓	200	40			10/8/09 13:01:35	N IV
3Q0905636-003	Chloride	N/A		Water	1257.21 mg/L	10 mL	1260 mg/L ✓	200	40			10/8/09 13:15:52	N IV
3Q0905636-003	Sulfate	N/A		Water	842.68 mg/L	10 mL	843 mg/L ✓	200	40			10/8/09 13:15:52	N IV
3Q090567-001	Sulfate	N/A		Water	2.08 mg/L	10 mL	2.1 mg/L ✓	10	2.0			10/8/09 13:30:08	N IV
3Q0905472-009	Chloride	N/A		Water	8665.91 mg/L	10 mL	8670 mg/L ✓	1000	200			10/8/09 14:01:30	N IV
3Q0905472-009	Sulfate	N/A		Water	1198.36 mg/L	10 mL	1200 mg/L ✓	200	40			10/8/09 14:01:30	N IV
3Q0905700-001	Chloride	N/A		Drinking Water	502.42 mg/L	10 mL	502 mg/L ✓	100	20			10/8/09 14:30:07	N II
3Q0905700-002	Chloride	N/A		Drinking Water	493.62 mg/L	10 mL	494 mg/L ✓	100	20			10/8/09 14:44:24	N II
3Q0909723-05	Chloride	DUP	R0905700-002	Drinking Water	497.52 mg/L	10 mL	498 mg/L ✓	100	20		1	10/8/09 14:58:40	N II
3Q0909723-06	Chloride	MS	R0905700-002	Drinking Water	682.73 mg/L	10 mL	683 mg/L ✓	100	20	95		10/8/09 15:12:57	N II

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10-7-09 #3

System	Ident	Vial	Volume	Dilution	Amount	Internal Standard Amount	Level	Injections	Done	Sample Info 1	Sample Info 2
metrolim.smt	CCY	1	1.0	1.0	1.0	100.0	0	1	1		
metrolim.smt	CCB	2	1.0	1.0	1.0	100.0	0	1	1		
metrolim.smt	LCS	3	1.0	1.0	1.0	100.0	0	1	1		
metrolim.smt	R0905260-001	4	1.0	10.0	1.0	100.0	0	1	1	C	Analyst: R. Pawl
metrolim.smt	R0905243-005	5	1.0	100.0	1.0	100.0	0	1	1	C	
metrolim.smt	R0905462-001	6	1.0	200.0	1.0	100.0	0	1	1	C	Pipets: Lucy
metrolim.smt	R0905462-001 DLP	7	1.0	200.0	1.0	100.0	0	1	1	C	Mine
metrolim.smt	R0905462-001 SPK	8	1.0	200.0	1.0	100.0	0	1	1	C	
metrolim.smt	R0905462-003	9	1.0	200.0	1.0	100.0	0	1	1	C	
metrolim.smt	R0905635-001	10	1.0	200.0	1.0	100.0	0	1	1	C	
metrolim.smt	R0905635-012	11	1.0	10.0	1.0	100.0	0	1	1	C	
metrolim.smt	CCY	12	1.0	10.0	1.0	100.0	0	1	1	C	
metrolim.smt	CCB	13	1.0	1.0	1.0	100.0	0	1	1	C	
metrolim.smt	CCY	14	1.0	1.0	1.0	100.0	0	1	1	C	
metrolim.smt	R0905636-001	15	1.0	10.0	1.0	100.0	0	1	1	C	
metrolim.smt	R0905636-002	16	1.0	200.0	1.0	100.0	0	1	1	C	
metrolim.smt	R0905636-003	17	1.0	200.0	1.0	100.0	0	1	1	C	R-5675
metrolim.smt	R0905667-001	18	1.0	10.0	1.0	100.0	0	1	1	S	R-5260
metrolim.smt	R0905472-009	19	1.0	100.0	1.0	100.0	0	1	1	C	
metrolim.smt	R0905472-009	20	1.0	200.0	1.0	100.0	0	1	1	S	
metrolim.smt	R0905700-001	21	1.0	100.0	1.0	100.0	0	1	1	C	
metrolim.smt	R0905700-002	22	1.0	100.0	1.0	100.0	0	1	1	C	
metrolim.smt	R0905700-002 DLP	23	1.0	100.0	1.0	100.0	0	1	1	C	
metrolim.smt	R0905700-002 SPK	24	1.0	100.0	1.0	100.0	0	1	1	C	
metrolim.smt	CCY	25	1.0	1.0	1.0	100.0	0	1	1	C	
metrolim.smt	CCB	26	1.0	1.0	1.0	100.0	0	1	1	C	
metrolim.smt	LCS	27	1.0	1.0	1.0	100.0	0	1	1	C	
metrolim.smt	R0905131-001	28	1.0	400.0	1.0	100.0	0	1	1	S	
metrolim.smt	R0905285-003	29	1.0	40.0	1.0	100.0	0	1	1	S	
metrolim.smt	R0905504-036	30	1.0	100.0	1.0	100.0	0	1	1	S	
metrolim.smt	R0905590-002	31	1.0	10.0	1.0	100.0	0	1	1	S	
metrolim.smt	R0905563-002	32	1.0	1.0	1.0	100.0	0	1	1	S	
metrolim.smt	R0905563-002 DLP	33	1.0	1.0	1.0	100.0	0	1	1	S	
metrolim.smt	R0905563-002 SPK	34	1.0	1.0	1.0	100.0	0	1	1	S	
metrolim.smt	R0905523-020	35	1.0	10.0	1.0	100.0	0	1	1	C	
metrolim.smt	R0905523-021	36	1.0	10.0	1.0	100.0	0	1	1	C	
metrolim.smt	CCY	37	1.0	1.0	1.0	100.0	0	1	1	C	
metrolim.smt	CCB	38	1.0	1.0	1.0	100.0	0	1	1	C	
metrolim.smt	R0905523-022	39	1.0	10.0	1.0	100.0	0	1	1	C	
metrolim.smt	R0905523-022 DLP	40	1.0	10.0	1.0	100.0	0	1	1	C	
metrolim.smt	R0905523-022 SPK	41	1.0	10.0	1.0	100.0	0	1	1	C	
metrolim.smt	R0905523-023	42	1.0	10.0	1.0	100.0	0	1	1	C	
metrolim.smt	R0905523-024	43	1.0	10.0	1.0	100.0	0	1	1	C	
metrolim.smt	R0905523-025	44	1.0	10.0	1.0	100.0	0	1	1	C	
metrolim.smt	R0905523-026	45	1.0	10.0	1.0	100.0	0	1	1	C	
metrolim.smt	R0905523-027	46	1.0	10.0	1.0	100.0	0	1	1	C	
metrolim.smt	R0905523-028	47	1.0	10.0	1.0	100.0	0	1	1	C	
metrolim.smt	R0905523-029	48	1.0	10.0	1.0	100.0	0	1	1	C	
metrolim.smt	CCY	49	1.0	1.0	1.0	100.0	0	1	1	C	
metrolim.smt	CCB	50	1.0	1.0	1.0	100.0	0	1	1	C	
metrolim.smt	LCS	51	1.0	1.0	1.0	100.0	0	1	1	C	

Reviewed & Approved
 By:
 Date: 6/12/09

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System	Ident	Vial	Volume	Dilution	Amount	Internal Standard Amount	Level	Injections	Done	Sample Info 1	Sample Info 2
metrolim.smt	R0905523-030	52	1.0	10.0	1.0	100.0	0	1	1	CS	
metrolim.smt	R0905523-030 DLP	53	1.0	10.0	1.0	100.0	0	1	1	CS	
metrolim.smt	R0905523-030 SPK	54	1.0	10.0	1.0	100.0	0	1	1	CS	
metrolim.smt	R0905523-037	55	1.0	10.0	1.0	100.0	0	1	1	CS	
metrolim.smt	R0905523-045	56	1.0	10.0	1.0	100.0	0	1	1	CS	
metrolim.smt	R0905523-046	57	1.0	10.0	1.0	100.0	0	1	1	CS	
metrolim.smt	R0905523-047	58	1.0	10.0	1.0	100.0	0	1	1	CS	
metrolim.smt	R0905523-048	59	1.0	10.0	1.0	100.0	0	1	1	CS	
metrolim.smt	R0905523-049	60	1.0	10.0	1.0	100.0	0	1	1	CS	
metrolim.smt	CCV	61	1.0	1.0	1.0	100.0	0	1	1		
metrolim.smt	CCB	62	1.0	1.0	1.0	100.0	0	1	1		
metrolim.smt	R0905621-001	63	1.0	10.0	1.0	100.0	0	1	1	CS	
metrolim.smt	R0905621-001 DLP	64	1.0	10.0	1.0	100.0	0	1	1	CS	
metrolim.smt	R0905621-001 SPK	65	1.0	10.0	1.0	100.0	0	1	1	CS	
metrolim.smt	R0905621-002	66	1.0	10.0	1.0	100.0	0	1	1	CS	
metrolim.smt	R0905627-001	67	1.0	10.0	1.0	100.0	0	1	1	C	
metrolim.smt	R0905627-002	68	1.0	10.0	1.0	100.0	0	1	1	C	
metrolim.smt	R0905627-003	69	1.0	10.0	1.0	100.0	0	1	1	C	
metrolim.smt	R0905627-004	70	1.0	10.0	1.0	100.0	0	1	1	C	
metrolim.smt	R0905627-005	71	1.0	10.0	1.0	100.0	0	1	1	C	
metrolim.smt	R0905627-006	72	1.0	10.0	1.0	100.0	0	1	1	C	
metrolim.smt	CCV	73	1.0	1.0	1.0	100.0	0	1	1		
metrolim.smt	CCB	74	1.0	1.0	1.0	100.0	0	1	1		
metrolim.smt	LCS	75	1.0	1.0	1.0	100.0	0	1	1		
metrolim.smt	R0905627-007	76	1.0	10.0	1.0	100.0	0	1	1	C	
metrolim.smt	R0905627-007 DLP	77	1.0	10.0	1.0	100.0	0	1	1	C	
metrolim.smt	R0905627-007 SPK	78	1.0	10.0	1.0	100.0	0	1	1	C	
metrolim.smt	R0905627-008	79	1.0	10.0	1.0	100.0	0	1	1	C	
metrolim.smt	R0905627-009	80	1.0	10.0	1.0	100.0	0	1	1	C	
metrolim.smt	R0905675-001	81	1.0	10.0	1.0	100.0	0	1	1	C	
metrolim.smt	R0905675-002	82	1.0	10.0	1.0	100.0	0	1	1	C	
metrolim.smt	R0905675-003	83	1.0	10.0	1.0	100.0	0	1	1	C	
metrolim.smt	R0905675-004	84	1.0	10.0	1.0	100.0	0	1	1	C	
metrolim.smt	CCV	85	1.0	1.0	1.0	100.0	0	1	1		
metrolim.smt	CCB	86	1.0	1.0	1.0	100.0	0	1	1		
metrolim.smt	R0905675-005	87	1.0	10.0	1.0	100.0	0	1	1	C	
metrolim.smt	R0905675-005 DLP	88	1.0	10.0	1.0	100.0	0	1	1	C	
metrolim.smt	R0905675-005 SPK	89	1.0	10.0	1.0	100.0	0	1	1	C	
metrolim.smt	R0905675-006	90	1.0	10.0	1.0	100.0	0	1	1	C	
metrolim.smt	R0905667-001	91	1.0	10.0	1.0	100.0	0	1	1	CS	
metrolim.smt	R0905667-003	92	1.0	10.0	1.0	100.0	0	1	1	CS	
metrolim.smt	R0905667-005	93	1.0	10.0	1.0	100.0	0	1	1	CS	
metrolim.smt	R0905679-008	94	1.0	20.0	1.0	100.0	0	1	1	C	
metrolim.smt	R0905523-001	95	1.0	1.0	1.0	100.0	0	1	1	F	
metrolim.smt	R0905523-002	96	1.0	1.0	1.0	100.0	0	1	1	F	
metrolim.smt	CCV	97	1.0	1.0	1.0	100.0	0	1	1		
metrolim.smt	CCB	98	1.0	1.0	1.0	100.0	0	1	1		
metrolim.smt	LCS	99	1.0	1.0	1.0	100.0	0	1	1		
metrolim.smt	R0905523-003	100	1.0	1.0	1.0	100.0	0	1	1	F	
metrolim.smt	R0905523-004	101	1.0	1.0	1.0	100.0	0	1	1	F	
metrolim.smt	R0905523-005	102	1.0	1.0	1.0	100.0	0	1	1	F	

System	Ident	Vial	Volume	Dilution	Amount	Internal Standard Amount	Level	Injections	Done	Sample Info 1	Sample Info 2
metrohm.smt	R0905523-005 DUP	103	1.0	1.0	1.0	100.0	0	1	1	0/F	
metrohm.smt	R0905523-005 SPK	104	1.0	1.0	1.0	100.0	0	1	0	0/F	
metrohm.smt	R0905523-006	105	1.0	1.0	1.0	100.0	0	1	0	0/F	
metrohm.smt	R0905523-007	106	1.0	1.0	1.0	100.0	0	1	0	0/F	
metrohm.smt	R0905523-008	107	1.0	1.0	1.0	100.0	0	1	0	0/F	
metrohm.smt	R0905523-009	108	1.0	1.0	1.0	100.0	0	1	0	0/F	
metrohm.smt	CCV	109	1.0	1.0	1.0	100.0	0	1	0	0	
metrohm.smt	CCB	110	1.0	1.0	1.0	100.0	0	1	0	0	
metrohm.smt	R0905563-002	111	1.0	2.0	1.0	100.0	0	1	0	0/F	
metrohm.smt	R0905563-002 DUP	112	1.0	2.0	1.0	100.0	0	1	0	0/F	
metrohm.smt	R0905563-002 SPK	113	1.0	2.0	1.0	100.0	0	1	0	0/F	
metrohm.smt	R0905615-005	114	1.0	1.0	1.0	100.0	0	1	0	0/F	
metrohm.smt	R0905648-004	115	1.0	1.0	1.0	100.0	0	1	0	0/F	
metrohm.smt	R0905648-005	116	1.0	1.0	1.0	100.0	0	1	0	0/F	
metrohm.smt	R0905648-006	117	1.0	1.0	1.0	100.0	0	1	0	0/F	
metrohm.smt	R0905648-007	118	1.0	1.0	1.0	100.0	0	1	0	0/F	
metrohm.smt	R0905648-008	119	1.0	1.0	1.0	100.0	0	1	0	0/F	
metrohm.smt	R0905648-009	120	1.0	1.0	1.0	100.0	0	1	0	0/F	
metrohm.smt	CCV	121	1.0	1.0	1.0	100.0	0	1	0	0	
metrohm.smt	CCB	122	1.0	1.0	1.0	100.0	0	1	0	0	

Report date: 10/8/2009 9:07:22 AM
Printed by: User

Ident: CCV
Analysis from: 10/8/2009 8:55:24 AM
File: TA080855.CHW

Last save: 10/8/2009 9:07:23 AM

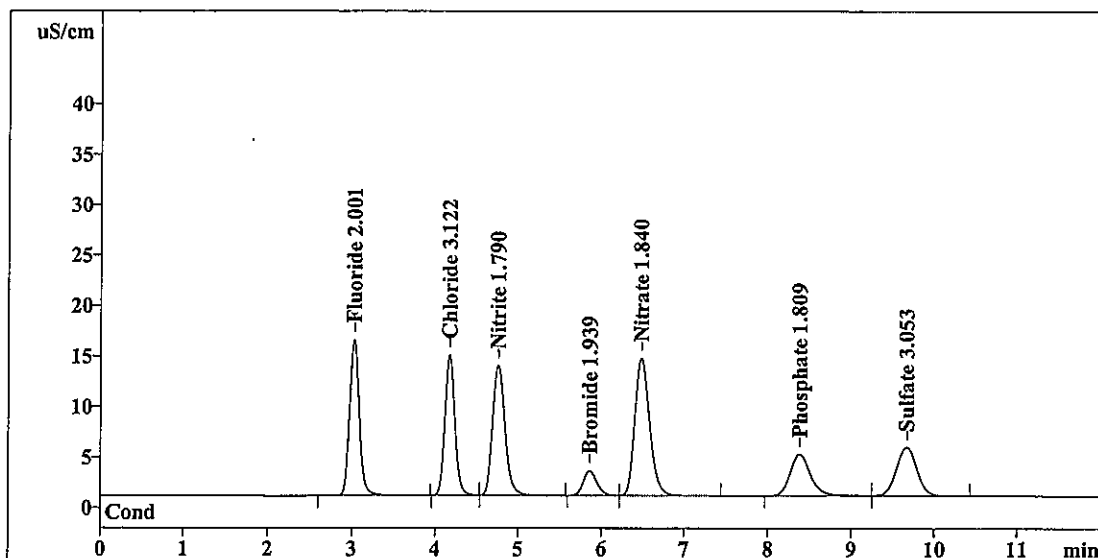
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8817

Last save: 10/8/2009 8:52:33

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	3.03	125.645	OK 2.001	Fluoride
2	4.18	117.247	↓ 3.122	Chloride
3	4.76	132.915	1.790	Nitrite
4	5.87	27.482	1.939	Bromide
5	6.49	170.506	OK 1.840	Nitrate
6	8.38	70.976	↓ 1.809	Phosphate
7	9.67	82.180	↓ 3.053	Sulfate
<hr/>				
7	12.00	726.951	15.556	

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RP w/alog

Report date: 10/8/2009 9:21:42 AM
Printed by: User

Ident: CCB
Analysis from: 10/8/2009 9:09:44 AM
File: TA080909.CHW

Last save: 10/8/2009 9:21:44 AM

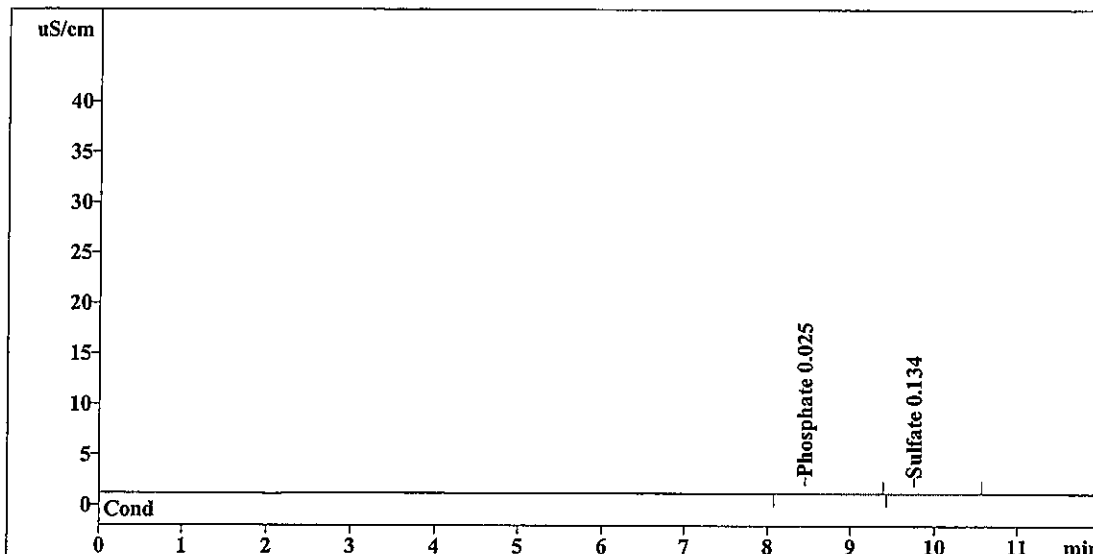
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8818

Last save: 10/8/2009 8:52:33

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	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	8.45	0.951	0.025	Phosphate
7	9.76	0.132	0.134	Sulfate
7	12.00	1.084	0.160	

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RP 10/9/09

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Report date: 10/8/2009 9:35:59 AM
Printed by: User

Ident: LCS
Analysis from: 10/8/2009 9:24:01 AM
File: TA080924.CHW

Last save: 10/8/2009 9:36:00 AM

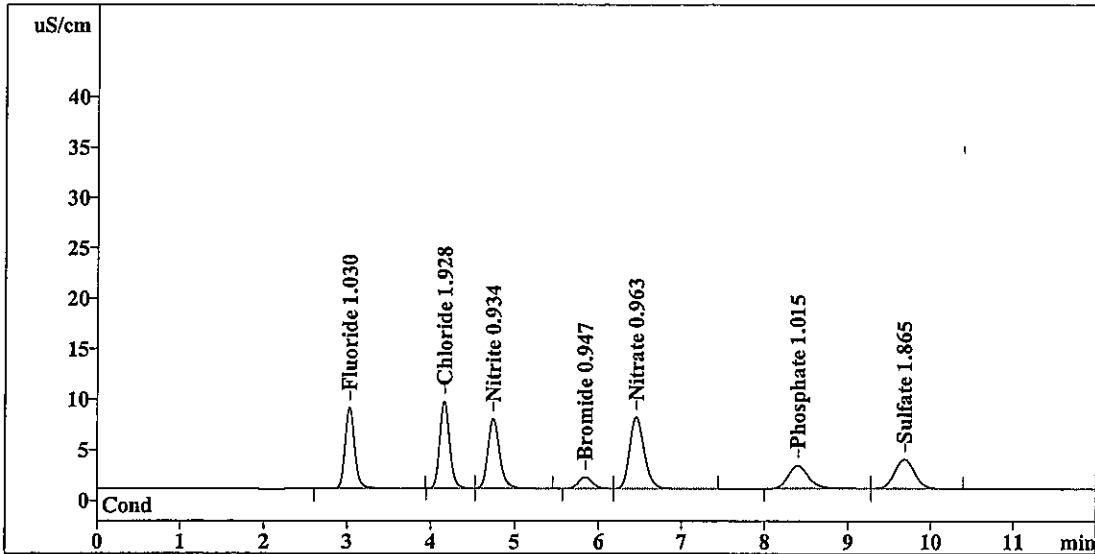
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8819

Last save: 10/8/2009 8:52:33

SAMPLE:

Vial number: 3
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	3.03	63.720	OK 1.030	Fluoride
2	4.17	71.127	↓ 1.928	Chloride
3	4.75	67.742	0.934	Nitrite
4	5.84	12.600	0.947	Bromide
5	6.46	86.118	OK 0.963	Nitrate
6	8.40	39.793	↓ 1.015	Phosphate
7	9.69	48.786	↓ 1.865	Sulfate
7	12.00	389.886	8.681	

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RP 10/9/09

Report date: 10/8/2009 10:22:06 AM
Printed by: User

Ident: R0905260-001
Analysis from: 10/8/2009 10:10:08 AM
File: TA081010.CHW

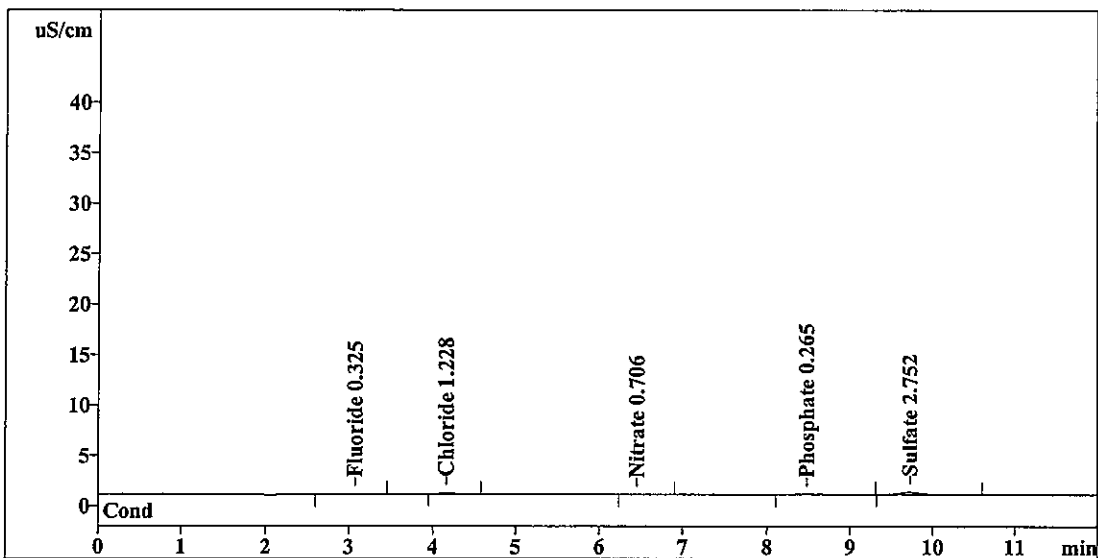
Last save: 10/8/2009 10:22:07 AM

Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8820

Last save: 10/8/2009 8:52:33

SAMPLE: C
:
Vial number: 4
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	3.07	0.133	0.325	Fluoride
2	4.16	1.419	1.228	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.46	0.208	0.706	Nitrate
6	8.48	0.998	0.265	Phosphate
7	9.72	4.091	2.752	Sulfate
7	12.00	6.849	5.275	

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RP 10/9/09

Report date: 10/8/2009 10:36:23 AM
Printed by: User

Ident: R0905428-005
Analysis from: 10/8/2009 10:24:25 AM
File: TA081024.CHW

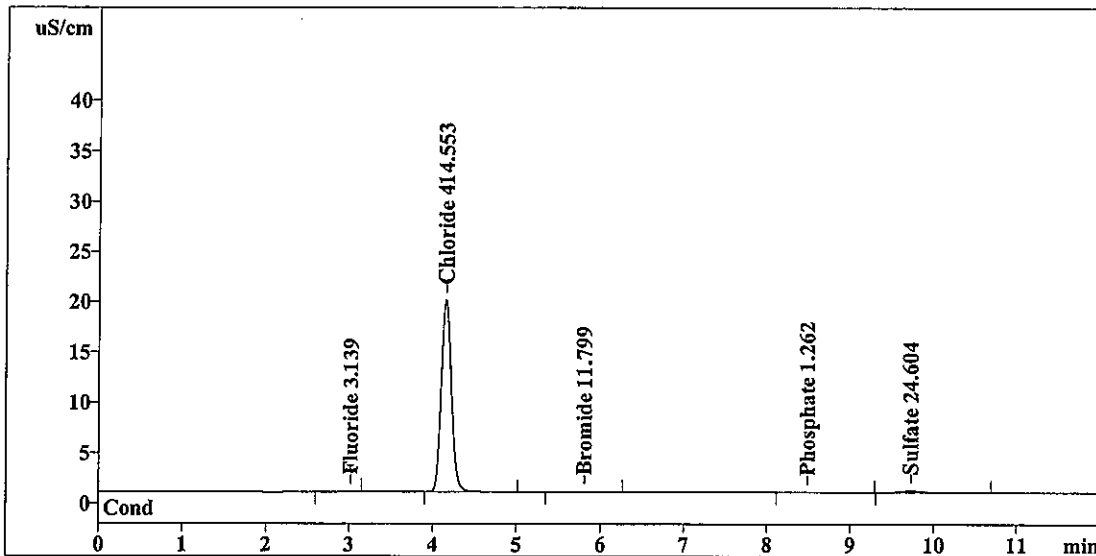
Last save: 10/8/2009 10:36:25 AM

Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8821

Last save: 10/8/2009 8:52:33

SAMPLE: C
Vial number: 5
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	3.02	0.065	3.139	Fluoride
2	4.16	156.784	414.553	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.81	0.175	11.799	Bromide
5	0.00	0.000	0.000	Nitrate
6	8.49	0.455	1.262	Phosphate
7	9.73	3.271	24.604	Sulfate
7	12.00	160.750	455.358	

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RP 10/9/09

Report date: 10/8/2009 10:50:40 AM
Printed by: User

Ident: R0905462-001
Analysis from: 10/8/2009 10:38:42 AM
File: TA081038.CHW

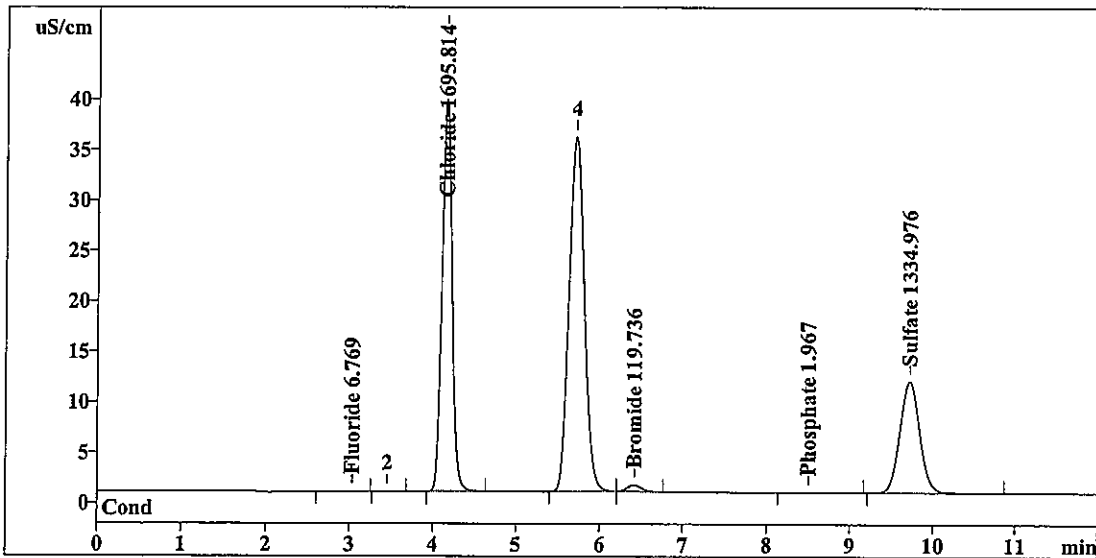
Last save: 10/8/2009 10:50:42 AM

Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8822

Last save: 10/8/2009 8:52:33

SAMPLE: CS
Vial number: 6
Volume: 1.0 µL
Dilution: 200.00
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	3.03	0.221	6.769	Fluoride
2	4.16	324.154	1695.814	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.42	7.382	119.736	Bromide
5	0.00	0.000	0.000	Nitrate
6	8.50	0.345	1.967	Phosphate
7	9.73	183.977	1334.976	Sulfate
7	12.00	516.080	3159.262	

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RP 10/19/09

Report date: 10/8/2009 11:04:57 AM
Printed by: User

Ident: R0905462-001 DUP
Analysis from: 10/8/2009 10:52:59 AM
File: TA081052.CHW

Last save: 10/8/2009 11:04:59 AM

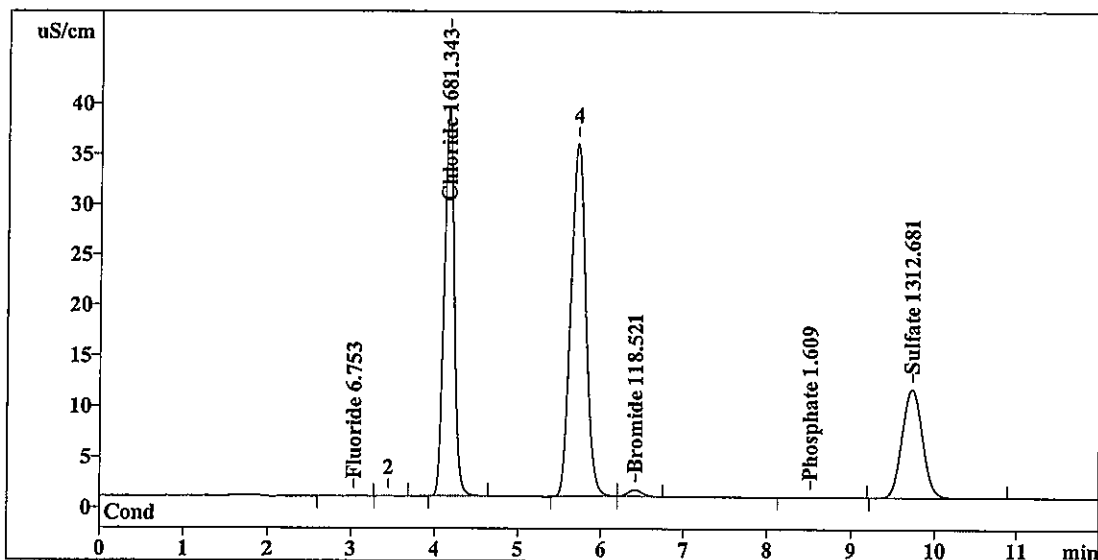
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8823

Last save: 10/8/2009 8:52:33

SAMPLE: CS

Vial number: 7
Volume: 1.0 µL
Dilution: 200.00
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	3.03	0.216	6.753	Fluoride
2	4.16	321.360	1681.343	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.41	7.291	118.521	Bromide
5	0.00	0.000	0.000	Nitrate
6	8.51	0.275	1.609	Phosphate
7	9.73	180.844	1312.681	Sulfate
7	12.00	509.986	3120.906	

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RP 10/9/09

Report date: 10/8/2009 11:19:14 AM
Printed by: User

Ident: R0905462-001 SPK
Analysis from: 10/8/2009 11:07:16 AM
File: TA081107.CHW

Last save: 10/8/2009 11:19:15 AM

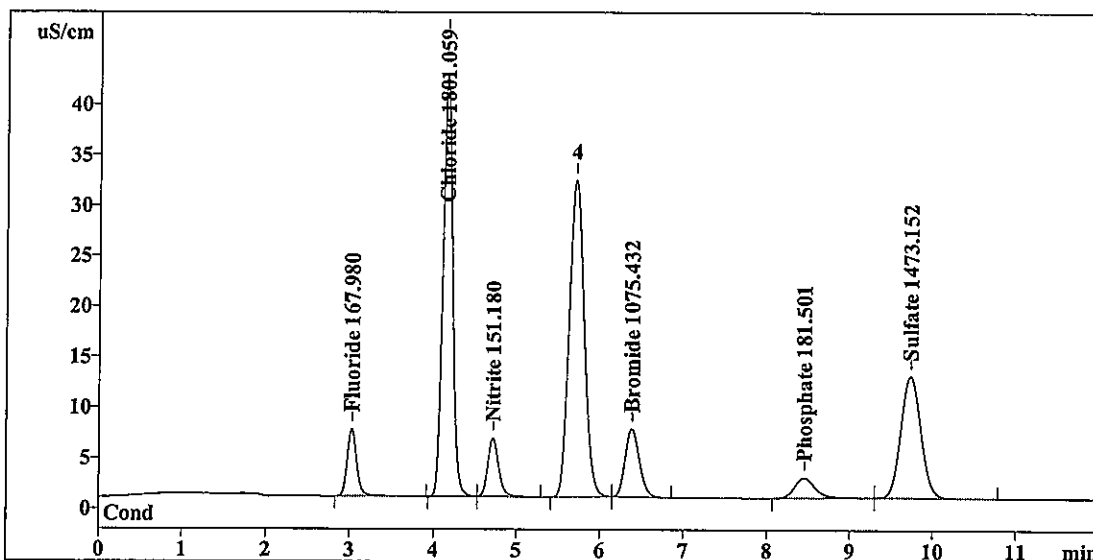
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8824

Last save: 10/8/2009 8:52:33

SAMPLE: CS

Vial number: 8
Volume: 1.0 µL
Dilution: 200.00
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	3.03	51.613	167.980	Fluoride
2	4.16	344.478	OK 1801.059	Chloride
3	4.72	54.213	151.180	Nitrite
4	6.39	79.022	1075.432	Bromide
5	0.00	0.000	0.000	Nitrate
6	8.46	35.585	181.501	Phosphate
7	9.74	203.397	OK 1473.152	Sulfate
<hr/>				
7	12.00	768.308	4850.304	

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RP 10/9/09

Report date: 10/8/2009 11:33:31 AM
Printed by: User

Ident: R0905462-003
Analysis from: 10/8/2009 11:21:33 AM
File: TA081121.CHW

Last save: 10/8/2009 11:33:33 AM

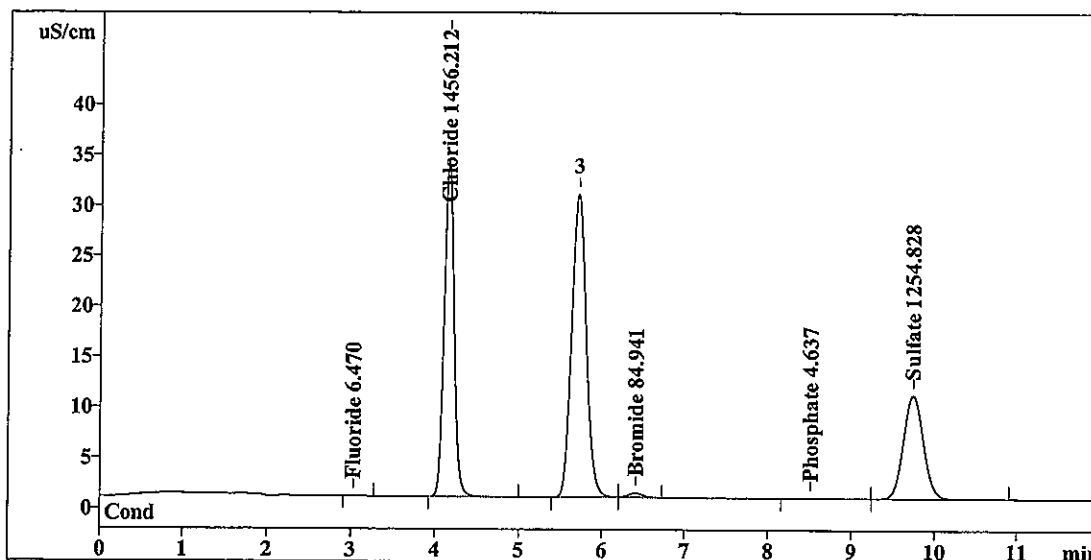
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8825

Last save: 10/8/2009 8:52:33

SAMPLE: CS

Vial number: 9
Volume: 1.0 µL
Dilution: 200.00
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	3.03	0.126	6.470	Fluoride
2	4.16	277.885	OK 1456.212	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.41	4.774	84.941	Bromide
5	0.00	0.000	0.000	Nitrate
6	8.52	0.869	4.637	Phosphate
7	9.75	172.713	OK 1254.828	Sulfate
7	12.00	456.367	2807.089	

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RP 10/9/09

Report date: 10/8/2009 11:47:49 AM
Printed by: User

Ident: R0905462-004
Analysis from: 10/8/2009 11:35:50 AM
File: TA081135.CHW

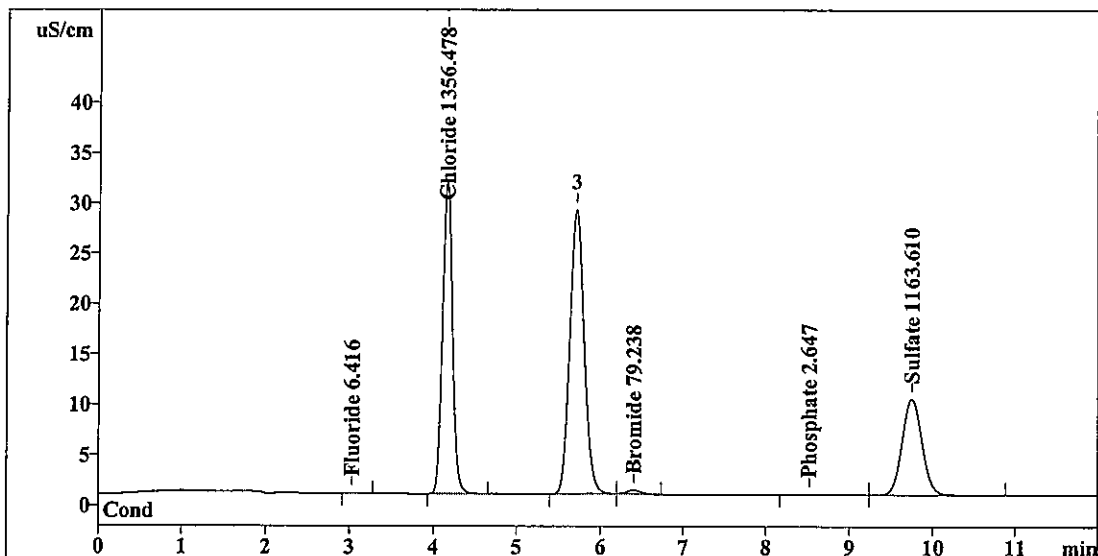
Last save: 10/8/2009 11:47:50 AM

Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8826

Last save: 10/8/2009 8:52:33

SAMPLE: CS
Vial number: 10
Volume: 1.0 µL
Dilution: 200.00
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	3.03	0.109	6.416	Fluoride
2	4.16	258.625	1356.478	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.41	4.346	79.238	Bromide
5	0.00	0.000	0.000	Nitrate
6	8.52	0.479	2.647	Phosphate
7	9.75	159.893	1163.610	Sulfate
7	12.00	423.452	2608.389	

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10/9/09

Report date: 10/8/2009 12:02:08 PM
Printed by: User

Ident: R0905635-001
Analysis from: 10/8/2009 11:50:10 AM
File: TA081150.CHW

Last save: 10/8/2009 12:02:09 PM

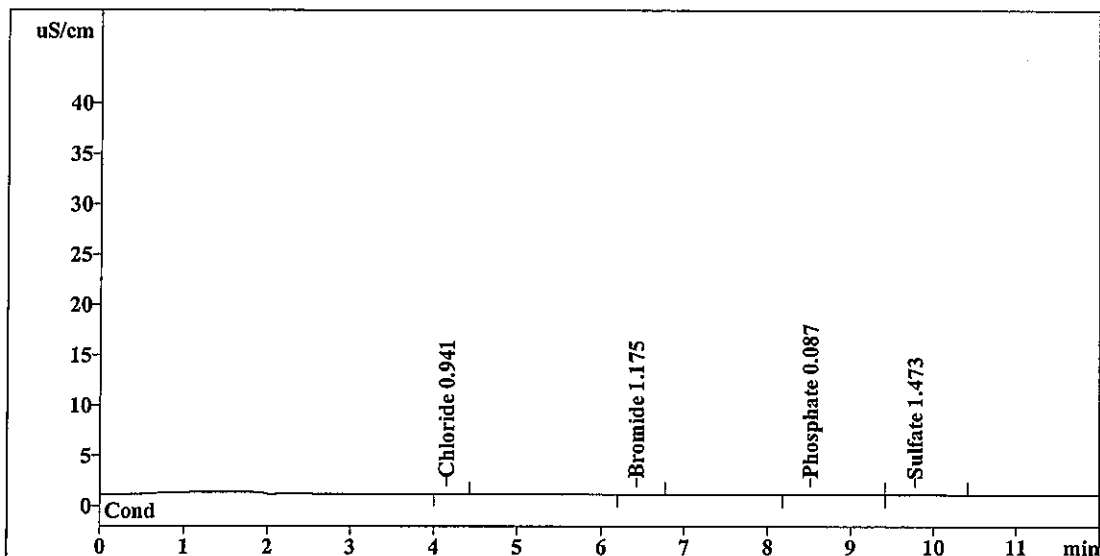
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8827

Last save: 10/8/2009 8:52:33

SAMPLE: C

Vial number: 11
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	0.00	0.000	0.000	Fluoride
2	4.15	0.308	0.941	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.42	0.167	1.175	Bromide
5	0.00	0.000	0.000	Nitrate
6	8.52	0.299	0.087	Phosphate
7	9.78	0.495	1.473	Sulfate
<hr/>				
7	12.00	1.269	3.675	

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RP 10/9/09

Report date: 10/8/2009 12:16:25 PM
Printed by: User

Ident: R0905635-012
Analysis from: 10/8/2009 12:04:27 PM
File: TA081204.CHW

Last save: 10/8/2009 12:16:27 PM

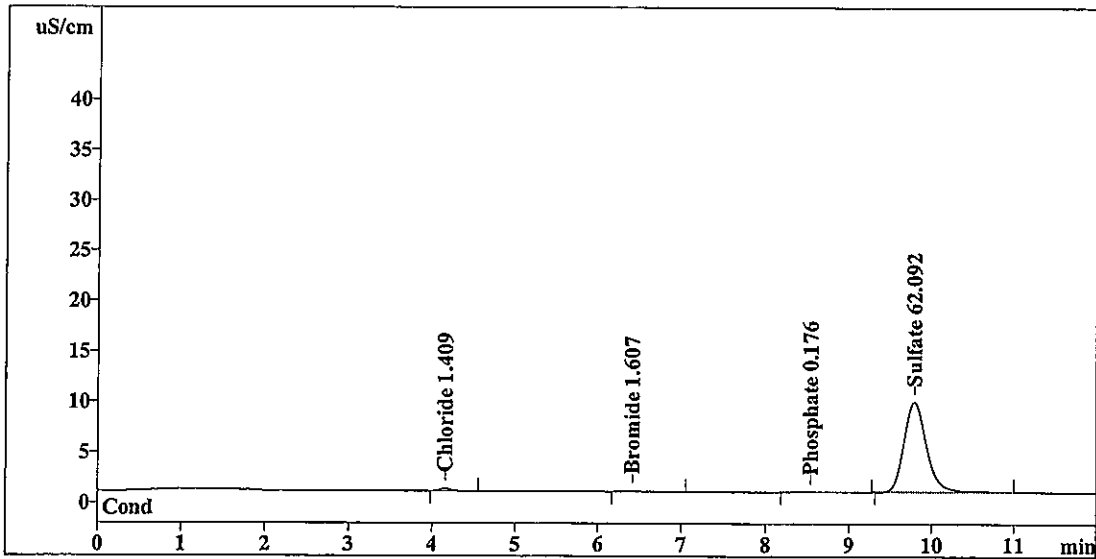
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8828

Last save: 10/8/2009 8:52:33

SAMPLE: C

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	0.00	0.000	0.000	Fluoride
2	4.16	2.117	1.409	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.42	0.816	1.607	Bromide
5	0.00	0.000	0.000	Nitrate
6	8.54	0.651	0.176	Phosphate
7	9.79	170.886	62.092	Sulfate
7	12.00	174.471	65.284	

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RP 10/9/09

Report date: 10/8/2009 12:30:42 PM
Printed by: User

Ident: CCV
Analysis from: 10/8/2009 12:18:44 PM
File: TA081218.CHW

Last save: 10/8/2009 12:30:44 PM

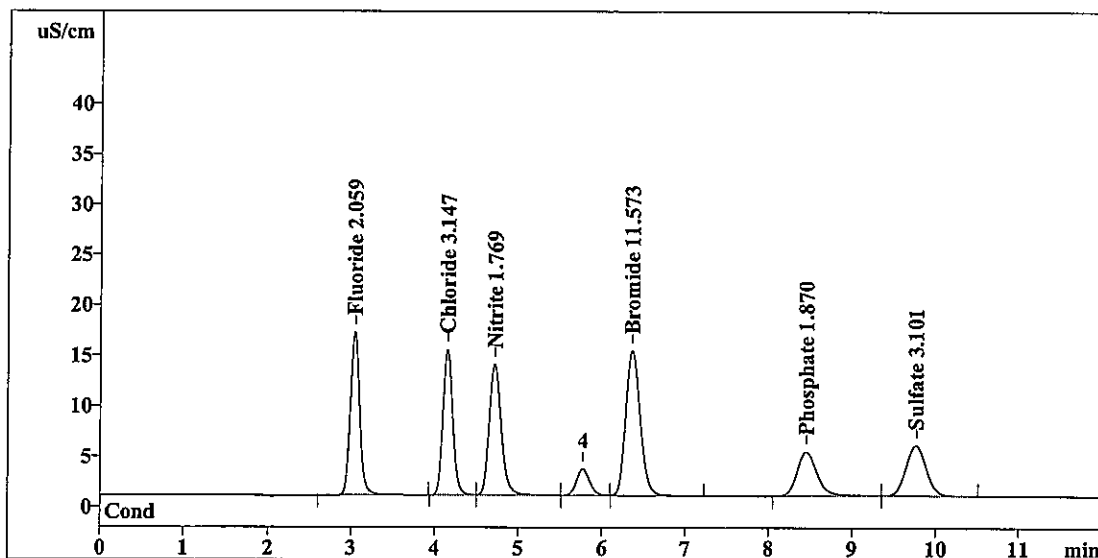
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8829

Last save: 10/8/2009 8:52:33

SAMPLE:

Vial number: 13
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	3.04	129.338	2.059	Fluoride
2	4.16	118.227	3.147	Chloride
3	4.72	131.293	1.769	Nitrite
4	6.36	171.914	11.573	Bromide
5	0.00	0.000	0.000	Nitrate
6	8.46	73.364	1.870	Phosphate
7	9.77	83.507	3.101	Sulfate
7	12.00	707.643	23.519	

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RP 10/9/09*

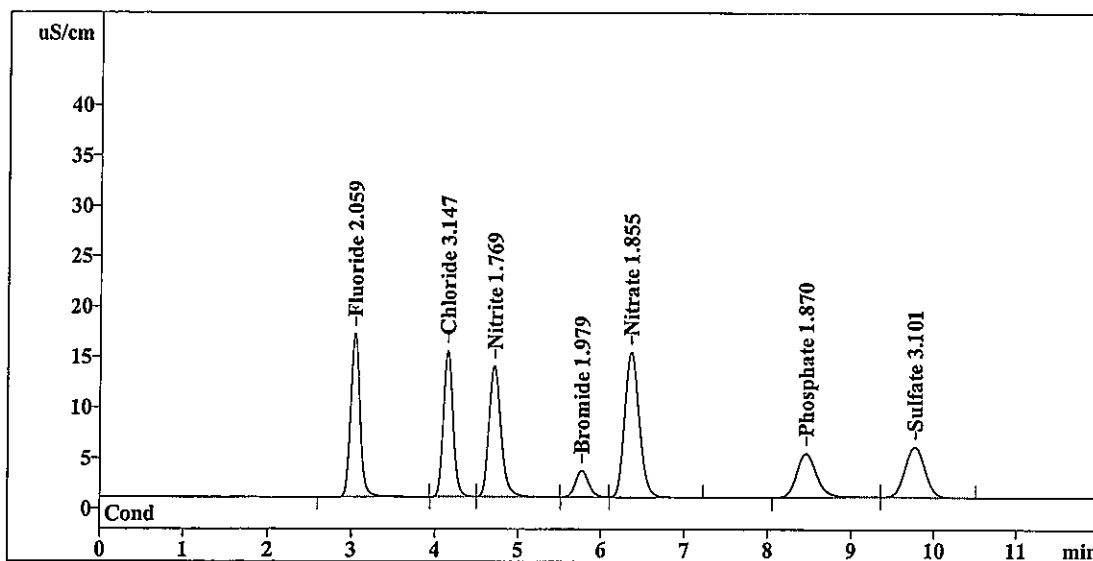
Report date: 10/8/2009 1:19:04 PM
Printed by: User

Ident: CCV
Analysis from: 10/8/2009 12:18:44 PM
File: ta081218.chw Last save: 10/8/2009 12:30:44 PM
Modified!
Method: 09-15-09CAL.mtw Last save: 10/8/2009 8:52:33
Run operator: User
Analysis number: 8829

SAMPLE:

Vial number: 13
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	3.04	129.338	OK 2.059	Fluoride
2	4.16	118.227	↓ 3.147	Chloride
3	4.72	131.293	1.769	Nitrite
4	5.78	28.076	OK 1.979	Bromide
5	6.36	171.914	↓ 1.855	Nitrate
6	8.46	73.364	↓ 1.870	Phosphate
7	9.77	83.507	↓ 3.101	Sulfate
7	12.00	735.719	15.780	

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RP 10/9/09

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METROHM LTD

Report date: 10/8/2009 12:44:59 PM
Printed by: User

Ident: CCB
Analysis from: 10/8/2009 12:33:01 PM
File: TA081233.CHW

Last save: 10/8/2009 12:45:01 PM

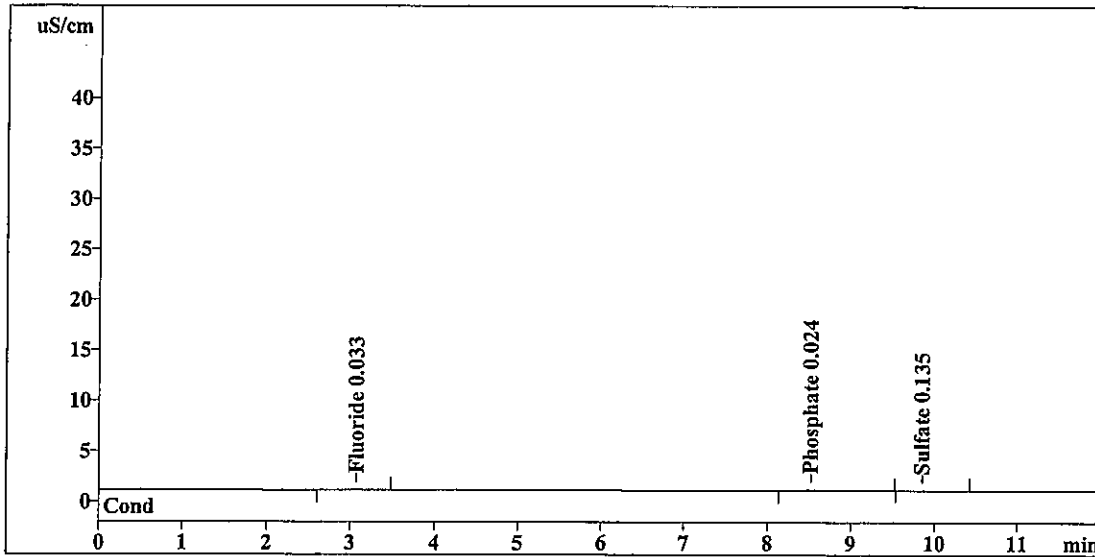
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8830

Last save: 10/8/2009 8:52:33

SAMPLE:

Vial number: 14
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	3.08	0.146	0.033	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	8.52	0.894	0.024	Phosphate
7	9.85	0.146	0.135	Sulfate
7	12.00	1.187	0.191	

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RP 10/9/09

Report date: 10/8/2009 12:59:16 PM
Printed by: User

Ident: R0905636-001
Analysis from: 10/8/2009 12:47:18 PM
File: TA081247.CHW

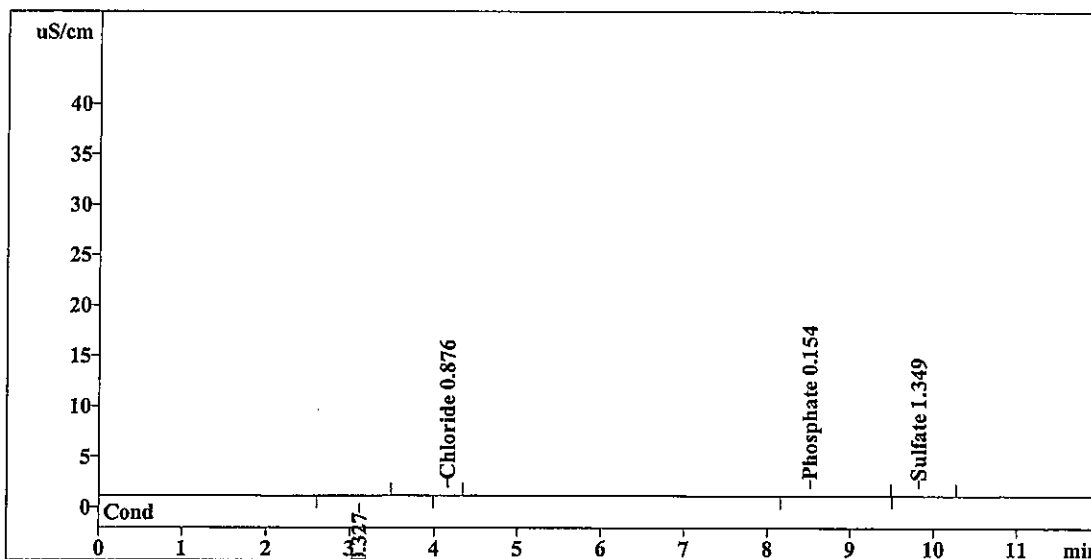
Last save: 10/8/2009 12:59:17 PM

Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8831

Last save: 10/8/2009 8:52:33

SAMPLE: C
Vial number: 15
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	3.12	0.146	0.327	Fluoride
2	4.16	0.058	OK 0.876	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	8.52	0.563	0.154	Phosphate
7	9.84	0.147	1.349	Sulfate
<hr/>				
7	12.00	0.913	2.705	

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RP 10/9/09

Report date: 10/8/2009 1:13:33 PM
Printed by: User

Ident: R0905636-002
Analysis from: 10/8/2009 1:01:35 PM
File: TA081301.CHW

Last save: 10/8/2009 1:13:35 PM

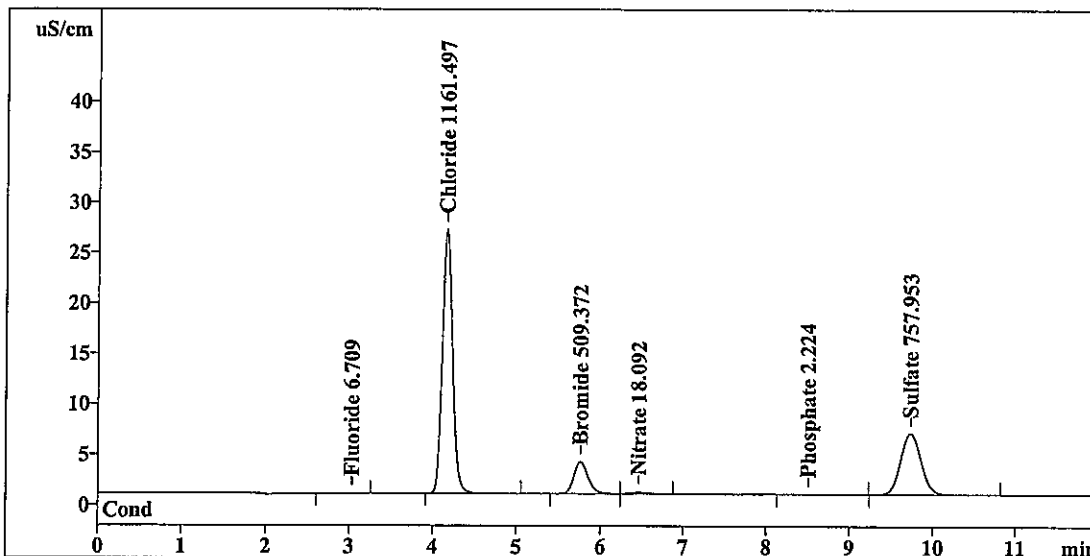
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8832

Last save: 10/8/2009 8:52:33

SAMPLE: CS

Vial number: 16
Volume: 1.0 µL
Dilution: 200.00
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	3.03	0.202	6.709	Fluoride
2	4.17	220.972	OK 1161.497	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.77	36.590	509.372	Bromide
5	6.47	2.123	18.092	Nitrate
6	8.51	0.396	2.224	Phosphate
7	9.74	102.881	OK 757.953	Sulfate
7	12.00	363.164	2455.848	

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RP 10/10/09

Report date: 10/8/2009 1:27:50 PM
Printed by: User

Ident: R0905636-003
Analysis from: 10/8/2009 1:15:52 PM
File: TA081315.CHW

Last save: 10/8/2009 1:27:52 PM

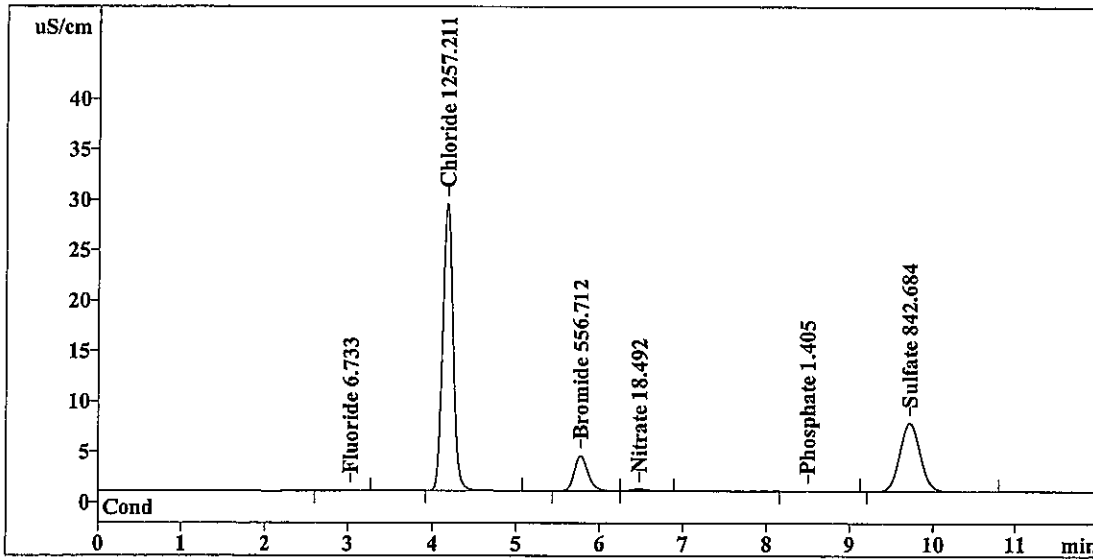
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8833

Last save: 10/8/2009 8:52:33

SAMPLE: CS

Vial number: 17
Volume: 1.0 µL
Dilution: 200.00
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	3.03	0.210	6.733	Fluoride
2	4.17	239.456	OK 1257.211	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.77	40.138	556.712	Bromide
5	6.49	2.316	18.492	Nitrate
6	8.50	0.235	1.405	Phosphate
7	9.73	114.789	OK 842.684	Sulfate
<hr/>				
7	12.00	397.143	2683.237	

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RP 10/9/09

Report date: 10/8/2009 1:42:06 PM
Printed by: User

Ident: R0905567-001
Analysis from: 10/8/2009 1:30:08 PM
File: TA081330.CHW

Last save: 10/8/2009 1:42:08 PM

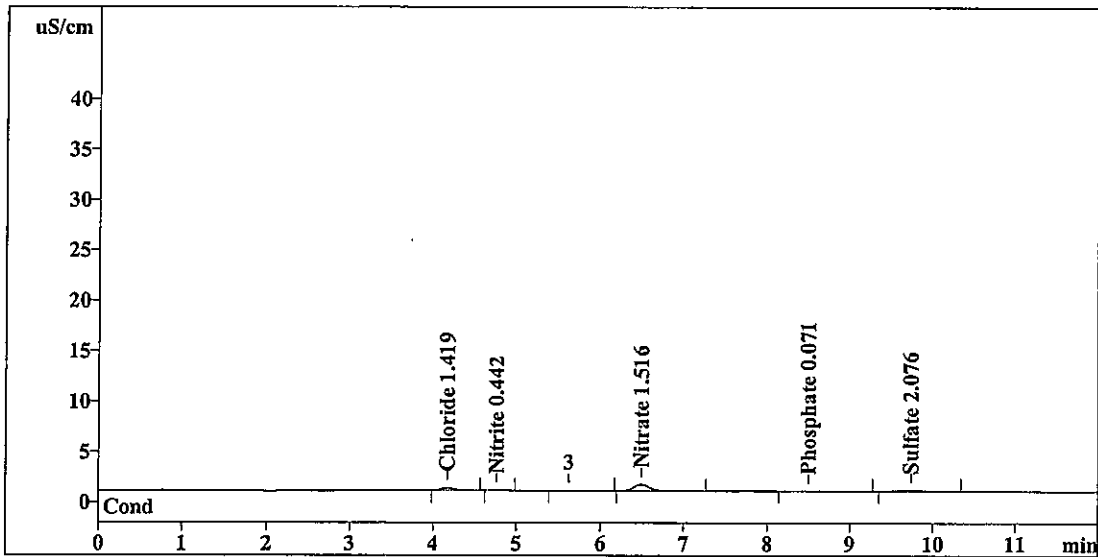
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8834

Last save: 10/8/2009 8:52:33

SAMPLE: S

Vial number: 18
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	0.00	0.000	0.000	Fluoride
2	4.17	2.155	1.419	Chloride
3	4.76	0.073	0.442	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.50	8.009	1.516	Nitrate
6	8.50	0.237	0.071	Phosphate
7	9.74	2.190	2.076	Sulfate
7	12.00	12.665	5.524	

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RP 10/10/09

Report date: 10/8/2009 2:13:28 PM
Printed by: User

Ident: R0905472-009
Analysis from: 10/8/2009 2:01:30 PM
File: TA081401.CHW

Last save: 10/8/2009 2:13:30 PM

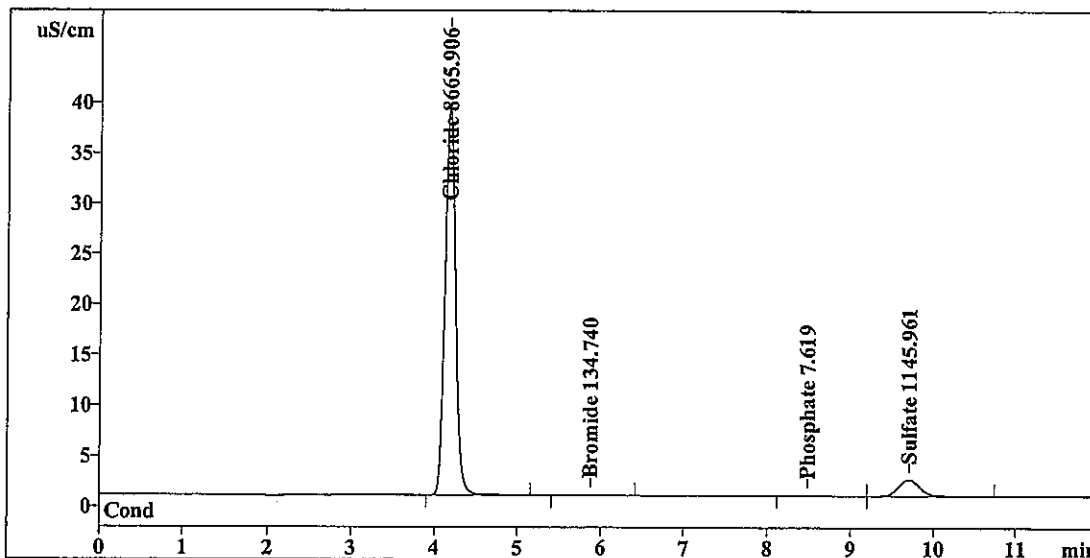
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8835

Last save: 10/8/2009 8:52:33

SAMPLE: C

Vial number: 19
Volume: 1.0 µL
Dilution: 1000.00
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	0.00	0.000	0.000	Fluoride
2	4.18	331.371	8665.906	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.88	0.426	134.740	Bromide
5	0.00	0.000	0.000	Nitrate
6	8.48	0.258	7.619	Phosphate
7	9.71	28.567	1145.961	Sulfate
7	12.00	360.622	9954.227	

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RP 10/9/09

Report date: 10/8/2009 2:27:48 PM
Printed by: User

Ident: R0905472-009
Analysis from: 10/8/2009 2:15:50 PM
File: TA081415.CHW

Last save: 10/8/2009 2:27:50 PM

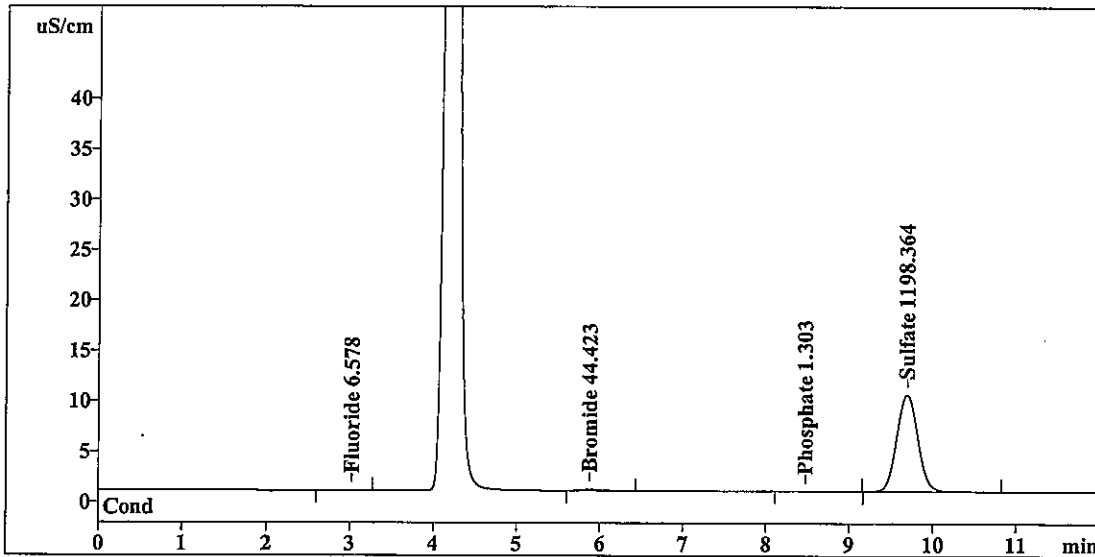
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8836

Last save: 10/8/2009 8:52:33

SAMPLE: S

Vial number: 20
Volume: 1.0 µL
Dilution: 200.00
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	3.03	0.160	6.578	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.88	1.736	44.423	Bromide
5	0.00	0.000	0.000	Nitrate
6	8.48	0.215	1.303	Phosphate
7	9.70	164.778	1198.364	Sulfate
7	12.00	166.889	1250.667	

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RP 10/9/09

Report date: 10/8/2009 2:42:05 PM
Printed by: User

Ident: R0905700-001
Analysis from: 10/8/2009 2:30:07 PM
File: TA081430.CHW

Last save: 10/8/2009 2:42:07 PM

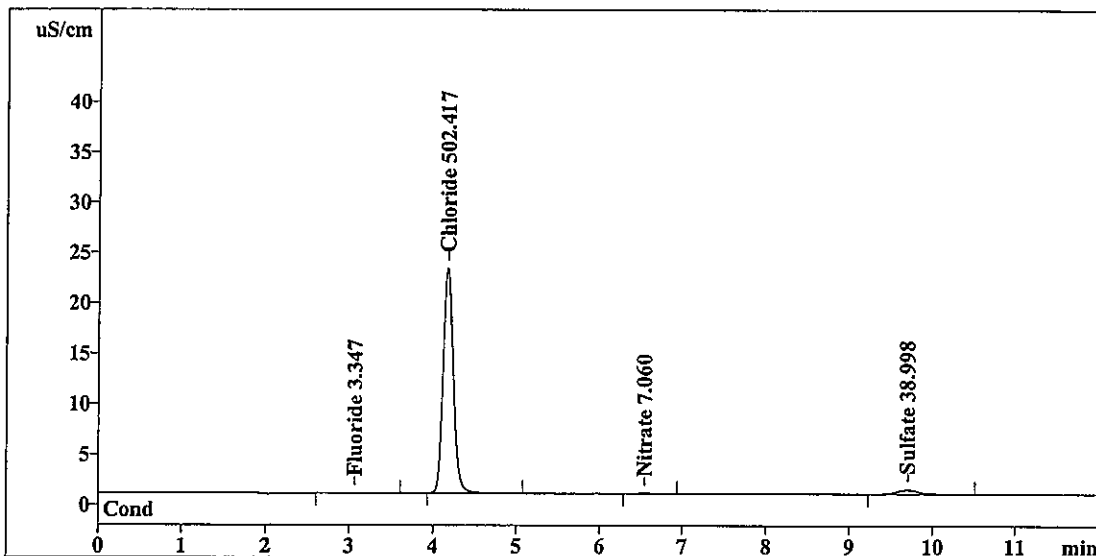
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8837

Last save: 10/8/2009 8:52:33

SAMPLE: C

Vial number: 21
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	3.05	0.197	3.347	Fluoride
2	4.18	190.719	OK-502.417	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.55	0.212	7.060	Nitrate
6	0.00	0.000	0.000	Phosphate
7	9.70	7.317	38.998	Sulfate
7	12.00	198.445	551.821	

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RP 1019109

Report date: 10/8/2009 2:56:22 PM
Printed by: User

Ident: R0905700-002
Analysis from: 10/8/2009 2:44:24 PM
File: TA081444.CHW

Last save: 10/8/2009 2:56:24 PM

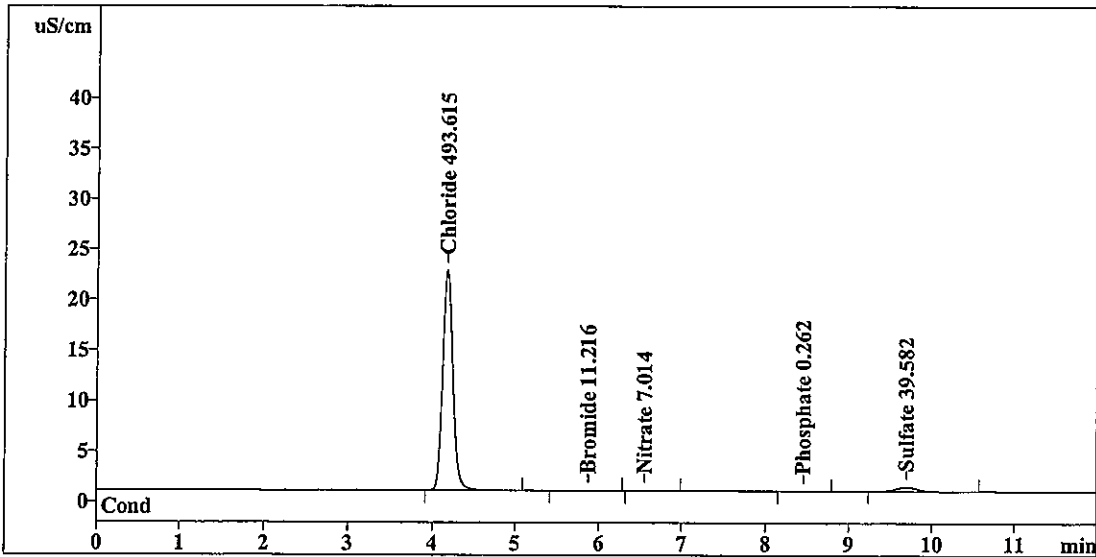
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8838

Last save: 10/8/2009 8:52:33

SAMPLE: C

Vial number: 22
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	0.00	0.000	0.000	Fluoride
2	4.18	187.319	OK 493.615	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.88	0.088	11.216	Bromide
5	6.56	0.168	7.014	Nitrate
6	8.46	0.062	0.262	Phosphate
7	9.70	7.481	39.582	Sulfate
7	12.00	195.119	551.689	

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RP 10/9/09

Report date: 10/8/2009 3:10:39 PM
Printed by: User

Ident: R0905700-002 DUP
Analysis from: 10/8/2009 2:58:40 PM
File: TA081458.CHW

Last save: 10/8/2009 3:10:41 PM

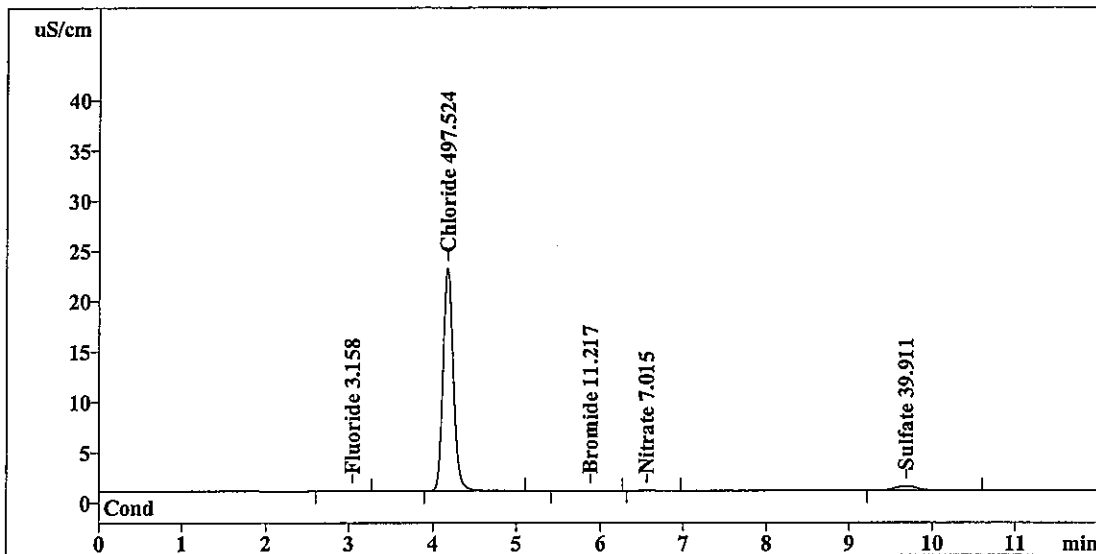
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8839

Last save: 10/8/2009 8:52:33

SAMPLE: C

Vial number: 23
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	3.03	0.077	3.158	Fluoride
2	4.18	188.829	OK 497.524	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.88	0.088	11.217	Bromide
5	6.57	0.169	7.015	Nitrate
6	0.00	0.000	0.000	Phosphate
7	9.69	7.574	39.911	Sulfate
<hr/>				
7	12.00	196.737	558.826	

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RP 10/9/09

Report date: 10/8/2009 3:24:55 PM
Printed by: User

Ident: R0905700-002 SPK
Analysis from: 10/8/2009 3:12:57 PM
File: TA081512.CHW

Last save: 10/8/2009 3:24:57 PM

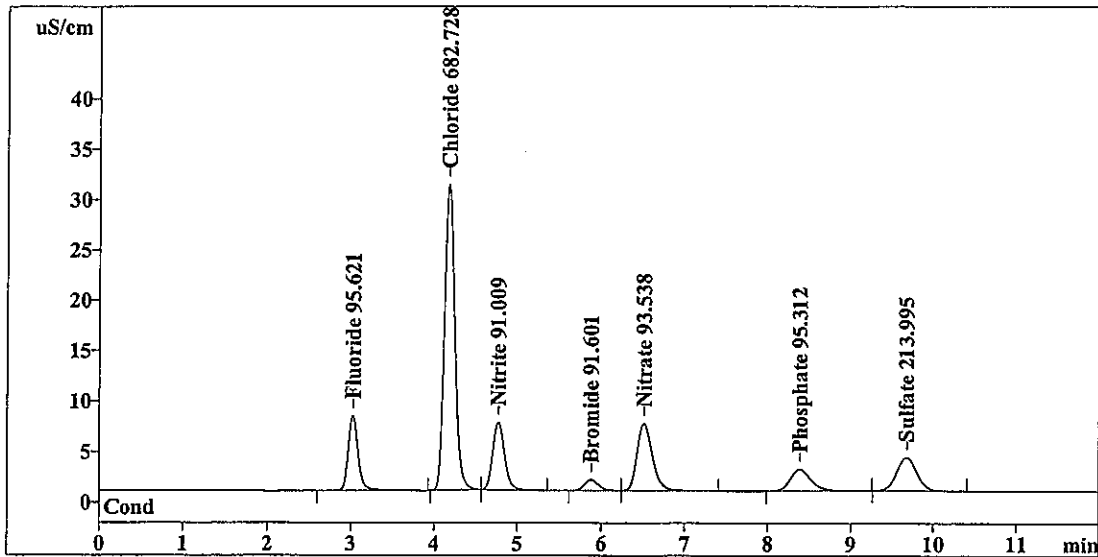
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8840

Last save: 10/8/2009 8:52:33

SAMPLE: C

Vial number: 24
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	3.03	59.028	95.621	Fluoride
2	4.18	260.359	682.728	Chloride
3	4.77	65.942	91.009	Nitrite
4	5.89	12.139	91.601	Bromide
5	6.52	83.424	93.538	Nitrate
6	8.39	37.376	95.312	Phosphate
7	9.68	56.507	213.995	Sulfate
<hr/>				
7	12.00	574.774	1363.804	

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RP 10/9/09

Report date: 10/8/2009 3:39:12 PM
Printed by: User

Ident: CCV
Analysis from: 10/8/2009 3:27:14 PM
File: TA081527.CHW

Last save: 10/8/2009 3:39:14 PM

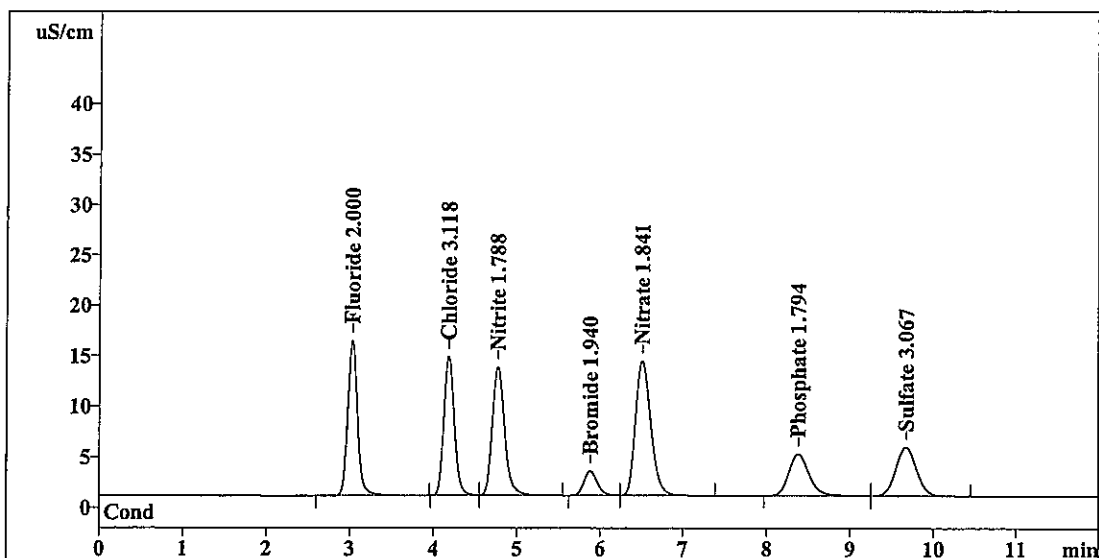
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8841

Last save: 10/8/2009 8:52:33

SAMPLE:

Vial number: 25
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	3.03	125.580	2.000	Fluoride
2	4.18	117.117	3.118	Chloride
3	4.77	132.735	1.788	Nitrite
4	5.89	27.496	1.940	Bromide
5	6.51	170.516	1.841	Nitrate
6	8.38	70.405	1.794	Phosphate
7	9.68	82.561	3.067	Sulfate
7	12.00	726.411	15.549	

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RP 10/9/09

Report date: 10/8/2009 3:53:29 PM
Printed by: User

Ident: CCB
Analysis from: 10/8/2009 3:41:31 PM
File: TA081541.CHW

Last save: 10/8/2009 3:53:31 PM

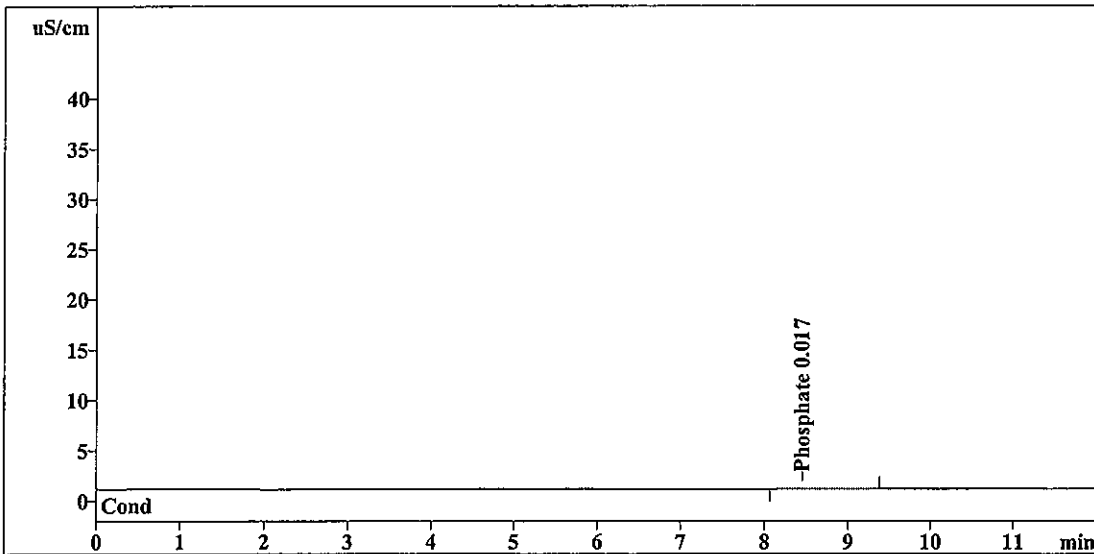
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8842

Last save: 10/8/2009 8:52:33

SAMPLE:

Vial number: 26
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	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	8.45	0.631	0.017	Phosphate
7	0.00	0.000	0.000	Sulfate
<hr/>				
7	12.00	0.631	0.017	

OK
↓

RP 10/9/09

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Report date: 10/8/2009 4:07:46 PM
Printed by: User

Ident: LCS
Analysis from: 10/8/2009 3:55:48 PM
File: TA081555.CHW

Last save: 10/8/2009 4:07:48 PM

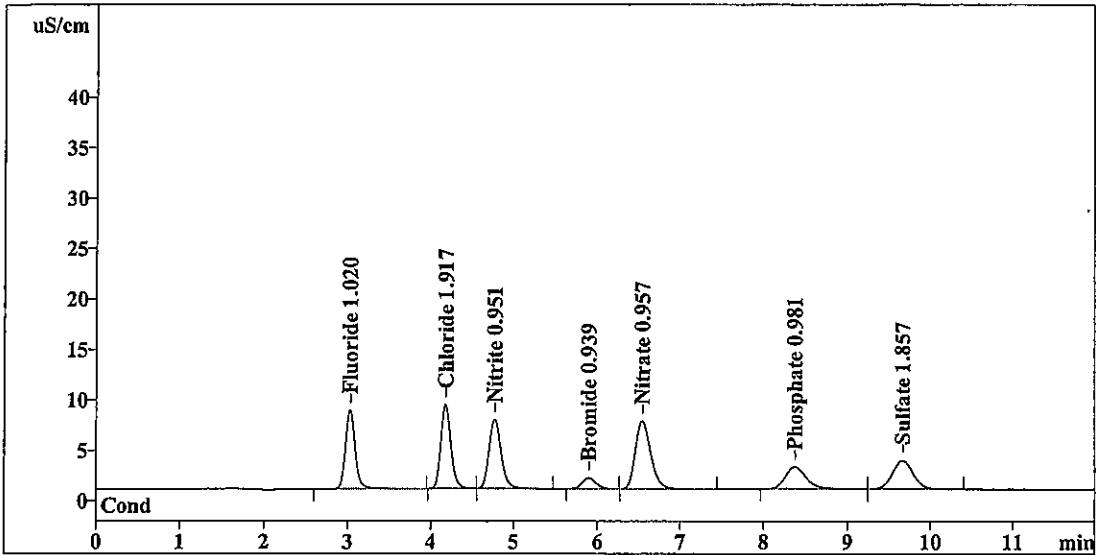
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8843

Last save: 10/8/2009 8:52:33

SAMPLE:

Vial number: 27
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	3.03	63.091	1.020	Fluoride
2	4.18	70.703	1.917	Chloride
3	4.78	69.033	0.951	Nitrite
4	5.90	12.485	0.939	Bromide
5	6.54	85.524	0.957	Nitrate
6	8.38	38.465	0.981	Phosphate
7	9.67	48.559	1.857	Sulfate
7	12.00	387.861	8.622	

OK
OK
OK

RP 10/9/09

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Report date: 10/8/2009 4:22:03 PM
Printed by: User

Ident: R0905121-001
Analysis from: 10/8/2009 4:10:04 PM
File: TA081610.CHW

Last save: 10/8/2009 4:22:05 PM

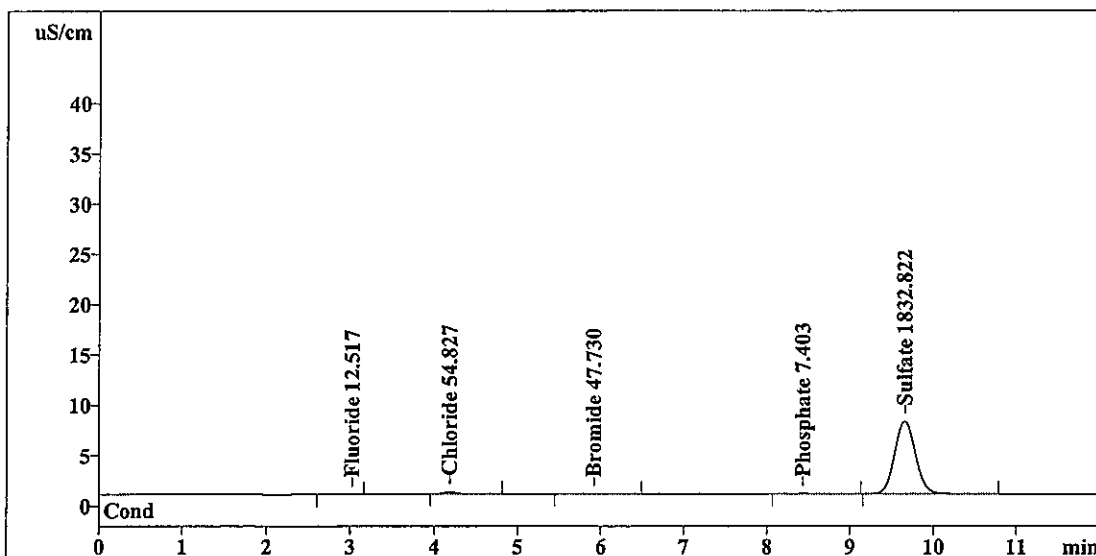
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8844

Last save: 10/8/2009 8:52:33

SAMPLE: S

Vial number: 28
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	3.03	0.058	12.517	Fluoride
2	4.18	1.969	54.827	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.92	0.195	47.730	Bromide
5	0.00	0.000	0.000	Nitrate
6	8.44	0.686	7.403	Phosphate
7	9.66	125.151	OK 1832.822	Sulfate
7	12.00	128.059	1955.300	

This report has been created by IC Net
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RP W9109

Report date: 10/8/2009 4:36:19 PM
Printed by: User

Ident: R0905285-003
Analysis from: 10/8/2009 4:24:21 PM
File: TA081624.CHW

Last save: 10/8/2009 4:36:22 PM

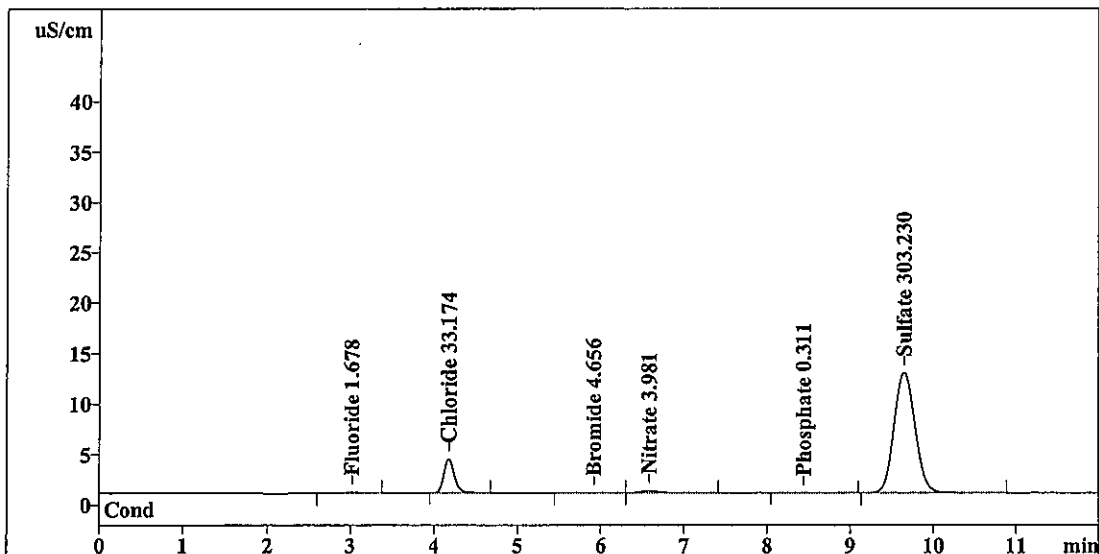
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8845

Last save: 10/8/2009 8:52:33

SAMPLE: S

Vial number: 29
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	3.02	0.739	1.678	Fluoride
2	4.18	28.706	33.174	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.92	0.152	4.656	Bromide
5	6.59	2.995	3.981	Nitrate
6	8.43	0.264	0.311	Phosphate
7	9.65	209.440	OK 303.230	Sulfate
7	12.00	242.295	347.030	

This report has been created by IC Net
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RP 10/9/09

Report date: 10/8/2009 4:50:36 PM
Printed by: User

Ident: R0905504-026
Analysis from: 10/8/2009 4:38:38 PM
File: TA081638.CHW

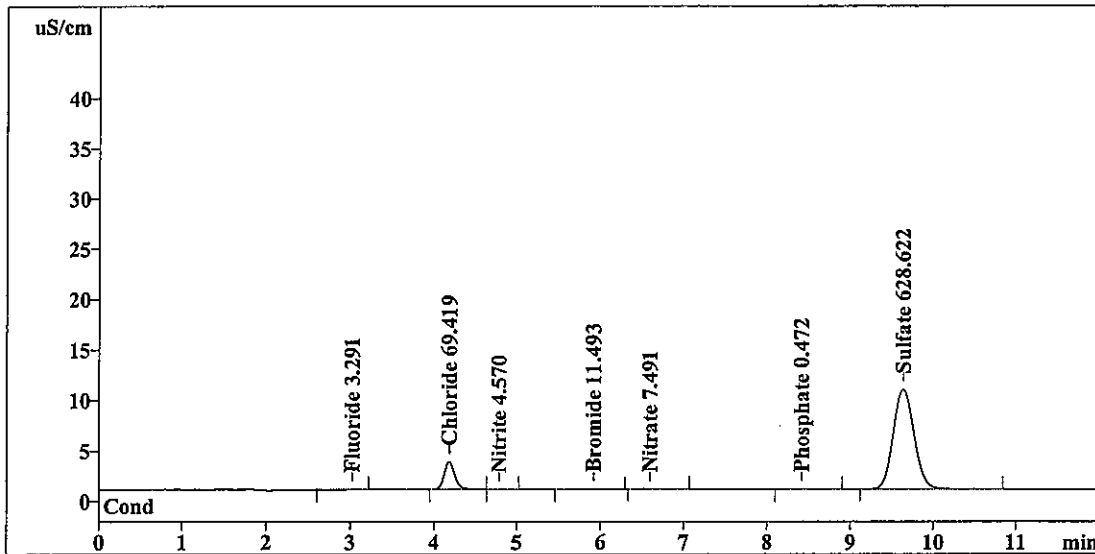
Last save: 10/8/2009 4:50:38 PM

Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8846

Last save: 10/8/2009 8:52:33

SAMPLE: S
Vial number: 30
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	3.02	0.162	3.291	Fluoride
2	4.18	23.486	69.419	Chloride
3	4.78	0.186	4.570	Nitrite
4	5.92	0.129	11.493	Bromide
5	6.60	0.627	7.491	Nitrate
6	8.43	0.144	0.472	Phosphate
7	9.65	173.053	628.622	Sulfate
7	12.00	197.788	725.358	

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RP Wialog

Report date: 10/8/2009 5:04:53 PM
Printed by: User

Ident: R0905590-002
Analysis from: 10/8/2009 4:52:55 PM
File: TA081652.CHW

Last save: 10/8/2009 5:04:55 PM

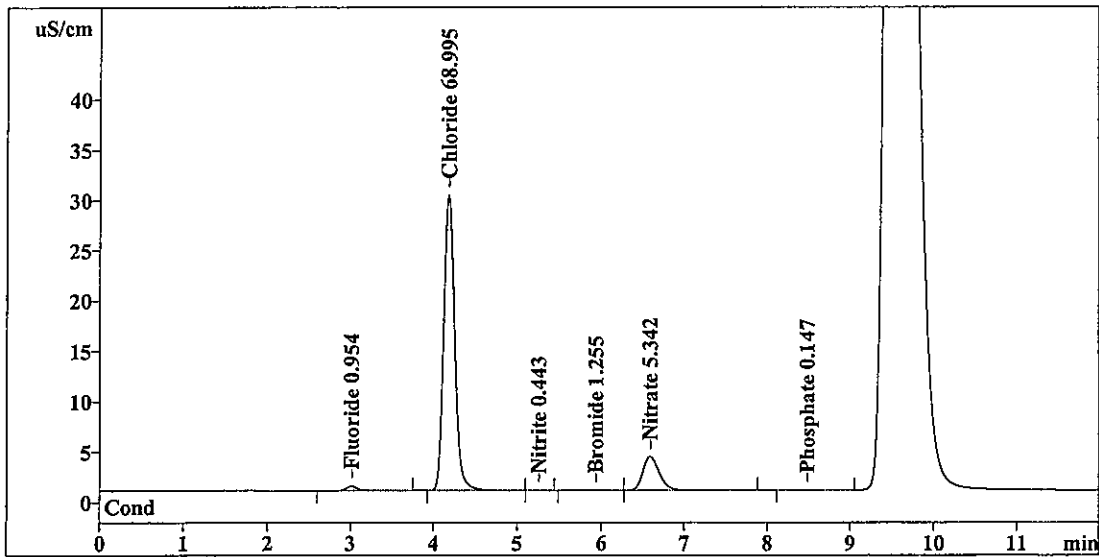
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8847

Last save: 10/8/2009 8:52:33

SAMPLE: S

Vial number: 31
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	3.02	4.148	0.954	Fluoride
2	4.18	263.150	68.995	Chloride
3	5.27	0.082	0.443	Nitrite
4	5.94	0.288	1.255	Bromide
5	6.59	44.821	5.342	Nitrate
6	8.48	0.537	0.147	Phosphate
7	0.00	0.000	0.000	Sulfate
7	12.00	313.025	77.137	

1/200

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RP 10/9/09

Report date: 10/8/2009 5:19:10 PM
Printed by: User

Ident: R0905563-002
Analysis from: 10/8/2009 5:07:12 PM
File: TA081707.CHW

Last save: 10/8/2009 5:19:12 PM

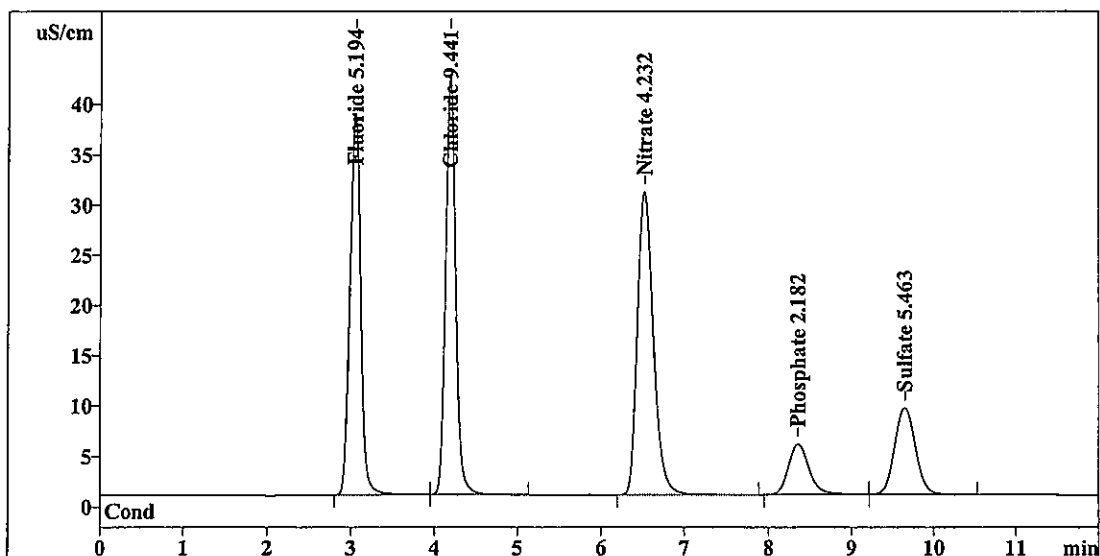
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8848

Last save: 10/8/2009 8:52:33

SAMPLE: S

Vial number: 32
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	3.05	329.192	5.194	Fluoride
2	4.19	361.293	9.441	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.52	400.662	4.232	Nitrate
6	8.36	85.600	2.182	Phosphate
7	9.65	149.919	5.463	Sulfate
7	12.00	1326.666	26.511	

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RP 10/9/09

Report date: 10/8/2009 5:33:27 PM
Printed by: User

Ident: R0905563-002 DUP
Analysis from: 10/8/2009 5:21:29 PM
File: TA081721.CHW

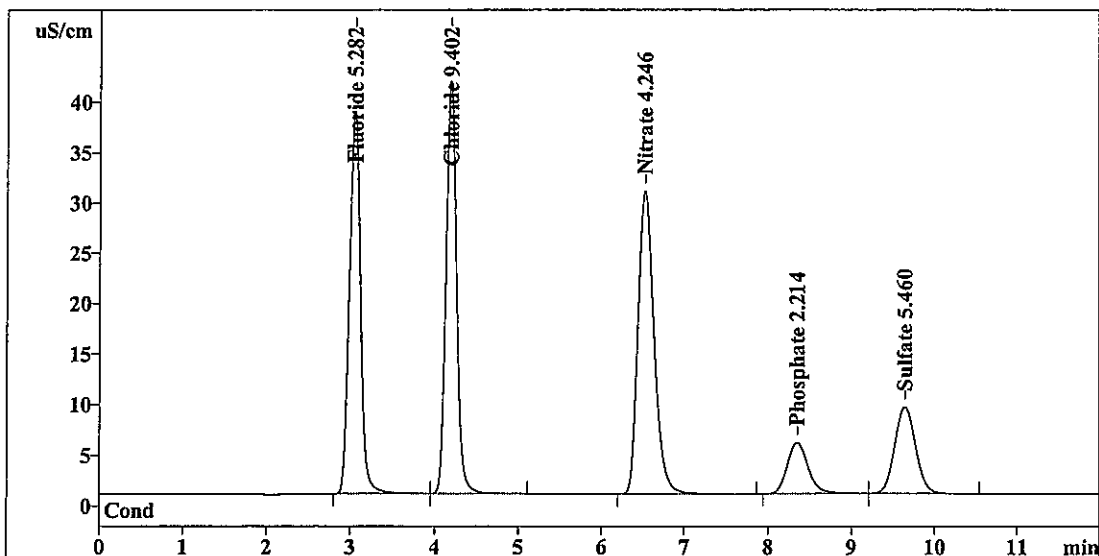
Last save: 10/8/2009 5:33:29 PM

Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8849

Last save: 10/8/2009 8:52:33

SAMPLE: S
Vial number: 33
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	3.05	334.846	5.282	Fluoride
2	4.19	359.818	9.402	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.53	401.988	4.246	Nitrate
6	8.36	86.866	2.214	Phosphate
7	9.65	149.841	5.460	Sulfate
<hr/>				
7	12.00	1333.360	26.605	

OK

RP 10/9/09

This report has been created by IC Net
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Report date: 10/8/2009 5:47:48 PM
Printed by: User

Ident: R0905563-002 SPK
Analysis from: 10/8/2009 5:35:50 PM
File: TA081735.CHW

Last save: 10/8/2009 5:47:50 PM

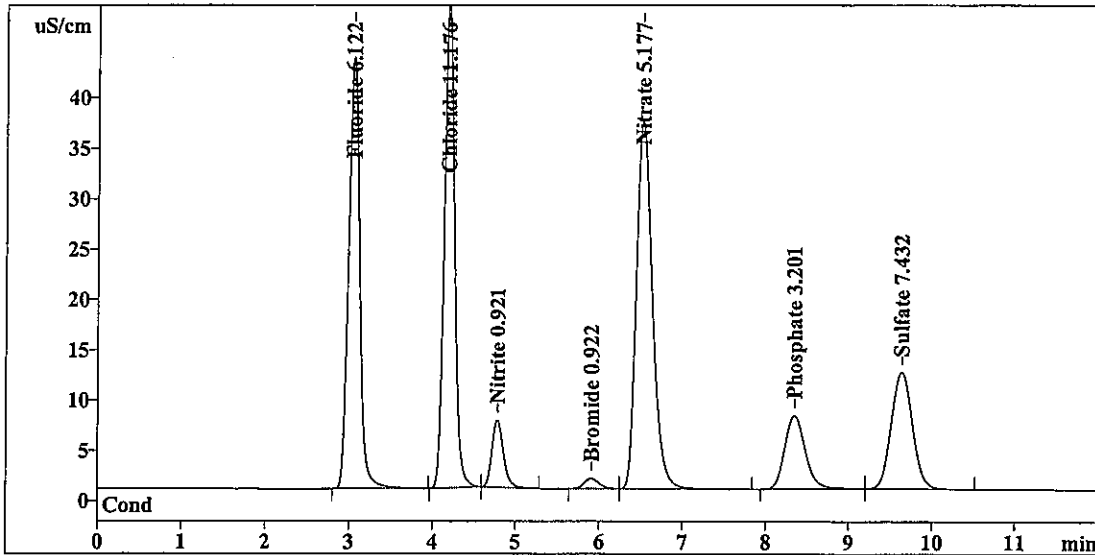
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8850

Last save: 10/8/2009 8:52:33

SAMPLE: S

Vial number: 34
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	3.05	388.406	6.122	Fluoride
2	4.19	428.298	11.176	Chloride
3	4.78	66.805	0.921	Nitrite
4	5.91	12.224	0.922	Bromide
5	6.53	491.535	5.177	Nitrate
6	8.35	125.626	3.201	Phosphate
7	9.64	205.249	OK 7.432	Sulfate
7	12.00	1718.144	34.951	

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RP 10/9/09

Report date: 10/8/2009 6:02:05 PM
Printed by: User

Ident: R0905523-020
Analysis from: 10/8/2009 5:50:07 PM
File: TA081750.CHW

Last save: 10/8/2009 6:02:07 PM

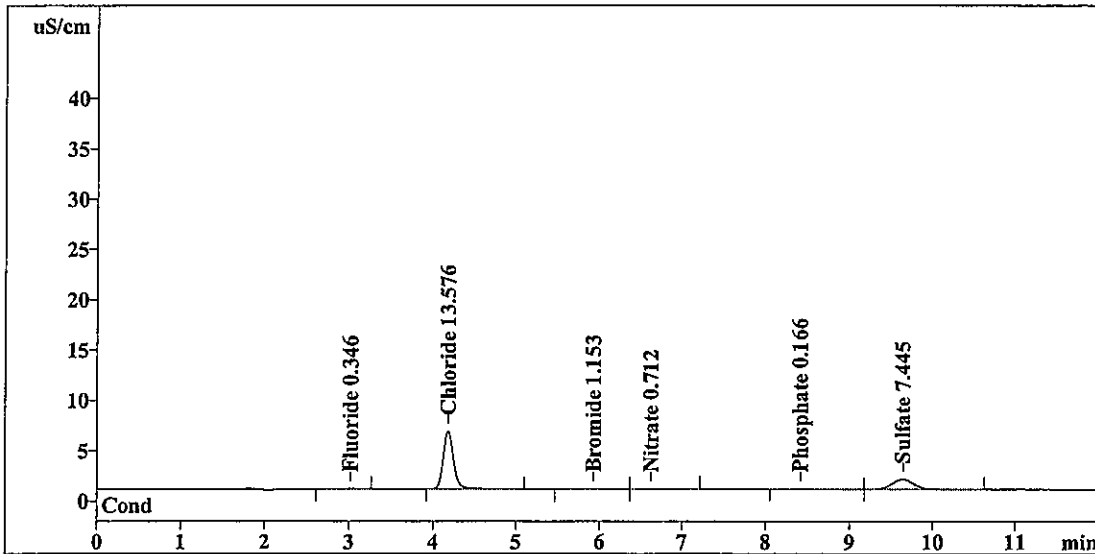
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8851

Last save: 10/8/2009 8:52:33

SAMPLE: CS

Vial number: 35
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	3.02	0.272	0.346	Fluoride
2	4.18	49.109	OK 13.576	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.93	0.136	1.153	Bromide
5	6.63	0.273	0.712	Nitrate
6	8.42	0.612	0.166	Phosphate
7	9.64	17.283	OK 7.445	Sulfate
7	12.00	67.684	23.400	

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RP 10/9/09

Report date: 10/8/2009 6:16:22 PM
Printed by: User

Ident: R0905523-021
Analysis from: 10/8/2009 6:04:24 PM
File: TA081804.CHW

Last save: 10/8/2009 6:16:24 PM

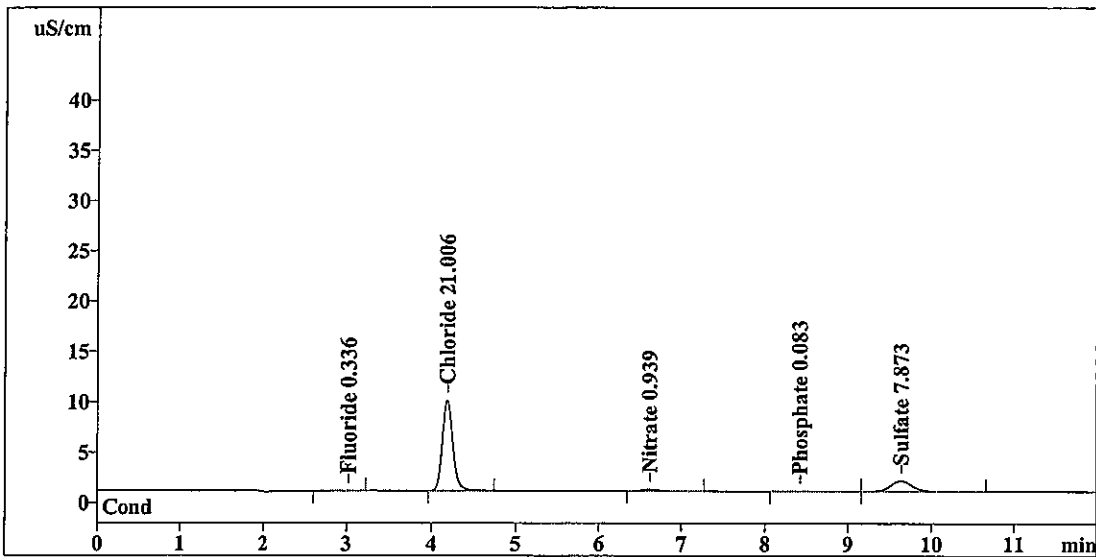
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8852

Last save: 10/8/2009 8:52:33

SAMPLE: CS

Vial number: 36
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	3.02	0.209	0.336	Fluoride
2	4.19	77.805	21.006	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.62	2.453	0.939	Nitrate
6	8.42	0.286	0.083	Phosphate
7	9.64	18.486	7.873	Sulfate
7	12.00	99.239	30.238	

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RP 1019609

Report date: 10/8/2009 6:30:39 PM
Printed by: User

Ident: CCV
Analysis from: 10/8/2009 6:18:41 PM
File: TA081818.CHW

Last save: 10/8/2009 6:30:41 PM

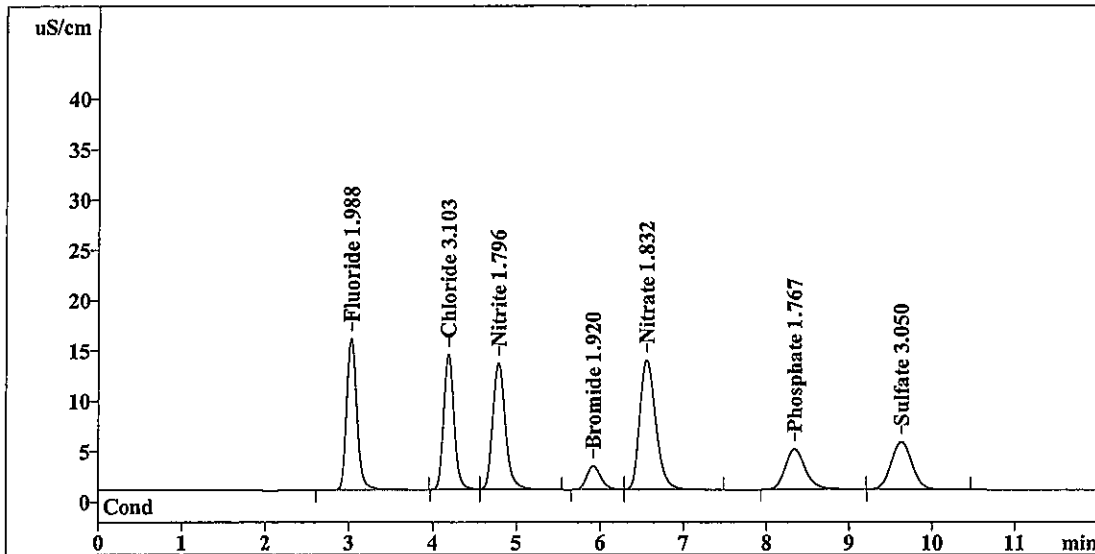
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8853

Last save: 10/8/2009 8:52:33

SAMPLE:

Vial number: 37
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	3.03	124.795	1.988	Fluoride
2	4.19	116.517	3.103	Chloride
3	4.79	133.330	1.796	Nitrite
4	5.92	27.199	1.920	Bromide
5	6.56	169.695	1.832	Nitrate
6	8.34	69.308	1.767	Phosphate
7	9.63	82.086	3.050	Sulfate
<hr/>				
7	12.00	722.930	15.456	

OK
↓
OK
↓
↓

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RP

Report date: 10/8/2009 6:44:55 PM
Printed by: User

Ident: CCB
Analysis from: 10/8/2009 6:32:57 PM
File: TA081832.CHW

Last save: 10/8/2009 6:44:58 PM

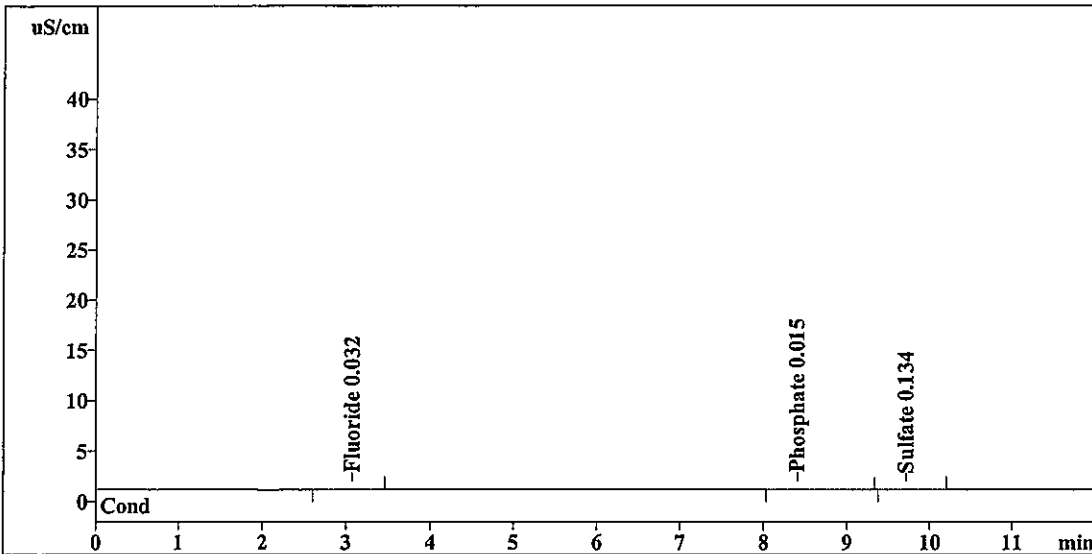
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8854

Last save: 10/8/2009 8:52:33

SAMPLE:

Vial number: 38
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	3.08	0.120	0.032	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	8.41	0.532	0.015	Phosphate
7	9.72	0.108	0.134	Sulfate
7	12.00	0.761	0.180	

OK ↓

RP 10/9/09

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Report date: 10/8/2009 6:59:12 PM
Printed by: User

Ident: R0905523-022
Analysis from: 10/8/2009 6:47:14 PM
File: TA081847.CHW

Last save: 10/8/2009 6:59:15 PM

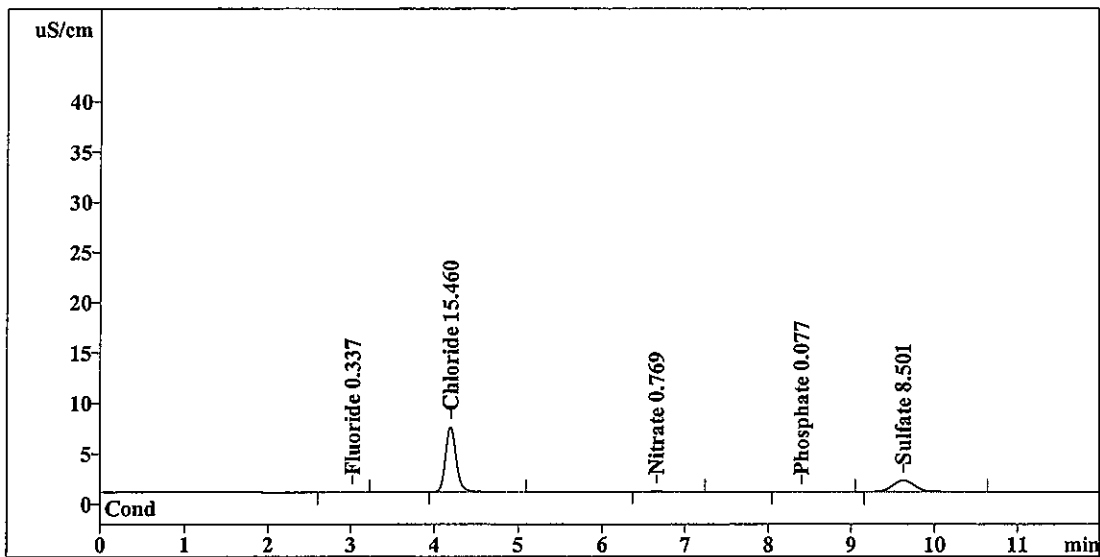
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8855

Last save: 10/8/2009 8:52:33

SAMPLE: CS

Vial number: 39
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	3.02	0.215	0.337	Fluoride
2	4.19	56.383	OK 15.460	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.65	0.818	0.769	Nitrate
6	8.41	0.261	0.077	Phosphate
7	9.63	20.250	OK 8.501	Sulfate
<hr/>				
7	12.00	77.926	25.143	

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RP 10/9/09

Report date: 10/8/2009 7:13:29 PM
Printed by: User

Ident: R0905523-022 DUP
Analysis from: 10/8/2009 7:01:31 PM
File: TA081901.CHW

Last save: 10/8/2009 7:13:31 PM

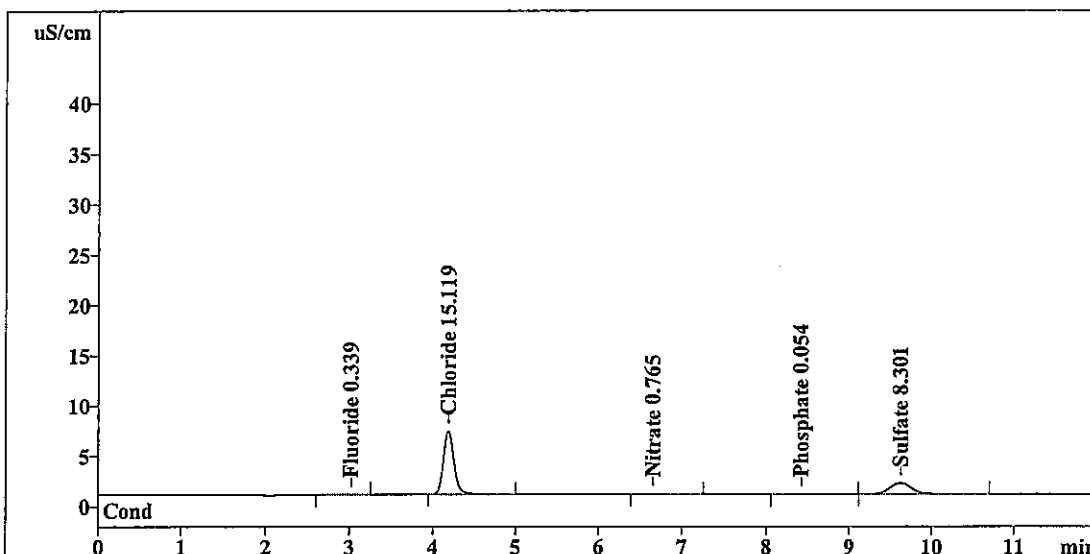
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8856

Last save: 10/8/2009 8:52:33

SAMPLE: CS

Vial number: 40
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	3.02	0.224	0.339	Fluoride
2	4.19	55.069	15.119	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.66	0.777	0.765	Nitrate
6	8.41	0.169	0.054	Phosphate
7	9.63	19.690	8.301	Sulfate
<hr/>				
7	12.00	75.928	24.578	

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RP
10/9/09

Report date: 10/8/2009 7:27:46 PM
Printed by: User

Ident: R0905523-022 SPK
Analysis from: 10/8/2009 7:15:48 PM
File: TA081915.CHW

Last save: 10/8/2009 7:27:48 PM

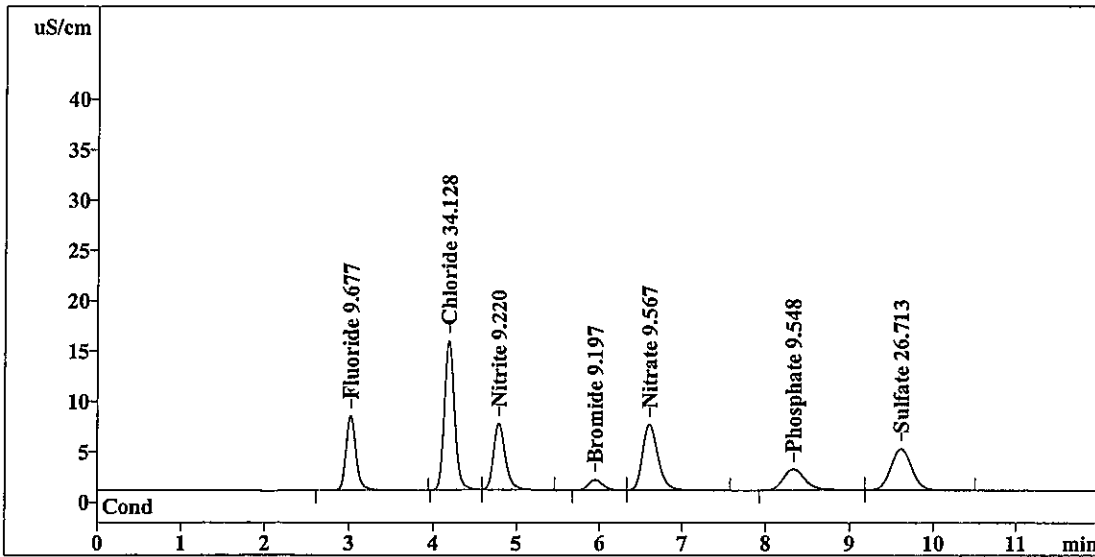
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8857

Last save: 10/8/2009 8:52:33

SAMPLE: CS

Vial number: 41
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	3.02	59.762	9.677	Fluoride
2	4.19	128.484	34.128	Chloride
3	4.80	66.849	9.220	Nitrite
4	5.95	12.194	9.197	Bromide
5	6.61	85.471	9.567	Nitrate
6	8.33	37.441	9.548	Phosphate
7	9.62	71.441	26.713	Sulfate
<hr/>				
7	12.00	461.641	108.049	

RP 10/9/09

This report has been created by IC Net
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Report date: 10/8/2009 7:42:02 PM
Printed by: User

Ident: R0905523-023
Analysis from: 10/8/2009 7:30:04 PM
File: TA081930.CHW

Last save: 10/8/2009 7:42:05 PM

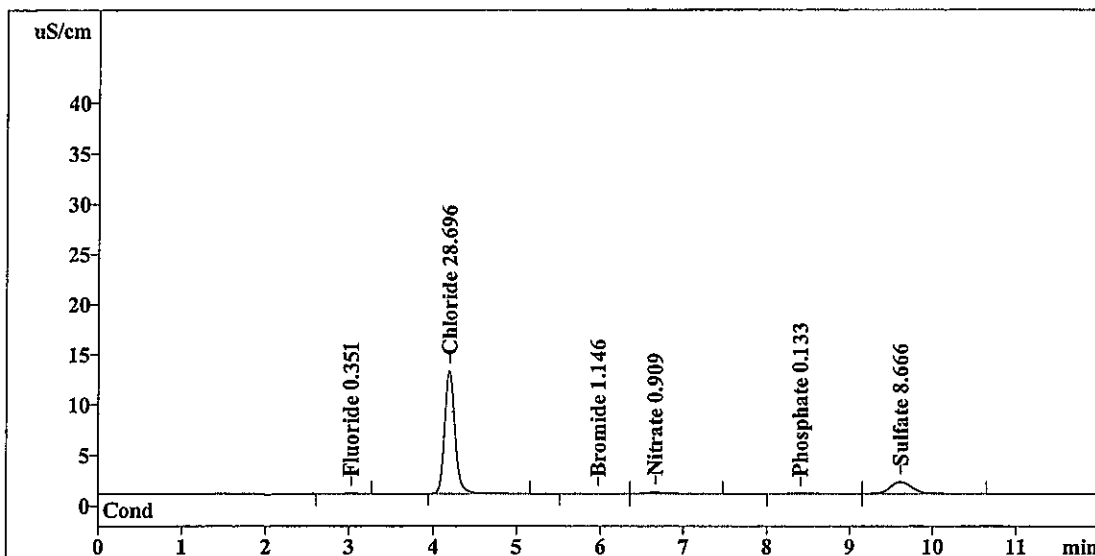
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8858

Last save: 10/8/2009 8:52:33

SAMPLE: CS

Vial number: 42
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	3.02	0.302	0.351	Fluoride
2	4.20	107.504	28.696	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.97	0.124	1.146	Bromide
5	6.67	2.168	0.909	Nitrate
6	8.40	0.479	0.133	Phosphate
7	9.62	20.716	8.666	Sulfate
7	12.00	131.294	39.901	

RP 10/9/09

This report has been created by IC Net
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Report date: 10/8/2009 7:56:19 PM
Printed by: User

Ident: R0905523-024
Analysis from: 10/8/2009 7:44:21 PM
File: TA081944.CHW

Last save: 10/8/2009 7:56:21 PM

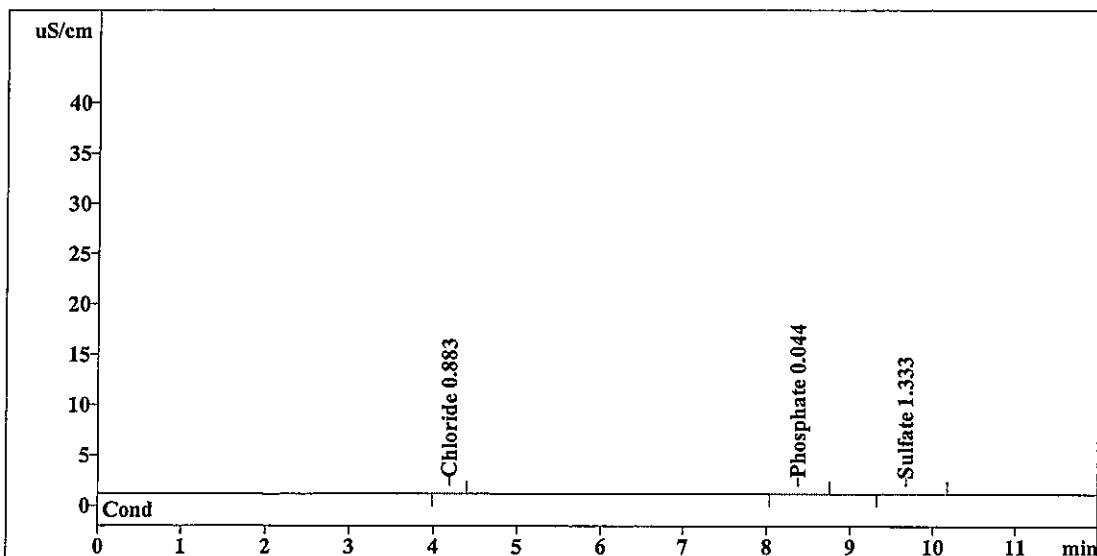
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8859

Last save: 10/8/2009 8:52:33

SAMPLE: CS

Vial number: 43
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	0.00	0.000	0.000	Fluoride
2	4.20	0.085	OK 0.883	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	8.38	0.130	0.044	Phosphate
7	9.70	0.103	OK 1.333	Sulfate
<hr/>				
7	12.00	0.318	2.260	

RP W19109

This report has been created by IC Net
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Report date: 10/8/2009 8:10:38 PM
Printed by: User

Ident: R0905523-025
Analysis from: 10/8/2009 7:58:38 PM
File: TA081958.CHW

Last save: 10/8/2009 8:10:38 PM

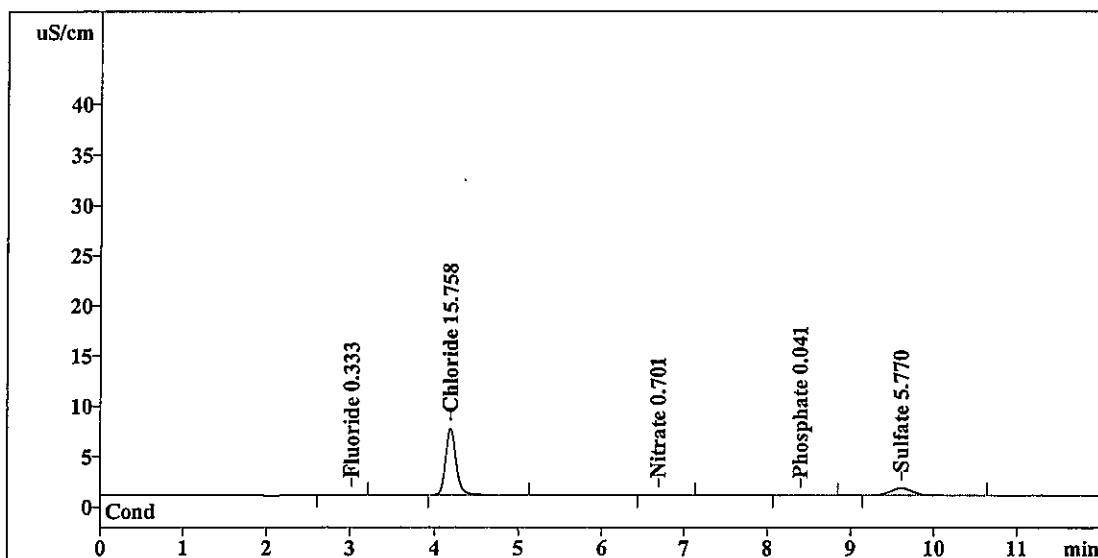
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8860

Last save: 10/8/2009 8:52:33

SAMPLE: CS

Vial number: 44
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	3.02	0.188	0.333	Fluoride
2	4.19	57.535	15.758	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.69	0.167	0.701	Nitrate
6	8.40	0.122	0.041	Phosphate
7	9.61	12.575	5.770	Sulfate
7	12.00	70.587	22.604	

This report has been created by IC Net
METROHM LTD

RP 109109

Report date: 10/8/2009 8:24:55 PM
 Printed by: User

Ident: R0905523-026
 Analysis from: 10/8/2009 8:12:57 PM
 File: TA082012.CHW

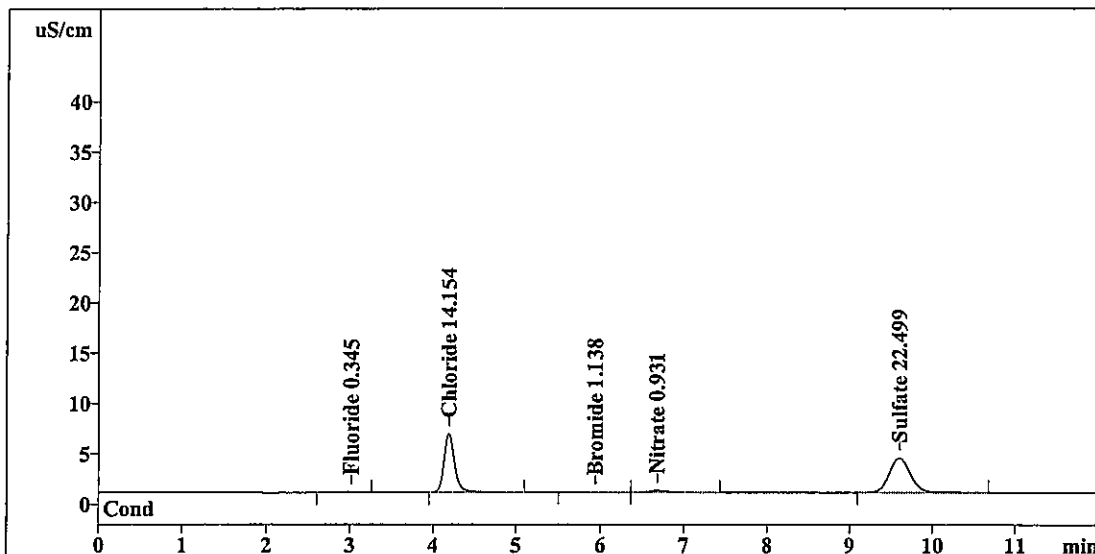
Last save: 10/8/2009 8:24:55 PM

Method: 09-15-09CAL.mtw
 Run operator: User
 Analysis number: 8861

Last save: 10/8/2009 8:52:33

SAMPLE: CS
 Vial number: 45
 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	3.02	0.263	0.345	Fluoride
2	4.20	51.341	OK 14.154	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.95	0.113	1.138	Bromide
5	6.69	2.373	0.931	Nitrate
6	0.00	0.000	0.000	Phosphate
7	9.61	59.598	OK 22.499	Sulfate
7	12.00	113.688	39.067	

RP 1019109

This report has been created by IC Net
 METROHM LTD

Report date: 10/8/2009 8:39:12 PM
Printed by: User

Ident: R0905523-027
Analysis from: 10/8/2009 8:27:14 PM
File: TA082027.CHW

Last save: 10/8/2009 8:39:12 PM

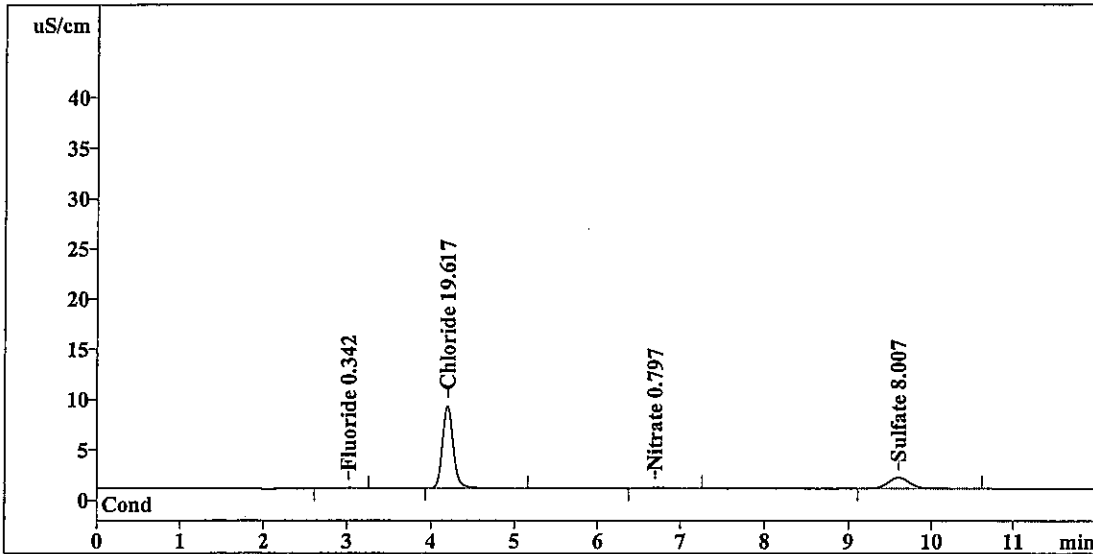
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8862

Last save: 10/8/2009 8:52:33

SAMPLE: CS

Vial number: 46
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	3.02	0.245	0.342	Fluoride
2	4.20	72.441	19.617	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.70	1.086	0.797	Nitrate
6	0.00	0.000	0.000	Phosphate
7	9.61	18.861	8.007	Sulfate
7	12.00	92.634	28.763	

RP1019109

This report has been created by IC Net
METROHM LTD

Report date: 10/8/2009 8:53:29 PM
Printed by: User

Ident: R0905523-028
Analysis from: 10/8/2009 8:41:31 PM
File: TA082041.CHW

Last save: 10/8/2009 8:53:29 PM

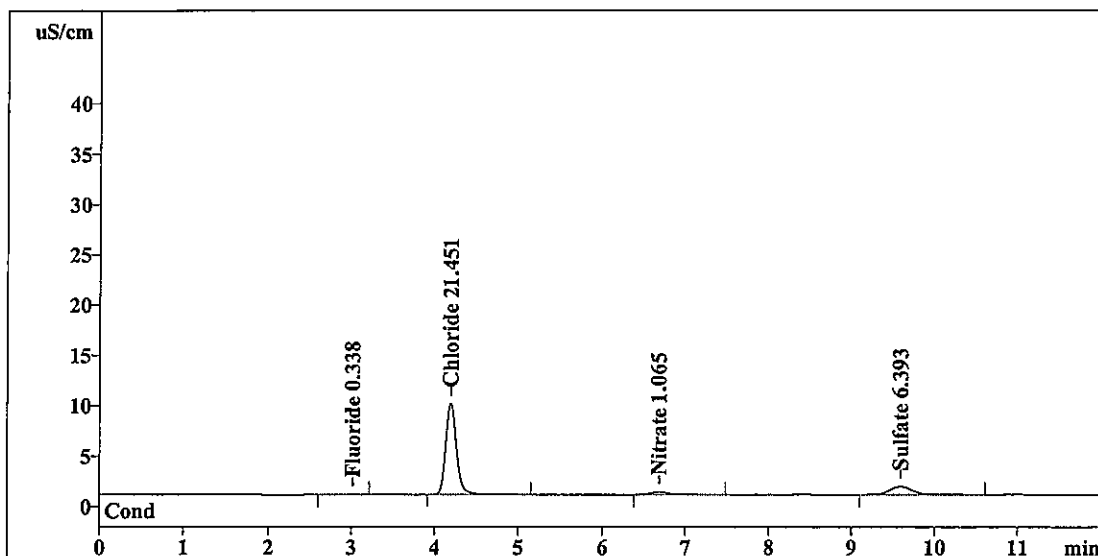
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8863

Last save: 10/8/2009 8:52:33

SAMPLE: CS

Vial number: 47
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	3.02	0.221	0.338	Fluoride
2	4.20	79.523	OK 21.451	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.69	3.668	1.065	Nitrate
6	0.00	0.000	0.000	Phosphate
7	9.60	14.325	OK 6.393	Sulfate
7	12.00	97.736	29.247	

RP 10/9/09

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Report date: 10/8/2009 9:07:46 PM
Printed by: User

Ident: R0905523-029
Analysis from: 10/8/2009 8:55:48 PM
File: TA082055.CHW

Last save: 10/8/2009 9:07:46 PM

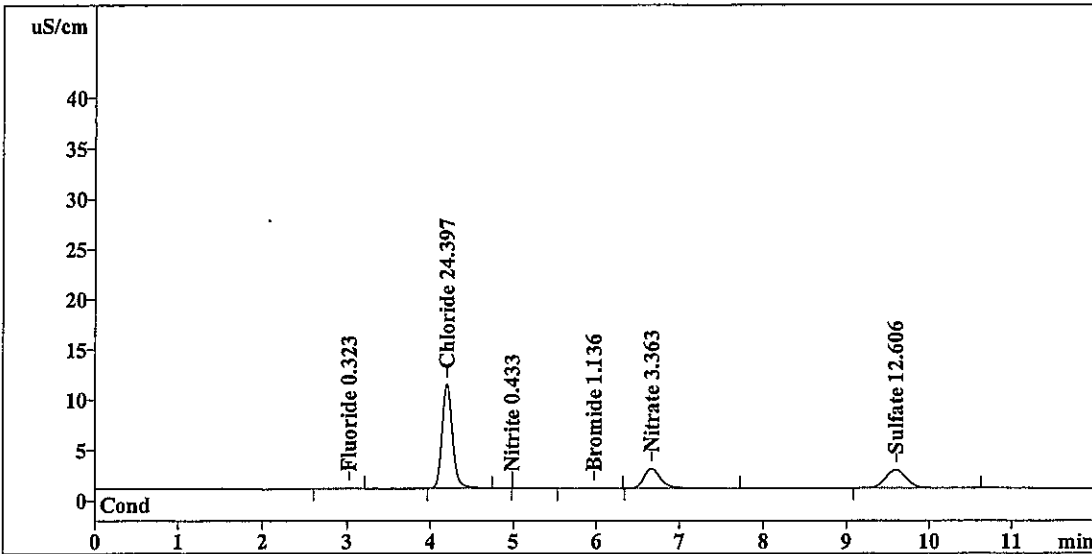
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8864

Last save: 10/8/2009 8:52:33

SAMPLE: CS

Vial number: 48
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	3.02	0.126	0.323	Fluoride
2	4.20	90.902	24.397	Chloride
3	4.98	-0.000	0.433	Nitrite
4	5.98	0.109	1.136	Bromide
5	6.67	25.783	3.363	Nitrate
6	0.00	0.000	0.000	Phosphate
7	9.60	31.789	12.606	Sulfate
7	12.00	148.709	42.258	

RP 10/9/09

This report has been created by IC Net
METROHM LTD

Report date: 10/8/2009 9:22:03 PM
Printed by: User

Ident: CCV
Analysis from: 10/8/2009 9:10:05 PM
File: TA082110.CHW

Last save: 10/8/2009 9:22:03 PM

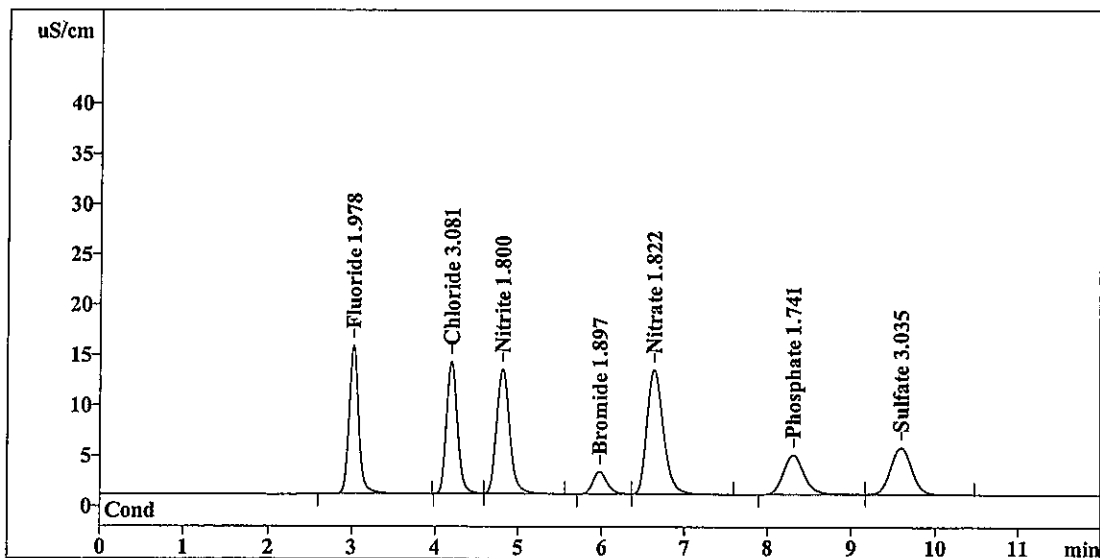
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8865

Last save: 10/8/2009 8:52:33

SAMPLE:

Vial number: 49
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	3.03	124.185	OK 1.978	Fluoride
2	4.20	115.666	↓ 3.081	Chloride
3	4.81	133.632	1.800	Nitrite
4	5.98	26.851	— 1.897	Bromide
5	6.64	168.739	OK 1.822	Nitrate
6	8.31	68.307	↓ 1.741	Phosphate
7	9.59	81.669	↓ 3.035	Sulfate
<hr/>				
7	12.00	719.047	15.354	

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RP 10/9/09

Report date: 10/8/2009 9:36:20 PM
Printed by: User

Ident: CCB
Analysis from: 10/8/2009 9:24:22 PM
File: TA082124.CHW

Last save: 10/8/2009 9:36:20 PM

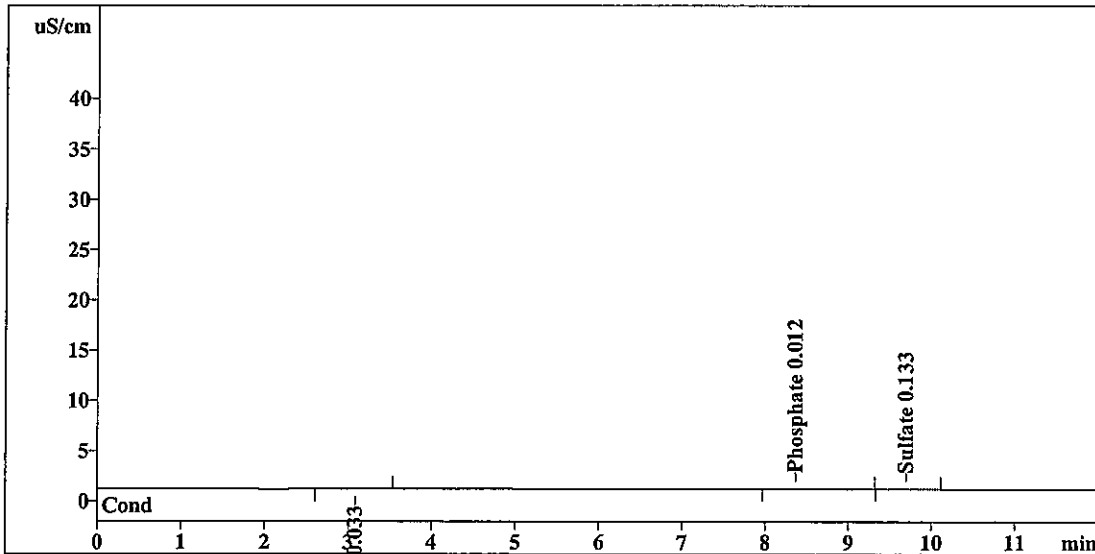
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8866

Last save: 10/8/2009 8:52:33

SAMPLE:

Vial number: 50
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	3.10	0.148	0.033	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	8.37	0.443	0.012	Phosphate
7	9.68	0.096	0.133	Sulfate
<hr/>				
7	12.00	0.687	0.178	

Handwritten annotations: An asterisk next to 0.033, a downward arrow pointing to 0.012 and 0.133, and the number 0.178.

Handwritten signature: RP 10/9/09

This report has been created by IC Net
METROHM LTD

Report date: 10/8/2009 9:50:37 PM
Printed by: User

Ident: LCS
Analysis from: 10/8/2009 9:38:38 PM
File: TA082138.CHW

Last save: 10/8/2009 9:50:37 PM

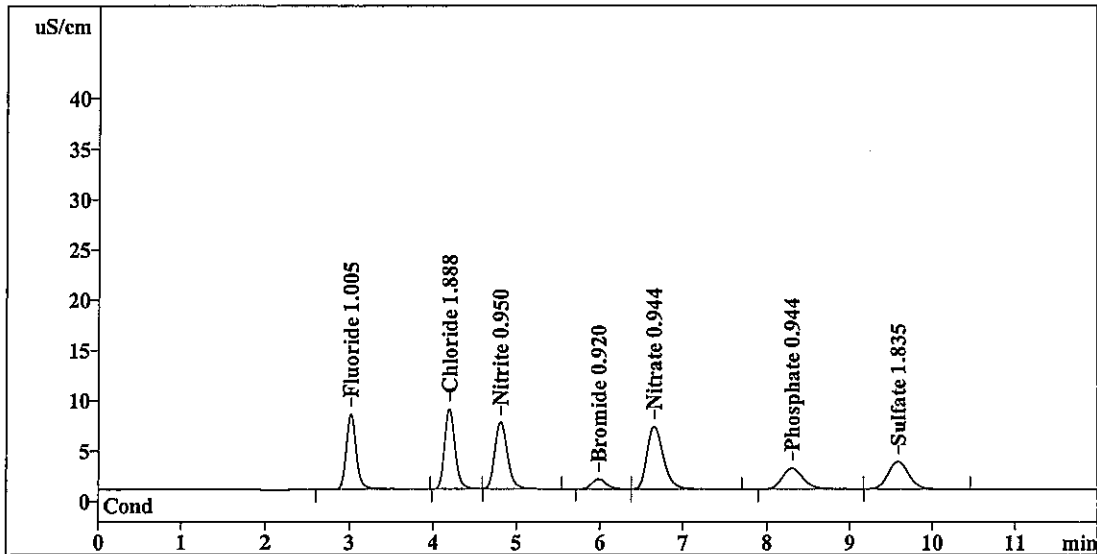
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8867

Last save: 10/8/2009 8:52:33

SAMPLE:

Vial number: 51
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	3.02	62.115	1.005	Fluoride
2	4.20	69.588	1.888	Chloride
3	4.81	68.990	0.950	Nitrite
4	5.99	12.196	0.920	Bromide
5	6.66	84.267	0.944	Nitrate
6	8.31	37.036	0.944	Phosphate
7	9.59	47.935	1.835	Sulfate
7	12.00	382.128	8.486	

OK
OK
OK

RR 10/9/09

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Report date: 10/8/2009 10:04:57 PM
Printed by: User

Ident: R0905523-030
Analysis from: 10/8/2009 9:52:59 PM
File: TA082152.CHW

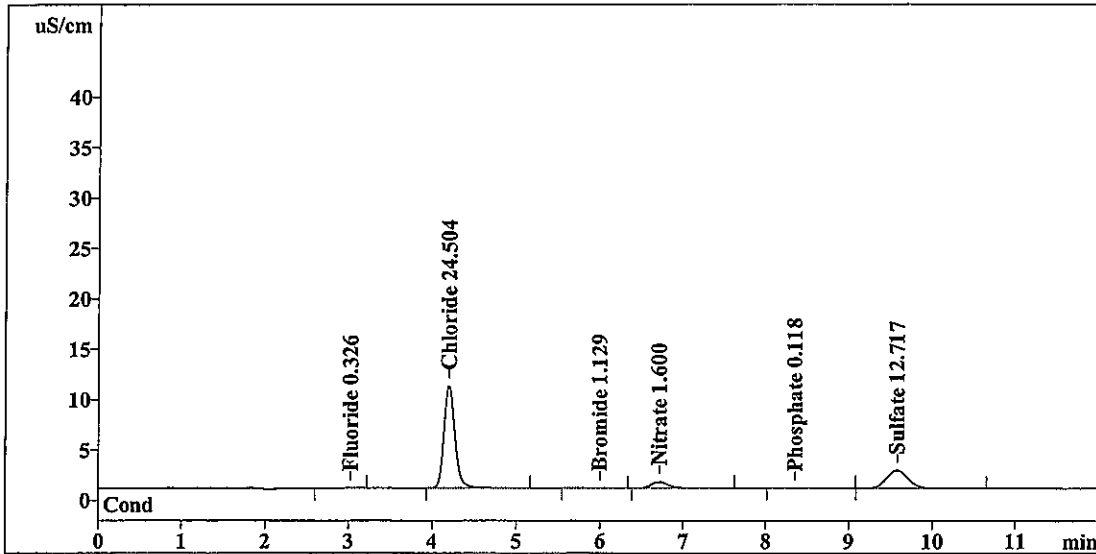
Last save: 10/8/2009 10:04:57 PM

Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8868

Last save: 10/8/2009 8:52:33

SAMPLE: CS
Vial number: 52
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	3.02	0.141	0.326	Fluoride
2	4.20	91.315	24.504	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.00	0.099	1.129	Bromide
5	6.71	8.818	1.600	Nitrate
6	8.37	0.423	0.118	Phosphate
7	9.59	32.101	12.717	Sulfate
7	12.00	132.896	40.394	

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RP 10/9/09

Report date: 10/8/2009 10:19:14 PM
 Printed by: User

Ident: R0905523-030 DUP
 Analysis from: 10/8/2009 10:07:16 PM
 File: TA082207.CHW

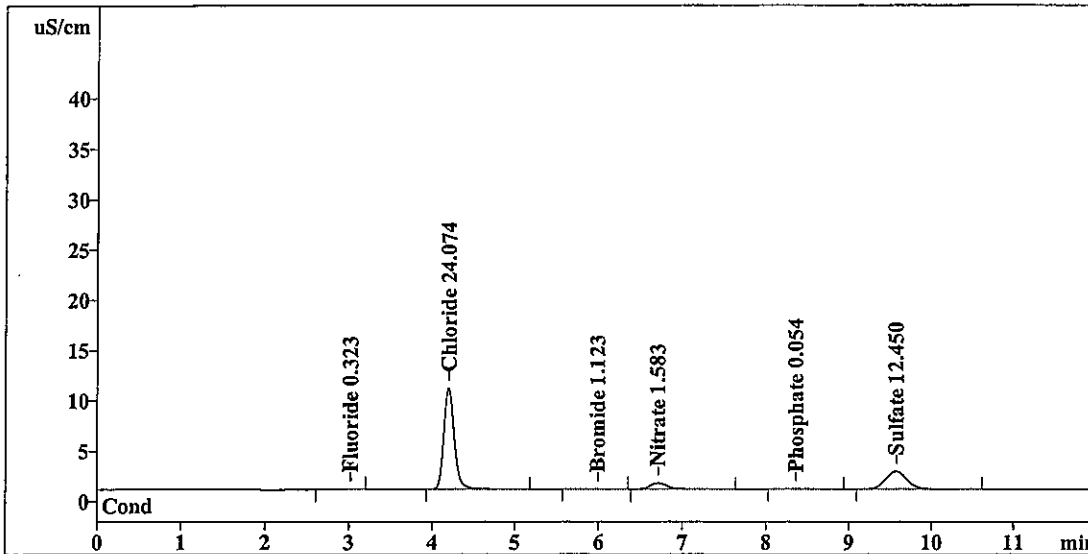
Last save: 10/8/2009 10:19:14 PM

Method: 09-15-09CAL.mtw
 Run operator: User
 Analysis number: 8869

Last save: 10/8/2009 8:52:33

SAMPLE: CS
 Vial number: 53
 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	3.02	0.122	0.323	Fluoride
2	4.20	89.654	OK 24.074	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.00	0.090	1.123	Bromide
5	6.71	8.649	1.583	Nitrate
6	8.36	0.171	0.054	Phosphate
7	9.58	31.351	OK 12.450	Sulfate
<hr/>				
7	12.00	130.038	39.607	

RP 10/9/09

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Report date: 10/8/2009 10:33:31 PM
Printed by: User

Ident: R0905523-030 SPK
Analysis from: 10/8/2009 10:21:33 PM
File: TA082221.CHW

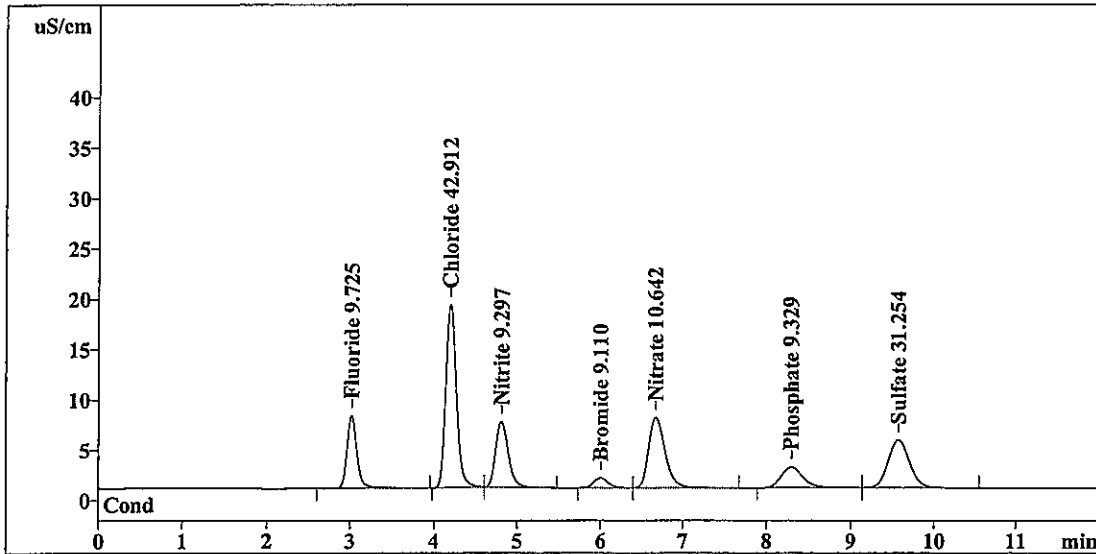
Last save: 10/8/2009 10:33:31 PM

Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8870

Last save: 10/8/2009 8:52:33

SAMPLE: CS
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	3.02	60.069	9.725	Fluoride
2	4.21	162.411	OK 42.912	Chloride
3	4.82	67.438	9.297	Nitrite
4	6.01	12.064	9.110	Bromide
5	6.68	95.818	10.642	Nitrate
6	8.30	36.582	9.329	Phosphate
7	9.58	84.207	OK 31.254	Sulfate
7	12.00	518.590	122.270	

RP 1019109

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METROHM LTD

Report date: 10/8/2009 10:47:48 PM
Printed by: User

Ident: R0905523-031
Analysis from: 10/8/2009 10:35:50 PM
File: TA082235.CHW

Last save: 10/8/2009 10:47:48 PM

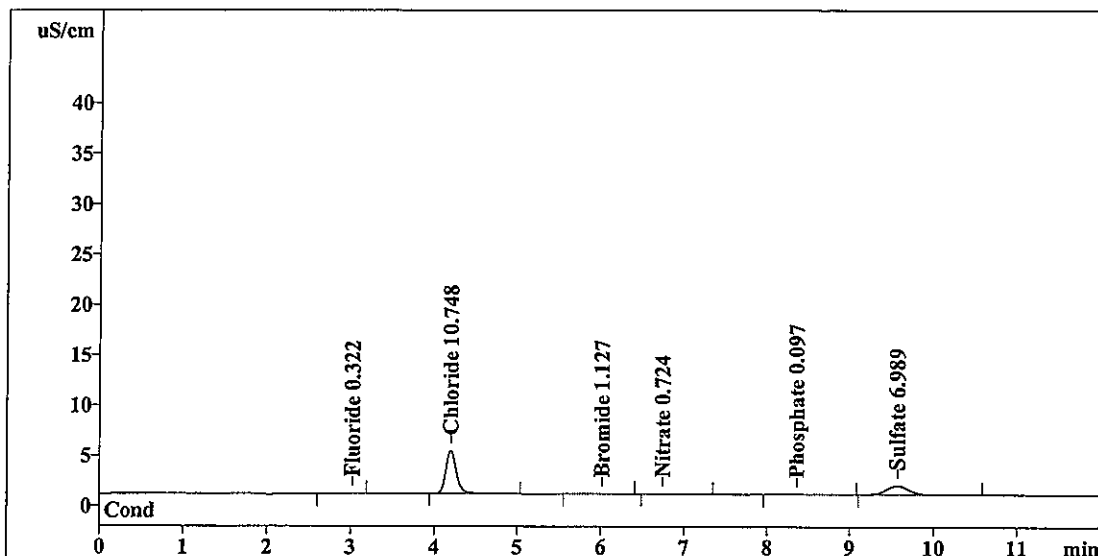
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8871

Last save: 10/8/2009 8:52:33

SAMPLE: CS

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	3.02	0.116	0.322	Fluoride
2	4.20	38.185	10.748	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.01	0.096	1.127	Bromide
5	6.75	0.382	0.724	Nitrate
6	8.36	0.339	0.097	Phosphate
7	9.58	16.000	6.989	Sulfate
7	12.00	55.118	20.006	

RP 10/9/09

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Report date: 10/8/2009 11:02:05 PM
Printed by: User

Ident: R0905523-045
Analysis from: 10/8/2009 10:50:07 PM
File: TA082250.CHW

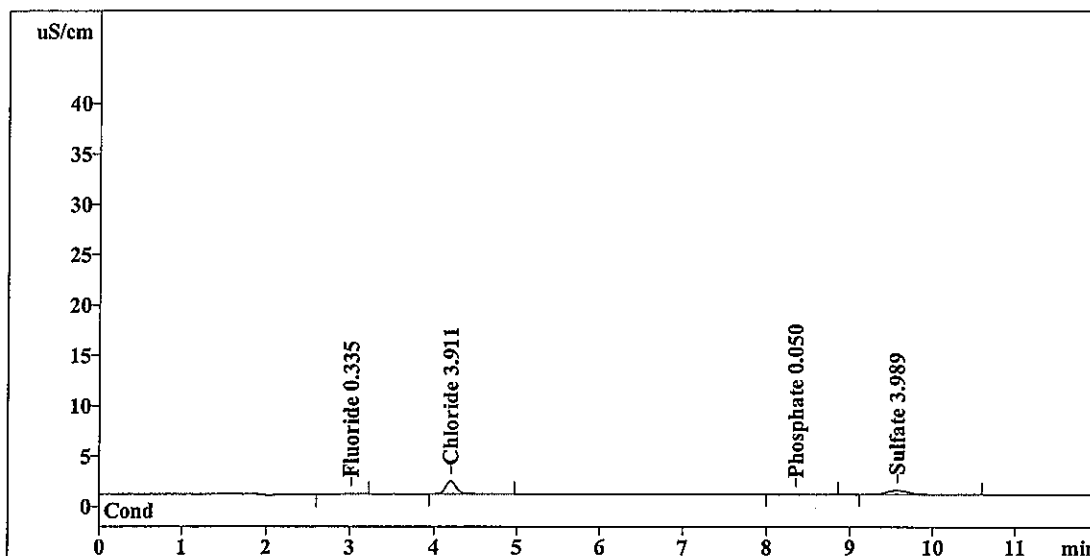
Last save: 10/8/2009 11:02:05 PM

Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8872

Last save: 10/8/2009 8:52:33

SAMPLE: CS
Vial number: 56
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	3.01	0.196	0.335	Fluoride
2	4.20	11.779	OK 3.911	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	8.35	0.155	0.050	Phosphate
7	9.57	7.567	OK 3.989	Sulfate
7	12.00	19.697	8.284	

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RP 1019109

Report date: 10/8/2009 11:16:22 PM
Printed by: User

Ident: R0905523-046
Analysis from: 10/8/2009 11:04:24 PM
File: TA082304.CHW

Last save: 10/8/2009 11:16:23 PM

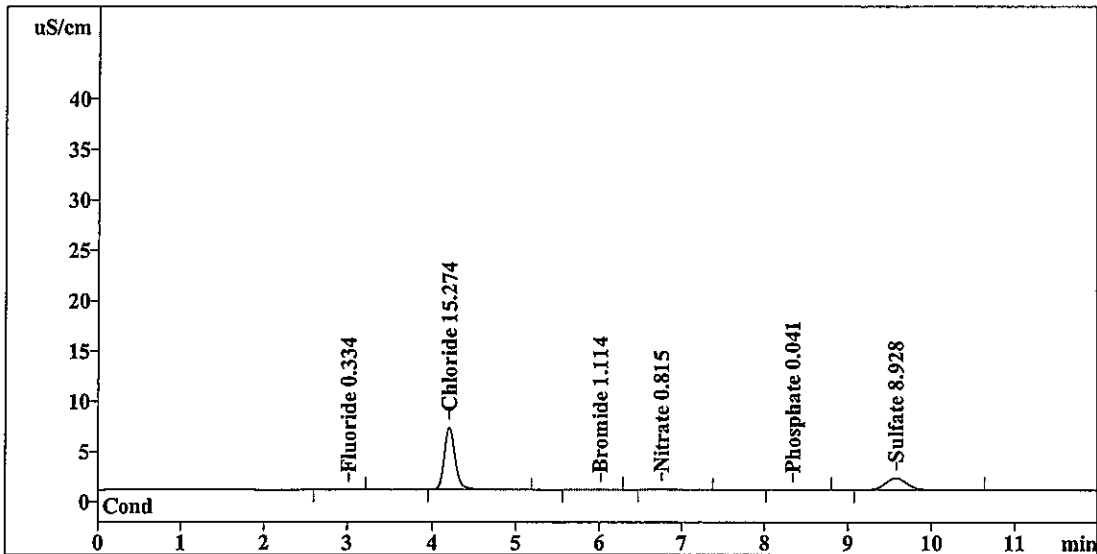
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8873

Last save: 10/8/2009 8:52:33

SAMPLE: CS

Vial number: 57
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	3.02	0.191	0.334	Fluoride
2	4.21	55.668	OK 15.274	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.01	0.077	1.114	Bromide
5	6.76	1.257	0.815	Nitrate
6	8.34	0.121	0.041	Phosphate
7	9.57	21.451	OK 8.928	Sulfate
7	12.00	78.764	26.506	

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RP 10/9/09

Report date: 10/8/2009 11:30:39 PM
Printed by: User

Ident: R0905523-047
Analysis from: 10/8/2009 11:18:41 PM
File: TA082318.CHW

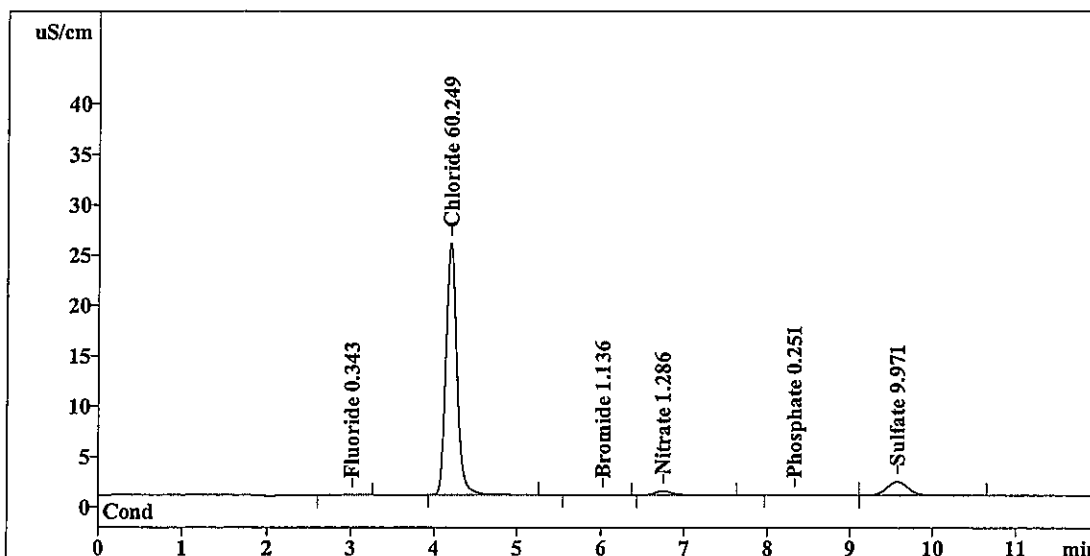
Last save: 10/8/2009 11:30:40 PM

Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8874

Last save: 10/8/2009 8:52:33

SAMPLE: CS
Vial number: 58
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	3.01	0.249	0.343	Fluoride
2	4.21	229.368	60.249	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.02	0.109	1.136	Bromide
5	6.74	5.791	1.286	Nitrate
6	8.33	0.946	0.251	Phosphate
7	9.57	24.381	9.971	Sulfate
7	12.00	260.844	73.235	

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RF 10/9/09

Report date: 10/8/2009 11:44:56 PM
Printed by: User

Ident: R0905523-048
Analysis from: 10/8/2009 11:32:58 PM
File: TA082332.CHW

Last save: 10/8/2009 11:44:56 PM

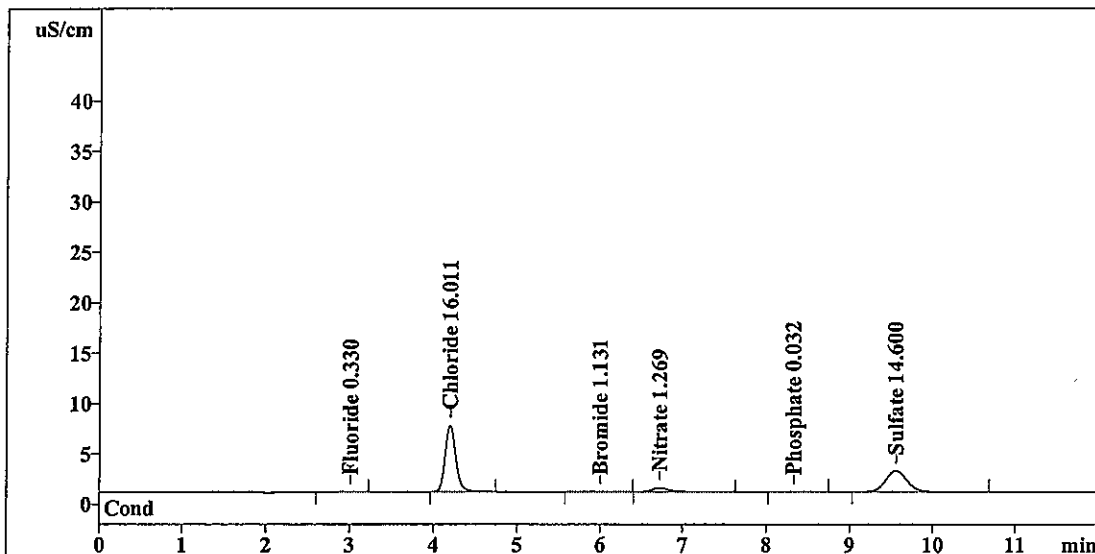
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8875

Last save: 10/8/2009 8:52:33

SAMPLE: CS

Vial number: 59
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	3.01	0.166	0.330	Fluoride
2	4.20	58.511	16.011	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.01	0.102	1.131	Bromide
5	6.73	5.634	1.269	Nitrate
6	8.34	0.083	0.032	Phosphate
7	9.56	37.393	14.600	Sulfate
7	12.00	101.891	33.373	

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RP 109109

Report date: 10/8/2009 11:59:13 PM
Printed by: User

Ident: R0905523-049
Analysis from: 10/8/2009 11:47:15 PM
File: TA082347.CHW

Last save: 10/8/2009 11:59:13 PM

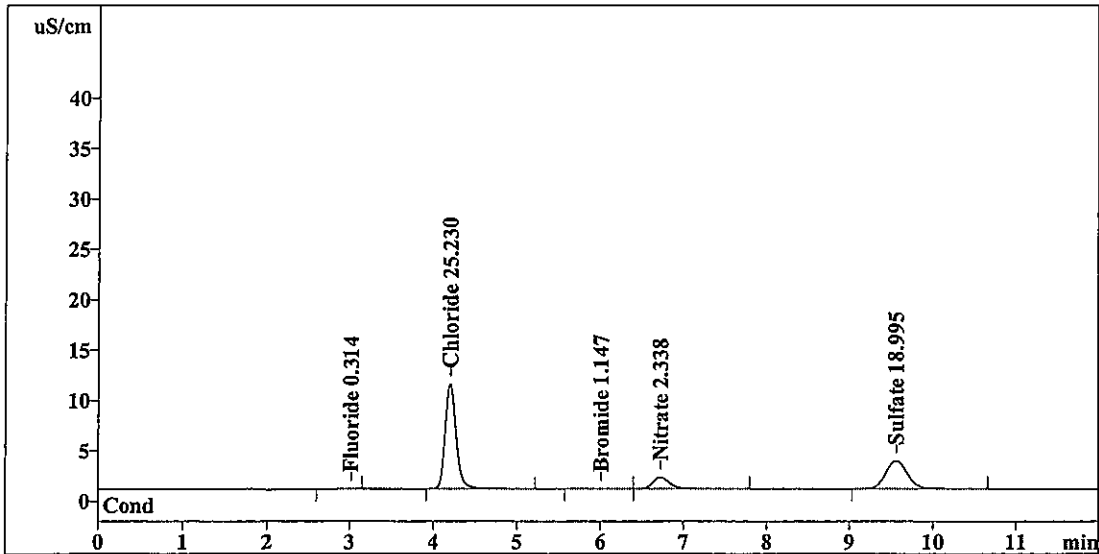
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8876

Last save: 10/8/2009 8:52:33

SAMPLE: CS

Vial number: 60
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	3.02	0.066	0.314	Fluoride
2	4.21	94.117	25.230	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.01	0.126	1.147	Bromide
5	6.73	15.915	2.338	Nitrate
6	0.00	0.000	0.000	Phosphate
7	9.57	49.748	18.995	Sulfate
7	12.00	159.972	48.024	

RP 10/9/09

This report has been created by IC Net
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Report date: 10/9/2009 12:13:30 AM
Printed by: User

Ident: CCV
Analysis from: 10/9/2009 12:01:32 AM
File: TA090001.CHW

Last save: 10/9/2009 12:13:30 AM

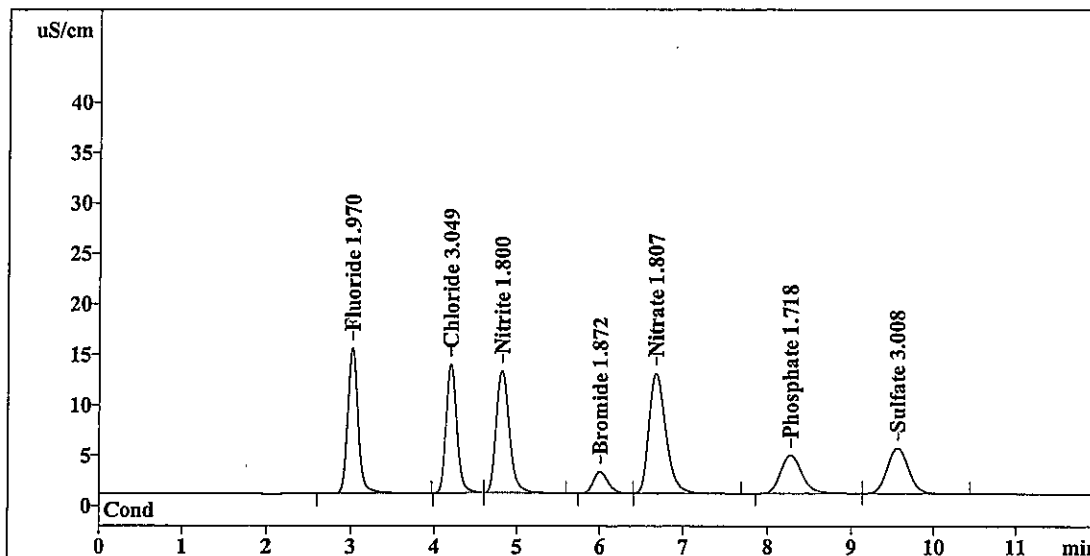
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8877

Last save: 10/8/2009 8:52:33

SAMPLE:

Vial number: 61
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	3.02	123.636	1.970	Fluoride
2	4.21	114.418	3.049	Chloride
3	4.82	133.643	1.800	Nitrite
4	6.01	26.465	1.872	Bromide
5	6.68	167.284	1.807	Nitrate
6	8.28	67.383	1.718	Phosphate
7	9.56	80.896	3.008	Sulfate
7	12.00	713.725	15.222	

OK
↓
OK
↓

RP 10/9/09

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Report date: 10/9/2009 12:27:52 AM
Printed by: User

Ident: CCB
Analysis from: 10/9/2009 12:15:49 AM
File: TA090015.CHW

Last save: 10/9/2009 12:27:52 AM

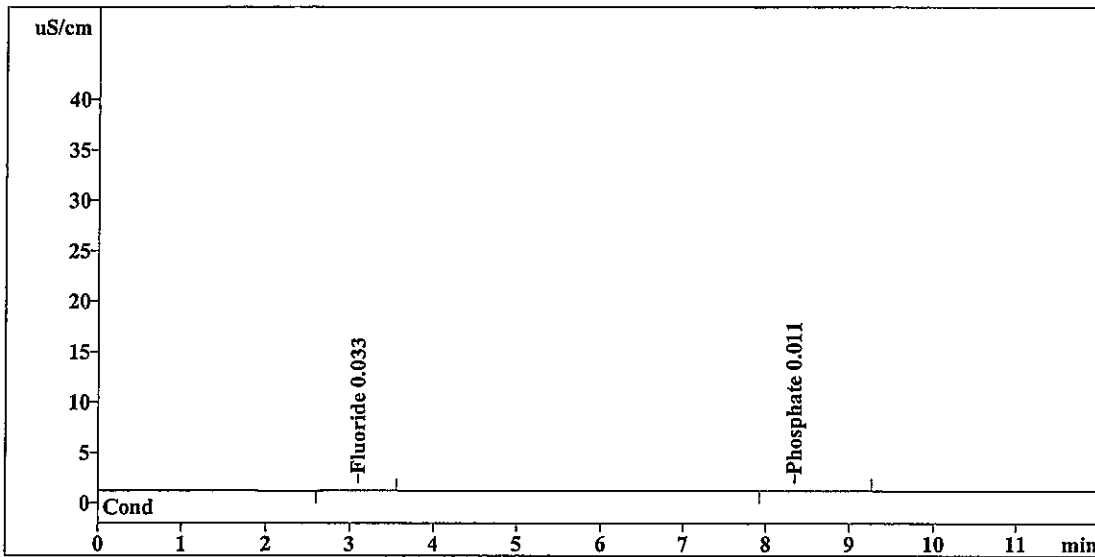
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8878

Last save: 10/8/2009 8:52:33

SAMPLE:

Vial number: 62
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	3.11	0.161	0.033	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	8.35	0.378	0.011	Phosphate
7	0.00	0.000	0.000	Sulfate
<hr/>				
7	12.00	0.539	0.044	

OK
↓

RP 10/9/09

This report has been created by IC Net
METROHM LTD

Report date: 10/9/2009 12:42:25 AM
Printed by: User

Ident: R0905621-001
Analysis from: 10/9/2009 12:30:27 AM
File: TA090030.CHW

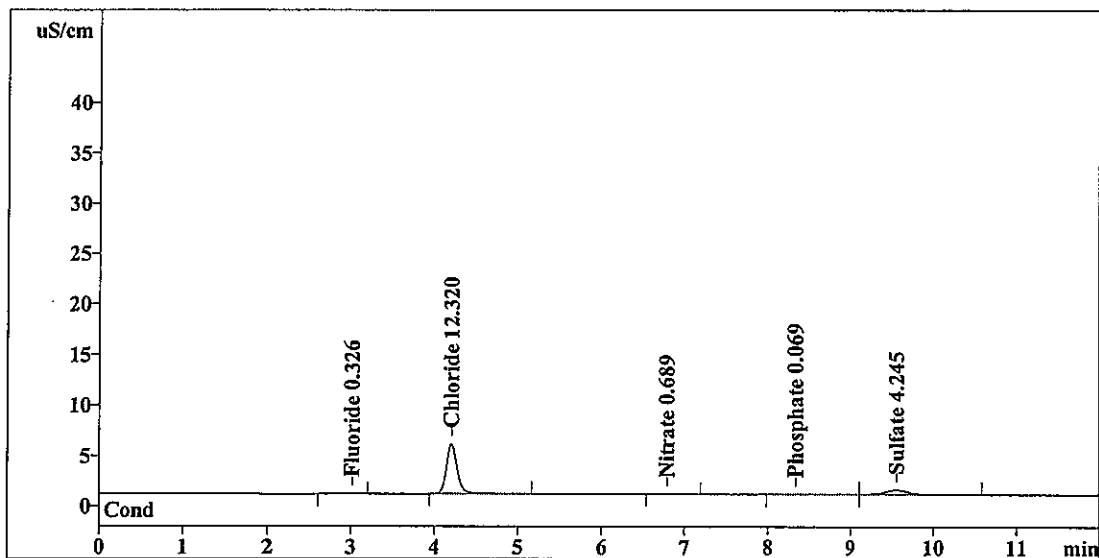
Last save: 10/9/2009 12:42:26 AM

Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8879

Last save: 10/8/2009 8:52:33

SAMPLE: CS
Vial number: 63
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	3.02	0.140	0.326	Fluoride
2	4.21	44.255	12.320	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.78	0.052	0.689	Nitrate
6	8.35	0.228	0.069	Phosphate
7	9.56	8.289	4.245	Sulfate
7	12.00	52.964	17.649	

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RP 10/9/09

Report date: 10/9/2009 12:56:42 AM
Printed by: User

Ident: R0905621-001 DUP
Analysis from: 10/9/2009 12:44:44 AM
File: TA090044.CHW

Last save: 10/9/2009 12:56:43 AM

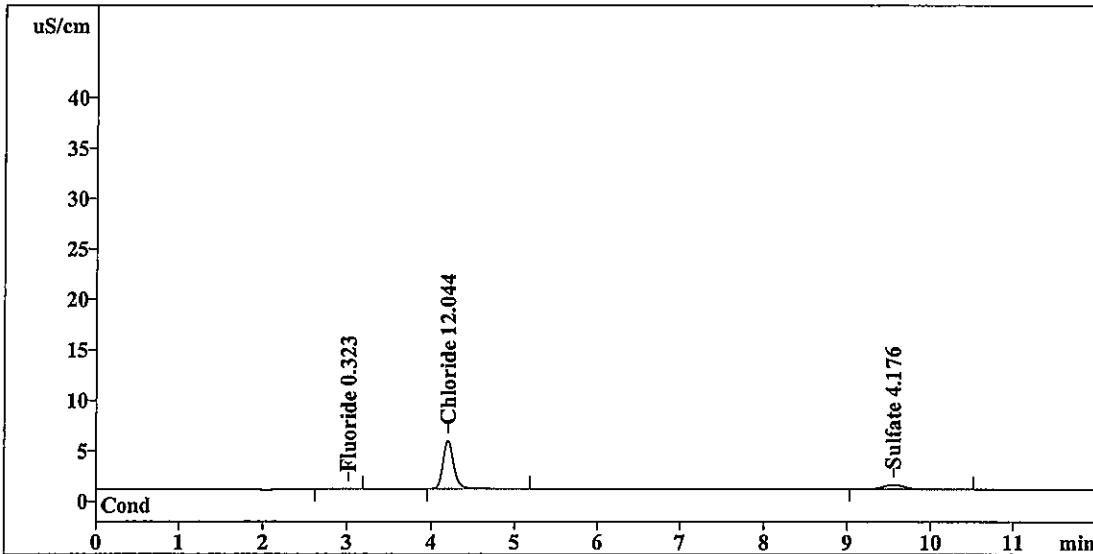
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8880

Last save: 10/8/2009 8:52:33

SAMPLE: CS

Vial number: 64
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	3.02	0.125	0.323	Fluoride
2	4.21	43.190	12.044	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	Phosphate
7	9.56	8.094	4.176	Sulfate
7	12.00	51.409	16.543	

RP 10/9/09

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Report date: 10/9/2009 1:10:59 AM
Printed by: User

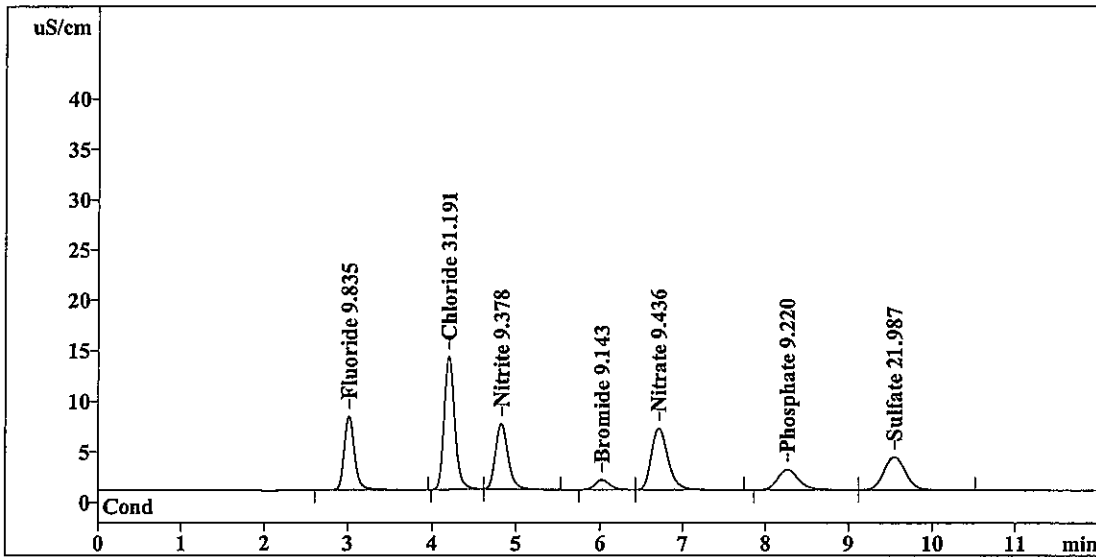
Ident: R0905621-001 SPK
Analysis from: 10/9/2009 12:59:01 AM
File: TA090059.CHW Last save: 10/9/2009 1:11:00 AM

Method: 09-15-09CAL.mtw Last save: 10/8/2009 8:52:33
Run operator: User
Analysis number: 8881

SAMPLE: CS

Vial number: 65
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	3.02	60.768	9.835	Fluoride
2	4.21	117.141	31.191	Chloride
3	4.83	68.049	9.378	Nitrite
4	6.03	12.114	9.143	Bromide
5	6.71	84.215	9.436	Nitrate
6	8.27	36.152	9.220	Phosphate
7	9.55	58.159	21.987	Sulfate
7	12.00	436.597	100.190	

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RP id 9109

Report date: 10/9/2009 1:25:16 AM
Printed by: User

Ident: R0905621-002
Analysis from: 10/9/2009 1:13:18 AM
File: TA090113.CHW

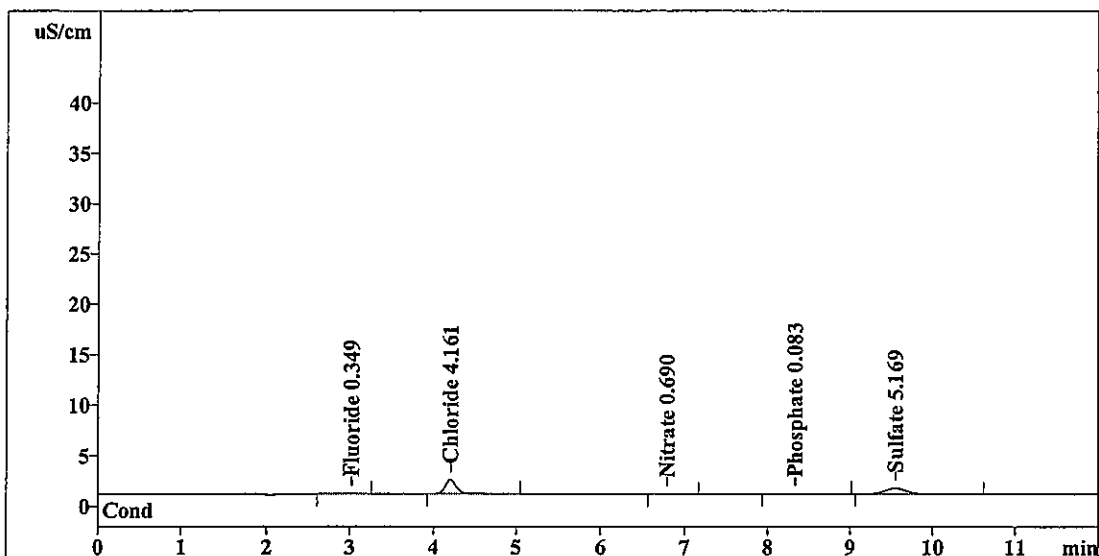
Last save: 10/9/2009 1:25:17 AM

Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8882

Last save: 10/8/2009 8:52:33

SAMPLE: CS
Vial number: 66
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	3.02	0.290	0.349	Fluoride
2	4.21	12.744	OK 4.161	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.80	0.056	0.690	Nitrate
6	8.34	0.285	0.083	Phosphate
7	9.55	10.884	OK 5.169	Sulfate
7	12.00	24.260	10.451	

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RP1019109

Report date: 10/9/2009 1:39:33 AM
Printed by: User

Ident: R0905627-001
Analysis from: 10/9/2009 1:27:35 AM
File: TA090127.CHW

Last save: 10/9/2009 1:39:34 AM

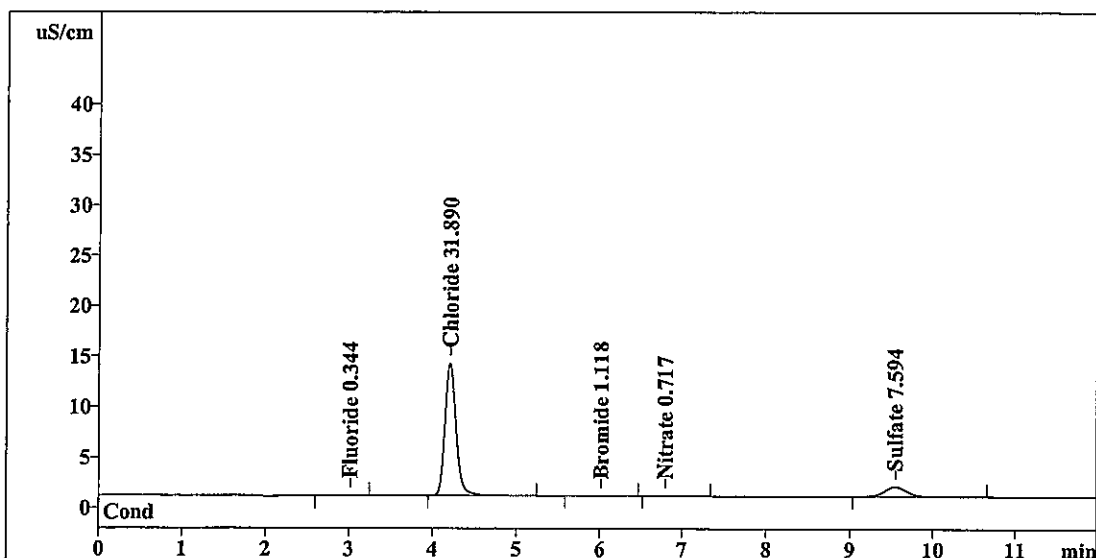
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8883

Last save: 10/8/2009 8:52:33

SAMPLE: C

Vial number: 67
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	3.01	0.255	0.344	Fluoride
2	4.21	119.840	31.890	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.04	0.083	1.118	Bromide
5	6.80	0.320	0.717	Nitrate
6	0.00	0.000	0.000	Phosphate
7	9.55	17.700	7.594	Sulfate
<hr/>				
7	12.00	138.197	41.662	

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Report date: 10/9/2009 1:53:50 AM
Printed by: User

Ident: R0905627-002
Analysis from: 10/9/2009 1:41:52 AM
File: TA090141.CHW

Last save: 10/9/2009 1:53:50 AM

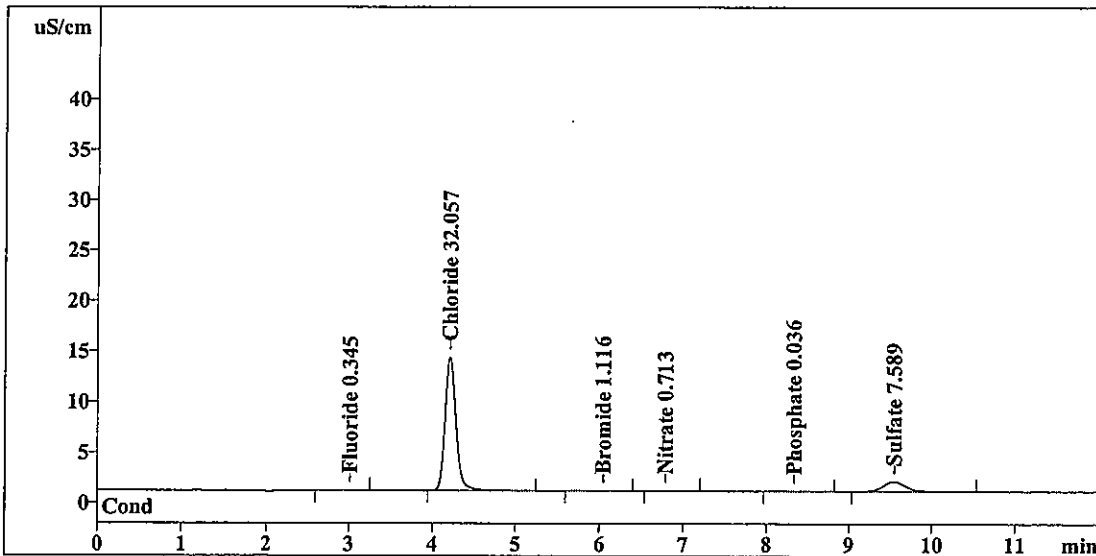
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8884

Last save: 10/8/2009 8:52:33

SAMPLE: C

Vial number: 68
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	3.01	0.263	0.345	Fluoride
2	4.21	120.487	OK-32.057	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.05	0.080	1.116	Bromide
5	6.80	0.282	0.713	Nitrate
6	8.33	0.101	0.036	Phosphate
7	9.55	17.687	7.589	Sulfate
7	12.00	138.900	41.857	

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RP 10/9/09

Report date: 10/9/2009 2:08:07 AM
Printed by: User

Ident: R0905627-003
Analysis from: 10/9/2009 1:56:09 AM
File: TA090156.CHW

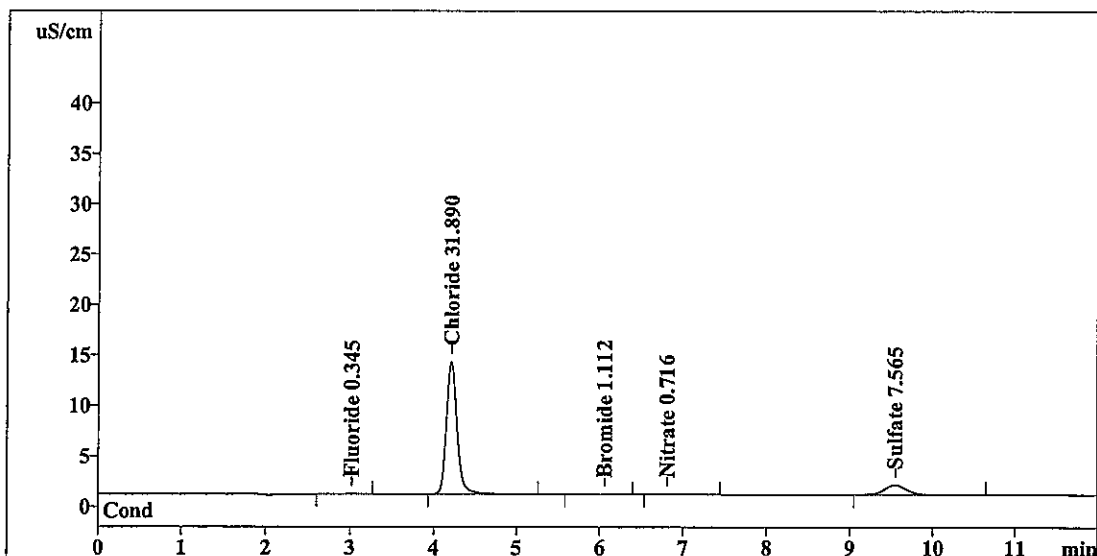
Last save: 10/9/2009 2:08:07 AM

Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8885

Last save: 10/8/2009 8:52:33

SAMPLE: C
Vial number: 69
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	3.02	0.266	0.345	Fluoride
2	4.21	119.840	31.890	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.05	0.074	1.112	Bromide
5	6.81	0.313	0.716	Nitrate
6	0.00	0.000	0.000	Phosphate
7	9.55	17.620	7.565	Sulfate
7	12.00	138.113	41.629	

OR

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Report date: 10/9/2009 2:22:24 AM
Printed by: User

Ident: R0905627-004
Analysis from: 10/9/2009 2:10:26 AM
File: TA090210.CHW

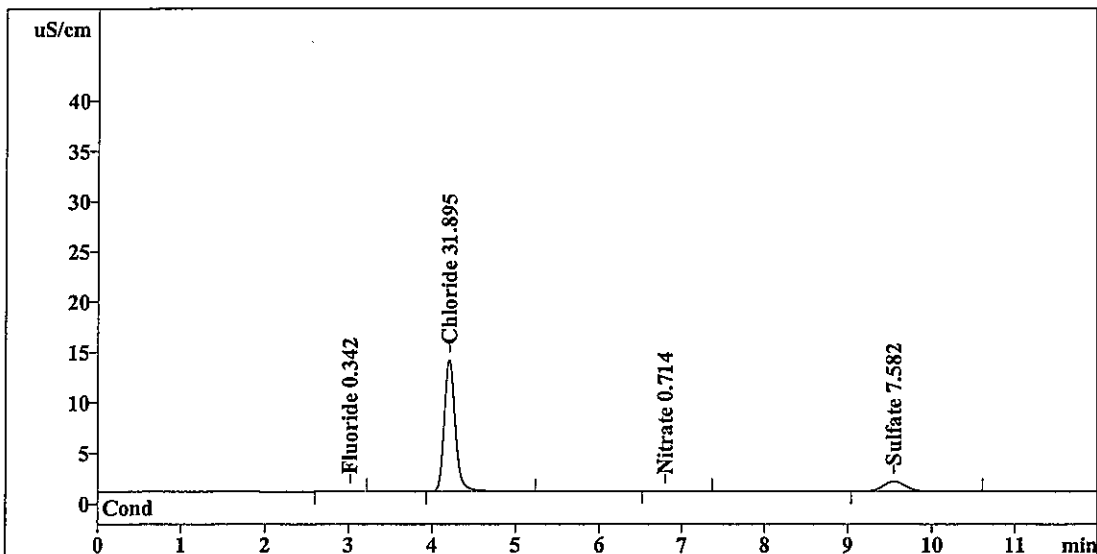
Last save: 10/9/2009 2:22:24 AM

Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8886

Last save: 10/8/2009 8:52:33

SAMPLE: C
Vial number: 70
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	3.01	0.241	0.342	Fluoride
2	4.21	119.858	31.895	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.81	0.292	0.714	Nitrate
6	0.00	0.000	0.000	Phosphate
7	9.55	17.668	7.582	Sulfate
7	12.00	138.059	40.533	

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RP 10/9/09

Report date: 10/9/2009 2:36:41 AM
Printed by: User

Ident: R0905627-005
Analysis from: 10/9/2009 2:24:42 AM
File: TA090224.CHW

Last save: 10/9/2009 2:36:41 AM

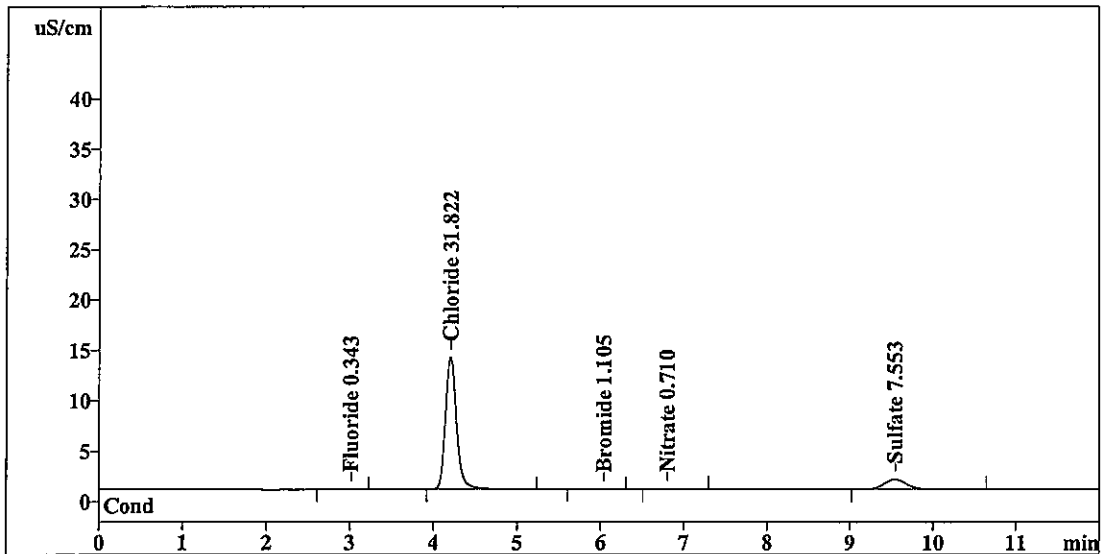
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8887

Last save: 10/8/2009 8:52:33

SAMPLE: C

Vial number: 71
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	3.01	0.249	0.343	Fluoride
2	4.21	119.578	31.822	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.04	0.062	1.105	Bromide
5	6.81	0.254	0.710	Nitrate
6	0.00	0.000	0.000	Phosphate
7	9.54	17.587	7.553	Sulfate
7	12.00	137.730	41.533	

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Report date: 10/9/2009 2:50:58 AM
Printed by: User

Ident: R0905627-006
Analysis from: 10/9/2009 2:39:00 AM
File: TA090239.CHW

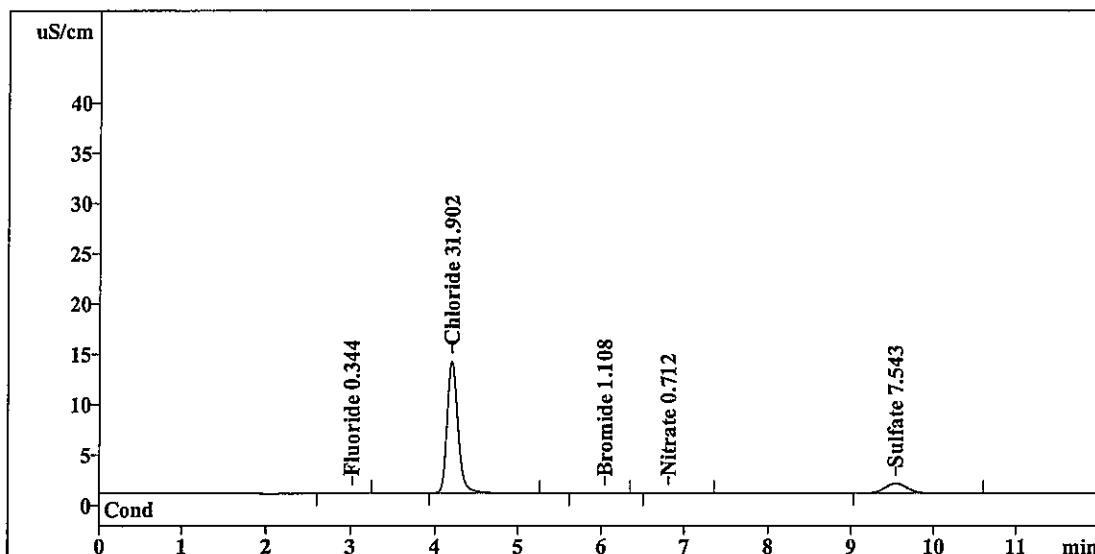
Last save: 10/9/2009 2:50:58 AM

Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8888

Last save: 10/8/2009 8:52:33

SAMPLE: C
Vial number: 72
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	3.01	0.258	0.344	Fluoride
2	4.21	119.885	31.902	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.05	0.067	1.108	Bromide
5	6.81	0.270	0.712	Nitrate
6	0.00	0.000	0.000	Phosphate
7	9.54	17.558	7.543	Sulfate
7	12.00	138.039	41.609	

OK

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Report date: 10/9/2009 3:05:15 AM
Printed by: User

Ident: CCV
Analysis from: 10/9/2009 2:53:17 AM
File: TA090253.CHW

Last save: 10/9/2009 3:05:15 AM

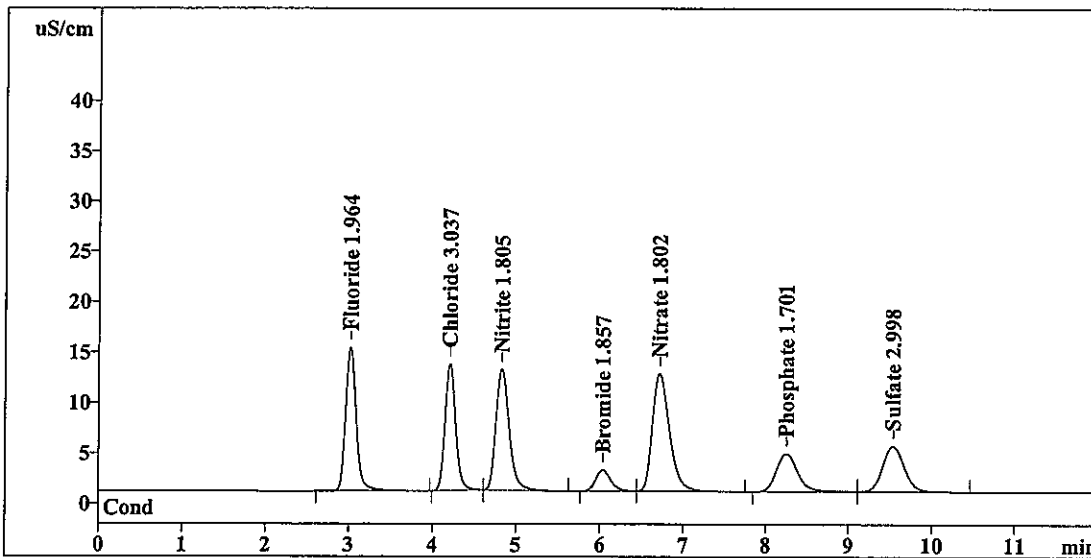
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8889

Last save: 10/8/2009 8:52:33

SAMPLE:

Vial number: 73
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	3.02	123.254	1.964	Fluoride
2	4.21	113.983	3.037	Chloride
3	4.84	134.011	1.805	Nitrite
4	6.04	26.246	1.857	Bromide
5	6.72	166.824	1.802	Nitrate
6	8.26	66.724	1.701	Phosphate
7	9.54	80.617	2.998	Sulfate
<hr/>				
7	12.00	711.659	15.163	

OK
OK
OK

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Report date: 10/9/2009 3:19:32 AM
Printed by: User

Ident: CCB
Analysis from: 10/9/2009 3:07:33 AM
File: TA090307.CHW

Last save: 10/9/2009 3:19:32 AM

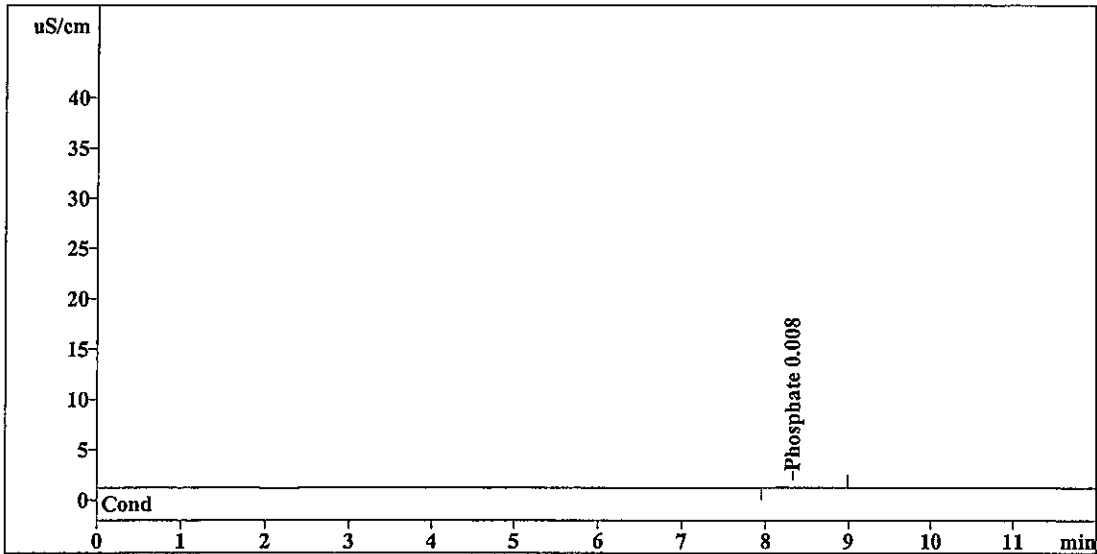
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8890

Last save: 10/8/2009 8:52:33

SAMPLE:

Vial number: 74
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	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	8.32	0.291	0.008	Phosphate
7	0.00	0.000	0.000	Sulfate
<hr/>				
7	12.00	0.291	0.008	

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Report date: 10/9/2009 3:33:48 AM
Printed by: User

Ident: LCS
Analysis from: 10/9/2009 3:21:50 AM
File: TA090321.CHW

Last save: 10/9/2009 3:33:49 AM

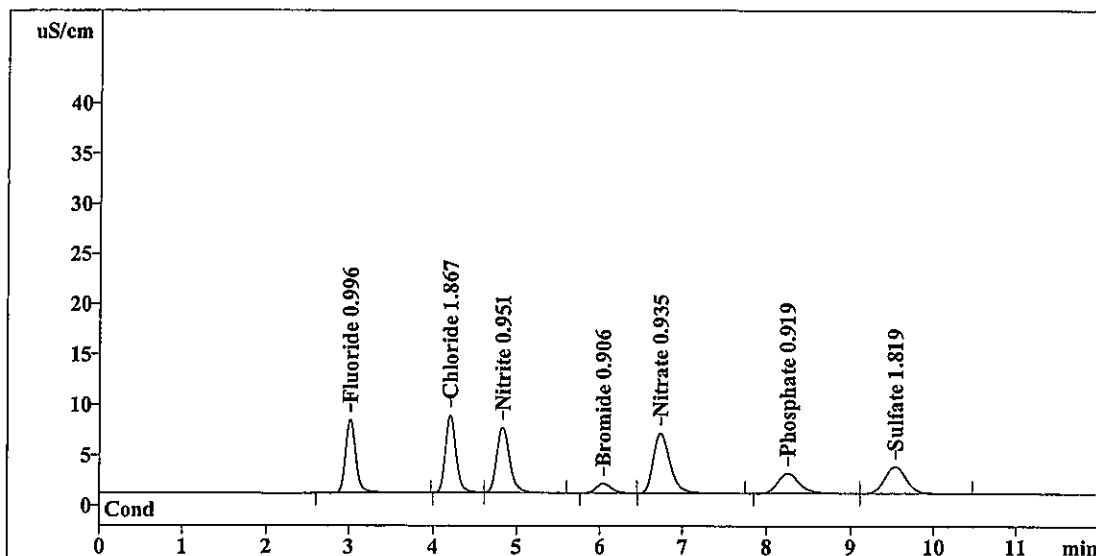
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8891

Last save: 10/8/2009 8:52:33

SAMPLE:

Vial number: 75
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	3.02	61.583	OK 0.996	Fluoride
2	4.21	68.768	↓ 1.867	Chloride
3	4.84	69.074	0.951	Nitrite
4	6.05	11.991	0.906	Bromide
5	6.74	83.429	OK 0.935	Nitrate
6	8.26	36.054	↓ 0.919	Phosphate
7	9.54	47.478	↓ 1.819	Sulfate
7	12.00	378.377	8.394	

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RP 10/9/09

Report date: 10/9/2009 3:48:05 AM
Printed by: User

Ident: R0905627-007
Analysis from: 10/9/2009 3:36:07 AM
File: TA090336.CHW

Last save: 10/9/2009 3:48:06 AM

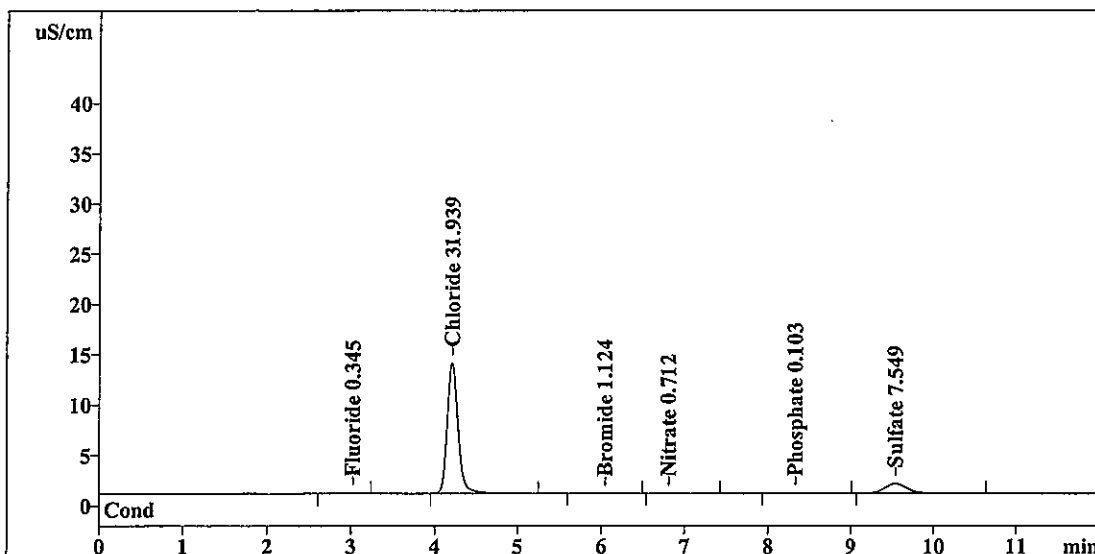
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8892

Last save: 10/8/2009 8:52:33

SAMPLE: C

Vial number: 76
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	3.02	0.263	0.345	Fluoride
2	4.21	120.032	31.939	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.04	0.092	1.124	Bromide
5	6.82	0.270	0.712	Nitrate
6	8.32	0.364	0.103	Phosphate
7	9.54	17.574	7.549	Sulfate
7	12.00	138.595	41.773	

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RP 1019109

Report date: 10/9/2009 4:02:22 AM
Printed by: User

Ident: R0905627-007 DUP
Analysis from: 10/9/2009 3:50:24 AM
File: TA090350.CHW

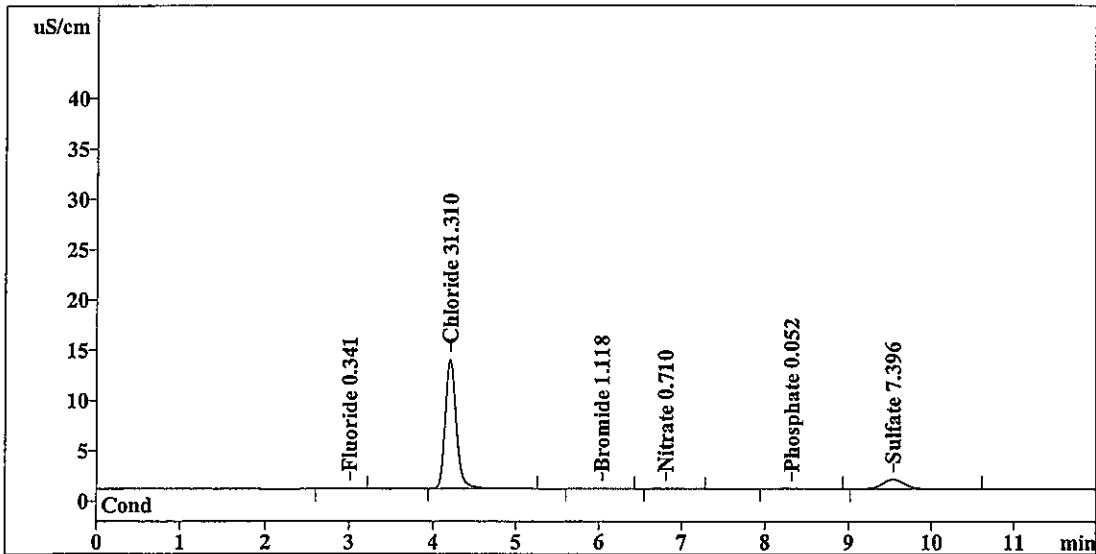
Last save: 10/9/2009 4:02:23 AM

Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8893

Last save: 10/8/2009 8:52:33

SAMPLE: C
Vial number: 77
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	3.01	0.239	0.341	Fluoride
2	4.21	117.601	31.310	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.06	0.083	1.118	Bromide
5	6.82	0.255	0.710	Nitrate
6	8.32	0.165	0.052	Phosphate
7	9.54	17.145	7.396	Sulfate
7	12.00	135.488	40.928	

OK

RP 1019109

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Report date: 10/9/2009 4:16:39 AM
Printed by: User

Ident: R0905627-007 SPK
Analysis from: 10/9/2009 4:04:41 AM
File: TA090404.CHW

Last save: 10/9/2009 4:16:39 AM

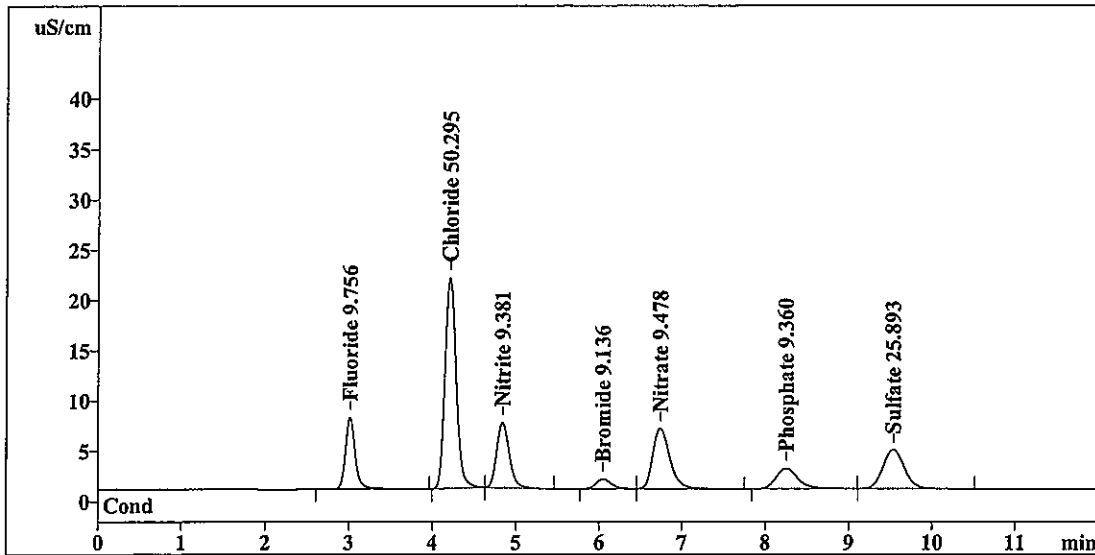
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8894

Last save: 10/8/2009 8:52:33

SAMPLE: C

Vial number: 78
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	3.02	60.264	9.756	Fluoride
2	4.21	190.926	50.295	Chloride
3	4.84	68.071	9.381	Nitrite
4	6.05	12.103	9.136	Bromide
5	6.74	84.620	9.478	Nitrate
6	8.26	36.703	9.360	Phosphate
7	9.54	69.137	25.893	Sulfate
7	12.00	521.823	123.298	

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Report date: 10/9/2009 4:30:56 AM
Printed by: User

Ident: R0905627-008
Analysis from: 10/9/2009 4:18:58 AM
File: TA090418.CHW

Last save: 10/9/2009 4:30:56 AM

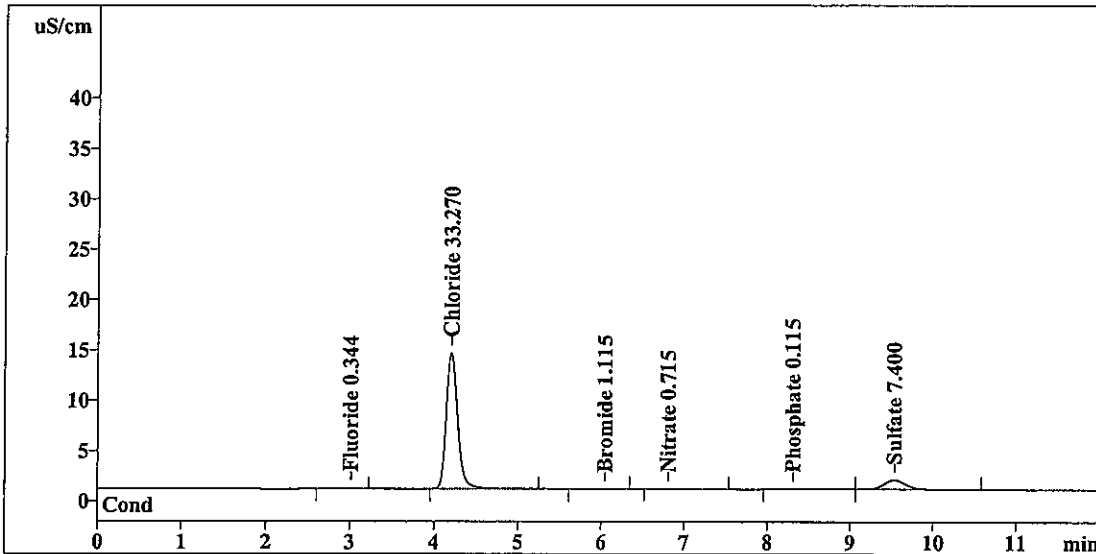
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8895

Last save: 10/8/2009 8:52:33

SAMPLE: C

Vial number: 79
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	3.01	0.256	0.344	Fluoride
2	4.21	125.170	33.270	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.05	0.077	1.115	Bromide
5	6.82	0.297	0.715	Nitrate
6	8.32	0.411	0.115	Phosphate
7	9.54	17.155	7.400	Sulfate
<hr/>				
7	12.00	143.366	42.958	

OK

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Report date: 10/9/2009 4:45:13 AM
Printed by: User

Ident: R0905627-009
Analysis from: 10/9/2009 4:33:15 AM
File: TA090433.CHW

Last save: 10/9/2009 4:45:13 AM

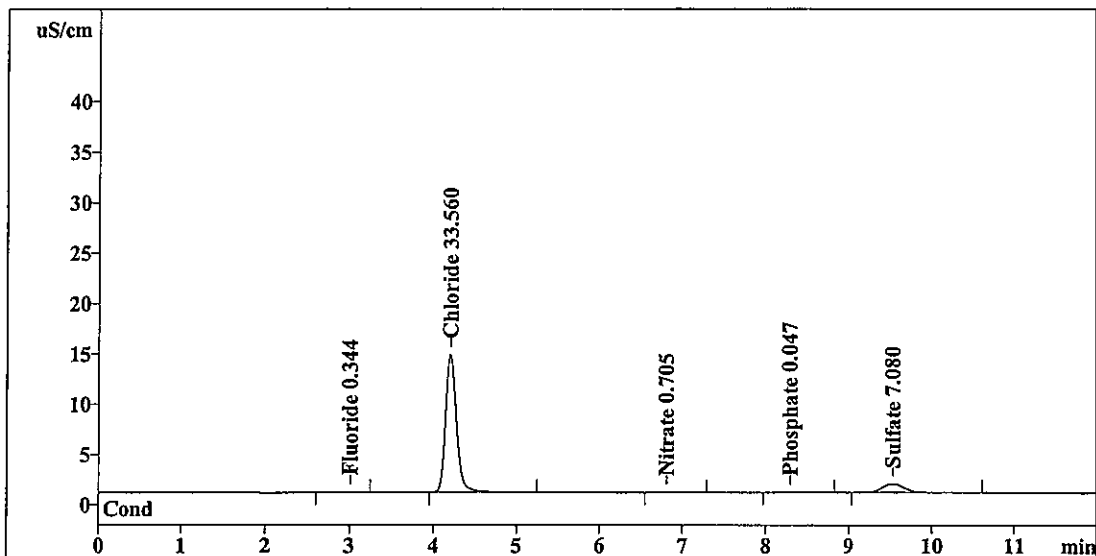
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8896

Last save: 10/8/2009 8:52:33

SAMPLE: C

Vial number: 80
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	3.01	0.255	0.344	Fluoride
2	4.21	126.291	33.560	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.82	0.200	0.705	Nitrate
6	8.31	0.145	0.047	Phosphate
7	9.54	16.257	7.080	Sulfate
<hr/>				
7	12.00	143.147	41.736	

RP 10/9/09

This report has been created by IC Net
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Report date: 10/9/2009 4:59:30 AM
Printed by: User

Ident: R0905675-001
Analysis from: 10/9/2009 4:47:31 AM
File: TA090447.CHW

Last save: 10/9/2009 4:59:30 AM

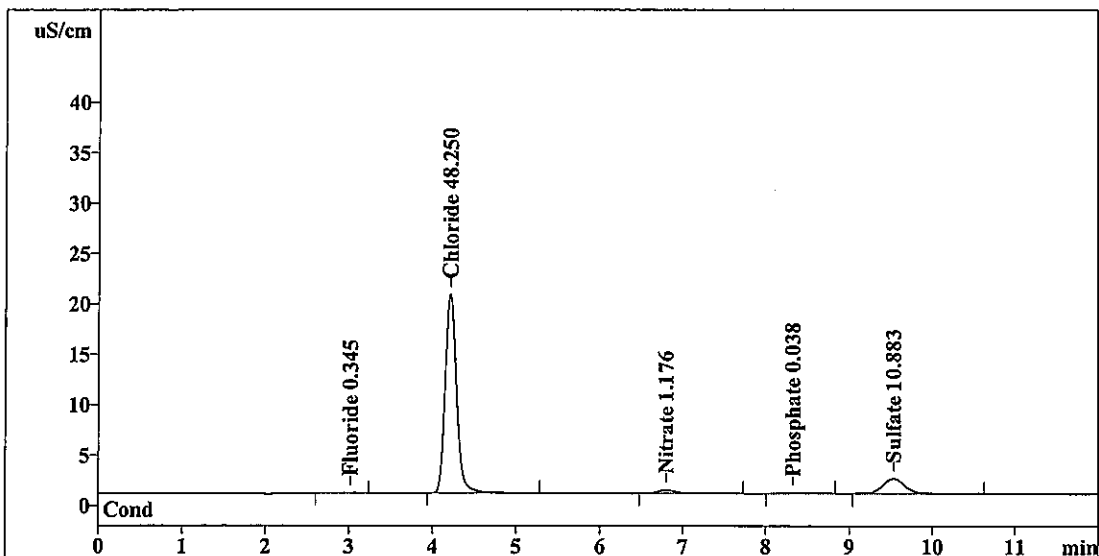
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8897

Last save: 10/8/2009 8:52:33

SAMPLE: C

Vial number: 81
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	3.01	0.261	0.345	Fluoride
2	4.21	183.026	48.250	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.80	4.732	1.176	Nitrate
6	8.32	0.108	0.038	Phosphate
7	9.54	26.946	10.883	Sulfate
7	12.00	215.073	60.691	

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RP 10/9/09

Report date: 10/9/2009 5:13:47 AM
Printed by: User

Ident: R0905675-002
Analysis from: 10/9/2009 5:01:48 AM
File: TA090501.CHW

Last save: 10/9/2009 5:13:47 AM

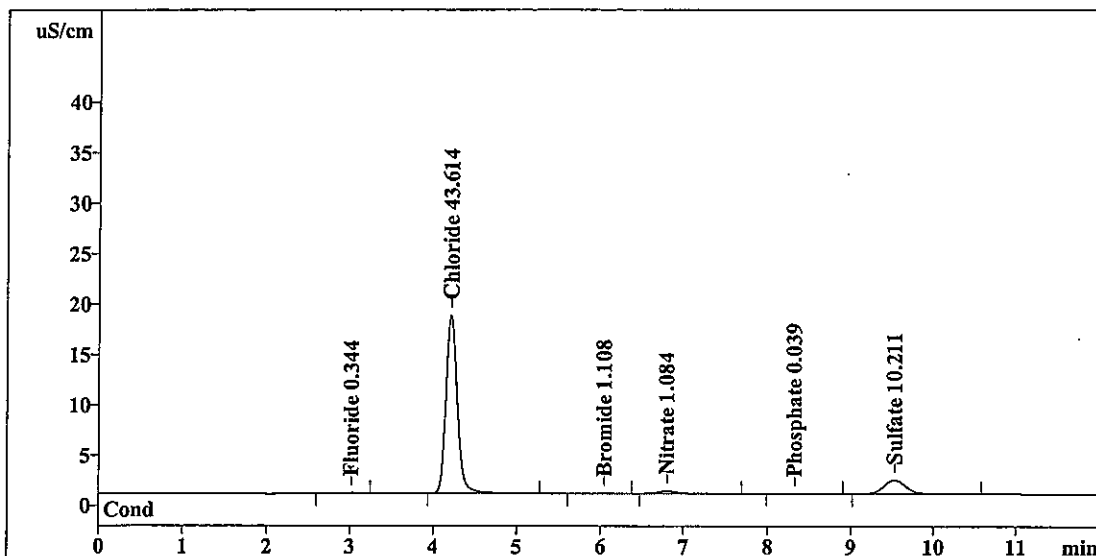
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8898

Last save: 10/8/2009 8:52:33

SAMPLE: C

Vial number: 82
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	3.01	0.257	0.344	Fluoride
2	4.21	165.120	43.614	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.06	0.067	1.108	Bromide
5	6.80	3.850	1.084	Nitrate
6	8.32	0.111	0.039	Phosphate
7	9.54	25.058	10.211	Sulfate
7	12.00	194.463	56.400	

OK

RP 10/9/09

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Report date: 10/9/2009 5:28:04 AM
Printed by: User

Ident: R0905675-003
Analysis from: 10/9/2009 5:16:06 AM
File: TA090516.CHW

Last save: 10/9/2009 5:28:04 AM

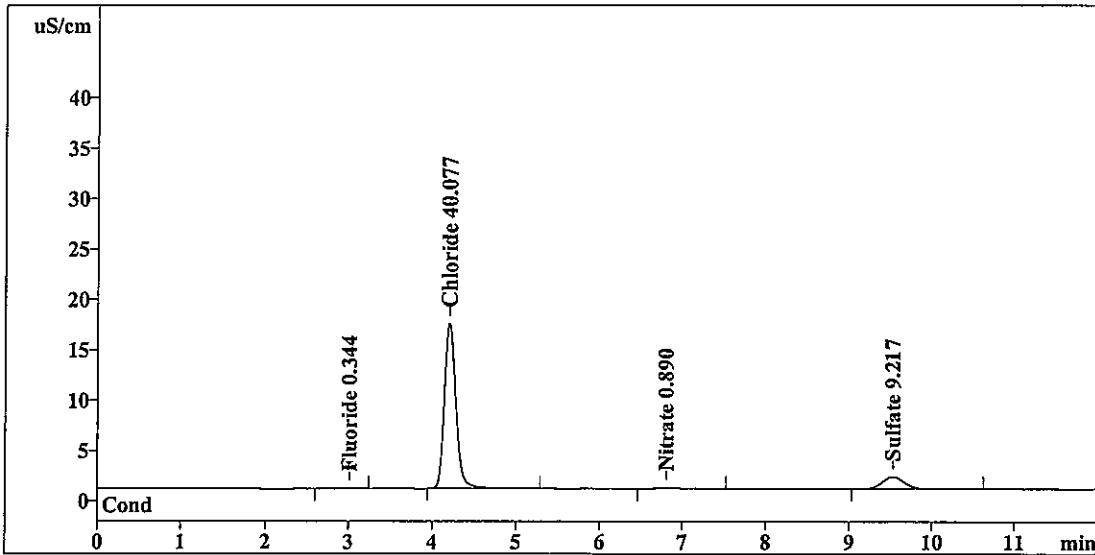
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8899

Last save: 10/8/2009 8:52:33

SAMPLE: C

Vial number: 83
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	3.01	0.258	0.344	Fluoride
2	4.21	151.459	40.077	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.81	1.986	0.890	Nitrate
6	0.00	0.000	0.000	Phosphate
7	9.53	22.264	9.217	Sulfate
<hr/>				
7	12.00	175.967	50.528	

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RP 10/9/09

Report date: 10/9/2009 5:42:21 AM
Printed by: User

Ident: R0905675-004
Analysis from: 10/9/2009 5:30:23 AM
File: TA090530.CHW

Last save: 10/9/2009 5:42:21 AM

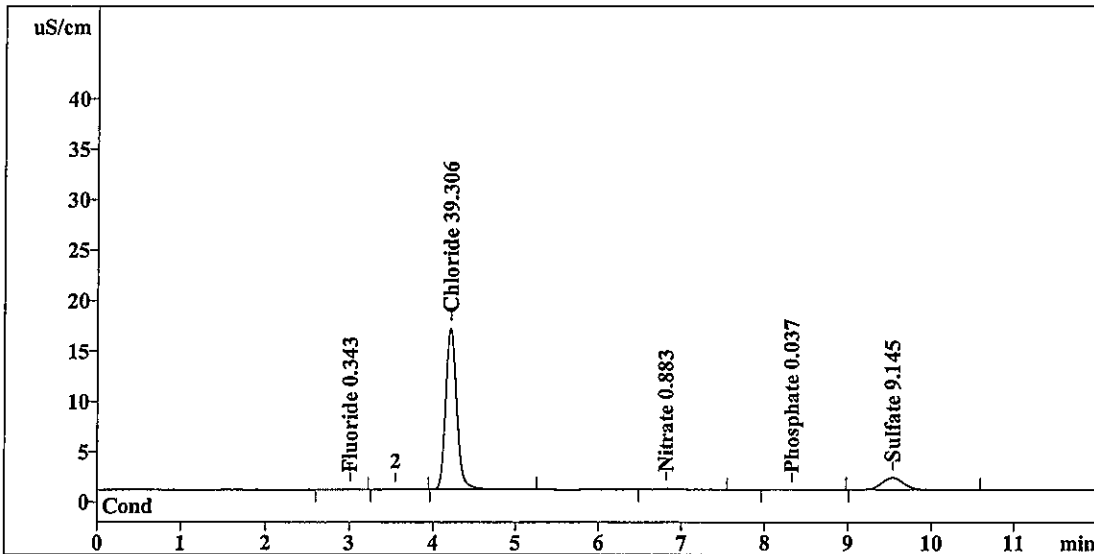
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8900

Last save: 10/8/2009 8:52:33

SAMPLE: C

Vial number: 84
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	3.01	0.248	0.343	Fluoride
2	4.21	148.483	OK 39.306	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.81	1.912	0.883	Nitrate
6	8.31	0.106	0.037	Phosphate
7	9.54	22.061	9.145	Sulfate
<hr/>				
7	12.00	172.810	49.714	

RP 10/9/09

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Report date: 10/9/2009 5:56:38 AM
Printed by: User

Ident: CCV
Analysis from: 10/9/2009 5:44:40 AM
File: TA090544.CHW

Last save: 10/9/2009 5:56:38 AM

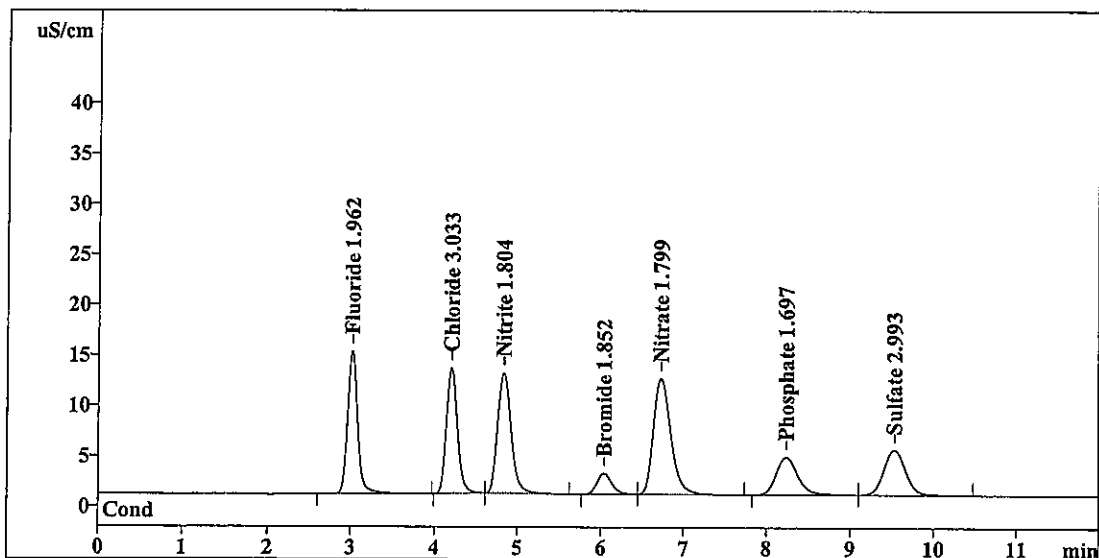
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8901

Last save: 10/8/2009 8:52:33

SAMPLE:

Vial number: 85
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	3.02	123.160	OK 1.962	Fluoride
2	4.21	113.800	↓ 3.033	Chloride
3	4.84	133.913	↓ 1.804	Nitrite
4	6.04	26.169	↓ 1.852	Bromide
5	6.73	166.548	OK 1.799	Nitrate
6	8.24	66.561	↓ 1.697	Phosphate
7	9.53	80.489	↓ 2.993	Sulfate
<hr/>				
7	12.00	710.641	15.139	

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RP 10/9/09

Report date: 10/9/2009 6:10:57 AM
Printed by: User

Ident: CCB
Analysis from: 10/9/2009 5:58:59 AM
File: TA090558.CHW

Last save: 10/9/2009 6:10:58 AM

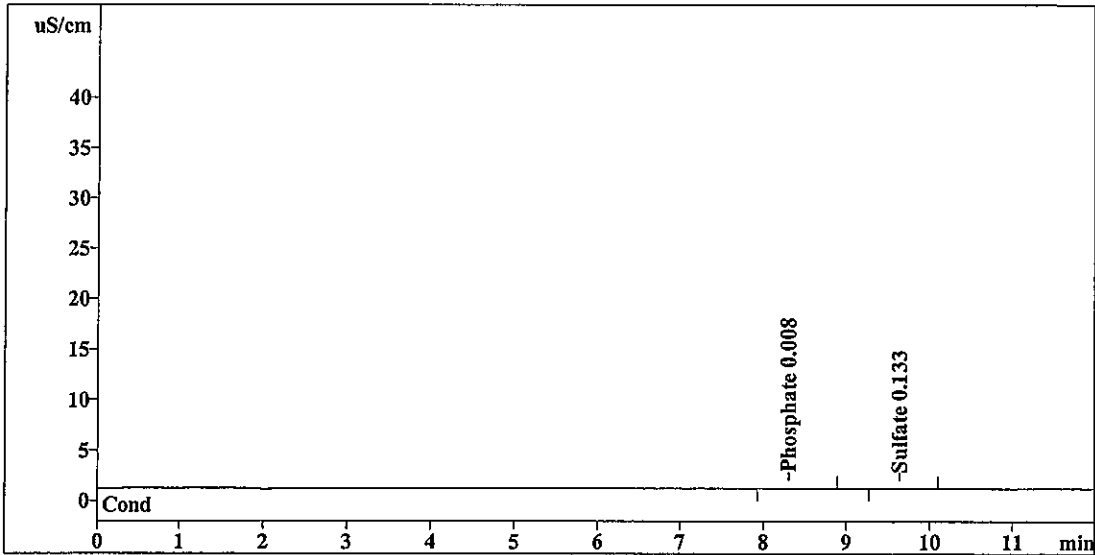
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8902

Last save: 10/8/2009 8:52:33

SAMPLE:

Vial number: 86
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	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	8.31	0.285	0.008	Phosphate
7	9.63	0.086	0.133	Sulfate
<hr/>				
7	12.00	0.371	0.141	

0/L
↓

RP 10/9/09

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Report date: 10/9/2009 6:25:14 AM
Printed by: User

Ident: R0905675-005
Analysis from: 10/9/2009 6:13:16 AM
File: TA090613.CHW

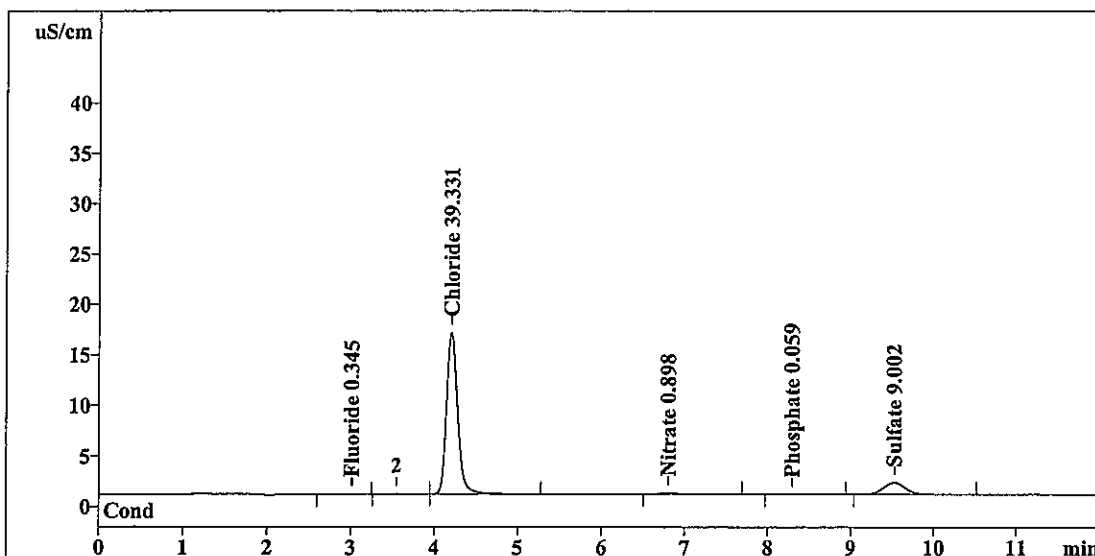
Last save: 10/9/2009 6:25:14 AM

Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8903

Last save: 10/8/2009 8:52:33

SAMPLE: C
Vial number: 87
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	3.01	0.262	0.345	Fluoride
2	4.21	148.579	39.331	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.81	2.063	0.898	Nitrate
6	8.31	0.189	0.059	Phosphate
7	9.53	21.660	9.002	Sulfate
7	12.00	172.754	49.635	

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RP 10/9/09

Report date: 10/9/2009 6:39:31 AM
Printed by: User

Ident: R0905675-005 DUP
Analysis from: 10/9/2009 6:27:33 AM
File: TA090627.CHW

Last save: 10/9/2009 6:39:31 AM

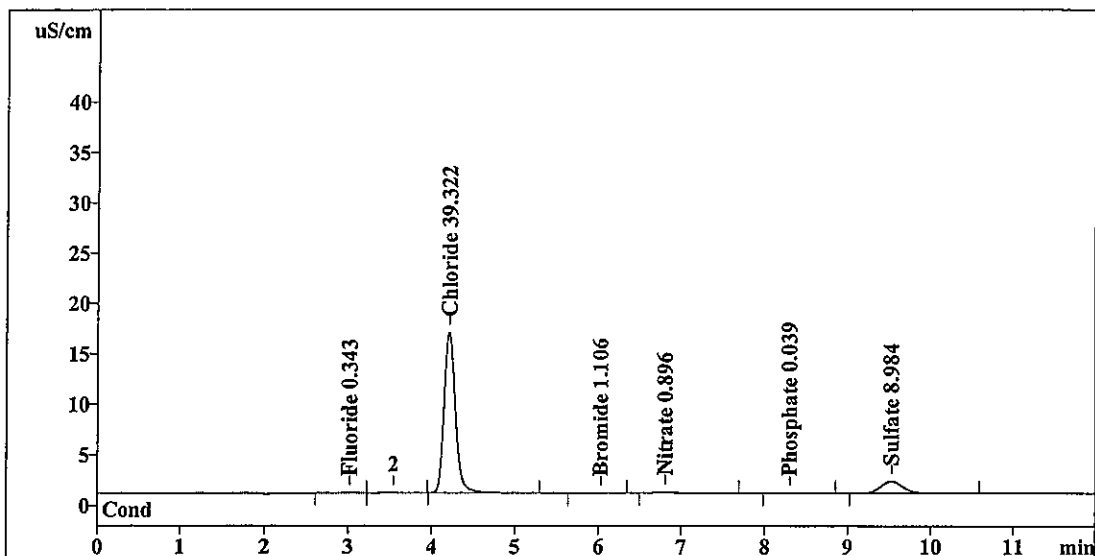
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8904

Last save: 10/8/2009 8:52:33

SAMPLE: C

Vial number: 88
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	3.01	0.250	0.343	Fluoride
2	4.21	148.545	39.322	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.05	0.064	1.106	Bromide
5	6.81	2.037	0.896	Nitrate
6	8.31	0.113	0.039	Phosphate
7	9.53	21.609	8.984	Sulfate
7	12.00	172.618	50.690	

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Report date: 10/9/2009 6:53:48 AM
Printed by: User

Ident: R0905675-005 SPK
Analysis from: 10/9/2009 6:41:50 AM
File: TA090641.CHW

Last save: 10/9/2009 6:53:48 AM

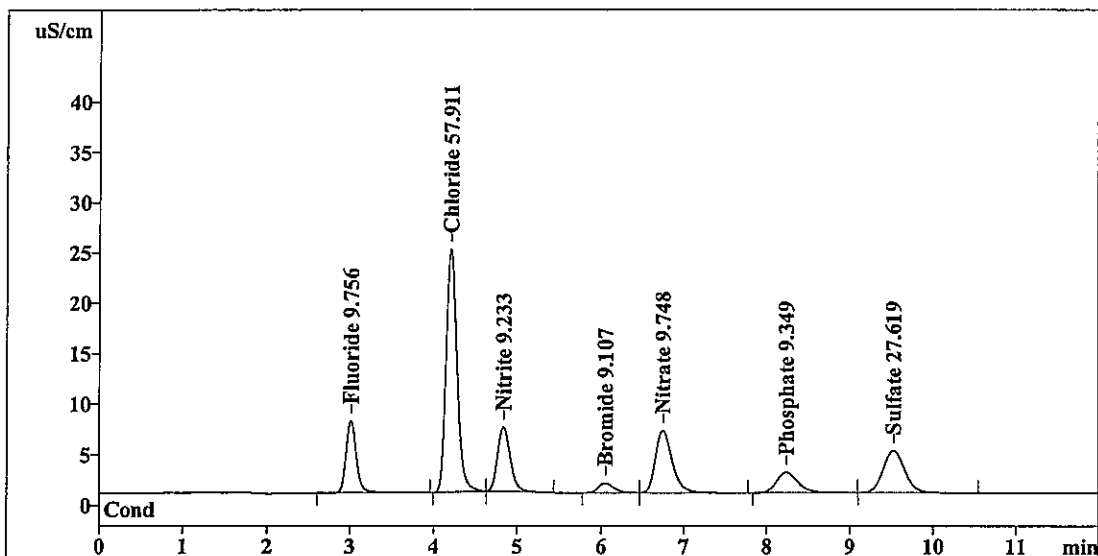
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8905

Last save: 10/8/2009 8:52:33

SAMPLE: C

Vial number: 89
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	3.01	60.267	9.756	Fluoride
2	4.21	220.338	57.911	Chloride
3	4.84	66.944	9.233	Nitrite
4	6.06	12.061	9.107	Bromide
5	6.75	87.212	9.748	Nitrate
6	8.24	36.660	9.349	Phosphate
7	9.53	73.988	27.619	Sulfate
7	12.00	557.469	132.722	

RP id 9109

This report has been created by IC Net
METROHM LTD

Report date: 10/9/2009 7:08:05 AM
Printed by: User

Ident: R0905675-006
Analysis from: 10/9/2009 6:56:07 AM
File: TA090656.CHW

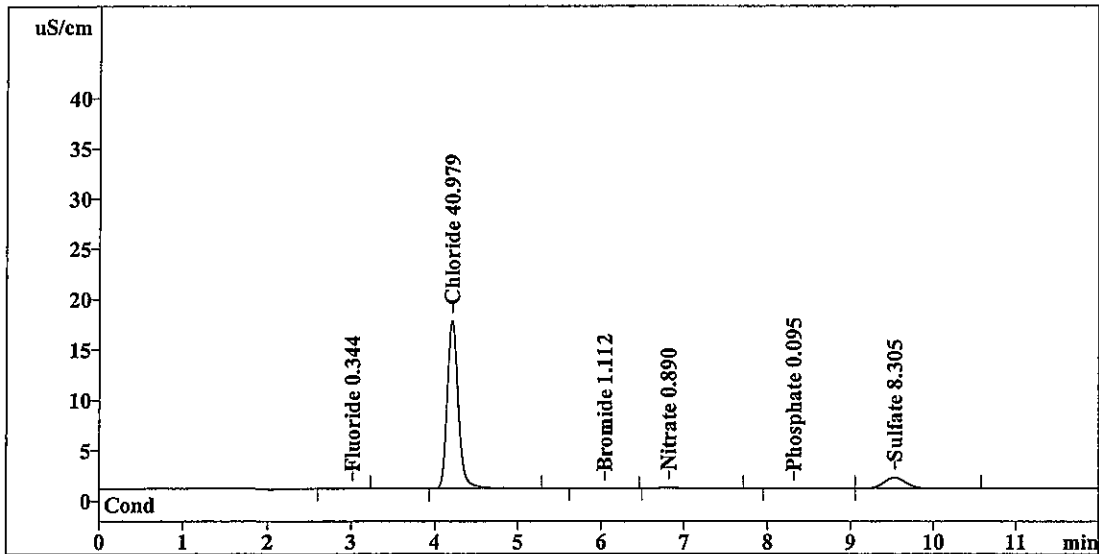
Last save: 10/9/2009 7:08:05 AM

Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8906

Last save: 10/8/2009 8:52:33

SAMPLE: C
Vial number: 90
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	3.02	0.256	0.344	Fluoride
2	4.22	154.945	40.979	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.05	0.073	1.112	Bromide
5	6.81	1.986	0.890	Nitrate
6	8.31	0.333	0.095	Phosphate
7	9.53	19.699	8.305	Sulfate
7	12.00	177.292	51.725	

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RP 10/9/09

Report date: 10/9/2009 7:22:22 AM
 Printed by: User

Ident: R0905661-001
 Analysis from: 10/9/2009 7:10:23 AM
 File: TA090710.CHW

Last save: 10/9/2009 7:22:22 AM

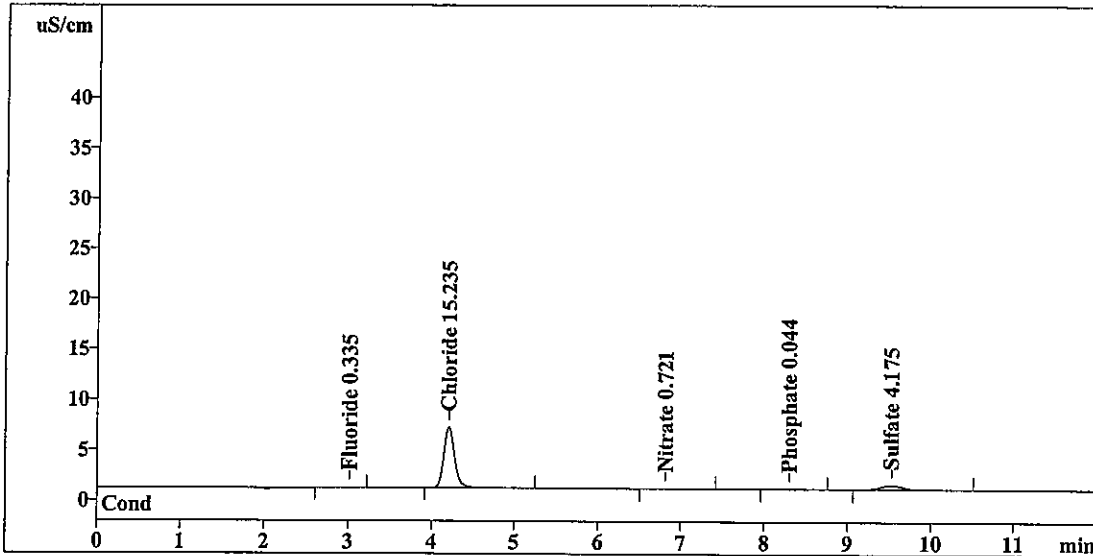
Method: 09-15-09CAL.mtw
 Run operator: User
 Analysis number: 8907

Last save: 10/8/2009 8:52:33

SAMPLE: CS

Vial number: 91
 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	3.01	0.199	0.335	Fluoride
2	4.21	55.517	15.235	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.82	0.358	0.721	Nitrate
6	8.30	0.131	0.044	Phosphate
7	9.53	8.091	4.175	Sulfate
7	12.00	64.296	20.510	

RP 1019609

This report has been created by IC Net
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Report date: 10/9/2009 7:36:38 AM
Printed by: User

Ident: R0905661-003
Analysis from: 10/9/2009 7:24:40 AM
File: TA090724.CHW

Last save: 10/9/2009 7:36:39 AM

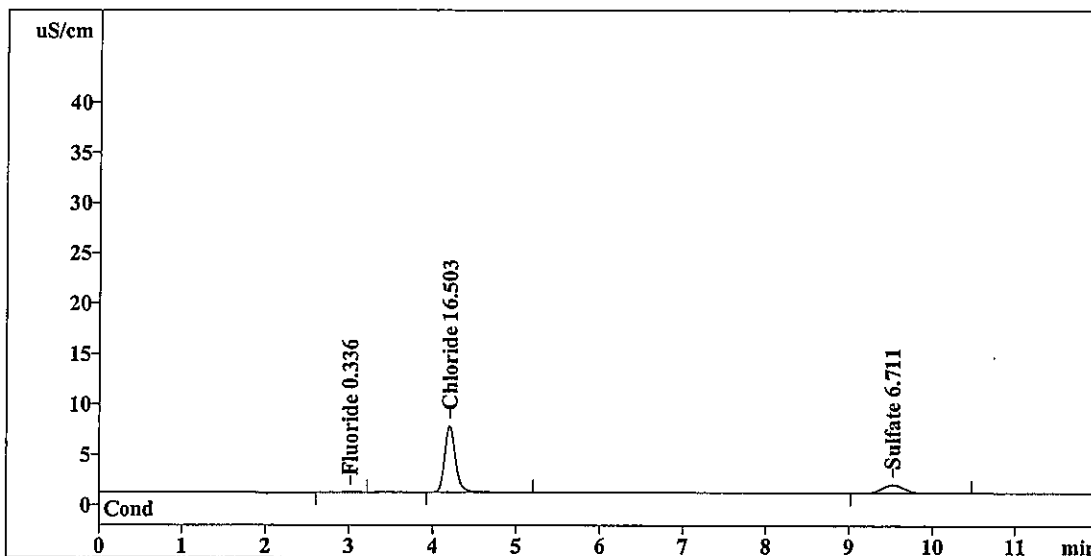
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8908

Last save: 10/8/2009 8:52:33

SAMPLE: CS

Vial number: 92
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	3.01	0.207	0.336	Fluoride
2	4.21	60.414	OK-16.503	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	Phosphate
7	9.53	15.219	OK 6.711	Sulfate
7	12.00	75.840	23.551	

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RP 10/9/09

Report date: 10/9/2009 7:50:55 AM
Printed by: User

Ident: R0905661-005
Analysis from: 10/9/2009 7:38:57 AM
File: TA090738.CHW

Last save: 10/9/2009 7:50:55 AM

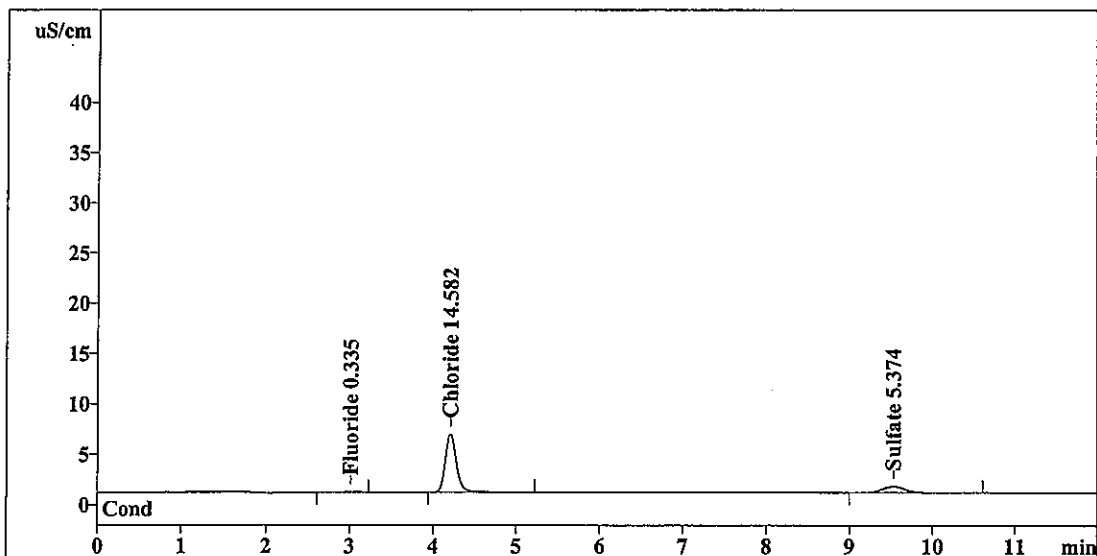
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8909

Last save: 10/8/2009 8:52:33

SAMPLE: CS

Vial number: 93
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	3.01	0.198	0.335	Fluoride
2	4.21	52.993	14.582	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	Phosphate
7	9.53	11.462	5.374	Sulfate
7	12.00	64.653	20.291	

This report has been created by IC Net
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REP 10/9/09

Report date: 10/9/2009 8:05:12 AM
Printed by: User

Ident: R0905679-008
Analysis from: 10/9/2009 7:53:14 AM
File: TA090753.CHW

Last save: 10/9/2009 8:05:12 AM

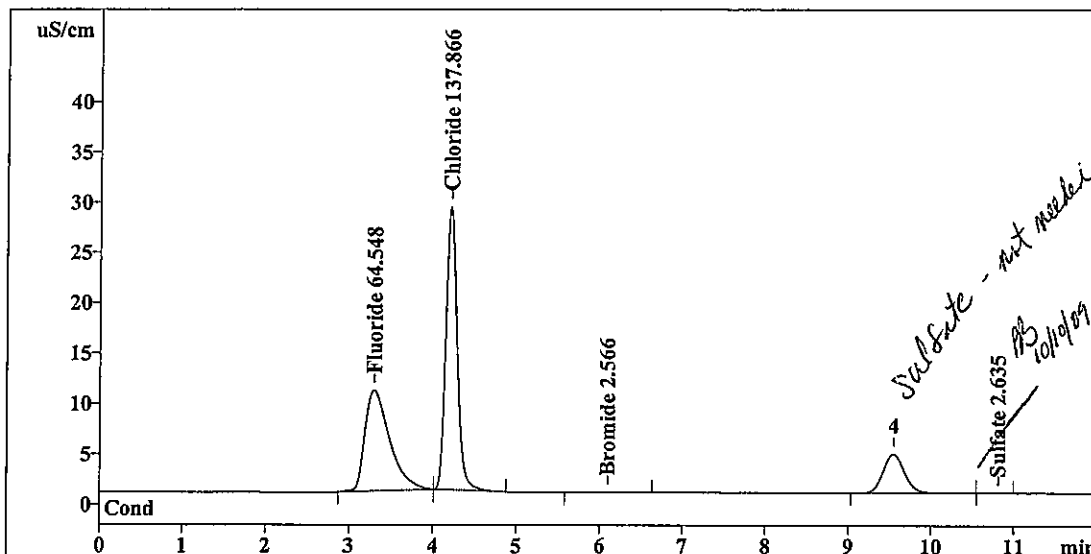
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8910

Last save: 10/8/2009 8:52:33

SAMPLE: C

Vial number: 94
Volume: 1.0 µL
Dilution: 20.00
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	3.30	203.830	64.548	Fluoride
2	4.21	262.909	OK 137.866	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.10	0.330	2.566	Bromide
5	0.00	0.000	0.000	Nitrate
6	0.00	0.000	0.000	Phosphate
7	10.81	0.058	2.635	Sulfate
<hr/>				
7	12.00	467.128	207.614	

This report has been created by IC Net
METROHM LTD

RP 10/9/09

Report date: 10/9/2009 8:19:29 AM
Printed by: User

Ident: R0905523-001
Analysis from: 10/9/2009 8:07:31 AM
File: TA090807.CHW

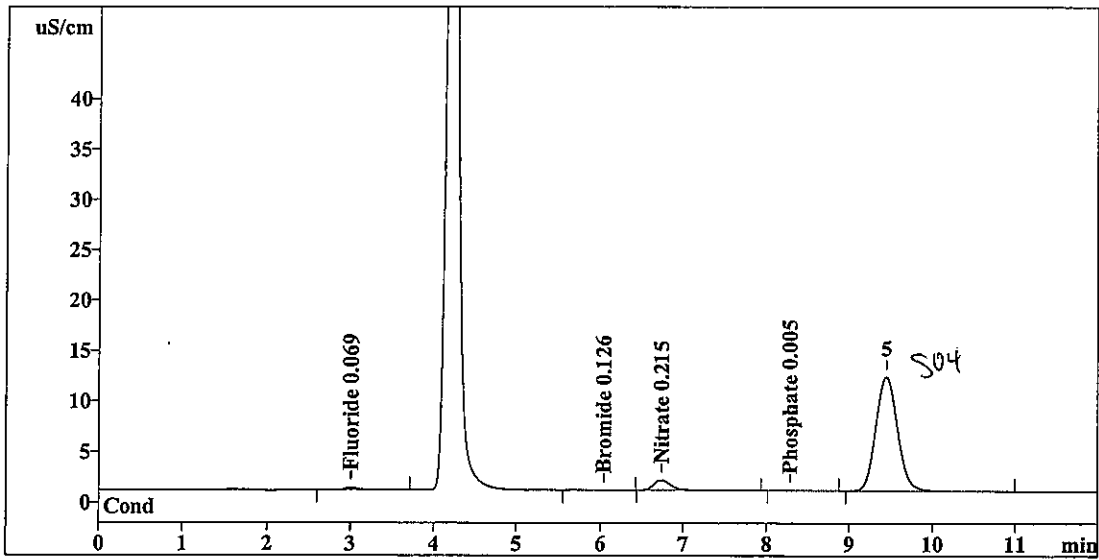
Last save: 10/9/2009 8:19:29 AM

Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8911

Last save: 10/8/2009 8:52:33

SAMPLE: F
Vial number: 95
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	3.01	2.456	0.069	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.05	0.296	0.126	Bromide
5	6.74	14.108	0.215	Nitrate
6	8.27	0.159	0.005	Phosphate
7	0.00	0.000	0.000	Sulfate
7	12.00	17.019	0.415	

OK
AS
10/19/09

RP 10/19/09

This report has been created by IC Net
METROHM LTD

Report date: 10/9/2009 8:33:46 AM
Printed by: User

Ident: R0905523-002
Analysis from: 10/9/2009 8:21:48 AM
File: TA090821.CHW

Last save: 10/9/2009 8:33:46 AM

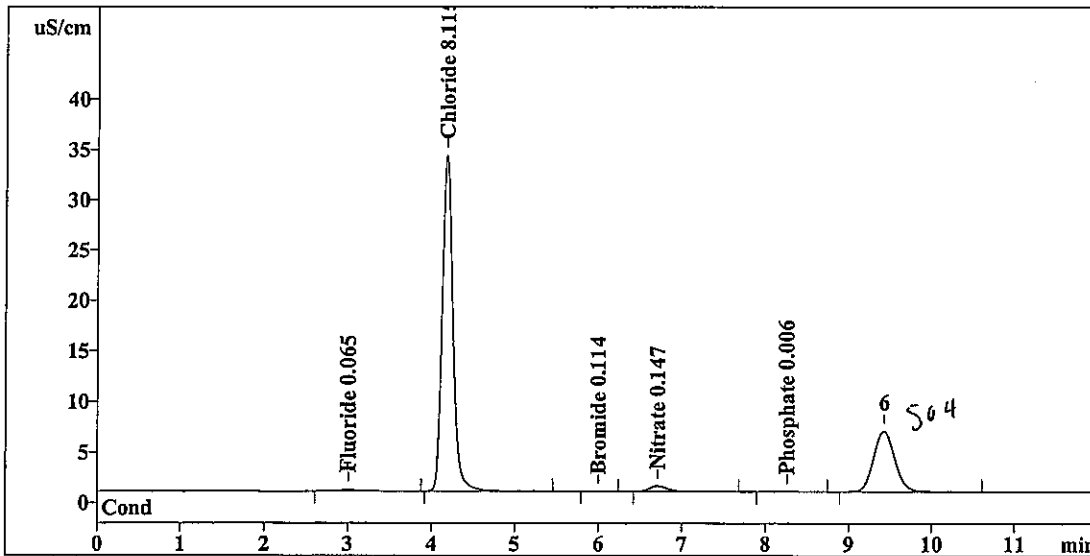
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8912

Last save: 10/8/2009 8:52:33

SAMPLE: F

Vial number: 96
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	3.00	2.234	0.065	Fluoride
2	4.19	310.082	8.115	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.01	0.109	0.114	Bromide
5	6.72	7.591	0.147	Nitrate
6	8.25	0.184	0.006	Phosphate
7	0.00	0.000	0.000	Sulfate
7	12.00	320.200	8.447	

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RP 10/9/09

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Report date: 10/9/2009 8:48:03 AM
Printed by: User

Ident: CCV
Analysis from: 10/9/2009 8:36:05 AM
File: TA090836.CHW

Last save: 10/9/2009 8:48:03 AM

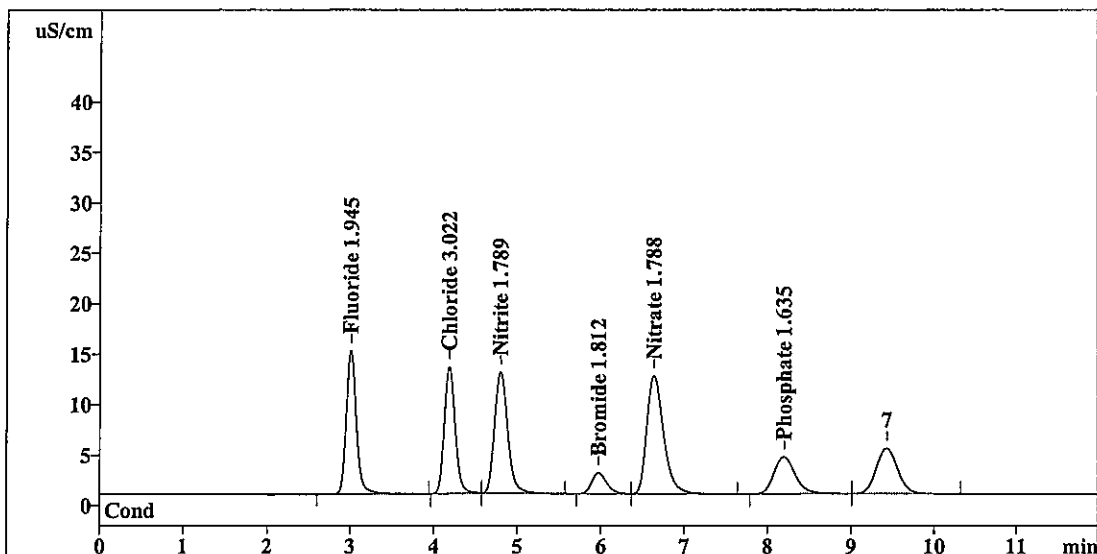
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8913

Last save: 10/8/2009 8:52:33

SAMPLE:

Vial number: 97
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	3.01	122.083	1.945	Fluoride
2	4.19	113.377	3.022	Chloride
3	4.80	132.816	1.789	Nitrite
4	5.98	25.570	1.812	Bromide
5	6.65	165.476	1.788	Nitrate
6	8.20	64.126	1.635	Phosphate
7	0.00	0.000	0.000	Sulfate
7	12.00	623.447	11.991	

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Rf 10/9/09*

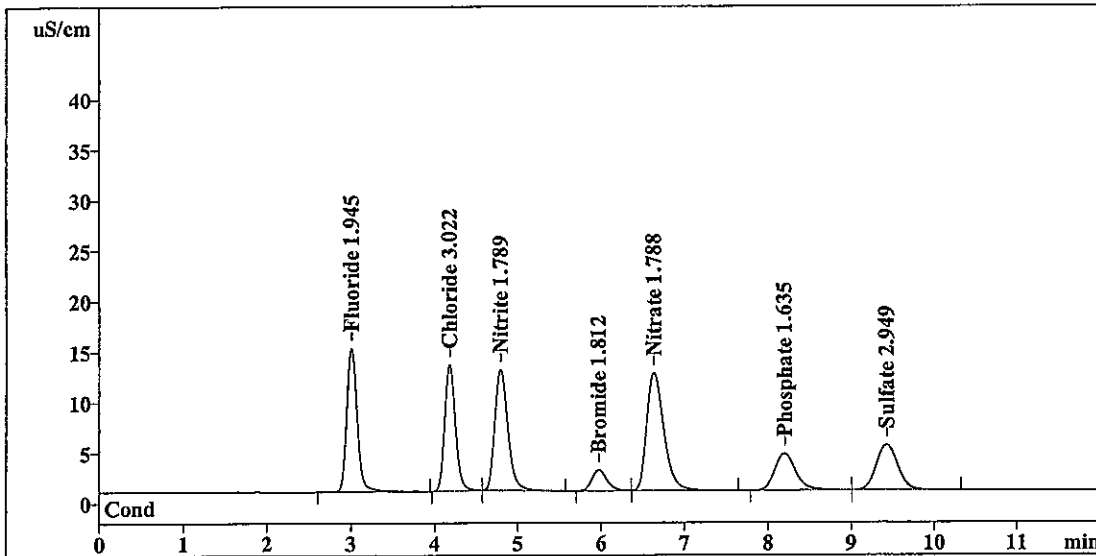
Report date: 10/9/2009 9:32:29 AM
Printed by: User

Ident: CCV
Analysis from: 10/9/2009 8:36:05 AM
File: ta090836.chw Last save: 10/9/2009 8:48:03 AM
Modified:
Method: 09-15-09CAL.mtw Last save: 10/8/2009 8:52:33
Run operator: User
Analysis number: 8913

SAMPLE:

Vial number: 97
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	3.01	122.083	1.945	Fluoride
2	4.19	113.377	3.022	Chloride
3	4.80	132.816	1.789	Nitrite
4	5.98	25.570	1.812	Bromide
5	6.65	165.476	1.788	Nitrate
6	8.20	64.126	1.635	Phosphate
7	9.43	79.247	2.949	Sulfate
<hr/>				
7	12.00	702.694	14.939	

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*RP 10/9/09
reprocessed
BB 10/10/09*

Report date: 10/9/2009 9:02:20 AM
Printed by: User

Ident: CCB
Analysis from: 10/9/2009 8:50:22 AM
File: TA090850.CHW

Last save: 10/9/2009 9:02:20 AM

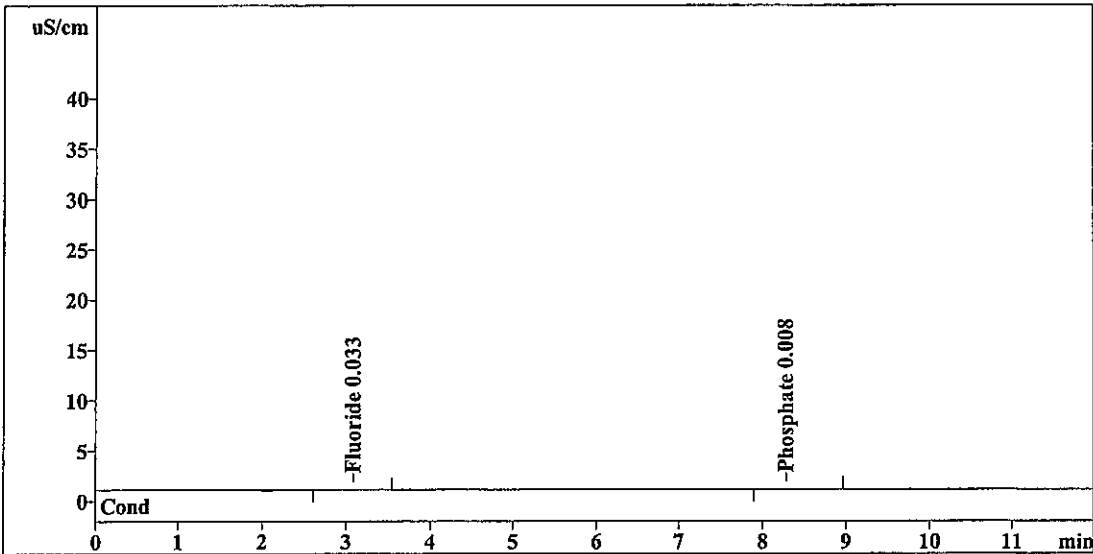
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8914

Last save: 10/8/2009 8:52:33

SAMPLE:

Vial number: 98
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	3.09	0.143	0.033	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	8.28	0.284	0.008	Phosphate
7	0.00	0.000	0.000	Sulfate
<hr/>				
7	12.00	0.426	0.041	

OK
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Report date: 10/9/2009 9:16:37 AM
Printed by: User

Ident: LCS
Analysis from: 10/9/2009 9:04:39 AM
File: TA090904.CHW

Last save: 10/9/2009 9:16:37 AM

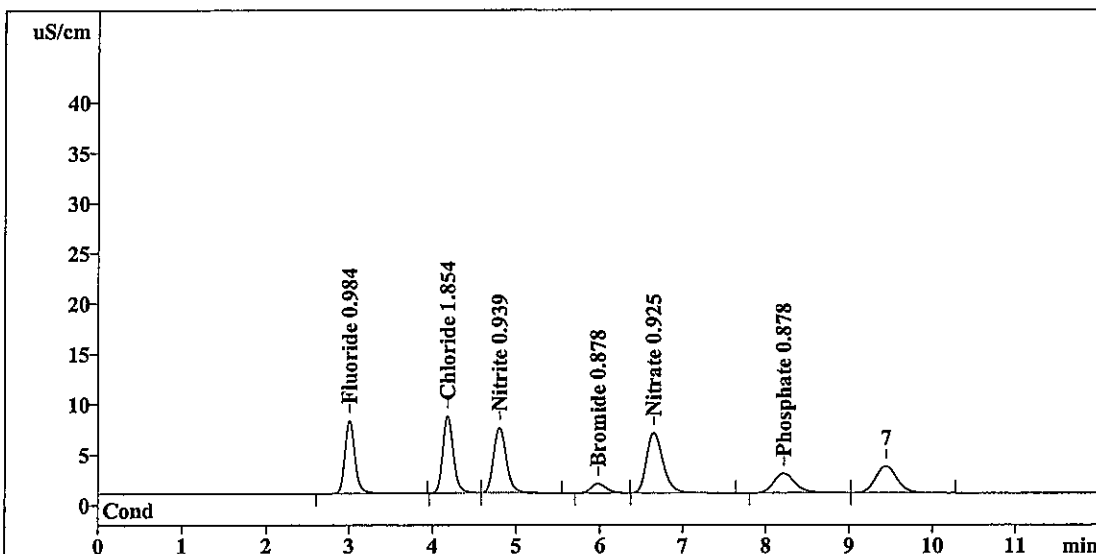
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8915

Last save: 10/8/2009 8:52:33

SAMPLE:

Vial number: 99
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	3.01	60.823	0.984	Fluoride
2	4.18	68.288	1.854	Chloride
3	4.80	68.113	0.939	Nitrite
4	5.98	11.563	0.878	Bromide
5	6.65	82.389	0.925	Nitrate
6	8.22	34.435	0.878	Phosphate
7	0.00	0.000	0.000	Sulfate
7	12.00	325.611	6.458	

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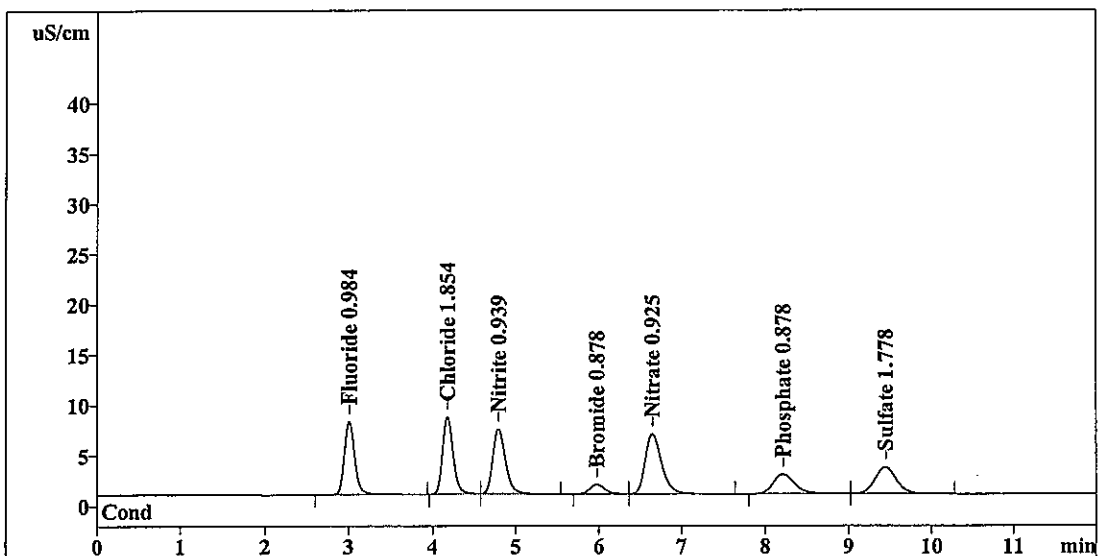
Report date: 10/9/2009 9:33:01 AM
Printed by: User

Ident: LCS
Analysis from: 10/9/2009 9:04:39 AM
File: ta090904.chw Last save: 10/9/2009 9:16:37 AM
Modified!
Method: 09-15-09CAL.mtw Last save: 10/8/2009 8:52:33
Run operator: User
Analysis number: 8915

SAMPLE:

Vial number: 99
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	3.01	60.823	0.984	Fluoride
2	4.18	68.288	1.854	Chloride
3	4.80	68.113	0.939	Nitrite
4	5.98	11.563	0.878	Bromide
5	6.65	82.389	0.925	Nitrate
6	8.22	34.435	0.878	Phosphate
7	9.44	46.336	1.778	Sulfate
7	12.00	371.947	8.236	

OK
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OK
OUT↓
OUT↓

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Report date: 10/9/2009 9:30:54 AM
Printed by: User

Ident: R0905523-003
Analysis from: 10/9/2009 9:18:56 AM
File: TA090918.CHW

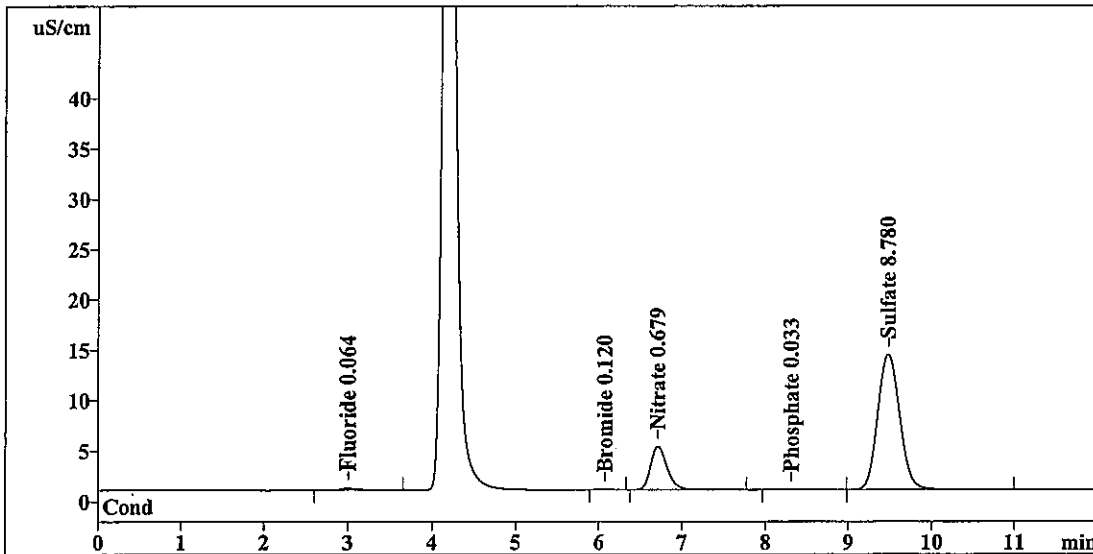
Last save: 10/9/2009 9:30:54 AM

Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8916

Last save: 10/8/2009 8:52:33

SAMPLE: F
:
Vial number: 100
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	3.00	2.139	0.064	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.08	0.201	0.120	Bromide
5	6.72	58.788	0.679	Nitrate
6	8.32	1.269	0.033	Phosphate
7	9.49	243.159	8.780	Sulfate
7	12.00	305.555	9.677	

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Report date: 10/9/2009 9:45:12 AM
Printed by: User

Ident: R0905523-004
Analysis from: 10/9/2009 9:33:14 AM
File: TA090933.CHW

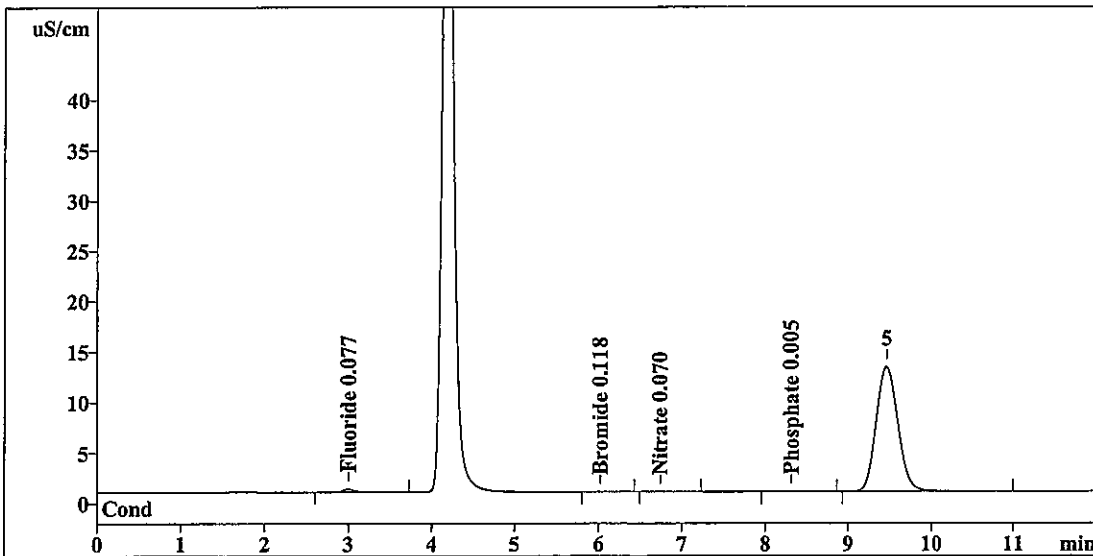
Last save: 10/9/2009 9:45:12 AM

Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8917

Last save: 10/8/2009 8:52:33

SAMPLE: F
Vial number: 101
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	3.00	2.977	0.077	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.03	0.171	0.118	Bromide
5	6.74	0.186	0.070	Nitrate
6	8.31	0.170	0.005	Phosphate
7	0.00	0.000	0.000	Sulfate
7	12.00	3.505	0.270	

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RP 10/9/09

Report date: 10/9/2009 9:59:29 AM
Printed by: User

Ident: R0905523-005
Analysis from: 10/9/2009 9:47:31 AM
File: TA090947.CHW

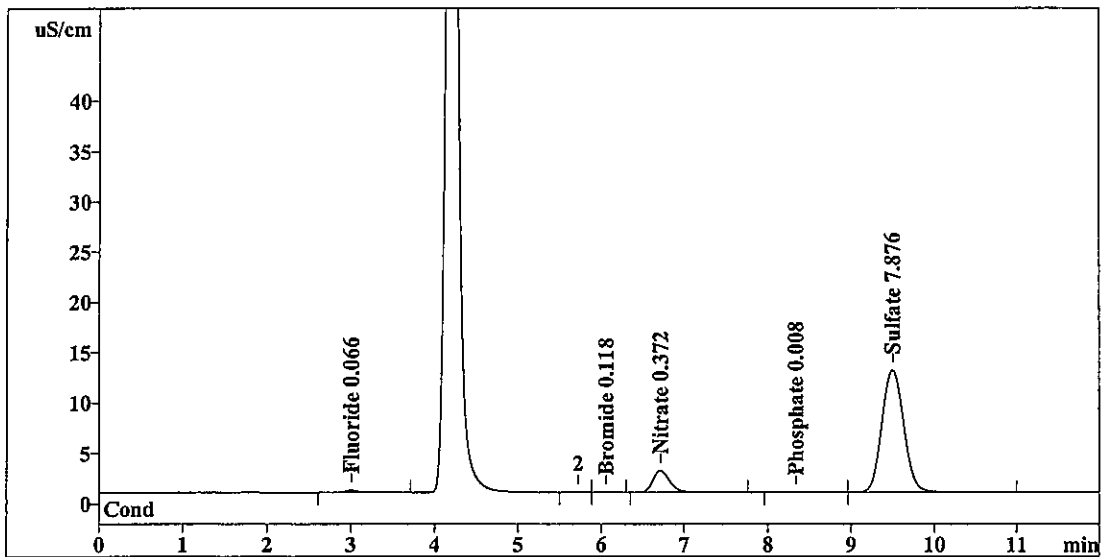
Last save: 10/9/2009 9:59:29 AM

Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8918

Last save: 10/8/2009 8:52:33

SAMPLE: F
Vial number: 102
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	3.00	2.274	OK 0.066	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.06	0.183	0.118	Bromide
5	6.72	29.185	0.372	Nitrate
6	8.34	0.254	0.008	Phosphate
7	9.50	217.729	7.876	Sulfate
7	12.00	249.625	8.439	

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RP 10/9/09

Report date: 10/9/2009 10:13:46 AM
Printed by: User

Ident: R0905523-005 DUP
Analysis from: 10/9/2009 10:01:48 AM
File: TA091001.CHW

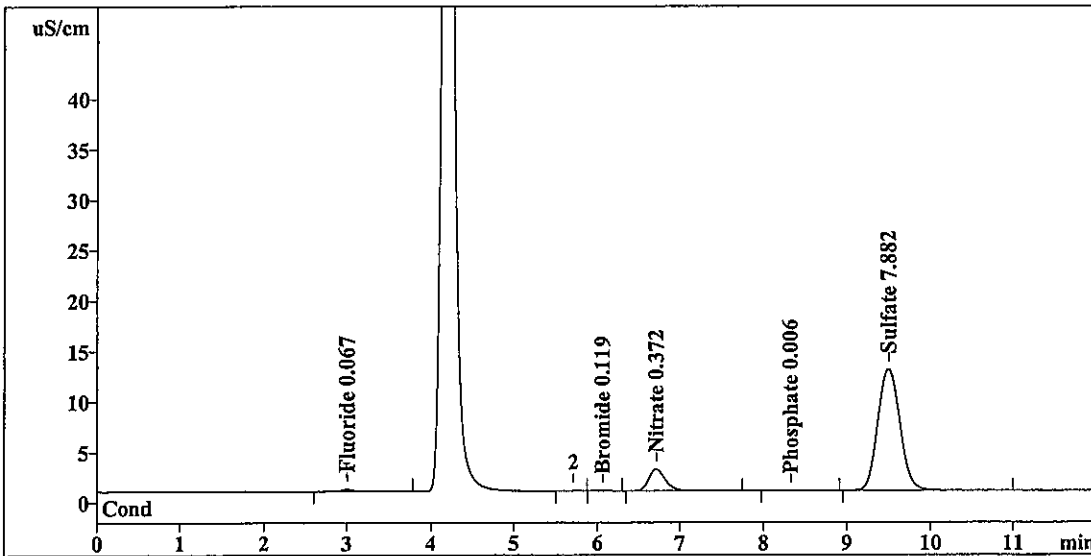
Last save: 10/9/2009 10:13:46 AM

Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8919

Last save: 10/8/2009 8:52:33

SAMPLE: F
Vial number: 103
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	3.00	2.309	OK 0.067	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.07	0.183	0.119	Bromide
5	6.72	29.261	0.372	Nitrate
6	8.34	0.212	0.006	Phosphate
7	9.50	217.913	7.882	Sulfate
7	12.00	249.878	8.446	

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Report date: 10/9/2009 10:28:03 AM
Printed by: User

Ident: R0905523-005 SPK
Analysis from: 10/9/2009 10:16:05 AM
File: TA091016.CHW

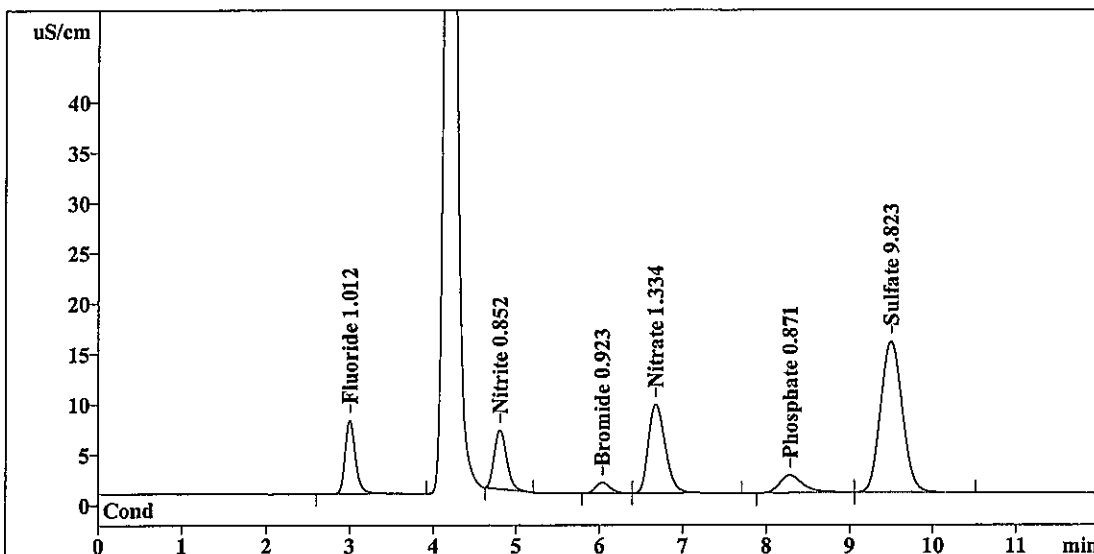
Last save: 10/9/2009 10:28:03 AM

Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8920

Last save: 10/8/2009 8:52:33

SAMPLE: F
Vial number: 104
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	3.00	62.598	1.012	Fluoride
2	0.00	0.000	0.000	Chloride
3	4.81	61.511	0.852	Nitrite
4	6.04	12.243	0.923	Bromide
5	6.68	121.764	1.334	Nitrate
6	8.29	34.152	0.871	Phosphate
7	9.50	272.461	9.823	Sulfate
7	12.00	564.728	14.815	

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Report date: 10/9/2009 10:42:20 AM
Printed by: User

Ident: R0905523-006
Analysis from: 10/9/2009 10:30:21 AM
File: TA091030.CHW

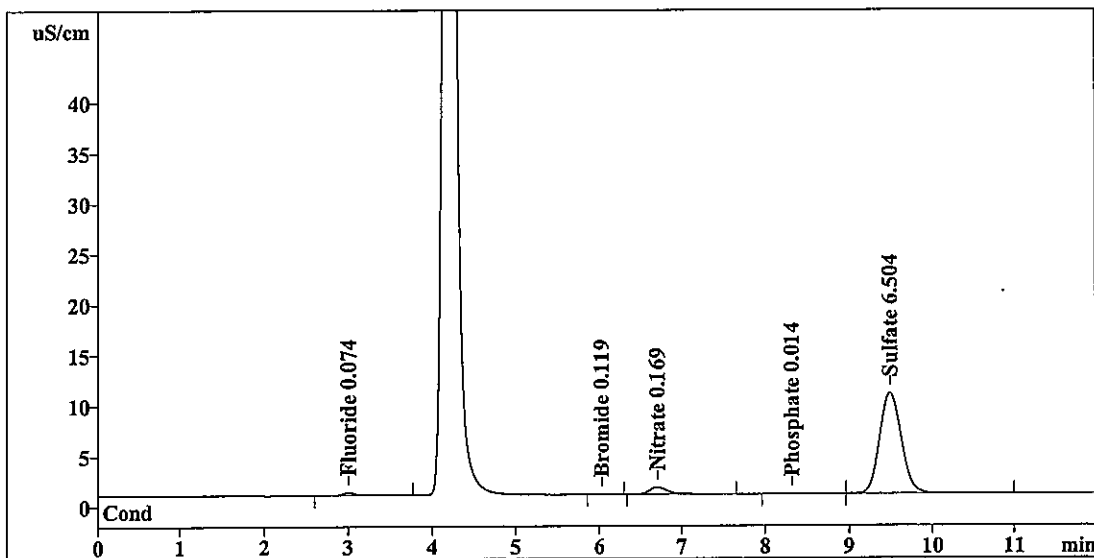
Last save: 10/9/2009 10:42:20 AM

Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8921

Last save: 10/8/2009 8:52:33

SAMPLE: F
Vial number: 105
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	3.00	2.779	OK 0.074	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.04	0.193	0.119	Bromide
5	6.71	9.715	0.169	Nitrate
6	8.33	0.499	0.014	Phosphate
7	9.50	179.162	6.504	Sulfate
7	12.00	192.349	6.880	

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Report date: 10/9/2009 10:56:36 AM
Printed by: User

Ident: R0905523-007
Analysis from: 10/9/2009 10:44:38 AM
File: TA091044.CHW

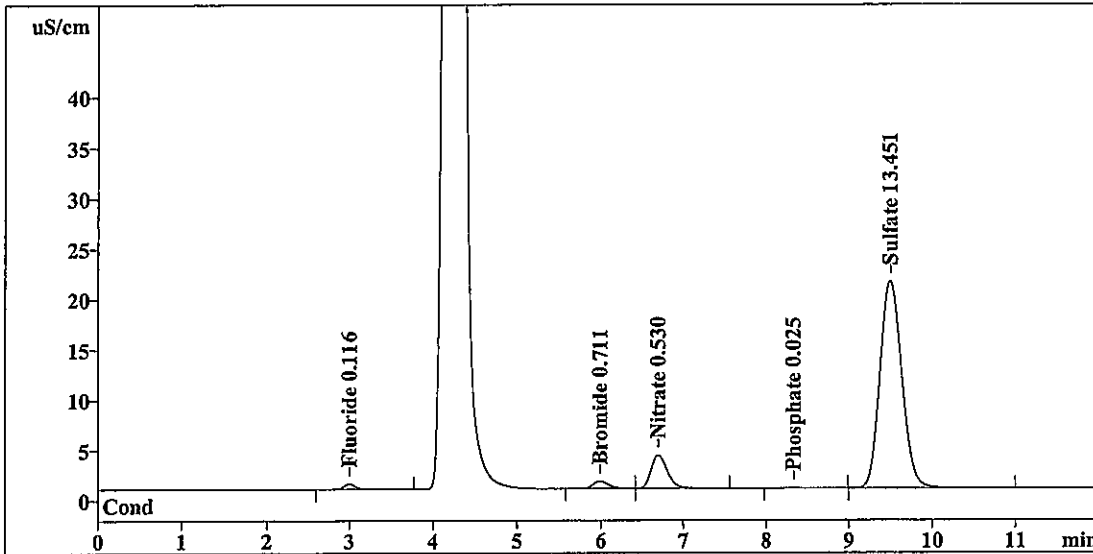
Last save: 10/9/2009 10:56:37 AM

Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8922

Last save: 10/8/2009 8:52:33

SAMPLE: F
:
Vial number: 106
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	3.00	5.459	0.116	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.99	9.066	0.711	Bromide
5	6.70	44.464	0.530	Nitrate
6	8.33	0.949	0.025	Phosphate
7	9.51	374.454	13.451	Sulfate
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7	12.00	434.392	14.834	

OK

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Report date: 10/9/2009 11:10:53 AM
Printed by: User

Ident: R0905523-008
Analysis from: 10/9/2009 10:58:55 AM
File: TA091058.CHW

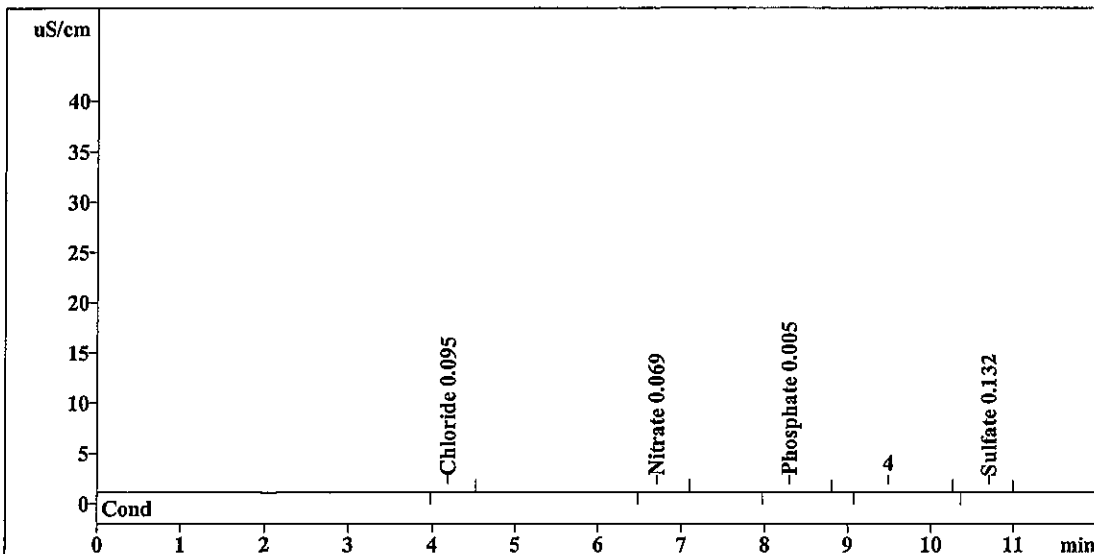
Last save: 10/9/2009 11:10:54 AM

Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8923

Last save: 10/8/2009 8:52:33

SAMPLE: F
Vial number: 107
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	0.00	0.000	0.000	Fluoride
2	4.19	0.347	0.095	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.71	0.082	0.069	Nitrate
6	8.30	0.159	0.005	Phosphate
7	10.72	0.068	0.132	Sulfate
7	12.00	0.656	0.302	

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Report date: 10/9/2009 11:25:10 AM
Printed by: User

Ident: R0905523-009
Analysis from: 10/9/2009 11:13:12 AM
File: TA091113.CHW

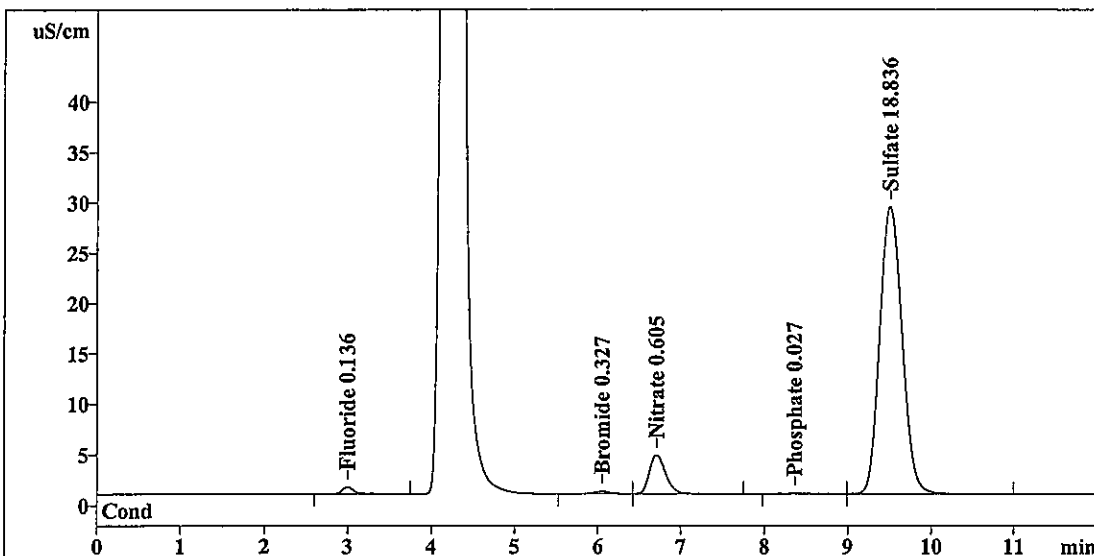
Last save: 10/9/2009 11:25:11 AM

Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8924

Last save: 10/8/2009 8:52:33

SAMPLE: F
Vial number: 108
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	3.00	6.753	0.136	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.05	3.308	0.327	Bromide
5	6.71	51.667	0.605	Nitrate
6	8.37	1.017	0.027	Phosphate
7	9.52	525.818	18.836	Sulfate
7	12.00	588.562	19.932	

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Report date: 10/9/2009 11:39:27 AM
Printed by: User

Ident: CCV
Analysis from: 10/9/2009 11:27:29 AM
File: TA091127.CHW

Last save: 10/9/2009 11:39:28 AM

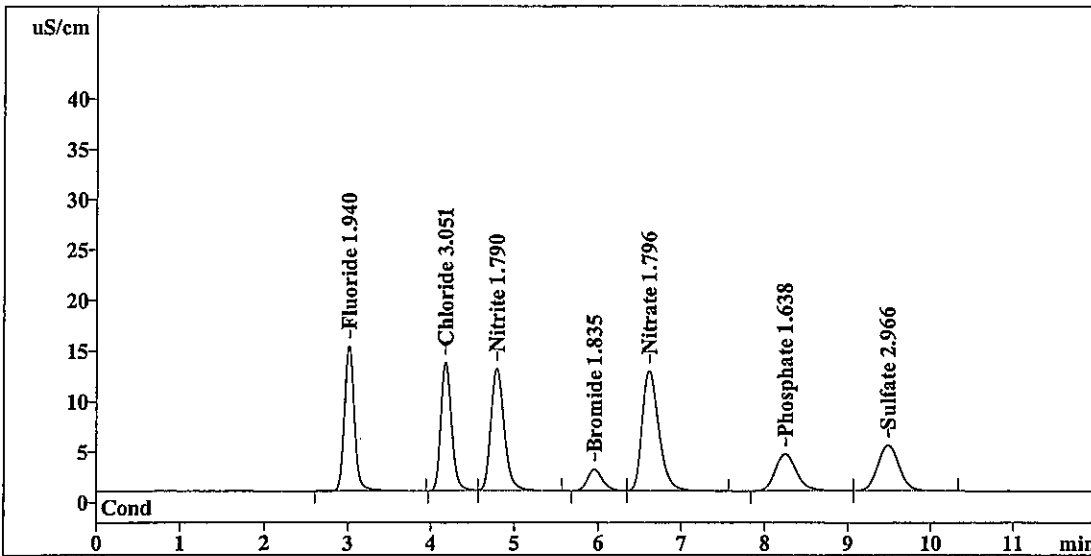
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8925

Last save: 10/8/2009 8:52:33

SAMPLE:

Vial number: 109
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	3.02	121.744	OK 1.940	Fluoride
2	4.19	114.516	↓ 3.051	Chloride
3	4.80	132.858	↓ 1.790	Nitrite
4	5.96	25.910	↓ 1.835	Bromide
5	6.62	166.215	OK 1.796	Nitrate
6	8.25	64.270	↓ 1.638	Phosphate
7	9.49	79.734	↓ 2.966	Sulfate
<hr/>				
7	12.00	705.247	15.016	

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RP 10/9/09

Report date: 10/9/2009 11:53:44 AM
Printed by: User

Ident: CCB
Analysis from: 10/9/2009 11:41:46 AM
File: TA091141.CHW

Last save: 10/9/2009 11:53:44 AM

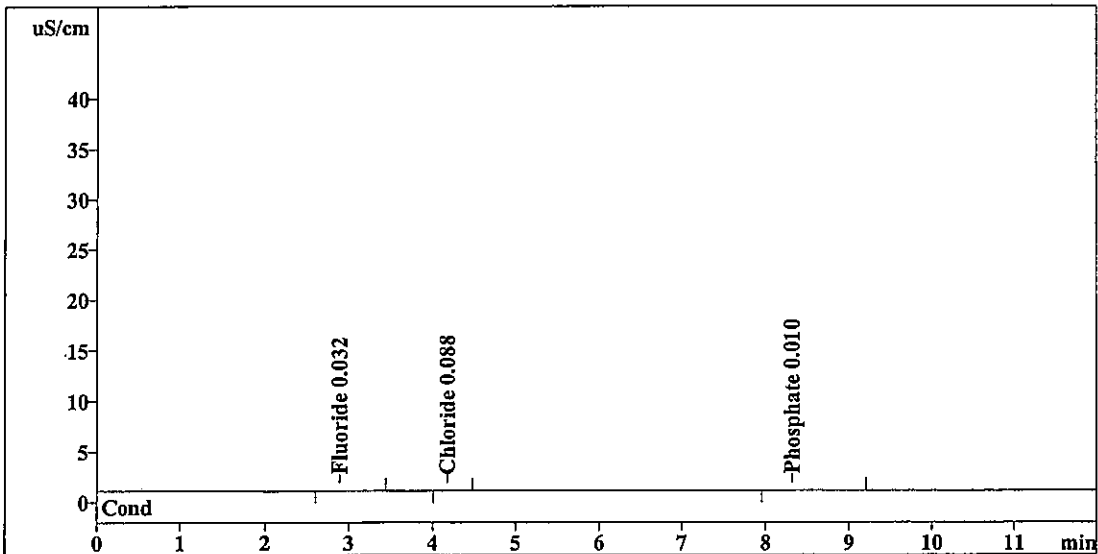
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8926

Last save: 10/8/2009 8:52:33

SAMPLE:

Vial number: 110
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	2.88	0.081	0.032	Fluoride
2	4.18	0.062	0.088	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	8.32	0.349	0.010	Phosphate
7	0.00	0.000	0.000	Sulfate
7	12.00	0.491	0.129	

OK
↓

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RP 10/9/09

Report date: 10/9/2009 12:08:01 PM
Printed by: User

Ident: R0905563-002
Analysis from: 10/9/2009 11:56:03 AM
File: TA091156.CHW

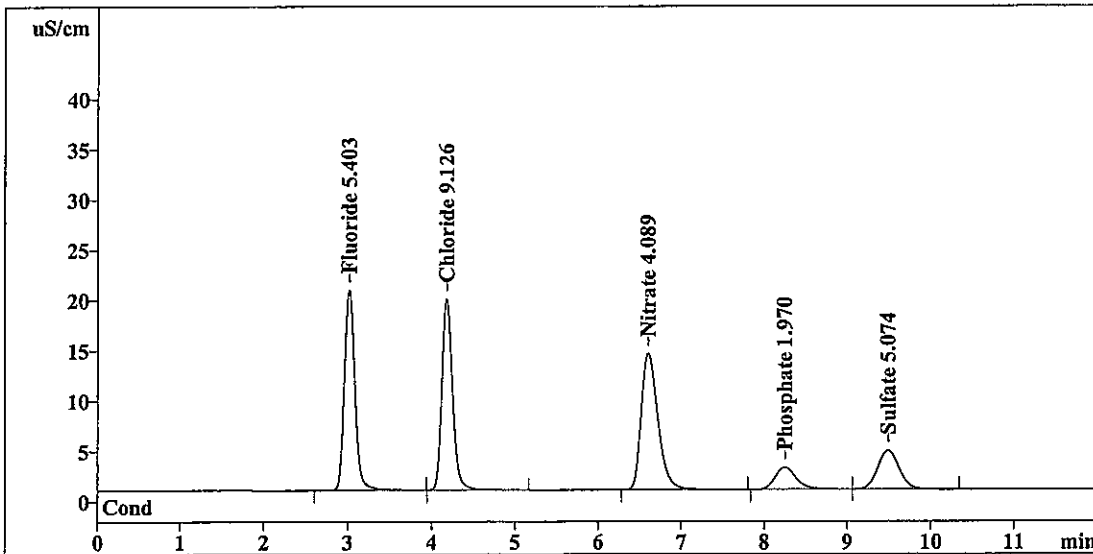
Last save: 10/9/2009 12:08:01 PM

Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8927

Last save: 10/8/2009 8:52:33

SAMPLE: F
:
Vial number: 111
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	3.02	170.307	5.403	Fluoride
2	4.19	172.902	9.126	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.61	190.125	4.089	Nitrate
6	8.26	38.626	1.970	Phosphate
7	9.49	67.668	5.074	Sulfate
7	12.00	639.628	25.661	

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RP 10/9/09

Report date: 10/9/2009 12:22:18 PM
Printed by: User

Ident: R0905563-002 DUP
Analysis from: 10/9/2009 12:10:20 PM
File: TA091210.CHW

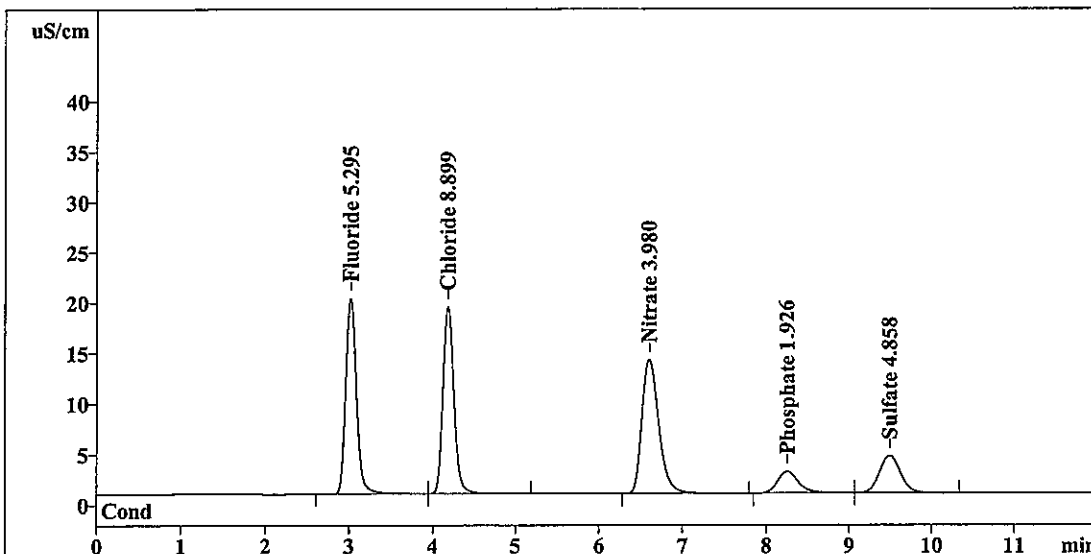
Last save: 10/9/2009 12:22:18 PM

Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8928

Last save: 10/8/2009 8:52:33

SAMPLE: F
:
Vial number: 112
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	3.02	166.864	5.295	Fluoride
2	4.19	168.520	8.899	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.61	184.922	3.980	Nitrate
6	8.26	37.760	1.926	Phosphate
7	9.50	64.636	4.858	Sulfate
7	12.00	622.702	24.959	

RT 10/9/09

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Report date: 10/9/2009 12:36:35 PM
Printed by: User

Ident: R0905563-002 SPK
Analysis from: 10/9/2009 12:24:37 PM
File: TA091224.CHW

Last save: 10/9/2009 12:36:35 PM

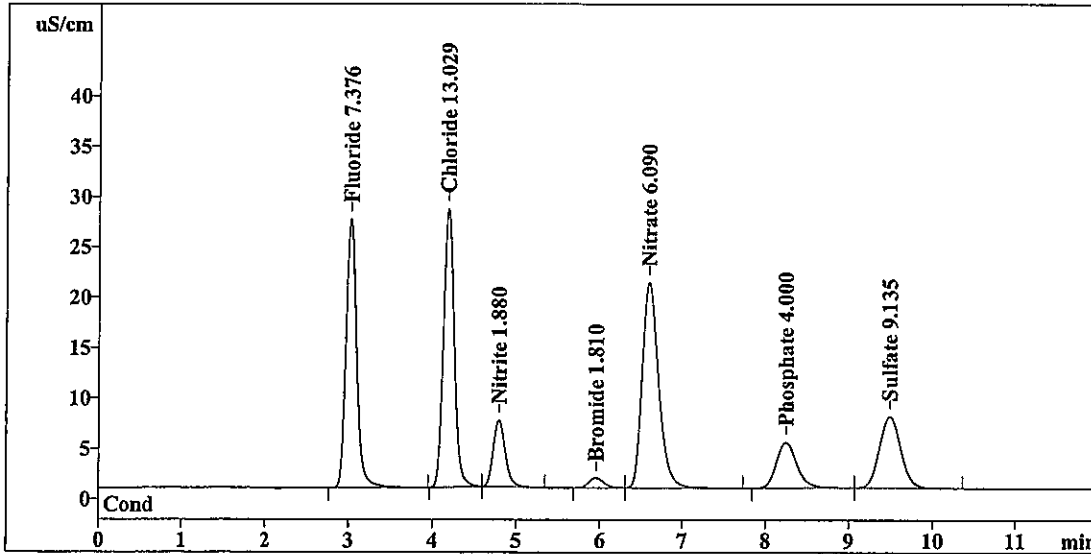
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8929

Last save: 10/8/2009 8:52:33

SAMPLE: F

Vial number: 113
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	3.02	233.183	OK 7.376	Fluoride
2	4.19	248.286	13.029	Chloride
3	4.79	68.214	1.880	Nitrite
4	5.96	11.976	1.810	Bromide
5	6.60	286.435	6.090	Nitrate
6	8.26	78.468	4.000	Phosphate
7	9.50	124.748	9.135	Sulfate
7	12.00	1051.308	43.321	

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OK 10/9/09

Report date: 10/9/2009 12:50:51 PM
Printed by: User

Ident: R0905615-005
Analysis from: 10/9/2009 12:38:53 PM
File: TA091238.CHW

Last save: 10/9/2009 12:50:52 PM

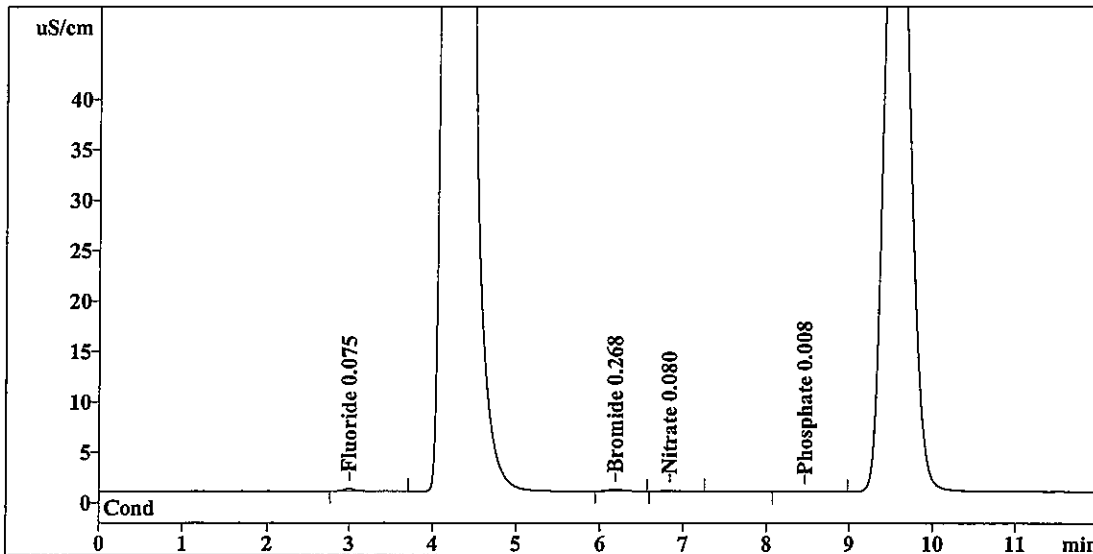
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8930

Last save: 10/8/2009 8:52:33

SAMPLE: F

Vial number: 114
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	3.00	2.845	0.075	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.19	2.431	0.268	Bromide
5	6.84	1.156	0.080	Nitrate
6	8.45	0.283	0.008	Phosphate
7	0.00	0.000	0.000	Sulfate
7	12.00	6.716	0.432	

OK

RP 10/9/09

This report has been created by IC Net
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Report date: 10/9/2009 1:05:08 PM
Printed by: User

Ident: R0905648-004
Analysis from: 10/9/2009 12:53:10 PM
File: TA091253.CHW

Last save: 10/9/2009 1:05:09 PM

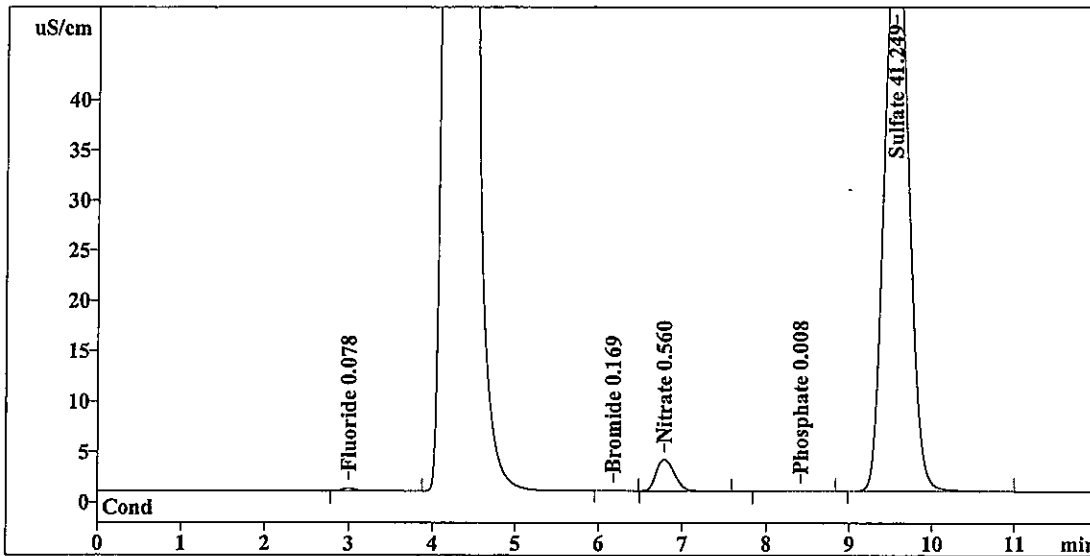
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8931

Last save: 10/8/2009 8:52:33

SAMPLE: F

Vial number: 115
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	3.00	3.040	0.078	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.18	0.937	0.169	Bromide
5	6.78	47.313	0.560	Nitrate
6	8.41	0.277	0.008	Phosphate
7	9.56	1155.817	41.249	Sulfate
7	12.00	1207.384	42.064	

RP 10/9/09

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Report date: 10/9/2009 1:19:25 PM
Printed by: User

Ident: R0905648-005
Analysis from: 10/9/2009 1:07:27 PM
File: TA091307.CHW

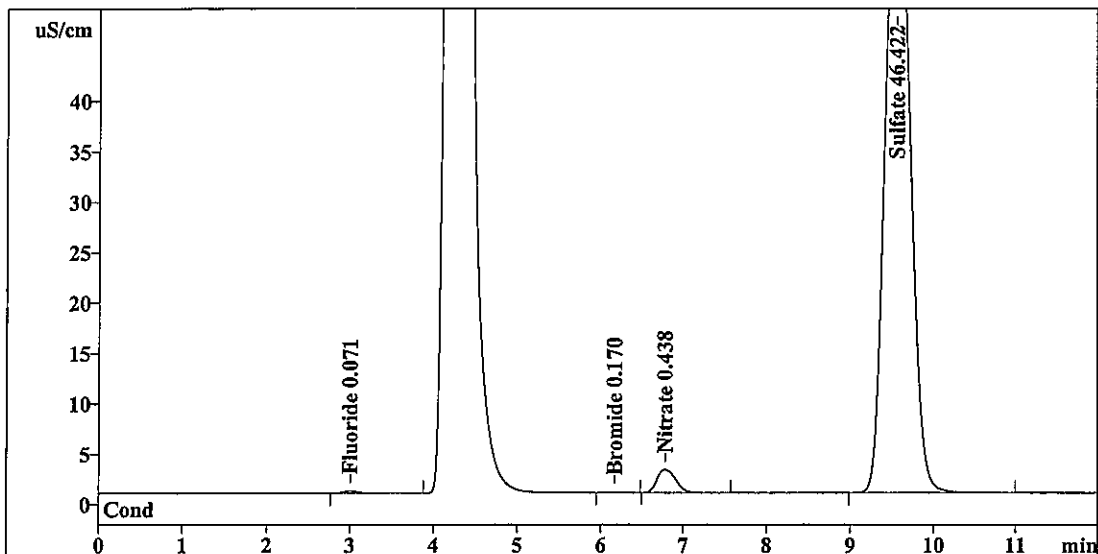
Last save: 10/9/2009 1:19:25 PM

Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8932

Last save: 10/8/2009 8:52:33

SAMPLE: F
:
Vial number: 116
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	3.00	2.601	0.071	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.17	0.962	0.170	Bromide
5	6.78	35.575	0.438	Nitrate
6	0.00	0.000	0.000	Phosphate
7	9.56	1301.218	46.422	Sulfate
7	12.00	1340.356	47.102	

RP 10/9/09

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Report date: 10/9/2009 1:33:42 PM
Printed by: User

Ident: R0905648-006
Analysis from: 10/9/2009 1:21:44 PM
File: TA091321.CHW

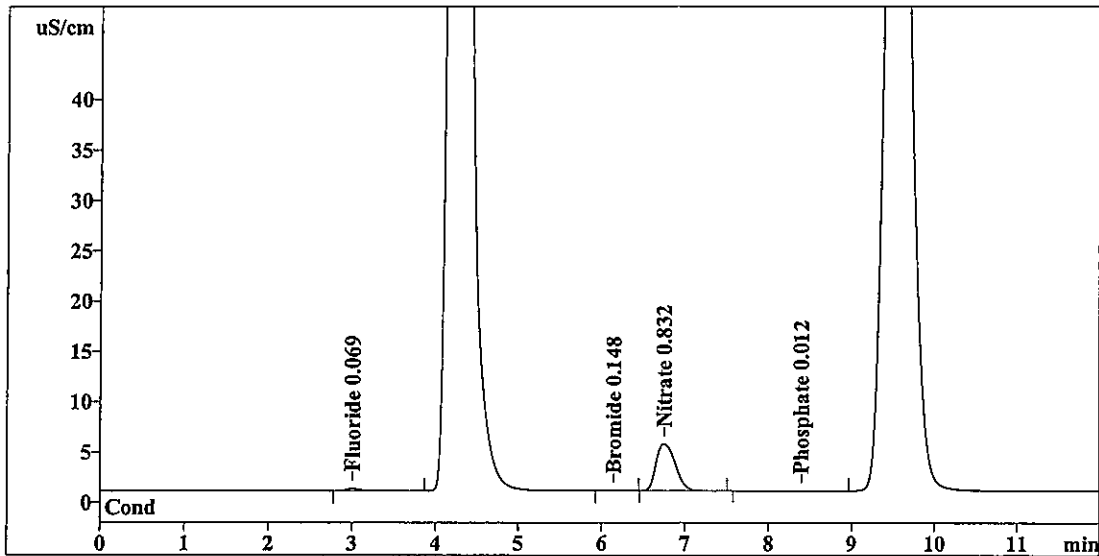
Last save: 10/9/2009 1:33:42 PM

Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8933

Last save: 10/8/2009 8:52:33

SAMPLE: F
Vial number: 117
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	3.01	2.488	0.069	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.15	0.628	0.148	Bromide
5	6.76	73.478	0.832	Nitrate
6	8.41	0.412	0.012	Phosphate
7	0.00	0.000	0.000	Sulfate
<hr/>				
7	12.00	77.005	1.061	

RP 10/9/09

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METROHM LTD

Report date: 10/9/2009 1:47:59 PM
Printed by: User

Ident: R0905648-007
Analysis from: 10/9/2009 1:36:00 PM
File: TA091336.CHW

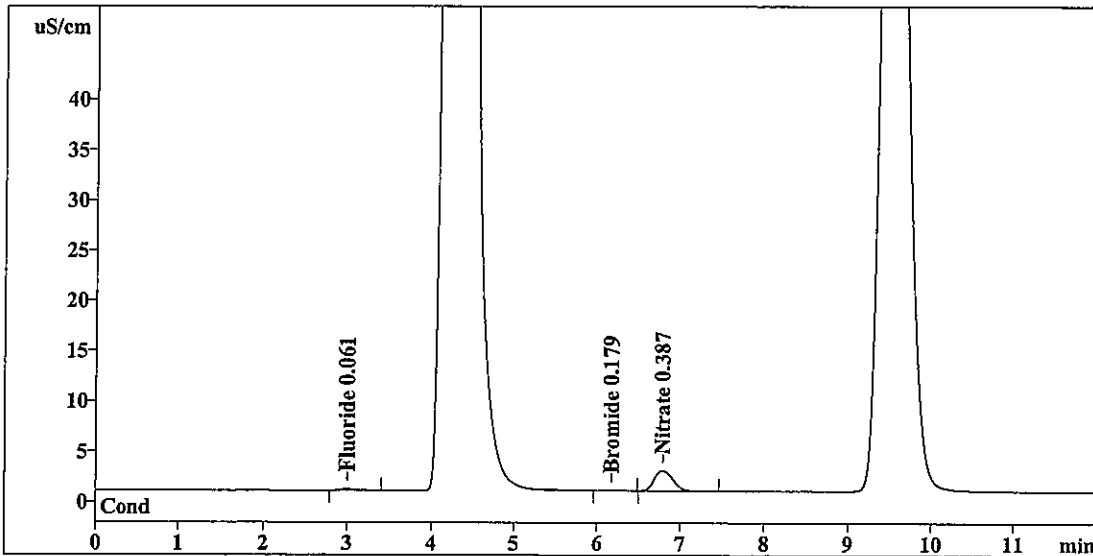
Last save: 10/9/2009 1:47:59 PM

Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8934

Last save: 10/8/2009 8:52:33

SAMPLE: F
Vial number: 118
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	3.00	1.948	0.061	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.18	1.093	0.179	Bromide
5	6.79	30.701	0.387	Nitrate
6	0.00	0.000	0.000	Phosphate
7	0.00	0.000	0.000	Sulfate
<hr/>				
7	12.00	33.742	0.628	

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RP 10/9/09

Report date: 10/9/2009 2:02:15 PM
Printed by: User

Ident: R0905648-008
Analysis from: 10/9/2009 1:50:17 PM
File: TA091350.CHW

Last save: 10/9/2009 2:02:16 PM

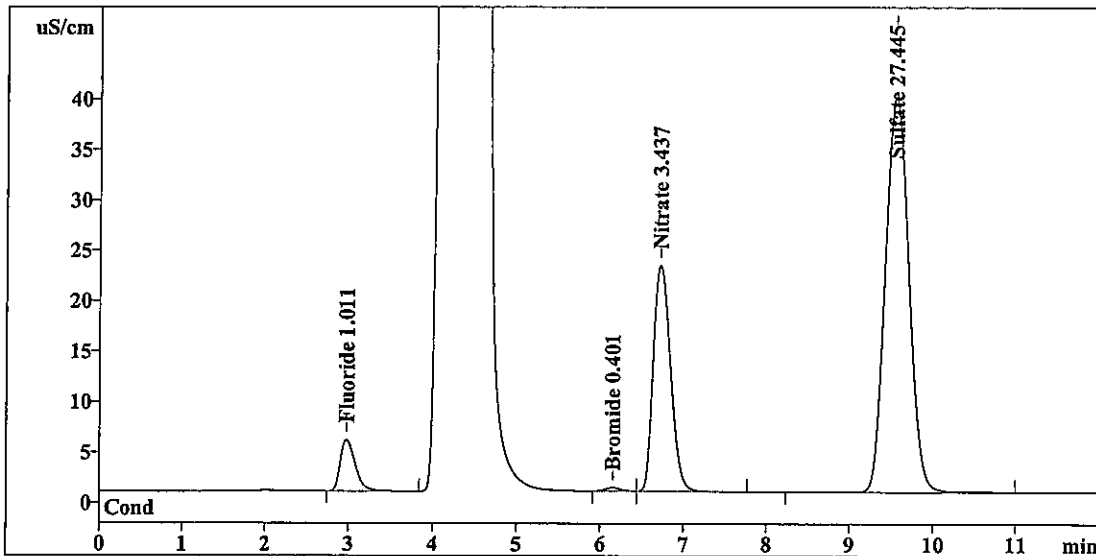
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8935

Last save: 10/8/2009 8:52:33

SAMPLE: F

Vial number: 119
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	2.98	62.529	OL 1.011	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.16	4.411	0.401	Bromide
5	6.73	324.087	3.437	Nitrate
6	0.00	0.000	0.000	Phosphate
7	9.57	767.795	27.445	Sulfate
7	12.00	1158.822	32.293	

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RL 10/9/09

Report date: 10/9/2009 2:16:33 PM
Printed by: User

Ident: R0905648-009
Analysis from: 10/9/2009 2:04:34 PM
File: TA091404.CHW

Last save: 10/9/2009 2:16:33 PM

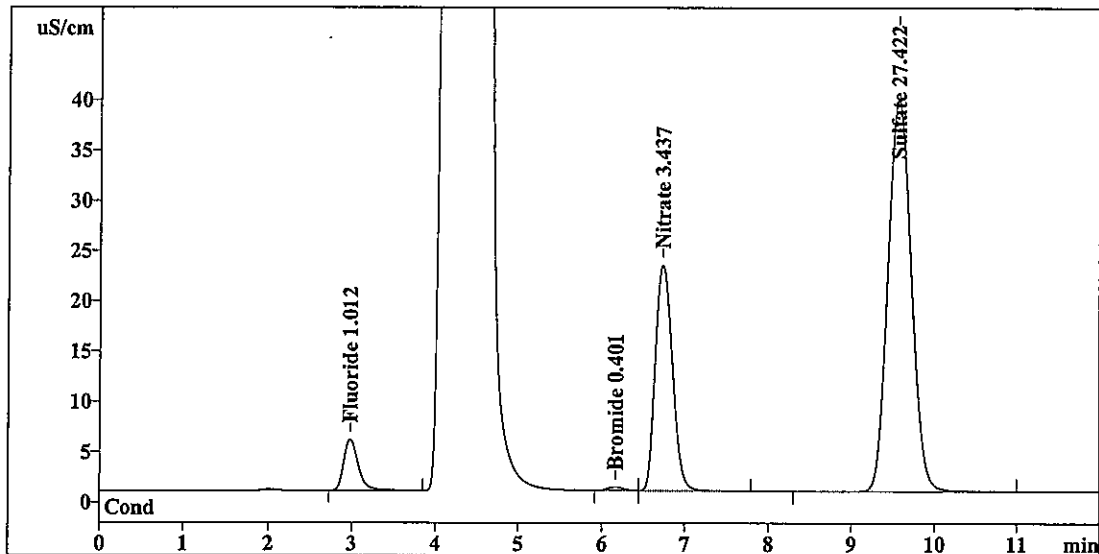
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8936

Last save: 10/8/2009 8:52:33

SAMPLE: F

Vial number: 120
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	2.98	62.613	OK 1.012	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.16	4.416	0.401	Bromide
5	6.73	324.176	3.437	Nitrate
6	0.00	0.000	0.000	Phosphate
7	9.57	767.149	27.422	Sulfate
7	12.00	1158.354	32.273	

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RP 10/9/09

Report date: 10/9/2009 2:30:51 PM
 Printed by: User

Ident: CCV
 Analysis from: 10/9/2009 2:18:53 PM
 File: TA091418.CHW

Last save: 10/9/2009 2:30:51 PM

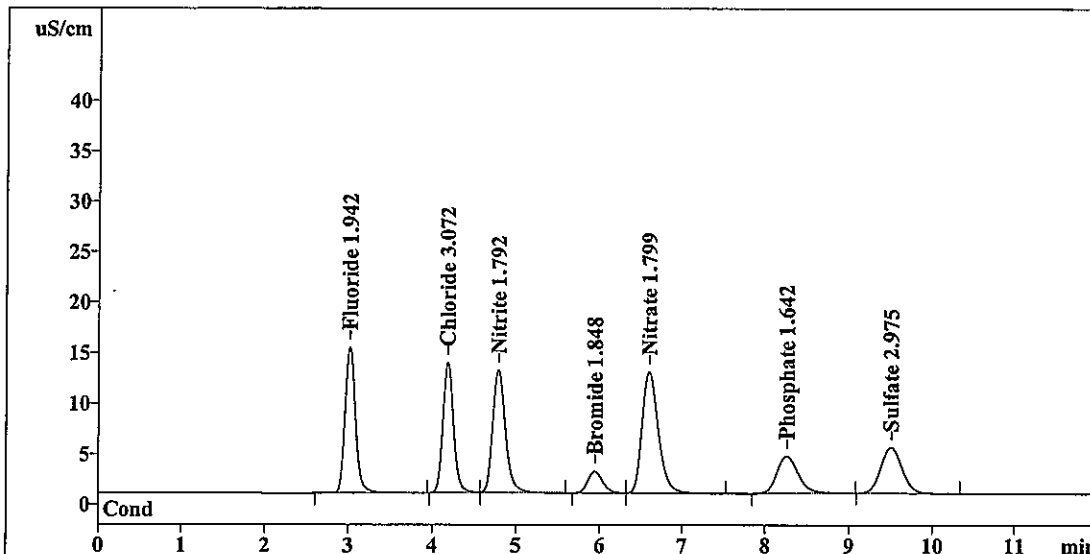
Method: 09-15-09CAL.mtw
 Run operator: User
 Analysis number: 8937

Last save: 10/8/2009 8:52:33

SAMPLE:

Vial number: 121
 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	3.02	121.909	1.942	Fluoride
2	4.19	115.331	3.072	Chloride
3	4.80	133.002	1.792	Nitrite
4	5.95	26.105	1.848	Bromide
5	6.61	166.544	1.799	Nitrate
6	8.27	64.410	1.642	Phosphate
7	9.52	79.971	2.975	Sulfate
7	12.00	707.272	15.070	

OK
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 OK
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RP 10/9/09

This report has been created by IC Net
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Report date: 10/9/2009 2:45:09 PM
Printed by: User

Ident: CCB
Analysis from: 10/9/2009 2:33:11 PM
File: TA091433.CHW

Last save: 10/9/2009 2:45:09 PM

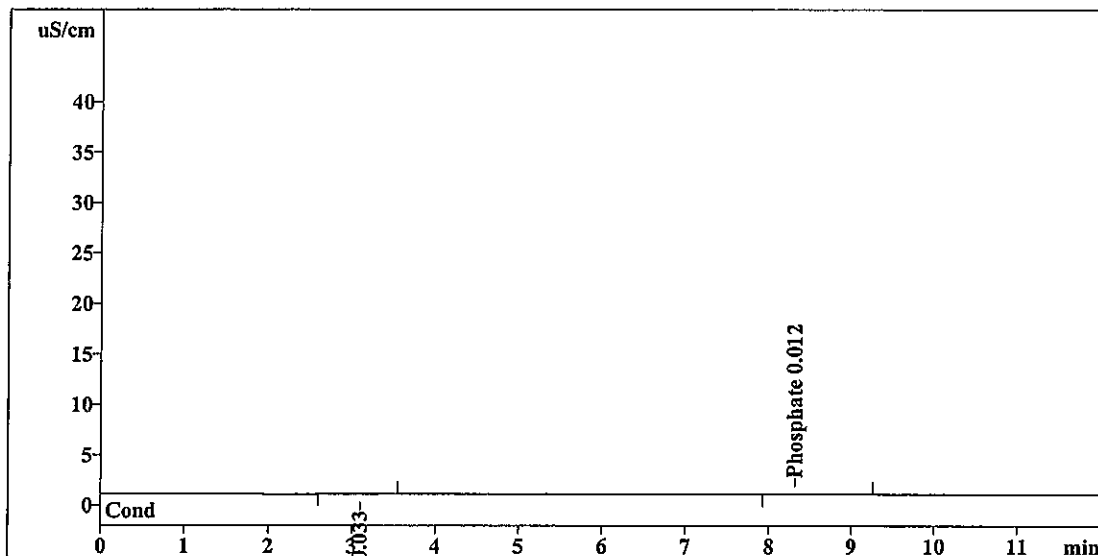
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8938

Last save: 10/8/2009 8:52:33

SAMPLE:

Vial number: 122
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	3.10	0.160	0.033	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	8.33	0.421	0.012	Phosphate
7	0.00	0.000	0.000	Sulfate
7	12.00	0.581	0.045	

OK
↓

RP 10/9/09

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Ion Chromatography Cover Sheet

Instrument: Metrohm IC 861

Column: Metrosep A Supp 5 - 100, 4mm, 05/05/09

Curve Date: 09/15/09

Loop size: 25 uL Loop _____

Analyst: RFAnalysis Date: 10/7/09

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	09/10/09	WC90024A	Working Calibration Stds	09/15/09	WC90024H
LCS / MS Intermediate	10/6/09	WC94011B	Working LCS/MS Standard	10/07/09	WC94052B
ICV Intermediate	09/15/09	WC90107H	Working ICV Standard	09/15/09	WC90107H
CCV Intermediate	09/22/09	WC94011H	Working CCV Standard	10/7/09	WC94026H

Comments**CURVE NOT VALID FOR BROMIDE**

LCS PREP

(Stocks delivered using Volumetric glassware and brought to volume with DI. LCS expires after 7 days; if NO2 is needed, LCS must be prepared daily.)

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

Analyte	Calibration Intermediate Stock ID	Intermediate Stock Conc (mg/L)	mLs Intermediate Stock	Final Vol. mLs	Final Conc. (mg/L)	Analyst/ Date Prepped	Lot ID	Exp. Date	Matrix H2SO4 / NaOH / DI	H2SO4 / NaOH Lot #
F	WC9408	50	2.0	100	1.0	RR / 10/10/09	A	10/13/09	DI	
Cl	011B	100			2.0	RR / 10/17/09	B	10/14/09	DI	
NO2		50			1.0	RR / 10/18/09	C	10/15/09	DI	
Br		50			1.0	RR / 10/19/09	D	10/22/09	DI	
NO3		50			1.0		E			
OPO4		50			1.0		F			
SO4		100			2.0		G			
							H			
							I			
							J			
							K			
							L			
							M			
							N			
							O			RR 10/19/09
							P			
							Q			
							R			

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	Exp. Date	Matrix H2SO4 / NaOH / DI	H2SO4 / NaOH Lot #	
F	WX970114	4.00	5.0	10	2.00	RP	A	10/1/09	DI		
Cl		6.50			3.25	RP	B	10/2/09	DI	WC85294I	
NO2		3.60			1.80	RP	C	10/2/09	DI	DI	WC85294I
Br		4.00			2.00	CS	D	10/3/09	DI		
NO3		3.60			1.80	RP	E	10/5/09	DI		
OPO4		3.60			1.80	RP	F	10/5/09	DI		
SO4		6.40			3.20	RP	G	10/5/09	NaOH		WC90030E
						RP	H	10/7/09	DI		
						RP	I	10/8/09	DI		
						RP	J	10/9/09	DI		
							K				
							L				
							M				
							N				
							O			RP 10/9/09	
							P				
							Q				

0026

01571

Report date: 9/15/2009 11:26:50 AM
Printed by: User

Ident: STANDARD 1
Analysis from: 9/15/2009 11:14:52 AM
File: T9151114.CHW

Last save: 9/15/2009 11:26:51 AM

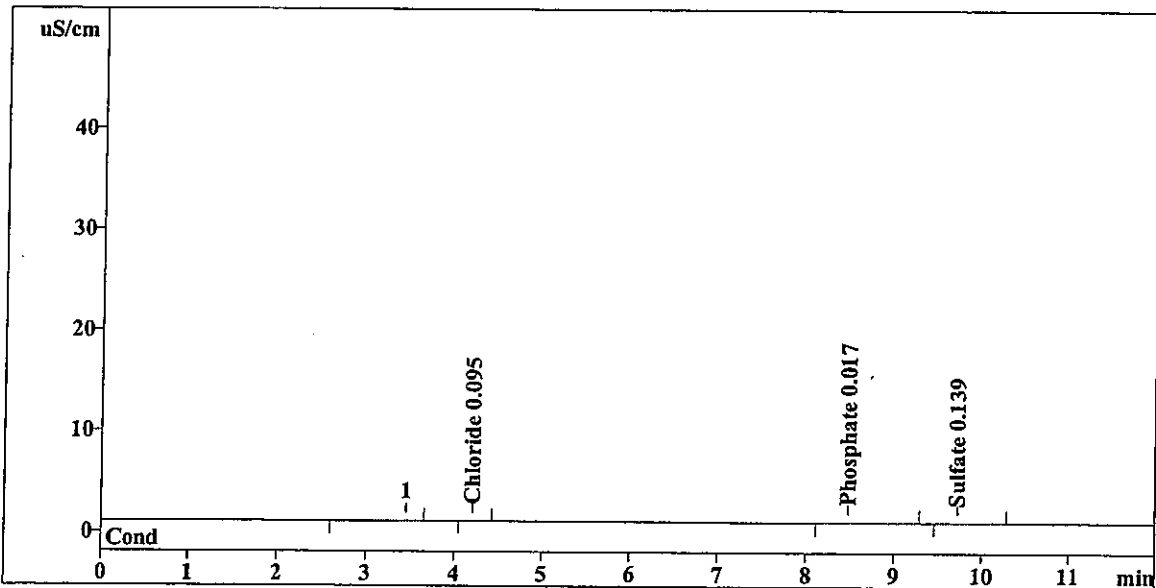
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8135

Last save: 9/15/2009 11:11:26

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	0.00	0.000	0.000	Fluoride
2	4.21	0.052	0.095	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	8.48	0.573	0.017	Phosphate
7	9.72	0.114	0.139	Sulfate
7	12.00	0.739	0.251	

OK
↓

RP 9/15/09
9/17/09

This report has been created by IC Net
METROHM LTD

Report date: 9/15/2009 11:40:55 AM
Printed by: User

Ident: STANDARD 2
Analysis from: 9/15/2009 11:28:57 AM
File: T9151128.CHW

Last save: 9/15/2009 11:40:55 AM

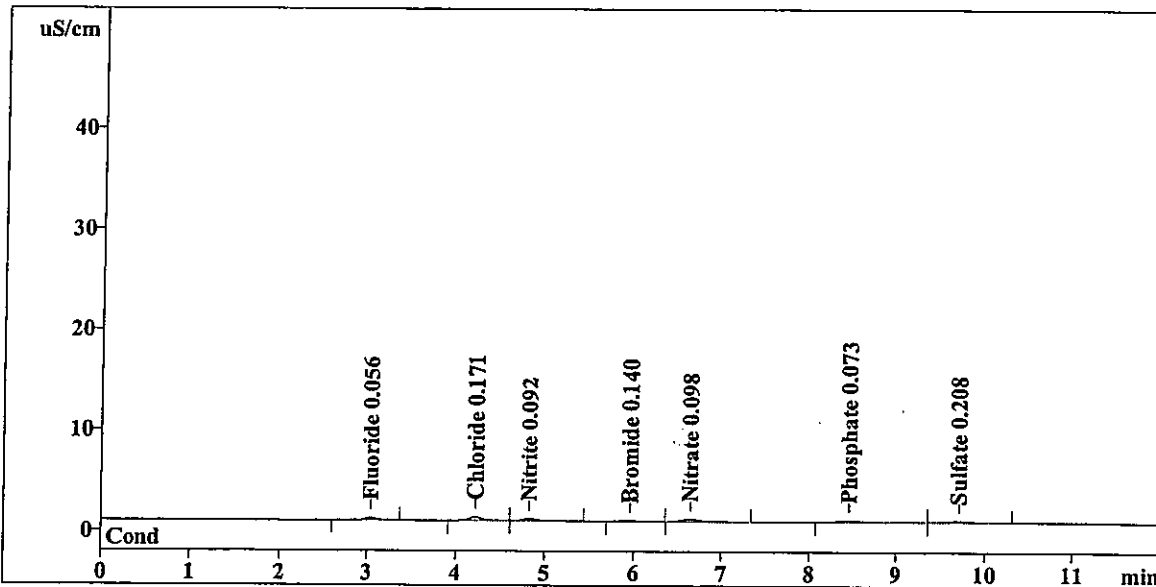
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8136

Last save: 9/15/2009 11:26:51

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	3.04	2.030	0.056	Fluoride
2	4.22	3.095	0.171	Chloride
3	4.82	2.270	0.092	Nitrite
4	5.96	0.496	0.140	Bromide
5	6.65	3.050	0.098	Nitrate
6	8.46	2.807	0.073	Phosphate
7	9.71	2.117	0.208	Sulfate
<hr/>				
7	12.00	15.864	0.840	

Handwritten checkmark and arrow pointing to the concentration column.

Handwritten signature: RP 9/17/09

This report has been created by IC Net METROHM LTD

Report date: 9/15/2009 11:55:00 AM
Printed by: User

Ident: STANDARD 3
Analysis from: 9/15/2009 11:43:02 AM
File: T9151143.CHW

Last save: 9/15/2009 11:55:00 AM

Method: 09-15-09CAL.mtw

Last save: 9/15/2009 11:40:55

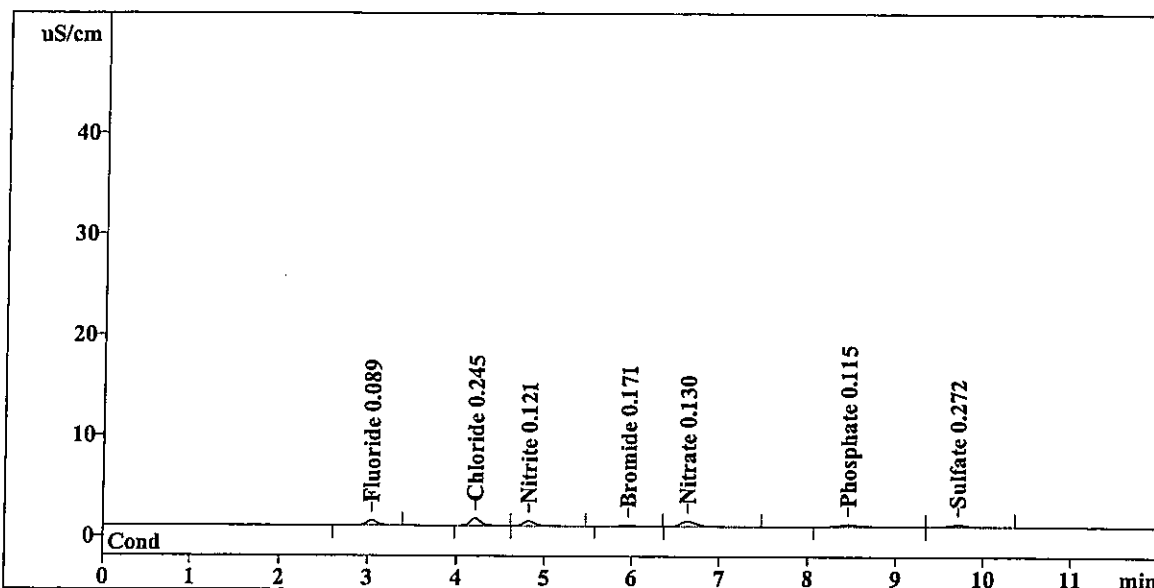
Run operator: User

Analysis number: 8137

SAMPLE:

Vial number: 3
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	3.04	4.014	0.089	Fluoride
2	4.22	6.047	0.245	Chloride
3	4.82	4.399	0.121	Nitrite
4	5.96	0.942	0.171	Bromide
5	6.65	6.086	0.130	Nitrate
6	8.46	4.407	0.115	Phosphate
7	9.72	3.891	0.272	Sulfate
7	12.00	29.786	1.142	

OK
↓

RP 9/17/09

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Report date: 9/17/2009 4:11:11 PM
Printed by: User

Ident: STANDARD 4
Analysis from: 9/15/2009 11:57:07 AM
File: t9151157.chw

Last save: 9/17/2009 4:10:13 PM

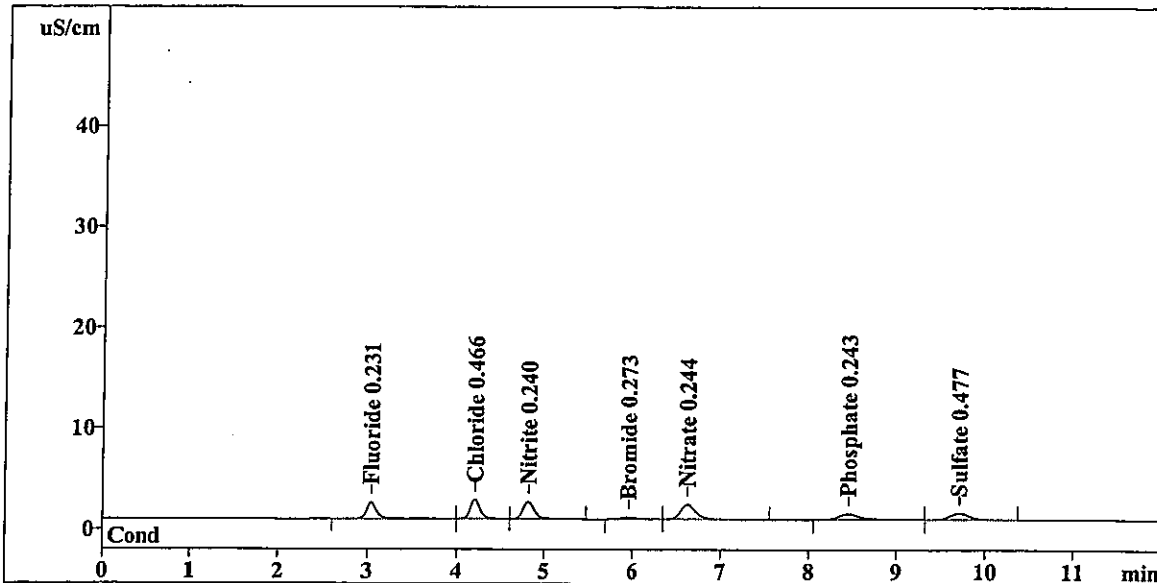
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8138

Last save: 9/15/2009 10:26:18

SAMPLE:

Vial number: 4
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	3.04	12.786	0.231	Fluoride
2	4.21	14.672	0.466	Chloride
3	4.82	14.960	0.240	Nitrite
4	5.96	2.499	0.273	Bromide
5	6.63	16.885	0.244	Nitrate
6	8.45	9.508	0.243	Phosphate
7	9.72	9.754	0.477	Sulfate
7	12.00	81.065	2.174	

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RR 9/17/09

Report date: 9/15/2009 12:23:10 PM
Printed by: User

Ident: STANDARD 5
Analysis from: 9/15/2009 12:11:12 PM
File: T9151211.CHW

Last save: 9/15/2009 12:23:10 PM

Method: 09-15-09CAL.mtw

Last save: 9/15/2009 12:09:05

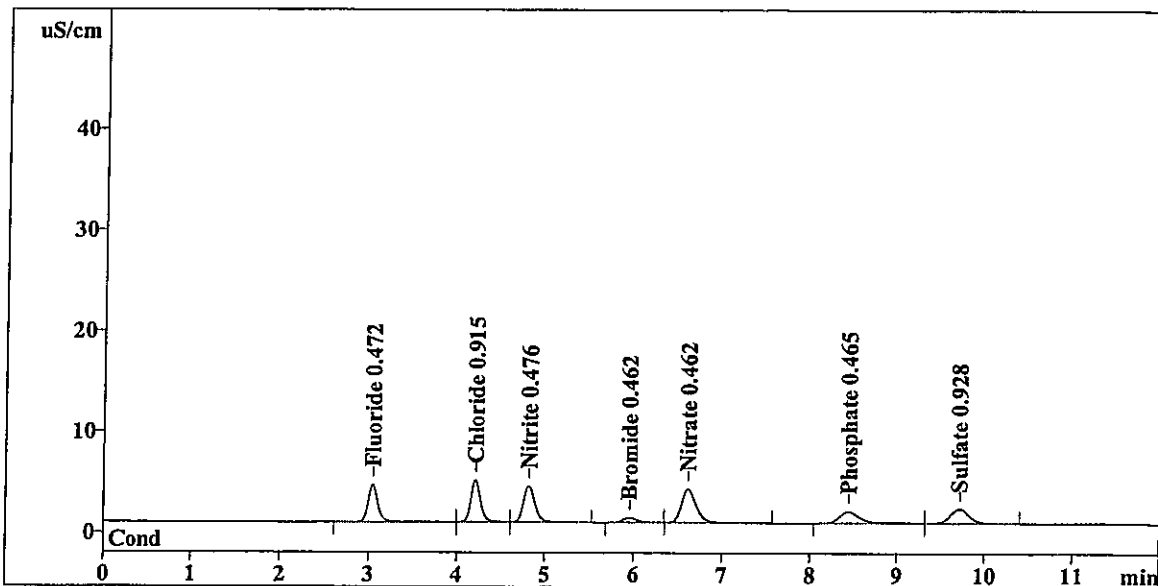
Run operator: User

Analysis number: 8139

SAMPLE:

Vial number: 5
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	3.04	28.311	0.472	Fluoride
2	4.22	31.833	0.915	Chloride
3	4.82	31.538	0.476	Nitrite
4	5.96	5.339	0.462	Bromide
5	6.62	38.070	0.462	Nitrate
6	8.45	18.454	0.465	Phosphate
7	9.72	21.032	0.928	Sulfate

7 12.00 174.577 4.180

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RP 9/17/09

Report date: 9/15/2009 12:37:16 PM
Printed by: User

Ident: STANDARD 6
Analysis from: 9/15/2009 12:25:17 PM
File: T9151225.CHW

Last save: 9/15/2009 12:37:16 PM

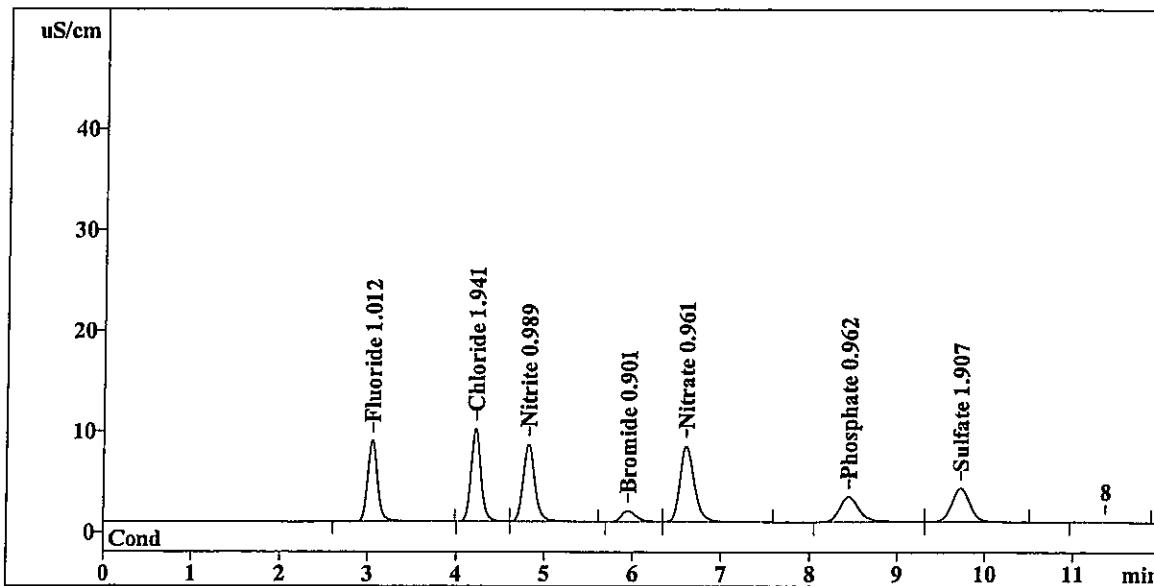
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8140

Last save: 9/15/2009 12:23:10

SAMPLE:

Vial number: 6
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	3.05	63.009	1.012	Fluoride
2	4.22	71.536	1.941	Chloride
3	4.82	70.165	0.989	Nitrite
4	5.95	12.031	0.901	Bromide
5	6.61	86.638	0.961	Nitrate
6	8.45	38.581	0.962	Phosphate
7	9.73	49.391	1.907	Sulfate
7	12.00	391.351	8.672	

OK
↓

RP 9/17/09

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Report date: 9/15/2009 12:51:20 PM
Printed by: User

Ident: STANDARD 7
Analysis from: 9/15/2009 12:39:22 PM
File: T9151239.CHW

Last save: 9/15/2009 12:51:21 PM

Method: 09-15-09CAL.mtw

Last save: 9/15/2009 12:37:16

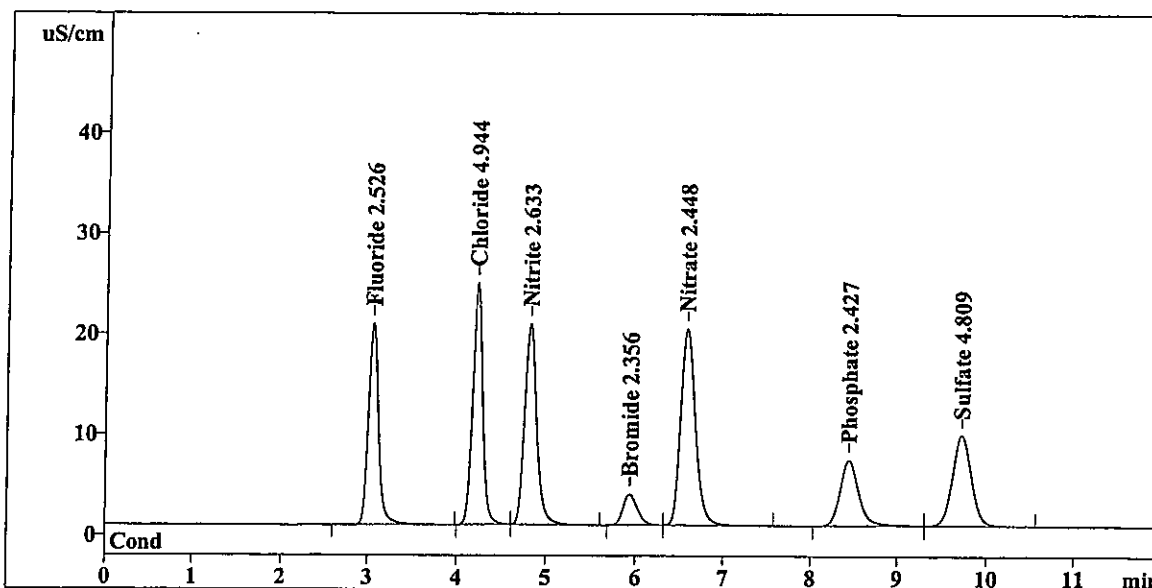
Run operator: User

Analysis number: 8141

SAMPLE:

Vial number: 7
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	3.05	159.761	2.526	Fluoride
2	4.22	187.240	4.944	Chloride
3	4.81	194.999	2.633	Nitrite
4	5.94	34.085	2.356	Bromide
5	6.58	230.827	2.448	Nitrate
6	8.44	97.515	2.427	Phosphate
7	9.72	132.623	4.809	Sulfate

7 12.00 1037.049

22.143

OK
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RP 9/17/09

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Report date: 9/15/2009 1:05:25 PM
Printed by: User

Ident: STANDARD 8
Analysis from: 9/15/2009 12:53:27 PM
File: T9151253.CHW

Last save: 9/15/2009 1:05:25 PM

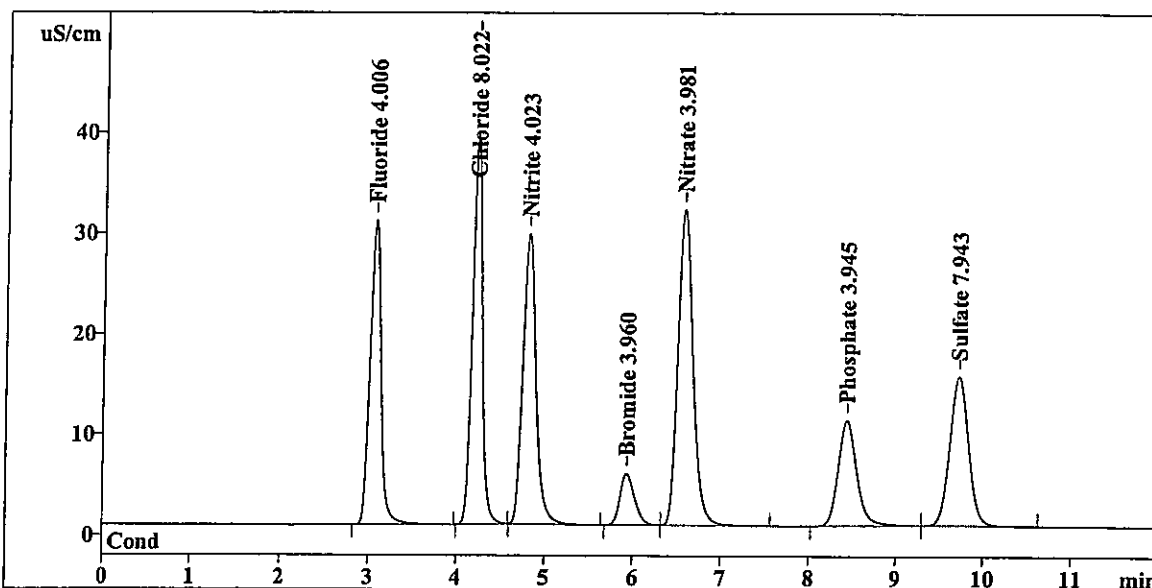
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8142

Last save: 9/15/2009 12:51:21

SAMPLE:

Vial number: 8
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	3.06	254.185	4.006	Fluoride
2	4.22	306.390	8.022	Chloride
3	4.81	301.520	4.023	Nitrite
4	5.93	58.199	3.960	Bromide
5	6.57	378.492	3.981	Nitrate
6	8.44	157.446	3.945	Phosphate
7	9.73	221.728	7.943	Sulfate

7 12.00 1677.960

35.881

dx
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Report date: 9/15/2009 1:19:30 PM
Printed by: User

Ident: STANDARD 9
Analysis from: 9/15/2009 1:07:32 PM
File: T9151307.CHW

Last save: 9/15/2009 1:19:30 PM

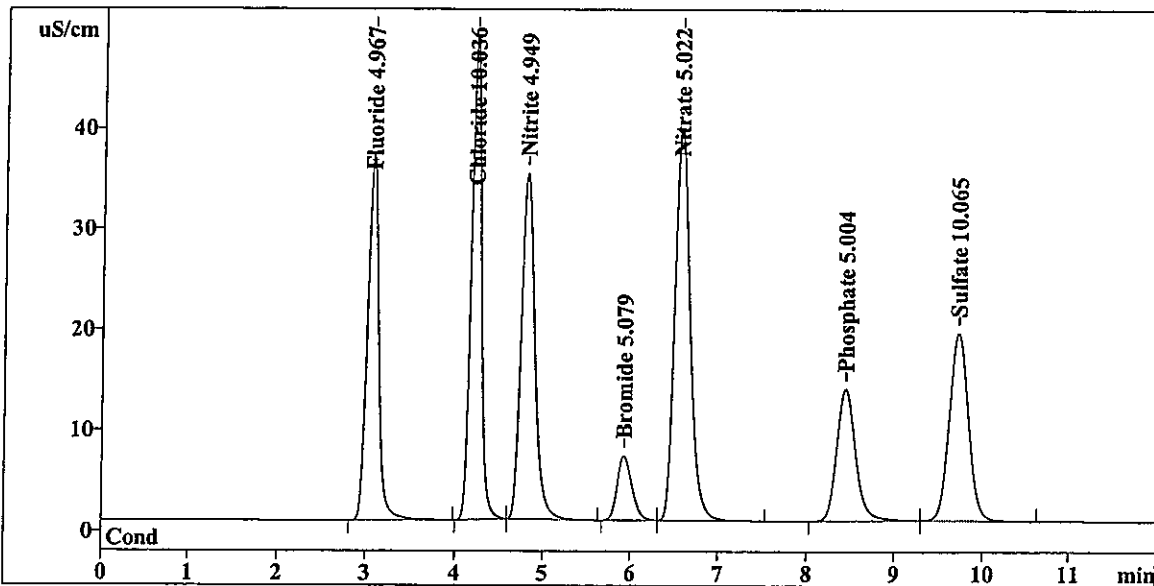
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8143

Last save: 9/15/2009 1:05:25

SAMPLE:

Vial number: 9
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	3.06	314.751	4.967	Fluoride
2	4.22	384.282	10.036	Chloride
3	4.81	373.195	4.949	Nitrite
4	5.93	74.557	5.079	Bromide
5	6.57	476.681	5.022	Nitrate
6	8.44	196.386	5.004	Phosphate
7	9.73	279.873	10.065	Sulfate
<hr/>				
7	12.00	2099.724	45.122	

OK
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Report date: 9/18/2009 2:00:00 PM
Printed by: User

Ident: ICV
Analysis from: 9/15/2009 1:21:37 PM
File: t9151321.CHW

Last save: 9/18/2009 2:00:01 PM

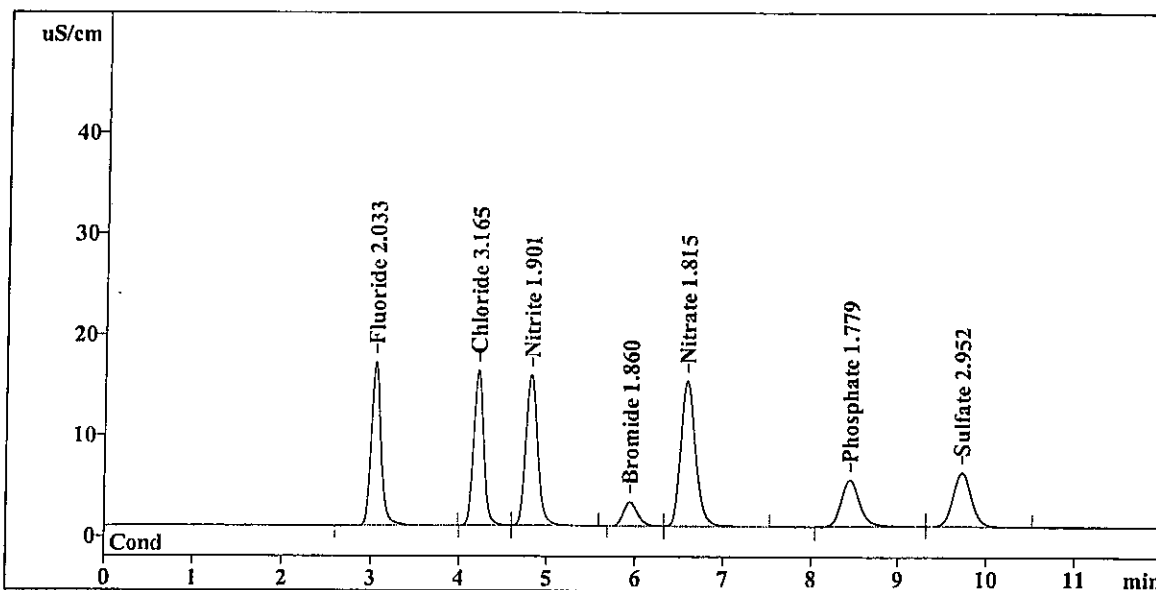
Method: 09-15-09CAL.mtw
Run operator: User
Analysis number: 8144

Last save: 9/15/2009 10:26:18

SAMPLE:

Vial number: 10
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	3.05	127.668	2.033	Fluoride
2	4.22	118.933	3.165	Chloride
3	4.82	141.353	1.901	Nitrite
4	5.94	26.293	1.860	Bromide
5	6.59	168.058	1.815	Nitrate
6	8.45	69.808	1.779	Phosphate
7	9.74	78.262	2.952	Sulfate
<hr/>				
7	12.00	730.373	15.505	

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RP 9/18/09

Report date: 9/18/2009 2:00:01 PM
Printed by: User

Ident: ICB
Analysis from: 9/15/2009 1:35:41 PM
File: t9151335.CHW

Last save: 9/18/2009 2:00:01 PM

Method: 09-15-09CAL.mtw

Last save: 9/15/2009 10:26:18

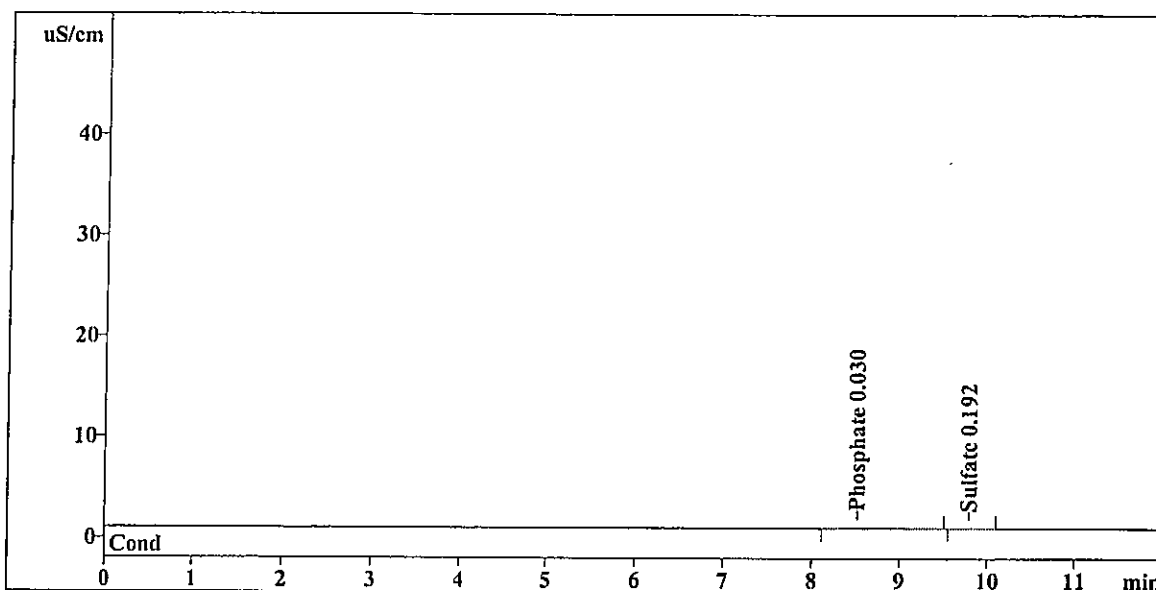
Run operator: User

Analysis number: 8145

SAMPLE:

Vial number: 11
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	0.00	0.000	OK 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	OK 0.000	Nitrate
6	8.52	1.131	↓ 0.030	Phosphate
7	9.80	0.051	↓ 0.192	Sulfate
7	12.00	1.182	0.222	

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AP 9/18/09

Report date: 9/18/2009 2:00:01 PM
Printed by: User

Ident: LCS
Analysis from: 9/15/2009 1:49:46 PM
File: t9151349.CHW

Last save: 9/18/2009 2:00:01 PM

Method: 09-15-09CAL.mtw

Last save: 9/15/2009 10:26:18

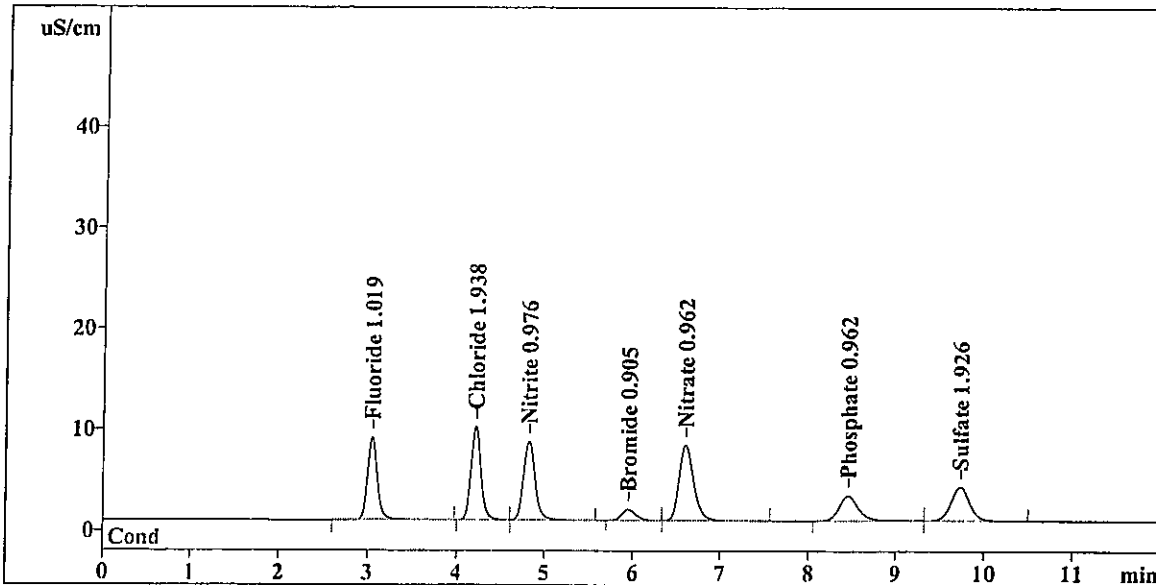
Run operator: User

Analysis number: 8146

SAMPLE:

Vial number: 12
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	3.05	63.001	1.019	Fluoride
2	4.22	71.512	1.938	Chloride
3	4.82	70.944	0.976	Nitrite
4	5.95	11.976	0.905	Bromide
5	6.61	86.015	0.962	Nitrate
6	8.46	37.734	0.962	Phosphate
7	9.74	49.199	1.926	Sulfate
<hr/>				
7	12.00	390.381	8.688	

ok
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ok
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R1 9/18/09

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ACQUISITION PARAMETERS

Channels: 1
 Method duration: 12.00min
 Run duration: 1.56min
 Measurements (method): 13800
 Measurements (run): 936
 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: 2.60 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
 2 11.00 Disable detection

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	3.05	10.0	1.568e-02	0.00			0.000
2	4.22	10.0	2.589e-02	0.00			0.000
3	4.82	10.0	1.315e-02	0.00			0.000
4	5.94	10.0	6.670e-02	0.00			0.000
5	6.59	10.0	1.039e-02	0.00			0.000
6	8.45	10.0	2.547e-02	0.00			0.000
7	9.74	10.0	3.558e-02	0.00			0.000

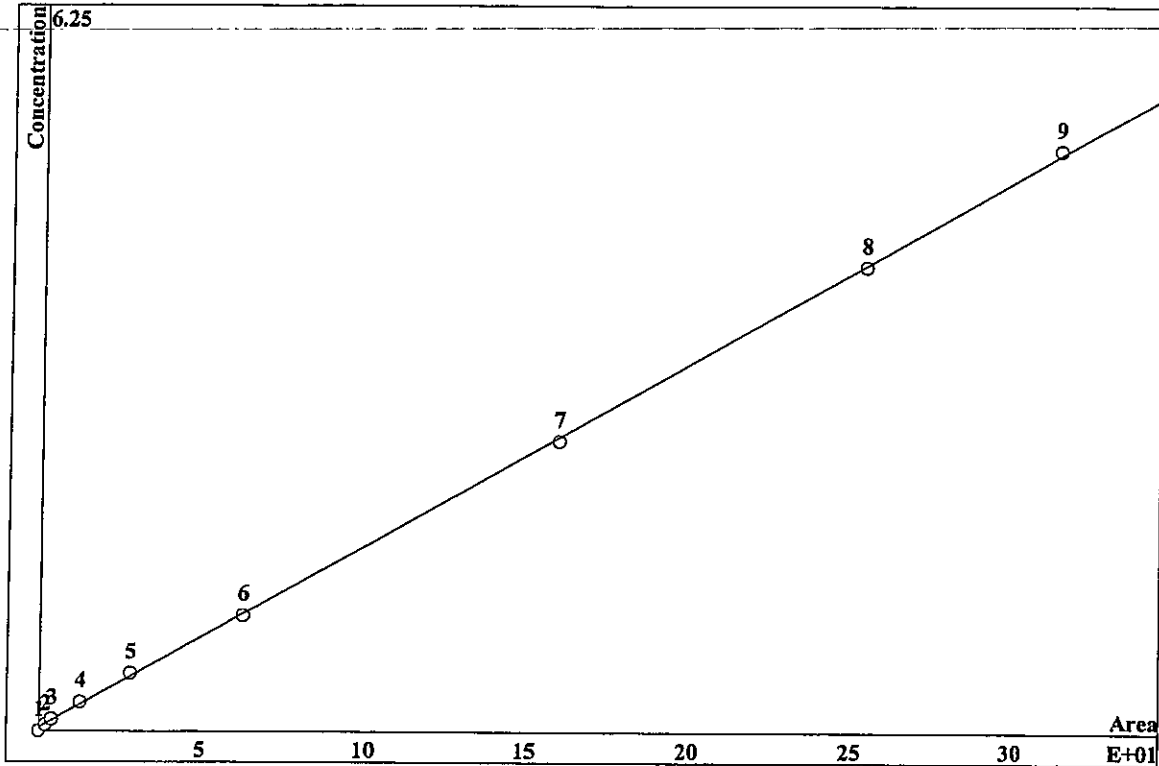
CHANNELS TABLE

Cond	No	Name	Units	Input	Minimum	Zero	Maximum	Range	Coefficient	N
Cond	1	Cond		uS/cm		1	-2147483647		0	214748
#	1	Name/Units		Noise		RMS	PeakToPeak		Drift/hour	
		Cond		1.0		78.1	368.6		26375.050	
		uS/cm		1e-05		0.000781	0.00369		0.264	

No peaks

CALIBRATION OF COMPONENT Fluoride

Method: 09-15-09CAL.mtw
 Equation: $Q = 0.0156846 \cdot A + 0.030375$
 RSD: 1.588 %
 Correlation coefficient: 0.999919



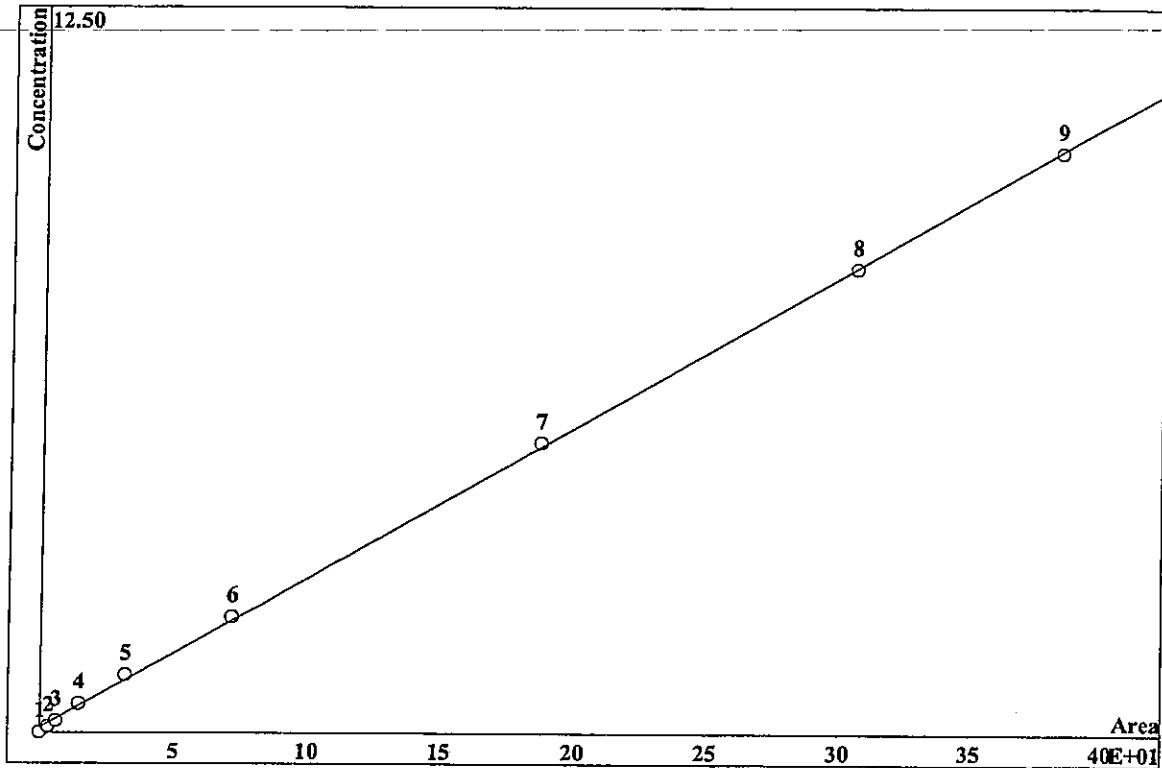
K3 = 0 K2 = 0 K1 = 0.0156846 K0 = 0.030375
 Base: Area
 Ref.channel: Cond
 ISTD:
 Formula: Linear
 Weight: 1

Level	Height	Area	Conc.	Vol/Dil	Retention	Used	File
1		0	0	0		0	
2	0.2423	2.03	0.05	1		3.08	
3	0.4965	4.014	0.1	1		3.08	
4	1.608	12.79	0.25	1		3.08	
5	3.67	28.31	0.5	1		3.08	
6	8.096	63.01	1	1		3.08	
7	19.99	159.8	2.5	1		3.08	
8	30.24	254.2	4	1		3.08	
9	36.32	314.8	5	1		3.08	

OK RP a/n/09

CALIBRATION OF COMPONENT Chloride

Method: 09-15-09CAL.mtw
 Equation: $Q = 0.0258919 \cdot A + 0.0860994$
 RSD: 2.301 %
 Correlation coefficient: 0.999857



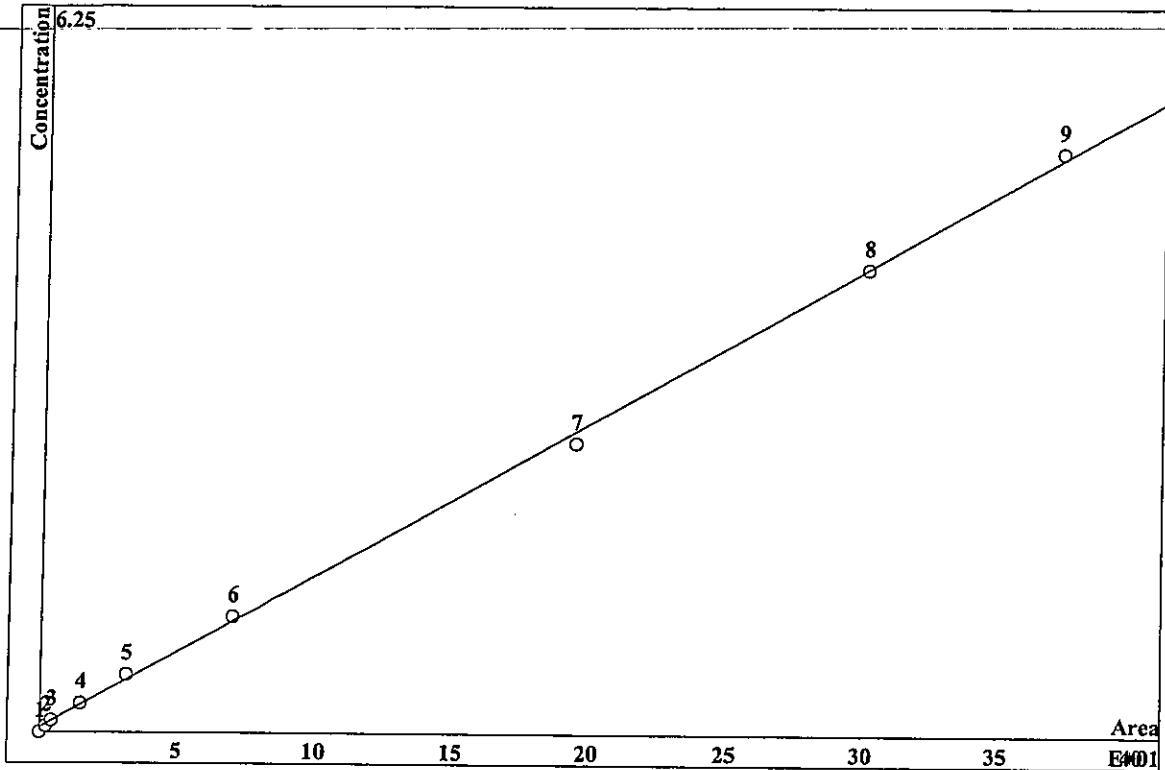
K3 = 0 K2 = 0 K1 = 0.0258919 K0 = 0.0860994
 Base: Area
 Ref.channel: Cond
 ISTD:
 Formula: Linear
 Weight: 1

Level	Height	Area	Conc.	Vol/Dil	Retention	Used File
1	0.006503	0.05196		1e-05	1	4.27
2	0.3753	3.095		0.1	1	4.27
3	0.7474	6.047		0.2	1	4.27
4	1.894	14.67		0.5	1	4.27
5	4.13	31.83		1	1	4.27
6	9.195	71.54		2	1	4.27
7	23.98	187.2		5	1	4.27
8	38.66	306.4		8	1	4.27
9	48.06	384.3		10	1	4.27

OK RP 9/17/09

CALIBRATION OF COMPONENT Nitrite

Method: 09-15-09CAL.mtw
 Equation: $Q = 0.0131454 \cdot A + 0.0432514$
 RSD: 3.234 %
 Correlation coefficient: 0.999663



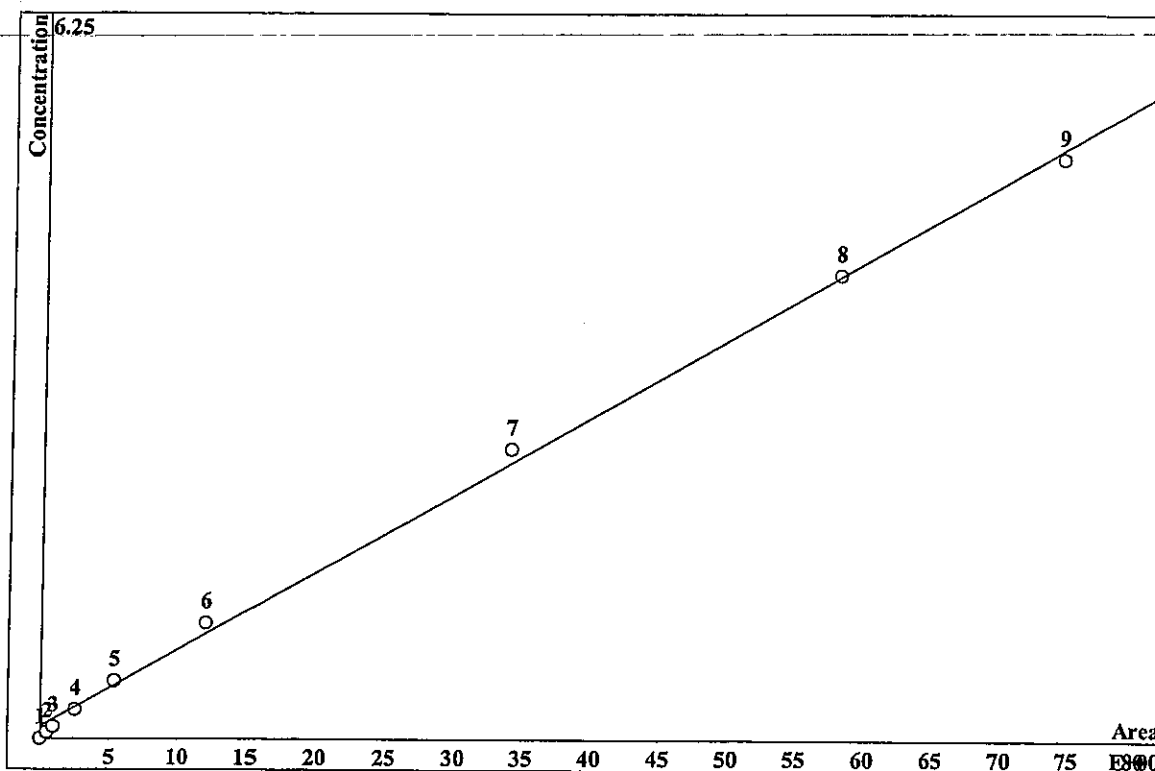
K3 = 0 K2 = 0 K1 = 0.0131454 K0 = 0.0432514
 Base: Area
 Ref.channel: Cond
 ISTD:
 Formula: Linear
 Weight: 1

Level	Height	Area	Conc.	Vol/Dil	Retention	Used File
1	0	0	0	1e-05	0	0
2	0.2439	2.27	0.05	1	4.86	
3	0.4799	4.399	0.1	1	4.86	
4	1.691	14.96	0.25	1	4.86	
5	3.569	31.54	0.5	1	4.86	
6	7.635	70.16	1	1	4.86	
7	19.92	195	2.5	1	4.86	
8	28.84	301.5	4	1	4.86	
9	34.35	373.2	5	1	4.86	

OK P. Alvarez

CALIBRATION OF COMPONENT Bromide

Method: 09-15-09CAL.mtw
 Equation: $Q = 0.0667011 \cdot A + 0.106296$
 RSD: 5.107 %
 Correlation coefficient: 0.999159



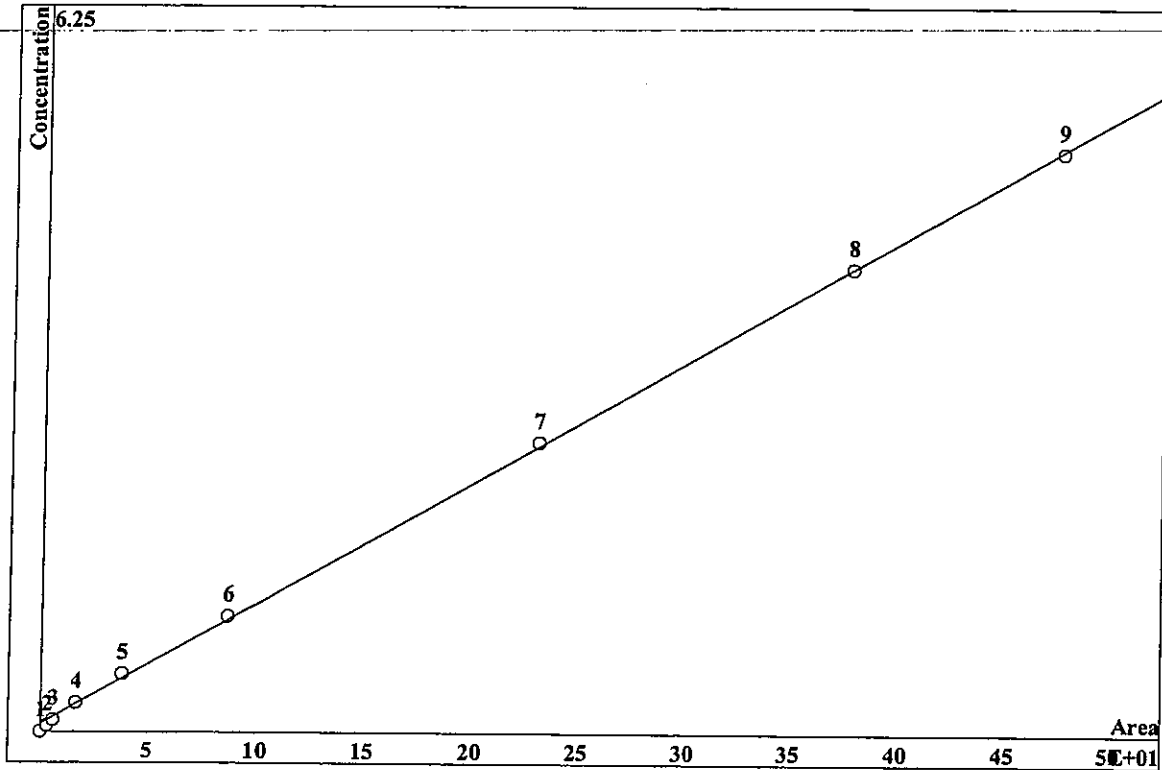
K3 = 0 K2 = 0 K1 = 0.0667011 K0 = 0.106296
 Base: Area
 Ref.channel: Cond
 ISTD:
 Formula: Linear
 Weight: 1

Level	Height	Area	Conc.	Vol/Dil	Retention	Used	File
1	0	0	0	1e-05	0		0
2	0.04096	0.4956	0.4956	0.05	1		6.33
3	0.0781	0.9421	0.9421	0.1	1		6.33
4	0.2152	2.499	2.499	0.25	1		6.33
5	0.4681	5.339	5.339	0.5	1		6.33
6	1.076	12.03	12.03	1	1		6.33
7	3.068	34.08	34.08	2.5	1		6.33
8	5.089	58.2	58.2	4	1		6.33
9	6.346	74.56	74.56	5	1		6.33

OK
 RP 9/17/09

CALIBRATION OF COMPONENT Nitrate

Method: 09-15-09CAL.mtw
 Equation: $Q = 0.0103926 \cdot A + 0.0683933$
 RSD: 2.095 %
 Correlation coefficient: 0.999859



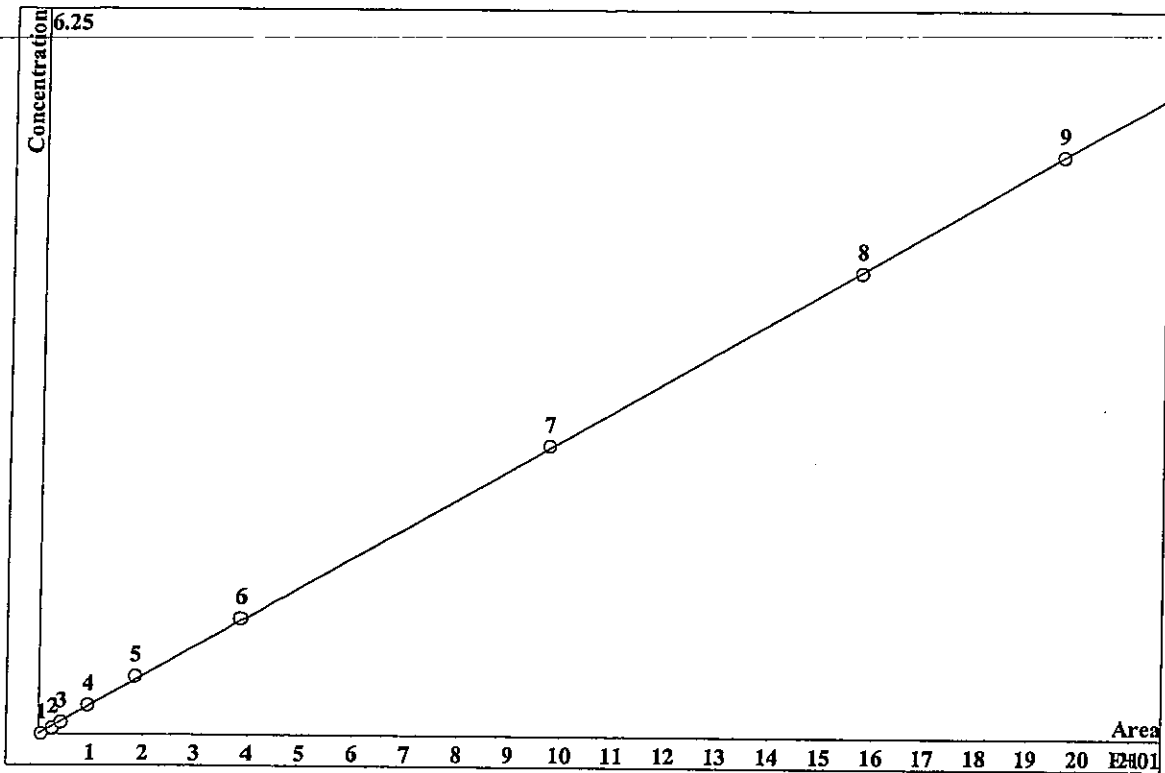
K3 = 0 K2 = 0 K1 = 0.0103926 K0 = 0.0683933
 Base: Area
 Ref.channel: Cond
 ISTD:
 Formula: Linear
 Weight: 1

Level	Height	Area	Conc.	Vol/Dil	Retention	Used	File
1		0	0	1e-05		0	
2	0.2493		3.05	0.05		1	6.56
3	0.5075		6.086	0.1		1	6.56
4	1.468		16.89	0.25		1	6.56
5	3.337		38.07	0.5		1	6.56
6	7.487		86.64	1		1	6.56
7	19.48		230.8	2.5		1	6.56
8	31.36		378.5	4		1	6.56
9	38.98		476.7	5		1	6.56

OK RP 9/17/09

CALIBRATION OF COMPONENT Phosphate

Method: 09-15-09CAL.mtw
 Equation: $Q = 0.0254731 \cdot A + 0.0010429$
 RSD: 1.255 %
 Correlation coefficient: 0.999957



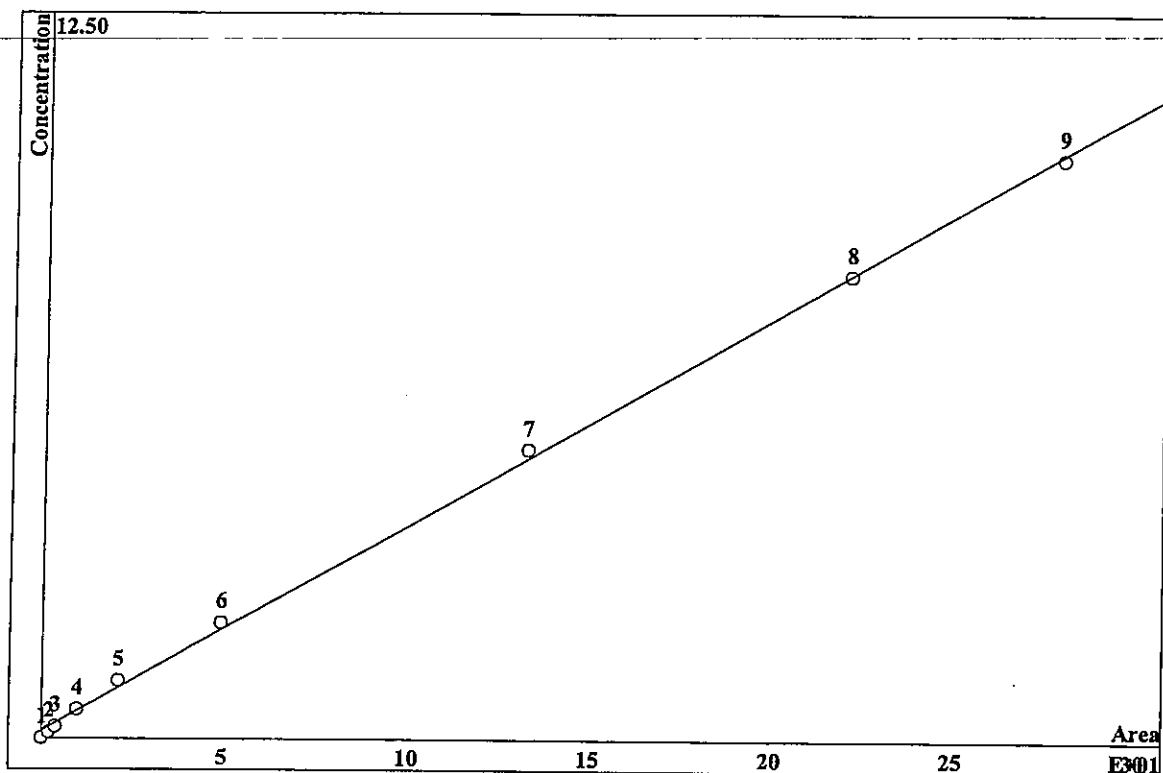
K3 = 0 K2 = 0 K1 = 0.0254731 K0 = 0.0010429
 Base: Area
 Ref.channel: Cond
 ISTD:
 Formula: Linear
 Weight: 1

Level	Height	Area	Conc.	Vol/Dil	Retention	Used File
1	0.0252	0.5734		1e-05	1	8.376
2	0.1442	2.807		0.05	1	8.376
3	0.2365	4.407		0.1	1	8.376
4	0.5572	9.508		0.25	1	8.376
5	1.148	18.45		0.5	1	8.376
6	2.501	38.58		1	1	8.376
7	6.495	97.52		2.5	1	8.376
8	10.48	157.4		4	1	8.376
9	13.06	196.4		5	1	8.376

OK RP 9/17/09

CALIBRATION OF COMPONENT Sulfate

Method: 09-15-09CAL.mtw
 Equation: $Q = 0.0355762 \cdot A + 0.12966$
 RSD: 3.864 %
 Correlation coefficient: 0.999595



K3 = 0 K2 = 0 K1 = 0.0355762 K0 = 0.12966
 Base: Area
 Ref.channel: Cond
 ISTD:
 Formula: Linear
 Weight: 1

Level	Height	Area	Conc.	Vol/Dil	Retention	Used File
1	0.006791	0.1138		1e-05	1	10.54
2	0.1341	2.117		0.1	1	10.54
3	0.249	3.891		0.2	1	10.54
4	0.6444	9.754		0.5	1	10.54
5	1.422	21.03		1	1	10.54
6	3.344	49.39		2	1	10.54
7	8.968	132.6		5	1	10.54
8	14.83	221.7		8	1	10.54
9	18.58	279.9		10	1	10.54

OK
 RP 9/17/09

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	WC72003G	1000	10	200	50	RP	9/10/09	A	1/20/10	WC900274
Cl	WC72003E	1000	20		100			B		
NO2	WC72002F	1000	10		50			C		
Br	WC72003H	1000	10		50			D		
NO3	WC72003I	1000	10		50			E		
OPO4	WC72003P	1000	10		50			F		
SO4	WC72003V	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	SO4						
9		10.0	100	5.0	10.0	5.0	5.0	5.0	5.0	5.0	5.0	10.0	RP	9/15/09	H	9/22/09	WC90029H
8		8.0		4.0	8.0	4.0	4.0	4.0	4.0	4.0	4.0	8.0		I			
7		2.0		2.0	5.0	2.5	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	1.0	2.0		K			
5		1.0		0.5	1.0	0.50	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	0.25	0.50		M			
3		0.2		0.10	0.20	0.10	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	0.05	0.10		O			
1		0.0		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	WC 35284 I	1000	4.0	1000	4.0	NP	9/10/07	A	1/26/10	WC 90107A
Cl	WC 72006 E	650	10.0		13.0			B		
NO2	WC 72007 G	180	10.0		7.2			C		
Br	WC 55037 D	1000	4.0		4.0			D		
NO3	WC 90006 C	180	10.0		7.2			E		
OPO4	WC 72007 S	180	10.0		7.2			F		
SO4	WC 72007 U	3200	10.0		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		4.0	5.0	20.0	1.0		DAILY	H	WC 90107H
Cl		4.0	5.0	10.0	2.0				
NO2		4.0	5.0	10.0	2.0				
Br		4.0	5.0	10.0	2.0				
NO3		4.0	5.0	10.0	2.0				
OPO4		4.0	5.0	10.0	2.0				
SO4		4.0	5.0	10.0	2.0				

I WC 90107 I +
 J WC 90107 J *
 + made in 0.01N H₂SO₄
 * made in 0.01N NaOH

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	WC900270A	50	2.0	100	1.0	RP	9/10/09	A	9/10/09	WC90070A
Cl		100			2.0	RP	9/10/09	B	9/10/09	WC90070B
NO2		50			1.0	RP	9/11/09	C	9/11/09	WC90070C
Br		50			1.0	RP	9/12/09	D	9/12/09	WC90070D
NO3		50			1.0	RP	9/15/09	E		
OPO4		50			1.0	RP	9/15/09	F	9/22/09	WC90070F
SO4		100			2.0	RP	9/16/09	G	9/23/09	WC90070G
								H		
								I		
								J		
								K		
								L		
								M		
								N		
								O		
								P		
								Q		
								R		

* Prepared in 0.01N NaOH

+ Prepared in 0.01N H2SO4

Ion Chromatography Cover Sheet

Instrument: Metrohm IC 861
Column: Metrosep A Supp 5 - 100, 4mm, 05/05/09

Curve Date: 09/15/09 **Loop size:** 25 uL Loop _____

Analyst: RP **Analysis Date:** 9/15/09

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	09/10/09	WC90024A		Working Calibration Stds	09/15/09	WC90024H
LCS / MS Intermediate	09/10/09	WC90024A		Working LCS/MS Standard	09/15/09	WC90070F
ICV Intermediate	09/15/09	WC90107H		Working ICV Standard	09/15/09	WC90107H
CCV Intermediate	09/10/09	WC90107A		Working CCV Standard	DAILY	WC90107H

Comments

CURVE NOT VALID FOR BROMIDE

Analytical Results Summary

Instrument Name: R-IC-07

Analyst: RPAWL

Analysis Lot:

174096 Method/Testcode: 9056/Br

Lab Code	Target Analytes	QC Type	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
3Q0909742-03	Bromide	MB		Water	0.00 mg/L	10 mL	0.10 mg/L U✓	1	0.10			10/8/09 10:23:06	N	II
3Q0909742-03	Chloride	MB		Water	0.00 mg/L	10 mL	0.20 mg/L U✓	1	0.20			10/8/09 10:23:06	N	II
3Q0909742-03	Nitrate as Nitrogen	MB		Water	0.00 mg/L	10 mL	0.050 mg/L U✓	1	0.050			10/8/09 10:23:06	N	II
3Q0909742-03	Nitrate as Nitrogen	MB		Water	0.00 mg/L	10 mL	0.050 mg/L U✓	1	0.050			10/8/09 10:23:06	N	II
3Q0909742-03	Nitrite as Nitrogen	MB		Water	0.00 mg/L	10 mL	0.050 mg/L U✓	1	0.050			10/8/09 10:23:06	N	II
3Q0909742-03	Sulfate	MB		Water	0.00 mg/L	10 mL	0.050 mg/L U✓	1	0.050			10/8/09 10:23:06	N	II
3Q0909742-04	Bromide	LCS		Water	0.99 mg/L	10 mL	0.985 mg/L ✓	1	0.10	99		10/8/09 10:23:06	N	II
3Q0909742-04	Chloride	LCS		Water	1.82 mg/L	10 mL	1.82 mg/L ✓	1	0.20	91		10/8/09 10:37:54	N	II
3Q0909742-04	Nitrate as Nitrogen	LCS		Water	0.95 mg/L	10 mL	0.948 mg/L ✓	1	0.050	95		10/8/09 10:37:54	N	II
3Q0909742-04	Nitrate as Nitrogen	LCS		Water	0.95 mg/L	10 mL	0.948 mg/L ✓	1	0.050	95		10/8/09 10:37:54	N	II
3Q0909742-04	Nitrite as Nitrogen	LCS		Water	0.98 mg/L	10 mL	0.978 mg/L ✓	1	0.050	98		10/8/09 10:37:54	N	II
3Q0909742-04	Sulfate	LCS		Water	1.95 mg/L	10 mL	1.95 mg/L ✓	1	0.20	98		10/8/09 10:37:54	N	II
3Q0905747-001	Nitrate as Nitrogen	N/A		Water	1.99 mg/L	10 mL	1.99 mg/L ✓	10	0.50			10/8/09 10:37:54	N	II
3Q0905745-001	Nitrate as Nitrogen	N/A		Water	14.98 mg/L	10 mL	15.0 mg/L ✓	10	0.50			10/8/09 11:44:00	N	II
3Q0905636-006	Bromide	N/A		Water	1.42 mg/L	10 mL	1.4 mg/L ✓	10	1.0			10/8/09 11:58:51	N	II
3Q0905636-006	Nitrate as Nitrogen	N/A		Water	0.84 mg/L	10 mL	0.84 mg/L ✓	10	0.50			10/8/09 12:13:40	N	IV
3Q0905746-001	Chloride	N/A		Water	38.89 mg/L	10 mL	38.9 mg/L ✓	10	2.0			10/8/09 12:28:29	N	II
3Q0905746-001	Nitrate as Nitrogen	N/A		Water	0.87 mg/L	10 mL	0.87 mg/L ✓	10	0.50			10/8/09 12:28:29	N	II
3Q0905746-002	Sulfate	N/A		Water	8.96 mg/L	10 mL	9.0 mg/L ✓	10	2.0			10/8/09 12:28:29	N	II
3Q0905746-002	Chloride	N/A		Water	87.42 mg/L	10 mL	87.4 mg/L ✓	10	2.0			10/8/09 12:43:19	N	II
3Q0905746-002	Nitrate as Nitrogen	N/A		Water	4.91 mg/L	10 mL	4.91 mg/L ✓	10	0.50			10/8/09 12:43:19	N	II
3Q0905707-006	Nitrate as Nitrogen	N/A		Water	0.00 mg/L	10 mL	0.50 mg/L U✓	10	0.50			10/8/09 12:58:09	N	IV
3Q0905707-006	Nitrate as Nitrogen	N/A		Water	0.00 mg/L	10 mL	0.50 mg/L U✓	10	0.50			10/8/09 12:58:09	N	IV
3Q0905707-007	Nitrite as Nitrogen	N/A		Water	0.00 mg/L	10 mL	0.50 mg/L U✓	10	0.50			10/8/09 12:58:09	N	IV
3Q0905707-007	Nitrate as Nitrogen	N/A		Water	0.00 mg/L	10 mL	0.50 mg/L U✓	10	0.50			10/8/09 13:12:59	N	IV
3Q0909742-01	Nitrate as Nitrogen	DUP	R0905707-007	Water	0.00 mg/L	10 mL	0.50 mg/L U✓	10	0.50			10/8/09 13:12:59	N	IV
3Q0909742-01	Nitrite as Nitrogen	DUP	R0905707-007	Water	0.00 mg/L	10 mL	0.50 mg/L U✓	10	0.50			10/8/09 13:27:47	N	IV
3Q0909742-02	Nitrate as Nitrogen	MS	R0905707-007	Water	9.30 mg/L	10 mL	9.30 mg/L ✓	10	0.50	93		10/8/09 13:27:47	N	IV
3Q0909742-02	Nitrite as Nitrogen	MS	R0905707-007	Water	9.53 mg/L	10 mL	9.53 mg/L ✓	10	0.50	95		10/8/09 13:42:35	N	IV
3Q0909742-02	Nitrate as Nitrogen	N/A		Water	0.00 mg/L	10 mL	0.50 mg/L U✓	10	0.50			10/8/09 13:42:35	N	IV
3Q0909742-02	Nitrite as Nitrogen	N/A		Water	0.00 mg/L	10 mL	0.50 mg/L U✓	10	0.50			10/8/09 13:42:35	N	IV
3Q0905707-008	Nitrate as Nitrogen	N/A		Water	0.00 mg/L	10 mL	0.50 mg/L U✓	10	0.50			10/8/09 14:27:02	N	IV
3Q0905707-008	Nitrite as Nitrogen	N/A		Water	0.00 mg/L	10 mL	0.50 mg/L U✓	10	0.50			10/8/09 14:27:02	N	IV
3Q0905707-009	Nitrate as Nitrogen	N/A		Water	0.00 mg/L	10 mL	0.50 mg/L U✓	10	0.50			10/8/09 14:27:02	N	IV
3Q0905707-009	Nitrite as Nitrogen	N/A		Water	0.00 mg/L	10 mL	0.50 mg/L U✓	10	0.50			10/8/09 14:41:50	N	IV
3Q0909742-05	Nitrate as Nitrogen	DUP	R0905707-009	Water	0.00 mg/L	10 mL	0.50 mg/L U✓	10	0.50			10/8/09 14:41:50	N	IV
3Q0909742-05	Nitrite as Nitrogen	DUP	R0905707-009	Water	0.00 mg/L	10 mL	0.50 mg/L U✓	10	0.50			10/8/09 14:56:40	N	IV
3Q0909742-06	Nitrate as Nitrogen	MS	R0905707-009	Water	9.26 mg/L	10 mL	9.26 mg/L ✓	10	0.50	93		10/8/09 15:11:30	N	IV
3Q0909742-06	Nitrite as Nitrogen	MS	R0905707-009	Water	9.42 mg/L	10 mL	9.42 mg/L ✓	10	0.50	94		10/8/09 15:11:30	N	IV
3Q0905707-010	Nitrate as Nitrogen	N/A		Water	0.00 mg/L	10 mL	0.50 mg/L U✓	10	0.50			10/8/09 15:26:17	N	IV
3Q0905707-010	Nitrite as Nitrogen	N/A		Water	0.00 mg/L	10 mL	0.50 mg/L U✓	10	0.50			10/8/09 15:26:17	N	IV

01506

10-8-09

#7

Analyst: R. Paul
Pipets: Lucy
Mina

5 copies

R-5636

R-5707

R-5348

R-5387

R-5402

Reviewed & Approved

By: B. Bunn

Date: 10/12/09

10/9/09 7:25:47 AM

Line	Sample	Sample Type	Level	Method	Data File	Dilution	Comment
1	CCV	Sample		500-091809.met	1008_001.dxd	1	
2	CCB	Sample		500-091809.met	1008_002.dxd	1	
3	LCS	Sample		500-091809.met	1008_003.dxd	1	
4	SPLITTER	Sample		500-091809.met	1008_004.dxd	10	N
5	FINAL EFF	Sample		500-091809.met	1008_005.dxd	10	SN
6	MC-94B	Sample		500-091809.met	1008_007.dxd	10	CBNS
7	SW 006	Sample		500-091809.met	1008_008.dxd	10	NCS
8	SW 162	Sample		500-091809.met	1008_009.dxd	10	NN
9	FD-1	Sample		500-091809.met	1008_010.dxd	10	NN
10	FD-2	Sample		500-091809.met	1008_012.dxd	10	NN
11	FD-2 DUP	Sample		500-091809.met	1008_013.dxd	10	NN
12	FD-2 SPK	Sample		500-091809.met	1008_014.dxd	10	NN
13	CCV	Sample		500-091809.met	1008_015.dxd	10	NN
14	CCB	Sample		500-091809.met	1008_016.dxd	10	NN
15	FD-3	Sample		500-091809.met	1008_017.dxd	10	NN
16	FD-4	Sample		500-091809.met	1008_018.dxd	10	NN
17	FD-4 DUP	Sample		500-091809.met	1008_019.dxd	10	NN
18	FD-4 SPK	Sample		500-091809.met	1008_020.dxd	10	NN
19	FD-5	Sample		500-091809.met	1008_021.dxd	10	NN
20	MB 9613-01	Sample		500-091809.met	1008_022.dxd	10	NN
21	LCS EXTRACTION	Sample		500-091809.met	1008_023.dxd	10	NN
22	R0905348-003	Sample		500-091809.met	1008_024.dxd	10	NN
23	R0905348-003 DUP	Sample		500-091809.met	1008_025.dxd	10	NN
24	R0905348-003 SPK	Sample		500-091809.met	1008_026.dxd	10	NN
25	CCV	Sample		500-091809.met	1008_027.dxd	10	NN
26	CCB	Sample		500-091809.met	1008_028.dxd	10	NN
27	LCS	Sample		500-091809.met	1008_029.dxd	10	NN
28	R0905387-002	Sample		500-091809.met	1008_030.dxd	10	NN
29	R0905387-002 DUP AT IC	Sample		500-091809.met	1008_031.dxd	10	NN
30	R0905387-002 SPK AT IC	Sample		500-091809.met	1008_032.dxd	10	NN
31	R0905387-003	Sample		500-091809.met	1008_033.dxd	10	NN
32	R0905387-004	Sample		500-091809.met	1008_034.dxd	10	NN
33	R0905387-005	Sample		500-091809.met	1008_035.dxd	10	NN
34	R0905387-006	Sample		500-091809.met	1008_036.dxd	10	NN
35	R0905387-007	Sample		500-091809.met	1008_037.dxd	10	NN
36	R0905387-008	Sample		500-091809.met	1008_038.dxd	10	NN
37	CCV	Sample		500-091809.met	1008_039.dxd	10	NN
38	CCB	Sample		500-091809.met	1008_040.dxd	10	NN
39	R0905387-009	Sample		500-091809.met	1008_041.dxd	10	NN
40	R0905387-011	Sample		500-091809.met	1008_042.dxd	10	NN
41	R0905387-012	Sample		500-091809.met	1008_043.dxd	10	NN
42	R0905387-013	Sample		500-091809.met	1008_044.dxd	10	NN
43	R0905387-014	Sample		500-091809.met	1008_045.dxd	10	NN
44	R0905387-015	Sample		500-091809.met	1008_046.dxd	10	NN
45	BLK0929	Sample		500-091809.met	1008_047.dxd	100	NN
46	LCL0929	Sample		500-091809.met	1008_048.dxd	100	NN
47	R0904969-008A	Sample		500-091809.met	1008_049.dxd	200	NN
48	R0905106-001A	Sample		500-091809.met	1008_050.dxd	200	NN
49	CCV	Sample		500-091809.met	1008_051.dxd	200	NN
50	CCB	Sample		500-091809.met	1008_052.dxd	200	NN
51	LCS	Sample		500-091809.met	1008_053.dxd	200	NN
52	R0904969-010A	Sample		500-091809.met	1008_054.dxd	200	NN
53	R0904969-010B	Sample		500-091809.met	1008_055.dxd	200	NN
54	R0904969-010A SPK	Sample		500-091809.met	1008_056.dxd	200	NN
55	MB 9665-01	Sample		500-091809.met	1008_057.dxd	1	NN
56	LCS EXTRACTION	Sample		500-091809.met	1008_058.dxd	1	NN
57	R0905387-016	Sample		500-091809.met	1008_059.dxd	1	NN
58	R0905387-017	Sample		500-091809.met	1008_060.dxd	1	NN
59	R0905402-001	Sample		500-091809.met	1008_061.dxd	1	NN
60	R0905402-002	Sample		500-091809.met	1008_062.dxd	1	NN
61	CCV	Sample		500-091809.met	1008_063.dxd	1	NN
62	CCB	Sample		500-091809.met	1008_064.dxd	1	NN
63	R0905402-003	Sample		500-091809.met	1008_065.dxd	1	NN
64	R0905402-004	Sample		500-091809.met	1008_066.dxd	1	NN
65	R0905402-004 DUP	Sample		500-091809.met			NN
66	R0905402-004 SPK	Sample		500-091809.met			NN

PeakNet 5.2

01597

Line	Sample	Sample Type	Level	Method	Data File	Dilution	Comment
67	R0905402-005	Sample		500-091809.met	1008_067.dxd	1	CBNS (EXT)
68	R0905402-006	Sample		500-091809.met	1008_068.dxd	1	CBNS (EXT)
69	R0905402-007	Sample		500-091809.met	1008_069.dxd	1	CBNS (EXT)
70	R0905402-008	Sample		500-091809.met	1008_070.dxd	1	CBNS (EXT)
71	R0905402-009	Sample		500-091809.met	1008_071.dxd	1	CBNS (EXT)
72	R0905402-010	Sample		500-091809.met	1008_072.dxd	1	CBNS (EXT)
73	CCV	Sample		500-091809.met	1008_073.dxd	1	CBNS (EXT)
74	CCB	Sample		500-091809.met	1008_074.dxd	1	
75	LCS	Sample		500-091809.met	1008_075.dxd	1	
76	R0905402-011	Sample		500-091809.met	1008_076.dxd	1	CBNS (EXT)
77	CCV	Sample		500-091809.met	1008_077.dxd	1	
78	CCB	Sample		500-091809.met	1008_078.dxd	1	
79	END	Sample		j:\acq\data\ic\method.ac\ic#7\shutdown.met	1008	1	

Default Method Path: J:\ACQ\DATA\IC\METHOD.AC\IC#7\DI METHODS

Default Data Path: J:\ACQ\DATA\IC\DATA\IC#7\100809

Comment:

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Sample Name : CCV
 Data File Name : ...\\1008_001.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/8/09 10:08:17 AM

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

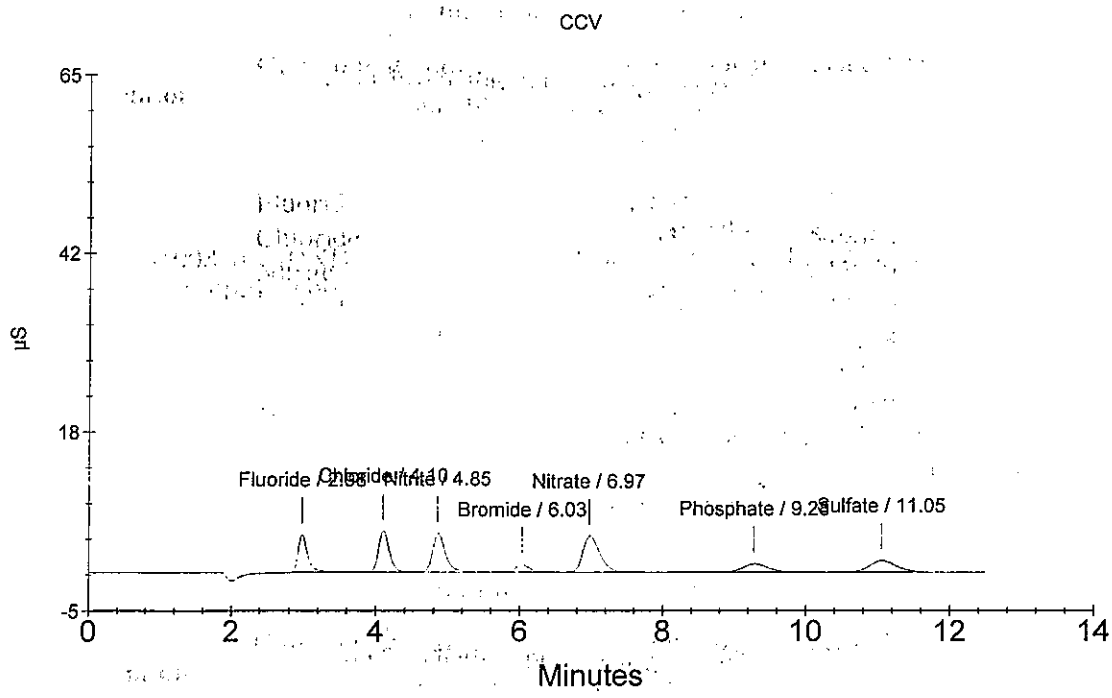
Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment :

Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.98	Fluoride	OK 1.891	457919
2	4.10	Chloride	2.937	549640
3	4.85	Nitrite	1.782	645189
4	6.03	Bromide	1.986	139400
5	6.97	Nitrate	1.793	782138
6	9.28	Phosphate	1.833	265323
7	11.05	Sulfate	3.151	391667

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Sample Name : CCB
Data File Name : ... \1008_002.DXD
Method File Name : ... \500-091809.met
Date Time Collected : 10/8/09 10:23:06 AM

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

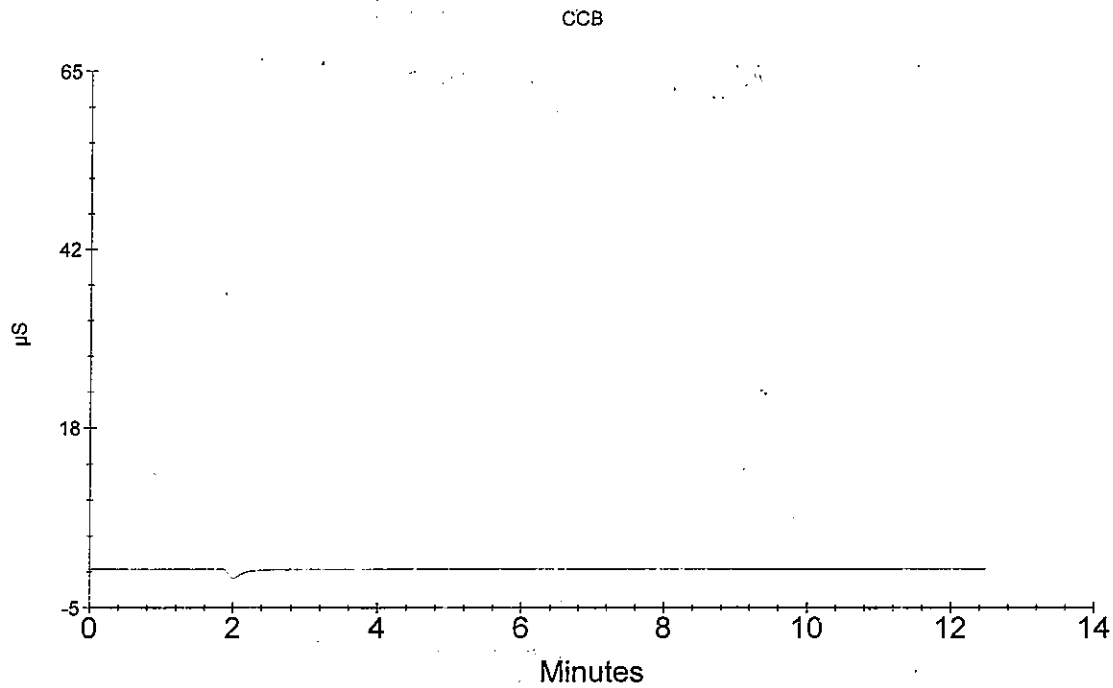
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment :

Data Collection Rate : 5.00 Hz
Data Collection Period : 750.00 seconds
Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
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OK
RP 10/9/09



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Sample Name : LCS
 Data File Name : ...\\1008_003.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/8/09 10:37:54 AM

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

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

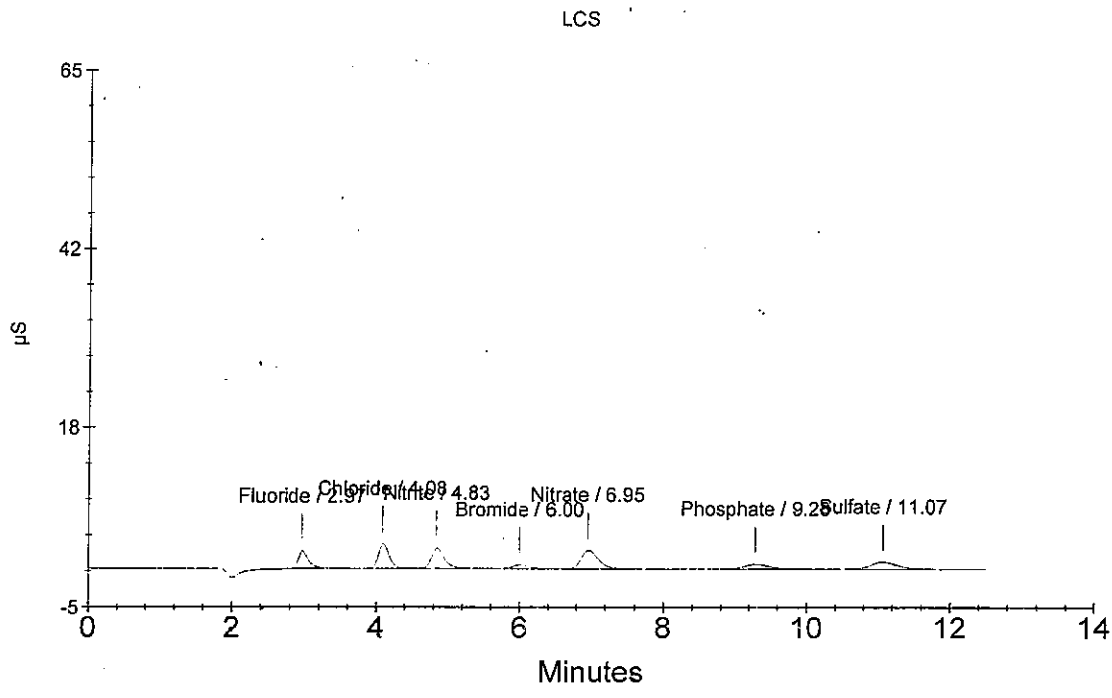
Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.97	Fluoride	0.949	220328
2	4.08	Chloride	1.820	333667
3	4.83	Nitrite	0.978	341951
4	6.00	Bromide	0.985	67364
5	6.95	Nitrate	0.948	399748
6	9.28	Phosphate	1.025	144822
7	11.07	Sulfate	1.952	239862

OK
 ↓

RP 10/9/09



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Sample Name : SPLITTER 90905747-001
 Data File Name : ...\\1008_004.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/8/09 11:44:00 AM

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

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

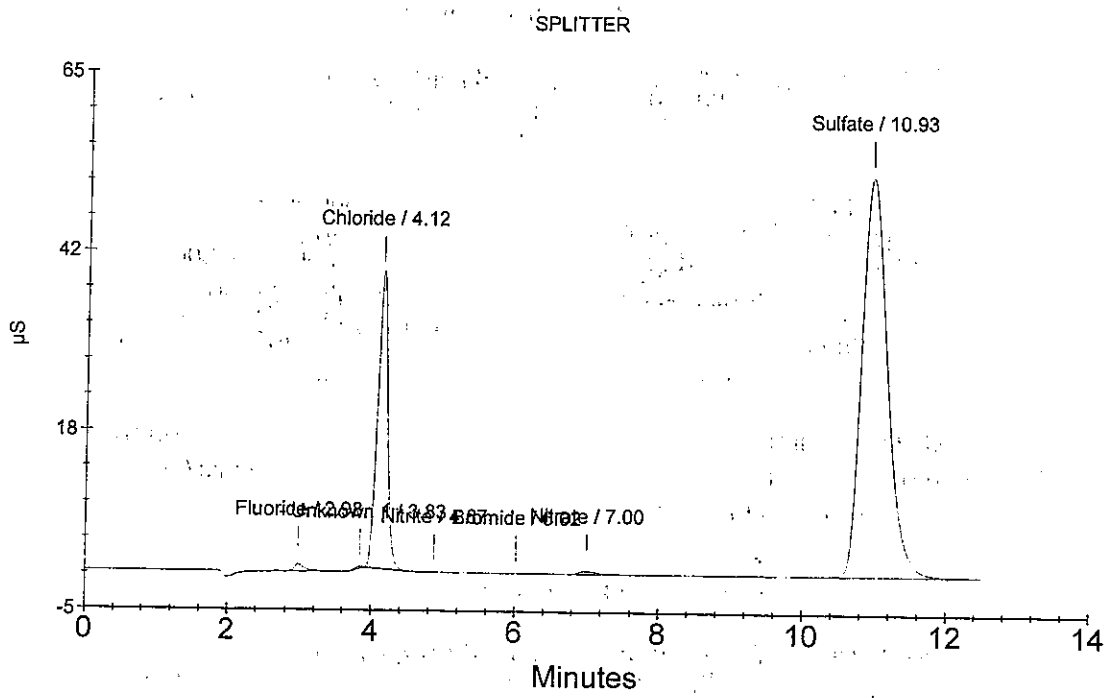
Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.98	Fluoride	4.074	83869
3	4.12	Chloride	190.428	3665610
4	4.87	Nitrite	0.990	10457
5	6.02	Bromide	0.979	3620
6	7.00	Nitrate	1.993	60693
7	10.93	Sulfate	1031.662	13055782

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 OK
 OK

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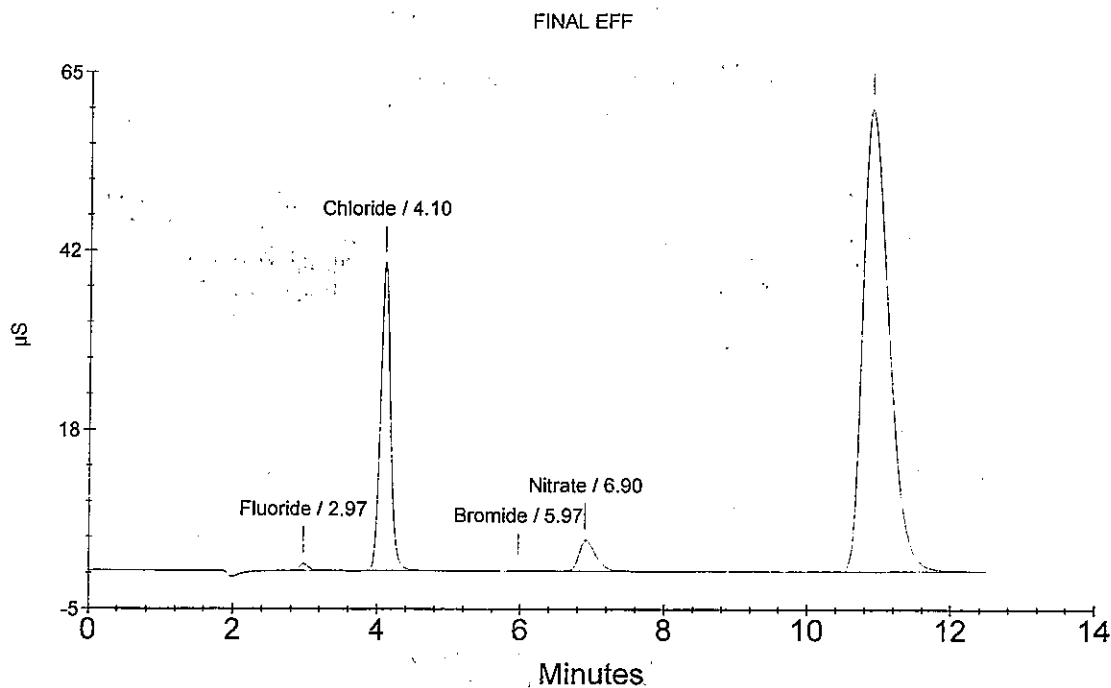
Sample Name : FINAL EFF *10105745-001* Detector Name :
 Data File Name : ...\\1008_005.DXD Column ID : AS-14 / AG-14
 Method File Name : ...\\500-091809.met Method Analyst :
 Date Time Collected : 10/8/09 11:58:51 AM

Dilution Factor : 10.00 Data Collection Rate : 5.00 Hz
 Sample Type : Sample Analysis Data Collection Period : 750.00 seconds
 Sample Comment : SN Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.97	Fluoride	3.843	78046
2	4.10	Chloride	202.821	3905373
3	5.97	Bromide	0.913	3140
4	6.90	Nitrate	<i>OK</i> 14.976	648476
5	10.90	Sulfate	<i>1/20</i> 1205.813	15260919

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Sample Name : MC-94B *90905030-000*
 Data File Name : ...\\1008 006.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/8/09 12:13:40 PM

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

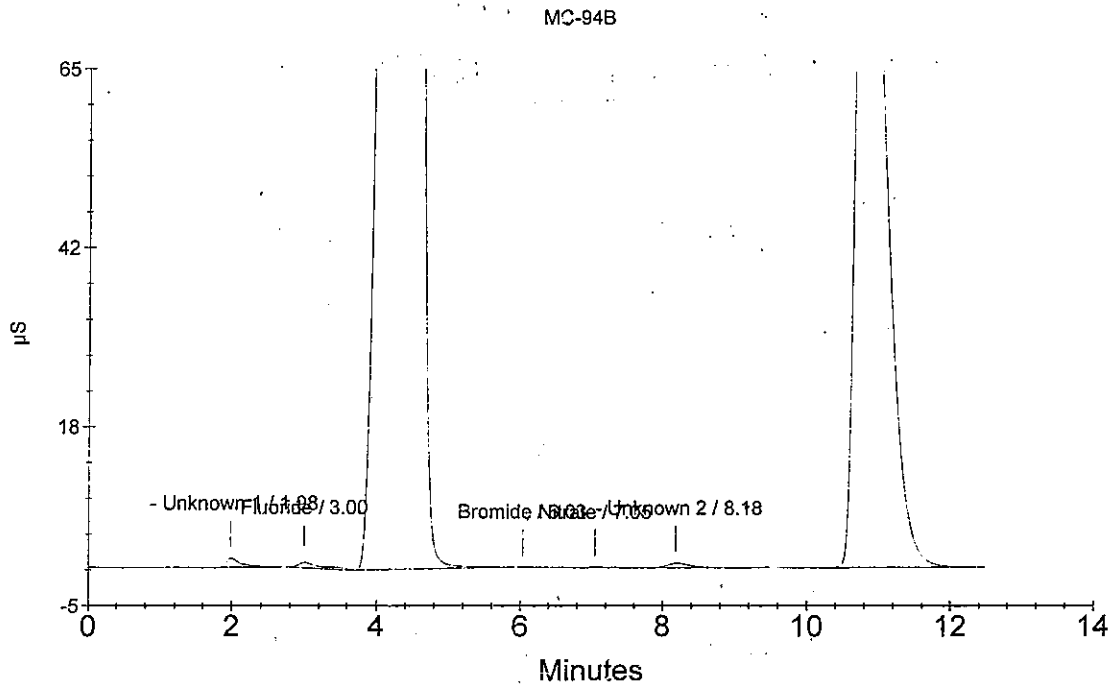
Dilution Factor : 10.00
 Sample Type : Sample Analysis
 Sample Comment : CBNS

Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
2	3.00	Fluoride	6.958	156589
3	4.53	Chloride	<i>1/1000</i> 6270.764	121297900
4	6.03	Bromide	<i>OK</i> 1.424	6818
5	7.05	Nitrate	<i>OK</i> 0.838	8383
7	10.82	Sulfate	<i>1/400</i> 2350.142	29750663

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Sample Name : SW 006 *RP109109*
Data File Name : ...\\1008_007.DXD
Method File Name : ...\\500-091809.met
Date Time Collected : 10/8/09 12:28:29 PM

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

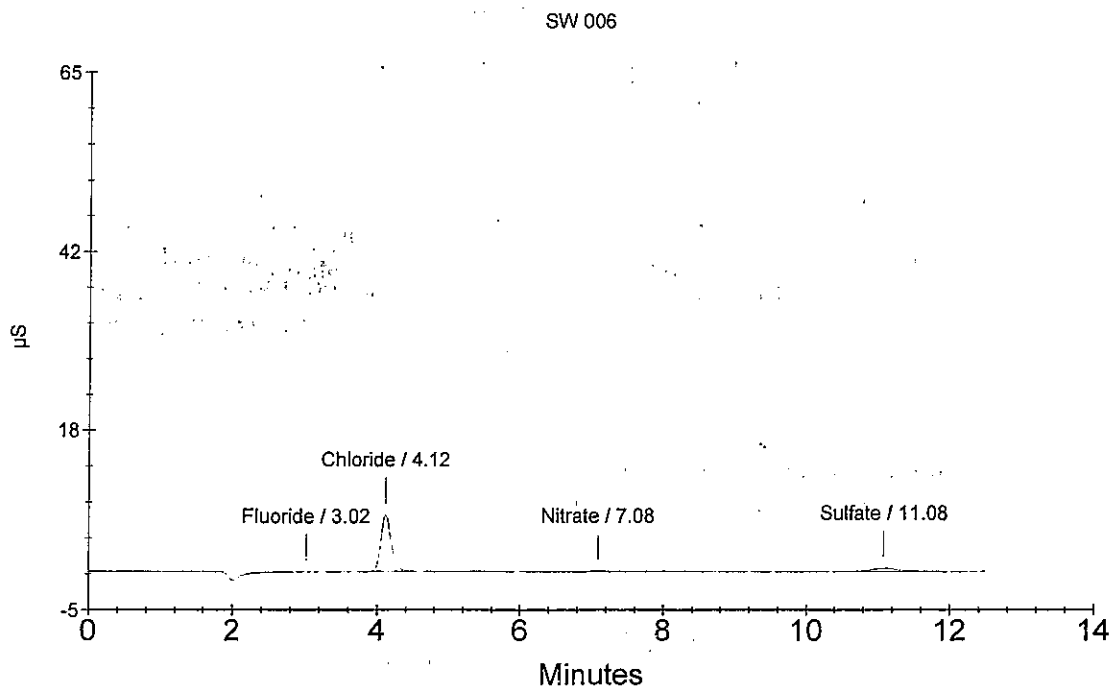
Dilution Factor : 10.00
Sample Type : Sample Analysis
Sample Comment : NCS

Data Collection Rate : 5.00 Hz
Data Collection Period : 750.00 seconds
Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	3.02	Fluoride	0.875	3239
2	4.12	Chloride	<i>OK</i> 38.885	733801
3	7.08	Nitrate	<i>OK</i> 0.866	9660
4	11.08	Sulfate	<i>OK</i> 8.956	106060

RP109109



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Sample Name : SW 162 80905740-002
Data File Name : ...\\1008_008.DXD
Method File Name : ...\\500-091809.met
Date Time Collected : 10/8/09 12:43:19 PM

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

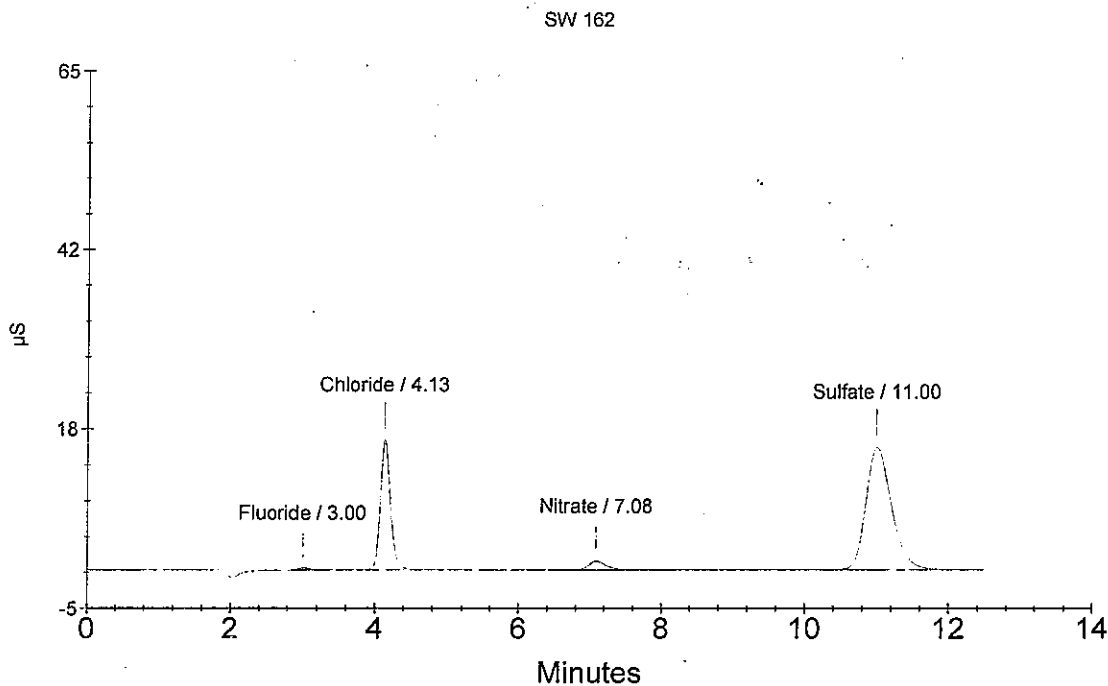
Dilution Factor : 10.00
Sample Type : Sample Analysis
Sample Comment : NCS

Data Collection Rate : 5.00 Hz
Data Collection Period : 750.00 seconds
Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	3.00	Fluoride	1.733	24867
2	4.13	Chloride	ok 87.418	1672752
3	7.08	Nitrate	ok 4.909	192708
4	11.00	Sulfate	1/40 314.656	3976898

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Ion Chromatography Analytical Report
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Sample Name : FD-1 R09105707 - 006
Data File Name : ...\\1008_009.DXD
Method File Name : ...\\500-091809.met
Date Time Collected : 10/8/09 12:58:09 PM

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

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

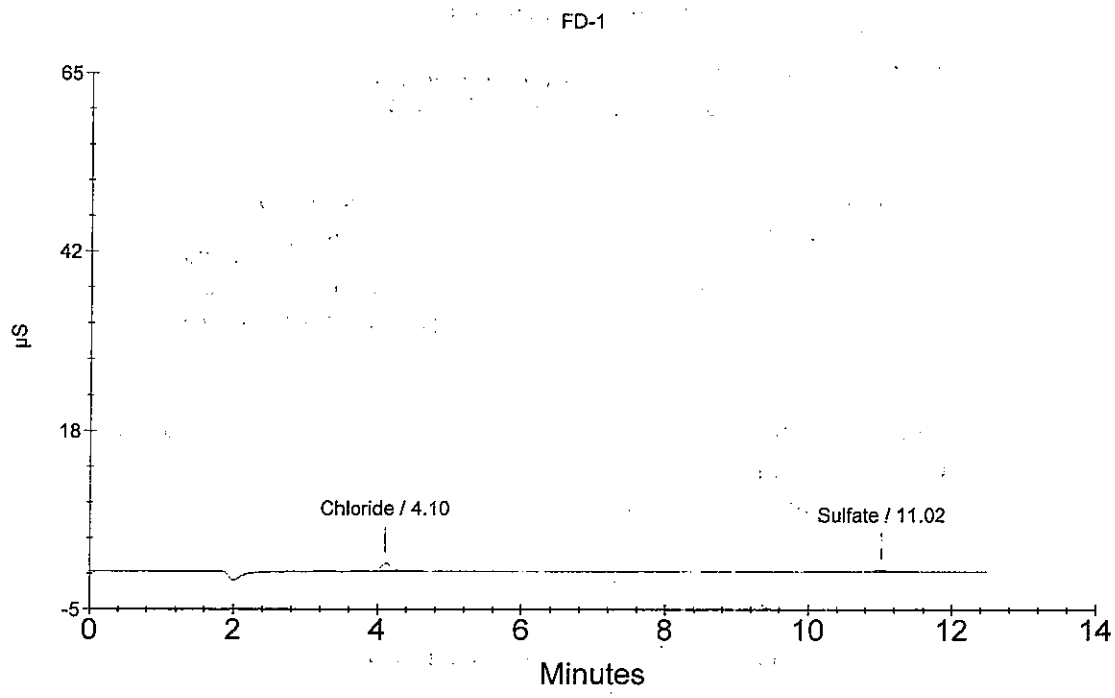
Data Collection Rate : 5.00 Hz
Data Collection Period : 750.00 seconds
Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	4.10	Chloride	6.382	104997
2	11.02	Sulfate	3.939	42532

NO₂ OK
NO₃ OK

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Sample Name : FD-2 **B09105707-007**
 Data File Name : ...1008_010.DXD
 Method File Name : ...500-091809.met
 Date Time Collected : 10/8/09 1:12:59 PM

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

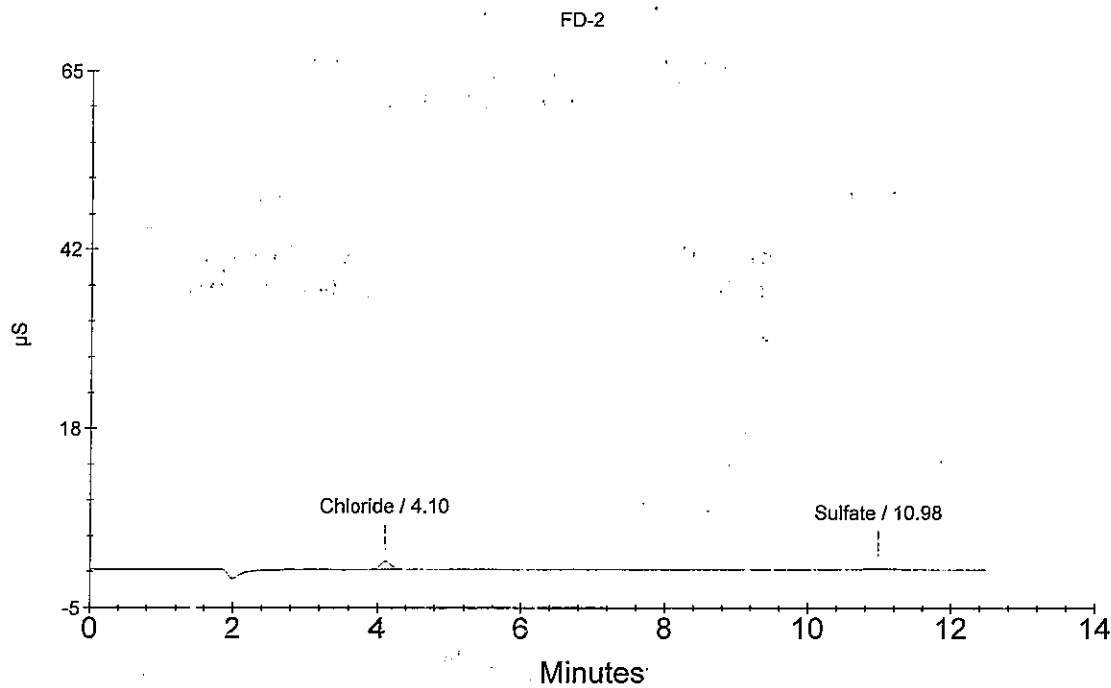
Dilution Factor : 10.00
 Sample Type : Sample Analysis
 Sample Comment : NN

Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	4.10	Chloride	6.670	110572
2	10.98	Sulfate	4.276	46801

NO₂ OK
NO₃ OK
RP 10/9/09



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Sample Name : FD-2 DUP *80905707-007*
Data File Name : ...\\1008_011.DXD
Method File Name : ...\\500-091809.met
Date Time Collected : 10/8/09 1:27:47 PM

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

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

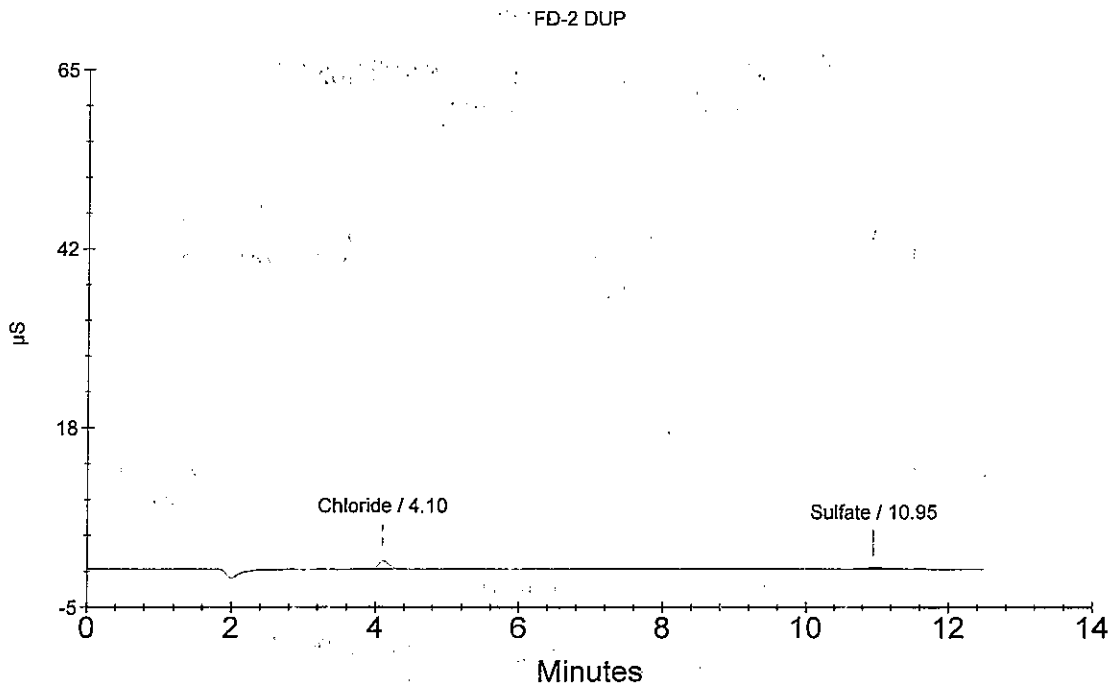
Data Collection Rate : 5.00 Hz
Data Collection Period : 750.00 seconds
Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	4.10	Fluoride Chloride Phosphate	6.666	110477
2	10.95	Sulfate	4.280	46854

*NO₂ OK
NO₃ OK*

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Sample Name : FD-2 SPK *B0905707-007*
 Data File Name : ...\\1008 012.DXD *SPK*
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/8/09 1:42:35 PM

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

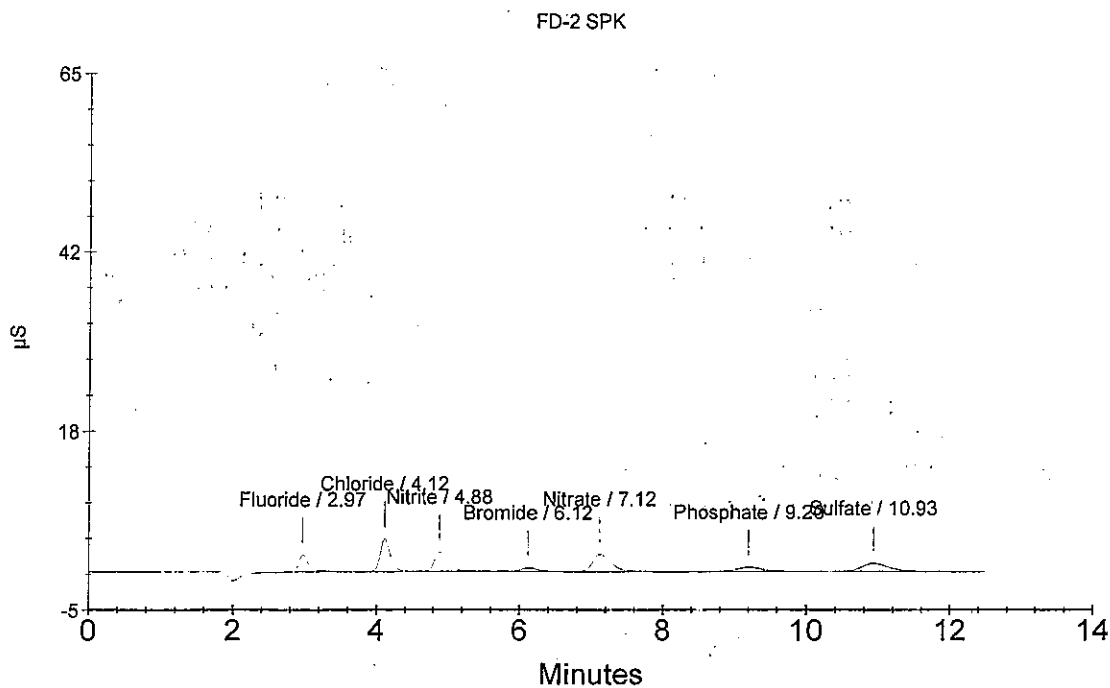
Dilution Factor : 10.00
 Sample Type : Sample Analysis
 Sample Comment : NN

Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.97	Fluoride	9.345	216738
2	4.12	Chloride	23.674	439534
3	4.88	Nitrite	<i>OK</i> 9.526	332426
4	6.12	Bromide	9.710	66388
5	7.12	Nitrate	<i>OK</i> 9.298	391411
6	9.20	Phosphate	9.905	139647
7	10.93	Sulfate	22.546	278144

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Sample Name : CCV
 Data File Name : ...\\1008 013.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/8/09 1:57:24 PM

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

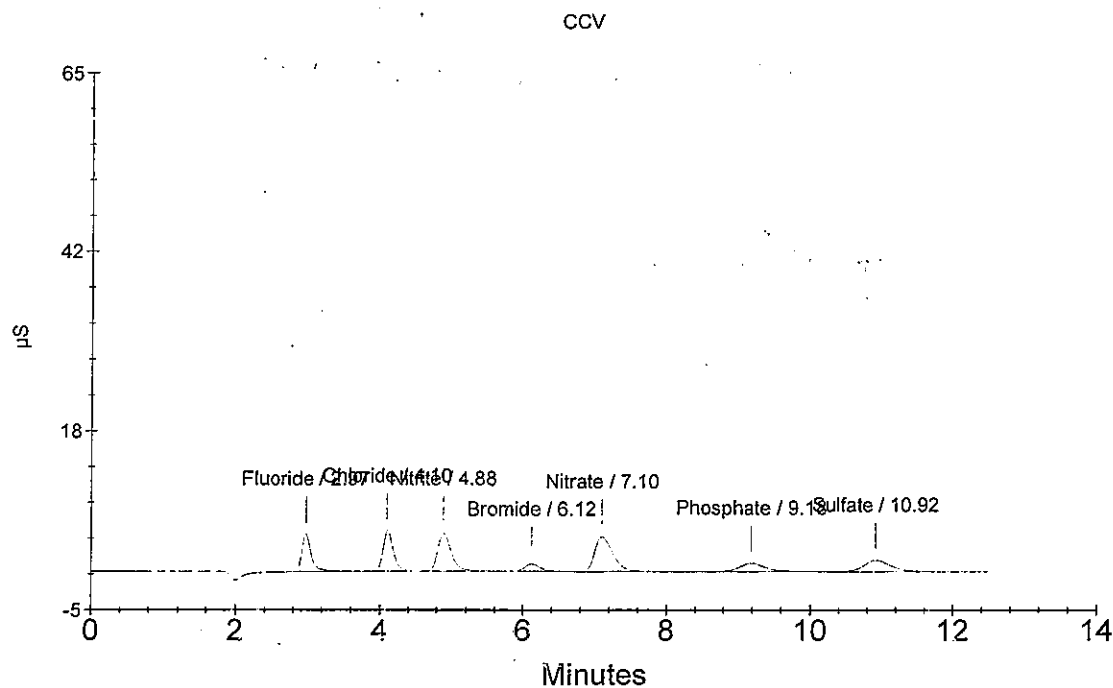
Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment :

Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.97	Fluoride	1.891	457782
2	4.10	Chloride	2.929	548115
3	4.88	Nitrite	1.778	643768
4	6.12	Bromide	1.982	139058
5	7.10	Nitrate	1.782	777431
6	9.18	Phosphate	1.816	262889
7	10.92	Sulfate	3.130	388986

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Sample Name : CCB
Data File Name : ...\\1008_014.DXD
Method File Name : ...\\500-091809.met
Date Time Collected : 10/8/09 2:12:13 PM

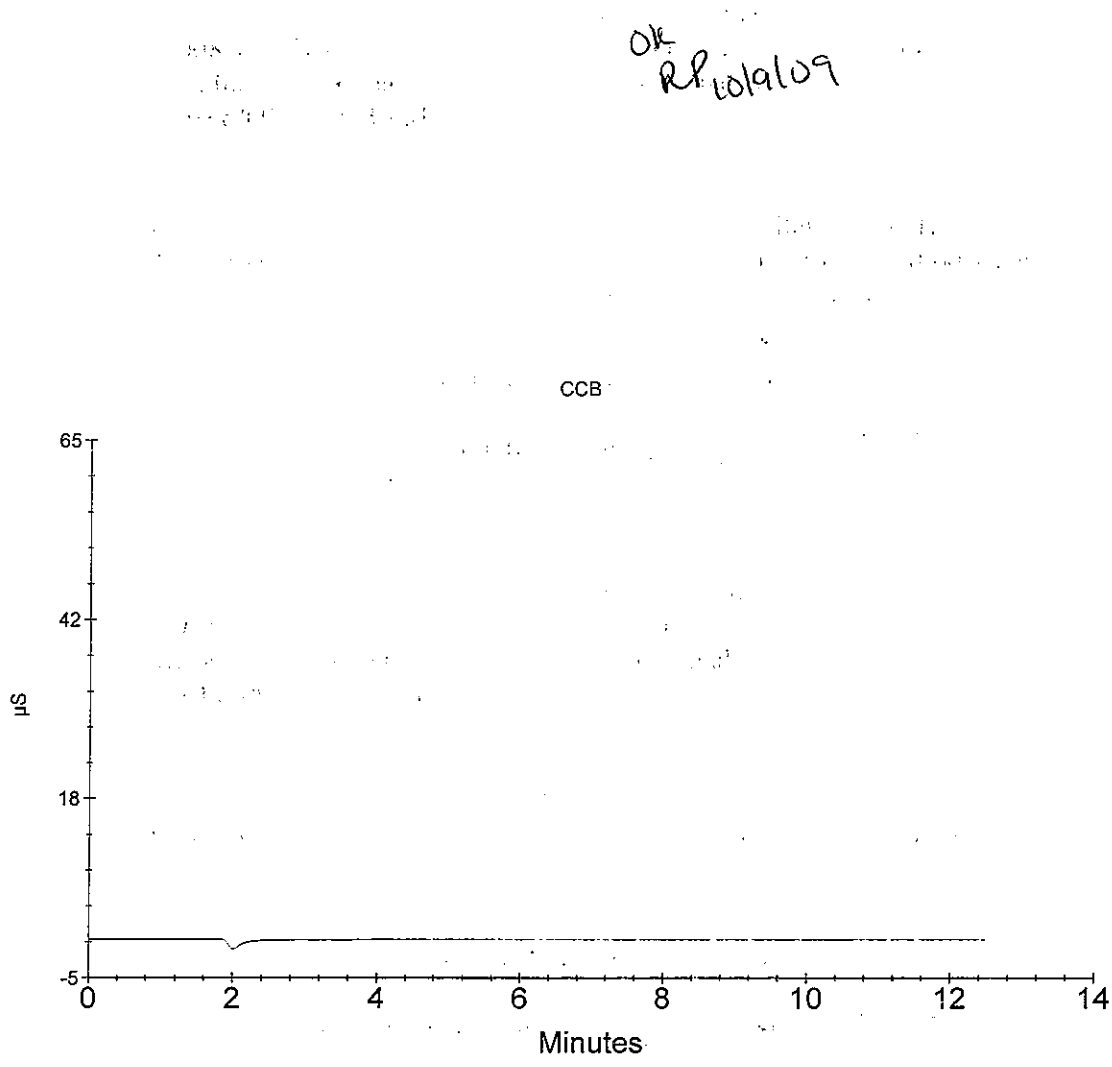
Detector Name :
Column ID : AS-14 / AG-14
Method Analyst :

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

Data Collection Rate : 5.00 Hz
Data Collection Period : 750.00 seconds
Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
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Sample Name : FD-3 *B0905707-008*
Data File Name : ...\\1008_015.DXD
Method File Name : ...\\500-091809.met
Date Time Collected : 10/8/09 2:27:02 PM

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

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

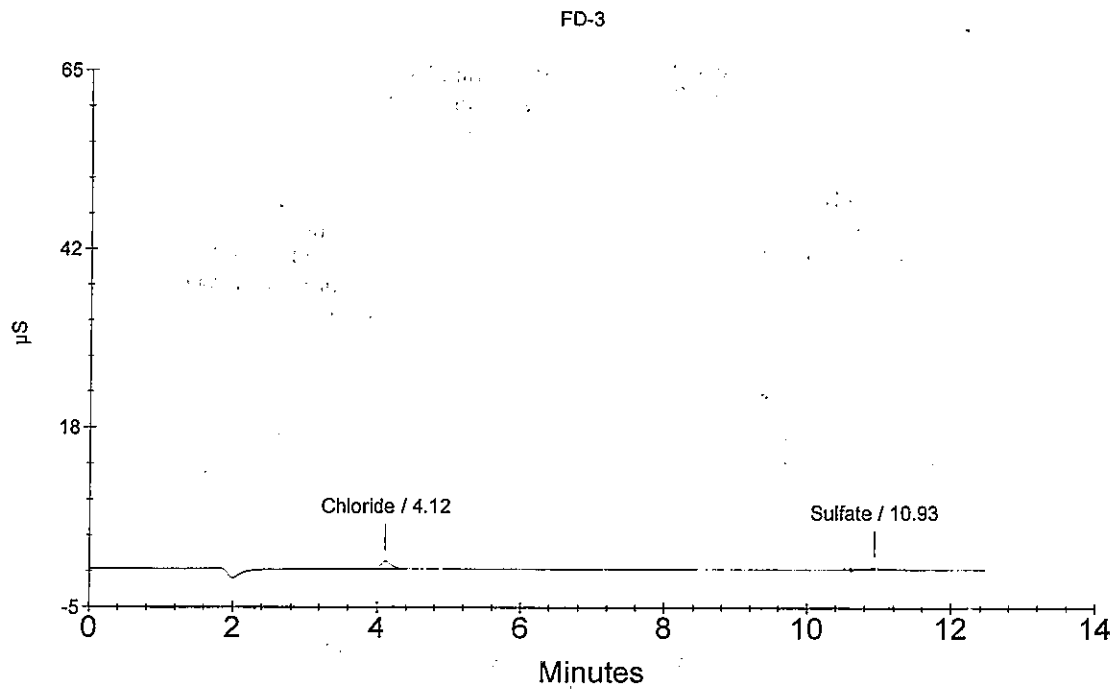
Data Collection Rate : 5.00 Hz
Data Collection Period : 750.00 seconds
Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	4.12	Chloride	6.290	103213
2	10.93	Sulfate	4.162	45360

NO₂ OK
NO₃ OK

RP 10/19/09



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Sample Name : FD-4 R0905707-009
 Data File Name : ...\\1008_016.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/8/09 2:41:50 PM

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

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

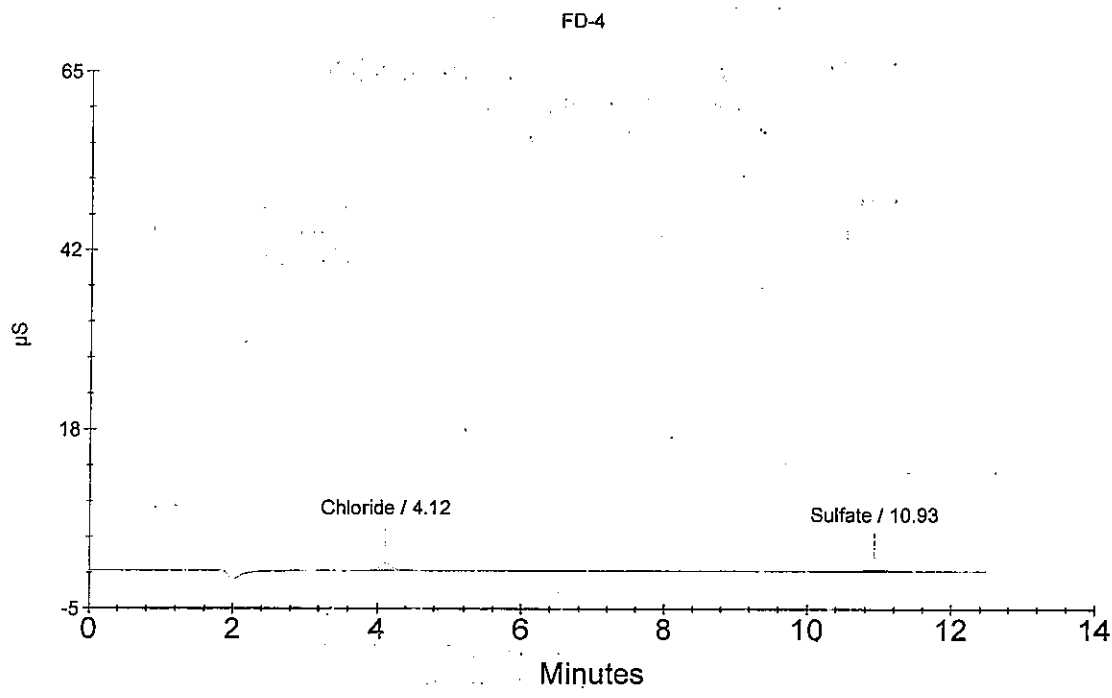
Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	4.12	Chloride	6.427	105869
2	10.93	Sulfate	4.382	48141

NO₂ OK
 NO₃ OK

RP 10/9/09



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Sample Name : FD-4 DUP *RD965707-009*
Data File Name : ...\\1008_017.DXD *DUP*
Method File Name : ...\\500-091809.met
Date Time Collected : 10/8/09 2:56:40 PM

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

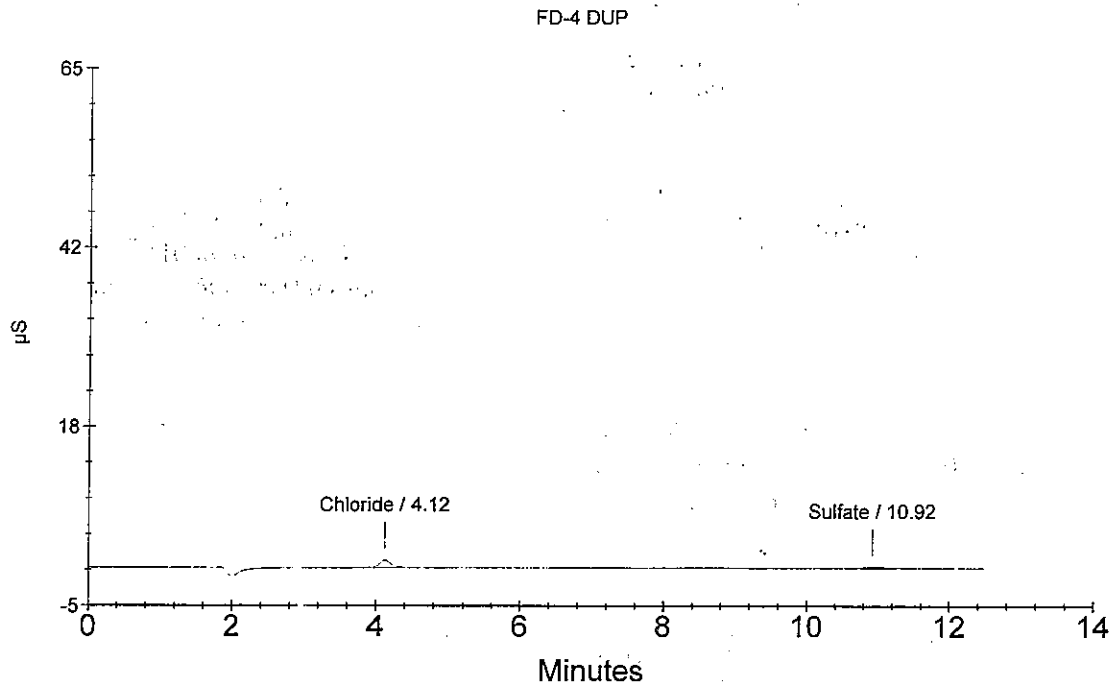
Dilution Factor : 10.00
Sample Type : Sample Analysis
Sample Comment : NN

Data Collection Rate : 5.00 Hz
Data Collection Period : 750.00 seconds
Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	4.12	Chloride	6.315	103692
2	10.92	Sulfate	4.242	46377

NO₂ OK
NO₃ OK
RP 10/9/09



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Sample Name : FD-4 SPK *R0905707-009*
 Data File Name : ...\\1008_018.DXD *SPK*
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/8/09 3:11:30 PM

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

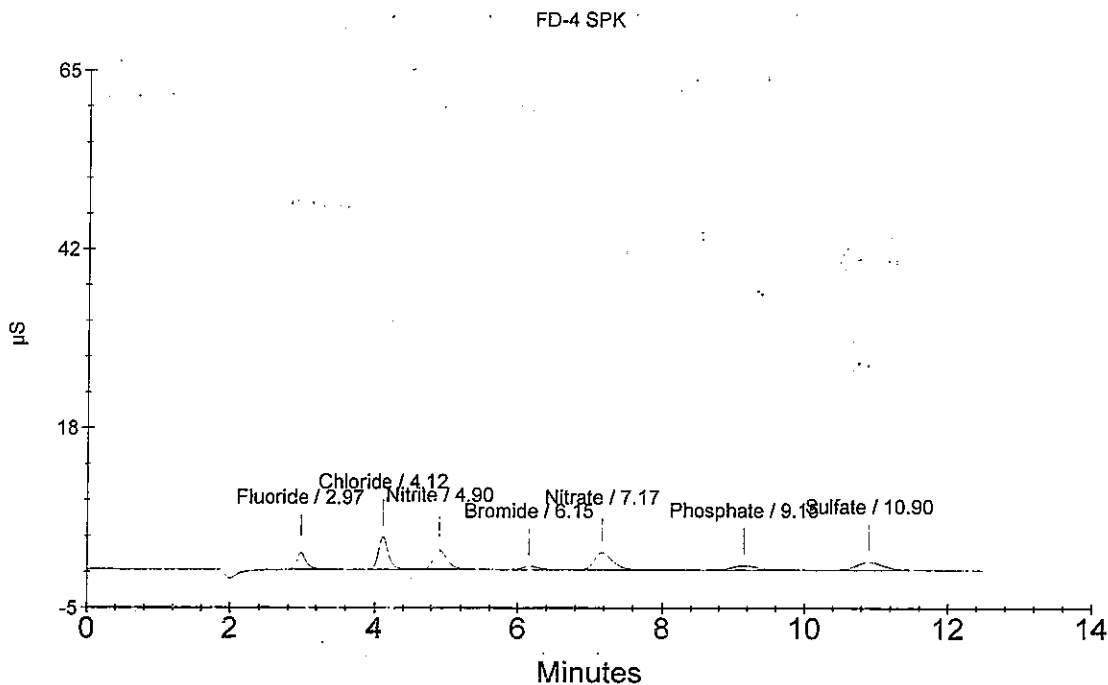
Dilution Factor : 10.00
 Sample Type : Sample Analysis
 Sample Comment : NN

Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.97	Fluoride	9.287	215282
2	4.12	Chloride	23.455	435284
3	4.90	Nitrite	<i>OK</i> 9.423	328554
4	6.15	Bromide	9.625	65777
5	7.17	Nitrate	<i>OK</i> 9.264	389881
6	9.15	Phosphate	9.768	137605
7	10.90	Sulfate	22.596	278770

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Sample Name : FD-5 *B0905707-010*
Data File Name : ...\\1008_019.DXD
Method File Name : ...\\500-091809.met
Date Time Collected : 10/8/09 3:26:17 PM

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

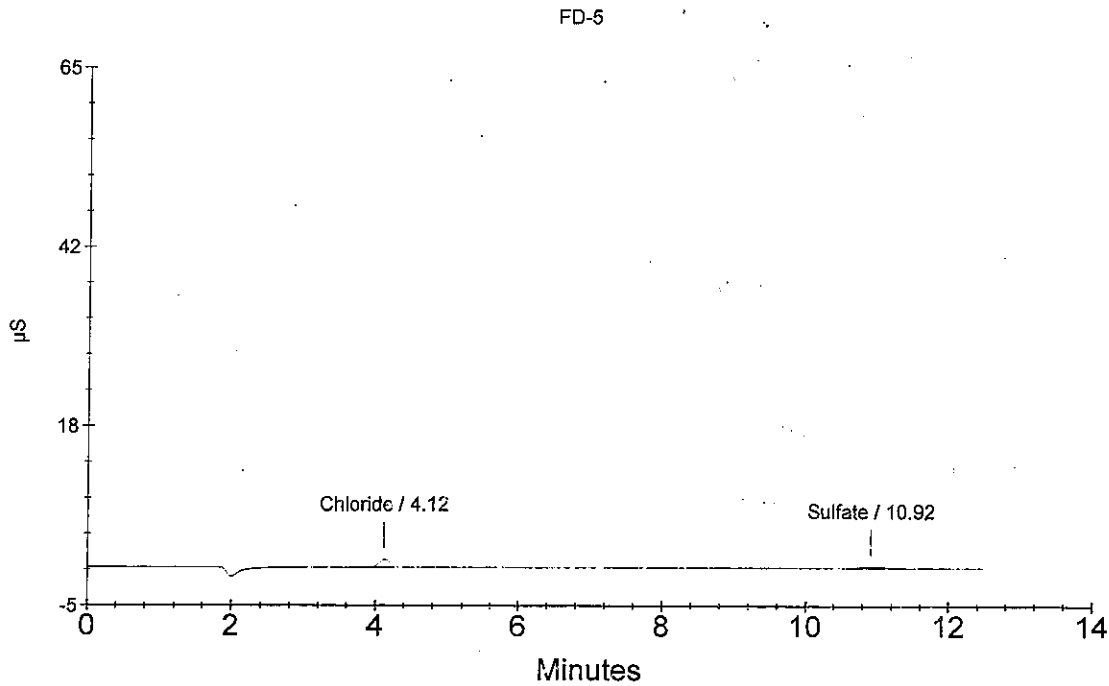
Dilution Factor : 10.00
Sample Type : Sample Analysis
Sample Comment : NN

Data Collection Rate : 5.00 Hz
Data Collection Period : 750.00 seconds
Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	4.12	Chloride	6.497	107210
2	10.92	Sulfate	4.492	49536

NO₂ OK
NO₃ OK
RP 10/9/09



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Sample Name : MB 9613-01
Data File Name : ...\\1008_020.DXD
Method File Name : ...\\500-091809.met
Date Time Collected : 10/8/09 3:41:06 PM

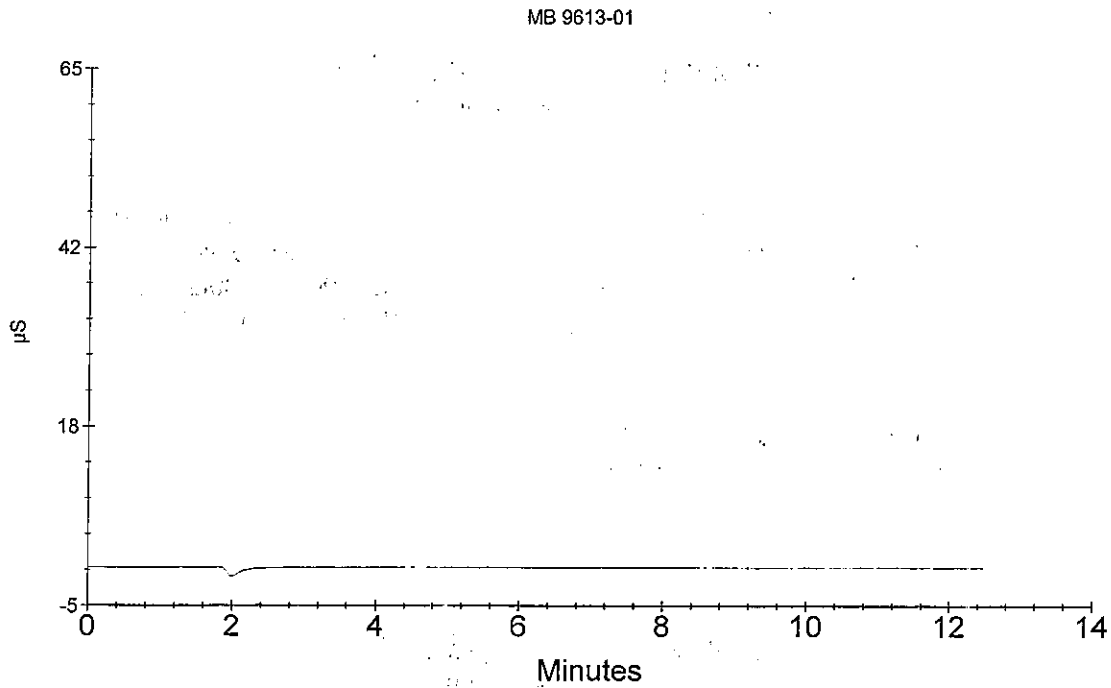
Detector Name :
Column ID : AS-14 / AG-14
Method Analyst :

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

Data Collection Rate : 5.00 Hz
Data Collection Period : 750.00 seconds
Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
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Sample Name : LCS EXTRACTION
 Data File Name : ...\\1008_021.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/8/09 3:55:55 PM

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

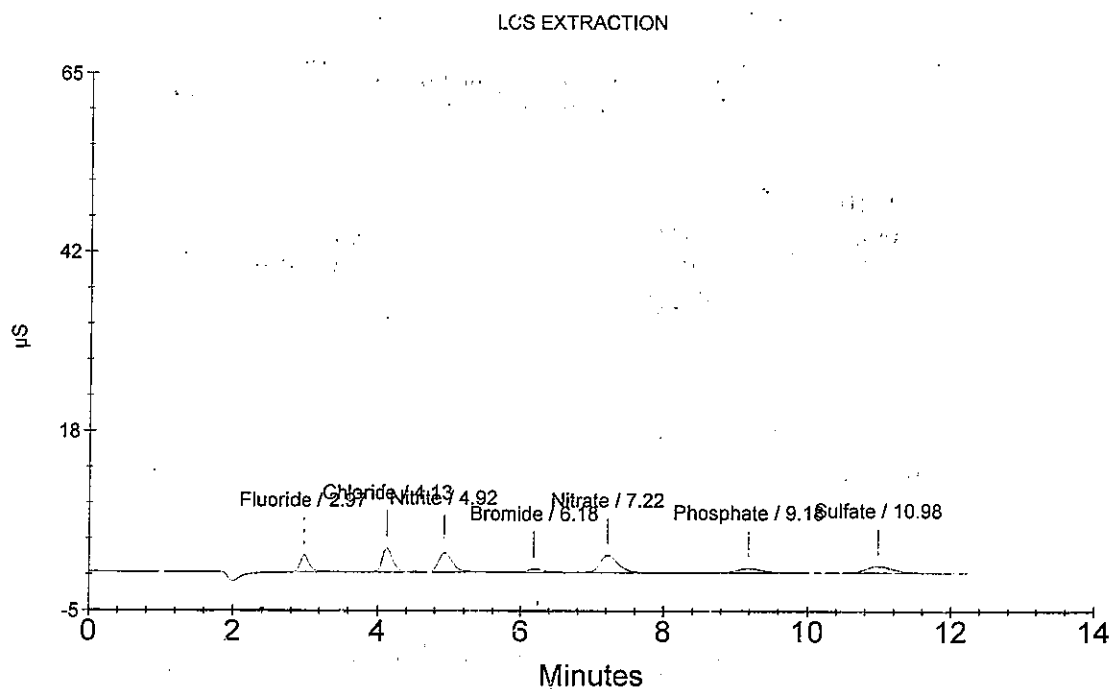
Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment :

Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.97	Fluoride	OK 0.948	220131
2	4.13	Chloride	1.821	333899
3	4.92	Nitrite	0.970	338976
4	6.18	Bromide	0.992	67877
5	7.22	Nitrate	0.942	397107
6	9.18	Phosphate	1.013	142947
7	10.98	Sulfate	1.950	239567

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Sample Name : R0905348-003
 Data File Name : ...\\1008_022.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/8/09 4:10:44 PM

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

Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment : CBNS (EXT)

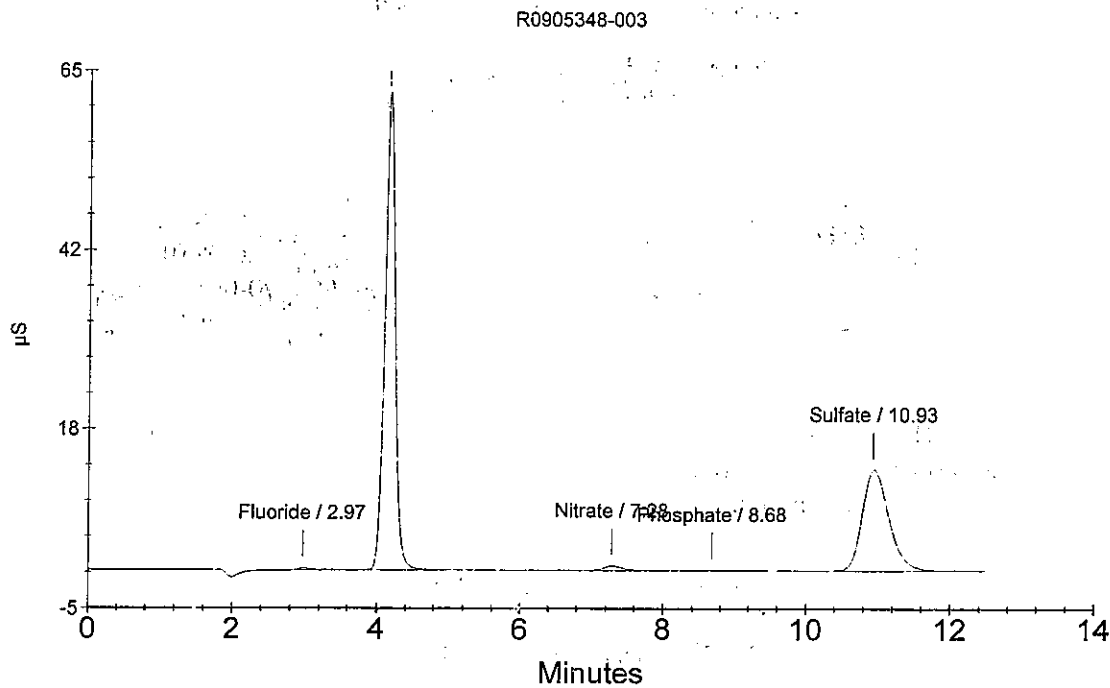
Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.97	Fluoride	0.170	24148
2	4.17	Chloride	1/4 32.936	6353505
3	7.28	Nitrate	OK 0.286	99767
4	8.68	Phosphate	0.121	9989
5	10.93	Sulfate	1/4 26.696	3372932

Br OK

R0905348-003



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Sample Name : R0905348-003 DUP
 Data File Name : ...\\1008_023.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/8/09 4:25:33 PM

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

Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment : CBNS (EXT)

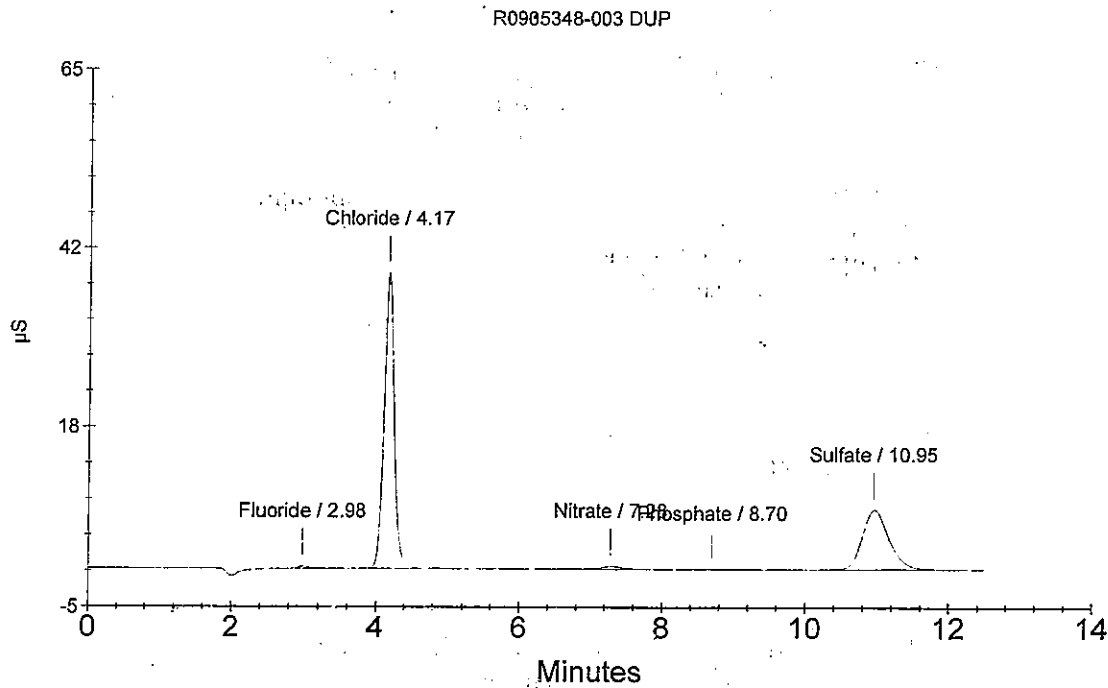
Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.98	Fluoride	0.191	29264
2	4.17	Chloride	$\frac{1}{4}$ 20.052	3860774
3	7.28	Nitrate	OK 0.214	67471
4	8.70	Phosphate	0.093	5790
5	10.95	Sulfate	$\frac{1}{2}$ 15.895	2005356

Br OK

RP 10/9/09



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Sample Name : R0905348-003 SPK
 Data File Name : ...\\1008_024.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/8/09 4:40:23 PM

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

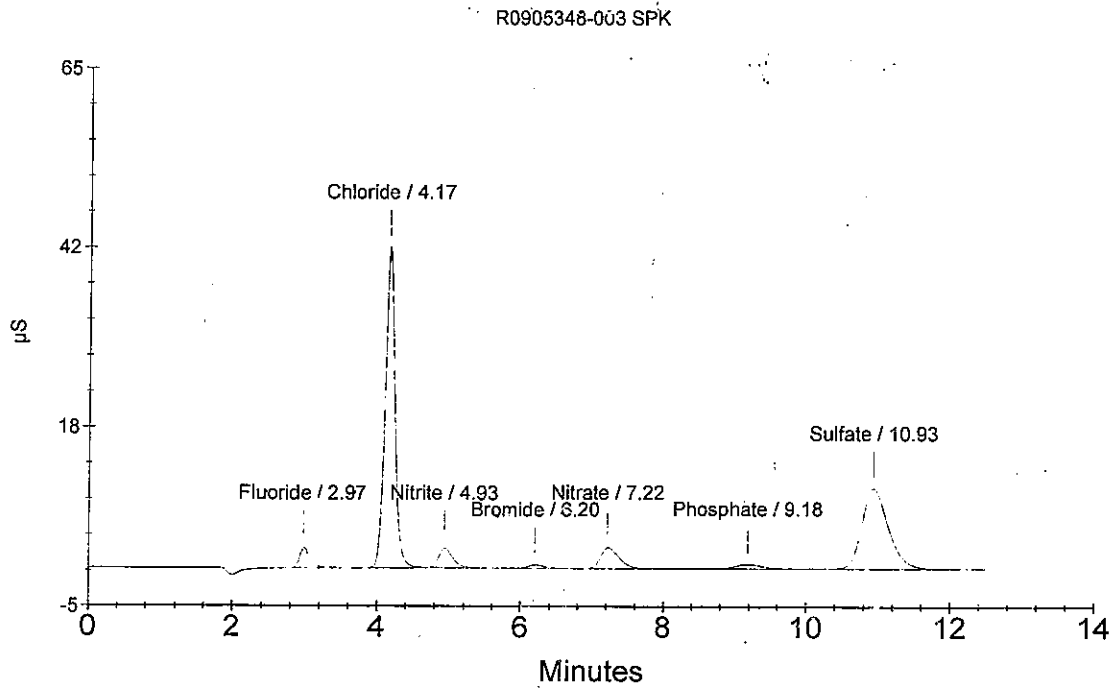
Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment : CBNS (EXT)

Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.97	Fluoride	1.094	256935
2	4.17	Chloride	21.691	4177925
3	4.93	Nitrite	0.970	339112
4	6.20	Bromide	1.028	70501
5	7.22	Nitrate	1.126	480302
6	9.18	Phosphate	0.960	135148
7	10.93	Sulfate	21.212	2678611

RP 109109



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Sample Name : CCV
 Data File Name : ...\1008 025.DXD
 Method File Name : ...\500-091809.met
 Date Time Collected : 10/8/09 4:55:12 PM

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

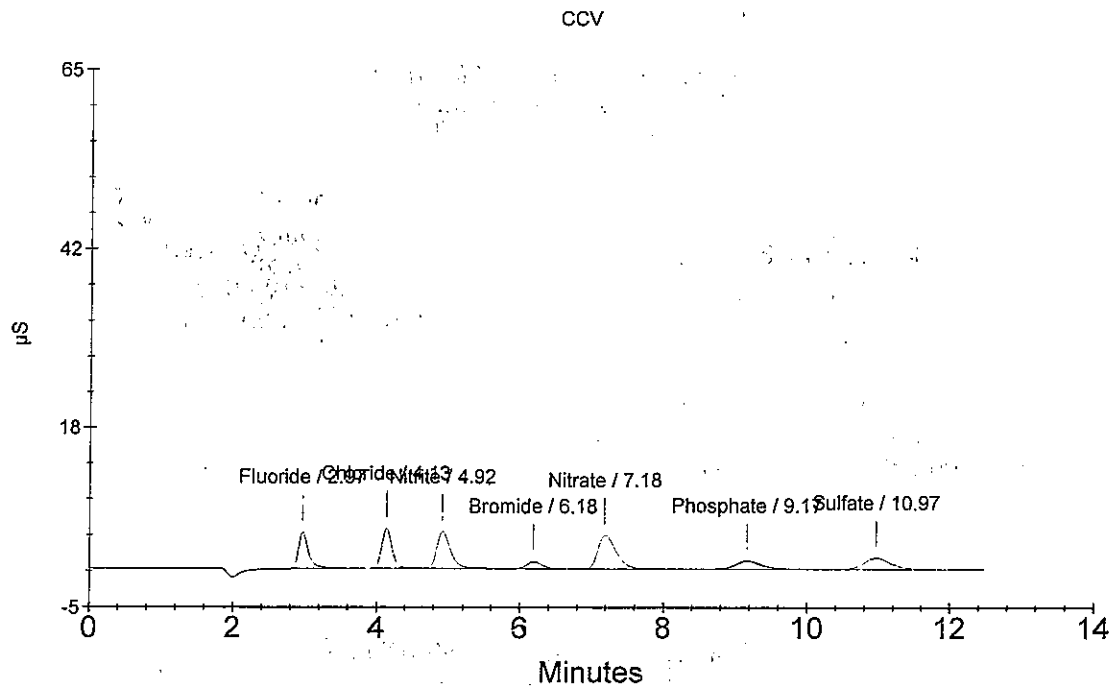
Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment :

Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.97	Fluoride	OK 1.884	456174
2	4.13	Chloride	2.914	545328
3	4.92	Nitrite	1.769	640284
4	6.18	Bromide	1.999	140283
5	7.18	Nitrate	1.781	777002
6	9.17	Phosphate	1.822	263745
7	10.97	Sulfate	3.148	391280

RP 10/9/09



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Sample Name : CCB
Data File Name : ...\\1008_026.DXD
Method File Name : ...\\500-091809.met
Date Time Collected : 10/8/09 5:10:01 PM

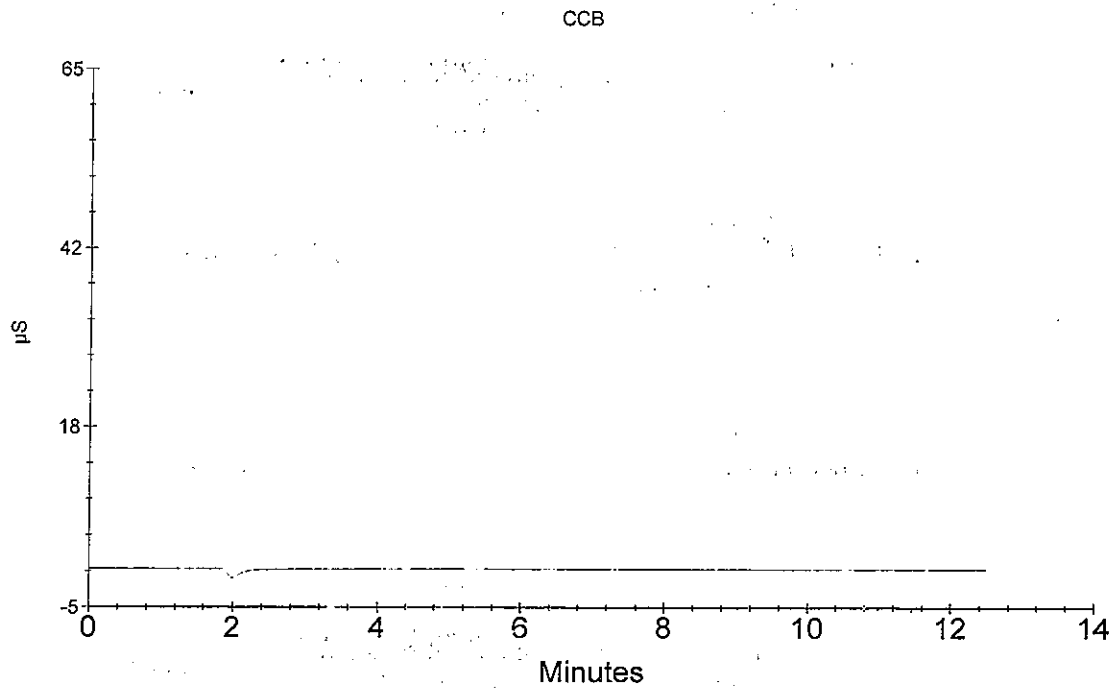
Detector Name :
Column ID : AS-14 / AG-14
Method Analyst :

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

Data Collection Rate : 5.00 Hz
Data Collection Period : 750.00 seconds
Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
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Sample Name : LCS
 Data File Name : ...\\1008_027.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/8/09 5:24:51 PM

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

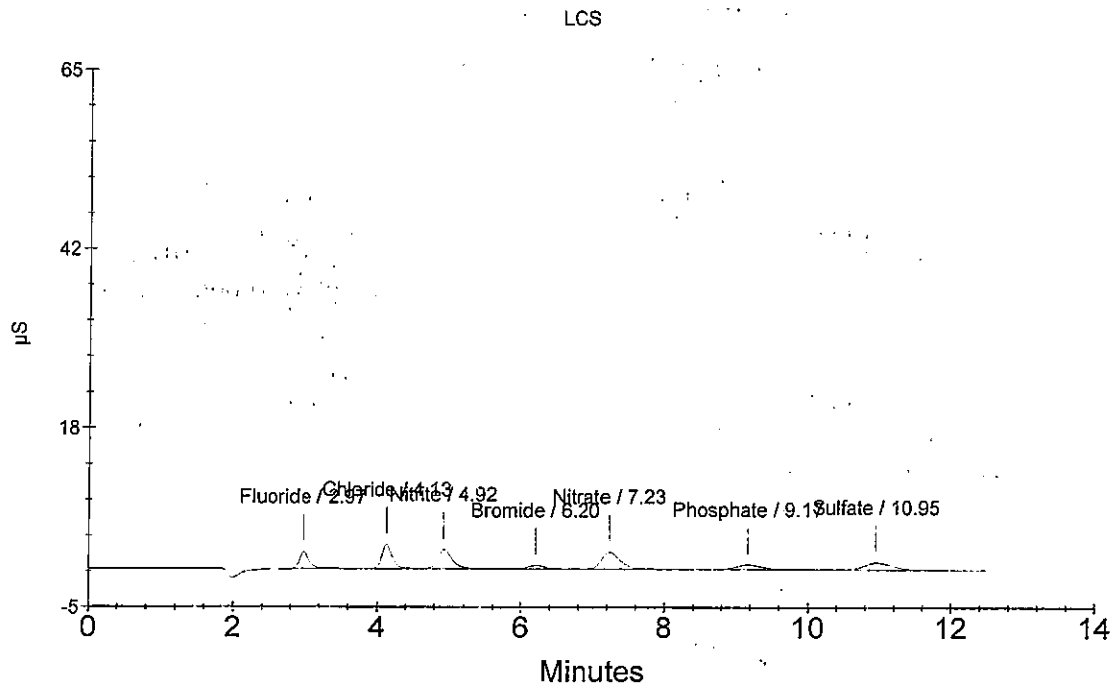
Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment :

Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.97	Fluoride	0.951	220875
2	4.13	Chloride	1.825	334667
3	4.92	Nitrite	0.973	340222
4	6.20	Bromide	0.984	67351
5	7.23	Nitrate	0.942	397028
6	9.17	Phosphate	1.022	144306
7	10.95	Sulfate	2.014	247646

RP 10/9/09



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Sample Name : R0905387-002
 Data File Name : ...\\1008_028.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/8/09 5:39:40 PM

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

Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment : CBNS (EXT)

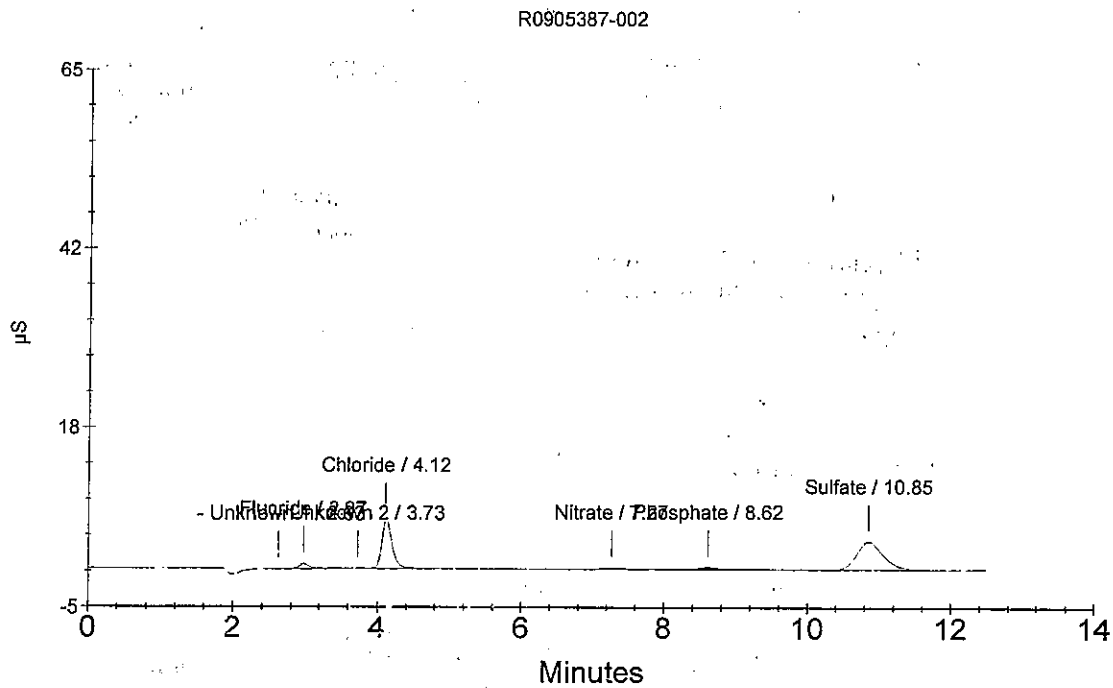
Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
2	2.97	Fluoride	0.357	71157
4	4.12	Chloride	OK 3.408	640904
5	7.27	Nitrate	OK 0.135	31600
6	8.62	Phosphate	0.347	43571
7	10.85	Sulfate	OK 7.486	940522

BROK

R0905387-002



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Sample Name : R0905387-002 DUP AT IC
 Data File Name : ...\\1008_029.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/8/09 5:54:30 PM

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

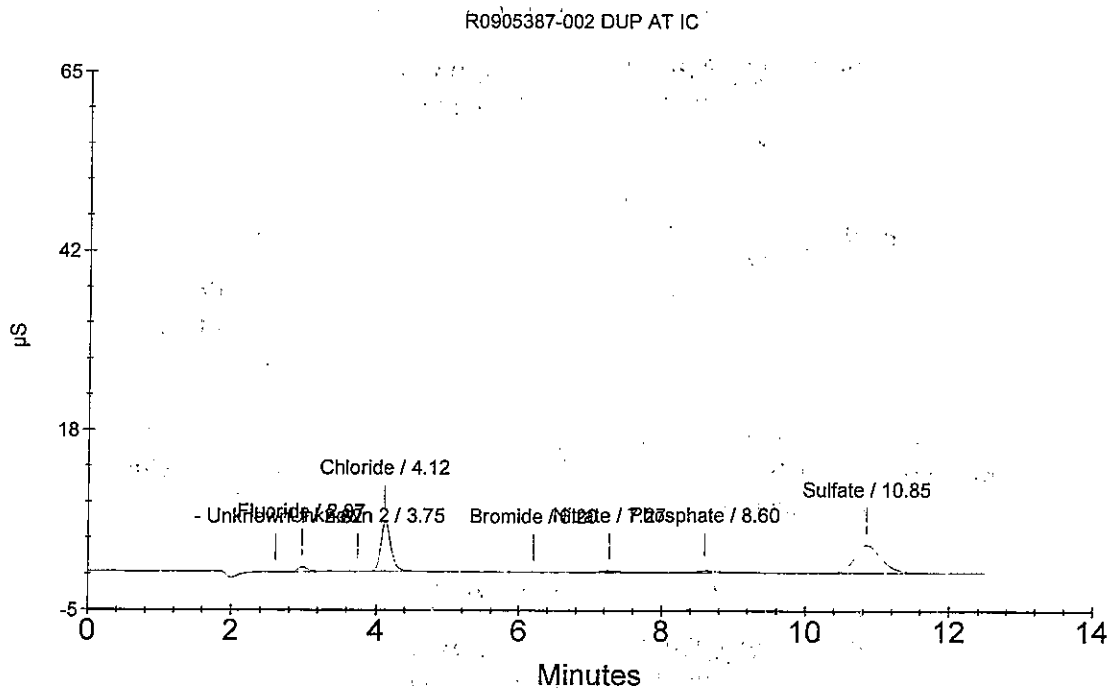
Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment : CBNS (EXT)

Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
2	2.97	Fluoride	0.355	70788
4	4.12	Chloride	OK 3.427	644536
5	6.20	Bromide	OK 0.081	2367
6	7.27	Nitrate	OK 0.142	34629
7	8.60	Phosphate	0.344	43184
8	10.85	Sulfate	OK 7.493	941481

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Sample Name : R0905387-002 SPK AT IC
 Data File Name : ...\\1008_030.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/8/09 6:09:19 PM

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

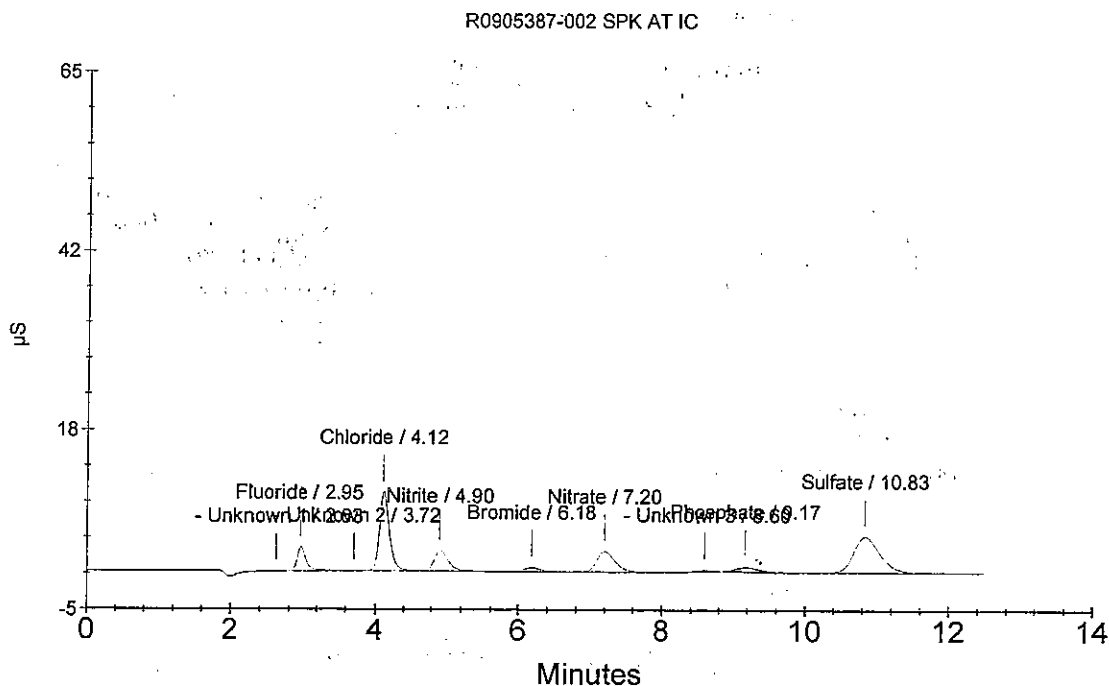
Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment : CBNS (EXT)

Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
2	2.95	Fluoride	1.284	304773
4	4.12	Chloride	OK 5.410	1028235 100%
5	4.90	Nitrite	0.998	349680
6	6.18	Bromide	OK 1.073	73747 107%
7	7.20	Nitrate	OK 1.075	457376 94%
9	9.17	Phosphate	0.855	119463
10	10.83	Sulfate	OK 9.506	1196387 101%

R.R. 10/9/09



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Sample Name : R0905387-003
 Data File Name : ...\\1008_031.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/8/09 6:24:08 PM

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

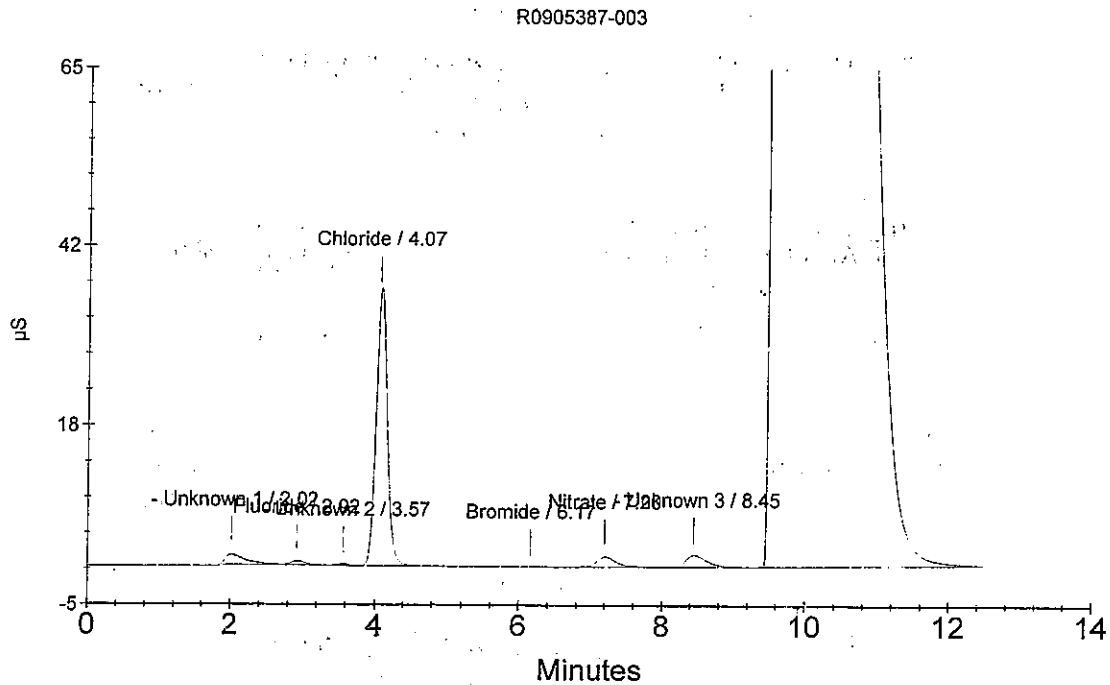
Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment : CBNS (EXT)

Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
2	2.92	Fluoride	0.330	64457
4	4.07	Chloride	1/4 20.679	3982201
5	6.17	Bromide	OK 0.129	5877
6	7.20	Nitrate	OK 0.606	245022
8	9.70	Phosphate	1/400 2014.278	300517053

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Sample Name : R0905387-004
 Data File Name : ...\\1008_032.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/8/09 6:38:55 PM

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

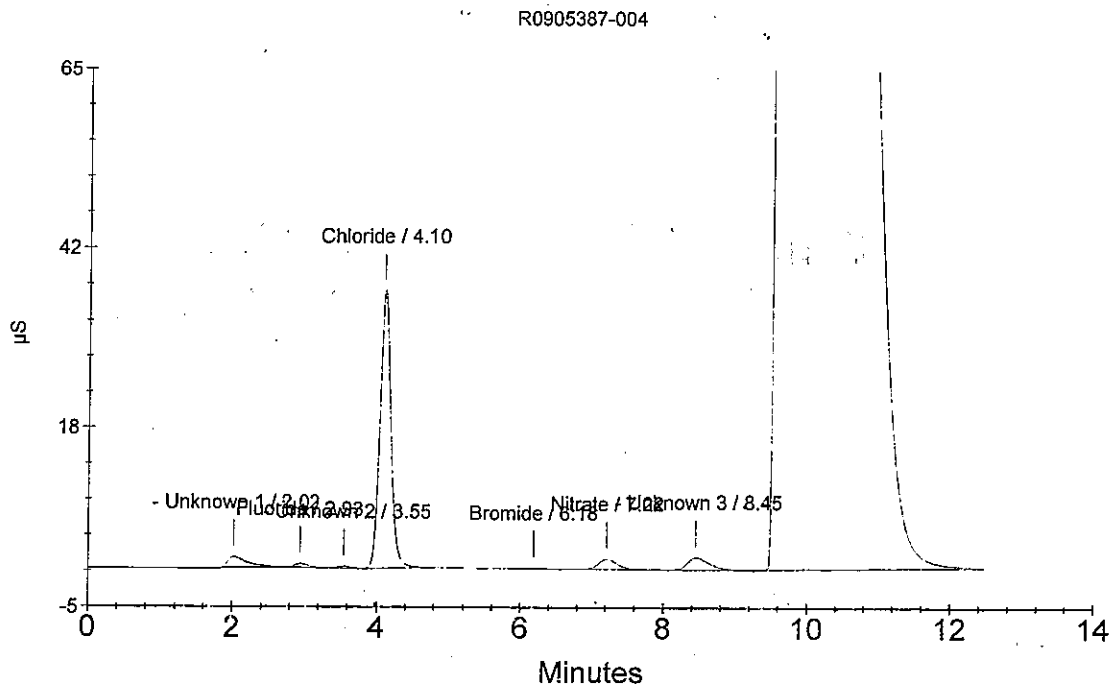
Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment : CBNS (EXT)

Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
2	2.93	Fluoride	0.327	63507
4	4.10	Chloride	$\frac{1}{4}$ 20.537	3954764
5	6.18	Bromide	OK 0.133	6167
6	7.22	Nitrate	OK 0.577	231810
8	9.73	Phosphate	$\frac{1}{400}$ 1959.803	292389527

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Sample Name : R0905387-005
 Data File Name : ...\\1008_033.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/8/09 6:53:45 PM

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

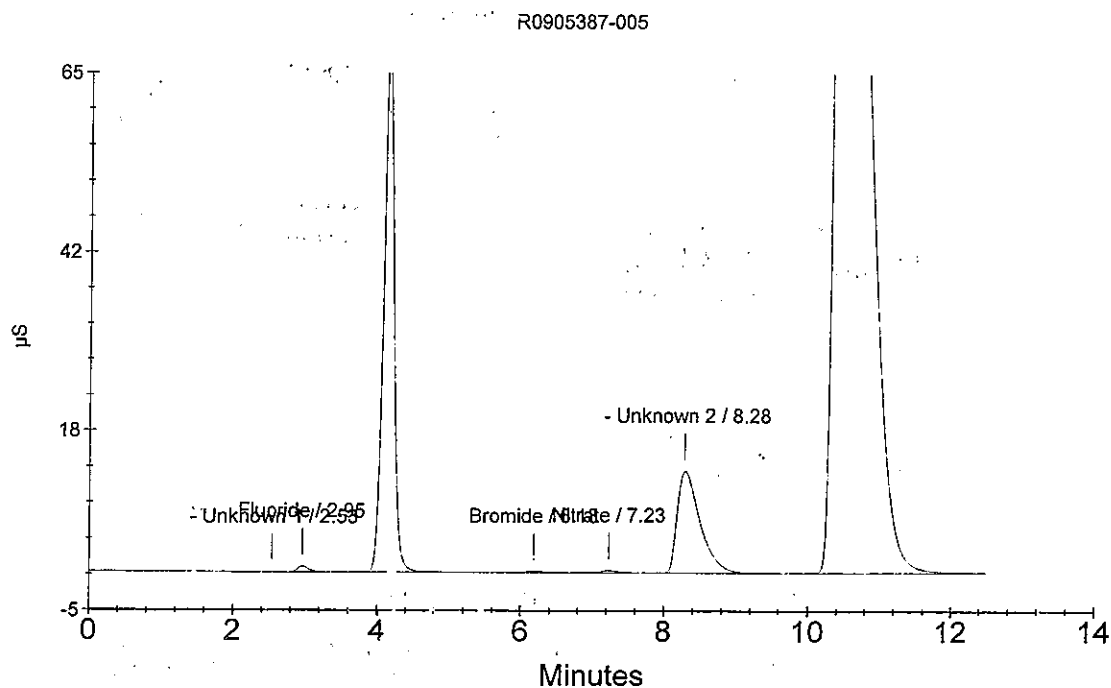
Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment : CBNS (EXT)

Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
2	2.95	Fluoride	0.466	98775
3	4.13	Chloride	1/4 37.841	7302323
4	6.18	Bromide	OK 0.449	28886
5	7.23	Nitrate	OK 0.181	52415
7	10.50	Sulfate	1/40 350.037	44315060

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Sample Name : R0905387-006
 Data File Name : ...\\1008_034.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/8/09 7:08:34 PM

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

Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment : CBNS (EXT)

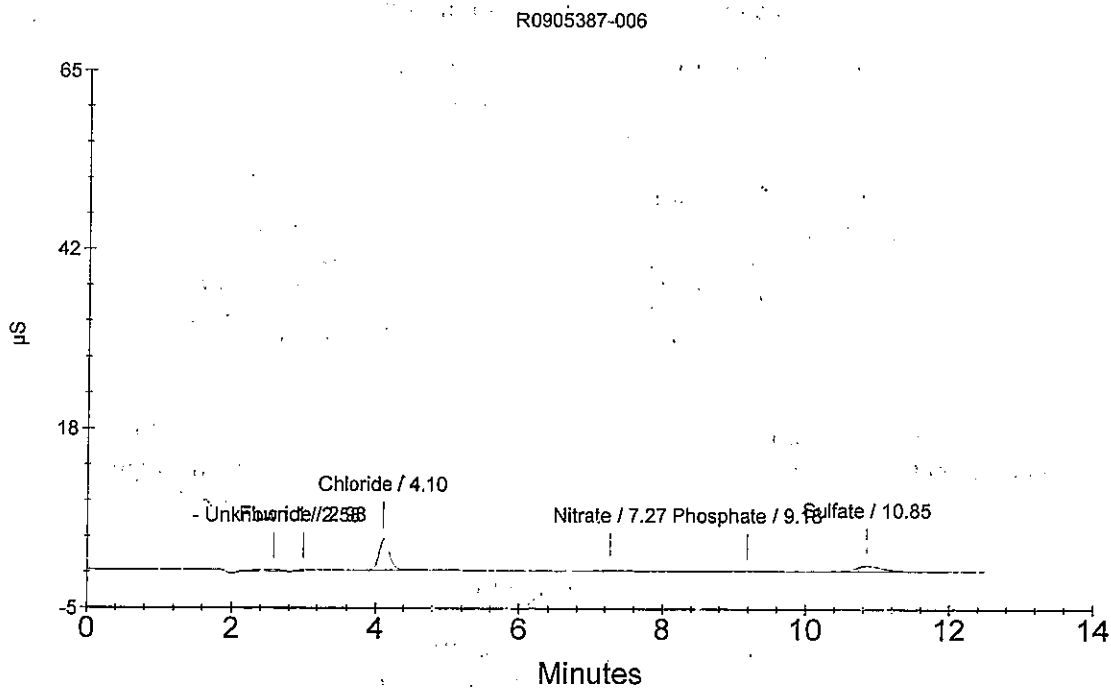
Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
2	2.98	Fluoride	0.156	20623
3	4.10	Chloride	OK 2.387	443313
4	7.27	Nitrate	OK 0.086	9392
5	9.18	Phosphate	0.089	5083
6	10.85	Sulfate	OK 1.633	199397

Br ok

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Sample Name : R0905387-007
 Data File Name : ...\\1008_035.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/8/09 7:23:24 PM

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

Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment : CBNS (EXT)

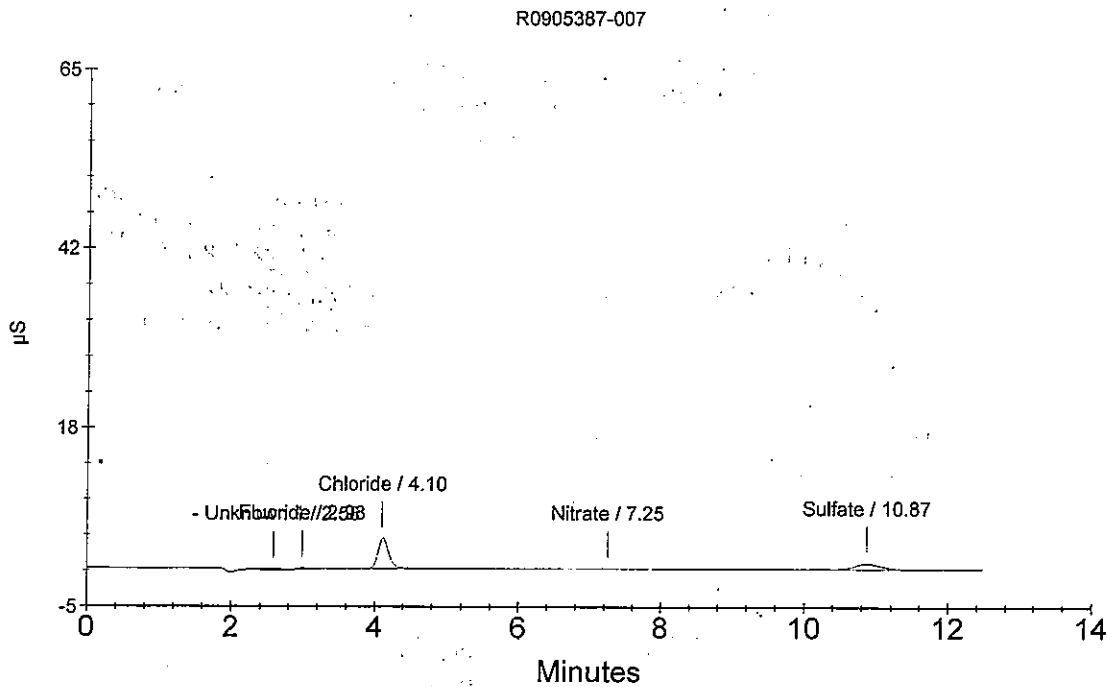
Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
2	2.98	Fluoride	0.145	17620
3	4.10	Chloride	OK 2.290	424549
4	7.25	Nitrate	OK 0.087	9723
5	10.87	Sulfate	OK 1.592	194225

BI OK

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Sample Name : R0905387-008
 Data File Name : ...\\1008_036.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/8/09 7:38:12 PM

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

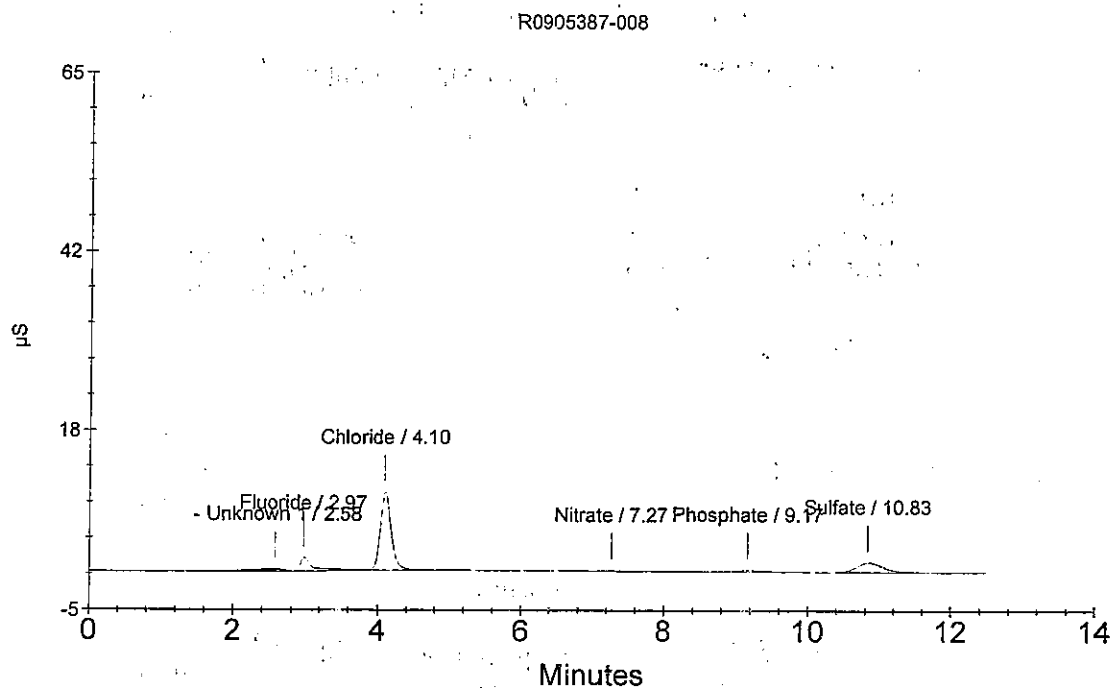
Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment : CBNS (EXT)

Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
2	2.97	Fluoride	0.952	221101
3	4.10	Chloride	OK 5.695	1083216
4	7.27	Nitrate	OK 0.090	11204
5	9.17	Phosphate	0.362	45949
6	10.83	Sulfate	OK 2.626	325134

Br OK
 RP 10/9/09



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Sample Name : CCV
 Data File Name : ...\\1008_037.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/8/09 7:53:02 PM

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

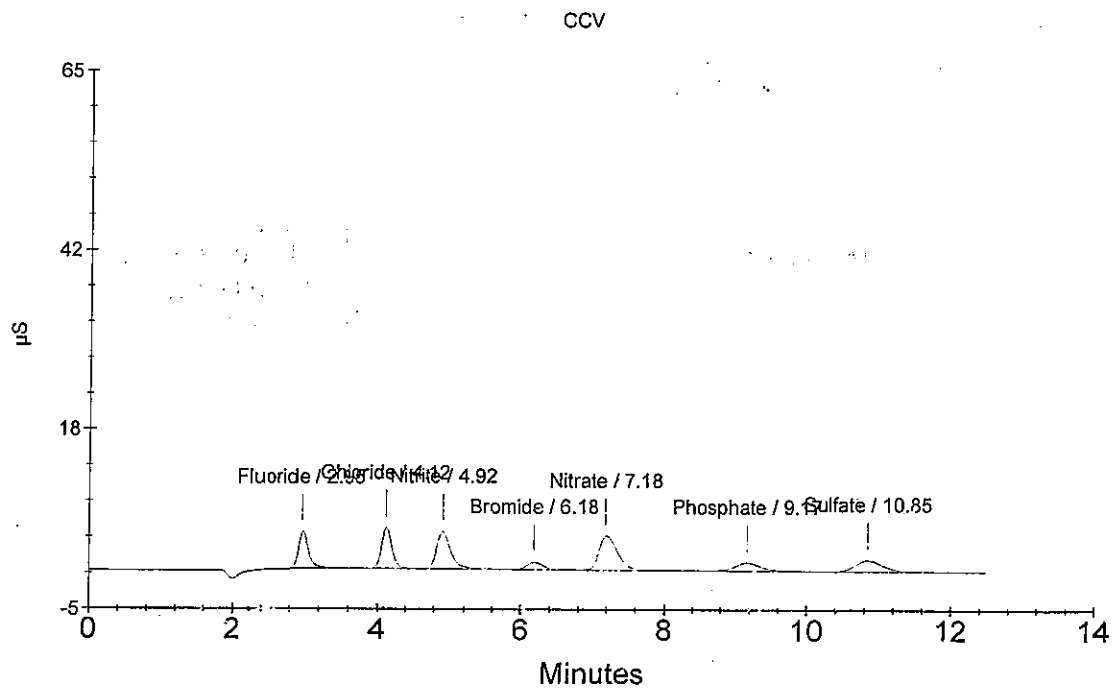
Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment :

Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.95	Fluoride	OK 1.886	456532
2	4.12	Chloride	2.948	551790
3	4.92	Nitrite	1.792	649006
4	6.18	Bromide	2.018	141673
5	7.18	Nitrate	1.796	783500
6	9.17	Phosphate	1.827	264484
7	10.85	Sulfate	3.140	390249

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Sample Name : CCB
Data File Name : ...\\1008_038.DXD
Method File Name : ...\\500-091809.met
Date Time Collected : 10/8/09 8:07:51 PM

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

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

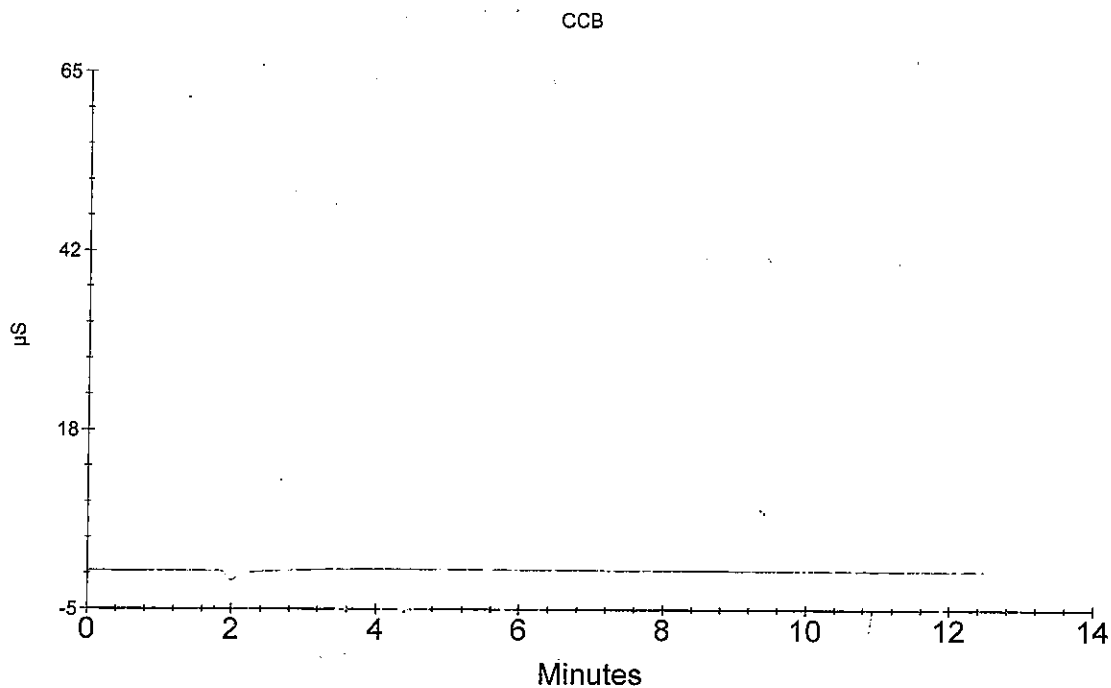
Data Collection Rate : 5.00 Hz
Data Collection Period : 750.00 seconds
Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
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Chloride

OK
RP 10/9/09



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Sample Name : R0905387-009
 Data File Name : ...\\1008_039.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/8/09 8:22:39 PM

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

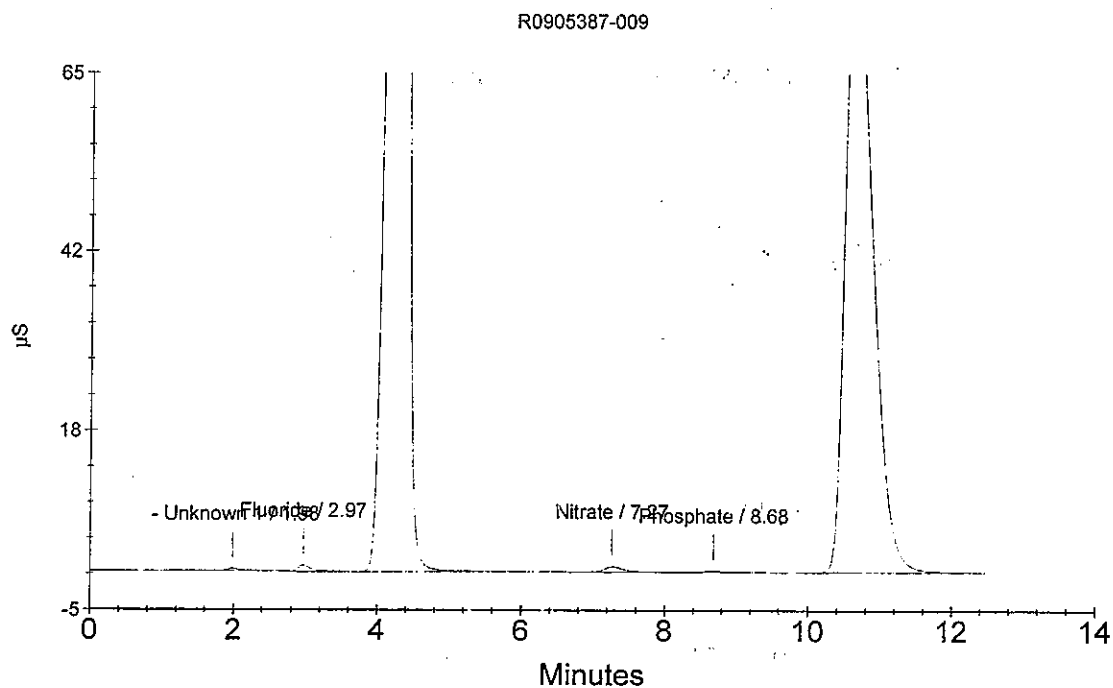
Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment : CBNS (EXT)

Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
2	2.97	Fluoride	0.579	127020
3	4.33	Chloride	1/40 226.804	43859865
4	7.27	Nitrate	OK 0.338	123385
5	8.68	Phosphate	0.239	27459
6	10.63	Sulfate	1/20 168.242	21295807

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 RP
 10/9/09



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Sample Name : R0905387-011
 Data File Name : ...\\1008_040.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/8/09 8:37:29 PM

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

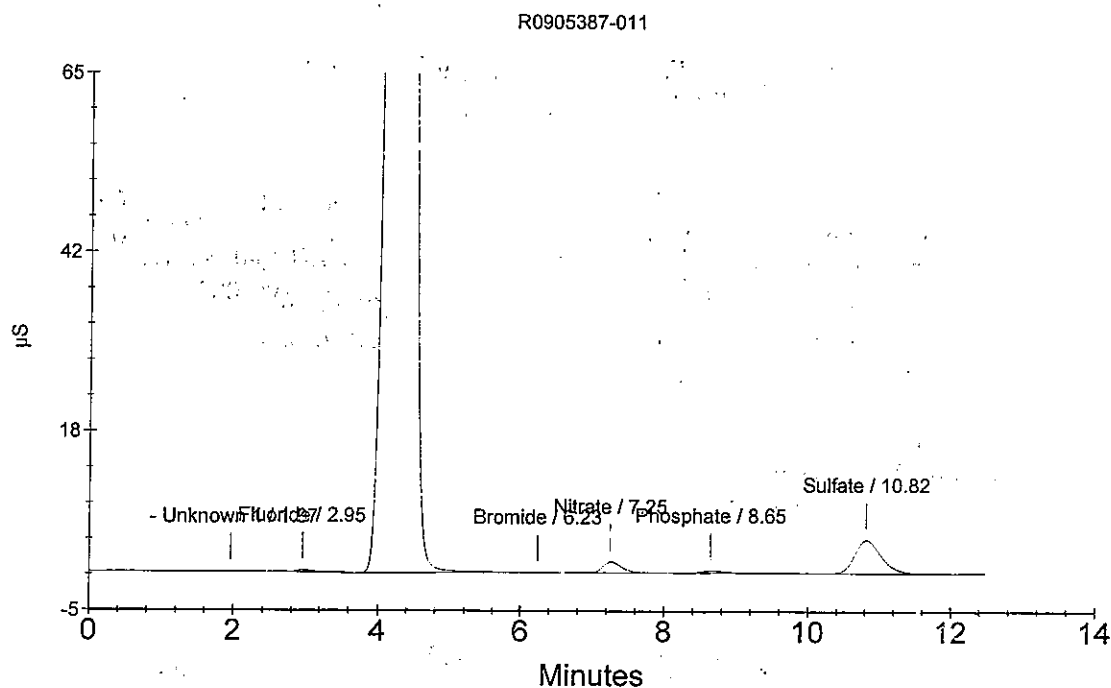
Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment : CBNS (EXT)

Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
2	2.95	Fluoride	0.364	73027
3	4.40	Chloride	1/40 345.138	66753129
4	6.23	Bromide	OK 0.092	3220
5	7.25	Nitrate	OK 0.640	260179
6	8.65	Phosphate	0.430	56075
7	10.82	Sulfate	OK 9.017	1134432

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Sample Name : R0905387-012
 Data File Name : ...\\1008_041.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/8/09 8:52:19 PM

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

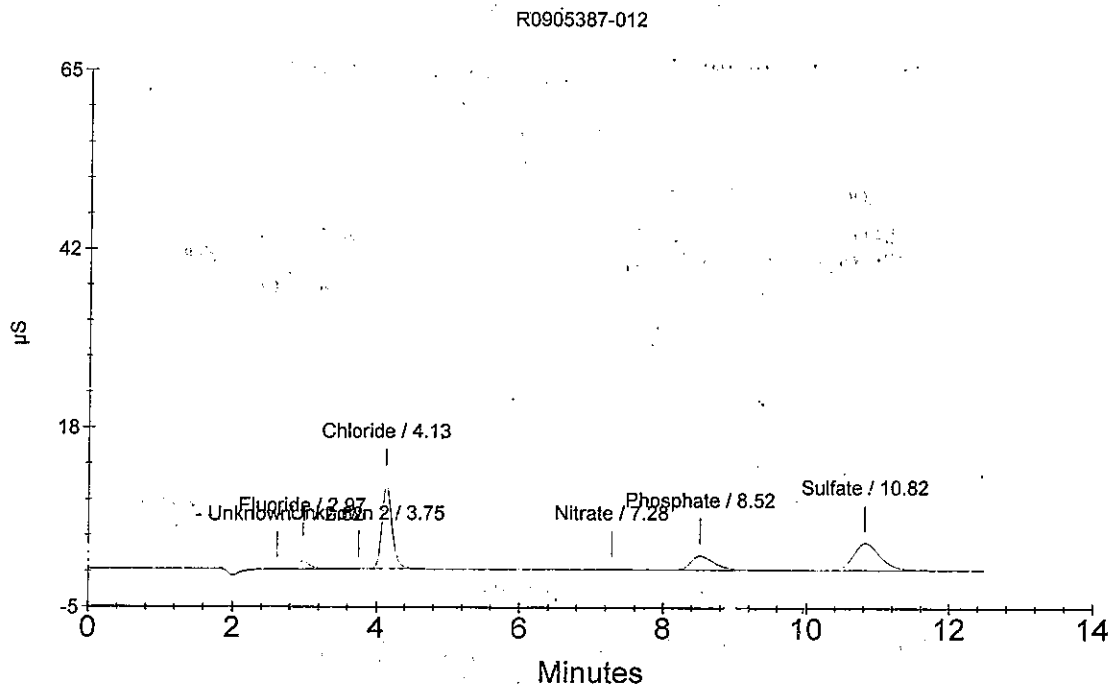
Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment : CBNS (EXT)

Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
2	2.97	Fluoride	0.555	120967
4	4.13	Chloride	OK 5.680	1080422
5	7.28	Nitrate	OK 0.114	21990
6	8.52	Phosphate	2.773	405553
7	10.82	Sulfate	OK 7.310	918324

Br OK
 RP 10/19/09



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Sample Name : R0905387-013
 Data File Name : ...\\1008_042.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/8/09 9:07:06 PM

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

Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment : CBNS (EXT)

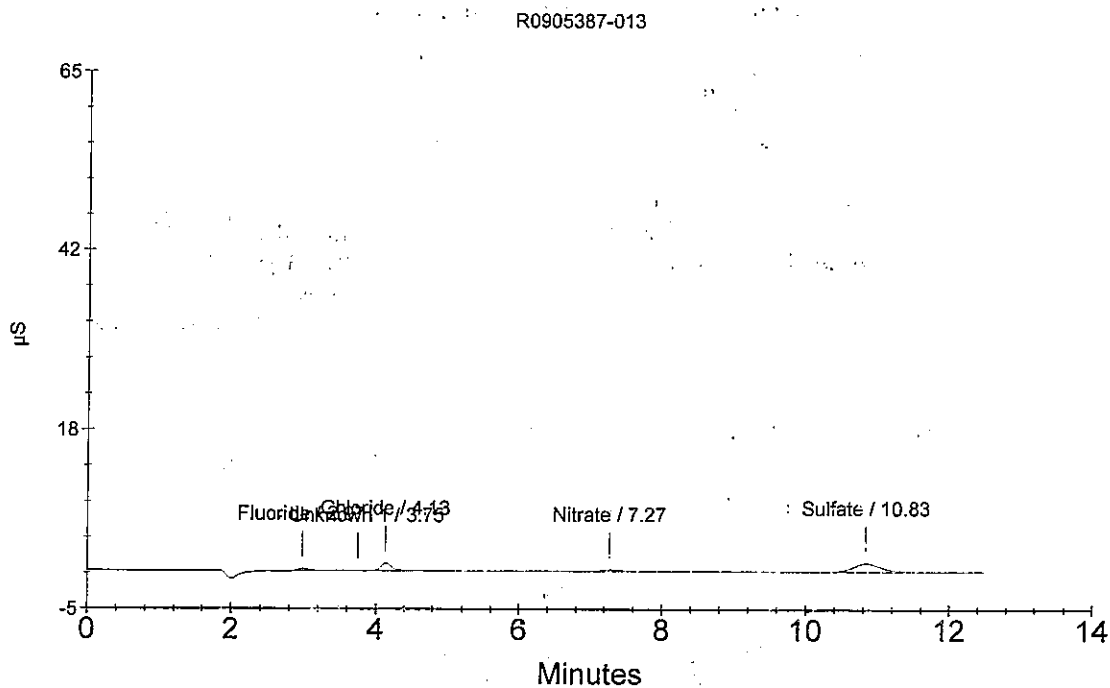
Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.97	Fluoride	0.188	28495
3	4.13	Chloride	OK 0.628	102985
4	7.27	Nitrate	OK 0.143	35170
5	10.83	Sulfate	OK 2.335	288301

Br OK

RP 10/19/09



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Sample Name : R0905387-014
 Data File Name : ...\\1008_043.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/8/09 9:21:54 PM

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

Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment : CBNS (EXT)

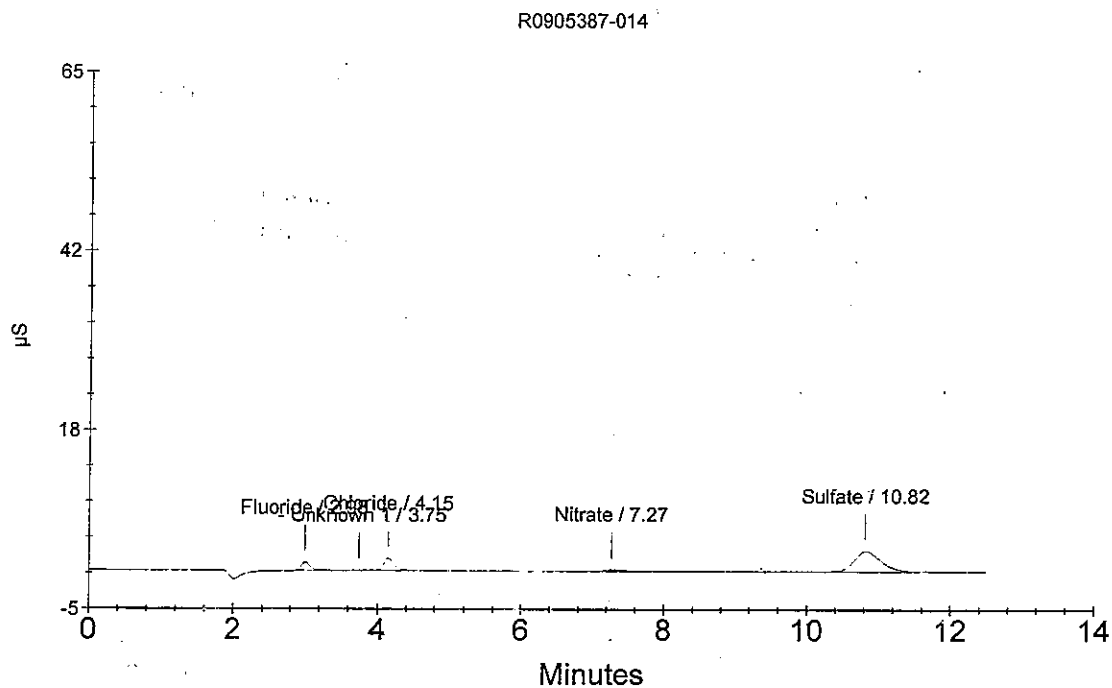
Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.98	Fluoride	0.491	104937
3	4.15	Chloride	OK 0.929	161268
4	7.27	Nitrate	OK 0.145	36030
5	10.82	Sulfate	OK 5.423	679354

Br OK

RP 10/9/09



Ion Chromatography Analytical Report
 Columbia Analytical Services
 Rochester, NY 14607

Sample Name : R0905387-015
 Data File Name : ...\\1008_044.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/8/09 9:36:43 PM

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

Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment : CBNS (EXT)

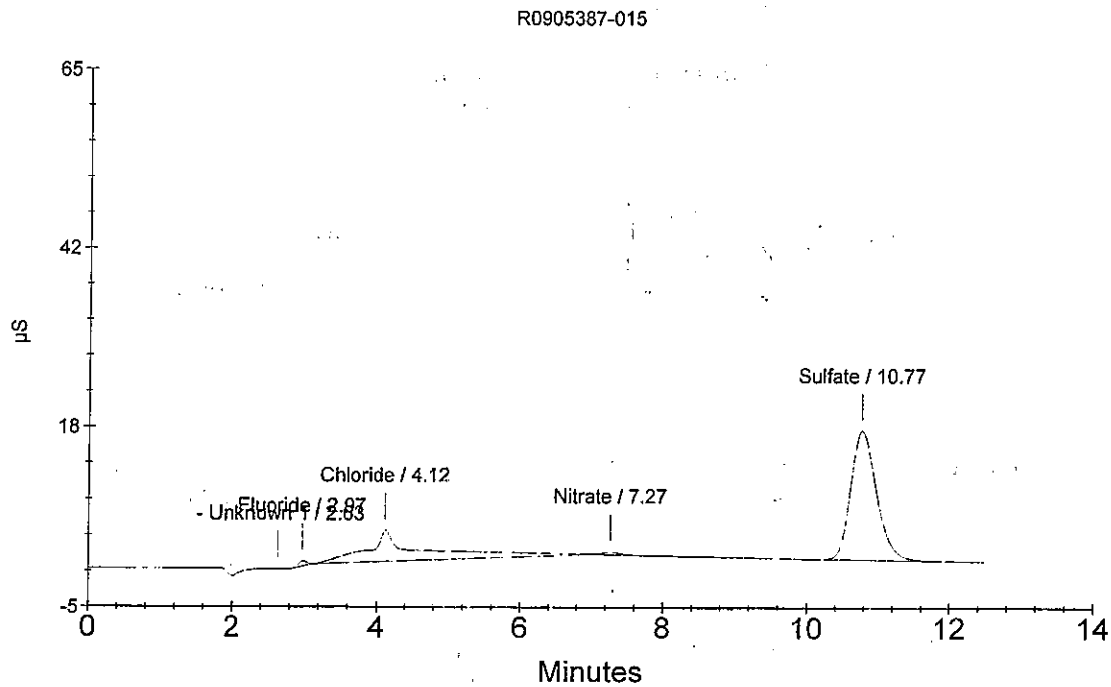
Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
2	2.97	Fluoride	0.265	47991
3	4.12	Chloride	STR 11.025	2114395
4	7.27	Nitrate	OK 0.173	48672
5	10.77	Sulfate	1/4 33.405	4222490

Br ~~OK~~ STR

RP 10/9/09



. Ion Chromatography Analytical Report
 Columbia Analytical Services
 Rochester, NY 14607

Sample Name : BLK0929
 Data File Name : ...\\1008_045.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/8/09 9:51:32 PM

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

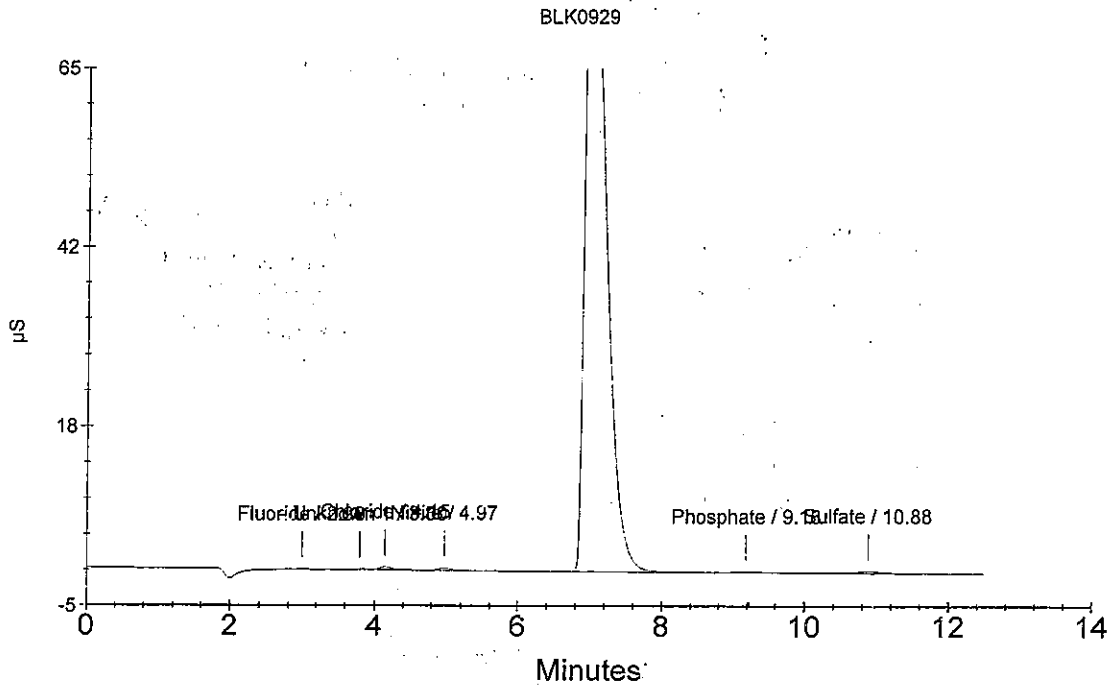
Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment :

Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.98	Fluoride	0.117	10597
3	4.15	Chloride	0.281 $\times 10000 \times \frac{150}{1} = 0.0042\%$	35980
4	4.97	Nitrite	0.180	41072
5	7.00	Nitrate	40.342	18235004
6	9.18	Phosphate	0.163	16232
7	10.88	Sulfate	0.519	58390

RP 10/9/09
10/8/09



Ion Chromatography Analytical Report
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Sample Name : LCL0929
 Data File Name : ...\\1008_046.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/8/09 10:06:16 PM

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

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

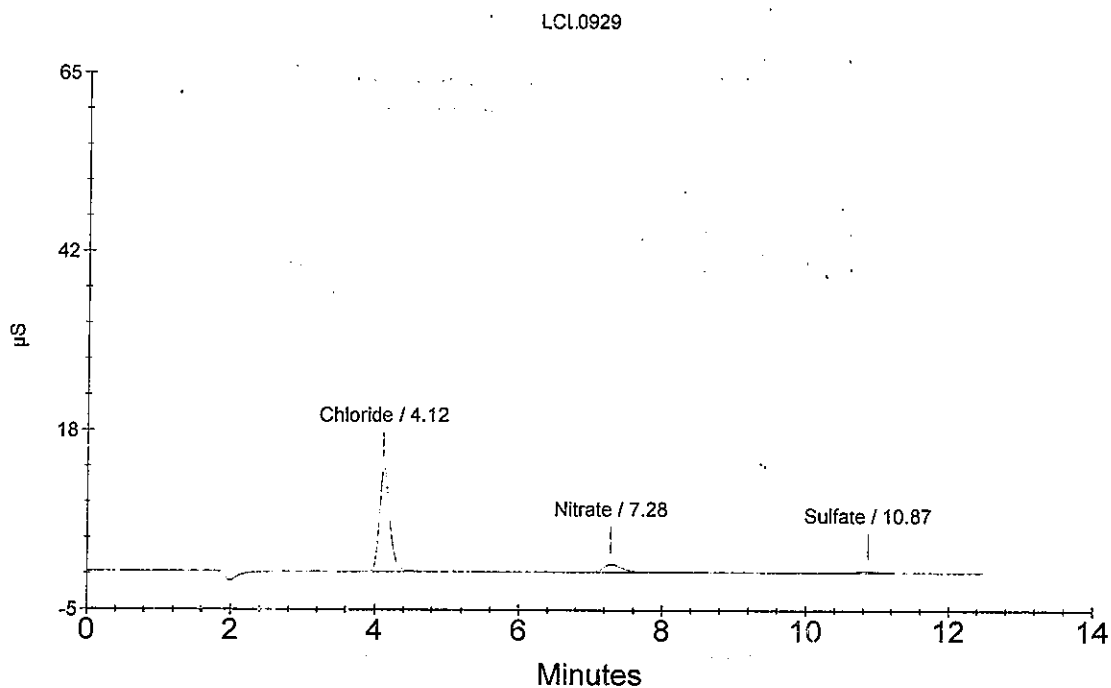
Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	4.12	Chloride	727.230	1388449
2	7.28	Nitrate	48.470	189902
3	10.87	Sulfate	51.626	58030

Handwritten calculations:
 $\frac{1}{10000} \times \frac{150}{1839} \times 727.230 = 59.35\%$

Handwritten signature: R.R. 10/9/09



Ion Chromatography Analytical Report
 Columbia Analytical Services
 Rochester, NY 14607

Sample Name : R0904969-008A
 Data File Name : ...\\1008_047.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/8/09 10:21:06 PM

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

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

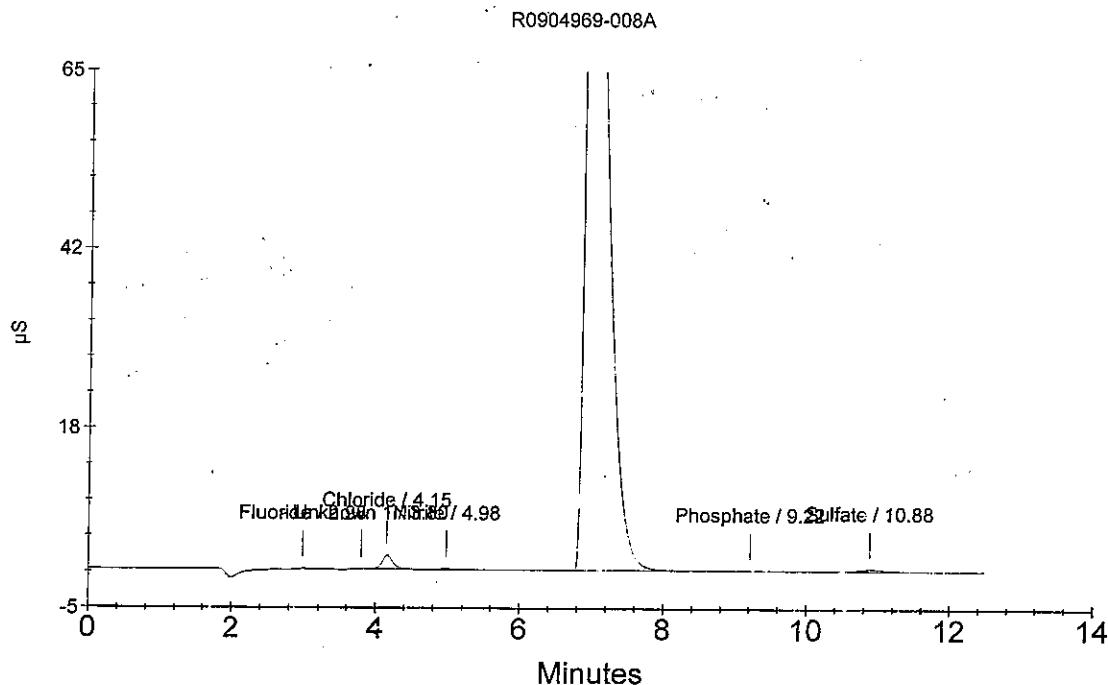
Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.98	Fluoride	0.104	7484
3	4.15	Chloride	1.038	182381
4	4.98	Nitrite	0.126	20813
5	6.97	Nitrate	51.486	23280537
6	9.22	Phosphate	0.090	5346
7	10.88	Sulfate	0.655	75637

Handwritten notes:
 + 1000 v 150 / 330
 1.038 = 0.087

Handwritten note:
 RP 10/8/09



Ion Chromatography Analytical Report
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Sample Name : R0905106-001A
 Data File Name : ...\\1008_048.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/8/09 10:35:56 PM

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

Dilution Factor : 200.00
 Sample Type : Sample Analysis
 Sample Comment : %CL

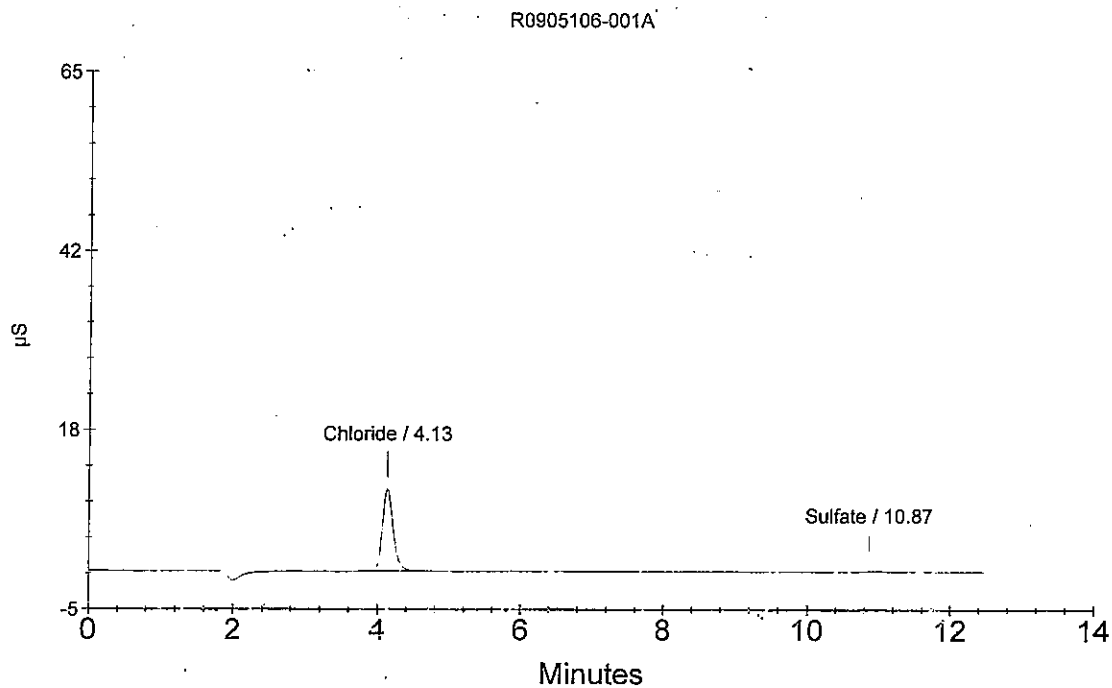
Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	4.13	Chloride	1171.775	1115002
2	10.87	Sulfate	44.775	21007

Handwritten calculations:
 $10000 \times \frac{150}{5533} \times 1171.775 = 31.766\%$

Handwritten note: RP 10/9/09



Ion Chromatography Analytical Report
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Sample Name : CCV
 Data File Name : ...\\1008_049.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/8/09 10:50:44 PM

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

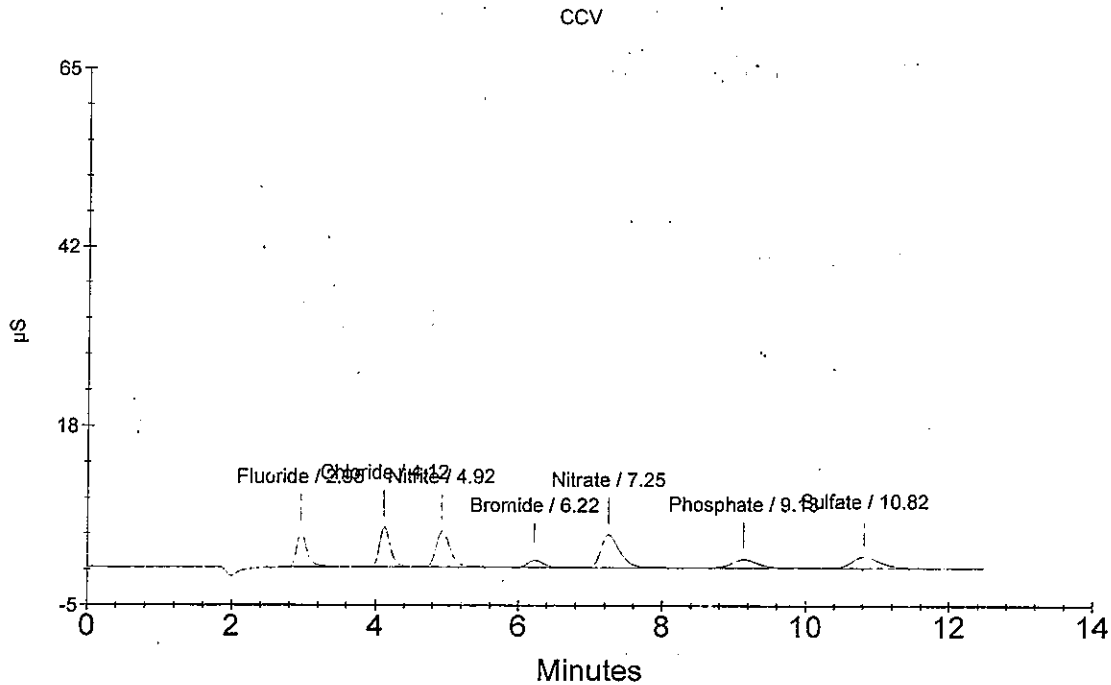
Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment :

Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.95	Fluoride	1.870	452626
2	4.12	Chloride	2.958	553823
3	4.92	Nitrite	1.765	638842
4	6.22	Bromide	1.994	139959
5	7.25	Nitrate	1.772	772591
6	9.13	Phosphate	1.836	265765
7	10.82	Sulfate	3.139	390108

RF 10/9/09



Ion Chromatography Analytical Report
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Sample Name : CCB
Data File Name : ...\\1008_050.DXD
Method File Name : ...\\500-091809.met
Date Time Collected : 10/8/09 11:05:34 PM

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

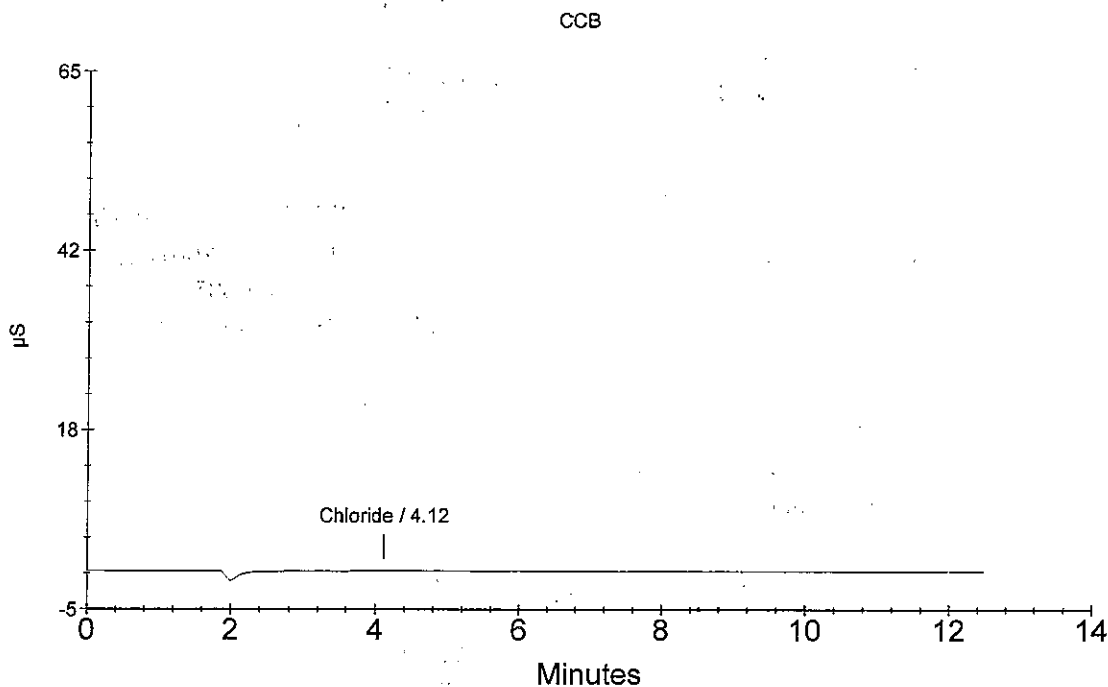
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment :

Data Collection Rate : 5.00 Hz
Data Collection Period : 750.00 seconds
Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	4.12	Chloride	OK 0.103	1375

RP 10/9/09



Ion Chromatography Analytical Report
 Columbia Analytical Services
 Rochester, NY 14607

Sample Name : LCS
 Data File Name : ...\\1008_051.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/8/09 11:20:22 PM

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

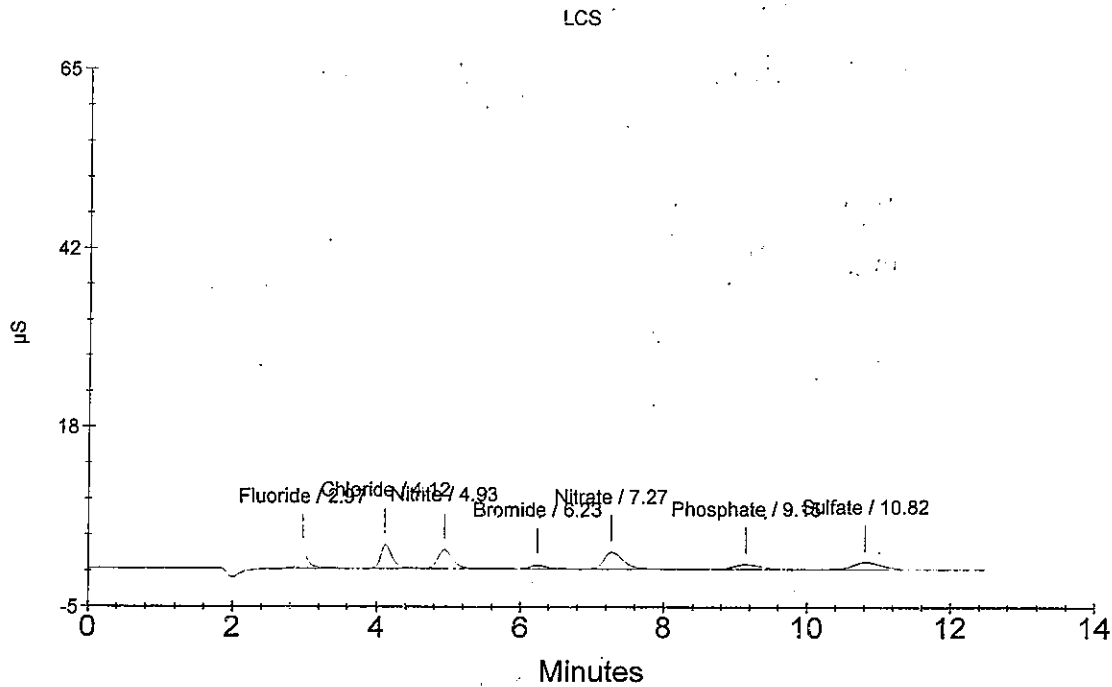
Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment :

Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.97	Fluoride	OK 0.937	217351
2	4.12	Chloride	1.820	333533
3	4.93	Nitrite	0.963	336279
4	6.23	Bromide	0.983	67262
5	7.27	Nitrate	0.939	395703
6	9.15	Phosphate	1.023	144462
7	10.82	Sulfate	1.974	242672

RP 10/9/09



Ion Chromatography Analytical Report
 Columbia Analytical Services
 Rochester, NY 14607

Sample Name : R0904969-010A
 Data File Name : ...\\1008_052.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/8/09 11:35:10 PM

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

Dilution Factor : 200.00
 Sample Type : Sample Analysis
 Sample Comment : %CL

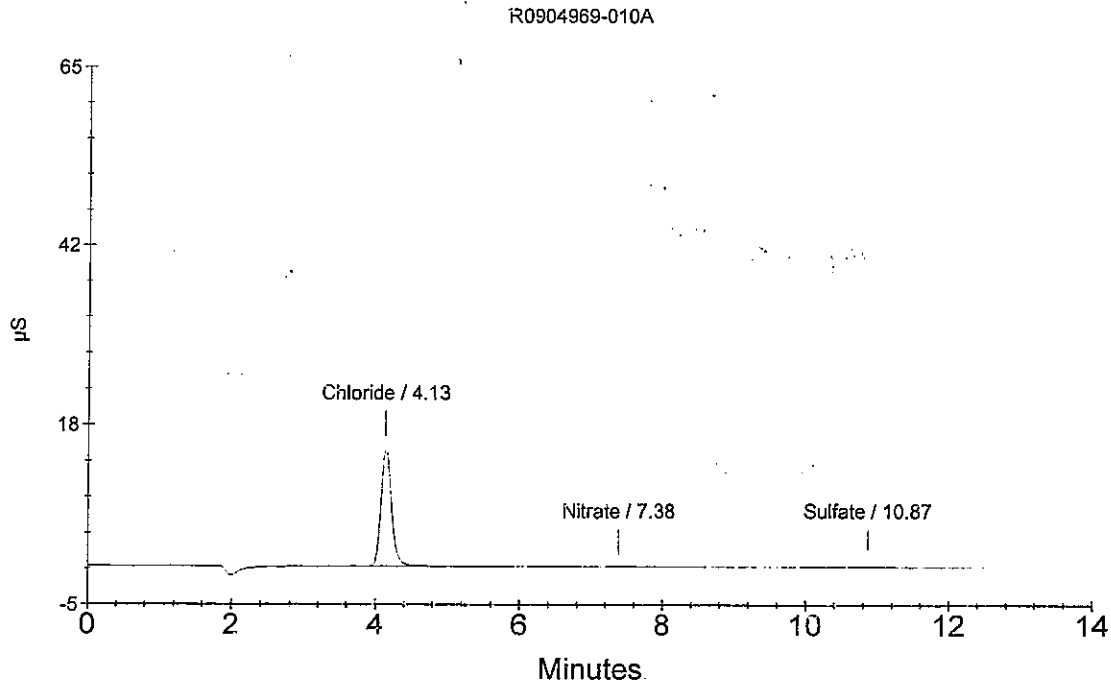
Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	4.13	Chloride	1687.716	1614081
2	7.38	Nitrate	18.389	12084
3	10.87	Sulfate	48.648	23460

Handwritten notes:
 For peak 1: $\times 10000$, $\times \frac{150}{7609}$, $\times 1687.716 = 33.271$

RR 10/9/09



Ion Chromatography Analytical Report
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Sample Name : R0904969-010B
Data File Name : ...\\1008_053.DXD
Method File Name : ...\\500-091809.met
Date Time Collected : 10/8/09 11:49:59 PM

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

Dilution Factor : 200.00
Sample Type : Sample Analysis
Sample Comment : %CL

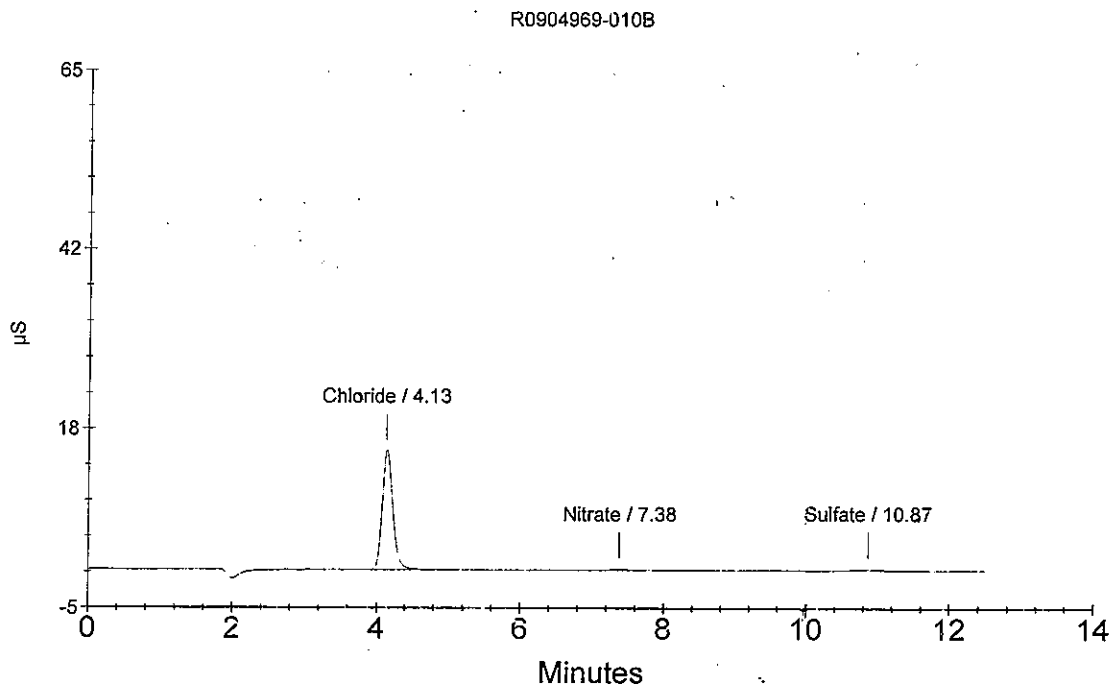
Data Collection Rate : 5.00 Hz
Data Collection Period : 750.00 seconds
Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	4.13	Chloride	1709.715	1635361
2	7.38	Nitrate	21.122	18269
3	10.87	Sulfate	77.413	41671

Handwritten calculations:
 $150 \times 1709.715 = 35.171$
 $10000 \times \frac{17292}{17292} = 17292$

Handwritten note: Rf 1019109



Ion Chromatography Analytical Report
 Columbia Analytical Services
 Rochester, NY 14607

Sample Name : R0904969-010A SPK
 Data File Name : ...\\1008_054.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/9/09 12:04:49 AM

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

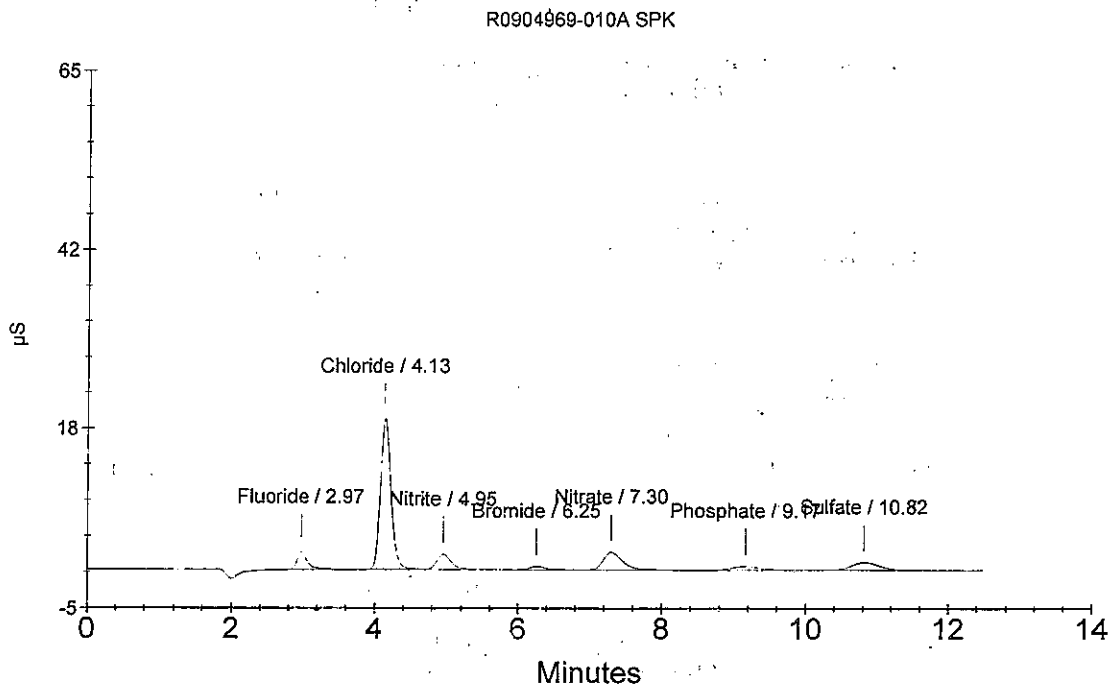
Dilution Factor : 200.00
 Sample Type : Sample Analysis
 Sample Comment : %CL

Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.97	Fluoride	201.584	235258
2	4.13	Chloride	7LR 2137.386	2049054
3	4.95	Nitrite	157.640	270420
4	6.25	Bromide	200.304	68584
5	7.30	Nitrate	200.937	425322
6	9.17	Phosphate	173.977	121657
7	10.82	Sulfate	444.109	273830

OK RP 10/9/09



Ion Chromatography Analytical Report
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Rochester, NY 14607

Sample Name : MB 9665-01
Data File Name : ...1008_055.DXD
Method File Name : ...500-091809.met
Date Time Collected : 10/9/09 12:19:39 AM

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

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

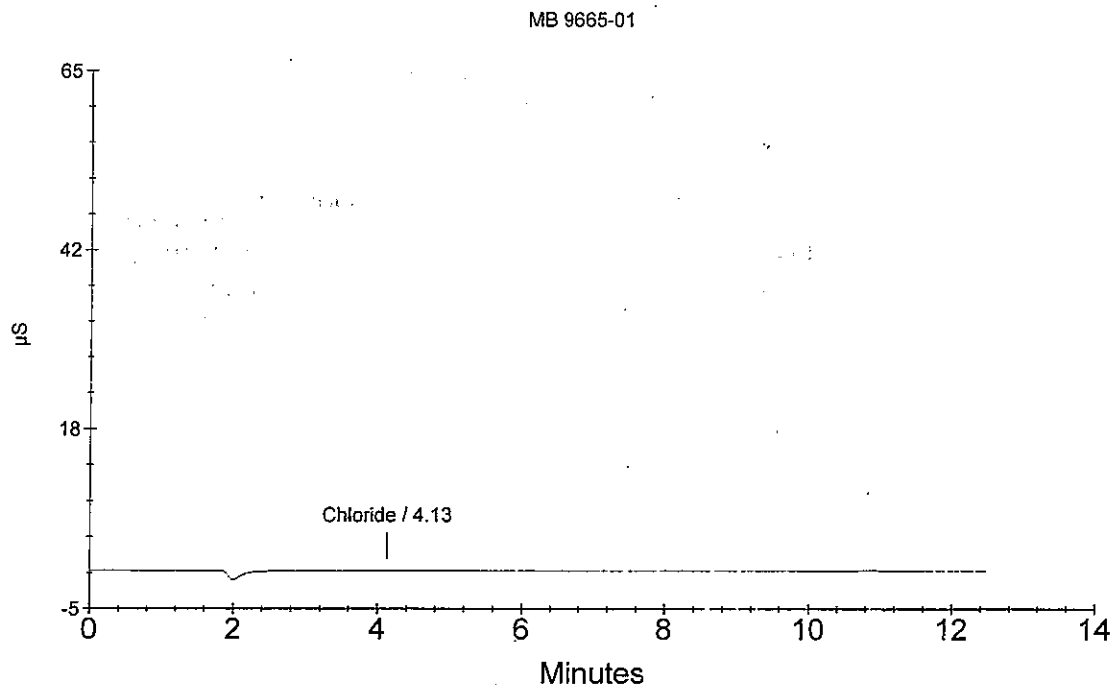
Data Collection Rate : 5.00 Hz
Data Collection Period : 750.00 seconds
Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
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1	4.13	Chloride	OK 0.108	2353
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RP 10/9/09



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : LCS EXTRACTION
Data File Name : ...\\1008_056.DXD
Method File Name : ...\\500-091809.met
Date Time Collected : 10/9/09 12:34:26 AM

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

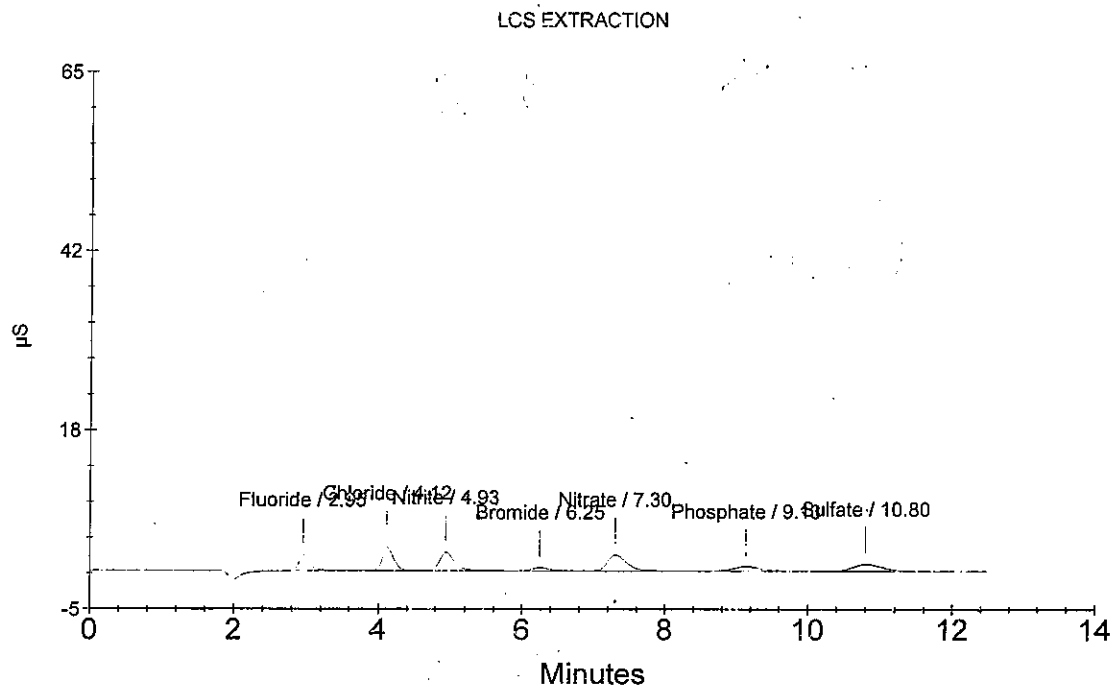
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment :

Data Collection Rate : 5.00 Hz
Data Collection Period : 750.00 seconds
Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.95	Fluoride	OK 0.939	217932
2	4.12	Chloride	1.815	332708
3	4.93	Nitrite	0.966	337300
4	6.25	Bromide	0.984	67316
5	7.30	Nitrate	0.935	393876
6	9.13	Phosphate	1.040	147071
7	10.80	Sulfate	1.969	242018

RP 10/9/09



Ion Chromatography Analytical Report
 Columbia Analytical Services
 Rochester, NY 14607

Sample Name : R0905387-016
 Data File Name : ...\\1008_057.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/9/09 12:49:15 AM

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

Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment : CBNS (EXT)

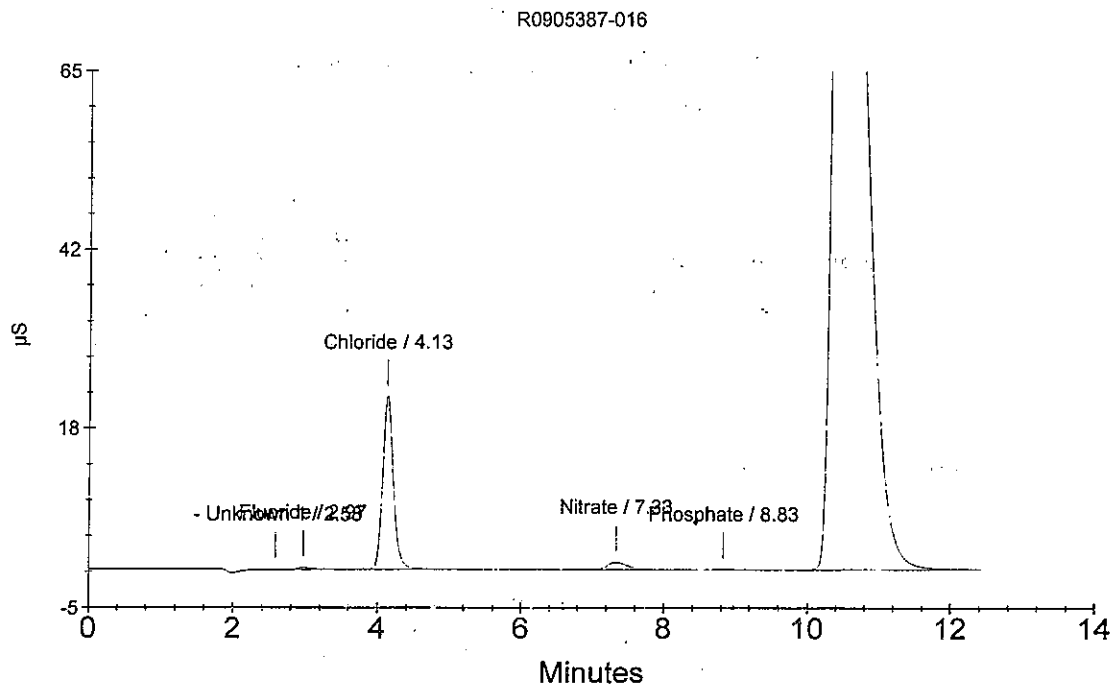
Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
2	2.97	Fluoride	0.201	31966
3	4.13	Chloride	1/2 12.375	2375656
4	7.33	Nitrate	OK 0.459	178166
5	8.83	Phosphate	0.076	3187
6	10.48	Sulfate	1/40 317.248	40163269

Br OK

RP 10/9/09



Ion Chromatography Analytical Report
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 Rochester, NY 14607

Sample Name : R0905387-017
 Data File Name : ...\\1008_058.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/9/09 1:04:14 AM

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

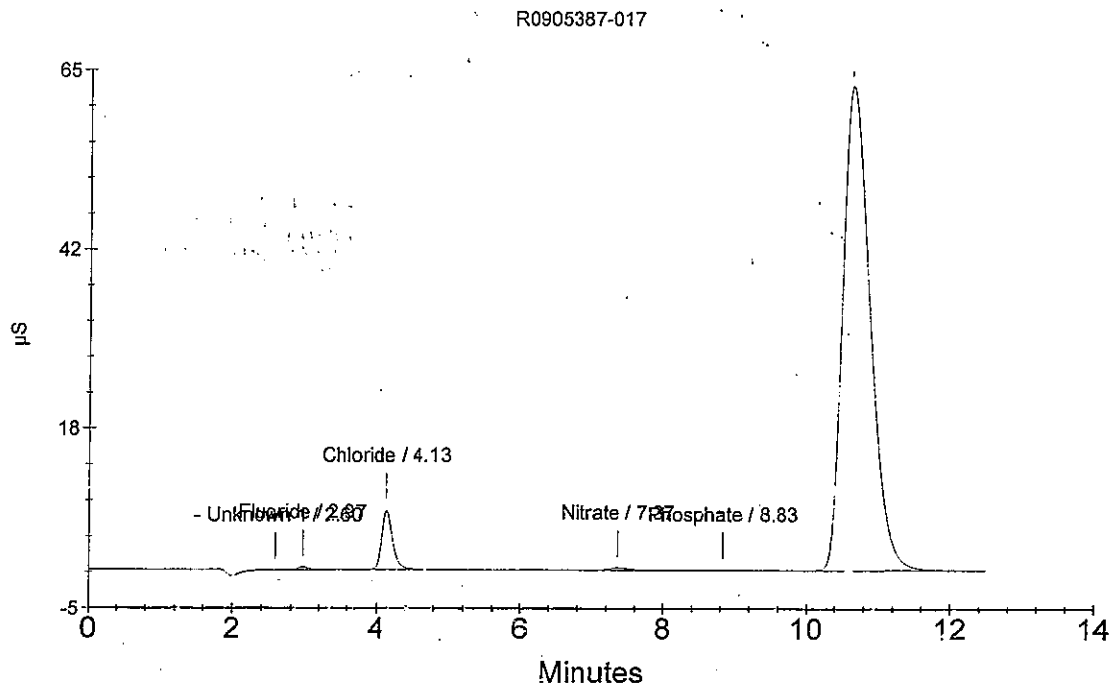
Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment : CBNS (EXT)

Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
2	2.97	Fluoride	0.278	51154
3	4.13	Chloride	OK 4.430	838518
4	7.37	Nitrate	OK 0.196	59317
5	8.83	Phosphate	0.156	15201
6	10.63	Sulfate	1/20 132.085	16717594

Br OK
 RJP 10/9/09



Ion Chromatography Analytical Report
 Columbia Analytical Services
 Rochester, NY 14607

Sample Name : R0905402-001
 Data File Name : ...\\1008_059.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/9/09 1:19:04 AM

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

Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment : CBNS (EXT)

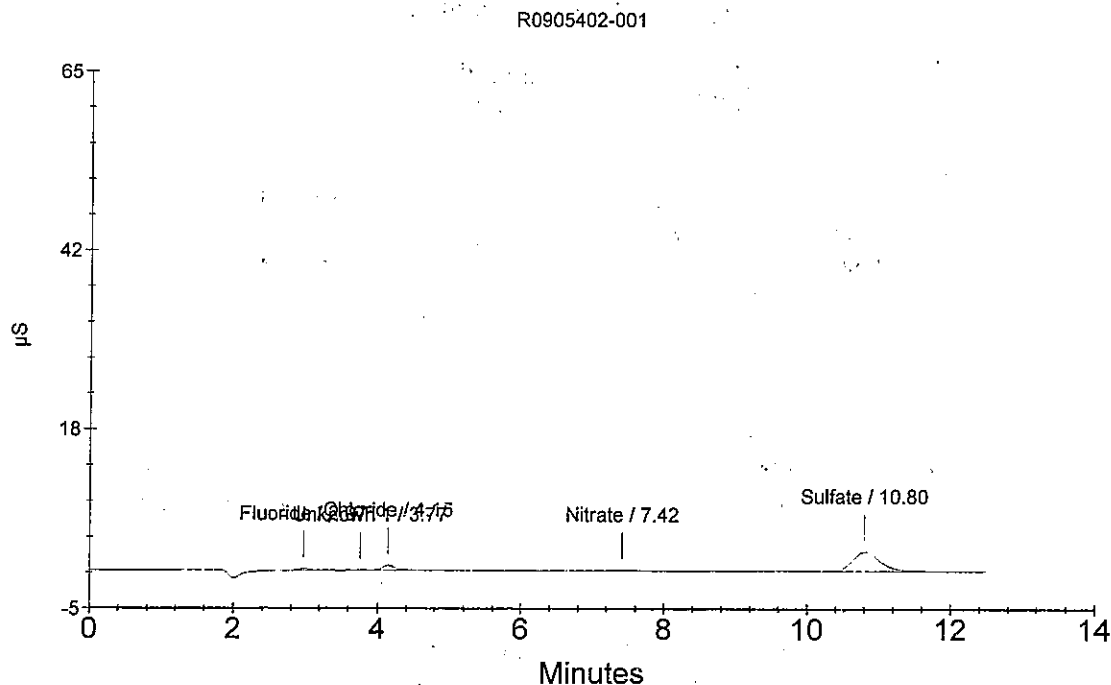
Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.97	Fluoride	0.172	24529
3	4.15	Chloride	OK 0.462	70933
4	7.42	Nitrate	OK 0.091	11565
5	10.80	Sulfate	OK 5.439	681330

B: OK

RP 10/9/09



Ion Chromatography Analytical Report
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 Rochester, NY 14607

Sample Name : R0905402-002
 Data File Name : ...\\1008_060.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/9/09 1:33:52 AM

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

Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment : CBNS (EXT)

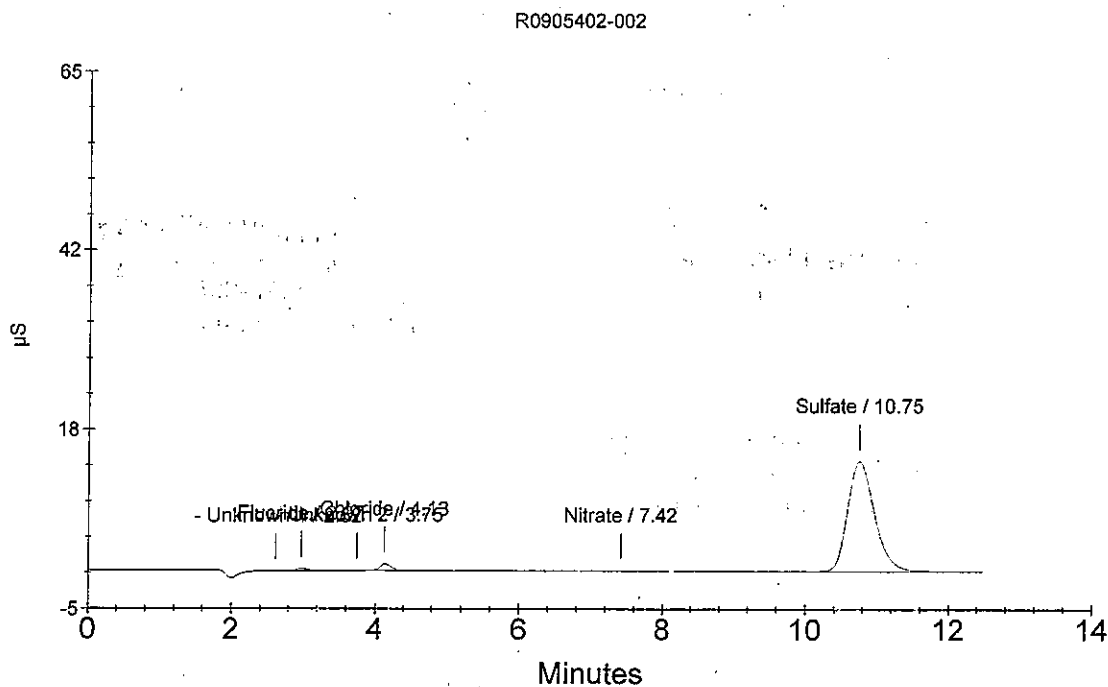
Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
2	2.97	Fluoride	0.226	38079
4	4.13	Chloride	OR 0.572	92147
5	7.42	Nitrate	OR 0.082	7585
6	10.75	Sulfate	1/4 29.780	3763459

Br OR

RP 10/19/09



Ion Chromatography Analytical Report
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Sample Name : CCV
 Data File Name : ...1008_061.DXD
 Method File Name : ...500-091809.met
 Date Time Collected : 10/9/09 1:48:42 AM

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

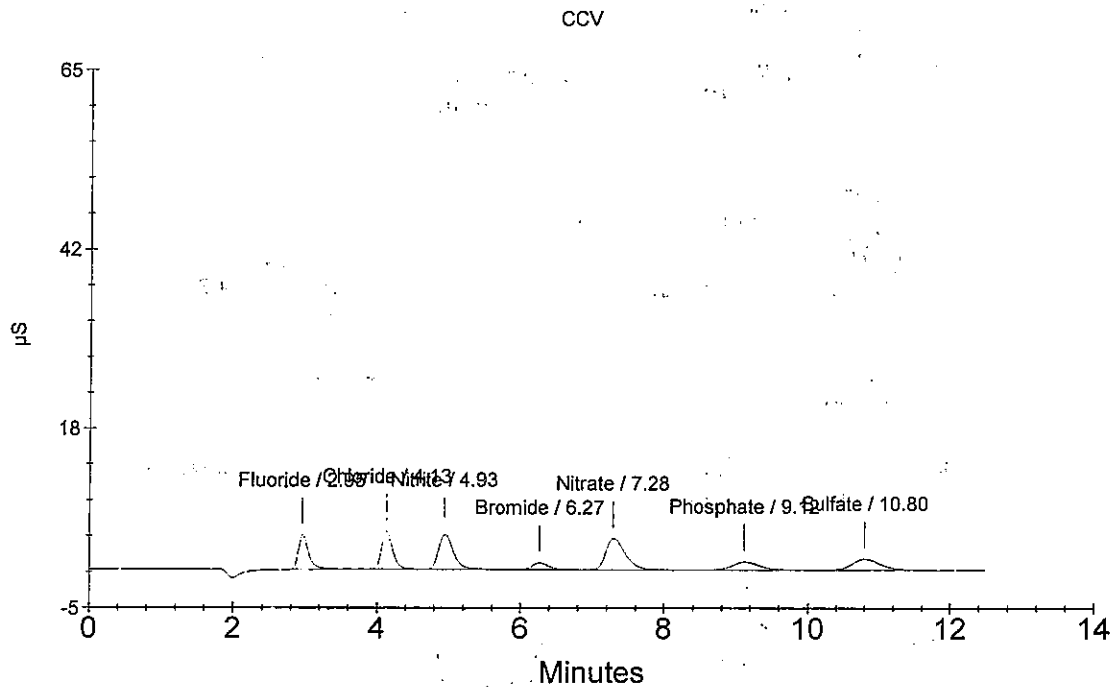
Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment :

Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.95	Fluoride	1.851	447848
2	4.13	Chloride	2.913	545039
3	4.93	Nitrite	1.754	634786
4	6.27	Bromide	1.992	139790
5	7.28	Nitrate	1.768	771042
6	9.12	Phosphate	1.830	264920
7	10.80	Sulfate	3.143	390658

RP 10/9/09



Ion Chromatography Analytical Report
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Rochester, NY 14607

Sample Name : CCB
Data File Name : ...\\1008_062.DXD
Method File Name : ...\\500-091809.met
Date Time Collected : 10/9/09 2:03:30 AM

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

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

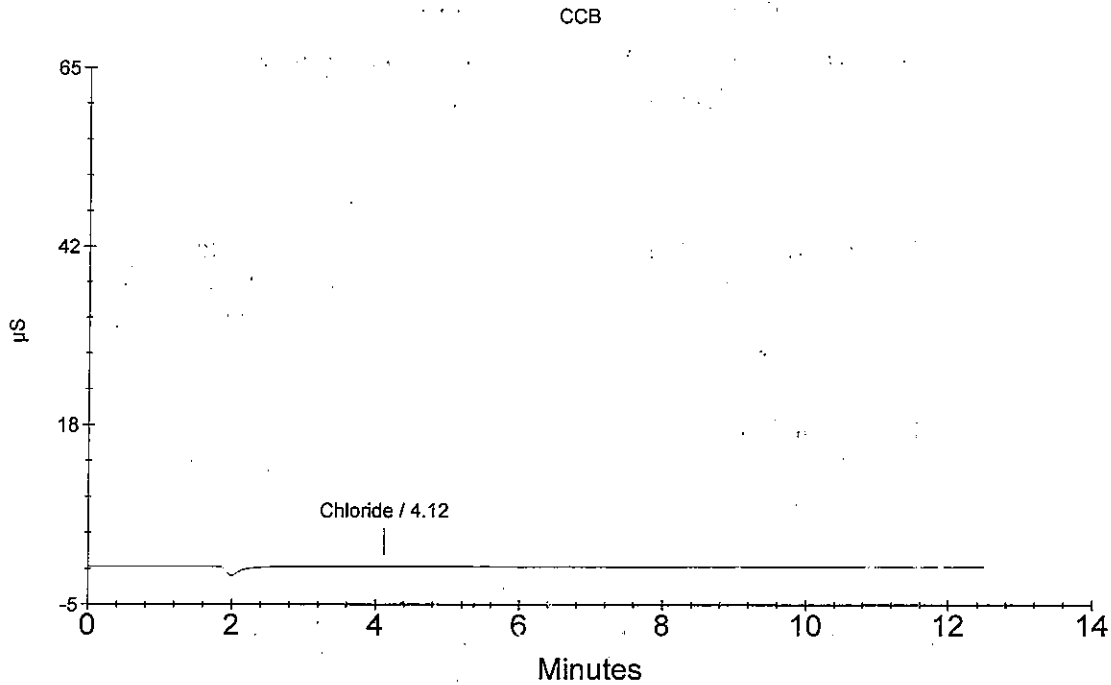
Data Collection Rate : 5.00 Hz
Data Collection Period : 750.00 seconds
Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
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1	4.12	Chloride	0.108	2404
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0.109109



Ion Chromatography Analytical Report
 Columbia Analytical Services
 Rochester, NY 14607

Sample Name : R0905402-003
 Data File Name : ...\\1008_063.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/9/09 2:18:19 AM

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

Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment : CBNS (EXT)

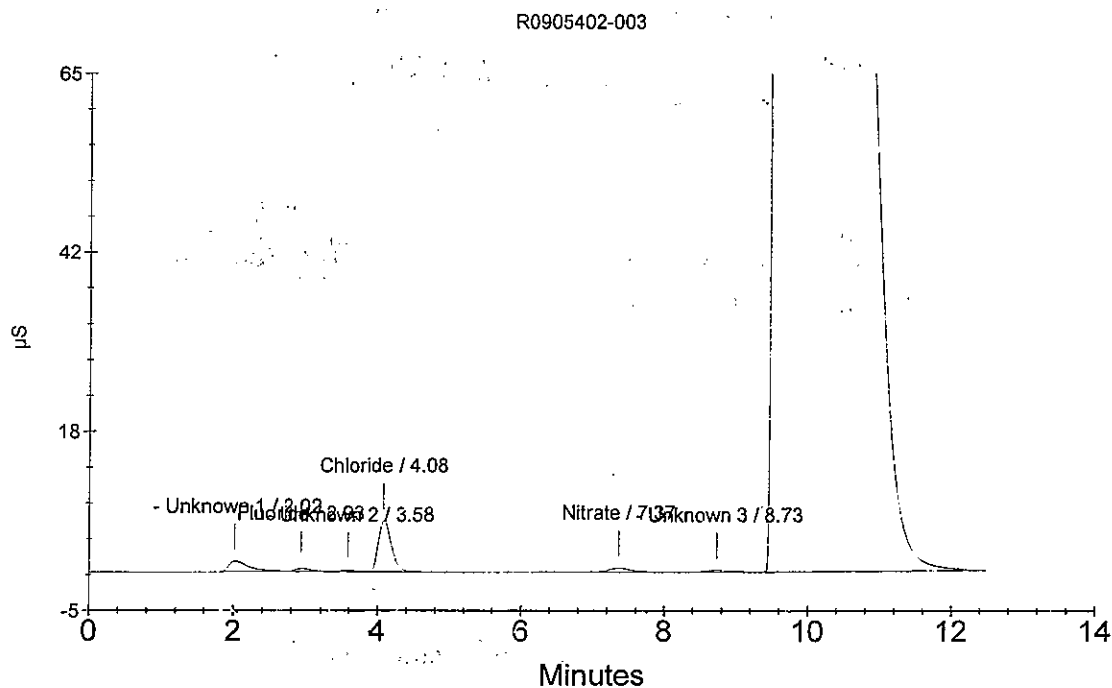
Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
2	2.93	Fluoride	0.283	52457
4	4.08	Chloride	OK 4.318	816950
5	7.37	Nitrate	OK 0.293	103022
7	9.70	Phosphate	4400 1935.149	288711212

Br OK

RP 10/9/09



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 Rochester, NY 14607

Sample Name : R0905402-004
 Data File Name : ...\\1008_064.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/9/09 2:33:09 AM

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

Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment : CBNS (EXT)

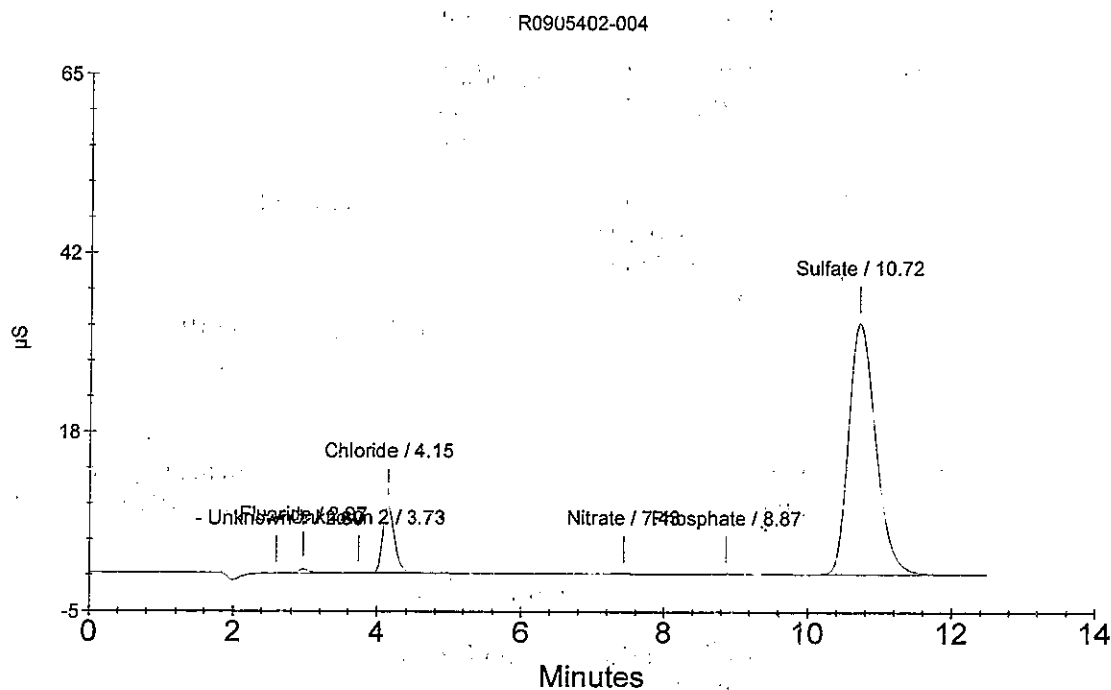
Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
2	2.97	Fluoride	0.329	64189
4	4.15	Chloride	OK 4.969	942918
5	7.43	Nitrate	OK 0.105	17830
6	8.87	Phosphate	0.171	17452
7	10.72	Sulfate	4/10 68.193	8627409

BI OK

RP 10/9/09



Ion Chromatography Analytical Report
 Columbia Analytical Services
 Rochester, NY 14607

Sample Name : R0905402-004 DUP
 Data File Name : ...\1008_065.DXD
 Method File Name : ...\500-091809.met
 Date Time Collected : 10/9/09 2:47:59 AM

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

Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment : CBNS (EXT)

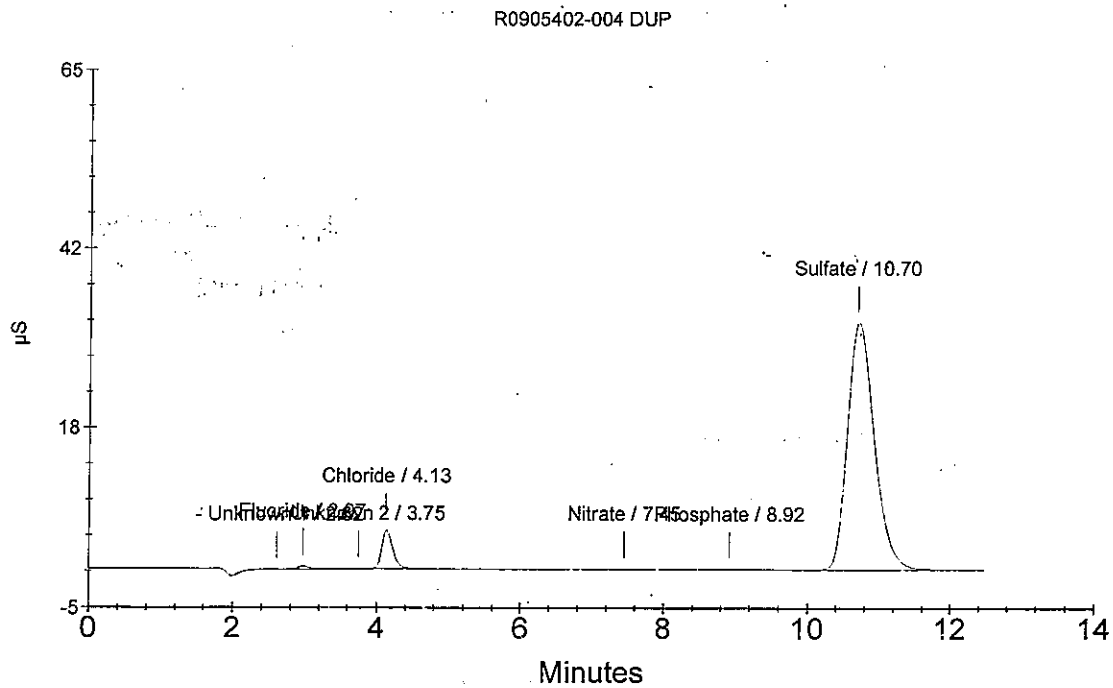
Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
2	2.97	Fluoride	0.280	51848
4	4.13	Chloride	OK 2.918	546142
5	7.45	Nitrate	OK 0.091	11671
6	8.92	Phosphate	0.086	4772
7	10.70	Sulfate	YLO 67.041	8481513

Br OK

RP 10/9/09



Ion Chromatography Analytical Report
 Columbia Analytical Services
 Rochester, NY 14607

Sample Name : R0905402-004 SPK
 Data File Name : ...\\1008_066.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/9/09 3:02:48 AM

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

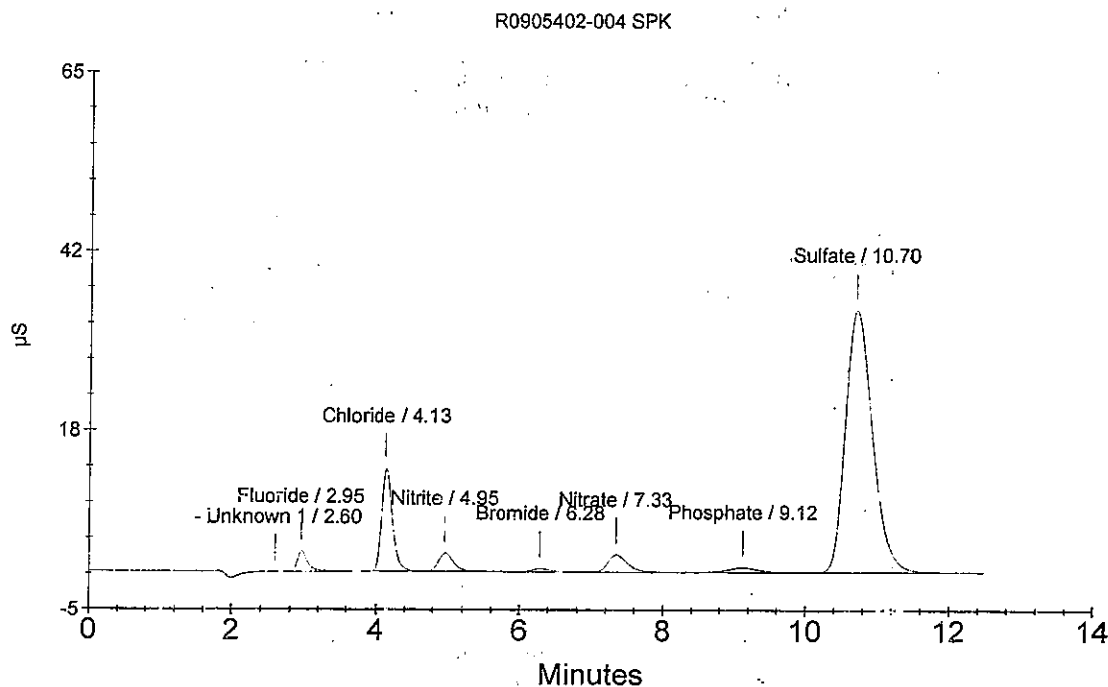
Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment : CBNS (EXT)

Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
2	2.95	Fluoride	1.234	292183
3	4.13	Chloride	OK 7.507	1433932
4	4.95	Nitrite	0.971	339453
5	6.28	Bromide	OK 1.034	70920
6	7.33	Nitrate	OK 1.016	430644
7	9.12	Phosphate	1.186	168794
8	10.70	Sulfate	1/10 71.219	9010501

Rf 10/9/09



Ion Chromatography Analytical Report
 Columbia Analytical Services
 Rochester, NY 14607

Sample Name : R0905402-005
 Data File Name : ...\\1008_067:DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/9/09 3:17:36 AM

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

Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment : CBNS (EXT)

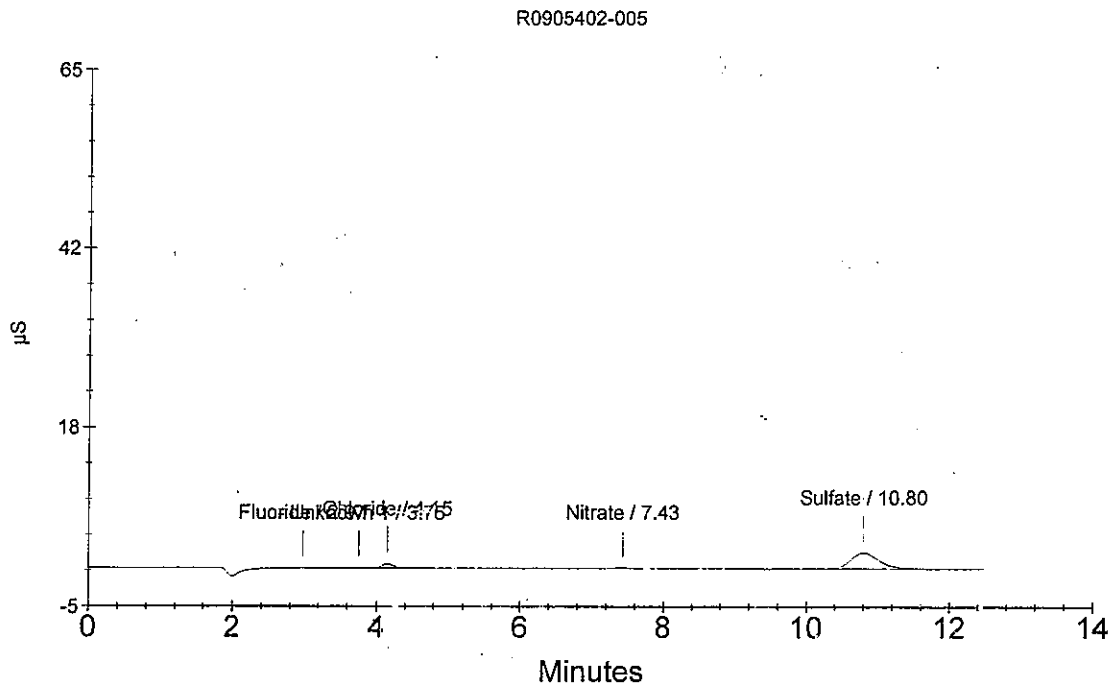
Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.97	Fluoride	0.096	5301
3	4.15	Chloride	OK 0.406	60045
4	7.43	Nitrate	OK 0.107	18952
5	10.80	Sulfate	OK 4.586	573332

BI OK

RF 10/9/09



Ion Chromatography Analytical Report
 Columbia Analytical Services
 Rochester, NY 14607

Sample Name : R0905402-006
 Data File Name : ...\\1008_068.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/9/09 3:32:25 AM

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

Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment : CBNS (EXT)

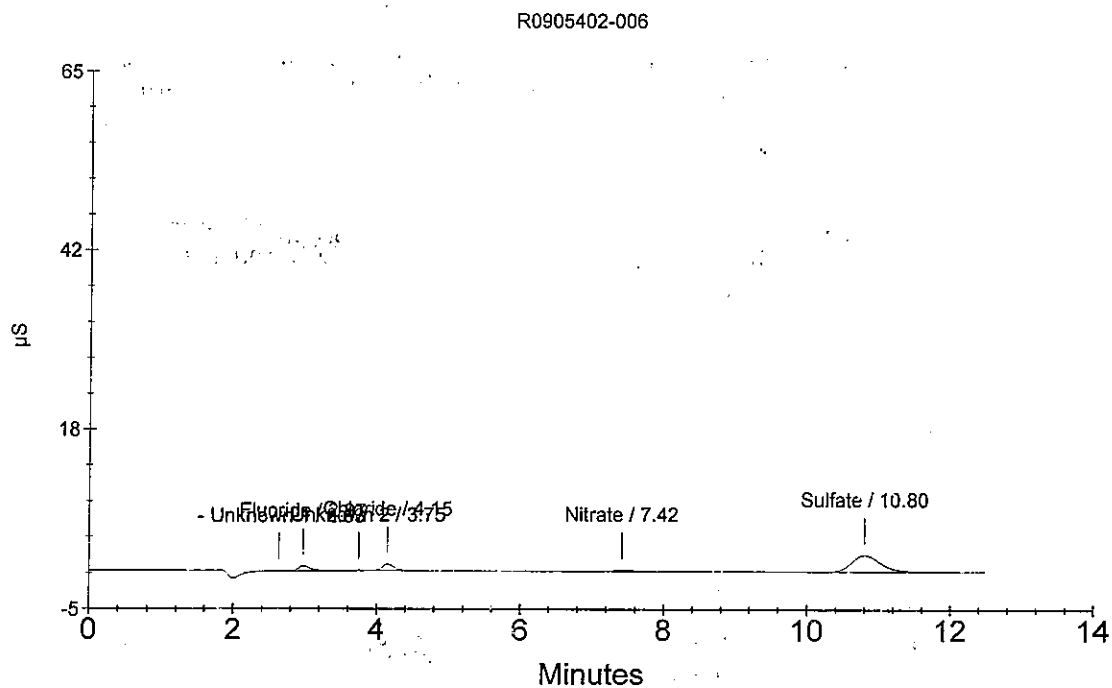
Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
2	2.97	Fluoride	0.390	79519
4	4.15	Chloride	OK 0.559	89757
5	7.42	Nitrate	OK 0.136	32067
6	10.80	Sulfate	OK 4.707	588719

BI OK

R 10/9/09



Ion Chromatography Analytical Report
 Columbia Analytical Services
 Rochester, NY 14607

Sample Name : R0905402-007
 Data File Name : ...\\1008_069.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/9/09 3:47:15 AM

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

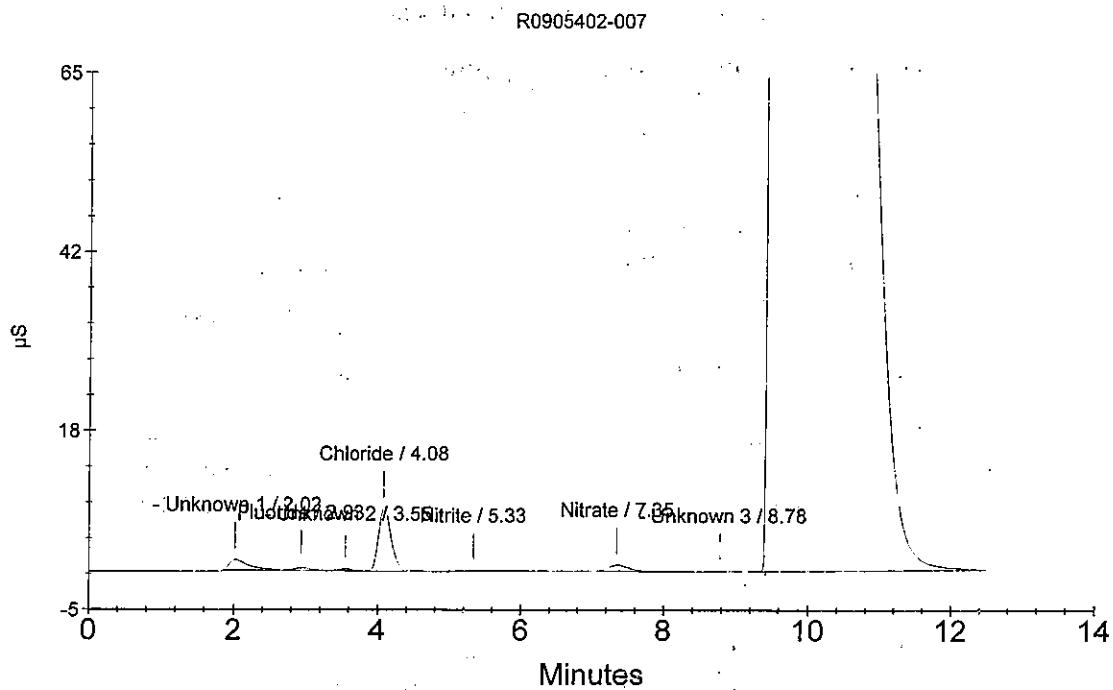
Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment : CBNS (EXT)

Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
2	2.93	Fluoride	0.267	48382
4	4.08	Chloride	OK 5.307	1008232
5	5.33	Nitrite	0.111	14978
		Bromide	OK	
6	7.35	Nitrate	OK 0.409	155683
8	9.63	Phosphate	4/100 2092.530	312192047

RP 10/9/09



Ion Chromatography Analytical Report
 Columbia Analytical Services
 Rochester, NY 14607

Sample Name : R0905402-008
 Data File Name : ...\1008_070.DXD
 Method File Name : ...\500-091809.met
 Date Time Collected : 10/9/09 4:02:04 AM

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

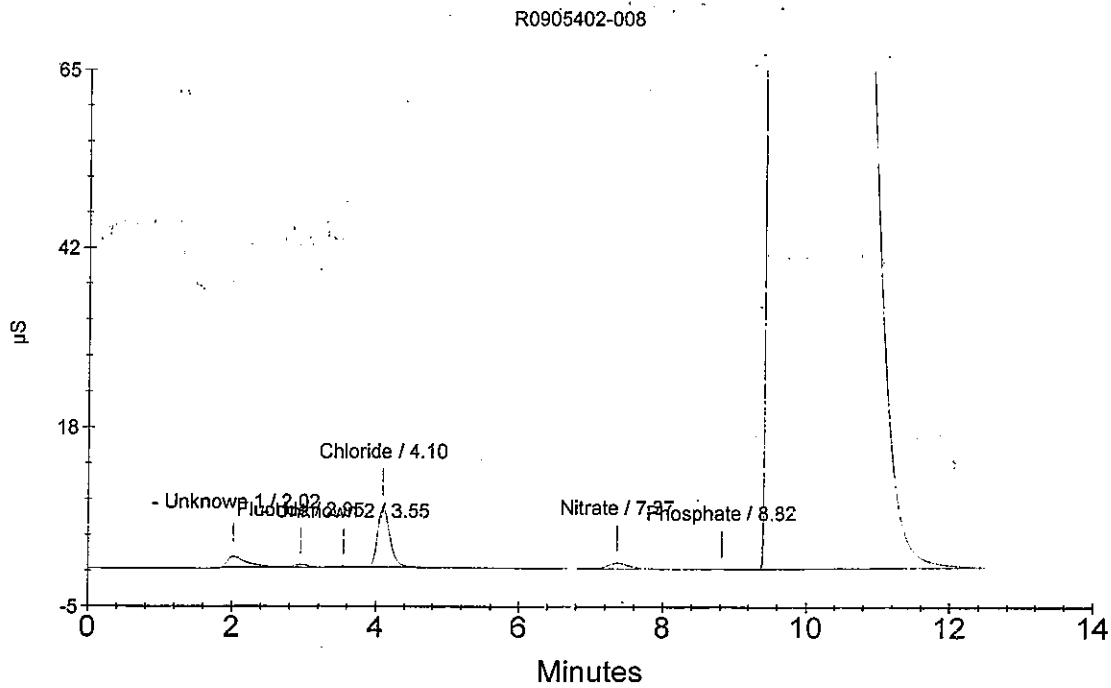
Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment : CBNS (EXT)

Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
2	2.95	Fluoride	0.258	46214
4	4.10	Chloride	OK 5.156	979043
5	7.37	Nitrate	OK 0.391	147280
6	8.82	Phosphate	SO ₄ 1/400 0.113 Br OK	8804

RP 10/9/09



Ion Chromatography Analytical Report
 Columbia Analytical Services
 Rochester, NY 14607

Sample Name : R0905402-009
 Data File Name : ...\\1008_071.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/9/09 4:16:54 AM

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

Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment : CBNS (EXT)

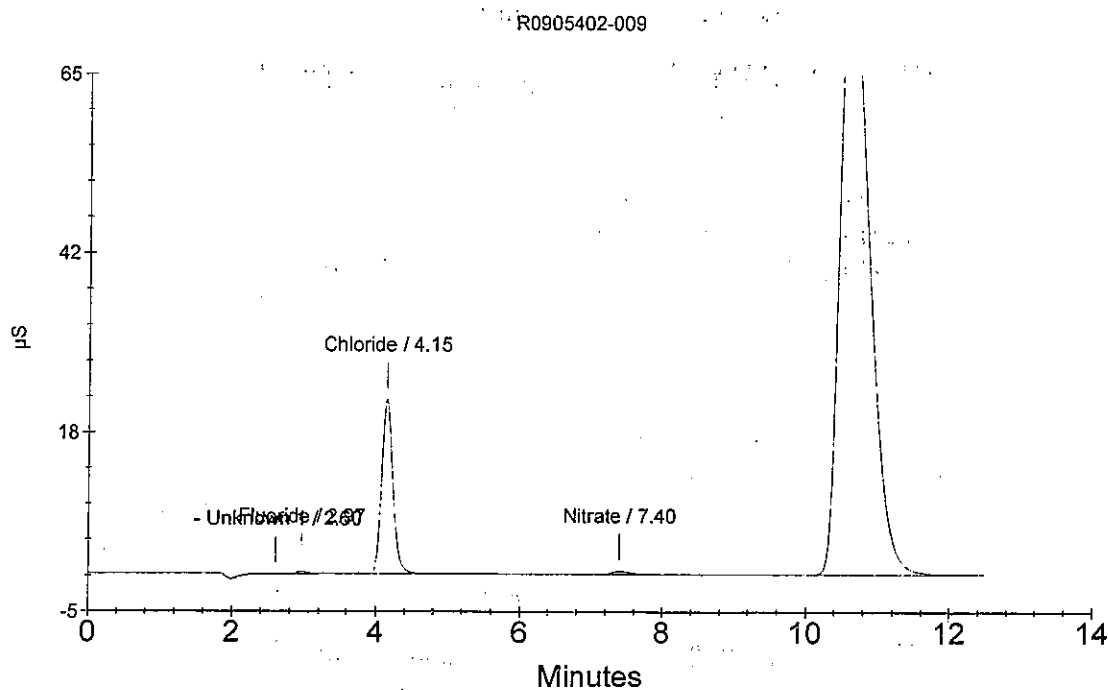
Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
2	2.97	Fluoride	0.210	34244
3	4.15	Chloride	1/2 12.776	2453148
4	7.40	Nitrate	OK 0.225	72145
5	10.60	Sulfate	1/20 177.650	22487044

B: OK

RR 10/9/09



Ion Chromatography Analytical Report
 Columbia Analytical Services
 Rochester, NY 14607

Sample Name : R0905402-010
 Data File Name : ...\\1008_072.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/9/09 4:31:42 AM

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

Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment : CBNS (EXT)

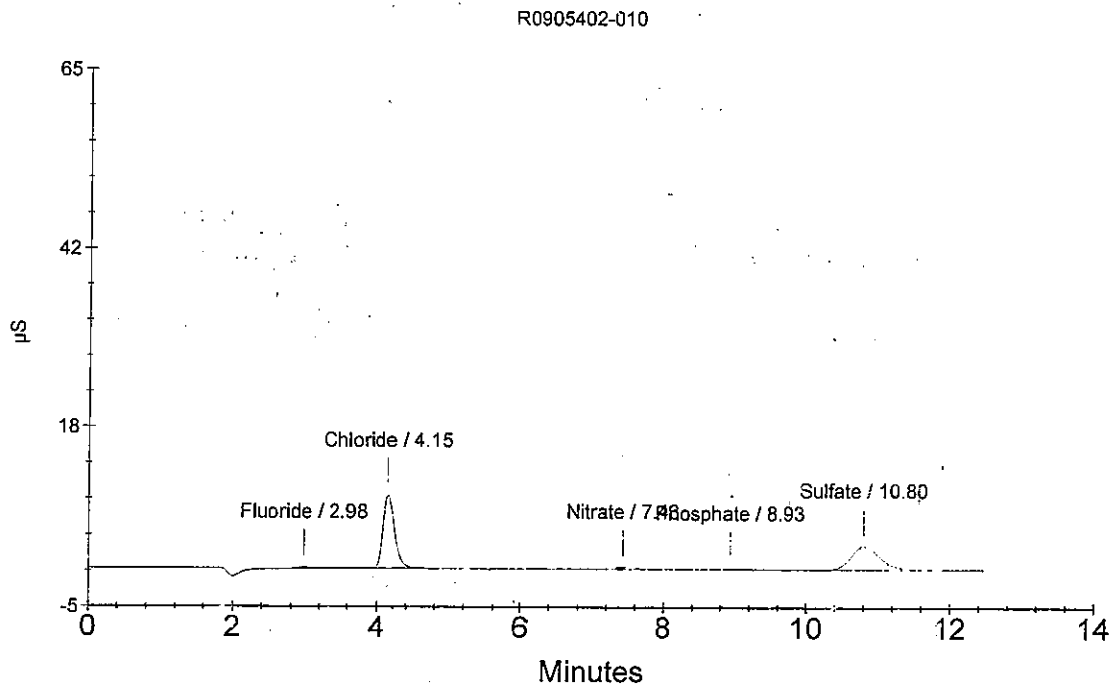
Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.98	Fluoride	0.150	18930
2	4.15	Chloride	OK 5.553	1055746
3	7.43	Nitrate	OK 0.169	46933
4	8.93	Phosphate	0.135	12004
5	10.80	Sulfate	OK 6.669	837121

Br OK

RP 10/9/09



Ion Chromatography Analytical Report
 Columbia Analytical Services
 Rochester, NY 14607

Sample Name : CCV
 Data File Name : ...\\1008_073.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/9/09 4:46:31 AM

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

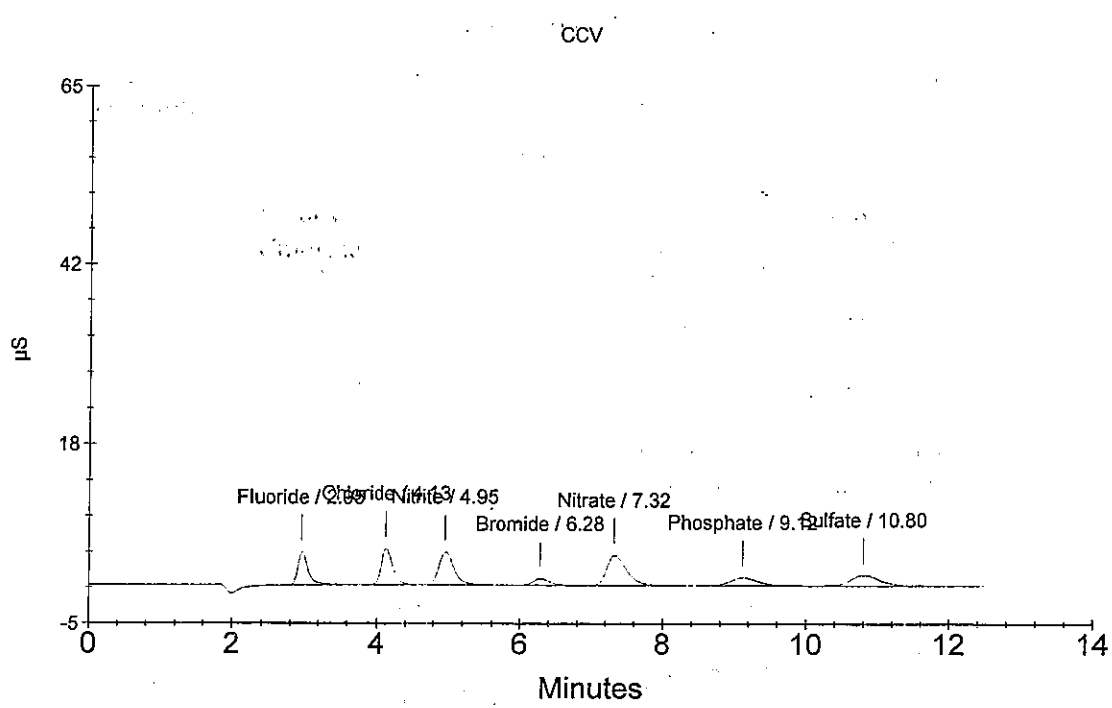
Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment :

Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.95	Fluoride	1.855	448674
2	4.13	Chloride	2.919	546182
3	4.95	Nitrite	1.752	633982
4	6.28	Bromide	1.987	139406
5	7.32	Nitrate	1.768	771057
6	9.12	Phosphate	1.835	265694
7	10.80	Sulfate	3.117	387385

RP 10/9/09



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : CCB
Data File Name : ...\\1008_074.DXD
Method File Name : ...\\500-091809.met
Date Time Collected : 10/9/09 5:01:21 AM

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

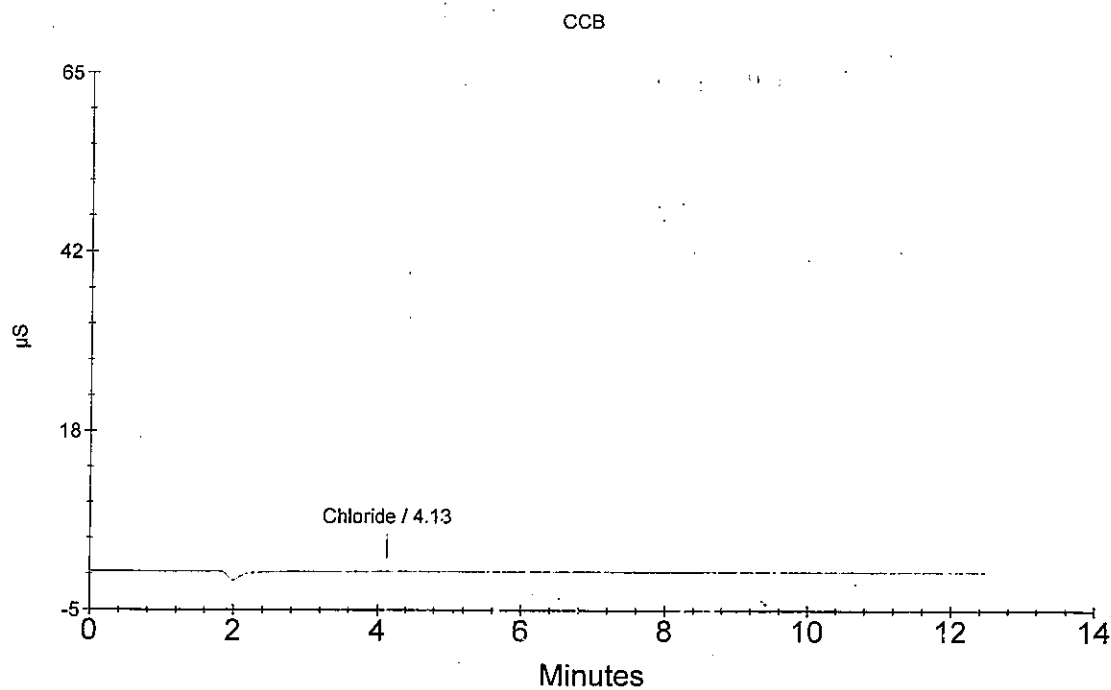
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment :

Data Collection Rate : 5.00 Hz
Data Collection Period : 750.00 seconds
Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	4.13	Chloride	0.106	2053

RI 10/9/09



Ion Chromatography Analytical Report
 Columbia Analytical Services
 Rochester, NY 14607

Sample Name : LCS
 Data File Name : ...\1008_075.DXD
 Method File Name : ...\500-091809.met
 Date Time Collected : 10/9/09 5:16:10 AM

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

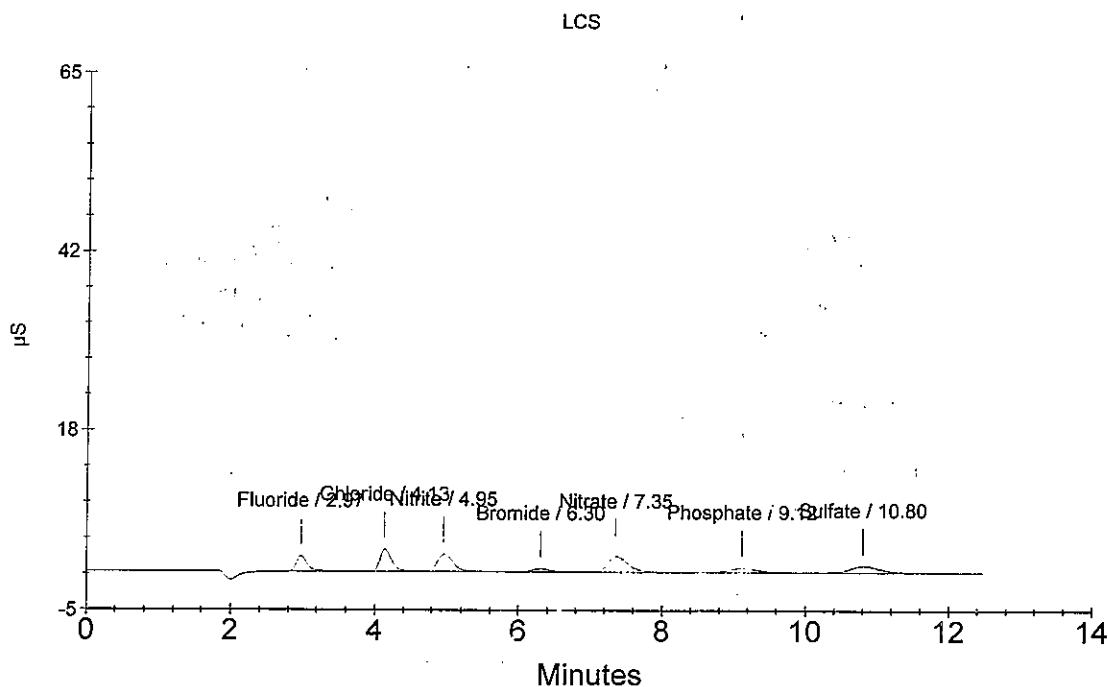
Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment :

Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.97	Fluoride	OK 0.928	215227
2	4.13	Chloride	1.821	333756
3	4.95	Nitrite	0.949	331160
4	6.30	Bromide	0.978	66922
5	7.35	Nitrate	0.935	393754
6	9.12	Phosphate	1.022	144408
7	10.80	Sulfate	1.953	239999

RP 10/9/09



Ion Chromatography Analytical Report
 Columbia Analytical Services
 Rochester, NY 14607

Sample Name : R0905402-011
 Data File Name : ...\\1008_076.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/9/09 5:30:59 AM

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

Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment : CBNS (EXT)

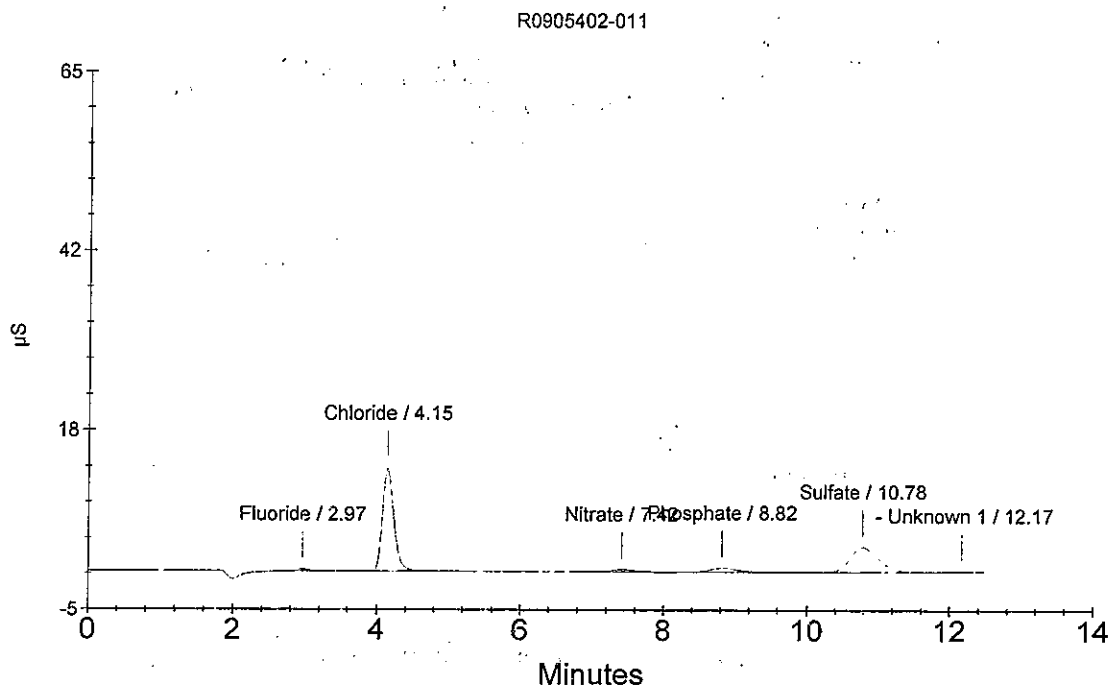
Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.97	Fluoride	0.191	29292
2	4.15	Chloride	STR 7.770	1484687
3	7.42	Nitrate	OK 0.194	58062
4	8.82	Phosphate	0.868	121379
5	10.78	Sulfate	OK 7.119	894111

Br OK

RP 10/9/09



Ion Chromatography Analytical Report
 Columbia Analytical Services
 Rochester, NY 14607

Sample Name : CCV
 Data File Name : ...\\1008_077.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 10/9/09 5:45:48 AM

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

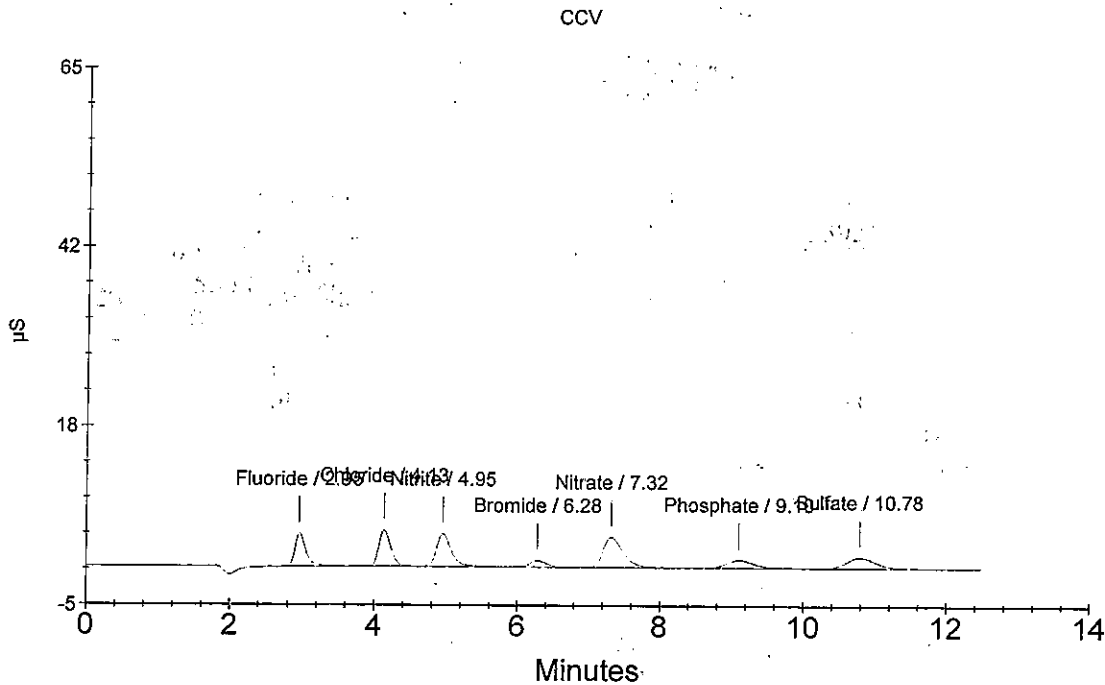
Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment :

Data Collection Rate : 5.00 Hz
 Data Collection Period : 750.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.95	Fluoride	OK 1.846	446465
2	4.13	Chloride	OUT ↓ 2.883	539215
3	4.95	Nitrite	OK 1.742	630064
4	6.28	Bromide	↓ 1.979	138838
5	7.32	Nitrate	↓ 1.755	765030
6	9.10	Phosphate	↓ 1.821	263626
7	10.78	Sulfate	↓ 3.141	390398

RP 10/9/09



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : CCB
Data File Name : ...\1008_078.DXD
Method File Name : ...\500-091809.met
Date Time Collected : 10/9/09 6:00:37 AM

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

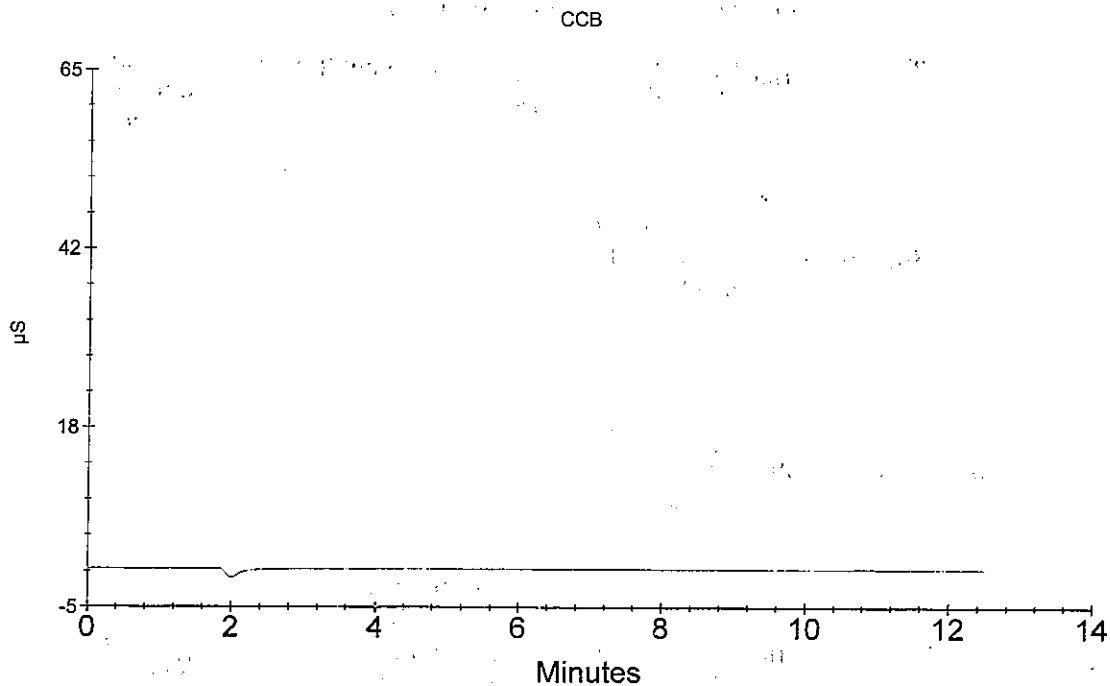
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment :

Data Collection Rate : 5.00 Hz
Data Collection Period : 750.00 seconds
Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
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OK
AB 10/10/09



Ion Chromatography Cover Sheet

Instrument: Dionex DX-500 Ion Chromatogram

Column: Dionex AS-14/AG-14, 08/04/09 – IC # 7

Curve Date: 09/18/09

Loop size: 50 uL

Analyst: RF

Analysis Date: 10/8/09

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	09/10/09	WC90024A	Working Calibration Stds	09/15/09	WC90024H
LCS / MS Intermediate	10/6/09	WC94011B	Working LCS/MS Standard	10/08/09	WC94052C
ICV Intermediate	09/10/09	WC90107A	Working ICV Standard	09/18/09	WC90107H
CCV Intermediate	09/22/09	WC94011H	Working CCV Standard	10/8/09	WC94026I

Comments:

LCS PREP

(Stocks delivered using Volumetric glassware and brought to volume with DI. LCS expires after 7 days; if NO2 is needed, LCS must be prepared daily.)

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

Analyte	Calibration Intermediate Stock ID	Intermediate Stock Conc (mg/L)	mLs Intermediate Stock	Final Vol. mLs	Final Conc. (mg/L)	Analyst/ Date Prepped	Lot ID	Exp. Date	Matrix H2SO4 / NaOH / DI	H2SO4 / NaOH Lot #
F	WC9408	50	2.0	100	1.0	RR / 10/10/09	A	10/13/09	DI	
Cl	011B	100			2.0	RR / 10/17/09	B	10/14/09	DI	
NO2		50			1.0	RR / 10/18/09	C	10/15/09	DI	
Br		50			1.0	RR / 10/19/09	D	10/16/09	DI	
NO3		50			1.0		E			
OPO4		50			1.0		F			
SO4		100			2.0		G			
							H			
							I			
							J			
							K			
							L			
							M			
							N			RR 10/19/09
							O			
							P			
							Q			
							R			

0052

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	Exp. Date	Matrix H2SO4 / NaOH / DI	H2SO4 / NaOH Lot #
F	WX970114	4.00	5.0	10	2.00	RP	A	10/1/09	DI	
Cl		6.50			3.25	RP	B	10/2/09	H2SO4	WC85294I
NO2		3.60			1.80	RP	C	10/2/09	H2SO4	WC85294I
Br		4.00			2.00	RP	D	10/2/09	DI	
NO3		3.60			1.80	CS	E	10/3/09	DI	
OPO4		3.60			1.80	RP	F	10/5/09	DI	
SO4		6.40			3.20	RP	G	10/5/09	NaOH	WC90030G
						RP	H	10/6/09	DI	
						RP	I	10/7/09	DI	
						RP	J	10/8/09	DI	
						RP	K	10/9/09	DI	
							L			
							M			
							N			
							O			
							P			
							Q			

RP 10/9/09

Ion Chromatography Calibration Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : STANDARD 1
Sample Type : Calibration Update
Data File Name : ...\\918_001.DXD
Method File Name : ...\\500-091809.met

Date Time Collected : 9/18/09 12:18:13 PM
Detector Name :
Column ID : AS-14 / AG-14
Method Analyst :

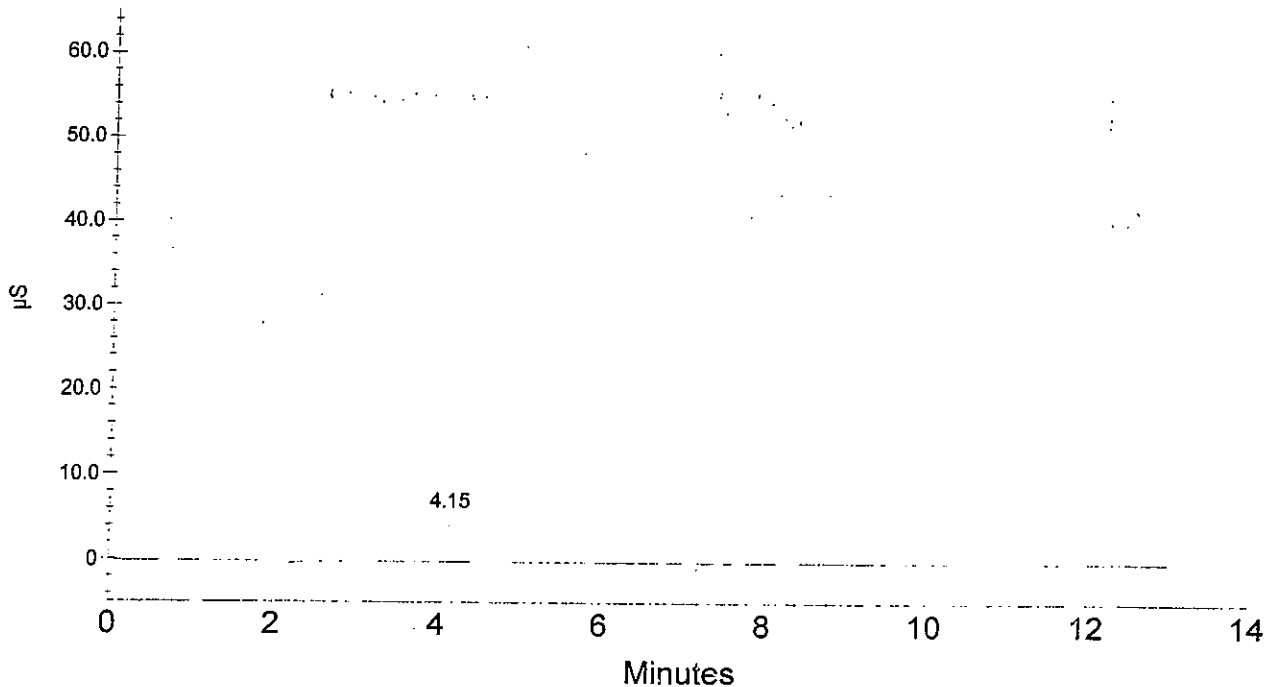
Dilution Factor : 1.00
Sample Comment :
Data Collection Rate : 5.00 Hz

Calibration Type : EXTERNAL
Calibration Level : 1

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area	Cal Response Previous
1	4.15	Chloride	0.00	1716	16356.00

STANDARD 1



Ion Chromatography Calibration Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : STANDARD 2
Sample Type : Calibration Update
Data File Name : ...\\918_002.DXD
Method File Name : ...\\500-091809.met

Date Time Collected : 9/18/09 12:33:34 PM
Detector Name :
Column ID : AS-14 / AG-14
Method Analyst :

Dilution Factor : 1.00
Sample Comment :
Data Collection Rate : 5.00 Hz

Calibration Type : EXTERNAL
Calibration Level : 2

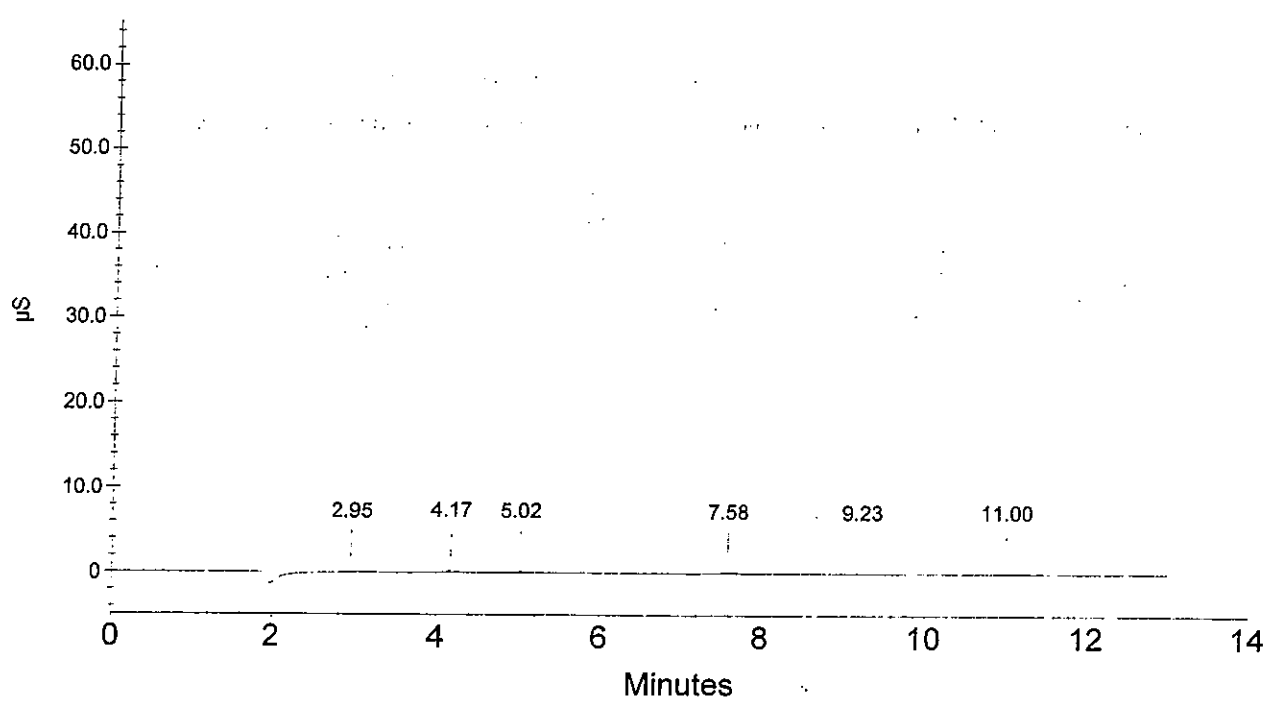
Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area	Cal Response Previous
1	2.95	Fluoride	0.05	4546	14232.50
2	4.17	Chloride	0.10	19126	54869.40
3	5.02	Nitrite	0.05	13753	29657.70
4	7.58	Nitrate	0.05	16586	41873.90
5	9.23	Phosphate	0.05	4063	21690.00
6	11.00	Sulfate	0.10	11710	27438.00

OK
↓

RP 9/21/09

STANDARD 2



Ion Chromatography Calibration Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : STANDARD 3
Sample Type : Calibration Update
Data File Name : ...\\918_003.DXD
Method File Name : ...\\500-091809.met

Date Time Collected : 9/18/09 12:48:55 PM
Detector Name :
Column-ID : AS-14 / AG-14
Method Analyst :

Dilution Factor : 1.00
Sample Comment :
Data Collection Rate : 5.00 Hz

Calibration Type : EXTERNAL
Calibration Level : 3

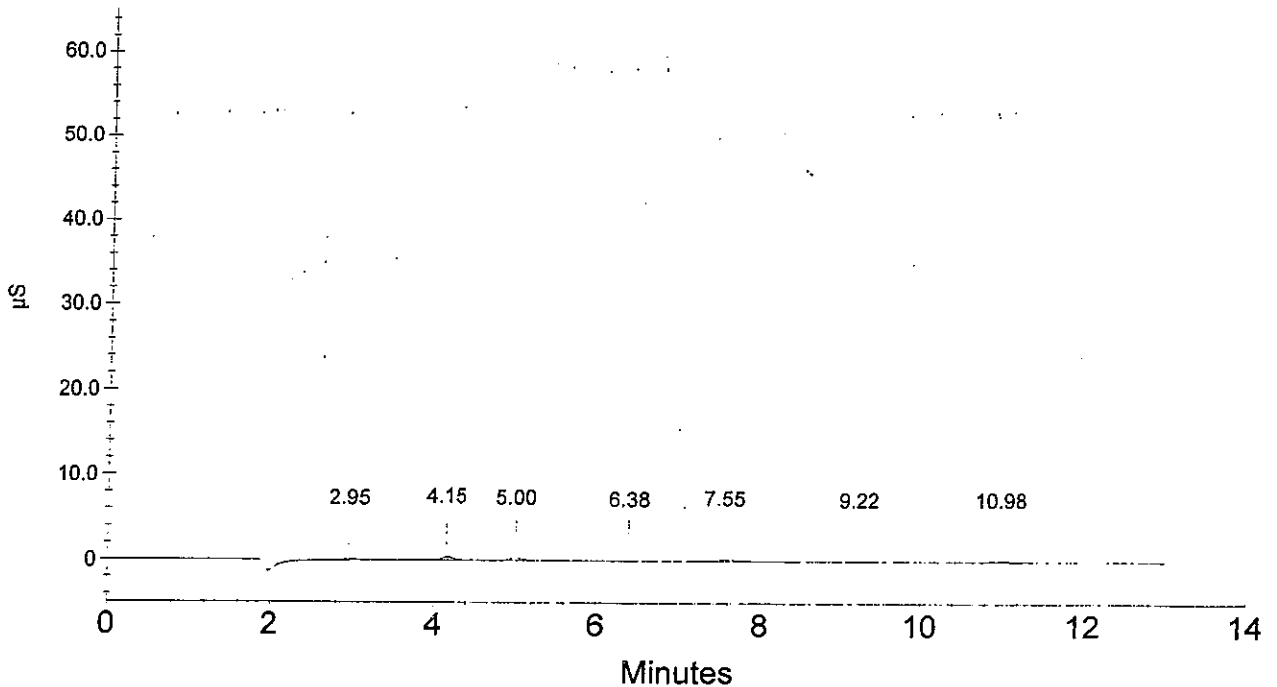
Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area	Cal Response Previous
1	2.95	Fluoride	0.10	15399	35996.40
2	4.15	Chloride	0.20	37674	92789.30
3	5.00	Nitrite	0.10	30608	64580.50
4	6.38	Bromide	0.10	5801	13421.20
5	7.55	Nitrate	0.10	37470	84788.90
6	9.22	Phosphate	0.10	11360	40077.40
7	10.98	Sulfate	0.20	23839	50875.00

OK
↓

RR 9/21/09

STANDARD 3



Ion Chromatography Calibration Report
 Columbia Analytical Services
 Rochester, NY 14607

Sample Name : STANDARD 4
 Sample Type : Calibration Update
 Data File Name : ... \918_004.DXD
 Method File Name : ... \500-091809.met

Date Time Collected : 9/18/09 1:04:17 PM
 Detector Name :
 Column ID : AS-14 / AG-14
 Method Analyst :

Dilution Factor : 1.00
 Sample Comment :
 Data Collection Rate : 5.00 Hz

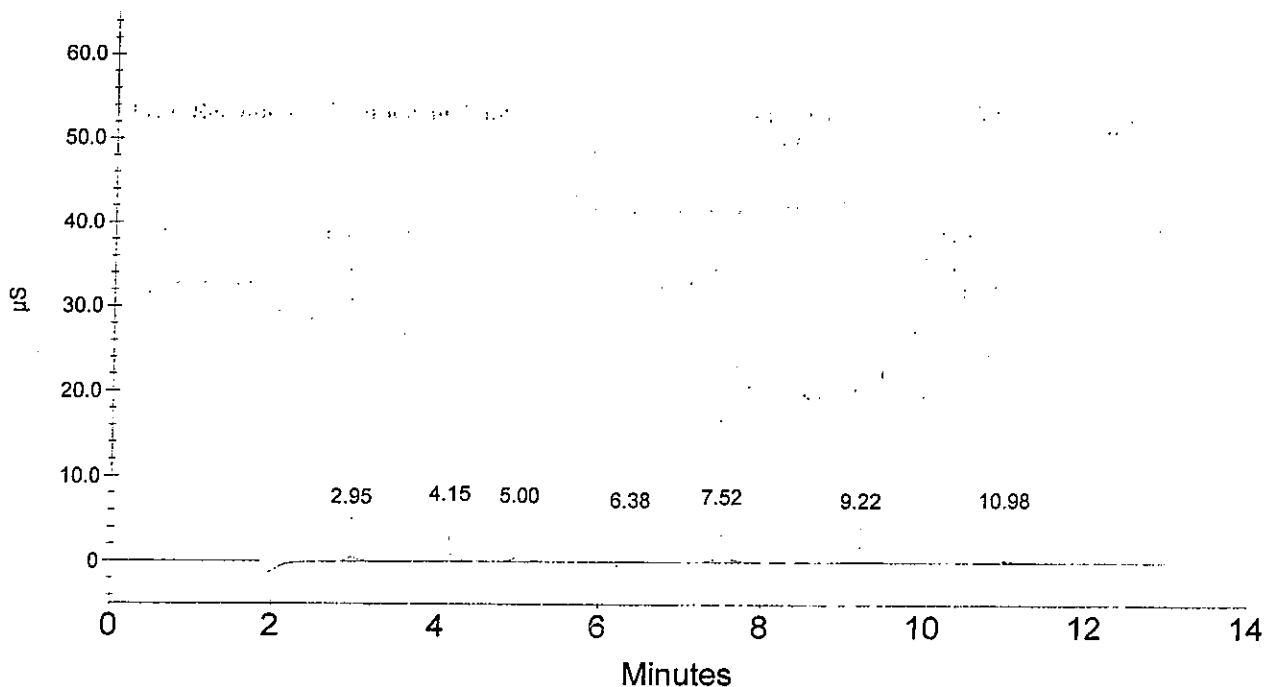
Calibration Type : EXTERNAL
 Calibration Level : 4

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area	Cal Response Previous
1	2.95	Fluoride	OK 0.25	52049	110713.10
2	4.15	Chloride	0.50	83546	175614.20
3	5.00	Nitrite	0.25	79293	159737.90
4	6.38	Bromide	0.25	15361	34326.30
5	7.52	Nitrate	0.25	94187	211344.40
6	9.22	Phosphate	0.25	30959	88422.20
7	10.98	Sulfate	0.50	59183	124788.60

RR 9/21/09

STANDARD 4



Ion Chromatography Calibration Report
 Columbia Analytical Services
 Rochester, NY 14607

Sample Name : STANDARD 5
 Sample Type : Calibration Update
 Data File Name : ... \918_005.DXD
 Method File Name : ... \500-091809.met

Date Time Collected : 9/18/09 1:19:37 PM
 Detector Name :
 Column ID : AS-14 / AG-14
 Method Analyst :

Dilution Factor : 1.00
 Sample Comment :
 Data Collection Rate : 5.00 Hz

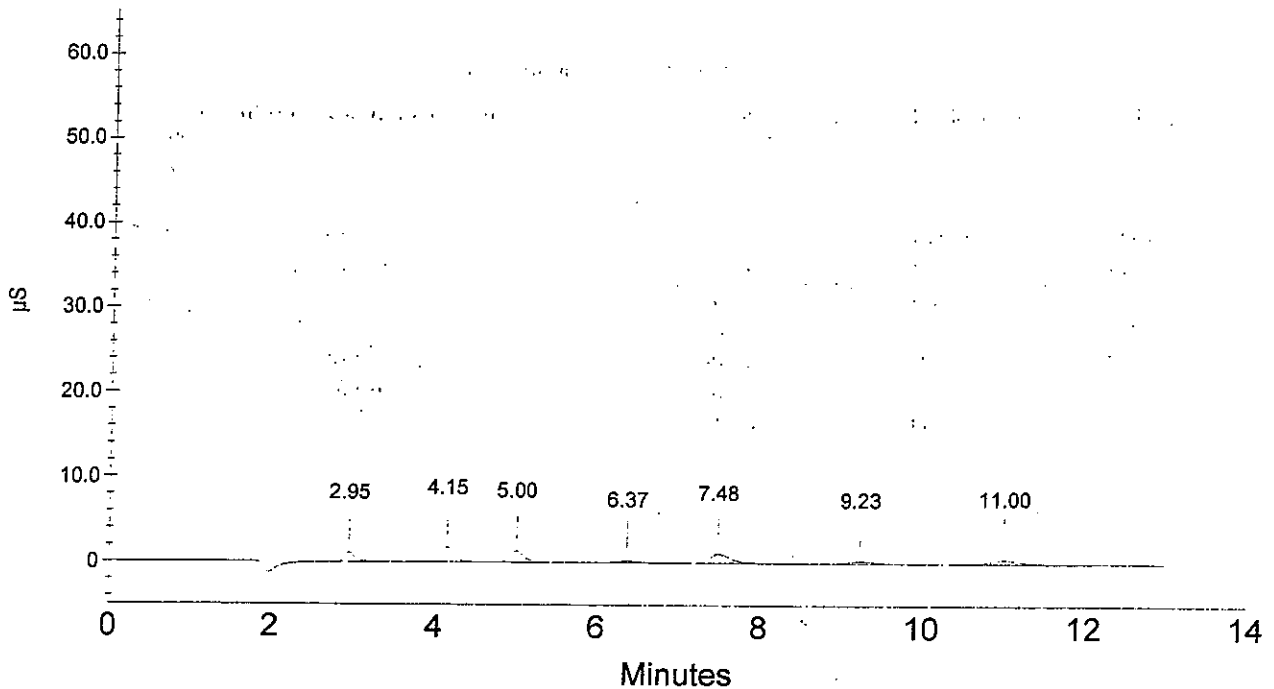
Calibration Type : EXTERNAL
 Calibration Level : 5

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area	Cal Response Previous
1	2.95	Fluoride	OK 0.50	104129	218685.60
2	4.15	Chloride	1.00	163724	338082.60
3	5.00	Nitrite	0.50	158490	324252.60
4	6.37	Bromide	0.50	31700	66113.60
5	7.48	Nitrate	0.50	189448	404813.40
6	9.23	Phosphate	0.50	62978	159199.60
7	11.00	Sulfate	1.00	116097	240739.20

RP 9/21/09

STANDARD 5



Ion Chromatography Calibration Report
 Columbia Analytical Services
 Rochester, NY 14607

Sample Name : STANDARD 6
 Sample Type : Calibration Update
 Data File Name : ... \918_006.DXD
 Method File Name : ... \500-091809.met

Date Time Collected : 9/18/09 1:34:55 PM
 Detector Name :
 Column-ID : AS-14 / AG-14
 Method Analyst :

Dilution Factor : 1.00
 Sample Comment :
 Data Collection Rate : 5.00 Hz

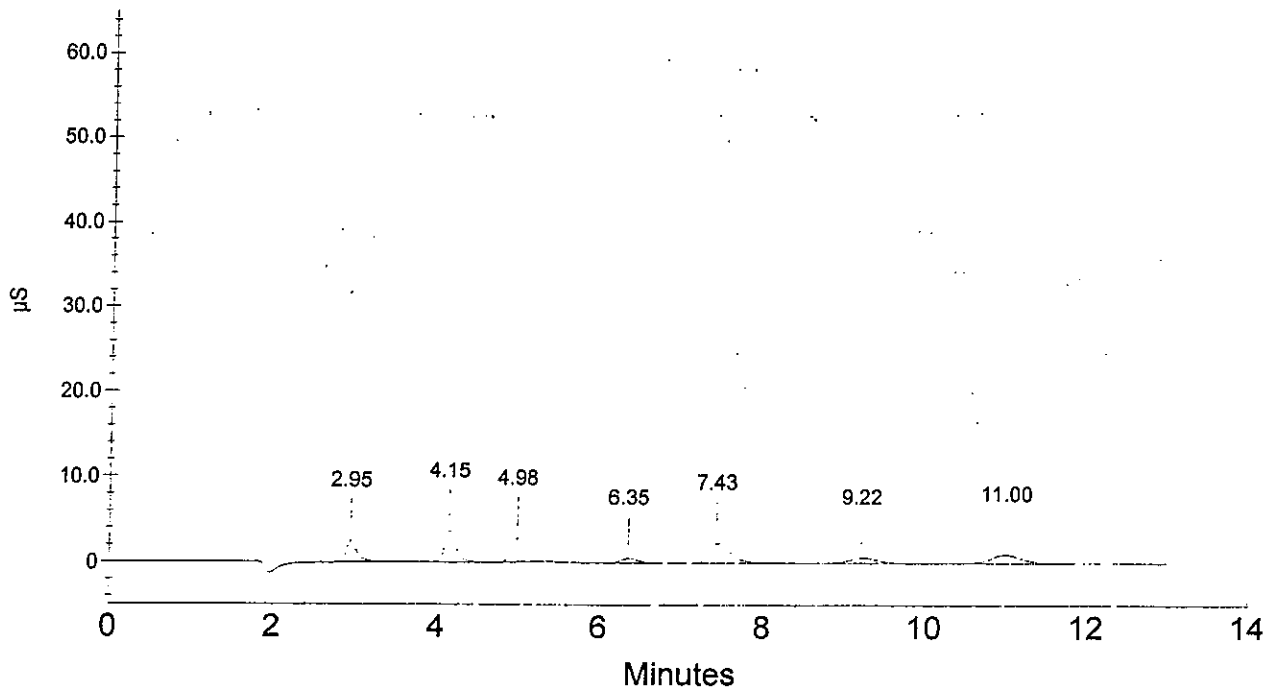
Calibration Type : EXTERNAL
 Calibration Level : 6

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area	Cal Response Previous
1	2.95	Fluoride	1.00	222838	470710.20
2	4.15	Chloride	2.00	342870	726231.80
3	4.98	Nitrite	1.00	311339	701591.70
4	6.35	Bromide	1.00	67907	143307.20
5	7.43	Nitrate	1.00	401500	879736.20
6	9.22	Phosphate	1.00	137520	318431.30
7	11.00	Sulfate	2.00	242994	517807.90

RP 9/21/09

STANDARD 6



Ion Chromatography Calibration Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : STANDARD 7
Sample Type : Calibration Update
Data File Name : ... \918_007.DXD
Method File Name : ... \500-091809.met

Date Time Collected : 9/18/09 1:50:17 PM
Detector Name :
Column ID : AS-14 / AG-14
Method Analyst :

Dilution Factor : 1.00
Sample Comment :
Data Collection Rate : 5.00 Hz

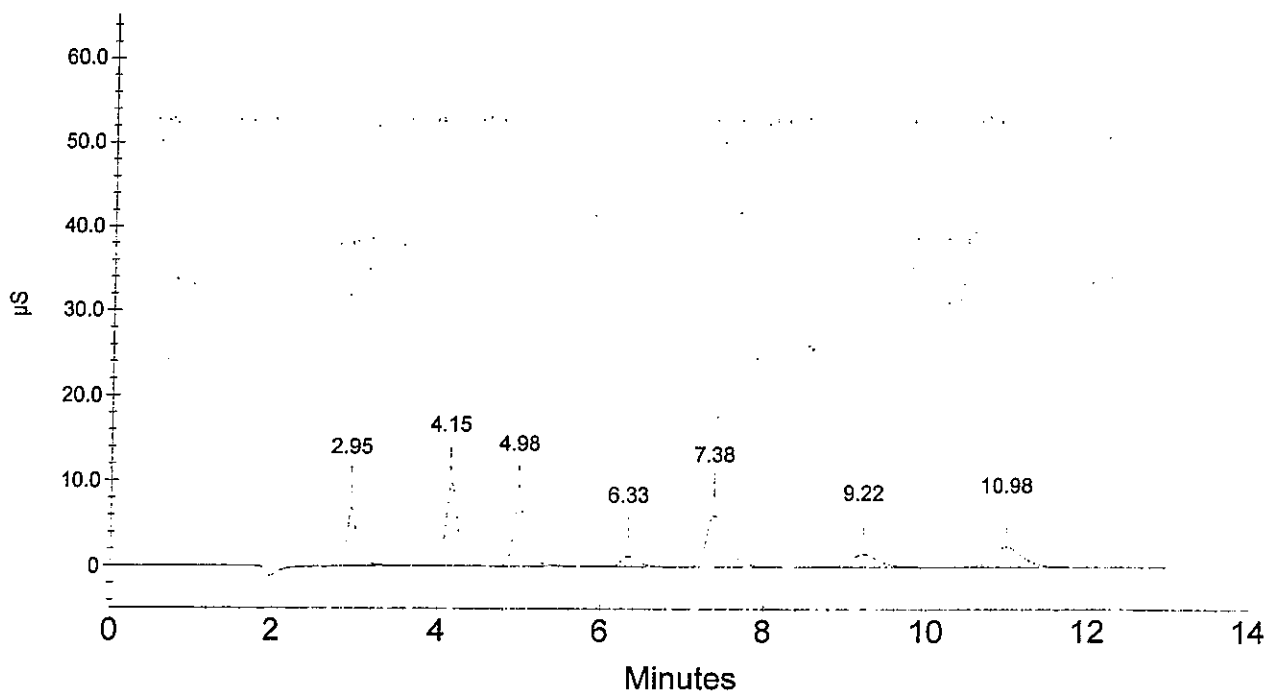
Calibration Type : EXTERNAL
Calibration Level : 7

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area	Cal Response Previous
1	2.95	Fluoride	2.50	584905	1257127.20
2	4.15	Chloride	5.00	900663	1922182.50
3	4.98	Nitrite	2.50	885692	1859593.60
4	6.33	Bromide	2.50	173495	359768.40
5	7.38	Nitrate	2.50	1051560	2336098.80
6	9.22	Phosphate	2.50	355826	784187.20
7	10.98	Sulfate	5.00	609261	1285232.00

RP 9/21/09

STANDARD 7



Ion Chromatography Calibration Report
 Columbia Analytical Services
 Rochester, NY 14607

Sample Name : STANDARD 8
 Sample Type : Calibration Update
 Data File Name : ...\\918_008.DXD
 Method File Name : ...\\500-091809.met

Date Time Collected : 9/18/09 2:05:38 PM
 Detector Name :
 Column ID : AS-14 / AG-14
 Method Analyst :

Dilution Factor : 1.00
 Sample Comment :
 Data Collection Rate : 5.00 Hz

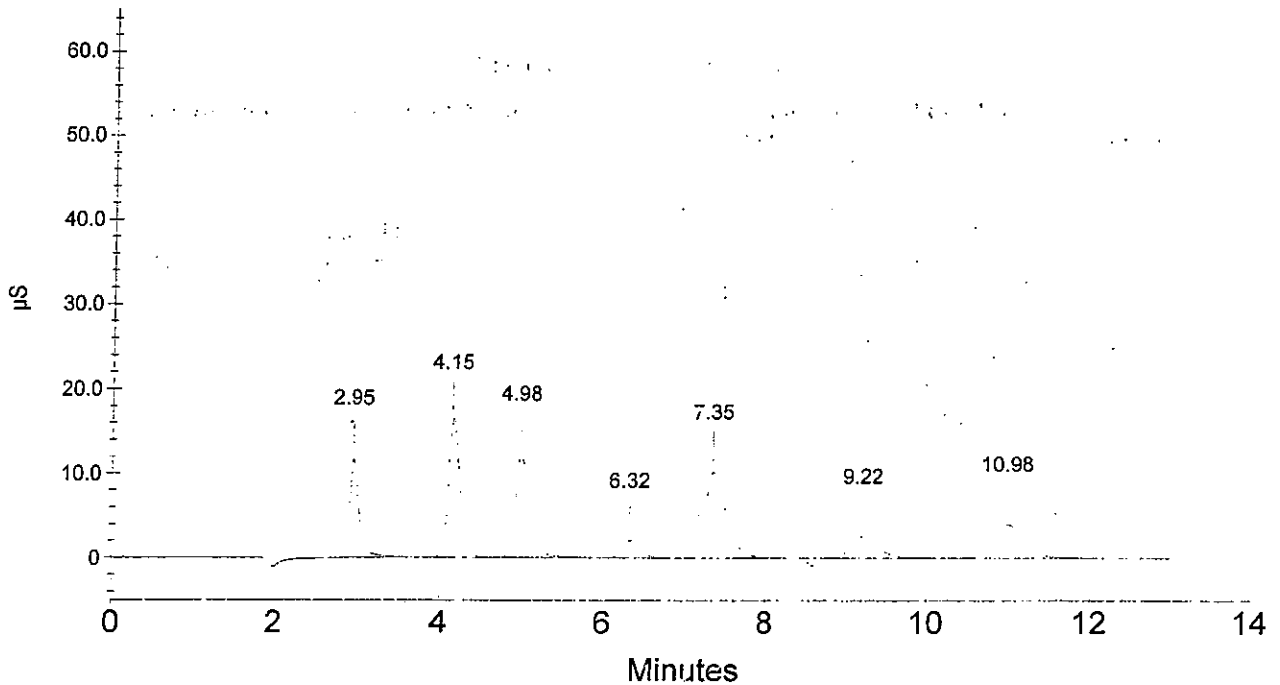
Calibration Type : EXTERNAL
 Calibration Level : 8

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area	Cal Response Previous
1	2.95	Fluoride	OK 4.00	982569	2106416.80
2	4.15	Chloride	8.00	1515588	3289971.60
3	4.98	Nitrite	4.00	1477839	3110568.90
4	6.32	Bromide	4.00	283658	586798.80
5	7.35	Nitrate	4.00	1768243	3943641.90
6	9.22	Phosphate	4.00	588127	1283022.60
7	10.98	Sulfate	8.00	999637	2120308.80

RP 9/21/09

STANDARD 8



Ion Chromatography Calibration Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : STANDARD 9
Sample Type : Calibration Update
Data File Name : ...\\918_009.DXD
Method File Name : ...\\500-091809.met

Date Time Collected : 9/18/09 2:21:00 PM
Detector Name :
Column ID : AS-14 / AG-14
Method Analyst :

Dilution Factor : 1.00
Sample Comment :
Data Collection Rate : 5.00 Hz

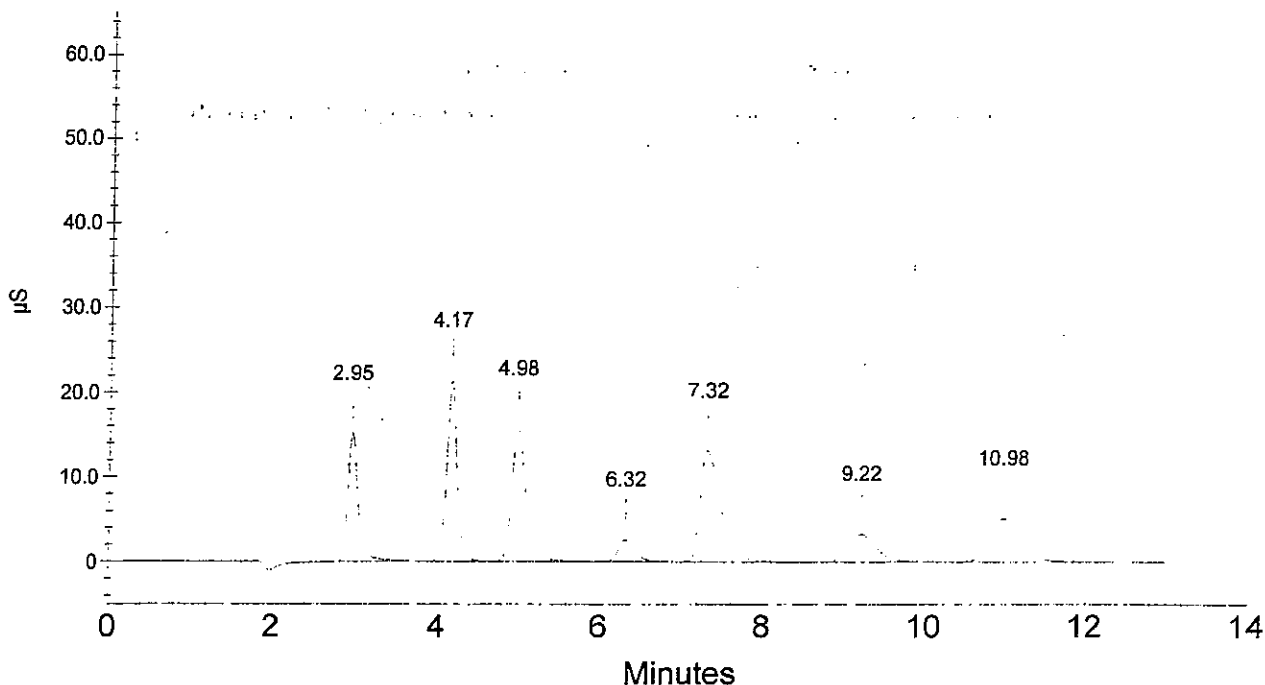
Calibration Type : EXTERNAL
Calibration Level : 9

Peak Information : Found Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area	Cal Response Previous
1	2.95	Fluoride	5.00	1260877	2676085.40
2	4.17	Chloride	10.00	1953627	4226417.80
3	4.98	Nitrite	5.00	1882273	3940774.60
4	6.32	Bromide	5.00	357946	740967.10
5	7.32	Nitrate	5.00	2271431	5054777.60
6	9.22	Phosphate	5.00	743393	1624436.00
7	10.98	Sulfate	10.00	1272033	2682070.50

RP 9/21/09

STANDARD 9



Ion Chromatography Analytical Report
 Columbia Analytical Services
 Rochester, NY 14607

Sample Name : ICV
 Data File Name : ...\\918_010.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 9/18/09 2:36:20 PM

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

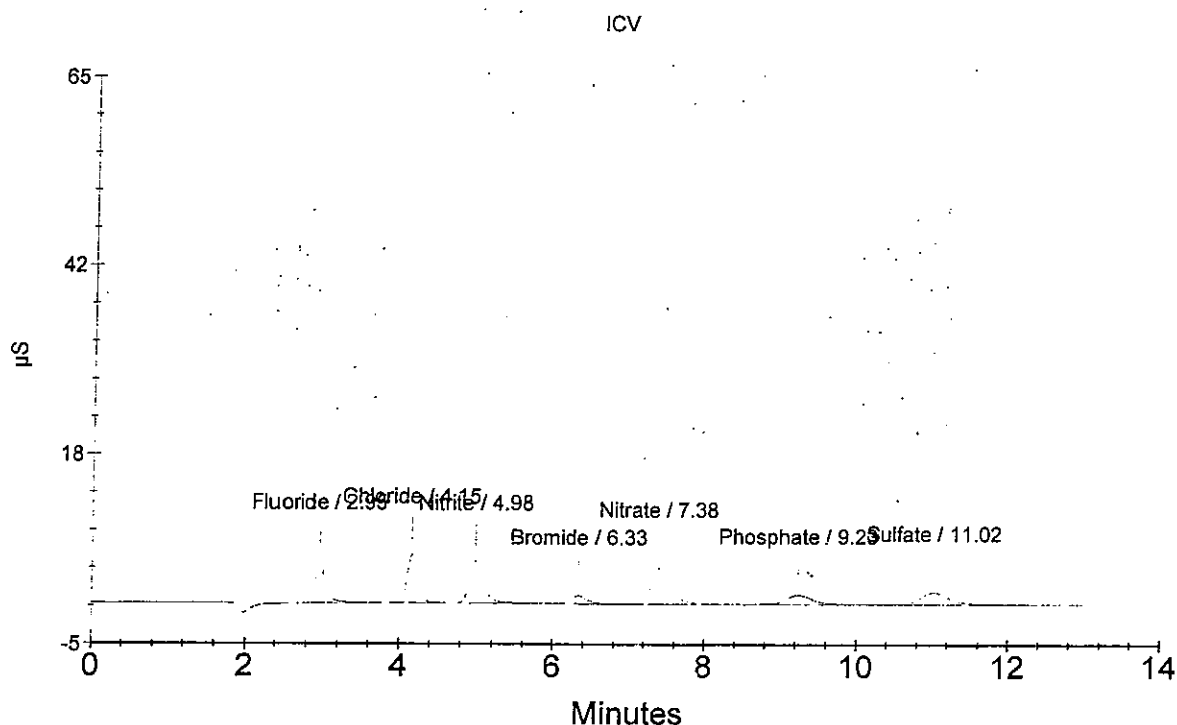
Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment :

Data Collection Rate : 5.00 Hz
 Data Collection Period : 780.00 seconds
 Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.95	Fluoride	OK 1.884	455972
2	4.15	Chloride	3.021	565896
3	4.98	Nitrite	1.763	637972
4	6.33	Bromide	1.954	137680
5	7.38	Nitrate	1.756	765693
6	9.23	Phosphate	1.784	258081
7	11.02	Sulfate	3.007	375374

RP 9/18/09



Ion Chromatography Analytical Report
Columbia Analytical Services
Rochester, NY 14607

Sample Name : ICB
Data File Name : ...\\918_011.DXD
Method File Name : ...\\500-091809.met
Date Time Collected : 9/18/09 2:51:41 PM

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

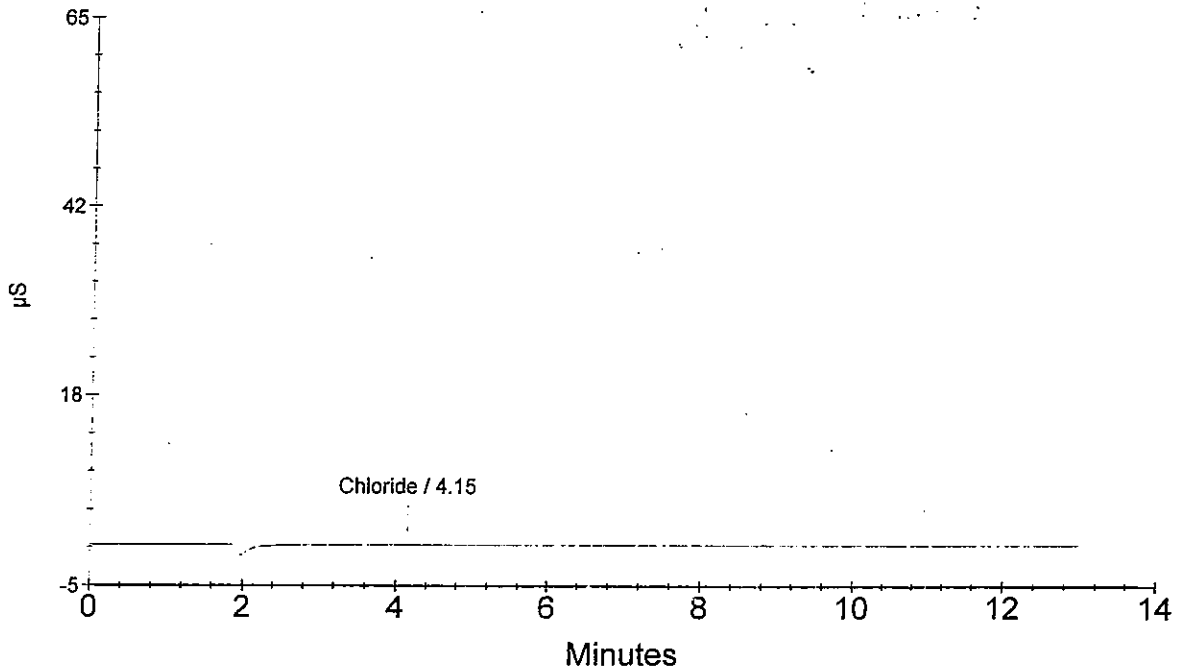
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment :

Data Collection Rate : 5.00 Hz
Data Collection Period : 780.00 seconds
Component Amount Units :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	4.15	Chloride	OK 0.112	3158

RP 9/21/09



Ion Chromatography Analytical Report
 Columbia Analytical Services
 Rochester, NY 14607

Sample Name : LCS
 Data File Name : ...\\918_012.DXD
 Method File Name : ...\\500-091809.met
 Date Time Collected : 9/18/09 3:07:01 PM

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

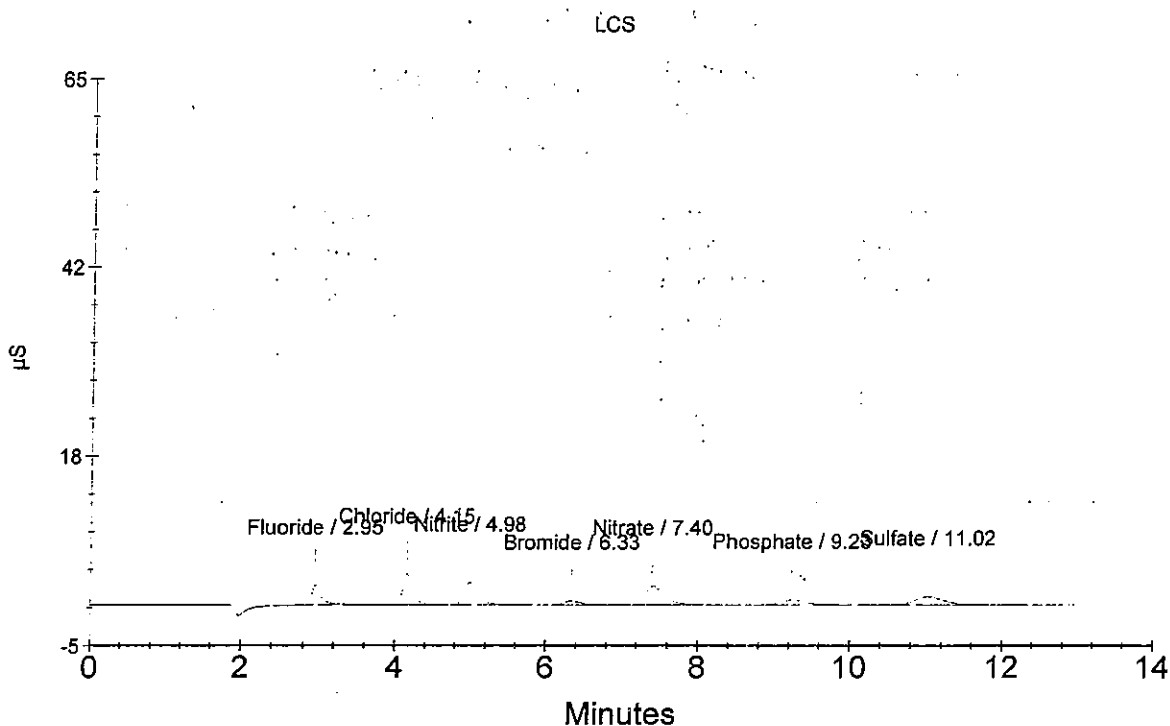
Dilution Factor : 1.00
 Sample Type : Sample Analysis
 Sample Comment :

Data Collection Rate : 5.00 Hz
 Data Collection Period : 780.00 seconds
 Component Amount Units :

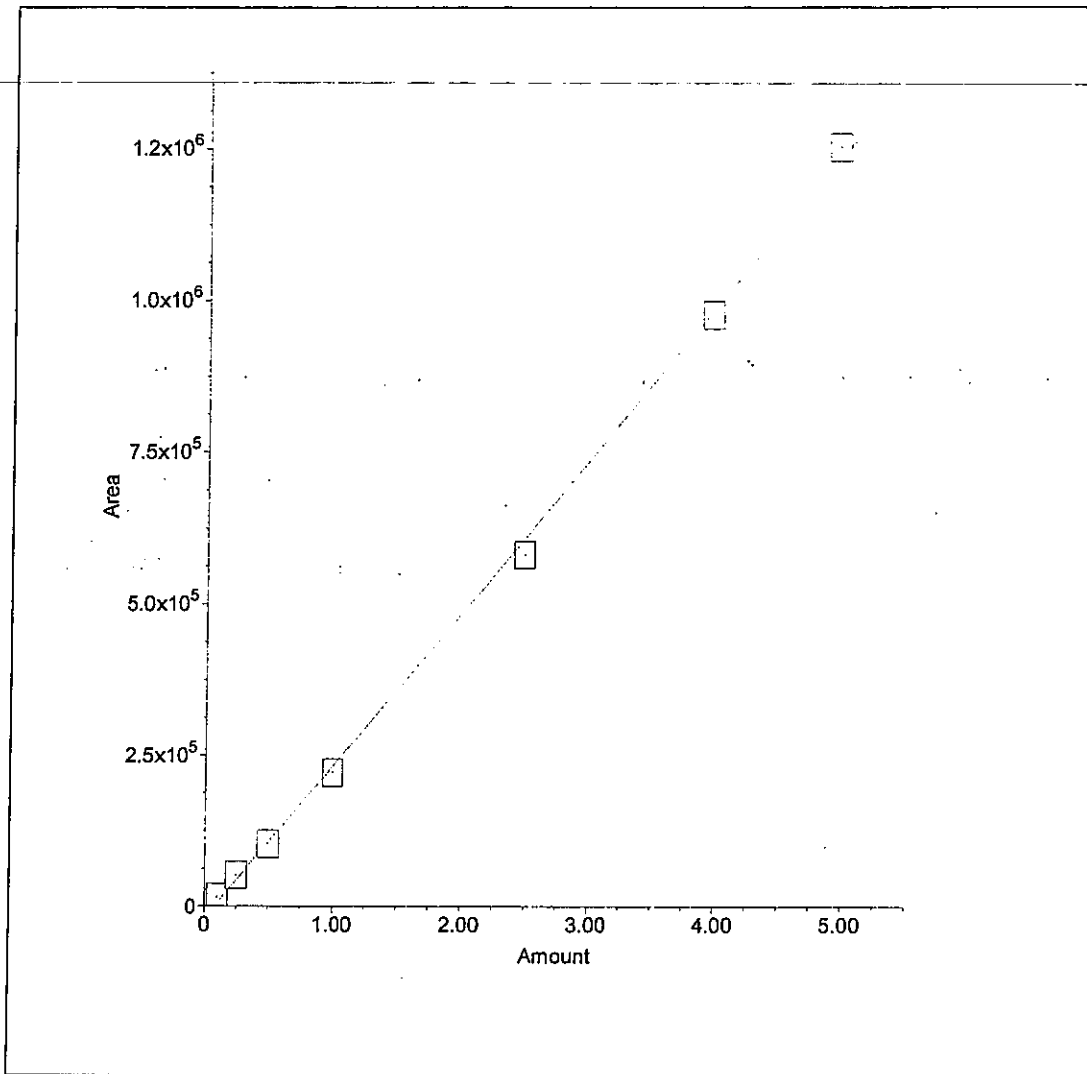
Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount	Peak Area
1	2.95	Fluoride	OK 0.949	220319
2	4.15	Chloride	1.956	359920
3	4.98	Nitrite	0.972	339822
4	6.33	Bromide	0.976	67725
5	7.40	Nitrate	0.947	399238
6	9.23	Phosphate	0.980	138118
7	11.02	Sulfate	2.036	252904

RP 9/21/09

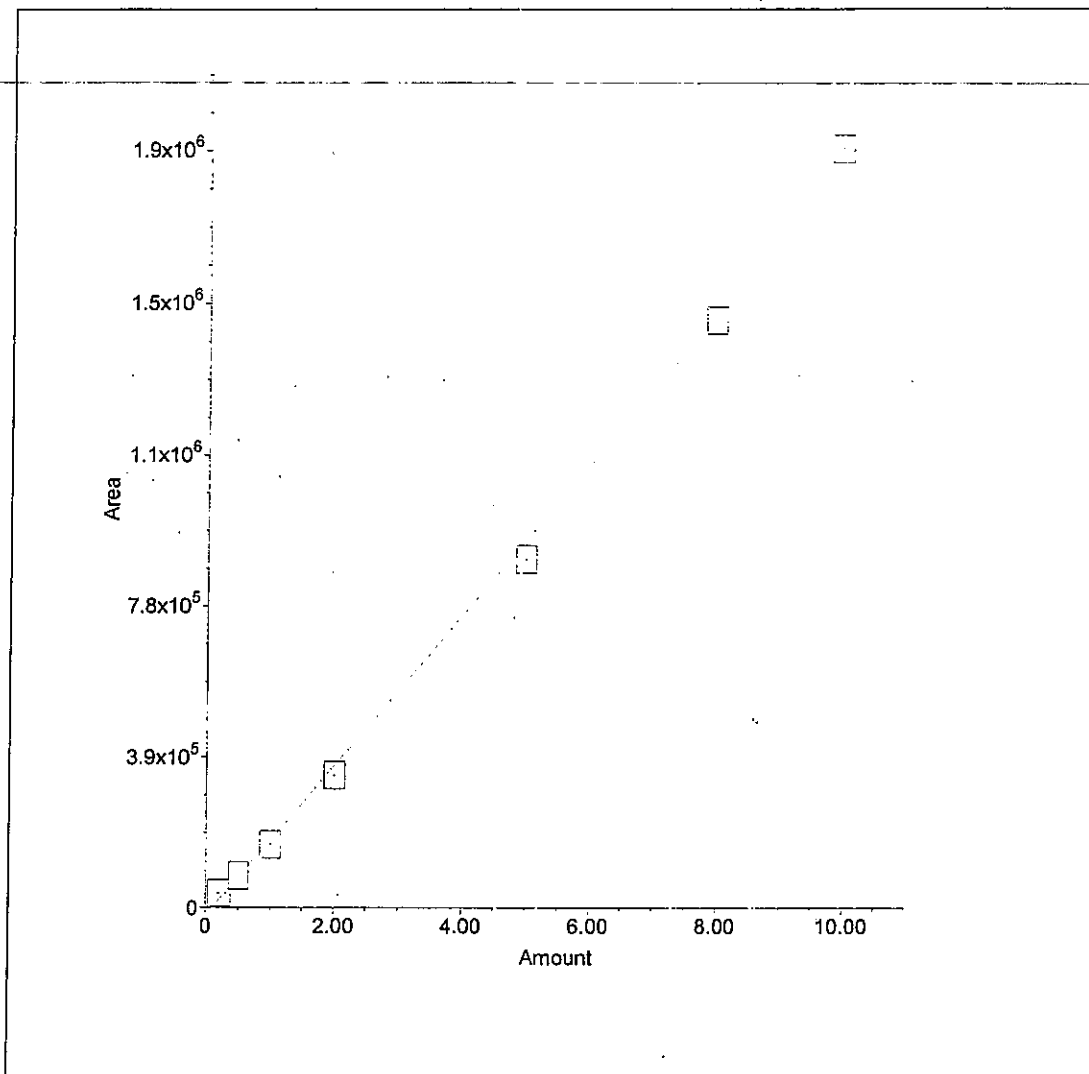


1. Component: Fluoride
Standard: External Fit Type: Linear
Origin: Ignore Calibration: Area
 $r^2=0.999098$
Amt= $3.967e-006$ *Resp+0.07465



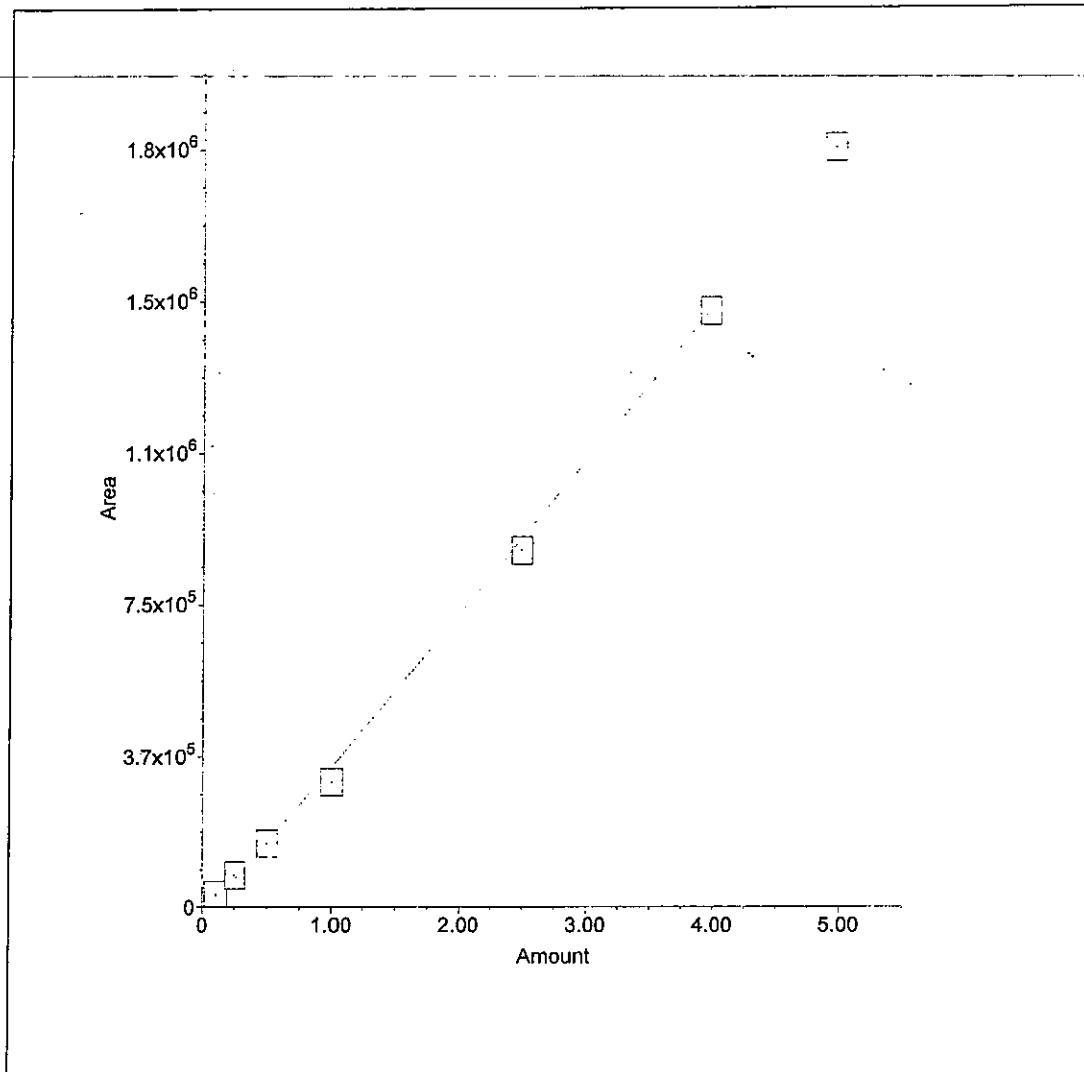
OK
RF 9/21/09

2. Component: Chloride
Standard: External Fit Type: Linear
Origin: Ignore Calibration: Area
 $r^2=0.998654$
 $Amt=5.169e-006*Resp+0.0955$



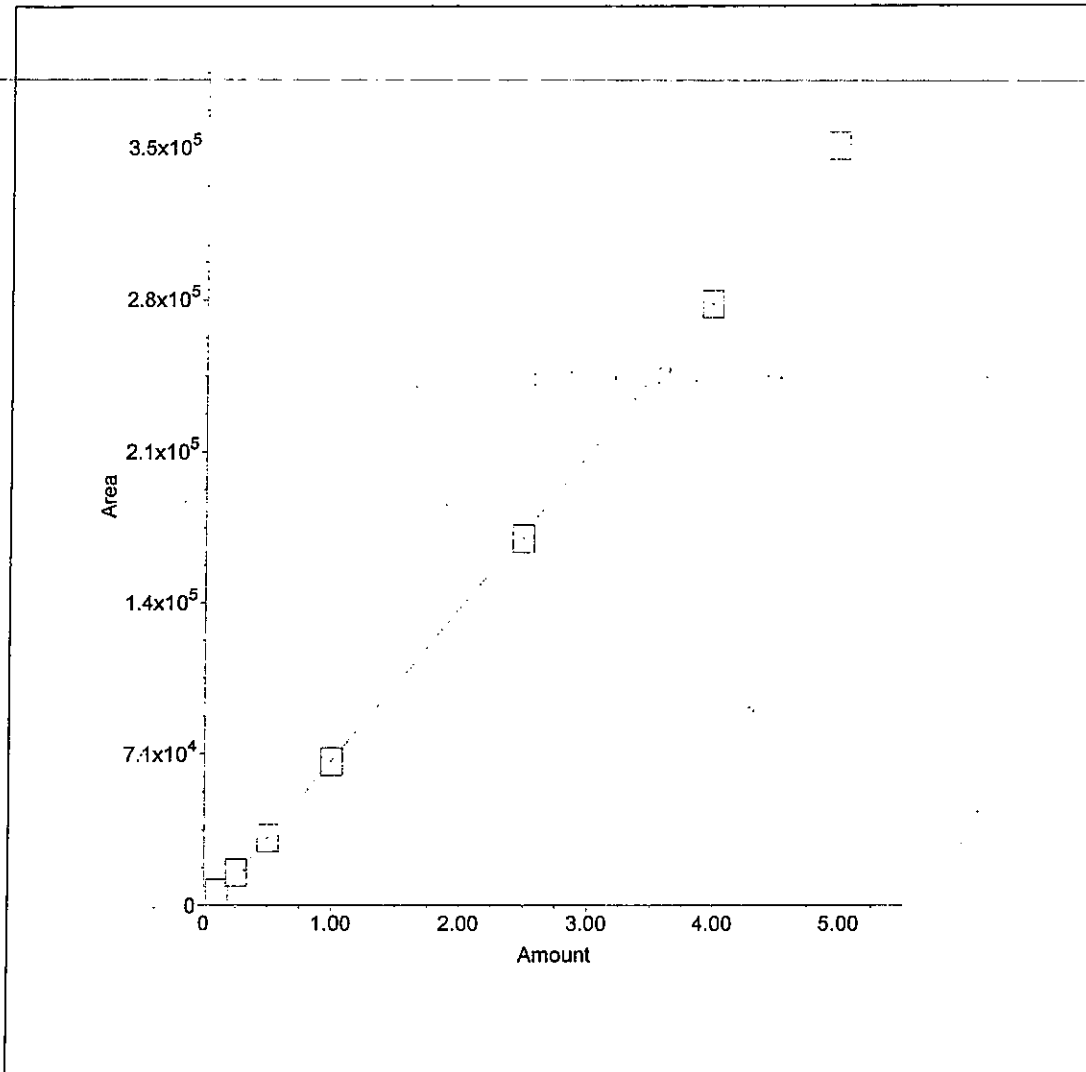
OK
RP 9/21/09

3. Component: Nitrite
Standard: External Fit Type: Linear
Origin: Ignore Calibration: Area
 $r^2=0.998920$
 $Amt=2.651e-006*Resp+0.07126$



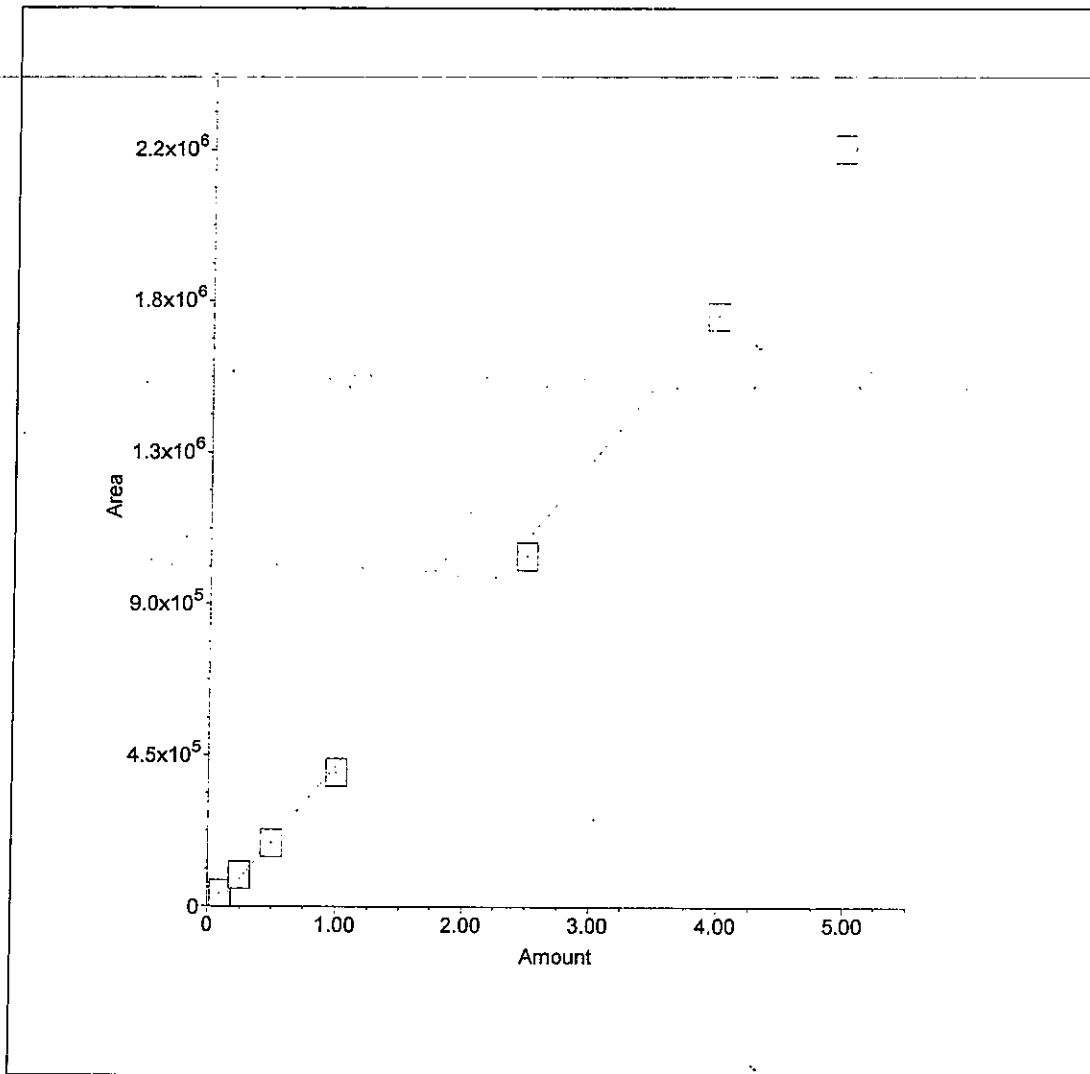
OK
at 9/21/09

4. Component: Bromide
Standard: External Fit Type: Linear
Origin: Ignore Calibration: Area
 $r^2=0.999853$
Amt= $1.391e-005 * Resp + 0.04759$



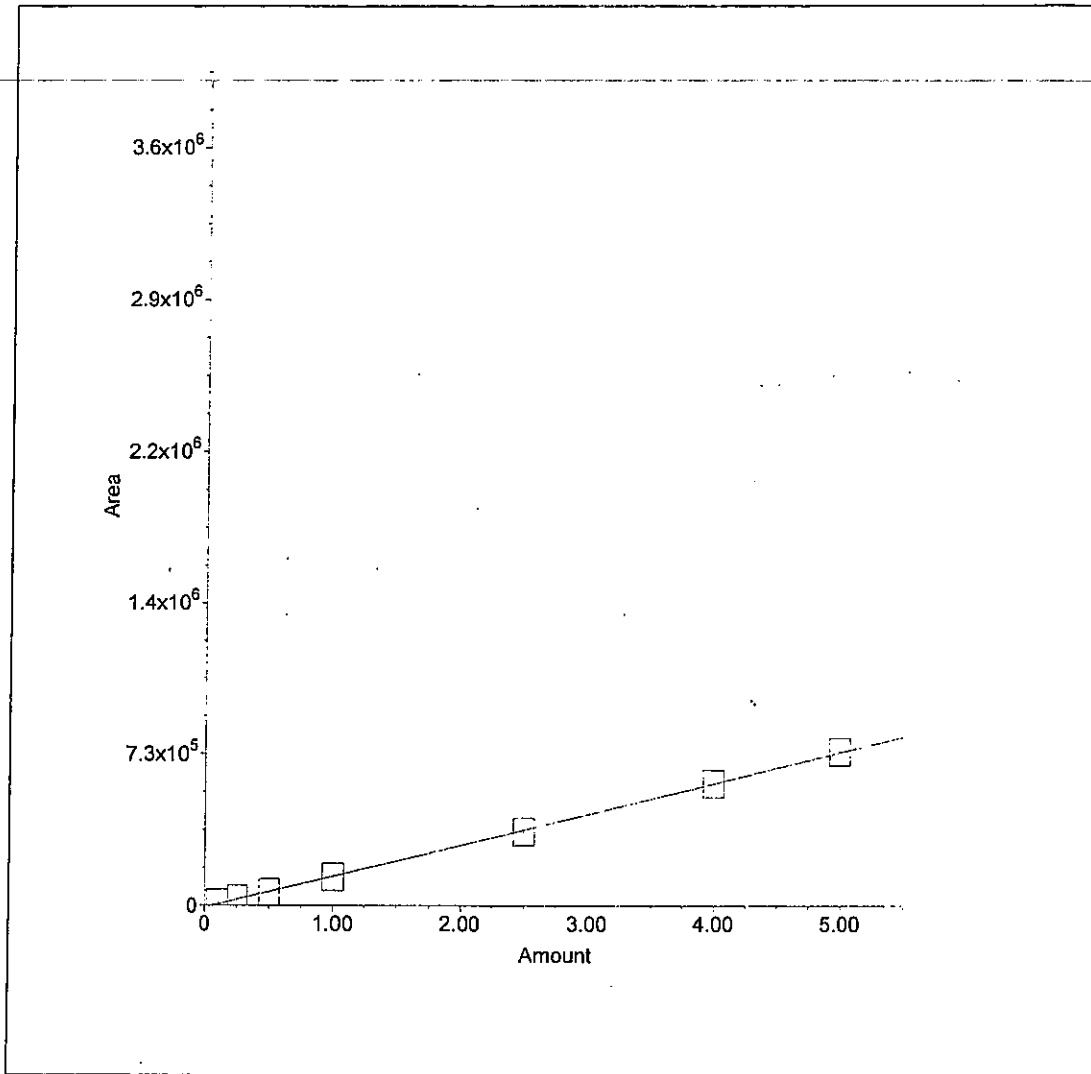
OK
RP 9/21/09

5. Component: Nitrate
Standard: External Fit Type: Linear
Origin: Ignore Calibration: Area
 $r^2=0.998917$
 $Amt=2.209e-006*Resp+0.06526$



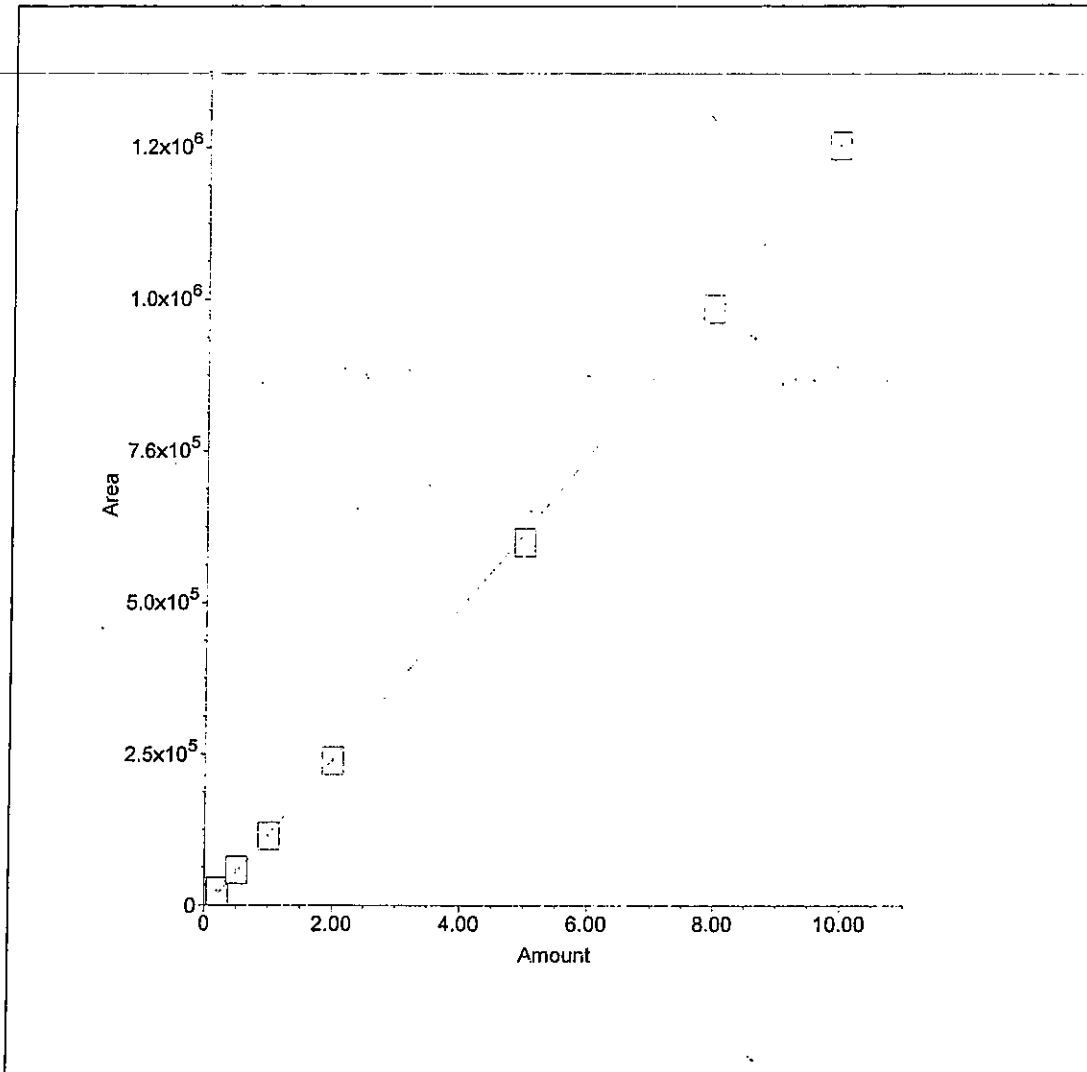
OK 9/18/09

6. Component: Phosphate
Standard: External Fit Type: Linear
Origin: Ignore Calibration: Area
 $r^2=0.999684$
Amt= $6.703e-006 * Resp + 0.05447$



OK RP 9/21/09

7. Component: Sulfate
Standard: External Fit Type: Linear
Origin: Ignore Calibration: Area
 $r^2=0.999651$
 $Amt=7.898e-006*Resp+0.05797$



Ok 9/21/09

Method Report - 500-091809

Method Information : All Modules

System Name : DX-500
System Number : 2
Method Type : Ion Chromatography
Column : AS-14 / AG-14
Analyst :
Comment : Dionex DX-500 Ion Chromatograph
Calibration 09.15.09

CD20 Timed Events

Module Name :
Module Serial Number :
SRS Current : 100 mA
Temperature Compensation : 1.7 (% / °C)
Cell Temperature : 35 °C

Time	Range (µS)	Offset	Mark	TTL1	TTL2	Relay1	Relay2	Collect
Init	0.010			Low	Low	Open	Open	
0.00	0.010	*		High	Low	Open	Open	
0.10	0.010			Low	Low	Open	Open	
2.20	0.010	*		Low	Low	Open	Closed	Begin

CD20 Detector Parameters

Detector Type : CD20
Data collection time (minutes) : 13.00
Data Collection Rate (Hz.) : 5.00
Real time plot scale maximum (µS) : 65.000
Real time plot scale minimum (µS) : -5.000

CD20 Integration Parameters

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

CD20 Smoothing Parameters

Filter Type : No filter

CD20 Report Data

Report Format File : J:\ACQU\DATA\IC\METHOD.ACI\IC#7\ANIONS-IC7.rpt

Print Sample Analysis : Yes

Print Calibration Update : Yes

Print Check Standard : Yes

System Suitability Tests :

No system suitability tests selected.

CD20 Integration Data Events

Time	Description
0.00	Force baseline at start of all peaks
1.70	Void volume treatment for this peak

CD20 Calibration Parameters

External or internal calibration : EXTERNAL

Number of replicates for calibration : 1

Rejection : Manual

Level Weighting : Equal

Sample Weight : 1.000000

Calibration standard volume : 1.000000

Default sample volume : 1.000000

Amount units :

Replace retention time : Yes

Update response : Yes

Default dilution factor : 1.000000

Default response factor for unknown peaks : 0.000000

Calculate unknowns by area or height : Area

CD20 Component Identification Table

Component	Retention	Tolerance	Reference
Fluoride	2.95 min	10.00 %	
Chloride	4.17 min	10.00 %	
Nitrite	4.98 min	10.00 %	
Bromide	6.32 min	10.00 %	
Nitrate	7.32 min	10.00 %	
Phosphate	9.22 min	10.00 %	
Sulfate	10.98 min	10.00 %	

CD20 Component Quantitation Table

Component	Retention	Low Limit	High Limit
Fluoride	2.95 min	0.05	5
Chloride	4.17 min	0.1	10
Nitrite	4.98 min	0.05	5
Bromide	6.32 min	0.05	5
Nitrate	7.32 min	0.05	5
Phosphate	9.22 min	0.1	5
Sulfate	10.98 min	0.05	10

CD20 Component Calibration Table

Component	Retention Time	Curve Fit	Origin	Cal. by	Response Component	Relative Factor
Fluoride	2.95 min	Linear	Ignore	Area	Fluoride	0.00
Chloride	4.17 min	Linear	Ignore	Area	Fluoride	0.00
Nitrite	4.98 min	Linear	Ignore	Area	Fluoride	0.00
Bromide	6.32 min	Linear	Ignore	Area	Fluoride	0.00
Nitrate	7.32 min	Linear	Ignore	Area	Fluoride	0.00
Phosphate	9.22 min	Linear	Ignore	Area	Fluoride	0.00
Sulfate	10.98 min	Linear	Ignore	Area	Fluoride	0.00

CD20 Component = Fluoride Levels Table

Retention Time : 2.95 min
 Amount units :
 Replicate unit type : Area
 Number of levels : 9
 Number of replicates : 1

Level	Amount	Replicate 1
1	0.00	<i>2/2/09</i> 1.08174e+006 <i>NO PEAK</i>
2	0.05	4545.8
3	0.10	15398.6
4	0.25	52049.2
5	0.50	104129
6	1.00	222838
7	2.50	584905
8	4.00	982569
9	5.00	1.26088e+006

CD20 Component = Chloride Levels Table

Retention Time : 4.17 min

Amount units :

Replicate unit type : Area

Number of levels : 9

Number of replicates : 1

Level	Amount	Replicate 1
1	0.00	1715.6
2	0.10	19125.8
3	0.20	37673.8
4	0.50	83545.8
5	1.00	163724
6	2.00	342870
7	5.00	900663
8	8.00	1.51559e+006
9	10.00	1.95363e+006

CD20 Component = Nitrite Levels Table

Retention Time : 4.98 min

Amount units :

Replicate unit type : Area

Number of levels : 9

Number of replicates : 1

Level	Amount	Replicate 1
1	0.00	<i>R.P. 9/18/09</i> 1684.2 NO PEAK
2	0.05	13753
3	0.10	30608
4	0.25	79293.2
5	0.50	158490
6	1.00	311339
7	2.50	885692
8	4.00	1.47784e+006
9	5.00	1.88227e+006

CD20 Component = Bromide Levels Table

Retention Time : 6.32 min
 Amount units :
 Replicate unit type : Area
 Number of levels : 9
 Number of replicates : 1

Level	Amount	Replicate 1
1	0.00	3471.6 NO PEAK
2	0.05	5815.6 NO PEAK
3	0.10	5801
4	0.25	15361.4
5	0.50	31700.4
6	1.00	67907
7	2.50	173495
8	4.00	283658
9	5.00	357946

CD20 Component = Nitrate Levels Table

Retention Time : 7.32 min
 Amount units :
 Replicate unit type : Area
 Number of levels : 9
 Number of replicates : 1

Level	Amount	Replicate 1
1	0.00	6351.4 NO PEAK
2	0.05	16585.6
3	0.10	37470
4	0.25	94186.6
5	0.50	189448
6	1.00	401500
7	2.50	1.05156e+006
8	4.00	1.76824e+006
9	5.00	2.27143e+006

CD20 Component = Phosphate Levels Table

Retention Time : 9.22 min

Amount units :

Replicate unit type : Area

Number of levels : 9

Number of replicates : 1

Level	Amount	Replicate 1
1	0.00	<i>RP9/12/09</i> 3.6675e+006 NO PEAK
2	0.05	4062.8
3	0.10	11360.3
4	0.25	30959.4
5	0.50	62977.8
6	1.00	137520
7	2.50	355826
8	4.00	588127
9	5.00	743393

CD20 Component = Sulfate Levels Table

Retention Time : 10.98 min

Amount units :

Replicate unit type : Area

Number of levels : 9

Number of replicates : 1

Level	Amount	Replicate 1
1	0.00	<i>RP9/12/09</i> 10388.6 NO PEAK
2	0.10	11709.6
3	0.20	23838.7
4	0.50	59182.7
5	1.00	116097
6	2.00	242994
7	5.00	609261
8	8.00	999637
9	10.00	1.27203e+006

CD20 XY Data Parameters

GP50 Timed Events

Module Name :

Module Serial Number :

Description :

High Pressure Limit : 3000.0

Low Pressure Limit : 0.0

Eluent A :

Eluent B :

Eluent C :

Eluent D :

Piston Size : Standard

Pressure Unit : psi

Oven Not Installed

Time	Flow	%A	%B	%C	%D	Curve	Comment
Init	1.20	0.00	0.00	100.00	0.00	5	
0.00	1.20	0.00	0.00	100.00	0.00	5	
2.20	1.20	0.00	0.00	100.00	0.00	5	

Time	Valve	Column	TTL1	TTL2	Relay1	Relay2
Init	Load	A	Low	Low	Open	Open
0.00	Load	A	Low	Low	Open	Open
2.20	Inject	A	Low	Low	Open	Open

Ion Chromatography Cover Sheet

Instrument: Dionex DX-500 Ion Chromatogram

Column: Dionex AS-14/AG-14, 08/04/09 – IC # 7

Curve Date: 09/18/09

Loop size: 50 uL

Analyst: RP

Analysis Date: 9/18/09

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	09/10/09	WC90024A		Working Calibration Stds	09/15/09	WC90024H
LCS / MS Intermediate	09/10/09	WC90024A		Working LCS/MS Standard	09/18/09	WC90070I
ICV Intermediate	09/10/09	WC90107A		Working ICV Standard	09/18/09	WC90107H
CCV Intermediate	09/10/09	WC90107A		Working CCV Standard	DAILY	WC90107H

Comments:

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	WC920056	1000	10	200	50	RP	9/10/09	A	1/20/10	WC900274
Cl	WC720056	1000	20		100			B		
NO2	WC720057	1000	10		50			C		
Br	WC720058	1000	10		50			D		
NO3	WC90001E	1000	10		50			E		
OPO4	WC720059	1000	10		50			F		
SO4	WC720060	1000	20		100			G		

RP 9/10/09

WORKING CALIBRATION STANDARDS PREP

(Stocks delivered using Volumetric glassware and brought to volume with DL. 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	RP	9/15/09	H	9/22/09	WC900274H
8		8.0		4.0	8.0	4.0	4.0	4.0	4.0	4.0	8.0			I		
7		2.0		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		

01707

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	WC85284I	1000	4.0	1000	4.0	RP	9/10/07	A	1/26/10	WC90107A
Cl	WC73006E	650	10.0		13.0			B		
NO2	WC720076	180	10.0		7.2			C		
Br	WC85037D	1000	4.0		4.0			D		
NO3	WC90006G	180	10.0		7.2			E		RP 9/21/07
OPO4	WC720075	180	10.0		7.2			F		
SO4	WC72007U	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		4.0	5.0	20.0	1.0		DAILY	H	WC90107H
Cl		6.5		10.0	3.25			I	WC90107I +
NO2		3.6		10.0	1.8			J	WC90107J *
Br		4.0			2.0				+ made in 0.01N H ₂ SO ₄
NO3		3.6			1.8				* made in 0.01N NaOH
OPO4		3.6			1.8				
SO4		22.8	6.4		11.4				

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	WX90024A	50	2.0	100	1.0	RP	9/10/09	A	9/17/09	WX90070A
Cl		100			2.0	RP	9/10/09	B	9/17/09	WX90070B
NO2		50			1.0	RP	9/11/09	C	9/18/09	WX90070C
Br		50			1.0	RP	9/12/09	D	9/19/09	WX90070D
NO3		50			1.0	RP	9/15/09	E		
OPO4		50			1.0	RP	9/15/09	F	9/22/09	WX90070F
SO4		100			2.0	RP	9/16/09	G	9/23/09	WX90070G
						RP	9/17/09	H	9/24/09	WX90070H
						RP	9/18/09	I	9/25/09	WX90070I
								J		
								K		
								L		
								M		
								N		
								O		
								P		
								Q		
								R		

* prepped in 0.07N NaOH
 / + prepped in 0.01N H2SO4

Analytical Results Summary

Instrument Name: R-IC-03 Analyst: RPAWL Analysis Lot: 177181 Method/Testcode: 300.0/Chloride

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ0910671-03	Chloride	MB		Water	0.00 mg/L	10 mL	0.20 mg/L	U 1	0.20			10/30/09 01:44:41	N	IV
RQ0910671-03	Chloride	MB		Water	0.00 mg/L	10 mL	0.20 mg/L	U 1	0.20			10/30/09 01:44:41	N	IV
RQ0910671-03	Sulfate	MB		Water	0.00 mg/L	10 mL	0.20 mg/L	U 1	0.20			10/30/09 01:44:41	N	IV
RQ0910671-03	Sulfate	MB		Water	0.00 mg/L	10 mL	0.20 mg/L	U 1	0.20			10/30/09 01:44:41	N	IV
RQ0910671-04	Chloride	LCS		Water	1.94 mg/L	10 mL	1.94 mg/L	1	0.20	97		10/30/09 01:58:47	N	IV
RQ0910671-04	Chloride	LCS		Water	1.94 mg/L	10 mL	1.94 mg/L	1	0.20	97		10/30/09 01:58:47	N	IV
RQ0910671-04	Sulfate	LCS		Water	1.82 mg/L	10 mL	1.82 mg/L	1	0.20	91		10/30/09 01:58:47	N	IV
RQ0910671-04	Sulfate	LCS		Water	1.82 mg/L	10 mL	1.82 mg/L	1	0.20	91		10/30/09 01:58:47	N	IV
R0905862-010	Sulfate	N/A		Water	518.64 mg/L	10 mL	519 mg/L	100	20			10/30/09 02:26:56	N	IV
R0906169-001	Sulfate	N/A		Water	233.38 mg/L	10 mL	233 mg/L	100	20			10/30/09 02:55:06	N	I
R0905894-005	Sulfate	N/A		Water	612.00 mg/L	10 mL	612 mg/L	200	40			10/30/09 03:09:11	N	IV
R0905894-006	Sulfate	N/A		Water	107.41 mg/L	10 mL	107 mg/L	20	4.0			10/30/09 03:23:15	N	IV
R0905894-008	Sulfate	N/A		Water	92.81 mg/L	10 mL	92.8 mg/L	20	4.0			10/30/09 03:37:20	Y	IV
RQ0910671-01	Sulfate	DUP	R0905894-008	Water	94.36 mg/L	10 mL	94.4 mg/L	20	4.0		2	10/30/09 03:51:24	N	IV
RQ0910671-02	Sulfate	MS	R0905894-008	Water	130.08 mg/L	10 mL	130 mg/L	20	4.0	93		10/30/09 04:05:29	N	IV
R0905894-009	Sulfate	N/A		Water	257.20 mg/L	10 mL	257 mg/L	40	8.0			10/30/09 04:47:44	N	IV
R0905894-010	Sulfate	N/A		Water	682.71 mg/L	10 mL	683 mg/L	200	40			10/30/09 05:01:48	N	IV
R0905636-006	Chloride	N/A		Water	4386.12 mg/L	10 mL	4390 mg/L	1000	200			10/30/09 05:15:53	N	IV
R0905636-006	Sulfate	N/A		Water	1580.04 mg/L	10 mL	1580 mg/L	400	80			10/30/09 05:29:58	N	IV
R0905976-001	Chloride	N/A		Water	13134.70 mg/L	10 mL	13100 mg/L	2000	400			10/30/09 05:44:03	N	I
R0905976-003	Chloride	N/A		Water	1310.42 mg/L	10 mL	1310 mg/L	200	40			10/30/09 06:12:12	N	I
R0905976-004	Chloride	N/A		Water	14615.19 mg/L	10 mL	14600 mg/L	2000	400			10/30/09 06:26:17	N	I
R0905976-004	Sulfate	N/A		Water	26.73 mg/L	10 mL	26.7 mg/L	10	2.0			10/30/09 06:40:49	N	I
R0905976-005	Chloride	N/A		Water	19893.94 mg/L	10 mL	19900 mg/L	2000	400			10/30/09 06:54:53	N	I

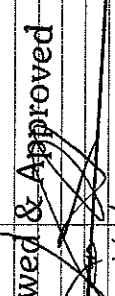
† indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

01710

10-29-09 IC#3 300.0 Analyst: R. Pawl Pipe's Oil' Blue, Mine. Lucy

System	Ident	Vial	Volume	Dilution	Amount	Internal Standard Amount	Level	Injections	Done	Sample Info 1	Sample Info 2
metrolim.smt	STANDARD 1	1	1.0	1.0	1.0	100.0	1	1	1		
metrolim.smt	STANDARD 2	2	1.0	1.0	1.0	100.0	2	1	1		
metrolim.smt	STANDARD 3	3	1.0	1.0	1.0	100.0	3	1	1		
metrolim.smt	STANDARD 4	4	1.0	1.0	1.0	100.0	4	1	1		
metrolim.smt	STANDARD 5	5	1.0	1.0	1.0	100.0	5	1	1		
metrolim.smt	STANDARD 6	6	1.0	1.0	1.0	100.0	6	1	1		
metrolim.smt	STANDARD 7	7	1.0	1.0	1.0	100.0	7	1	1		
metrolim.smt	STANDARD 8	8	1.0	1.0	1.0	100.0	8	1	1		
metrolim.smt	STANDARD 9	9	1.0	1.0	1.0	100.0	9	1	1		
metrolim.smt	ICY	10	1.0	1.0	1.0	100.0	0	1	1		
metrolim.smt	ICB	11	1.0	1.0	1.0	100.0	0	1	1		
metrolim.smt	LCS	12	1.0	1.0	1.0	100.0	0	1	1		
metrolim.smt	R0905836-022	13	1.0	100.0	1.0	100.0	0	1	1	CS (300.0)	
metrolim.smt	R0905836-026	14	1.0	40.0	1.0	100.0	0	1	1	C (300.0)	
metrolim.smt	R0905836-033	15	1.0	100.0	1.0	100.0	0	1	1	C (300.0)	
metrolim.smt	R0905836-035	16	1.0	100.0	1.0	100.0	0	1	1	CS (300.0)	
metrolim.smt	R0905714-004	17	1.0	100.0	1.0	100.0	0	1	1	C (300.0)	
metrolim.smt	R0905714-004 DUP	18	1.0	100.0	1.0	100.0	0	1	1	C (300.0)	
metrolim.smt	R0905714-004 SPK	19	1.0	100.0	1.0	100.0	0	1	1	C (300.0)	R5836 R6054
metrolim.smt	R0905714-016	20	1.0	40.0	1.0	100.0	0	1	1	CS (300.0)	R5862 R6070
metrolim.smt	R0905714-024	21	1.0	40.0	1.0	100.0	0	1	1	CS (300.0)	R5894
metrolim.smt	CCY	22	1.0	1.0	1.0	100.0	0	1	1	9056300.0	
metrolim.smt	CCB	23	1.0	1.0	1.0	100.0	0	1	1	CS (300.0)	
metrolim.smt	R0905714-025	24	1.0	40.0	1.0	100.0	0	1	1	CS (300.0)	
metrolim.smt	R0905714-026	25	1.0	20.0	1.0	100.0	0	1	1	C (300.0)	
metrolim.smt	R0905714-026 DUP	26	1.0	20.0	1.0	100.0	0	1	1	C (300.0)	
metrolim.smt	R0905714-026 SPK	27	1.0	20.0	1.0	100.0	0	1	1	C (300.0)	
metrolim.smt	R0905714-028	28	1.0	40.0	1.0	100.0	0	1	1	CS (300.0)	
metrolim.smt	R0905862-004	29	1.0	100.0	1.0	100.0	0	1	1	C (300.0)	
metrolim.smt	R0905836-002	30	1.0	200.0	1.0	100.0	0	1	1	S (300.0)	
metrolim.smt	R0905836-003	31	1.0	100.0	1.0	100.0	0	1	1	S (300.0)	
metrolim.smt	R0905836-004	32	1.0	400.0	1.0	100.0	0	1	1	S (300.0)	
metrolim.smt	R0905836-006	33	1.0	20.0	1.0	100.0	0	1	1	S (300.0)	
metrolim.smt	CCY	34	1.0	1.0	1.0	100.0	0	1	1	9056300.0	
metrolim.smt	CCB	35	1.0	1.0	1.0	100.0	0	1	1	9056300.0	
metrolim.smt	LCS	36	1.0	1.0	1.0	100.0	0	1	1	S (300.0)	
metrolim.smt	R0905836-017	37	1.0	200.0	1.0	100.0	0	1	1	S (300.0)	
metrolim.smt	R0905836-019	38	1.0	200.0	1.0	100.0	0	1	1	S (300.0)	
metrolim.smt	R0905836-021	39	1.0	100.0	1.0	100.0	0	1	1	S (300.0)	
metrolim.smt	R0905836-033	40	1.0	200.0	1.0	100.0	0	1	1	S (300.0)	
metrolim.smt	R0902714-003	41	1.0	40.0	1.0	100.0	0	1	1	S (300.0)	
metrolim.smt	R0902714-004	42	1.0	40.0	1.0	100.0	0	1	1	S (300.0)	
metrolim.smt	R0902714-006	43	1.0	40.0	1.0	100.0	0	1	1	S (300.0)	
metrolim.smt	R0902714-006 DUP	44	1.0	40.0	1.0	100.0	0	1	1	S (300.0)	
metrolim.smt	R0902714-006 SPK	45	1.0	40.0	1.0	100.0	0	1	1	S (300.0)	
metrolim.smt	CCY	46	1.0	1.0	1.0	100.0	0	1	1	9056300.0	
metrolim.smt	CCB	47	1.0	1.0	1.0	100.0	0	1	1	9056300.0	
metrolim.smt	R0905714-009	48	1.0	40.0	1.0	100.0	0	1	1	S (300.0)	
metrolim.smt	R0905714-010	49	1.0	200.0	1.0	100.0	0	1	1	S (300.0)	
metrolim.smt	R0905714-011	50	1.0	200.0	1.0	100.0	0	1	1	S (300.0)	
metrolim.smt	R0905714-015	51	1.0	20.0	1.0	100.0	0	1	1	S (300.0)	

8-Copies

Reviewed & Approved
By: 
Date: 11/2/09

System	Ident	Vial	Volume	Dilution	Amount	Internal Standard Amount	Level	Injections	Done	Sample Info 1	Sample Info 2
metrolim.smt	R0905714-018	52	1.0	20.0	1.0	100.0	0	1	1	1 S (300.0)	
metrolim.smt	R0905714-023	53	1.0	20.0	1.0	100.0	0	1	1	1 S (300.0)	
metrolim.smt	R0905714-026	54	1.0	400.0	1.0	100.0	0	1	1	1 S (300.0)	
metrolim.smt	R0905714-026 DLP	55	1.0	400.0	1.0	100.0	0	1	1	1 S (300.0)	
metrolim.smt	R0905714-026 SPK	56	1.0	400.0	1.0	100.0	0	1	1	1 S (300.0)	
metrolim.smt	R0905862-001	57	1.0	100.0	1.0	100.0	0	1	1	1 S (300.0)	
metrolim.smt	CCY	58	1.0	1.0	1.0	100.0	0	1	1	1 9056300.0	
metrolim.smt	CCB	59	1.0	1.0	1.0	100.0	0	1	1	1 9056300.0	
metrolim.smt	LCS	60	1.0	1.0	1.0	100.0	0	1	1	1 9056300.0	
metrolim.smt	R0905862-008	61	1.0	100.0	1.0	100.0	0	1	1	1 S (300.0)	
metrolim.smt	R0905862-010	62	1.0	100.0	1.0	100.0	0	1	1	1 S (300.0)	
metrolim.smt	R0905909-001	63	1.0	100.0	1.0	100.0	0	1	1	1 S (300.0)	
metrolim.smt	R0906169-001	64	1.0	100.0	1.0	100.0	0	1	1	1 S (300.0)	
metrolim.smt	R0905894-005	65	1.0	200.0	1.0	100.0	0	1	1	1 S (300.0)	
metrolim.smt	R0905894-006	66	1.0	20.0	1.0	100.0	0	1	1	1 S (300.0)	
metrolim.smt	R0905894-008	67	1.0	20.0	1.0	100.0	0	1	1	1 S (300.0)	
metrolim.smt	R0905894-008 DLP	68	1.0	20.0	1.0	100.0	0	1	1	1 S (300.0)	
metrolim.smt	R0905894-008 SPK	69	1.0	20.0	1.0	100.0	0	1	1	1 S (300.0)	
metrolim.smt	CCY	70	1.0	1.0	1.0	100.0	0	1	1	1 9056300.0	
metrolim.smt	CCB	71	1.0	1.0	1.0	100.0	0	1	1	1 9056300.0	
metrolim.smt	R0905894-009	72	1.0	40.0	1.0	100.0	0	1	1	1 S (300.0)	
metrolim.smt	R0905894-010	73	1.0	200.0	1.0	100.0	0	1	1	1 S (300.0)	
metrolim.smt	R0905636-006	74	1.0	1000.0	1.0	100.0	0	1	1	1 C (9056)	
metrolim.smt	R0905636-006	75	1.0	400.0	1.0	100.0	0	1	1	1 S (9056)	
metrolim.smt	R0905976-001	76	1.0	2000.0	1.0	100.0	0	1	1	1 C (300.0)	
metrolim.smt	R0905976-002	77	1.0	200.0	1.0	100.0	0	1	1	1 C (300.0)	
metrolim.smt	R0905976-003	78	1.0	200.0	1.0	100.0	0	1	1	1 C (300.0)	
metrolim.smt	R0905976-004	79	1.0	2000.0	1.0	100.0	0	1	1	1 C (300.0)	
metrolim.smt	R0905976-004	80	1.0	10.0	1.0	100.0	0	1	1	1 S (300.0)	
metrolim.smt	R0905976-005	81	1.0	2000.0	1.0	100.0	0	1	1	1 C (300.0)	
metrolim.smt	CCY	82	1.0	1.0	1.0	100.0	0	1	1	1 9056300.0	
metrolim.smt	CCB	83	1.0	1.0	1.0	100.0	0	1	1	1 9056300.0	
metrolim.smt	LCS	84	1.0	1.0	1.0	100.0	0	1	1	1 9056300.0	
metrolim.smt	R0905976-007	85	1.0	1000.0	1.0	100.0	0	1	1	1 C (500.0)	
metrolim.smt	R0905976-007 DLP	86	1.0	1000.0	1.0	100.0	0	1	1	1 C (300.0)	
metrolim.smt	R0905976-007 SPK	87	1.0	1000.0	1.0	100.0	0	1	1	1 C (300.0)	
metrolim.smt	R0905976-008	88	1.0	400.0	1.0	100.0	0	1	1	1 C (300.0)	
metrolim.smt	R0905976-009	89	1.0	10.0	1.0	100.0	0	1	1	1 S (300.0)	
metrolim.smt	R0905976-009	90	1.0	20.0	1.0	100.0	0	1	1	1 S (300.0)	
metrolim.smt	R0905976-009	91	1.0	400.0	1.0	100.0	0	1	1	1 C (300.0)	
metrolim.smt	R0905976-009 DLP	92	1.0	400.0	1.0	100.0	0	1	1	1 C (300.0)	
metrolim.smt	R0905976-009 SPK	93	1.0	400.0	1.0	100.0	0	1	1	1 C (300.0)	
metrolim.smt	CCY	94	1.0	1.0	1.0	100.0	0	1	1	1 9056300.0	
metrolim.smt	CCB	95	1.0	1.0	1.0	100.0	0	1	1	1 9056300.0	
metrolim.smt	R0905976-010	96	1.0	1000.0	1.0	100.0	0	1	1	1 C (300.0)	
metrolim.smt	R0905976-011	97	1.0	1000.0	1.0	100.0	0	1	1	1 C (300.0)	
metrolim.smt	R0905976-011	98	1.0	200.0	1.0	100.0	0	1	1	1 S (300.0)	
metrolim.smt	R0905976-012	99	1.0	400.0	1.0	100.0	0	1	1	1 C (300.0)	
metrolim.smt	R0905977-001	100	1.0	40.0	1.0	100.0	0	1	1	1 CS (300.0)	
metrolim.smt	R0905977-001 DLP	101	1.0	40.0	1.0	100.0	0	1	1	1 CS (300.0)	
metrolim.smt	R0905977-001 SPK	102	1.0	40.0	1.0	100.0	0	1	1	1 CS (300.0)	

System	Ident	Vial	Volume	Dilution	Amount	Internal Standard Amount	Level	Injections	Done	Sample Info 1	Sample Info 2
metrolim.smt	R0905977-002	103	1.0	40.0	1.0	100.0	0	1	1	CS (300.0)	
metrolim.smt	R0905977-003	104	1.0	10.0	1.0	100.0	0	1	1	C (300.0)	
metrolim.smt	R0905977-003	105	1.0	100.0	1.0	100.0	0	1	1	S (300.0)	
metrolim.smt	CCV	106	1.0	1.0	1.0	100.0	0	1	1	9056300.0	
metrolim.smt	CCB	107	1.0	1.0	1.0	100.0	0	1	1	9056300.0	
metrolim.smt	LCS	108	1.0	1.0	1.0	100.0	0	1	1	9056300.0	
metrolim.smt	R0905977-004	109	1.0	40.0	1.0	100.0	0	1	1	CS (300.0)	
metrolim.smt	R0905977-005	110	1.0	10.0	1.0	100.0	0	1	1	C (300.0)	
metrolim.smt	R0906002-001	111	1.0	200.0	1.0	100.0	0	1	1	S (300.0)	
metrolim.smt	R0906002-001	112	1.0	100.0	1.0	100.0	0	1	1	C (300.0)	
metrolim.smt	R0906002-002	113	1.0	40.0	1.0	100.0	0	1	1	S (300.0)	
metrolim.smt	R0906002-002	114	1.0	100.0	1.0	100.0	0	1	1	CS (300.0)	
metrolim.smt	R0906002-002 DUP	115	1.0	100.0	1.0	100.0	0	1	1	CS (300.0)	
metrolim.smt	R0906002-002 SPK	116	1.0	100.0	1.0	100.0	0	1	1	CS (300.0)	
metrolim.smt	R0905995-002	117	1.0	100.0	1.0	100.0	0	1	1	C (300.0)	
metrolim.smt	CCV	118	1.0	1.0	1.0	100.0	0	1	1	9056300.0	
metrolim.smt	CCB	119	1.0	1.0	1.0	100.0	0	1	1	9056300.0	
metrolim.smt	R0905990-001	120	1.0	10.0	1.0	100.0	0	1	1	C (300.0)	
metrolim.smt	R0905990-002	121	1.0	10.0	1.0	100.0	0	1	1	C (300.0)	
metrolim.smt	R0905990-003	122	1.0	10.0	1.0	100.0	0	1	1	C (300.0)	
metrolim.smt	R0905990-004	123	1.0	10.0	1.0	100.0	0	1	1	C (300.0)	
metrolim.smt	R0905990-005	124	1.0	10.0	1.0	100.0	0	1	1	C (300.0)	
metrolim.smt	R0905990-006	125	1.0	10.0	1.0	100.0	0	1	1	C (300.0)	
metrolim.smt	R0905990-007	126	1.0	10.0	1.0	100.0	0	1	1	C (300.0)	
metrolim.smt	R0905990-007 DUP	127	1.0	10.0	1.0	100.0	0	1	1	C (300.0)	
metrolim.smt	R0905990-007 SPK	128	1.0	10.0	1.0	100.0	0	1	1	C (300.0)	
metrolim.smt	R0906070-001	129	1.0	200.0	1.0	100.0	0	1	1	C (300.0)	
metrolim.smt	CCV	130	1.0	1.0	1.0	100.0	0	1	1	9056300.0	
metrolim.smt	CCB	131	1.0	1.0	1.0	100.0	0	1	1	9056300.0	
metrolim.smt	LCS	132	1.0	1.0	1.0	100.0	0	1	1	9056300.0	
metrolim.smt	R0906070-005	133	1.0	200.0	1.0	100.0	0	1	1	C (300.0)	
metrolim.smt	R0906035-002	134	1.0	40.0	1.0	100.0	0	1	1	S (300.0)	
metrolim.smt	R0906054-013	135	1.0	40.0	1.0	100.0	0	1	1	S (300.0)	
metrolim.smt	R0906054-013 DUP	136	1.0	40.0	1.0	100.0	0	1	1	S (300.0)	
metrolim.smt	R0906054-013 SPK	137	1.0	40.0	1.0	100.0	0	1	1	S (300.0)	
metrolim.smt	R0906070-002	138	1.0	20.0	1.0	100.0	0	1	1	S (300.0)	
metrolim.smt	R0906070-003	139	1.0	100.0	1.0	100.0	0	1	1	S (300.0)	
metrolim.smt	R0906086-001	140	1.0	10.0	1.0	100.0	0	1	1	S (300.0)	
metrolim.smt	R0906086-002	141	1.0	10.0	1.0	100.0	0	1	1	S (300.0)	
metrolim.smt	CCV	142	1.0	1.0	1.0	100.0	0	1	1	9056300.0	
metrolim.smt	CCB	143	1.0	1.0	1.0	100.0	0	1	1	9056300.0	

Report date: 10/30/2009 9:59:00 AM
 Printed by: User

Ident: STANDARD 1
 Analysis from: 10/29/2009 8:27:11 AM
 File: ta290827.CHW

Last save: 10/30/2009 9:59:00 AM

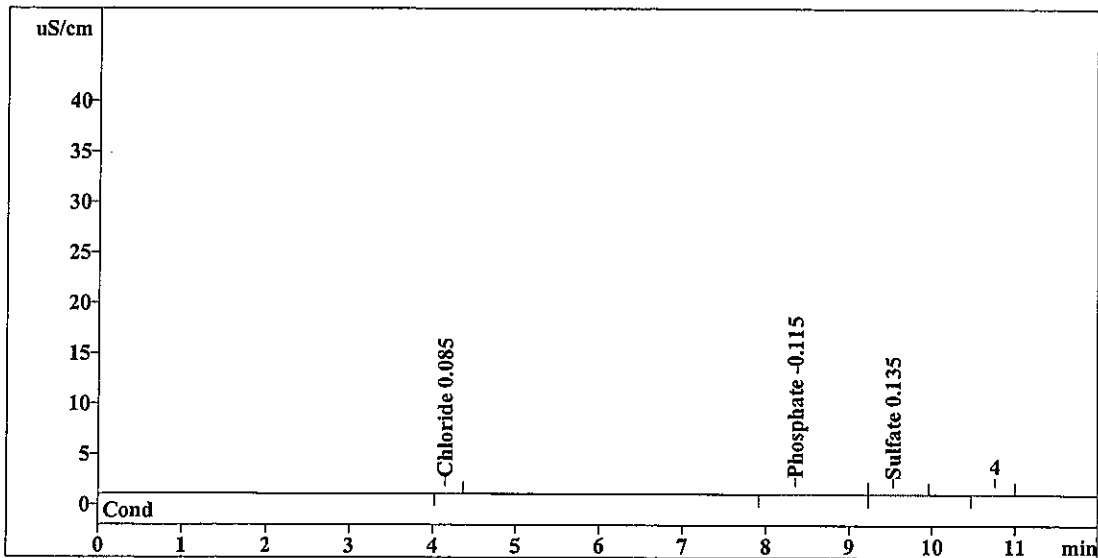
Method: 3-102909.mtw
 Run operator: User
 Analysis number: 9852

Last save: 10/29/2009 8:23:31 AM

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	0.00	0.000	0.000	Fluoride
2	4.15	0.150	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	8.36	0.949	-0.115	Phosphate
7	9.54	0.289	0.135	Sulfate
7	12.00	1.388	0.335	

OK
↓

CALIBRATION

Channel: Cond
 Method: External standard
 Response: Area
 Standard: No

RP 10/30/09

IDENTIFICATION

Report date: 10/30/2009 9:59:02 AM
Printed by: User

Ident: STANDARD 2
Analysis from: 10/29/2009 8:41:18 AM
File: ta290841.CHW

Last save: 10/30/2009 9:59:02 AM

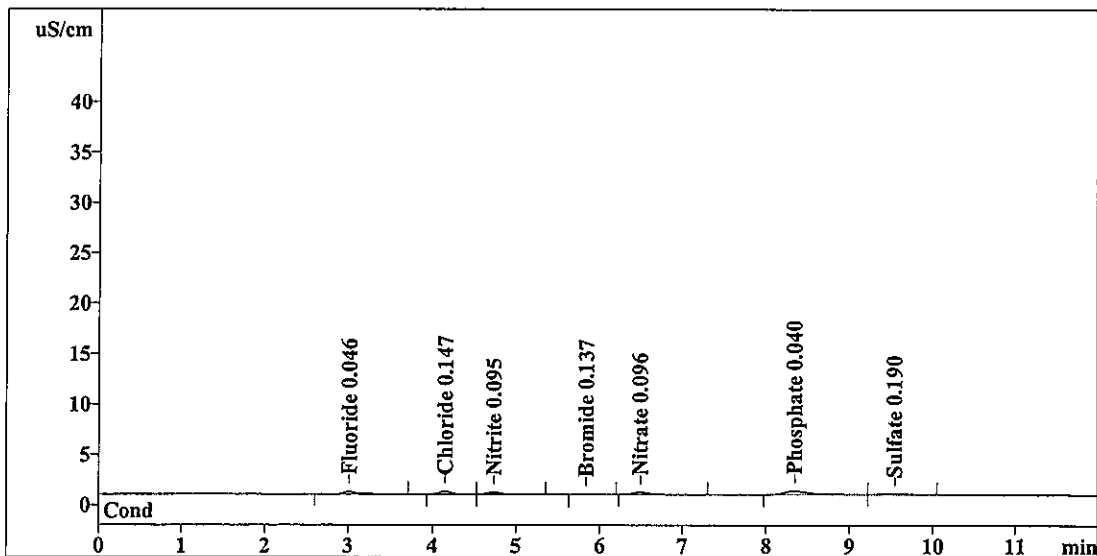
Method: 3-102909.mtw
Run operator: User
Analysis number: 9853

Last save: 10/29/2009 8:23:31 AM

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	3.01	2.457	0.046	Fluoride
2	4.15	2.527	0.147	Chloride
3	4.73	1.991	0.095	Nitrite
4	5.85	0.469	0.137	Bromide
5	6.49	2.818	0.096	Nitrate
6	8.34	7.191	0.040	Phosphate
7	9.54	1.833	0.190	Sulfate
7	12.00	19.288	0.751	

OK ↓

RP 10/30/09

CALIBRATION
Channel: Cond
Method: External standard
Response: Area
Standard: No
IDENTIFICATION

Report date: 10/30/2009 9:59:04 AM
Printed by: User

Ident: STANDARD 3
Analysis from: 10/29/2009 8:55:22 AM
File: ta290855.CHW

Last save: 10/30/2009 9:59:04 AM

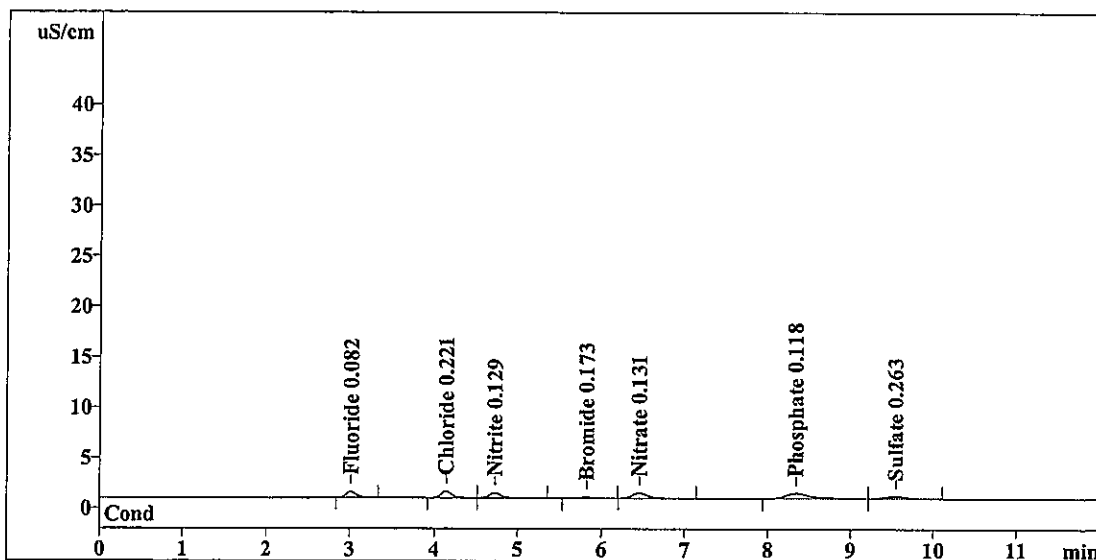
Method: 3-102909.mtw
Run operator: User
Analysis number: 9854

Last save: 10/29/2009 8:23:31 AM

SAMPLE:

Vial number: 3
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	3.01	4.731	0.082	Fluoride
2	4.14	5.354	0.221	Chloride
3	4.72	4.442	0.129	Nitrite
4	5.83	0.999	0.173	Bromide
5	6.46	6.184	0.131	Nitrate
6	8.35	10.329	0.118	Phosphate
7	9.55	3.854	0.263	Sulfate
7	12.00	35.895	1.117	

OK
↓

CALIBRATION
Channel: Cond
Method: External standard
Response: Area
Standard: No
IDENTIFICATION

RP 10/30/09

Report date: 10/30/2009 9:59:05 AM
 Printed by: User

Ident: STANDARD 4
 Analysis from: 10/29/2009 9:09:27 AM
 File: ta290909.CHW

Last save: 10/30/2009 9:59:06 AM

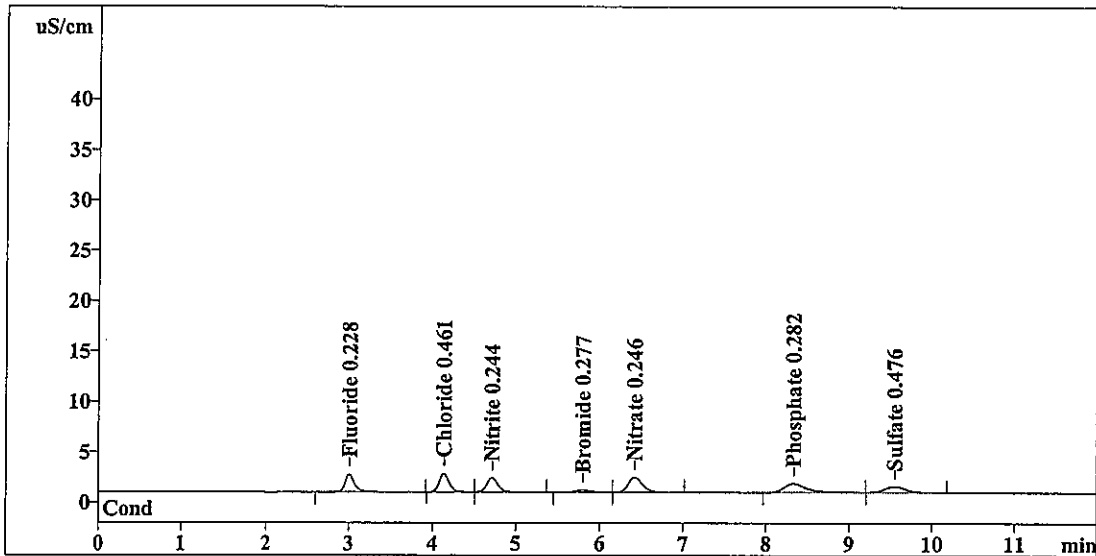
Method: 3-102909.mtw
 Run operator: User
 Analysis number: 9855

Last save: 10/29/2009 8:23:31 AM

SAMPLE:

Vial number: 4
 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	3.01	13.990	0.228	Fluoride
2	4.14	14.473	0.461	Chloride
3	4.71	12.691	0.244	Nitrite
4	5.80	2.538	0.277	Bromide
5	6.43	17.180	0.246	Nitrate
6	8.34	16.958	0.282	Phosphate
7	9.55	9.807	0.476	Sulfate
7	12.00	87.638	2.215	

OK
 ↓

RP 10/30/09

CALIBRATION
 Channel: Cond
 Method: External standard
 Response: Area
 Standard: No
 IDENTIFICATION

Report date: 10/30/2009 9:59:07 AM
Printed by: User

Ident: STANDARD 5
Analysis from: 10/29/2009 9:23:32 AM
File: ta290923.CHW

Last save: 10/30/2009 9:59:08 AM

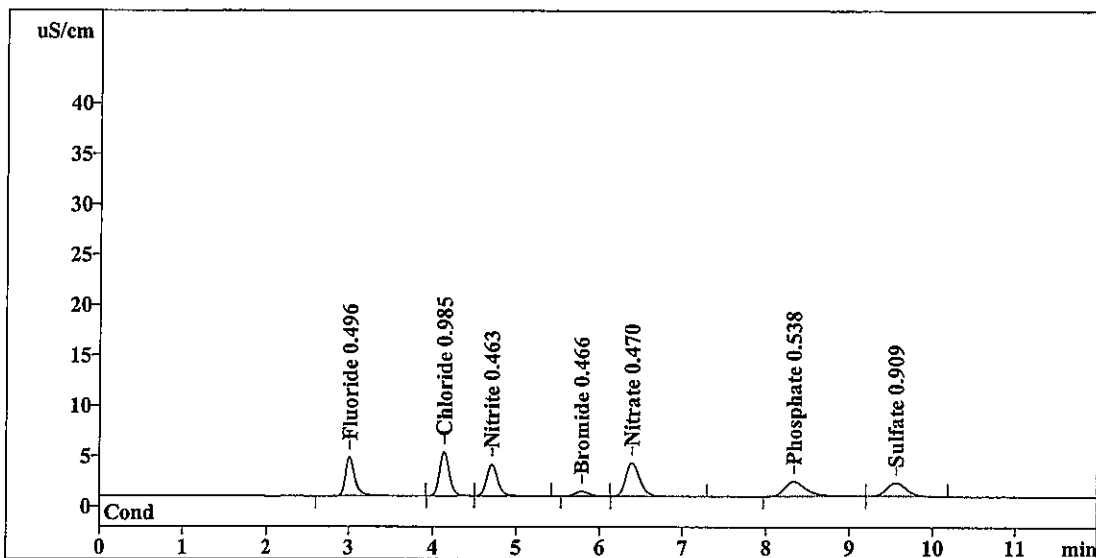
Method: 3-102909.mtw
Run operator: User
Analysis number: 9856

Last save: 10/29/2009 8:23:31 AM

SAMPLE:

Vial number: 5
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	3.01	30.950	0.496	Fluoride
2	4.14	34.435	0.985	Chloride
3	4.71	28.384	0.463	Nitrite
4	5.79	5.335	0.466	Bromide
5	6.40	38.458	0.470	Nitrate
6	8.34	27.264	0.538	Phosphate
7	9.56	21.869	0.909	Sulfate
7	12.00	186.696	4.326	

OK
↓

CALIBRATION
Channel: Cond
Method: External standard
Response: Area
Standard: No
IDENTIFICATION

RP 10/30/09

Report date: 10/30/2009 9:59:09 AM
 Printed by: User

Ident: STANDARD 6
 Analysis from: 10/29/2009 9:37:37 AM
 File: ta290937.CHW

Last save: 10/30/2009 9:59:09 AM

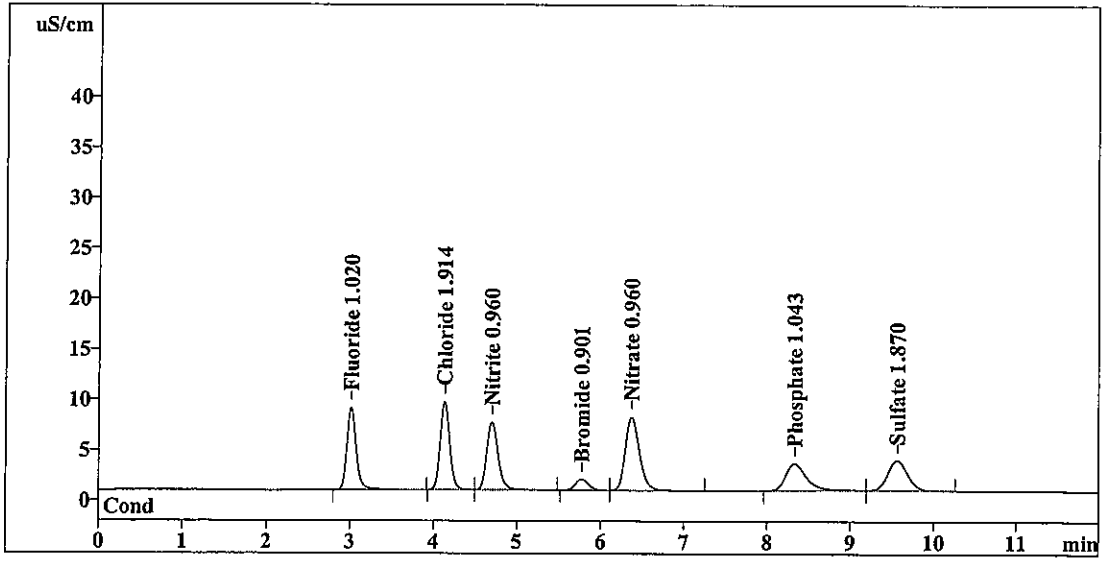
Method: 3-102909.mtw
 Run operator: User
 Analysis number: 9857

Last save: 10/29/2009 8:23:31 AM

SAMPLE:

Vial number: 6
 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	3.01	64.159	1.020	Fluoride
2	4.13	69.791	1.914	Chloride
3	4.70	64.072	0.960	Nitrite
4	5.78	11.781	0.901	Bromide
5	6.38	85.188	0.960	Nitrate
6	8.34	47.605	1.043	Phosphate
7	9.57	48.647	1.870	Sulfate
<hr/>				
7	12.00	391.243	8.668	

OK
↓

RP 10/30/09

CALIBRATION
 Channel: Cond
 Method: External standard
 Response: Area
 Standard: No
 IDENTIFICATION

Report date: 10/30/2009 9:59:11 AM
 Printed by: User

Ident: STANDARD 7
 Analysis from: 10/29/2009 9:51:42 AM
 File: ta290951.CHW

Last save: 10/30/2009 9:59:11 AM

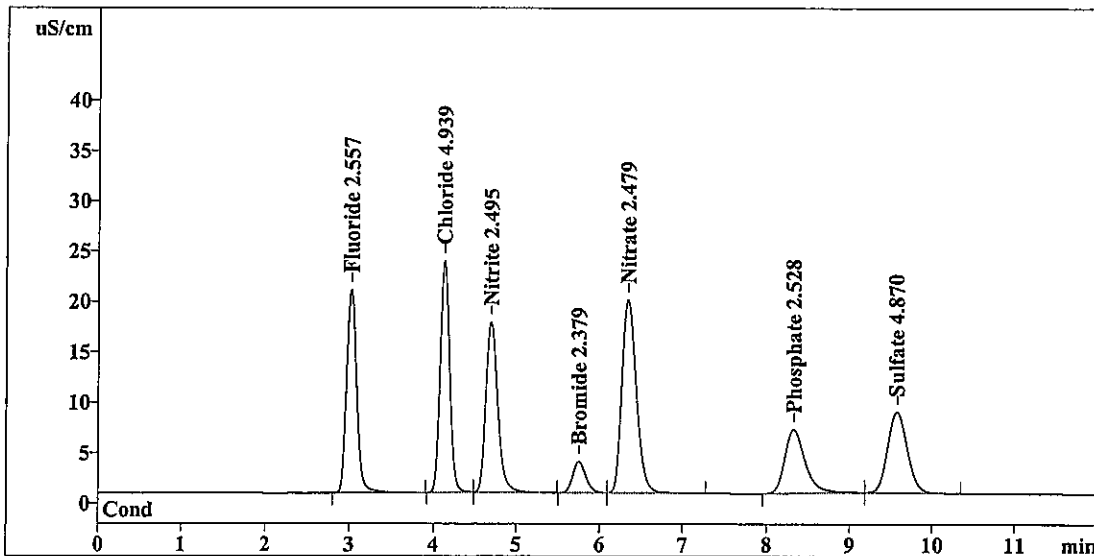
Method: 3-102909.mtw
 Run operator: User
 Analysis number: 9858

Last save: 10/29/2009 8:23:31 AM

SAMPLE:

Vial number: 7
 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	3.02	161.516	2.557	Fluoride
2	4.13	184.950	4.939	Chloride
3	4.70	174.370	2.495	Nitrite
4	5.76	33.686	2.379	Bromide
5	6.35	230.049	2.479	Nitrate
6	8.33	107.356	2.528	Phosphate
7	9.58	132.273	4.870	Sulfate
<hr/>				
7	12.00	1024.199	22.248	

OK
↓

RP 10/30/09

CALIBRATION
 Channel: Cond
 Method: External standard
 Response: Area
 Standard: No
 IDENTIFICATION

Report date: 10/30/2009 9:59:13 AM
Printed by: User

Ident: STANDARD 8
Analysis from: 10/29/2009 10:05:46 AM
File: ta291005.CHW

Last save: 10/30/2009 9:59:13 AM

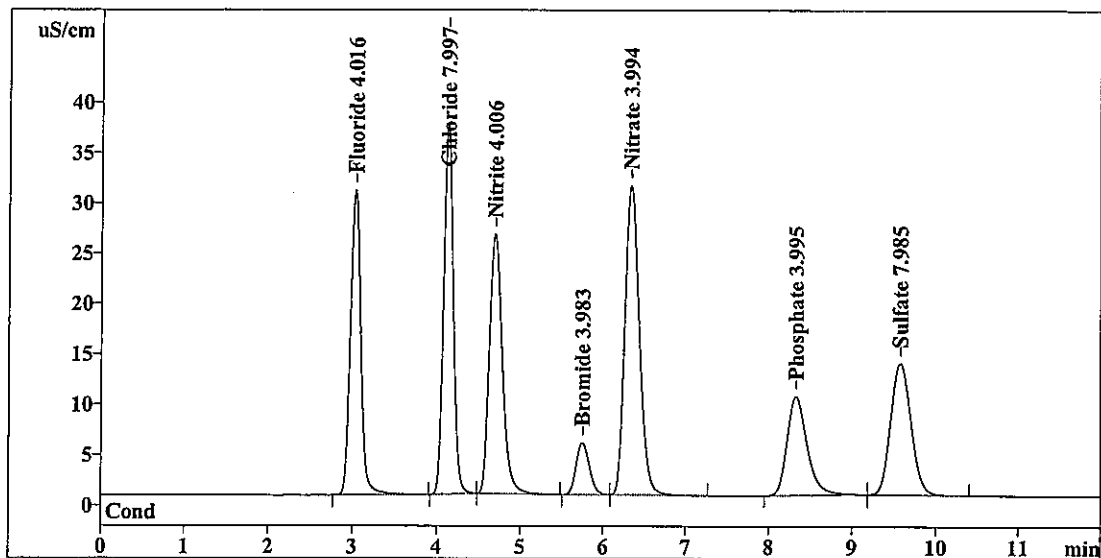
Method: 3-102909.mtw
Run operator: User
Analysis number: 9859

Last save: 10/29/2009 8:23:31 AM

SAMPLE:

Vial number: 8
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	3.03	253.923	4.016	Fluoride
2	4.14	301.322	7.997	Chloride
3	4.70	282.888	4.006	Nitrite
4	5.76	57.465	3.983	Bromide
5	6.34	374.418	3.994	Nitrate
6	8.33	166.415	3.995	Phosphate
7	9.58	219.089	7.985	Sulfate
7	12.00	1655.520	35.976	

CALIBRATION

Channel: Cond
Method: External standard
Response: Area
Standard: No

IDENTIFICATION

RR 10/30/09

Report date: 10/30/2009 9:59:14 AM
 Printed by: User

Ident: STANDARD 9
 Analysis from: 10/29/2009 10:19:51 AM
 File: ta291019.CHW

Last save: 10/30/2009 9:59:15 AM

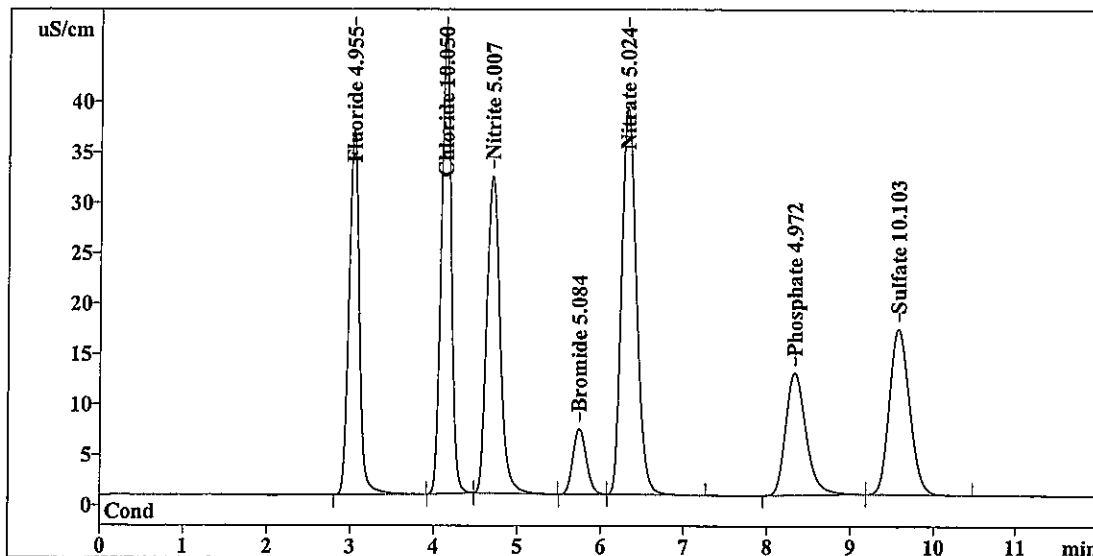
Method: 3-102909.mtw
 Run operator: User
 Analysis number: 9860

Last save: 10/29/2009 8:23:31 AM

SAMPLE:

Vial number: 9
 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	3.04	313.424	4.955	Fluoride
2	4.14	379.484	10.050	Chloride
3	4.70	354.799	5.007	Nitrite
4	5.75	73.779	5.084	Bromide
5	6.33	472.606	5.024	Nitrate
6	8.33	205.770	4.972	Phosphate
7	9.59	278.116	10.103	Sulfate
7	12.00	2077.978	45.196	

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CALIBRATION

Channel: Cond
 Method: External standard
 Response: Area
 Standard: No

RP 10/30/09

IDENTIFICATION

Report date: 10/30/2009 9:59:16 AM
 Printed by: User

Ident: ICV
 Analysis from: 10/29/2009 10:33:56 AM
 File: ta291033.CHW

Last save: 10/30/2009 9:59:17 AM

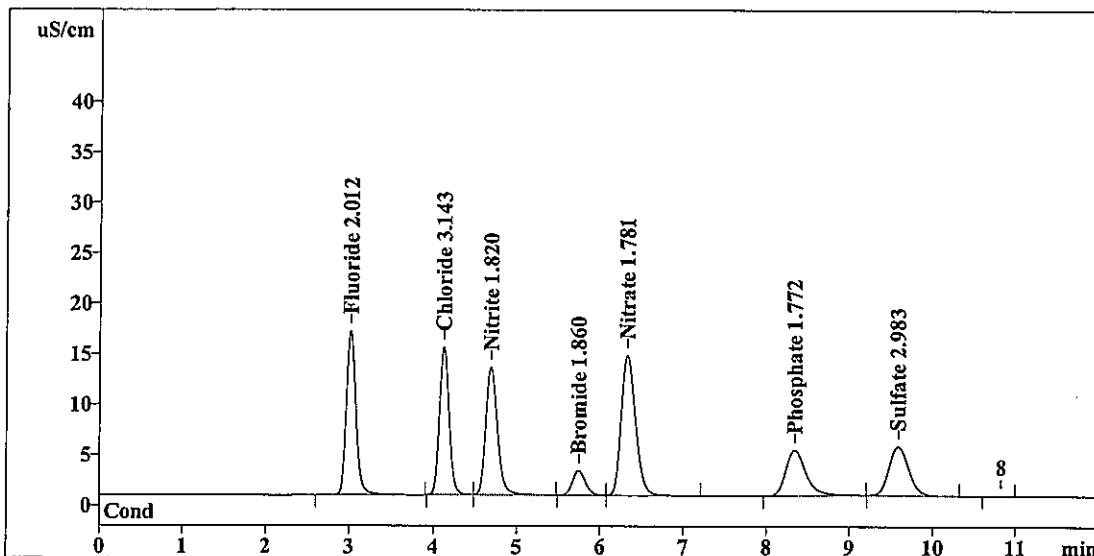
Method: 3-102909.mtw
 Run operator: User
 Analysis number: 9861

Last save: 10/29/2009 8:23:31 AM

SAMPLE:

Vial number: 10
 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	3.02	126.994	2.012	Fluoride
2	4.13	116.576	3.143	Chloride
3	4.69	125.854	1.820	Nitrite
4	5.75	26.005	1.860	Bromide
5	6.34	163.478	1.781	Nitrate
6	8.35	76.950	1.772	Phosphate
7	9.60	79.671	2.983	Sulfate
7	12.00	715.527	15.372	

CALIBRATION

Channel: Cond
 Method: External standard
 Response: Area
 Standard: No

IDENTIFICATION

RP 10/30/09

Report date: 10/30/2009 9:59:18 AM
Printed by: User

Ident: ICB
Analysis from: 10/29/2009 10:48:00 AM
File: ta291048.CHW

Last save: 10/30/2009 9:59:18 AM

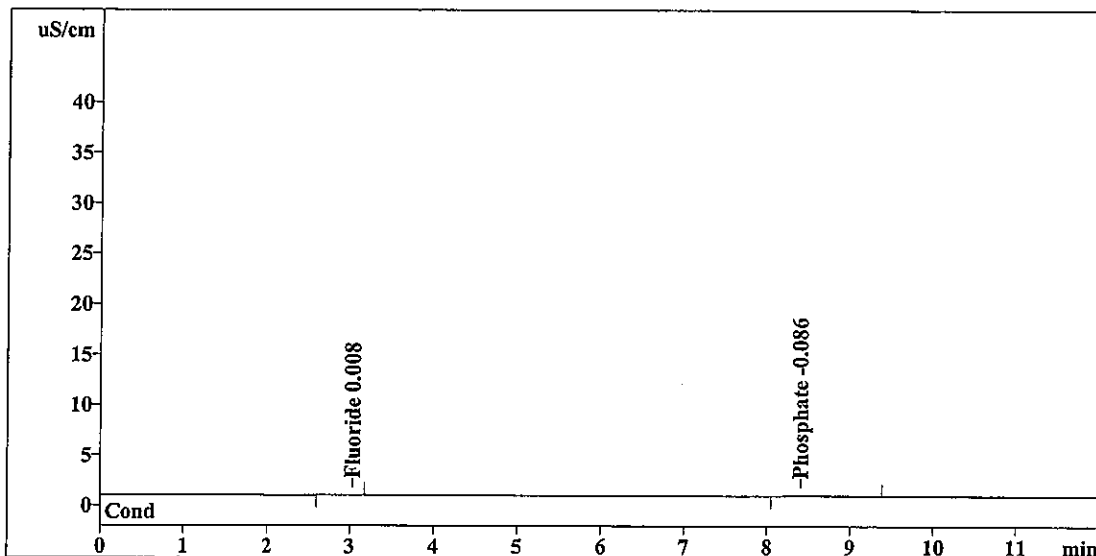
Method: 3-102909.mtw
Run operator: User
Analysis number: 9862

Last save: 10/29/2009 8:23:31 AM

SAMPLE:

Vial number: 11
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	3.03	0.054	0.008	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	8.41	2.135	-0.086	Phosphate
7	0.00	0.000	0.000	Sulfate
<hr/>				
7	12.00	2.189	0.094	

CALIBRATION

Channel: Cond
Method: External standard
Response: Area
Standard: No

RP 10/30/09

IDENTIFICATION

Report date: 10/30/2009 9:59:20 AM
Printed by: User

Ident: LCS
Analysis from: 10/29/2009 11:02:06 AM
File: ta291102.CHW

Last save: 10/30/2009 9:59:20 AM

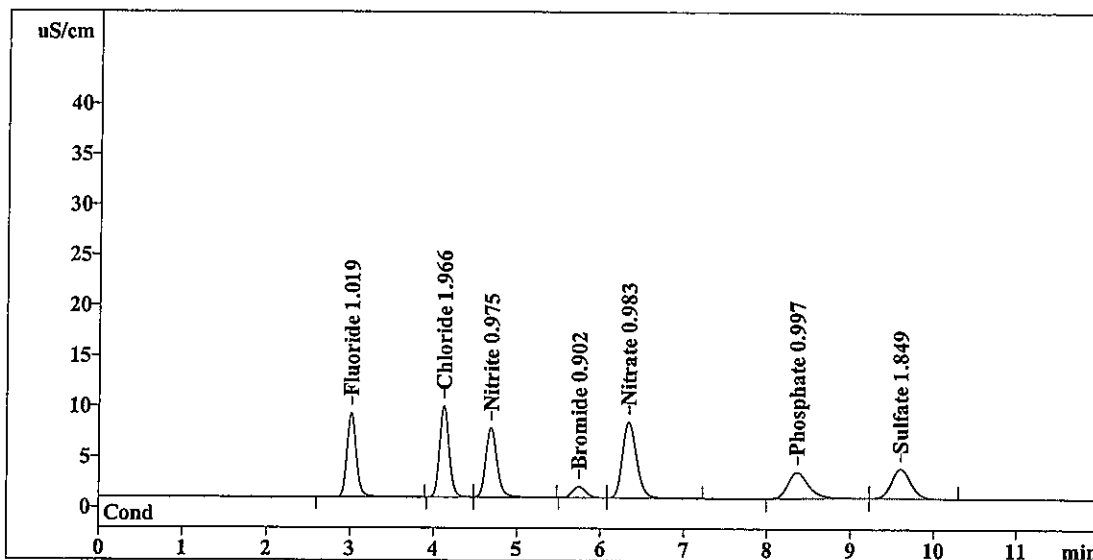
Method: 3-102909.mtw
Run operator: User
Analysis number: 9863

Last save: 10/29/2009 8:23:31 AM

SAMPLE:

Vial number: 12
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	3.02	64.093	OK 1.019	Fluoride
2	4.13	71.769	↓ 1.966	Chloride
3	4.69	65.165	0.975	Nitrite
4	5.75	11.805	0.902	Bromide
5	6.34	87.390	OK 0.983	Nitrate
6	8.37	45.718	↓ 0.997	Phosphate
7	9.61	48.065	↓ 1.849	Sulfate
7	12.00	394.006	8.691	

CALIBRATION

Channel: Cond
Method: External standard
Response: Area
Standard: No

IDENTIFICATION

RP 10/30/09

Report date: 10/29/2009 3:06:27 PM
Printed by: User

Ident: R0905836-022
Analysis from: 10/29/2009 2:54:29 PM
File: TA291454.CHW

Last save: 10/29/2009 3:06:28 PM

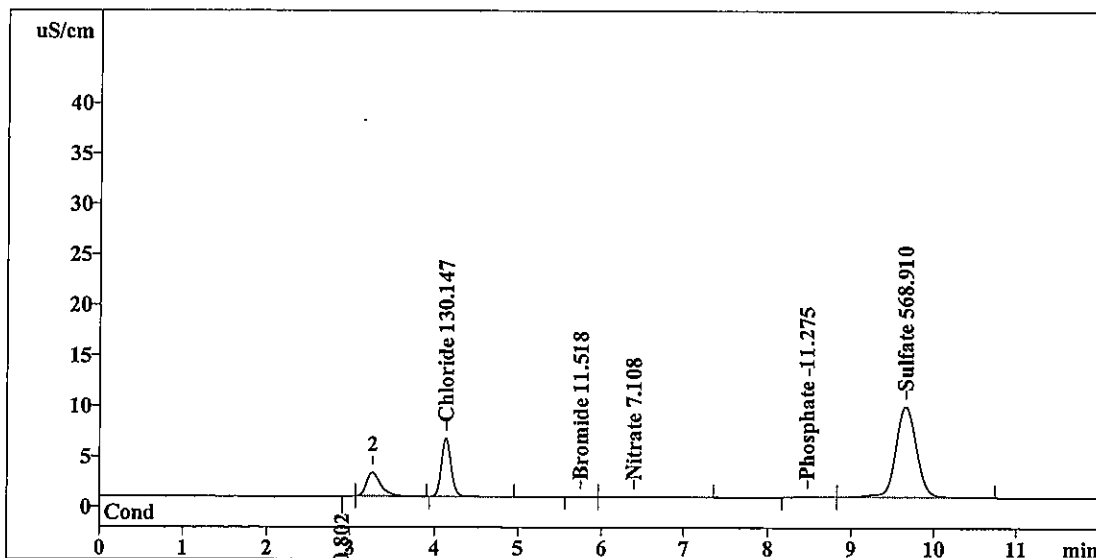
Method: 3-102909.mtw
Run operator: User
Analysis number: 9867

Last save: 10/29/2009 12:39:00 P

SAMPLE: CS (300.0)

Vial number: 13
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	0.054	0.802	Fluoride
2	4.14	46.467	130.147	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.75	0.141	11.518	Bromide
5	6.39	0.468	7.108	Nitrate
6	8.47	1.057	-11.275	Phosphate
7	9.66	155.099	568.910	Sulfate
7	12.00	203.286	729.760	

This report has been created by IC Net
METROHM LTD

RP 10/30/09

Report date: 10/29/2009 3:20:36 PM
Printed by: User

Ident: R0905836-026
Analysis from: 10/29/2009 3:08:38 PM
File: TA291508.CHW

Last save: 10/29/2009 3:20:37 PM

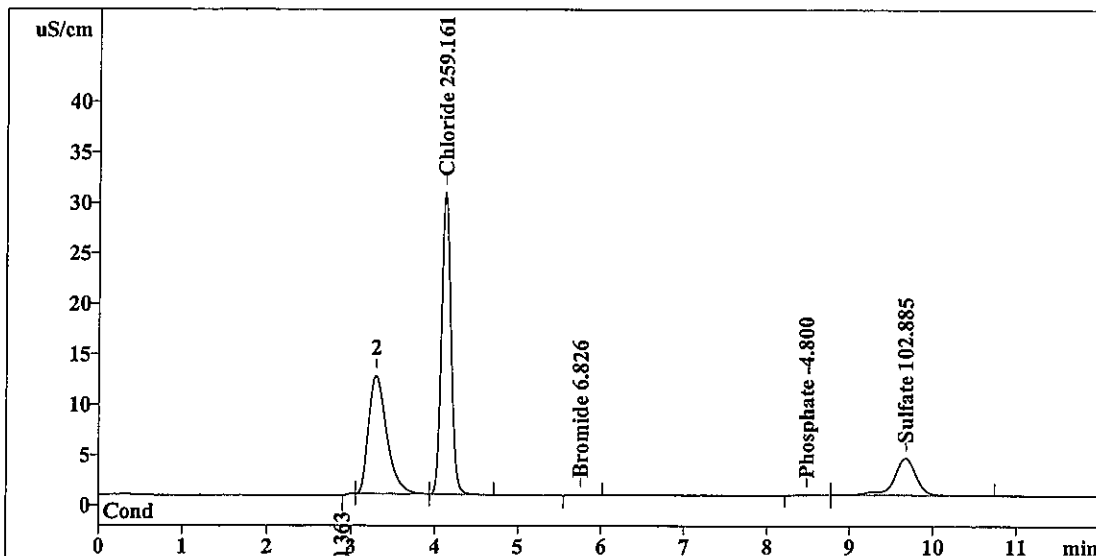
Method: 3-102909.mtw
Run operator: User
Analysis number: 9868

Last save: 10/29/2009 12:39:00 P

SAMPLE: C (300.0)

Vial number: 14
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	0.120	0.363	Fluoride
2	4.13	243.552	259.161	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.76	0.963	6.826	Bromide
5	0.00	0.000	0.000	Nitrate
6	8.47	0.766	-4.800	Phosphate
7	9.67	68.225	102.885	Sulfate
<hr/>				
7	12.00	313.626	374.035	

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RP 10/30/09

Report date: 10/29/2009 3:34:41 PM
Printed by: User

Ident: R0905836-033
Analysis from: 10/29/2009 3:22:43 PM
File: TA291522.CHW

Last save: 10/29/2009 3:34:42 PM

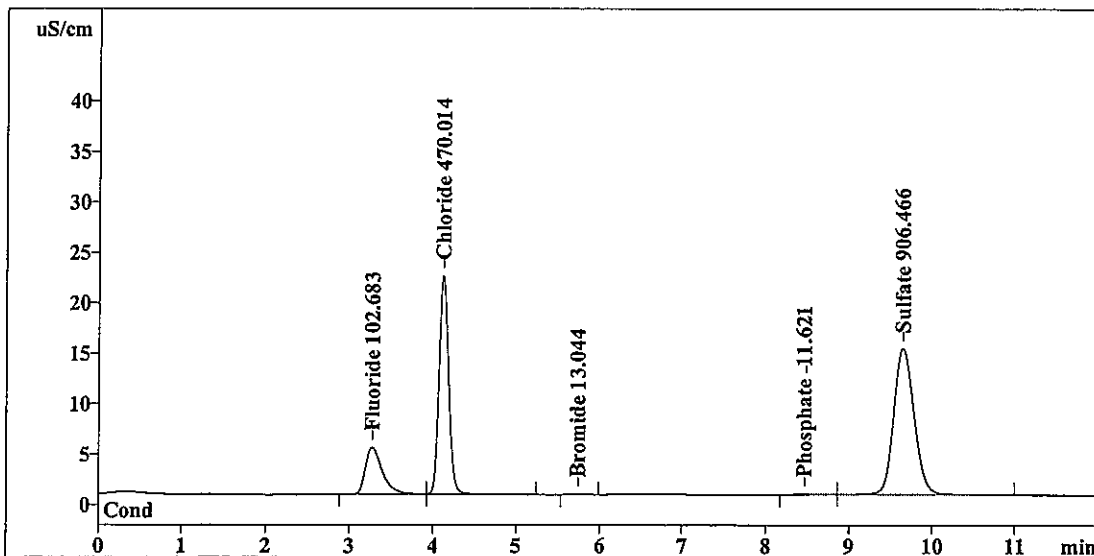
Method: 3-102909.mtw
Run operator: User
Analysis number: 9869

Last save: 10/29/2009 12:39:00 P

SAMPLE: C (300.0)

Vial number: 15
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	3.28	64.587	102.683	Fluoride
2	4.13	175.838	OK 470.014	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.75	0.367	13.044	Bromide
5	0.00	0.000	0.000	Nitrate
6	8.47	0.918	-11.621	Phosphate
7	9.66	249.181	906.466	Sulfate
<hr/>				
7	12.00	490.893	1503.828	

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RP 10/30/09

Report date: 10/29/2009 3:48:46 PM
Printed by: User

Ident: R0905836-035
Analysis from: 10/29/2009 3:36:48 PM
File: TA291536.CHW

Last save: 10/29/2009 3:48:47 PM

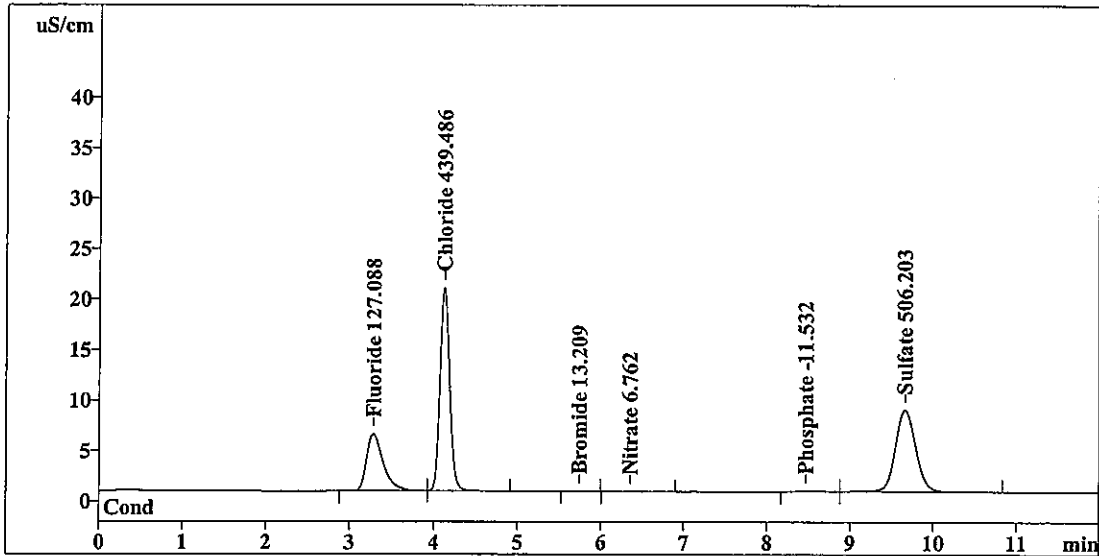
Method: 3-102909.mtw
Run operator: User
Analysis number: 9870

Last save: 10/29/2009 12:39:00 P

SAMPLE: CS (300.0)

Vial number: 16
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	3.29	80.046	127.088	Fluoride
2	4.13	164.218	439.486	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.74	0.392	13.209	Bromide
5	6.37	0.137	6.762	Nitrate
6	8.47	0.954	-11.532	Phosphate
7	9.66	137.622	506.203	Sulfate
7	12.00	383.369	1104.280	

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RP 10/30/09

Report date: 10/29/2009 4:02:50 PM
Printed by: User

Ident: R0905714-004
Analysis from: 10/29/2009 3:50:52 PM
File: TA291550.CHW

Last save: 10/29/2009 4:02:51 PM

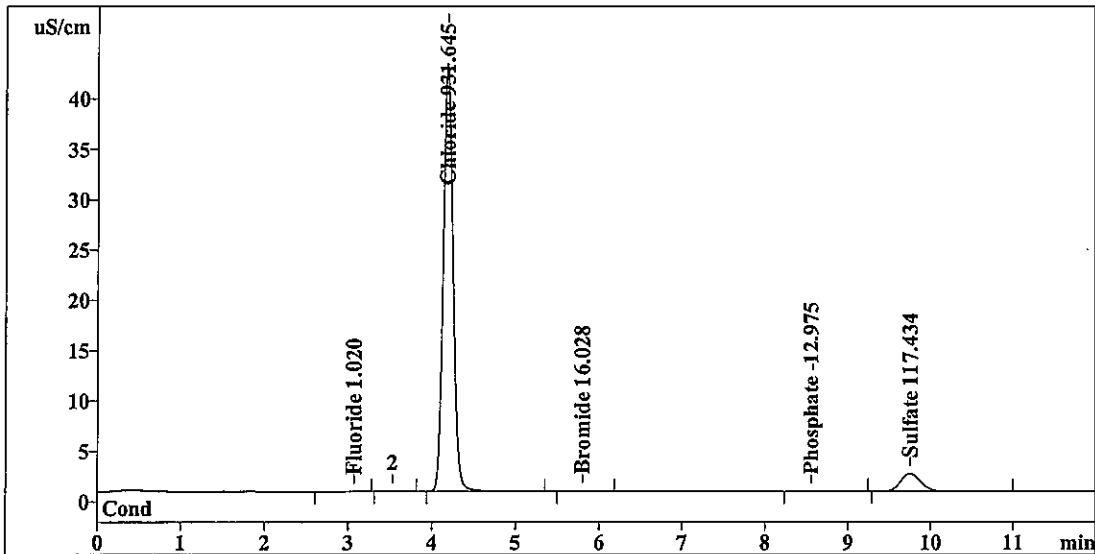
Method: 3-102909.mtw
Run operator: User
Analysis number: 9871

Last save: 10/29/2009 12:39:00 P

SAMPLE: C (300.0)

Vial number: 17
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	3.06	0.192	1.020	Fluoride
2	4.19	351.559	931.645	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.81	0.809	16.028	Bromide
5	0.00	0.000	0.000	Nitrate
6	8.56	0.373	-12.975	Phosphate
7	9.75	29.266	117.434	Sulfate
7	12.00	382.200	1079.103	

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RP 10/30/09

Report date: 10/29/2009 4:16:55 PM
Printed by: User

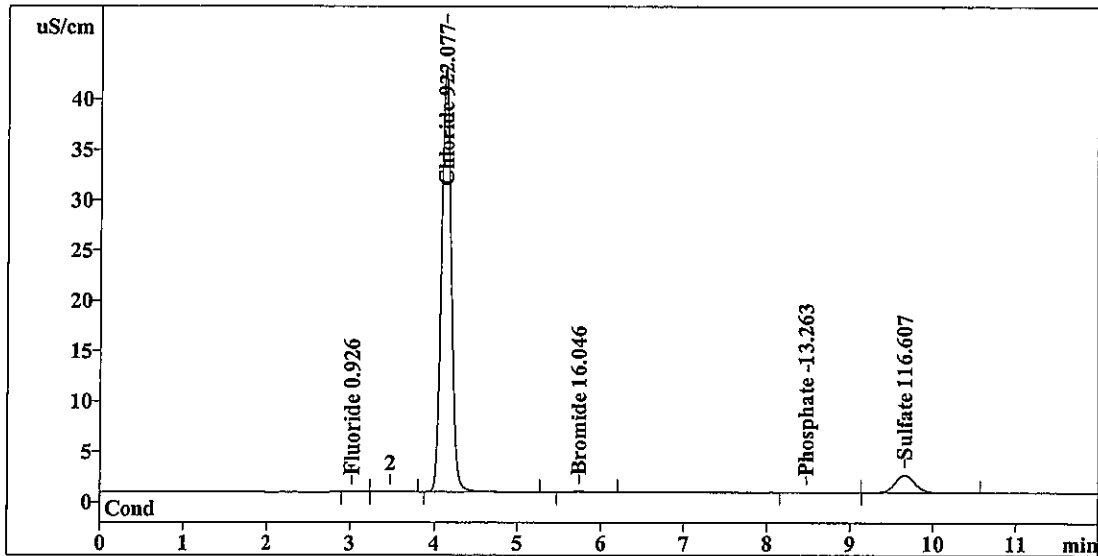
Ident: R0905714-004 DUP
Analysis from: 10/29/2009 4:04:57 PM
File: TA291604.CHW Last save: 10/29/2009 4:16:56 PM

Method: 3-102909.mtw Last save: 10/29/2009 12:39:00 P
Run operator: User
Analysis number: 9872

SAMPLE: C (300.0)

Vial number: 18
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	3.02	0.133	0.926	Fluoride
2	4.14	347.917	922.077	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.74	0.812	16.046	Bromide
5	0.00	0.000	0.000	Nitrate
6	8.48	0.257	-13.263	Phosphate
7	9.66	29.036	116.607	Sulfate
7	12.00	378.155	1068.919	

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RP 10/30/09

Report date: 10/29/2009 4:31:00 PM
Printed by: User

Ident: R0905714-004 SPK
Analysis from: 10/29/2009 4:19:02 PM
File: TA291619.CHW

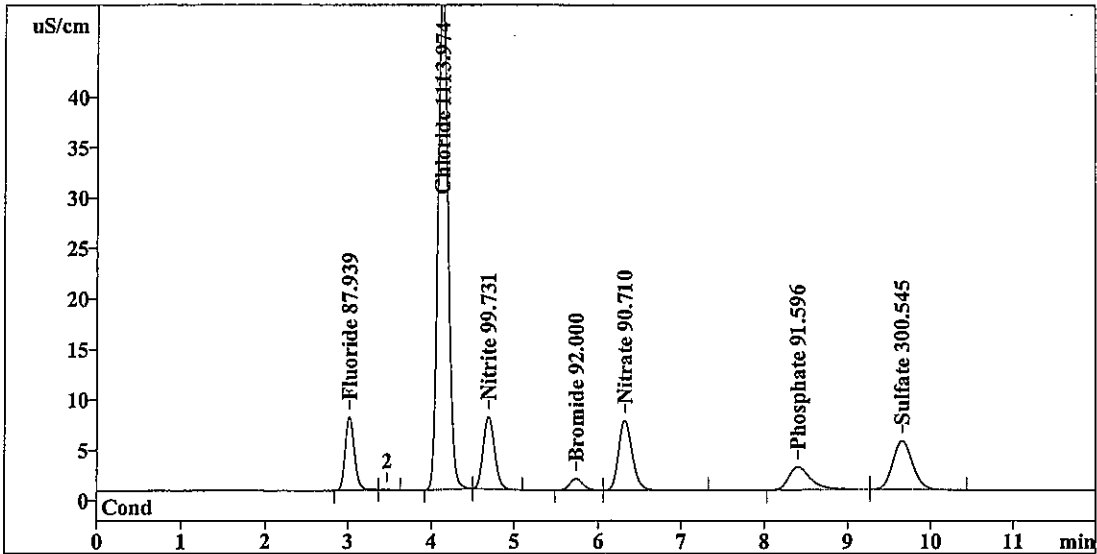
Last save: 10/29/2009 4:31:01 PM

Method: 3-102909.mtw
Run operator: User
Analysis number: 9873

Last save: 10/29/2009 12:39:00 P

SAMPLE: C (300.0)
Vial number: 19
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	3.02	55.248	87.939	Fluoride
2	4.14	420.963	1113.974	Chloride
3	4.69	66.779	99.731	Nitrite
4	5.74	12.068	92.000	Bromide
5	6.32	80.162	90.710	Nitrate
6	8.41	42.472	91.596	Phosphate
7	9.66	80.302	300.545	Sulfate
7	12.00	757.995	1876.494	

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RP 10/30/09

Report date: 10/29/2009 4:45:06 PM
Printed by: User

Ident: R0905714-016
Analysis from: 10/29/2009 4:33:08 PM
File: TA291633.CHW

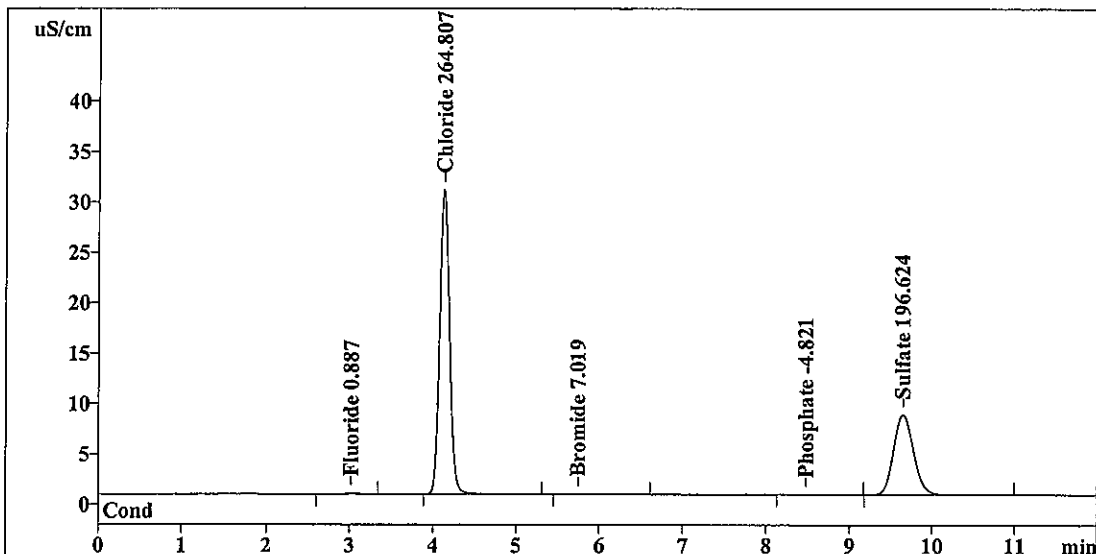
Last save: 10/29/2009 4:45:07 PM

Method: 3-102909.mtw
Run operator: User
Analysis number: 9874

Last save: 10/29/2009 12:39:00 P

SAMPLE: CS (300.0)
Vial number: 20
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	3.02	0.951	0.887	Fluoride
2	4.13	248.925	264.807	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.75	1.035	7.019	Bromide
5	0.00	0.000	0.000	Nitrate
6	8.47	0.745	-4.821	Phosphate
7	9.65	133.541	196.624	Sulfate
7	12.00	385.196	474.157	

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RP 10/30/09

Report date: 10/29/2009 4:59:11 PM
 Printed by: User

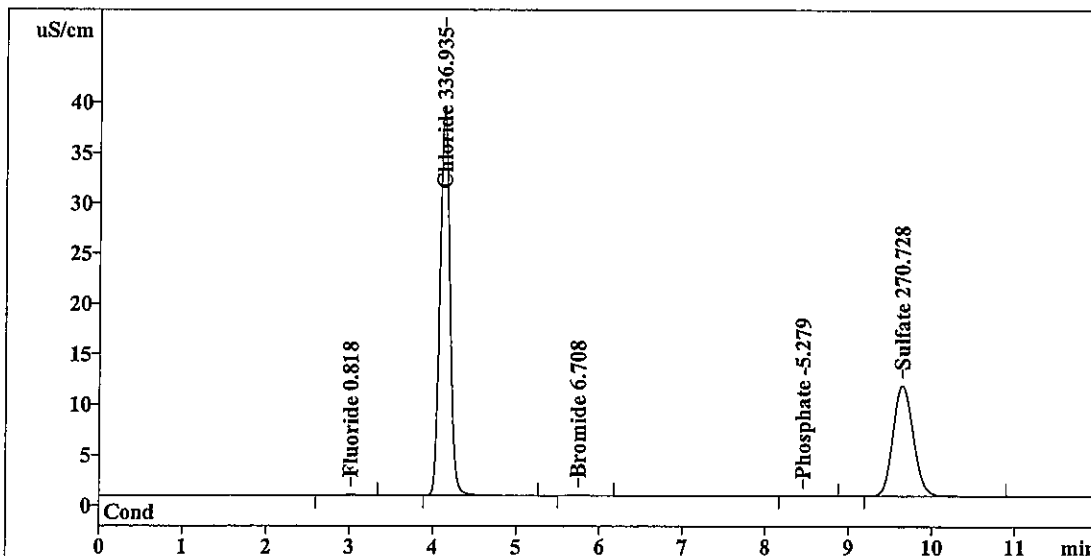
Ident: R0905714-024
 Analysis from: 10/29/2009 4:47:13 PM
 File: TA291647.CHW Last save: 10/29/2009 4:59:12 PM

Method: 3-102909.mtw Last save: 10/29/2009 12:39:00 P
 Run operator: User
 Analysis number: 9875

SAMPLE: CS (300.0)

Vial number: 21
 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	3.02	0.841	0.818	Fluoride
2	4.14	317.564	336.935	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.75	0.919	6.708	Bromide
5	0.00	0.000	0.000	Nitrate
6	8.47	0.284	-5.279	Phosphate
7	9.65	185.176	270.728	Sulfate
7	12.00	504.784	620.468	

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RP 10/30/09

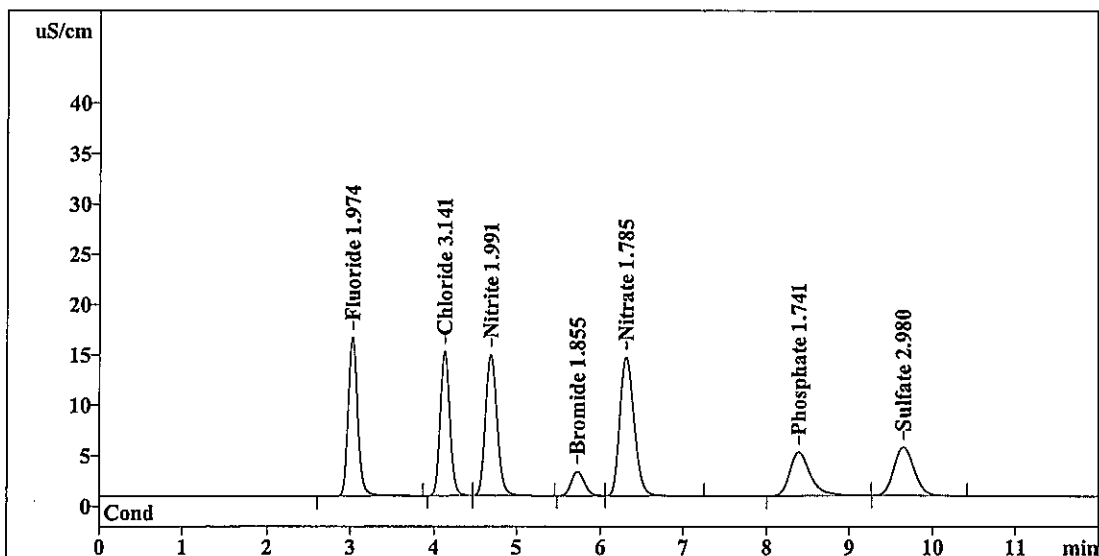
Report date: 10/29/2009 5:13:19 PM
Printed by: User

Ident: CCV
Analysis from: 10/29/2009 5:01:18 PM
File: TA291701.CHW Last save: 10/29/2009 5:13:20 PM

Method: 3-102909.mtw Last save: 10/29/2009 12:39:00 P
Run operator: User
Analysis number: 9876

SAMPLE: 9056/300.0
Vial number: 22
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	3.03	124.556	1.974	Fluoride
2	4.13	116.479	3.141	Chloride
3	4.69	138.125	1.991	Nitrite
4	5.73	25.930	1.855	Bromide
5	6.32	163.862	1.785	Nitrate
6	8.39	75.678	1.741	Phosphate
7	9.65	79.583	2.980	Sulfate
<hr/>				
7	12.00	724.213	15.466	

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RP 10/30/09

Report date: 10/29/2009 5:27:40 PM
Printed by: User

Ident: CCB
Analysis from: 10/29/2009 5:15:42 PM
File: TA291715.CHW

Last save: 10/29/2009 5:27:41 PM

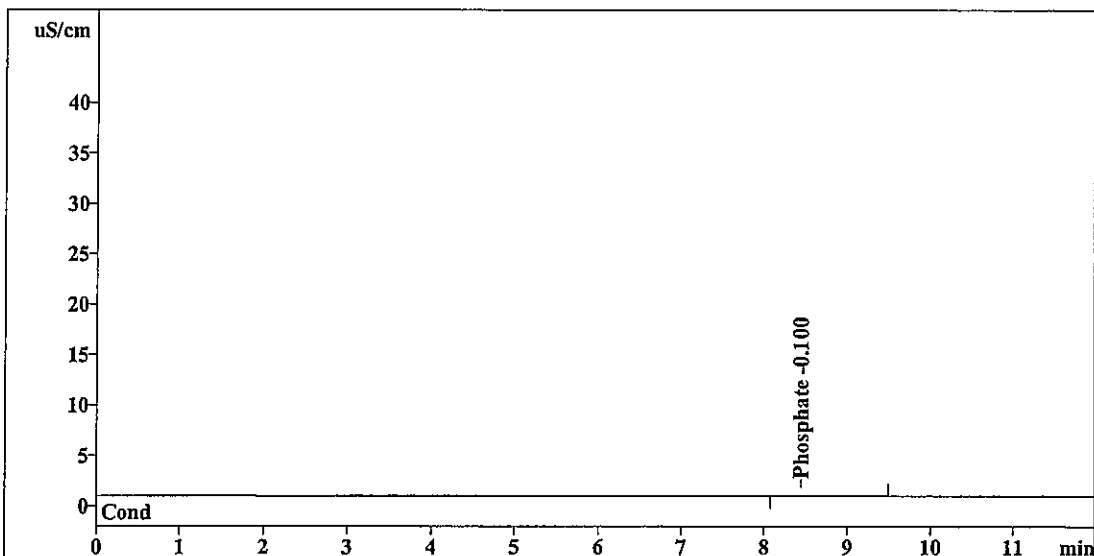
Method: 3-102909.mtw
Run operator: User
Analysis number: 9877

Last save: 10/29/2009 12:39:00 P

SAMPLE: 9056/300.0

Vial number: 23
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	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	8.45	1.587	-0.100	Phosphate
7	0.00	0.000	0.000	Sulfate
<hr/>				
7	12.00	1.587	0.100	

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RP 10/29/09

Report date: 10/29/2009 5:41:45 PM
Printed by: User

Ident: R0905714-025
Analysis from: 10/29/2009 5:29:47 PM
File: TA291729.CHW

Last save: 10/29/2009 5:41:46 PM

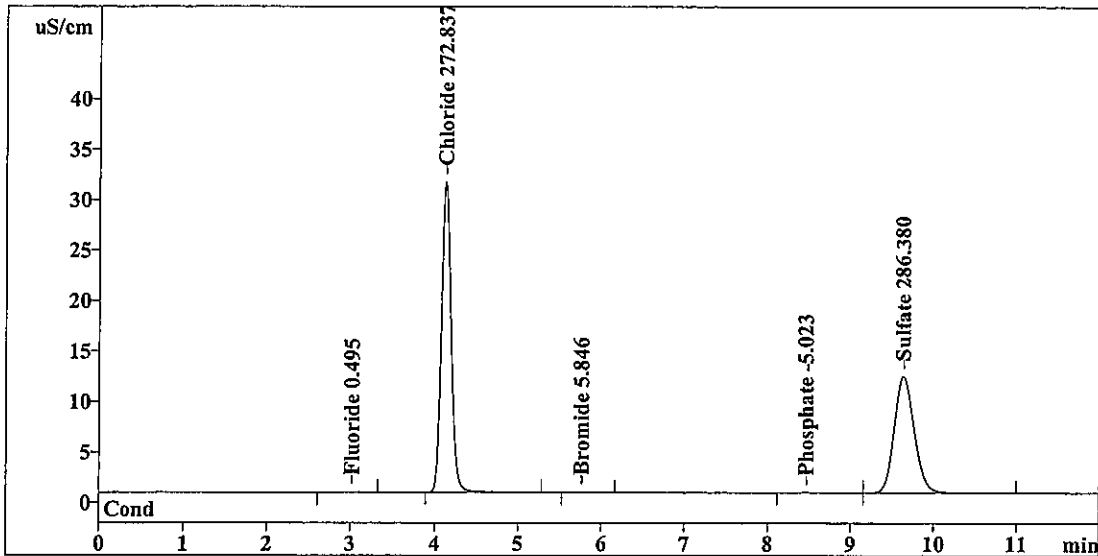
Method: 3-102909.mtw
Run operator: User
Analysis number: 9878

Last save: 10/29/2009 12:39:00 P

SAMPLE: CS (300.0)

Vial number: 24
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	3.02	0.330	0.495	Fluoride
2	4.14	256.567	OK 272.837	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.77	0.600	5.846	Bromide
5	0.00	0.000	0.000	Nitrate
6	8.47	0.541	-5.023	Phosphate
7	9.65	196.082	OK 286.380	Sulfate
7	12.00	454.119	570.582	

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RP Lab 09

Report date: 10/29/2009 5:55:49 PM
Printed by: User

Ident: R0905714-026
Analysis from: 10/29/2009 5:43:51 PM
File: TA291743.CHW

Last save: 10/29/2009 5:55:50 PM

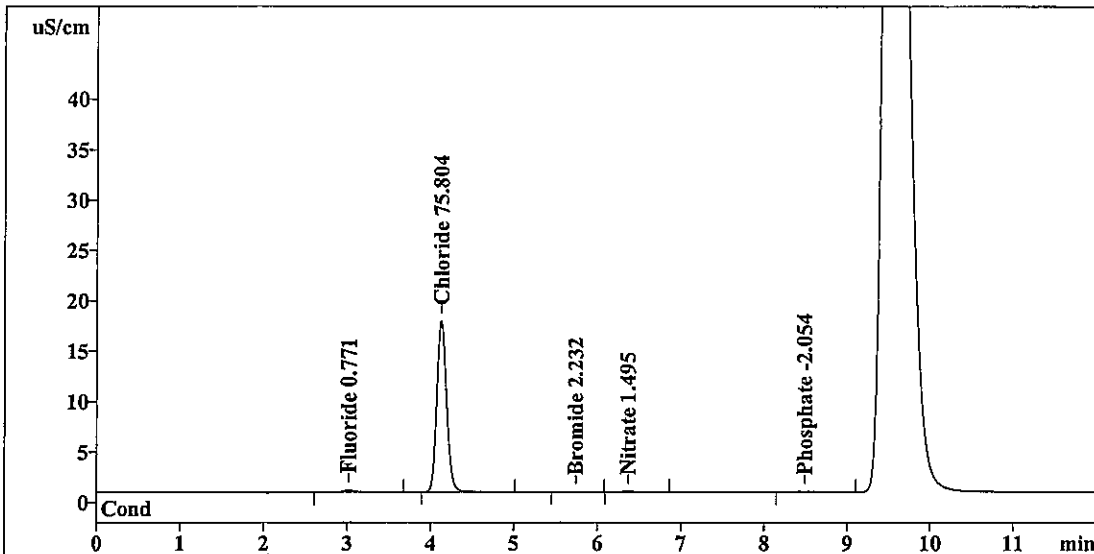
Method: 3-102909.mtw
Run operator: User
Analysis number: 9879

Last save: 10/29/2009 12:39:00 P

SAMPLE: C (300.0)

Vial number: 25
Volume: 1.0 µL
Dilution: 20.00
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	3.01	1.986	0.771	Fluoride
2	4.13	141.201	75.804	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.75	0.088	2.232	Bromide
5	6.37	0.819	1.495	Nitrate
6	8.50	1.462	-2.054	Phosphate
7	0.00	0.000	0.000	Sulfate
7	12.00	145.556	82.356	

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RP 10/30/09

Report date: 10/29/2009 6:09:54 PM
Printed by: User

Ident: R0905714-026 DUP
Analysis from: 10/29/2009 5:57:56 PM
File: TA291757.CHW

Last save: 10/29/2009 6:09:55 PM

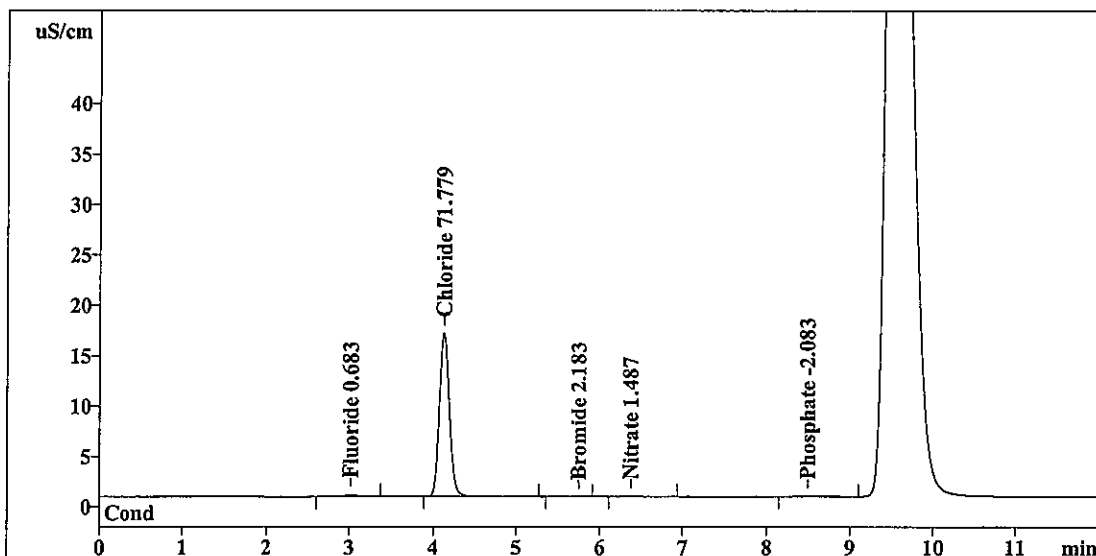
Method: 3-102909.mtw
Run operator: User
Analysis number: 9880

Last save: 10/29/2009 12:39:00 P

SAMPLE: C (300.0)

Vial number: 26
Volume: 1.0 µL
Dilution: 20.00
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	3.01	1.709	0.683	Fluoride
2	4.13	133.540	71.779	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.75	0.052	2.183	Bromide
5	6.38	0.779	1.487	Nitrate
6	8.50	1.403	-2.083	Phosphate
7	0.00	0.000	0.000	Sulfate
7	12.00	137.483	78.215	

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RP 10/30/09

Report date: 10/29/2009 6:23:59 PM
Printed by: User

Ident: R0905714-026 SPK
Analysis from: 10/29/2009 6:12:01 PM
File: TA291812.CHW

Last save: 10/29/2009 6:24:00 PM

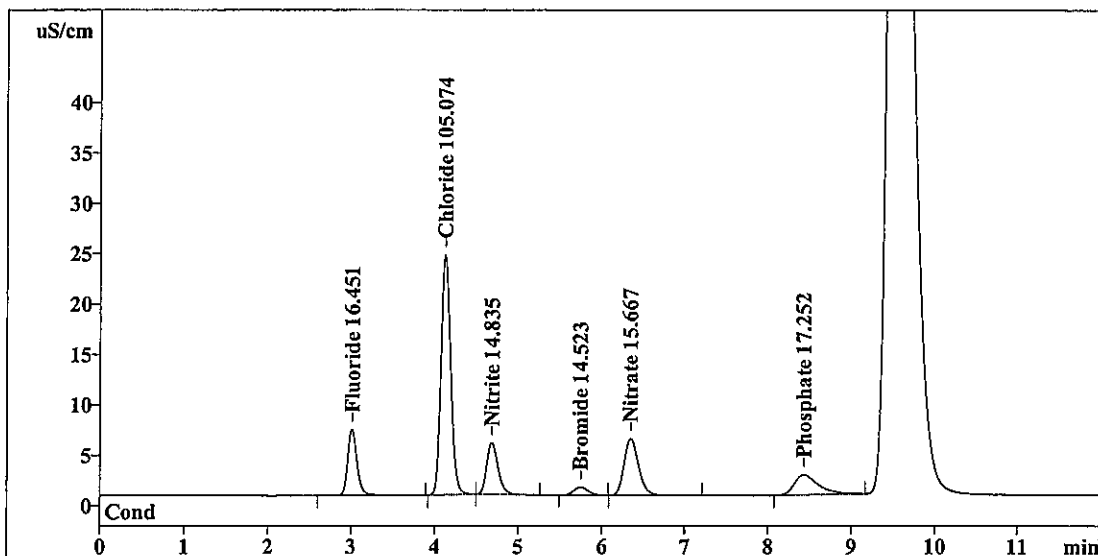
Method: 3-102909.mtw
Run operator: User
Analysis number: 9881

Last save: 10/29/2009 12:39:00 P

SAMPLE: C (300.0)

Vial number: 27
Volume: 1.0 µL
Dilution: 20.00
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	3.02	51.646	16.451	Fluoride
2	4.13	196.909	OK 105.074	Chloride
3	4.69	48.422	14.835	Nitrite
4	5.75	9.196	14.523	Bromide
5	6.35	68.367	15.667	Nitrate
6	8.44	40.323	17.252	Phosphate
7	0.00	0.000	0.000	Sulfate
<hr/>				
7	12.00	414.864	183.802	

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RP 10/30/09

Report date: 10/29/2009 6:38:04 PM
Printed by: User

Ident: R0905714-028
Analysis from: 10/29/2009 6:26:06 PM
File: TA291826.CHW

Last save: 10/29/2009 6:38:05 PM

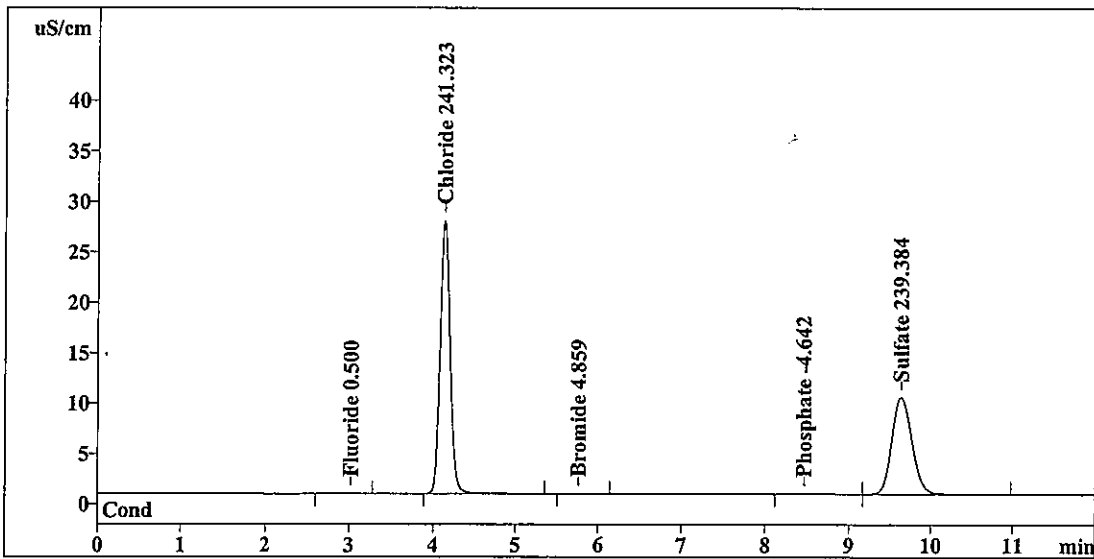
Method: 3-102909.mtw
Run operator: User
Analysis number: 9882

Last save: 10/29/2009 12:39:00 P

SAMPLE: CS (300.0)

Vial number: 28
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	3.02	0.337	0.500	Fluoride
2	4.14	226.577	OK 241.323	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.77	0.234	4.859	Bromide
5	0.00	0.000	0.000	Nitrate
6	8.47	0.925	-4.642	Phosphate
7	9.64	163.335	OK 239.384	Sulfate
<hr/>				
7	12.00	391.408	490.707	

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RP 10/30/09

Report date: 10/29/2009 6:52:09 PM
Printed by: User

Ident: R0905862-004
Analysis from: 10/29/2009 6:40:11 PM
File: TA291840.CHW

Last save: 10/29/2009 6:52:10 PM

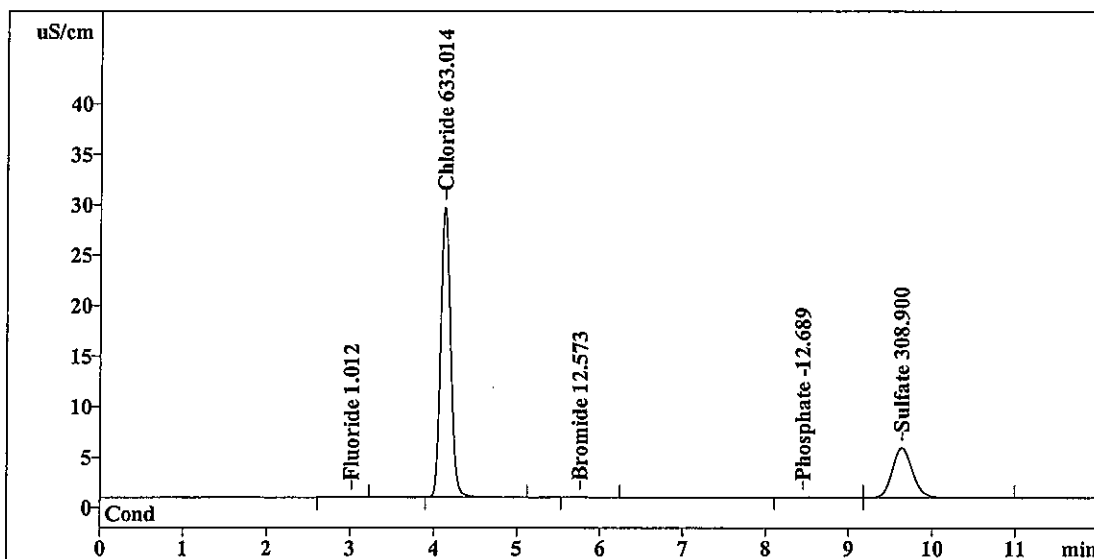
Method: 3-102909.mtw
Run operator: User
Analysis number: 9883

Last save: 10/29/2009 12:39:00 P

SAMPLE: C (300.0)

Vial number: 29
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	3.02	0.187	1.012	Fluoride
2	4.14	237.885	OK 633.014	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.76	0.298	12.573	Bromide
5	0.00	0.000	0.000	Nitrate
6	8.45	0.488	-12.689	Phosphate
7	9.64	82.631	308.900	Sulfate
7	12.00	321.488	968.188	

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RP 10/30/09

Report date: 10/29/2009 7:06:13 PM
Printed by: User

Ident: R0905836-002
Analysis from: 10/29/2009 6:54:15 PM
File: TA291854.CHW

Last save: 10/29/2009 7:06:14 PM

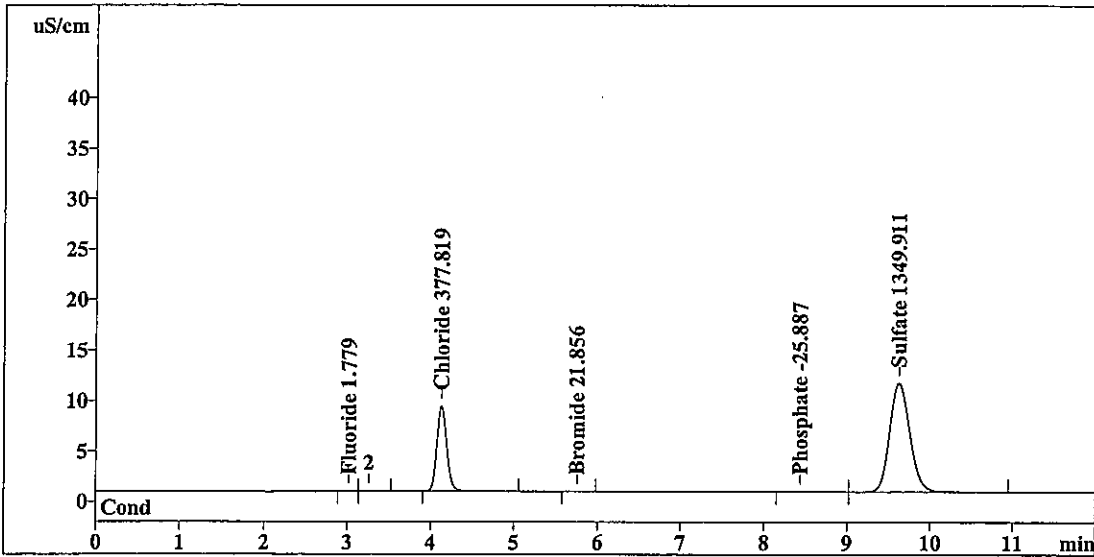
Method: 3-102909.mtw
Run operator: User
Analysis number: 9884

Last save: 10/29/2009 12:39:00 P

SAMPLE: S (300.0)

Vial number: 30
Volume: 1.0 µL
Dilution: 200.00
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	3.02	0.109	1.779	Fluoride
2	4.13	68.835	377.819	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.75	0.054	21.856	Bromide
5	0.00	0.000	0.000	Nitrate
6	8.45	0.386	-25.887	Phosphate
7	9.63	184.656	OK 1349.911	Sulfate
7	12.00	254.040	1777.252	

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RP 10/30/09

Report date: 10/29/2009 7:20:18 PM
Printed by: User

Ident: R0905836-003
Analysis from: 10/29/2009 7:08:20 PM
File: TA291908.CHW

Last save: 10/29/2009 7:20:19 PM

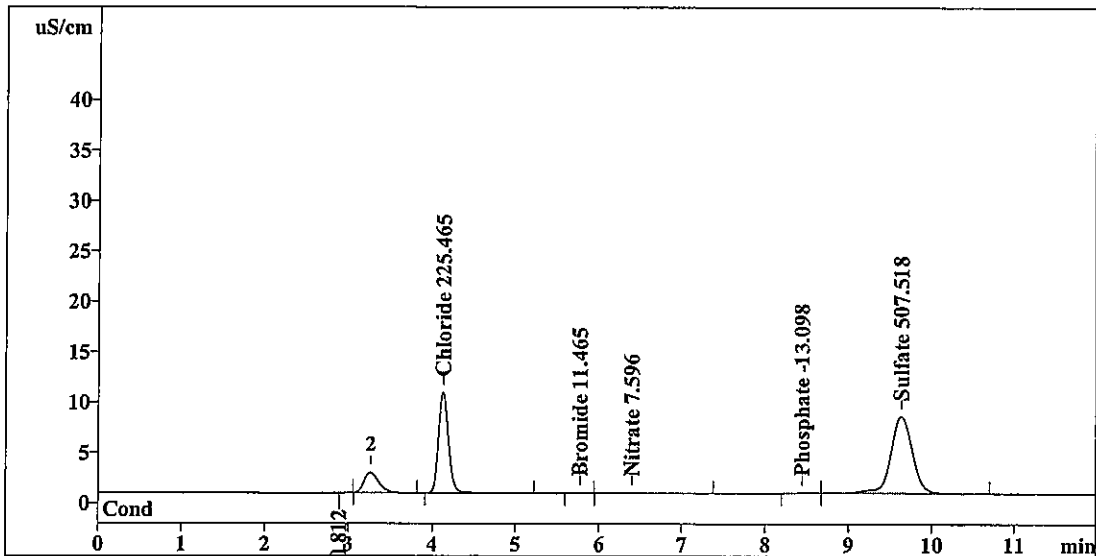
Method: 3-102909.mtw
Run operator: User
Analysis number: 9885

Last save: 10/29/2009 12:39:00 P

SAMPLE: S (300.0)

Vial number: 31
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	2.89	0.060	0.812	Fluoride
2	4.13	82.750	225.465	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.77	0.133	11.465	Bromide
5	6.40	0.933	7.596	Nitrate
6	8.43	0.324	-13.098	Phosphate
7	9.64	137.988	507.518	Sulfate
7	12.00	222.188	765.953	

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reprocess SO4-
RP 10/30/09

Report date: 10/30/2009 10:31:39 AM
Printed by: User

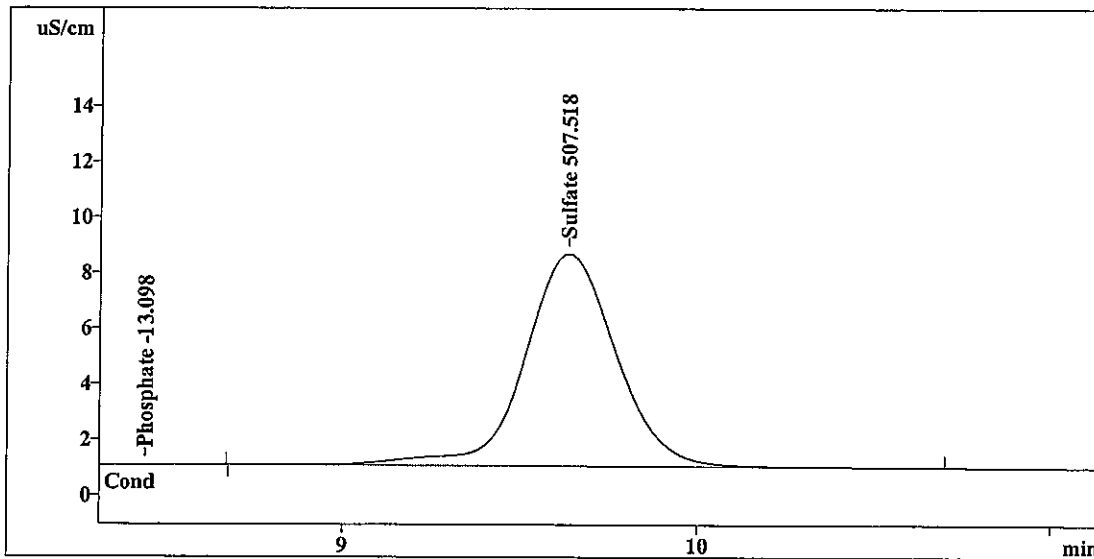
Ident: R0905836-003
Analysis from: 10/29/2009 7:08:20 PM
File: ta291908.chw Last save: 10/29/2009 7:20:19 PM

Method: 3-102909.mtw Last save: 10/29/2009 12:39:00 P
Run operator: User
Analysis number: 9885

SAMPLE: S (300.0)

Vial number: 31
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	2.89	0.060	0.812	Fluoride
2	4.13	82.750	225.465	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.77	0.133	11.465	Bromide
5	6.40	0.933	7.596	Nitrate
6	8.43	0.324	-13.098	Phosphate
7	9.64	137.988	507.518	Sulfate
7	12.00	222.188	765.953	

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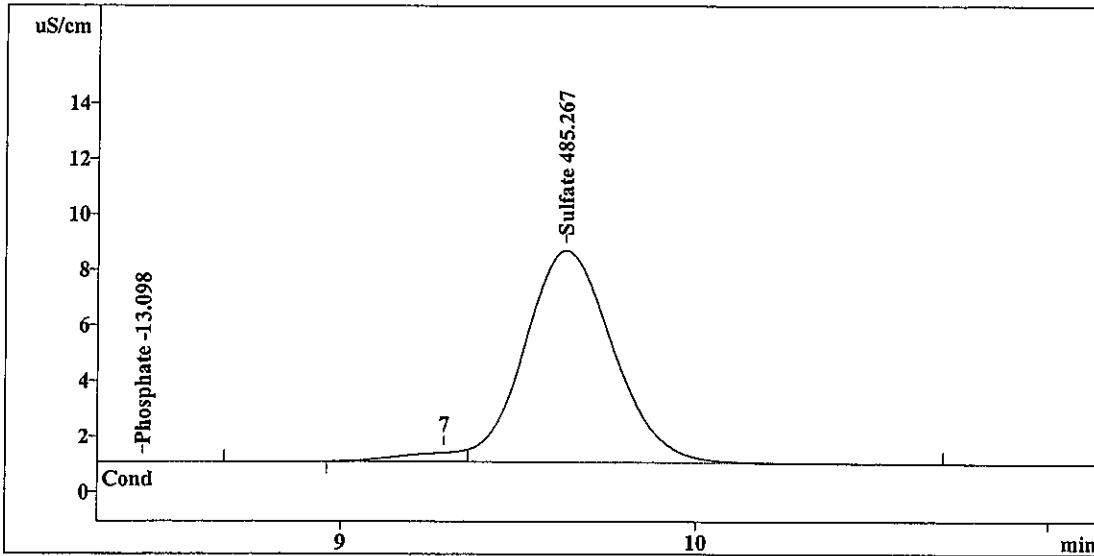
*reprocess
expanded view
RP 10/30/09*

Report date: 10/30/2009 10:32:26 AM
Printed by: User

Ident: R0905836-003
Analysis from: 10/29/2009 7:08:20 PM
File: ta291908.chw Last save: 10/29/2009 7:20:19 PM
Modified! Manual peaks!
Method: 3-102909.mtw Last save: 10/29/2009 12:39:00 P
Run operator: User
Analysis number: 9885

SAMPLE: S (300.0)
Vial number: 31
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	2.89	0.060	0.812	Fluoride
2	4.13	82.750	225.465	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.77	0.133	11.465	Bromide
5	6.40	0.933	7.596	Nitrate
6	8.43	0.324	-13.098	Phosphate
7	9.64	131.787	485.267	Sulfate
7	12.00	215.987	743.703	

OK
expanded view;
reprocessed
11/3/09

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Report date: 10/29/2009 7:34:23 PM
Printed by: User

Ident: R0905836-004
Analysis from: 10/29/2009 7:22:25 PM
File: TA291922.CHW

Last save: 10/29/2009 7:34:24 PM

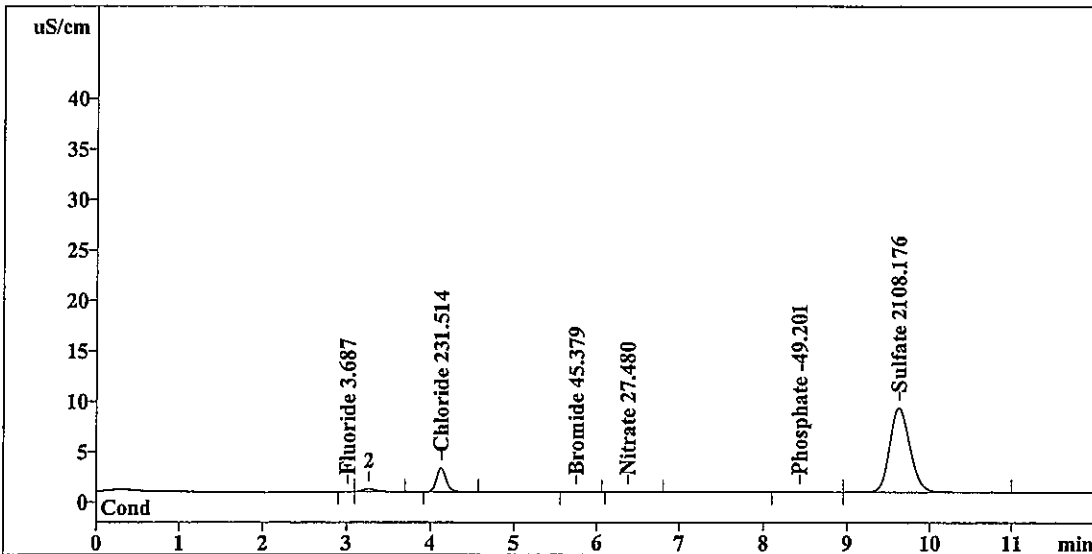
Method: 3-102909.mtw
Run operator: User
Analysis number: 9886

Last save: 10/29/2009 12:39:00 P

SAMPLE: S (300.0)

Vial number: 32
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	3.01	0.130	3.687	Fluoride
2	4.13	18.958	231.514	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.77	0.115	45.379	Bromide
5	6.38	0.240	27.480	Nitrate
6	8.44	0.645	-49.201	Phosphate
7	9.63	143.431	2108.176	Sulfate
<hr/>				
7	12.00	163.519	2465.437	

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RP 10/30/09

Report date: 10/29/2009 7:48:28 PM
Printed by: User

Ident: R0905836-006
Analysis from: 10/29/2009 7:36:30 PM
File: TA291936.CHW

Last save: 10/29/2009 7:48:29 PM

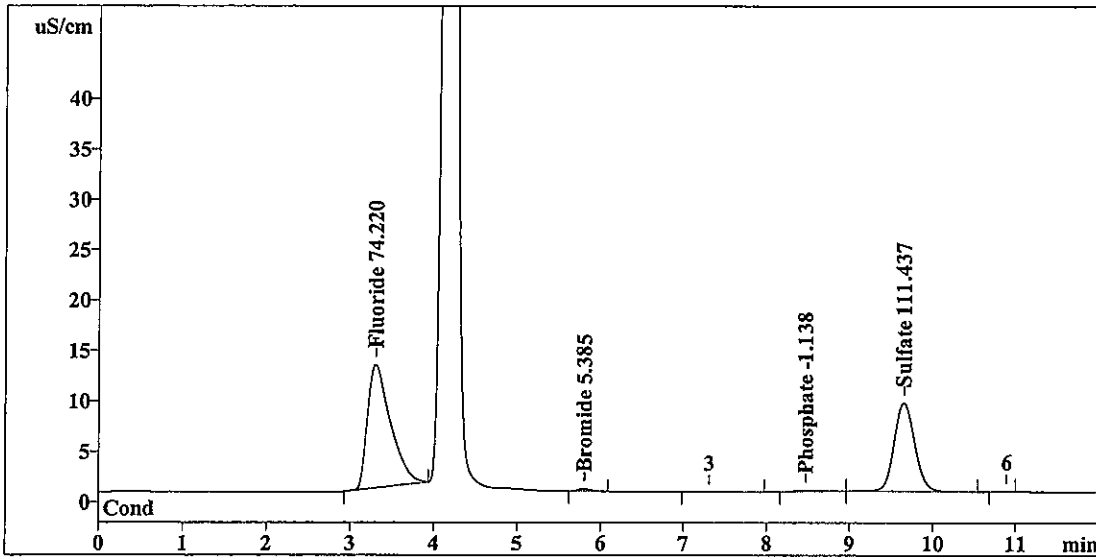
Method: 3-102909.mtw
Run operator: User
Analysis number: 9887

Last save: 10/29/2009 12:39:00 P

SAMPLE: S (300.0)

Vial number: 33
Volume: 1.0 µL
Dilution: 20.00
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	3.31	234.609	74.220	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.81	2.424	5.385	Bromide
5	0.00	0.000	0.000	Nitrate
6	8.48	3.306	-1.138	Phosphate
7	9.66	151.832	111.437	Sulfate
<hr/>				
7	12.00	392.171	192.180	

✗

RP 10/29/09

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Report date: 10/29/2009 8:02:33 PM
Printed by: User

Ident: CCV
Analysis from: 10/29/2009 7:50:35 PM
File: TA291950.CHW

Last save: 10/29/2009 8:02:34 PM

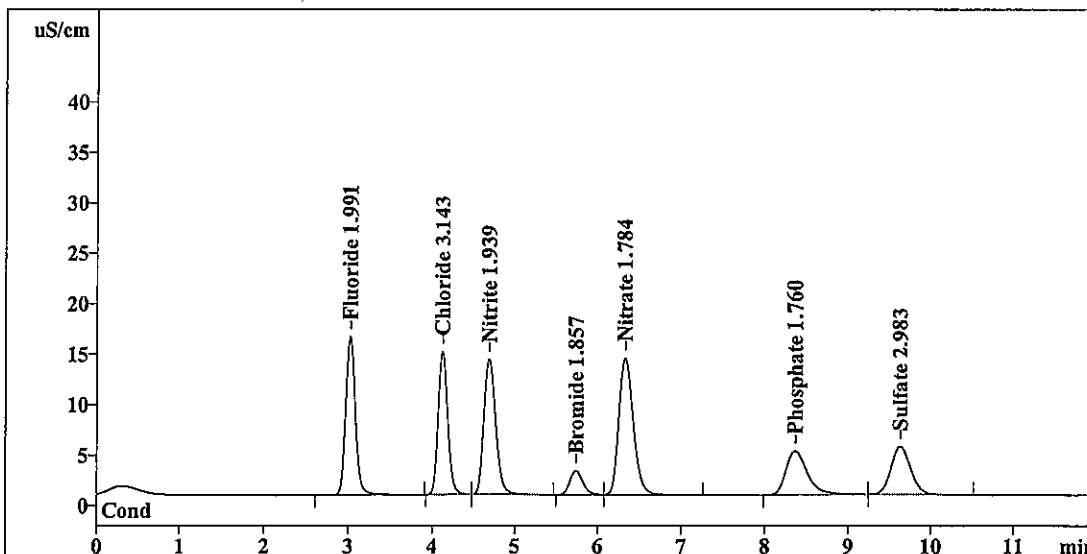
Method: 3-102909.mtw
Run operator: User
Analysis number: 9888

Last save: 10/29/2009 12:39:00 P

SAMPLE: 9056/300.0

Vial number: 34
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	3.02	125.676	OK 1.991	Fluoride
2	4.13	116.580	↓ 3.143	Chloride
3	4.70	134.382	1.939	Nitrite
4	5.75	25.953	1.857	Bromide
5	6.34	163.782	OK 1.784	Nitrate
6	8.37	76.441	↓ 1.760	Phosphate
7	9.63	79.665	2.983	Sulfate
<hr/>				
7	12.00	722.479	15.457	

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RP 10/30/09

Report date: 10/29/2009 8:16:38 PM
Printed by: User

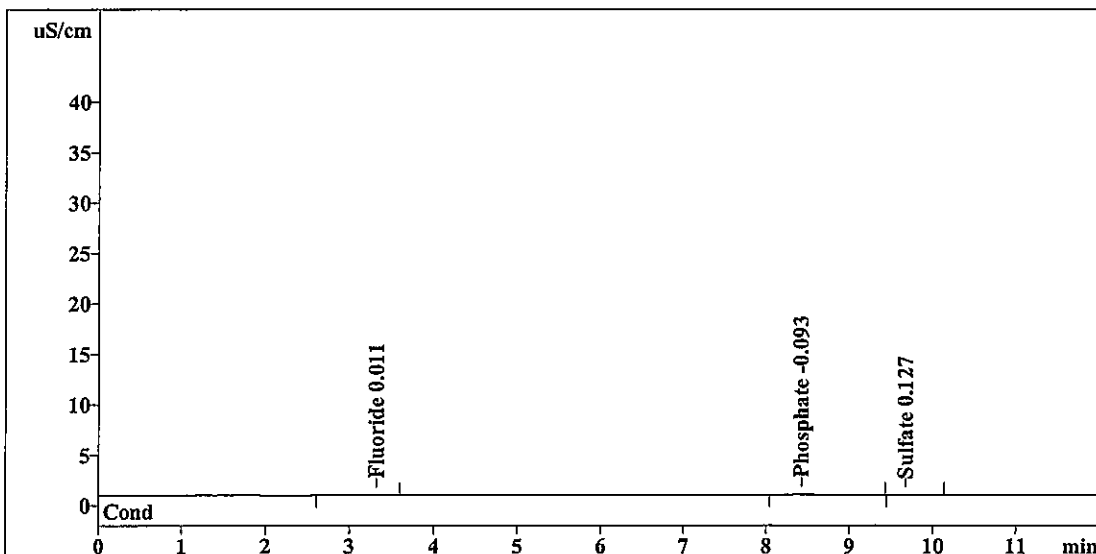
Ident: CCB
Analysis from: 10/29/2009 8:04:40 PM
File: TA292004.CHW Last save: 10/29/2009 8:16:39 PM

Method: 3-102909.mtw Last save: 10/29/2009 12:39:00 P
Run operator: User
Analysis number: 9889

SAMPLE: 9056/300.0

Vial number: 35
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	0.236	0.011	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	8.43	1.860	-0.093	Phosphate
7	9.68	0.070	0.127	Sulfate
<hr/>				
7	12.00	2.166	0.231	

Handwritten 'x' and a downward arrow pointing to the Phosphate and Sulfate rows in the table.

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RP 10/30/09

Report date: 10/29/2009 8:30:42 PM
Printed by: User

Ident: LCS
Analysis from: 10/29/2009 8:18:44 PM
File: TA292018.CHW

Last save: 10/29/2009 8:30:44 PM

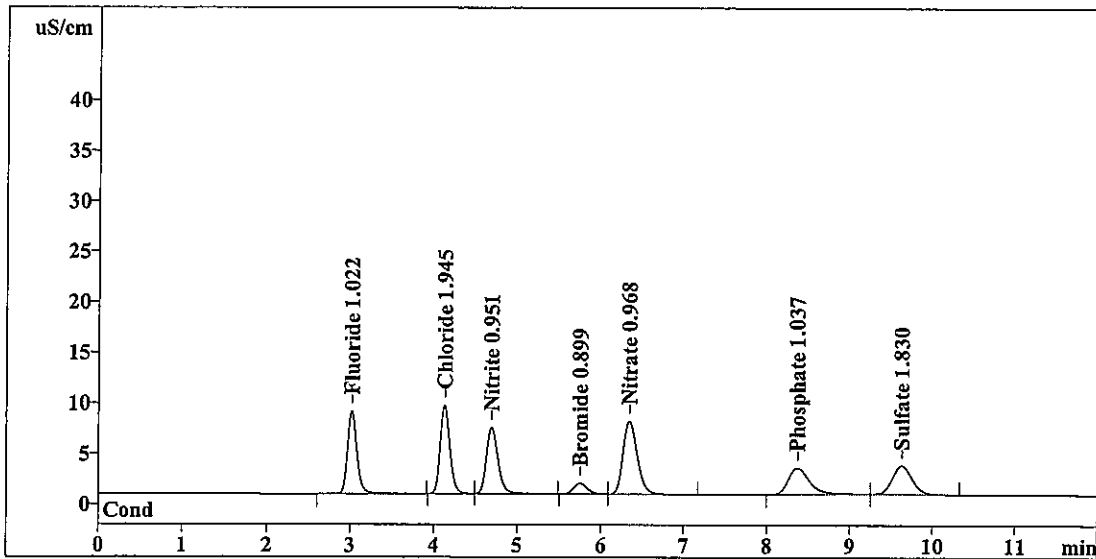
Method: 3-102909.mtw
Run operator: User
Analysis number: 9890

Last save: 10/29/2009 12:39:00 P

SAMPLE: 9056/300.0

Vial number: 36
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	3.02	64.259	1.022	Fluoride
2	4.13	70.953	1.945	Chloride
3	4.70	63.479	0.951	Nitrite
4	5.76	11.759	0.899	Bromide
5	6.35	85.927	0.968	Nitrate
6	8.38	47.341	1.037	Phosphate
7	9.63	47.529	1.830	Sulfate
7	12.00	391.248	8.651	

OK
OK

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RP 10/30/09

Report date: 10/29/2009 8:44:47 PM
Printed by: User

Ident: R0905836-017
Analysis from: 10/29/2009 8:32:49 PM
File: TA292032.CHW

Last save: 10/29/2009 8:44:48 PM

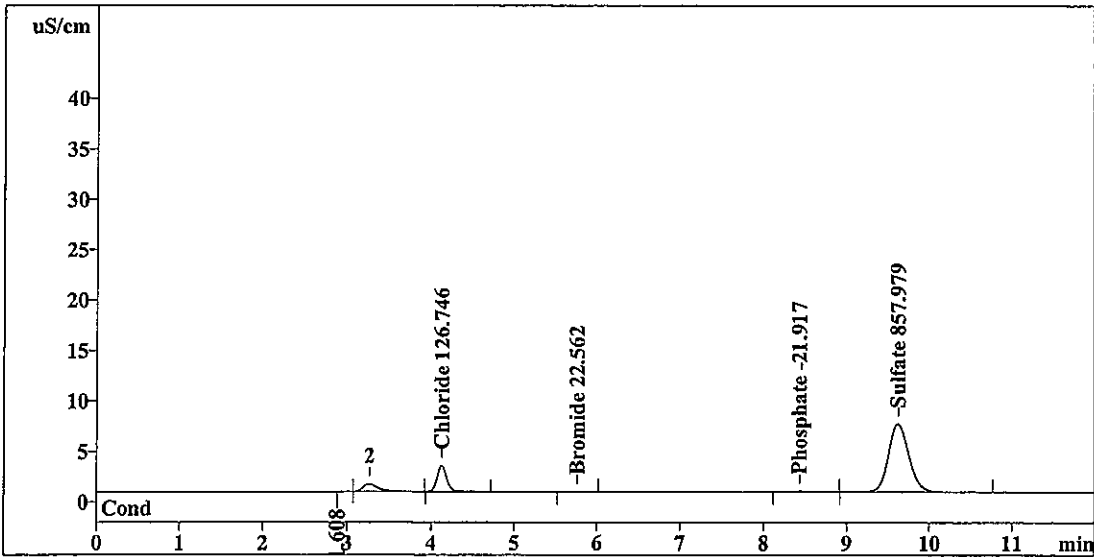
Method: 3-102909.mtw
Run operator: User
Analysis number: 9891

Last save: 10/29/2009 12:39:00 P

SAMPLE: S (300.0)

Vial number: 37
Volume: 1.0 µL
Dilution: 200.00
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	0.055	1.608	Fluoride
2	4.13	21.050	126.746	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.77	0.106	22.562	Bromide
5	0.00	0.000	0.000	Nitrate
6	8.43	1.185	-21.917	Phosphate
7	9.63	116.101	OK 857.979	Sulfate
<hr/>				
7	12.00	138.497	1030.813	

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RP 10/30/09

Report date: 10/29/2009 8:58:52 PM
Printed by: User

Ident: R0905836-019
Analysis from: 10/29/2009 8:46:54 PM
File: TA292046.CHW

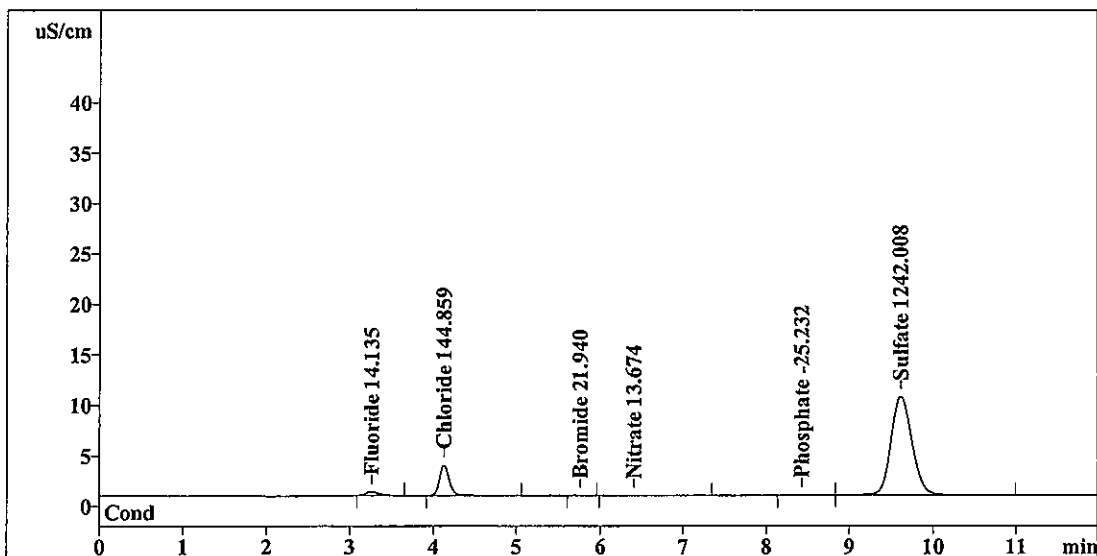
Last save: 10/29/2009 8:58:53 PM

Method: 3-102909.mtw
Run operator: User
Analysis number: 9892

Last save: 10/29/2009 12:39:00 P

SAMPLE: S (300.0)
:
Vial number: 38
Volume: 1.0 µL
Dilution: 200.00
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	3.26	4.023	14.135	Fluoride
2	4.13	24.497	144.859	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.77	0.060	21.940	Bromide
5	6.40	0.209	13.674	Nitrate
6	8.43	0.518	-25.232	Phosphate
7	9.62	169.619	1242.008	Sulfate
<hr/>				
7	12.00	198.925	1461.848	

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RP 10/30/09

Report date: 10/29/2009 9:12:57 PM
Printed by: User

Ident: R0905836-031
Analysis from: 10/29/2009 9:00:59 PM
File: TA292100.CHW

Last save: 10/29/2009 9:12:58 PM

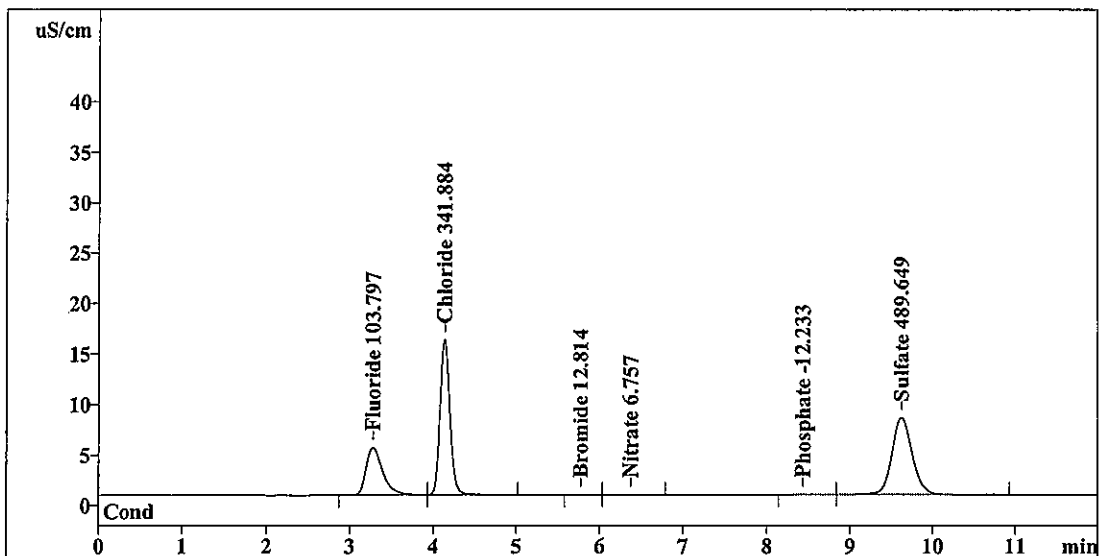
Method: 3-102909.mtw
Run operator: User
Analysis number: 9893

Last save: 10/29/2009 12:39:00 P

SAMPLE: S (300.0)

Vial number: 39
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	3.28	65.293	103.797	Fluoride
2	4.14	127.065	341.884	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.78	0.333	12.814	Bromide
5	6.37	0.133	6.757	Nitrate
6	8.43	0.672	-12.233	Phosphate
7	9.63	133.008	489.649	Sulfate
<hr/>				
7	12.00	326.504	967.133	

OK
RP 10/30/09

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Report date: 10/29/2009 9:27:02 PM
Printed by: User

Ident: R0905836-033
Analysis from: 10/29/2009 9:15:04 PM
File: TA292115.CHW

Last save: 10/29/2009 9:27:03 PM

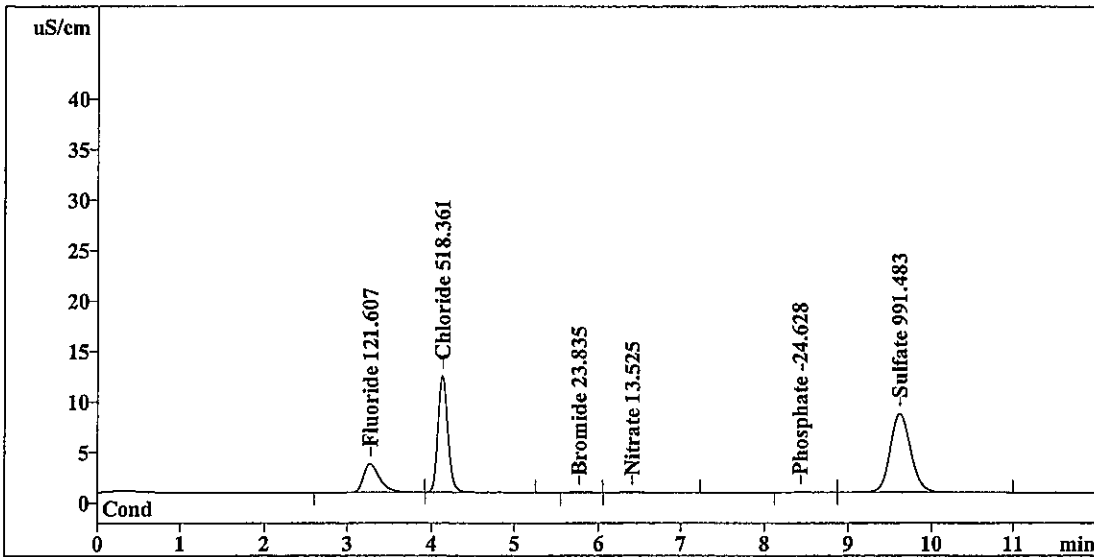
Method: 3-102909.mtw
Run operator: User
Analysis number: 9894

Last save: 10/29/2009 12:39:00 P

SAMPLE: S (300.0)

Vial number: 40
Volume: 1.0 µL
Dilution: 200.00
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	3.27	38.060	121.607	Fluoride
2	4.13	95.584	518.361	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.78	0.200	23.835	Bromide
5	6.42	0.138	13.525	Nitrate
6	8.43	0.639	-24.628	Phosphate
7	9.62	134.706	991.483	Sulfate
<hr/>				
7	12.00	269.327	1693.438	

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RP 10/30/09

Report date: 10/29/2009 9:41:08 PM
Printed by: User

Ident: R0902714-003
Analysis from: 10/29/2009 9:29:10 PM
File: TA292129.CHW

Last save: 10/29/2009 9:41:09 PM

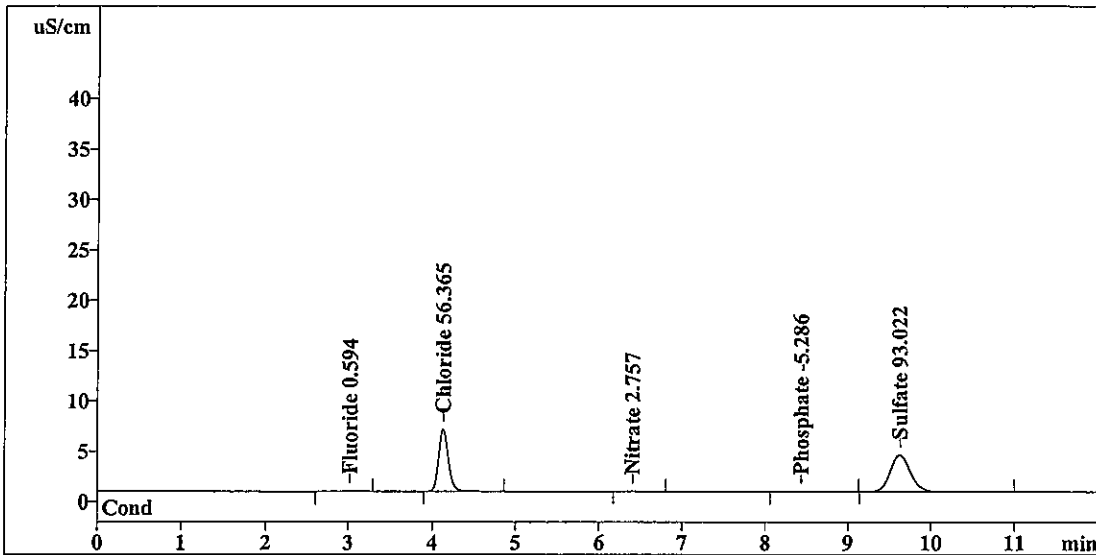
Method: 3-102909.mtw
Run operator: User
Analysis number: 9895

Last save: 10/29/2009 12:39:00 P

SAMPLE: S (300.0)

Vial number: 41
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	3.02	0.487	0.594	Fluoride
2	4.13	50.565	56.365	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.41	0.261	2.757	Nitrate
6	8.44	0.276	-5.286	Phosphate
7	9.63	61.352	93.022	Sulfate
7	12.00	112.942	158.024	

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RP 10/30/09

Report date: 10/29/2009 9:55:13 PM
Printed by: User

Ident: R0902714-004
Analysis from: 10/29/2009 9:43:15 PM
File: TA292143.CHW

Last save: 10/29/2009 9:55:15 PM

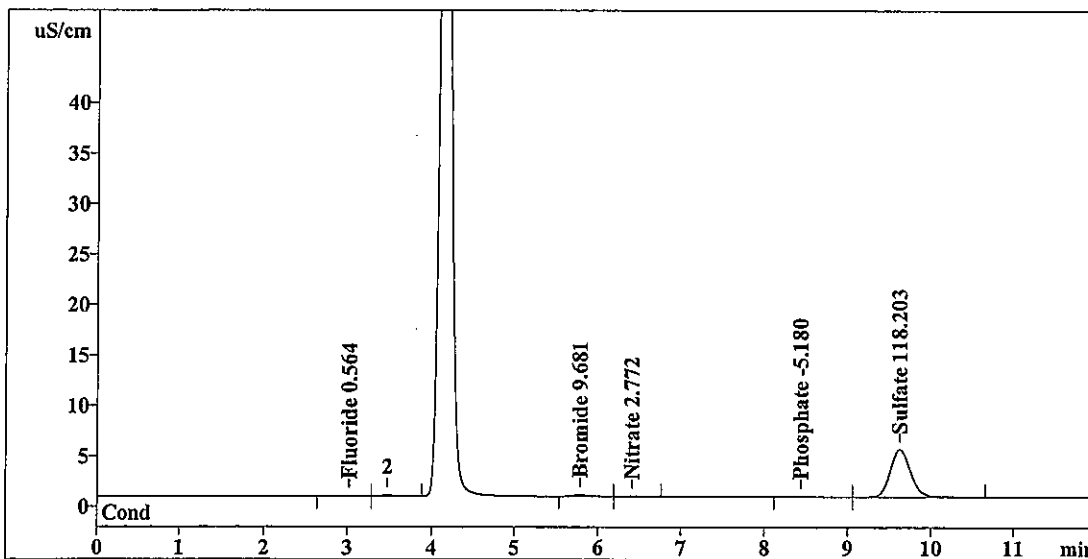
Method: 3-102909.mtw
Run operator: User
Analysis number: 9896

Last save: 10/29/2009 12:39:00 P

SAMPLE: S (300.0)

Vial number: 42
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	3.02	0.439	0.564	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.79	2.021	9.681	Bromide
5	6.41	0.299	2.772	Nitrate
6	8.45	0.383	-5.180	Phosphate
7	9.63	78.898	118.203	Sulfate
7	12.00	82.039	136.401	

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RP 103009

Report date: 10/29/2009 10:09:18 PM
Printed by: User

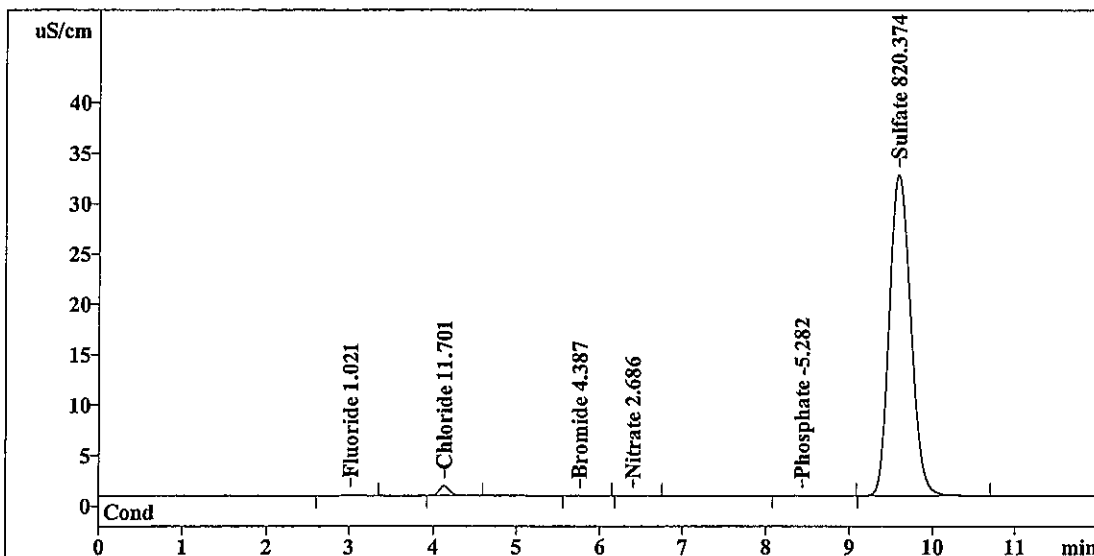
Ident: R0902714-006
Analysis from: 10/29/2009 9:57:20 PM
File: TA292157.CHW Last save: 10/29/2009 10:09:19 P

Method: 3-102909.mtw Last save: 10/29/2009 12:39:00 P
Run operator: User
Analysis number: 9897

SAMPLE: S (300.0)

Vial number: 43
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	3.01	1.163	1.021	Fluoride
2	4.13	8.062	11.701	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.76	0.060	4.387	Bromide
5	6.41	0.093	2.686	Nitrate
6	8.44	0.280	-5.282	Phosphate
7	9.60	568.161	820.374	Sulfate
7	12.00	577.819	845.452	

This report has been created by IC Net
METROHM LTD

Report date: 10/29/2009 10:23:23 PM
Printed by: User

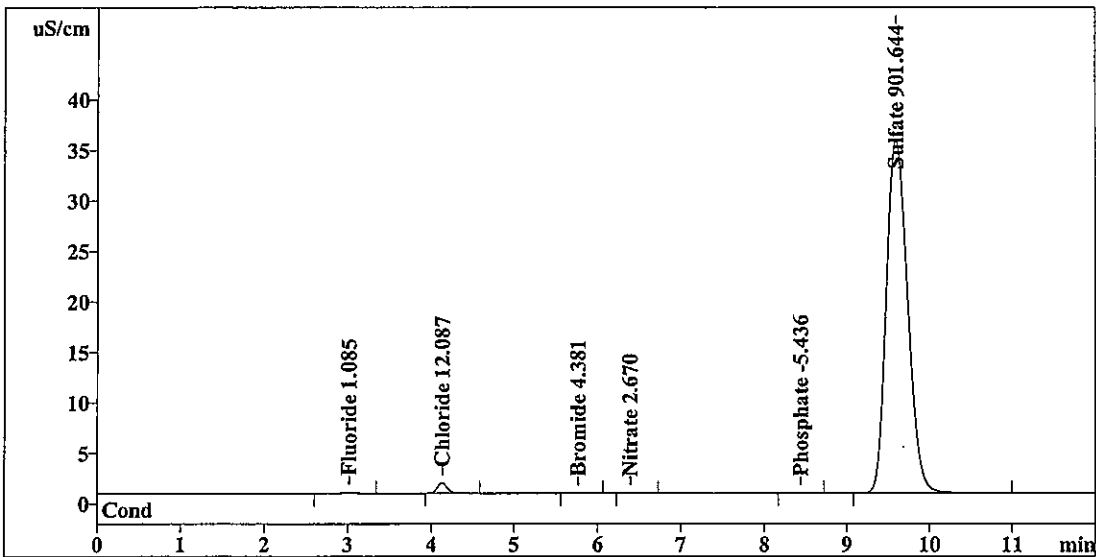
Ident: R0902714-006 DUP
Analysis from: 10/29/2009 10:11:25 PM
File: TA292211.CHW Last save: 10/29/2009 10:23:24 P

Method: 3-102909.mtw Last save: 10/29/2009 12:39:00 P
Run operator: User
Analysis number: 9898

SAMPLE: S (300.0)

Vial number: 44
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	3.01	1.263	1.085	Fluoride
2	4.13	8.429	12.087	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.76	0.057	4.381	Bromide
5	6.39	0.055	2.670	Nitrate
6	8.43	0.125	-5.436	Phosphate
7	9.59	624.789	4100 901.644	Sulfate
7	12.00	634.719	927.303	

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METROHM LTD

RP 1030109

Report date: 10/29/2009 10:37:33 PM
Printed by: User

Ident: R0902714-006 SPK
Analysis from: 10/29/2009 10:25:29 PM
File: TA292225.CHW

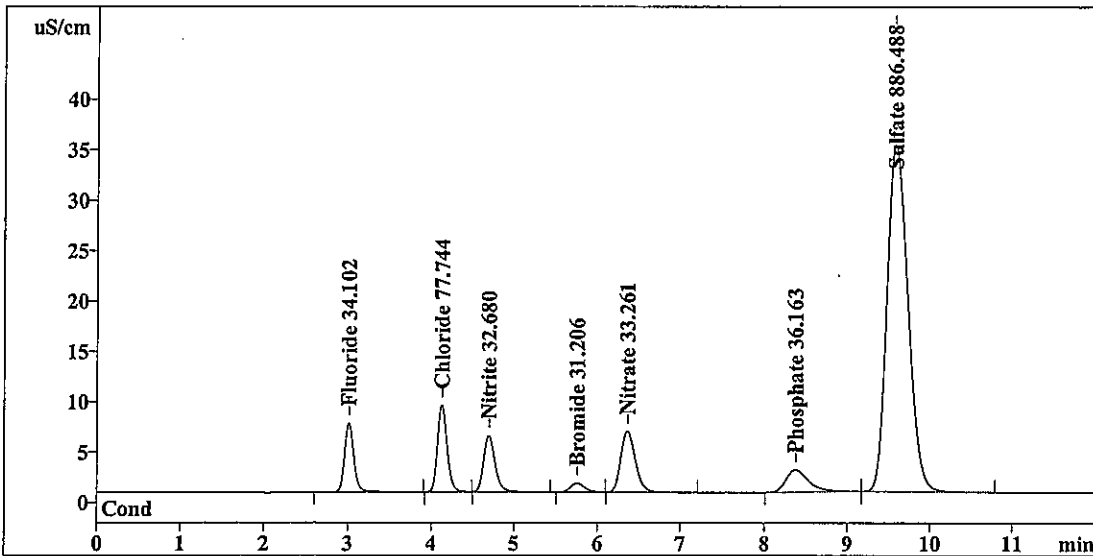
Last save: 10/29/2009 10:37:34 P

Method: 3-102909.mtw
Run operator: User
Analysis number: 9899

Last save: 10/29/2009 12:39:00 P

SAMPLE: S (300.0)
:
Vial number: 45
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	3.02	53.548	34.102	Fluoride
2	4.14	70.910	77.744	Chloride
3	4.70	53.829	32.680	Nitrite
4	5.77	9.996	31.206	Bromide
5	6.37	72.956	33.261	Nitrate
6	8.38	41.993	36.163	Phosphate
7	9.60	614.229	886.488	Sulfate
<hr/>				
7	12.00	917.461	1131.644	

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RP 10/30/09

Report date: 10/29/2009 10:51:53 PM
 Printed by: User

Ident: CCV
 Analysis from: 10/29/2009 10:39:55 PM
 File: TA292239.CHW

Last save: 10/29/2009 10:51:54 P

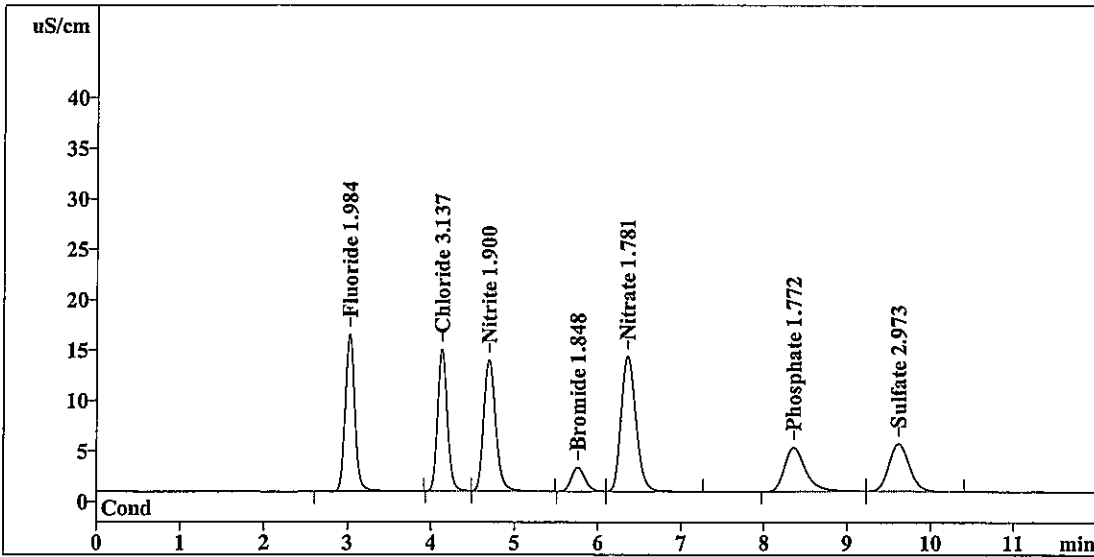
Method: 3-102909.mtw
 Run operator: User
 Analysis number: 9900

Last save: 10/29/2009 12:39:00 P

SAMPLE: 9056/300.0

Vial number: 46
 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	3.02	125.196	1.984	Fluoride
2	4.14	116.346	3.137	Chloride
3	4.70	131.634	1.900	Nitrite
4	5.76	25.822	1.848	Bromide
5	6.36	163.432	1.781	Nitrate
6	8.36	76.943	1.772	Phosphate
7	9.62	79.403	2.973	Sulfate
<hr/>				
7	12.00	718.774	15.395	

OK
 OK
 OK

RP 10/30/09

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Report date: 10/29/2009 11:05:57 PM
Printed by: User

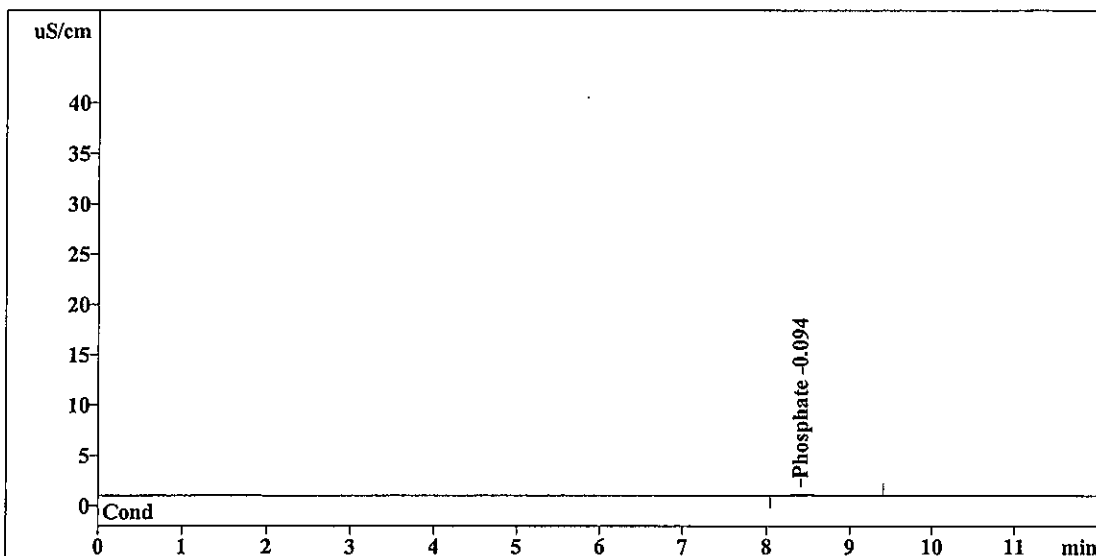
Ident: CCB
Analysis from: 10/29/2009 10:53:59 PM
File: TA292253.CHW Last save: 10/29/2009 11:05:59 P

Method: 3-102909.mtw Last save: 10/29/2009 12:39:00 P
Run operator: User
Analysis number: 9901

SAMPLE: 9056/300.0

Vial number: 47
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	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	8.41	1.806	0.094	Phosphate
7	0.00	0.000	0.000	Sulfate
<hr/>				
7	12.00	1.806	0.094	

OK
↓

RP 12/30/09

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Report date: 10/29/2009 11:20:02 PM
Printed by: User

Ident: R0905714-009
Analysis from: 10/29/2009 11:08:04 PM
File: TA292308.CHW

Last save: 10/29/2009 11:20:04 P

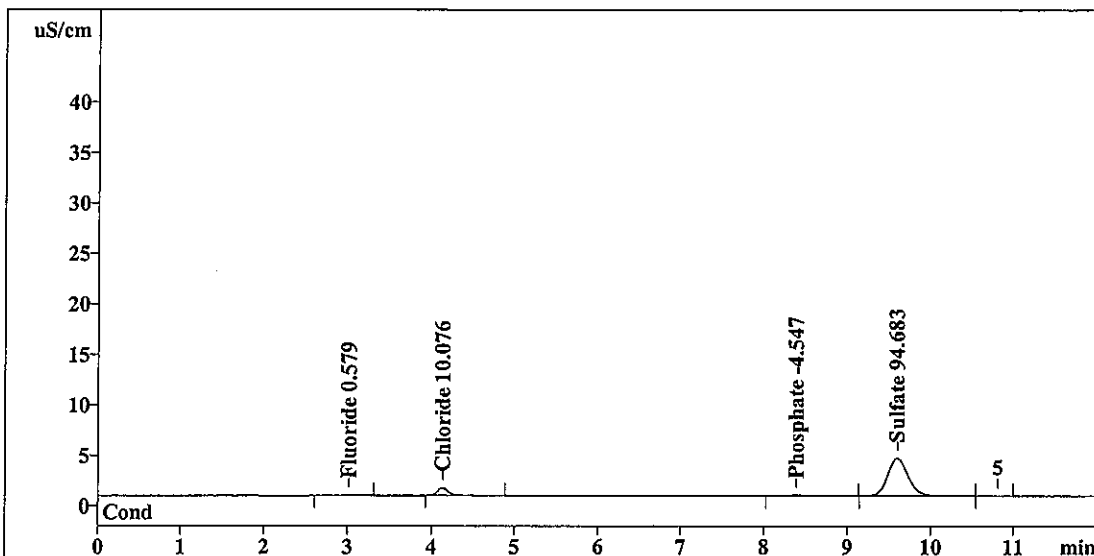
Method: 3-102909.mtw
Run operator: User
Analysis number: 9902

Last save: 10/29/2009 12:39:00 P

SAMPLE: S (300.0)

Vial number: 48
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	3.01	0.463	0.579	Fluoride
2	4.13	6.515	10.076	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	8.39	1.021	-4.547	Phosphate
7	9.60	62.510	94.683	Sulfate
7	12.00	70.509	109.885	

OK

RP 10/30/09

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Report date: 10/29/2009 11:34:07 PM
Printed by: User

Ident: R0905714-010
Analysis from: 10/29/2009 11:22:09 PM
File: TA292322.CHW

Last save: 10/29/2009 11:34:08 P

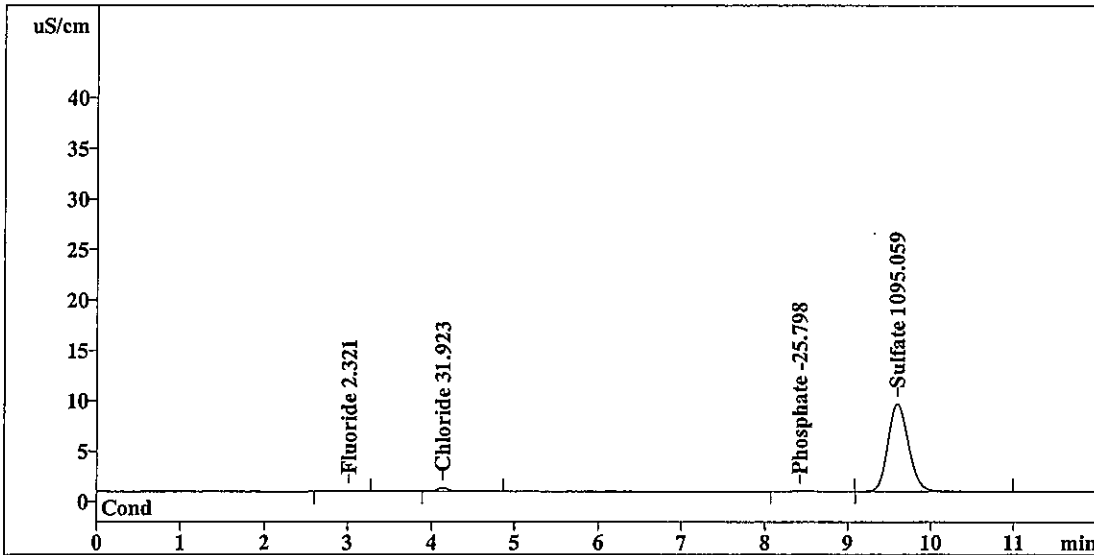
Method: 3-102909.mtw
Run operator: User
Analysis number: 9903

Last save: 10/29/2009 12:39:00 P

SAMPLE: S (300.0)

Vial number: 49
Volume: 1.0 µL
Dilution: 200.00
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	3.02	0.281	2.321	Fluoride
2	4.14	3.002	31.923	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	8.42	0.404	-25.798	Phosphate
7	9.60	149.140	1095.059	Sulfate
7	12.00	152.827	1155.100	

RP 10/30/09

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Report date: 10/29/2009 11:48:12 PM
Printed by: User

Ident: R0905714-011
Analysis from: 10/29/2009 11:36:14 PM
File: TA292336.CHW

Last save: 10/29/2009 11:48:14 P

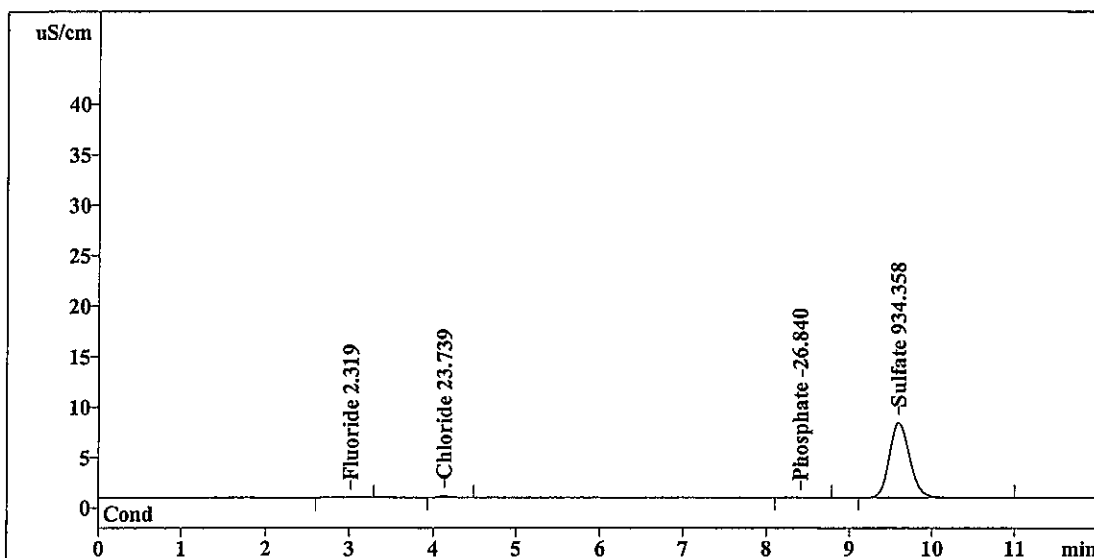
Method: 3-102909.mtw
Run operator: User
Analysis number: 9904

Last save: 10/29/2009 12:39:00 P

SAMPLE: S (300.0)

Vial number: 50
Volume: 1.0 µL
Dilution: 200.00
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	3.01	0.280	2.319	Fluoride
2	4.14	1.445	23.739	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	8.41	0.194	-26.840	Phosphate
7	9.60	126.745	OX 934.358	Sulfate
7	12.00	128.664	987.254	

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RP 10/30/09

Report date: 10/30/2009 12:02:16 AM
Printed by: User

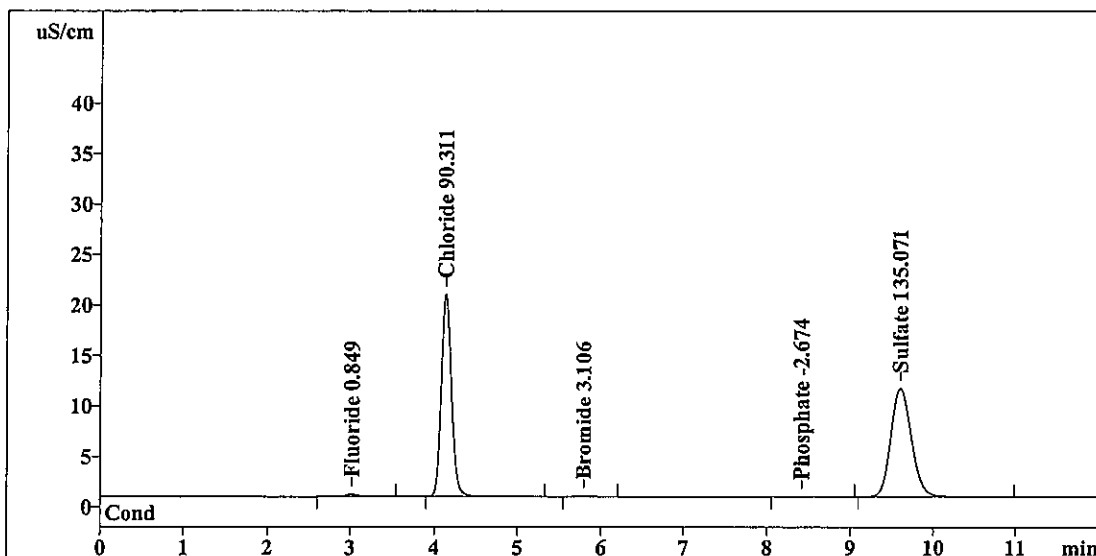
Ident: R0905714-015
Analysis from: 10/29/2009 11:50:18 PM
File: TA292350.CHW Last save: 10/30/2009 12:02:18 A

Method: 3-102909.mtw Last save: 10/29/2009 12:39:00 P
Run operator: User
Analysis number: 9905

SAMPLE: S (300.0)

Vial number: 51
Volume: 1.0 µL
Dilution: 20.00
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	3.01	2.235	0.849	Fluoride
2	4.14	168.813	90.311	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.79	0.735	3.106	Bromide
5	0.00	0.000	0.000	Nitrate
6	8.42	0.213	-2.674	Phosphate
7	9.61	184.767	135.071	Sulfate
7	12.00	356.762	232.011	

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RP1030109

Report date: 10/30/2009 12:16:35 AM
Printed by: User

Ident: R0905714-018
Analysis from: 10/30/2009 12:04:23 AM
File: TA300004.CHW

Last save: 10/30/2009 12:16:34 A

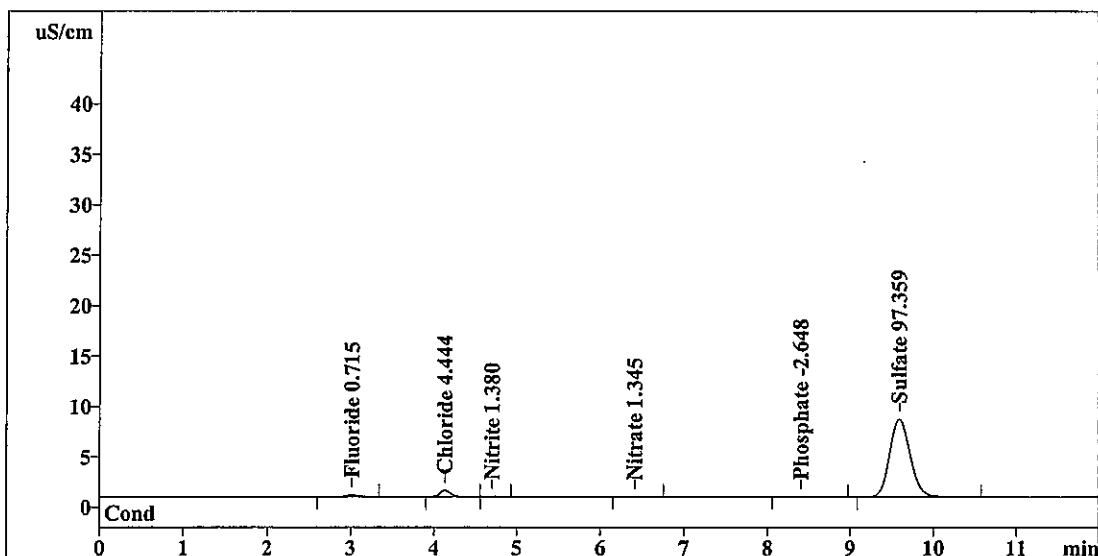
Method: 3-102909.mtw
Run operator: User
Analysis number: 9906

Last save: 10/29/2009 12:39:00 P

SAMPLE: S (300.0)

Vial number: 52
Volume: 1.0 µL
Dilution: 20.00
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	3.01	1.810	0.715	Fluoride
2	4.13	5.385	4.444	Chloride
3	4.70	0.104	1.380	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.41	0.102	1.345	Nitrate
6	8.40	0.267	-2.648	Phosphate
7	9.59	132.212	97.359	Sulfate
<hr/>				
7	12.00	139.880	107.891	

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RP 10/30/09

Report date: 10/30/2009 12:31:57 AM
Printed by: User

Ident: R0905714-023
Analysis from: 10/30/2009 12:20:05 AM
File: TA300020.CHW

Last save: 10/30/2009 12:31:58 A

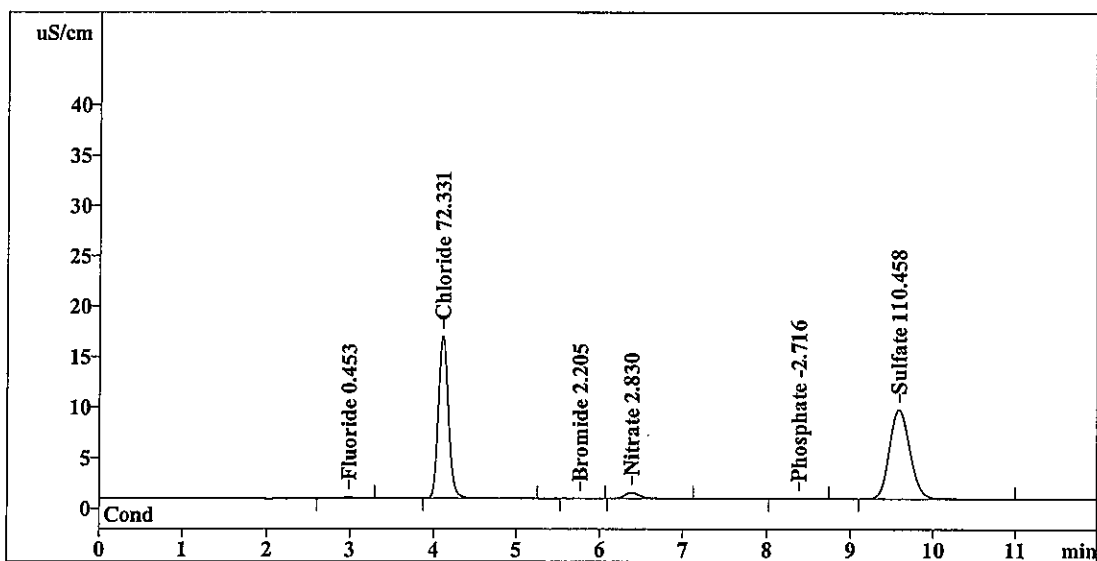
Method: 3-102909.mtw
Run operator: User
Analysis number: 9907

Last save: 10/29/2009 12:39:00 P

SAMPLE: S (300.0)

Vial number: 53
Volume: 1.0 µL
Dilution: 20.00
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	0.980	0.453	Fluoride
2	4.11	134.591	72.331	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.77	0.068	2.205	Bromide
5	6.38	7.180	2.830	Nitrate
6	8.39	0.130	-2.716	Phosphate
7	9.59	150.466	OK 110.458	Sulfate
7	12.00	293.416	190.992	

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RP 10/30/09

Report date: 10/30/2009 12:46:12 AM
Printed by: User

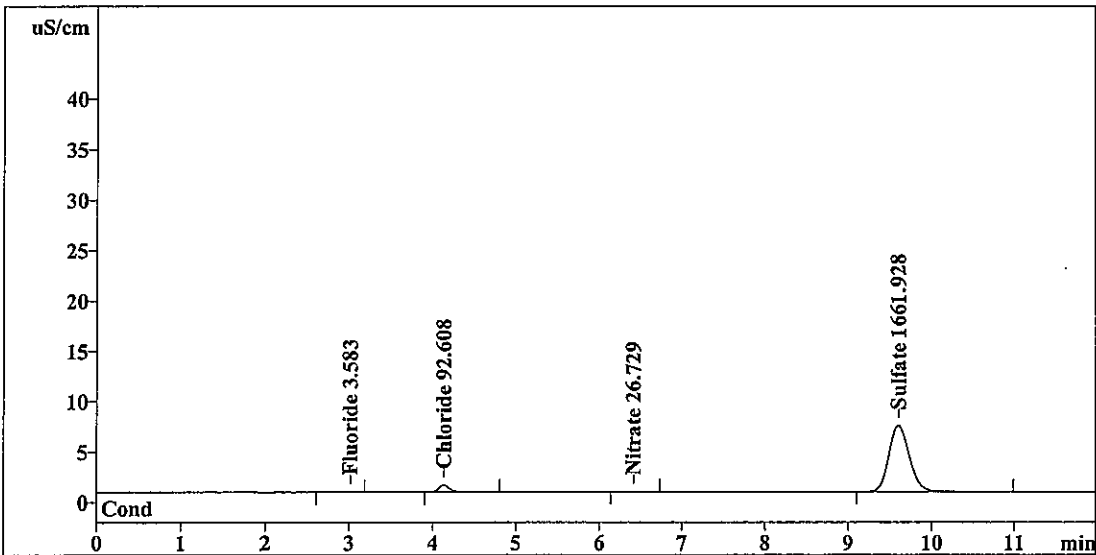
Ident: R0905714-026
Analysis from: 10/30/2009 12:34:14 AM
File: TA300034.CHW Last save: 10/30/2009 12:46:13 A

Method: 3-102909.mtw Last save: 10/29/2009 12:39:00 P
Run operator: User
Analysis number: 9908

SAMPLE: S (300.0)

Vial number: 54
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	3.02	0.113	3.583	Fluoride
2	4.14	5.739	92.608	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.42	0.062	26.729	Nitrate
6	0.00	0.000	0.000	Phosphate
7	9.60	112.337	OK 1661.928	Sulfate
7	12.00	118.251	1784.849	

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RP 103009

Report date: 10/30/2009 1:00:19 AM
Printed by: User

Ident: R0905714-026 DUP
Analysis from: 10/30/2009 12:48:21 AM
File: TA300048.CHW

Last save: 10/30/2009 1:00:20 AM

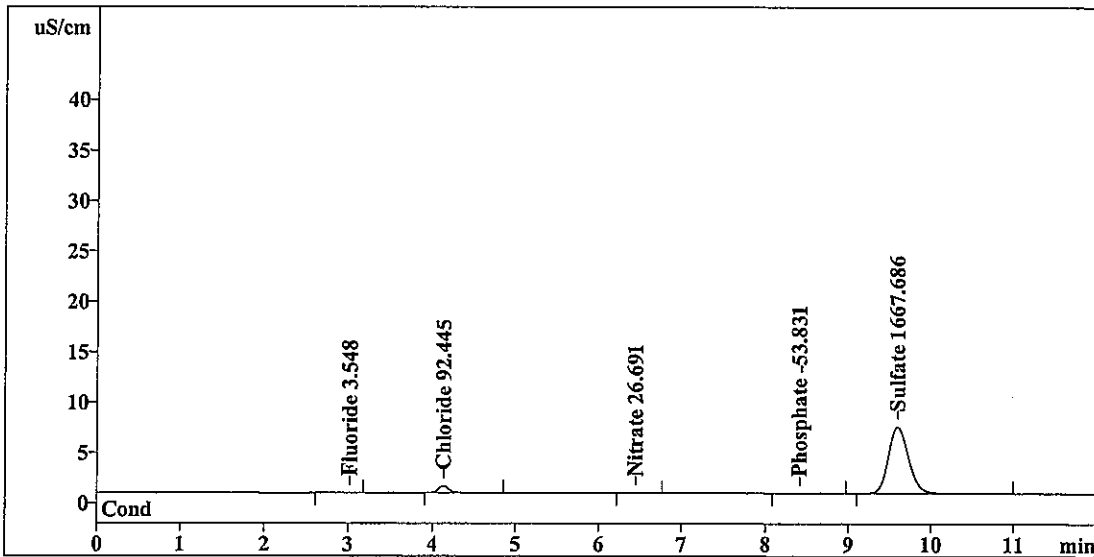
Method: 3-102909.mtw
Run operator: User
Analysis number: 9909

Last save: 10/29/2009 12:39:00 P

SAMPLE: S (300.0)

Vial number: 55
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	3.02	0.108	3.548	Fluoride
2	4.14	5.724	92.445	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.45	0.052	26.691	Nitrate
6	8.42	0.179	-53.831	Phosphate
7	9.60	112.738	1667.686	Sulfate
<hr/>				
7	12.00	118.801	1844.200	

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RP 10/30/09

Report date: 10/30/2009 1:14:24 AM
Printed by: User

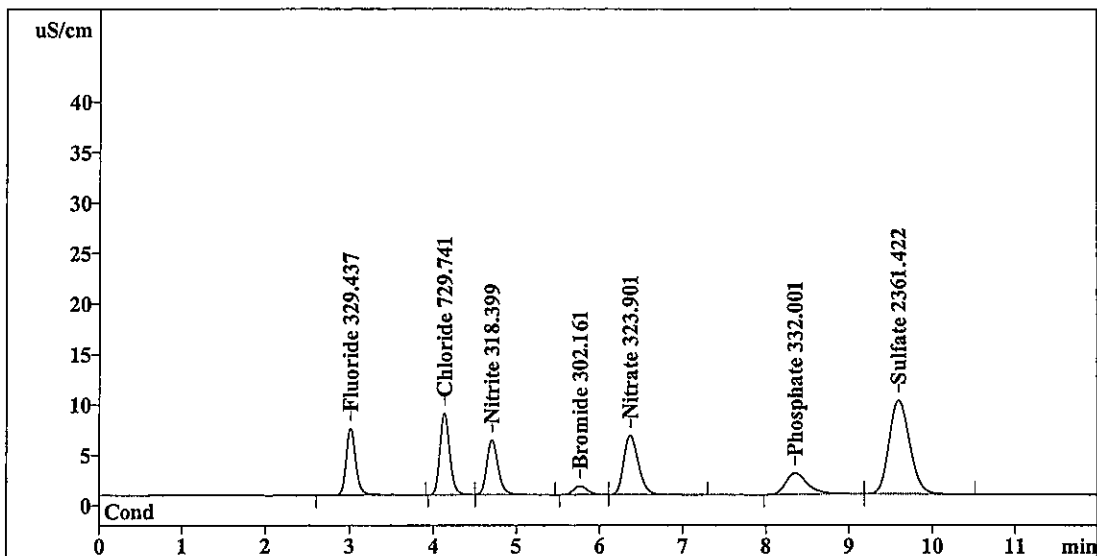
Ident: R0905714-026 SPK
Analysis from: 10/30/2009 1:02:26 AM
File: TA300102.CHW Last save: 10/30/2009 1:14:25 AM

Method: 3-102909.mtw Last save: 10/29/2009 12:39:00 P
Run operator: User
Analysis number: 9910

SAMPLE: S (300.0)

Vial number: 56
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	3.01	51.714	329.437	Fluoride
2	4.13	66.371	729.741	Chloride
3	4.70	52.320	318.399	Nitrite
4	5.77	9.629	302.161	Bromide
5	6.37	70.882	323.901	Nitrate
6	8.36	39.011	332.001	Phosphate
7	9.60	161.076	2361.422	Sulfate
<hr/>				
7	12.00	451.004	4697.063	

RP 10/30/09

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Report date: 10/30/2009 1:28:30 AM
Printed by: User

Ident: R0905862-001
Analysis from: 10/30/2009 1:16:31 AM
File: TA300116.CHW

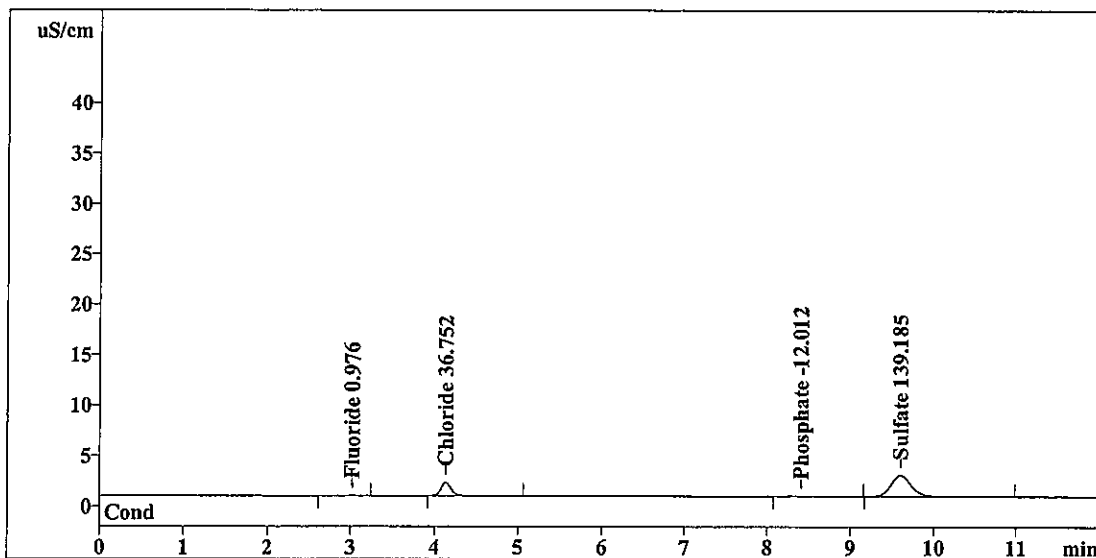
Last save: 10/30/2009 1:28:31 AM

Method: 3-102909.mtw
Run operator: User
Analysis number: 9911

Last save: 10/29/2009 12:39:00 P

SAMPLE: S (300.0)
:
Vial number: 57
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	3.02	0.164	0.976	Fluoride
2	4.14	10.916	36.752	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	8.42	0.761	-12.012	Phosphate
7	9.61	35.329	139.185	Sulfate
7	12.00	47.170	188.927	

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RP 10/30/09

Report date: 10/30/2009 1:42:34 AM
Printed by: User

Ident: CCV
Analysis from: 10/30/2009 1:30:36 AM
File: TA300130.CHW

Last save: 10/30/2009 1:42:36 AM

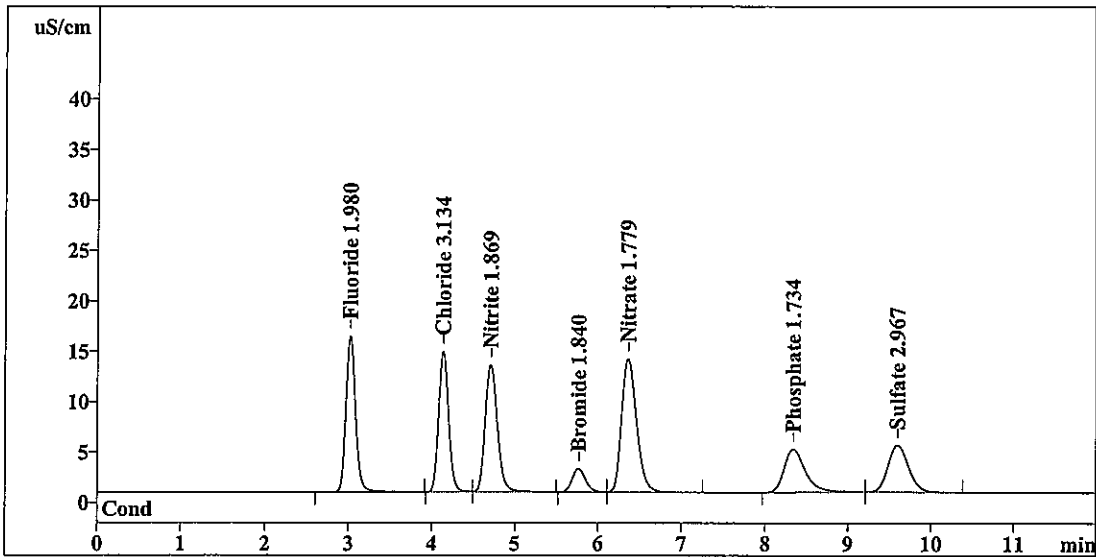
Method: 3-102909.mtw
Run operator: User
Analysis number: 9912

Last save: 10/29/2009 12:39:00 P

SAMPLE: 9056/300.0

Vial number: 58
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	3.02	124.948	OK 1.980	Fluoride
2	4.14	116.206	↓ 3.134	Chloride
3	4.71	129.387	↓ 1.869	Nitrite
4	5.77	25.708	↓ 1.840	Bromide
5	6.37	163.256	OK 1.779	Nitrate
6	8.35	75.424	↓ 1.734	Phosphate
7	9.60	79.220	↓ 2.967	Sulfate
<hr/>				
7	12.00	714.150	15.303	

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RP10130109

Report date: 10/30/2009 1:56:40 AM
Printed by: User

Ident: CCB
Analysis from: 10/30/2009 1:44:41 AM
File: TA300144.CHW

Last save: 10/30/2009 1:56:41 AM

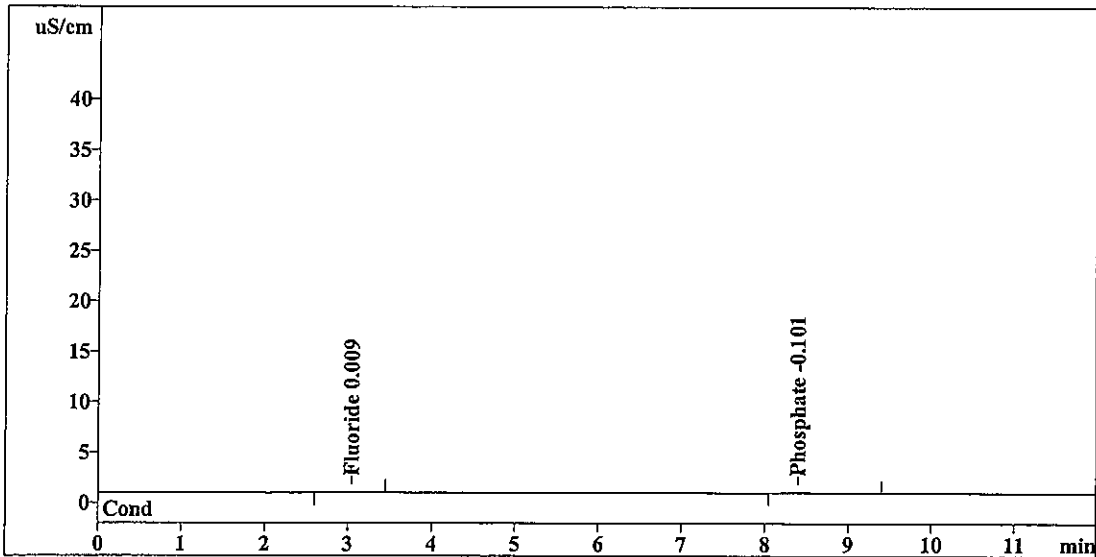
Method: 3-102909.mtw
Run operator: User
Analysis number: 9913

Last save: 10/29/2009 12:39:00 P

SAMPLE: 9056/300.0

Vial number: 59
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	3.04	0.110	0.009	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	8.40	1.514	0.101	Phosphate
7	0.00	0.000	0.000	Sulfate
<hr/>				
7	12.00	1.624	0.110	

Handwritten arrow pointing from the 'Conc.' column to the 'Phosphate' row.

RP 10/30/09

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Report date: 10/30/2009 2:10:45 AM
Printed by: User

Ident: LCS
Analysis from: 10/30/2009 1:58:47 AM
File: TA300158.CHW

Last save: 10/30/2009 2:10:45 AM

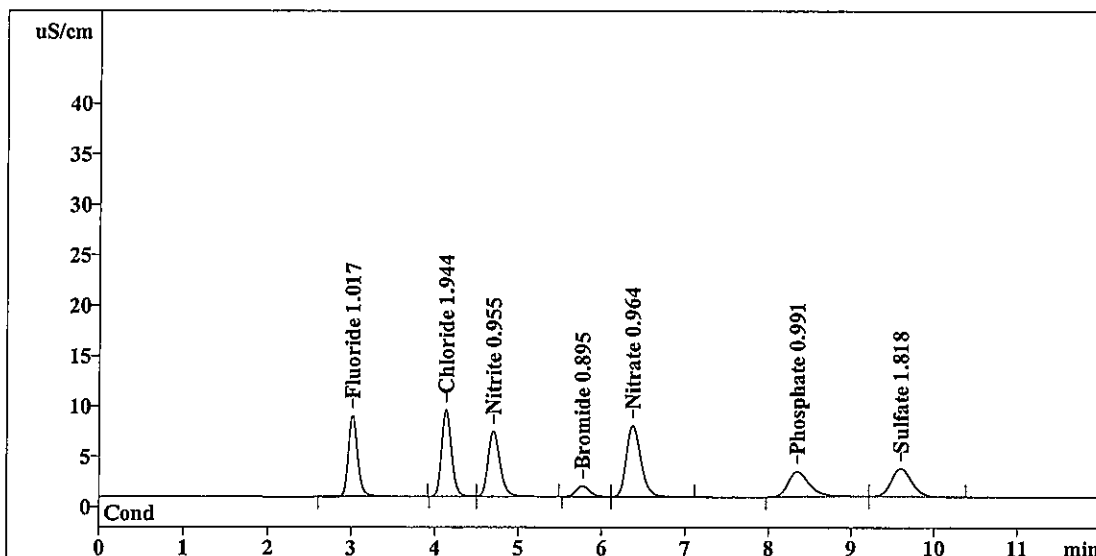
Method: 3-102909.mtw
Run operator: User
Analysis number: 9914

Last save: 10/29/2009 12:39:00 P

SAMPLE: 9056/300.0

Vial number: 60
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	3.02	63.948	1.017	Fluoride
2	4.14	70.917	1.944	Chloride
3	4.71	63.705	0.955	Nitrite
4	5.78	11.701	0.895	Bromide
5	6.38	85.539	0.964	Nitrate
6	8.35	45.478	0.991	Phosphate
7	9.60	47.202	1.818	Sulfate
7	12.00	388.489	8.582	

OK
↓
OK
↓

RP 10/30/09

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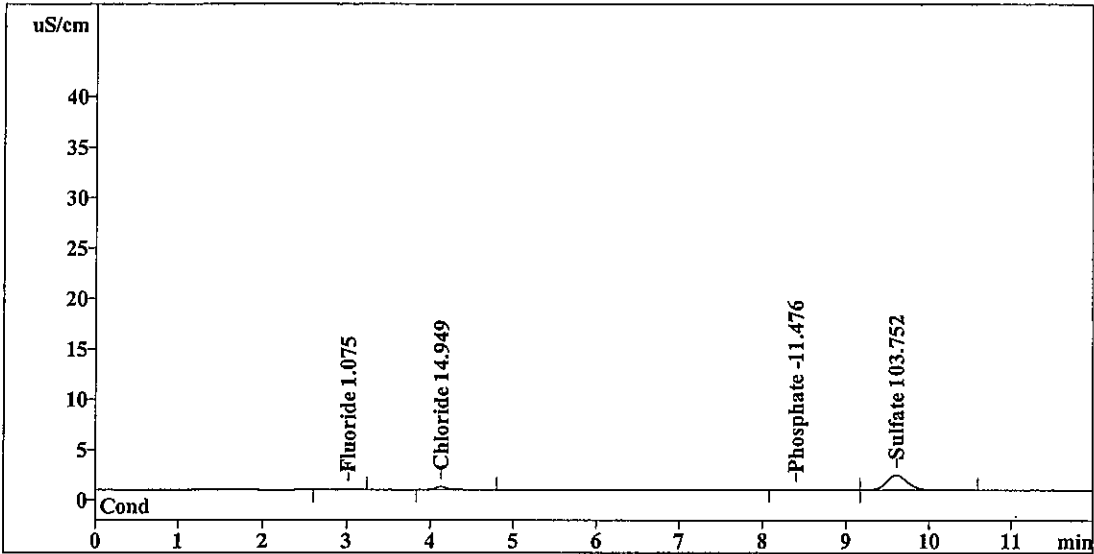
Report date: 10/30/2009 2:24:50 AM
Printed by: User

Ident: R0905862-008
Analysis from: 10/30/2009 2:12:52 AM
File: TA300212.CHW Last save: 10/30/2009 2:24:50 AM

Method: 3-102909.mtw Last save: 10/29/2009 12:39:00 P
Run operator: User
Analysis number: 9915

SAMPLE: S (300.0)
Vial number: 61
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	3.02	0.227	1.075	Fluoride
2	4.14	2.617	14.949	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	8.41	0.977	-11.476	Phosphate
7	9.60	25.453	103.752	Sulfate
7	12.00	29.273	131.252	

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RP 10/30/09

Report date: 10/30/2009 2:38:55 AM
Printed by: User

Ident: R0905862-010
Analysis from: 10/30/2009 2:26:56 AM
File: TA300226.CHW

Last save: 10/30/2009 2:38:55 AM

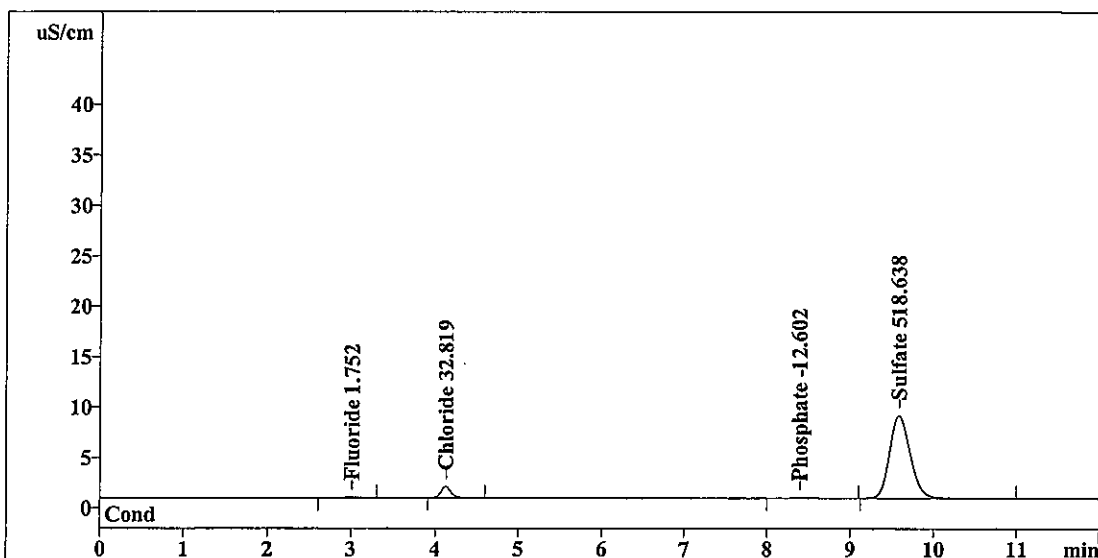
Method: 3-102909.mtw
Run operator: User
Analysis number: 9916

Last save: 10/29/2009 12:39:00 P

SAMPLE: S (300.0)

Vial number: 62
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	3.01	0.655	1.752	Fluoride
2	4.13	9.419	32.819	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	8.40	0.523	-12.602	Phosphate
7	9.59	141.088	518.638	Sulfate
<hr/>				
7	12.00	151.686	565.811	

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RP 10/30/09

Report date: 10/30/2009 2:52:59 AM
Printed by: User

Ident: R0905909-001
Analysis from: 10/30/2009 2:41:01 AM
File: TA300241.CHW

Last save: 10/30/2009 2:52:59 AM

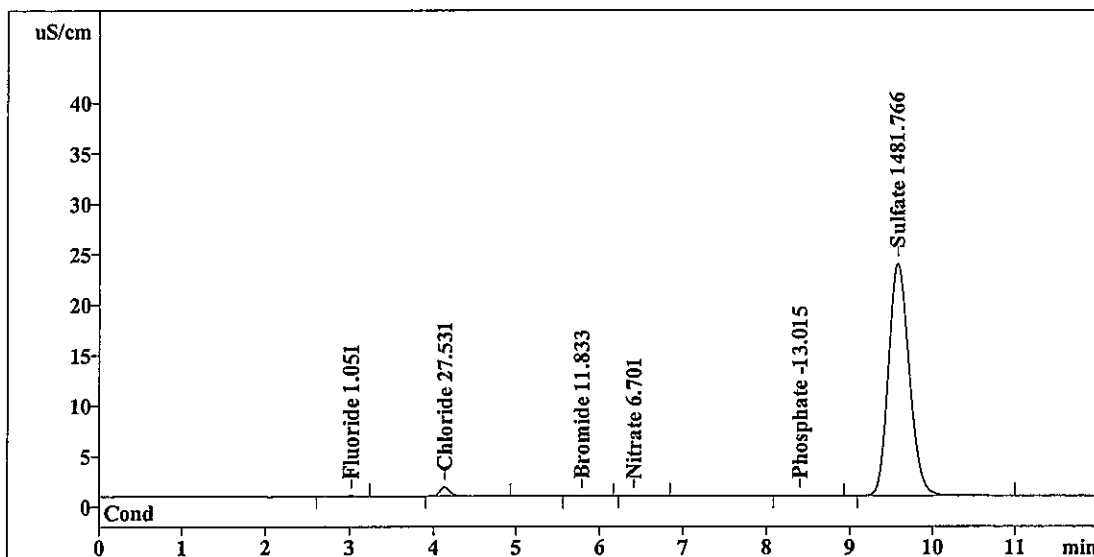
Method: 3-102909.mtw
Run operator: User
Analysis number: 9917

Last save: 10/29/2009 12:39:00 P

SAMPLE: S (300.0)

Vial number: 63
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	3.02	0.212	1.051	Fluoride
2	4.14	7.406	27.531	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.79	0.188	11.833	Bromide
5	6.42	0.079	6.701	Nitrate
6	8.41	0.357	-13.015	Phosphate
7	9.58	409.525	^{1/200} 1481.766	Sulfate
7	12.00	417.767	1541.897	

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RP 10/30/09

Report date: 10/30/2009 3:07:04 AM
Printed by: User

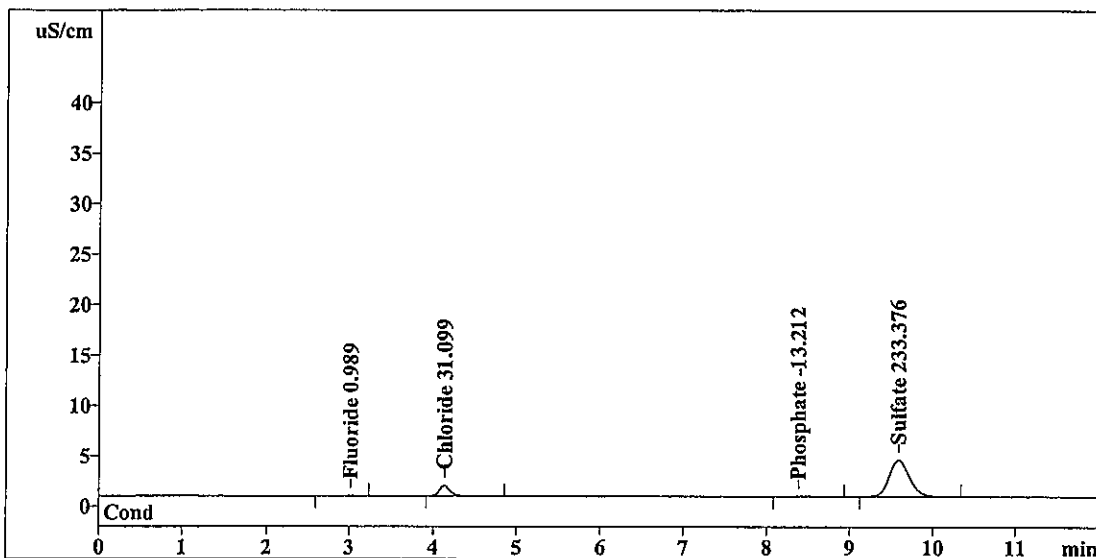
Ident: R0906169-001
Analysis from: 10/30/2009 2:55:06 AM
File: TA300255.CHW Last save: 10/30/2009 3:07:04 AM

Method: 3-102909.mtw Last save: 10/29/2009 12:39:00 P
Run operator: User
Analysis number: 9918

SAMPLE: S (300.0)

Vial number: 64
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	3.02	0.172	0.989	Fluoride
2	4.14	8.765	31.099	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	8.40	0.278	-13.212	Phosphate
7	9.59	61.581	233.376	Sulfate
7	12.00	70.796	278.677	

RP 10/30/09

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Report date: 10/30/2009 3:21:09 AM
Printed by: User

Ident: R0905894-005
Analysis from: 10/30/2009 3:09:11 AM
File: TA300309.CHW

Last save: 10/30/2009 3:21:09 AM

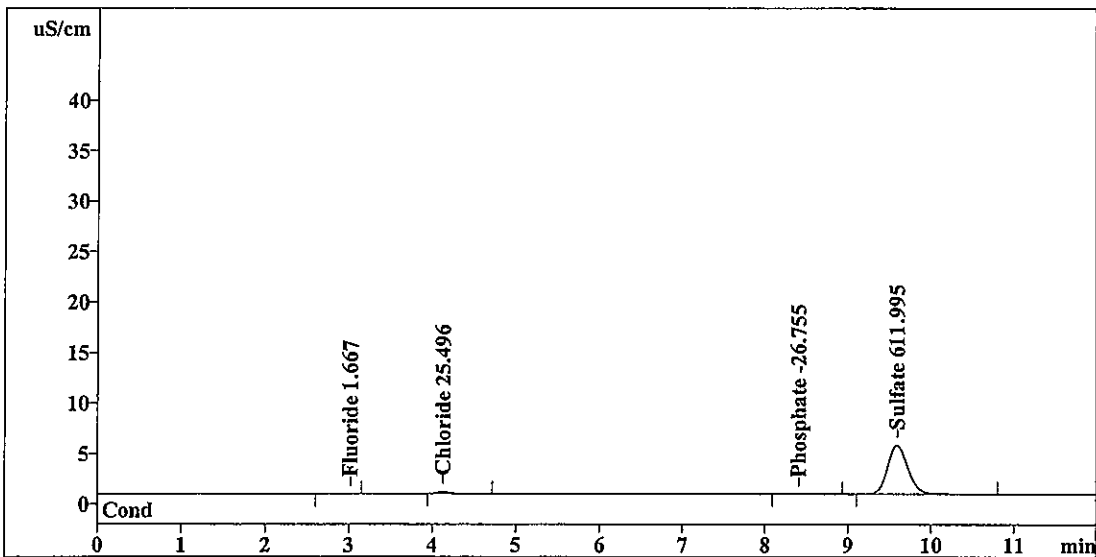
Method: 3-102909.mtw
Run operator: User
Analysis number: 9919

Last save: 10/29/2009 12:39:00 P

SAMPLE: S (300.0)

Vial number: 65
Volume: 1.0 µL
Dilution: 200.00
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	3.02	0.074	1.667	Fluoride
2	4.13	1.779	25.496	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	8.41	0.211	-26.755	Phosphate
7	9.59	81.822	OK 611.995	Sulfate
7	12.00	83.886	665.914	

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RP 10/30/09

Report date: 10/30/2009 3:35:13 AM
Printed by: User

Ident: R0905894-006
Analysis from: 10/30/2009 3:23:15 AM
File: TA300323.CHW

Last save: 10/30/2009 3:35:13 AM

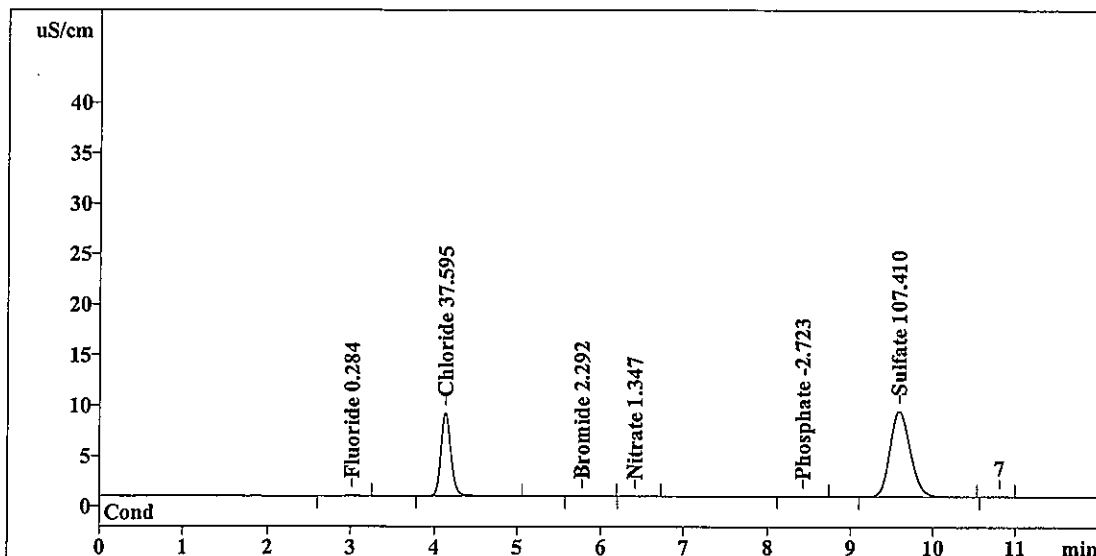
Method: 3-102909.mtw
Run operator: User
Analysis number: 9920

Last save: 10/29/2009 12:39:00 P

SAMPLE: S (300.0)

Vial number: 66
Volume: 1.0 µL
Dilution: 20.00
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	3.02	0.446	0.284	Fluoride
2	4.14	68.480	37.595	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.78	0.132	2.292	Bromide
5	6.42	0.110	1.347	Nitrate
6	8.42	0.116	-2.723	Phosphate
7	9.60	146.219	107.410	Sulfate
7	12.00	215.502	151.650	

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RP 10/30/09

Report date: 10/30/2009 3:49:18 AM
Printed by: User

Ident: R0905894-008
Analysis from: 10/30/2009 3:37:20 AM
File: TA300337.CHW

Last save: 10/30/2009 3:49:18 AM

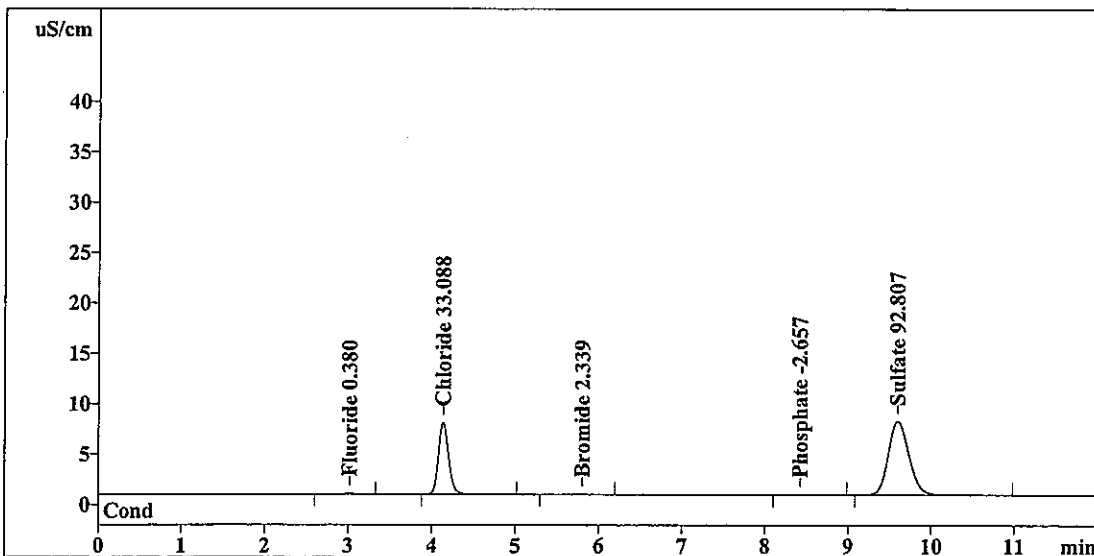
Method: 3-102909.mtw
Run operator: User
Analysis number: 9921

Last save: 10/29/2009 12:39:00 P

SAMPLE: S (300.0)

Vial number: 67
Volume: 1.0 µL
Dilution: 20.00
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	3.02	0.749	0.380	Fluoride
2	4.14	59.902	33.088	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.80	0.167	2.339	Bromide
5	0.00	0.000	0.000	Nitrate
6	8.42	0.248	-2.657	Phosphate
7	9.60	125.869	92.807	Sulfate
7	12.00	186.935	131.271	

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RP 10/30/09

Report date: 10/30/2009 4:03:23 AM
Printed by: User

Ident: R0905894-008 DUP
Analysis from: 10/30/2009 3:51:24 AM
File: TA300351.CHW

Last save: 10/30/2009 4:03:23 AM

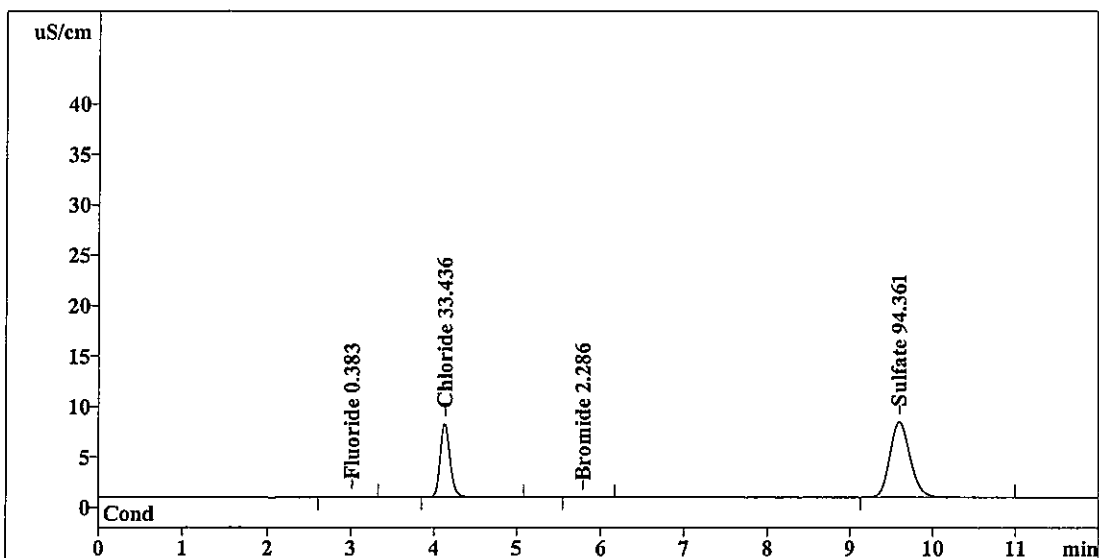
Method: 3-102909.mtw
Run operator: User
Analysis number: 9922

Last save: 10/29/2009 12:39:00 P

SAMPLE: S (300.0)

Vial number: 68
Volume: 1.0 µL
Dilution: 20.00
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	3.01	0.760	0.383	Fluoride
2	4.13	60.564	33.436	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.80	0.128	2.286	Bromide
5	0.00	0.000	0.000	Nitrate
6	0.00	0.000	0.000	Phosphate
7	9.60	128.035	OK 94.361	Sulfate
7	12.00	189.487	130.467	

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PL 1030109

Report date: 10/30/2009 4:17:27 AM
Printed by: User

Ident: R0905894-008 SPK
Analysis from: 10/30/2009 4:05:29 AM
File: TA300405.CHW

Last save: 10/30/2009 4:17:27 AM

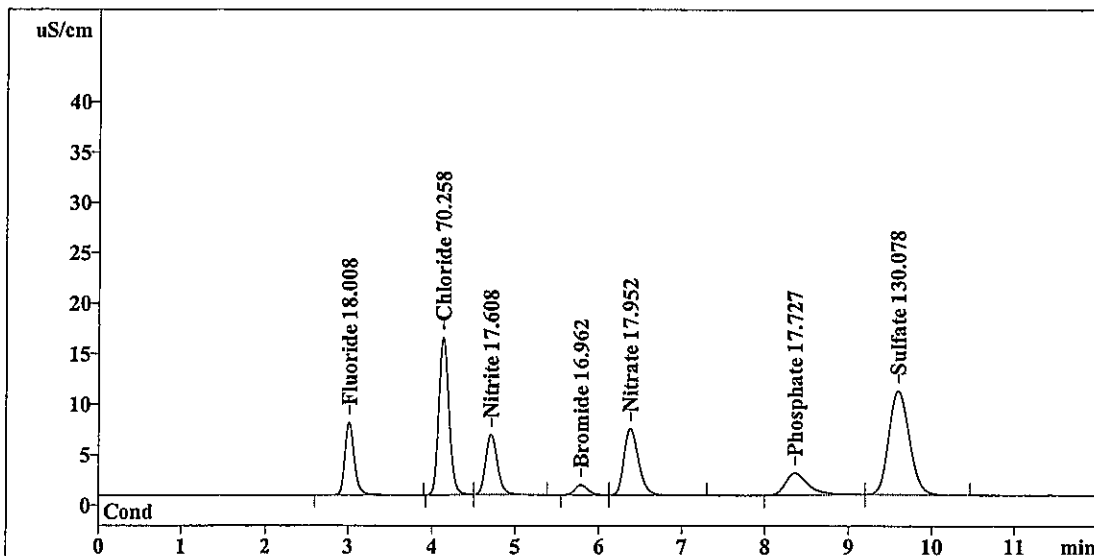
Method: 3-102909.mtw
Run operator: User
Analysis number: 9923

Last save: 10/29/2009 12:39:00 P

SAMPLE: S (300.0)

Vial number: 69
Volume: 1.0 µL
Dilution: 20.00
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	3.01	56.579	18.008	Fluoride
2	4.14	130.646	70.258	Chloride
3	4.71	58.382	17.608	Nitrite
4	5.79	11.002	16.962	Bromide
5	6.39	79.258	17.952	Nitrate
6	8.36	41.279	17.727	Phosphate
7	9.60	177.810	130.078	Sulfate
7	12.00	554.956	288.593	

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RP 10/30/09

Report date: 10/30/2009 4:31:32 AM
Printed by: User

Ident: CCV
Analysis from: 10/30/2009 4:19:34 AM
File: TA300419.CHW

Last save: 10/30/2009 4:31:32 AM

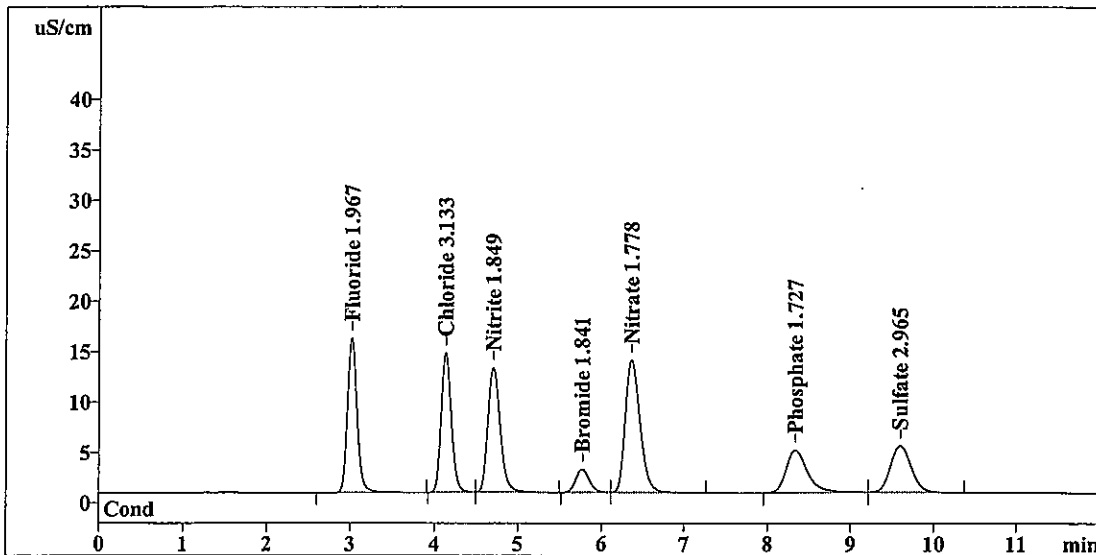
Method: 3-102909.mtw
Run operator: User
Analysis number: 9924

Last save: 10/29/2009 12:39:00 P

SAMPLE: 9056/300.0

Vial number: 70
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	3.02	124.132	1.967	Fluoride
2	4.14	116.204	3.133	Chloride
3	4.71	127.924	1.849	Nitrite
4	5.77	25.718	1.841	Bromide
5	6.37	163.171	1.778	Nitrate
6	8.34	75.121	1.727	Phosphate
7	9.60	79.173	2.965	Sulfate
7	12.00	711.443	15.260	

OK
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OK
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OK
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RP 10/30/09

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Report date: 10/30/2009 4:45:37 AM
Printed by: User

Ident: CCB
Analysis from: 10/30/2009 4:33:39 AM
File: TA300433.CHW

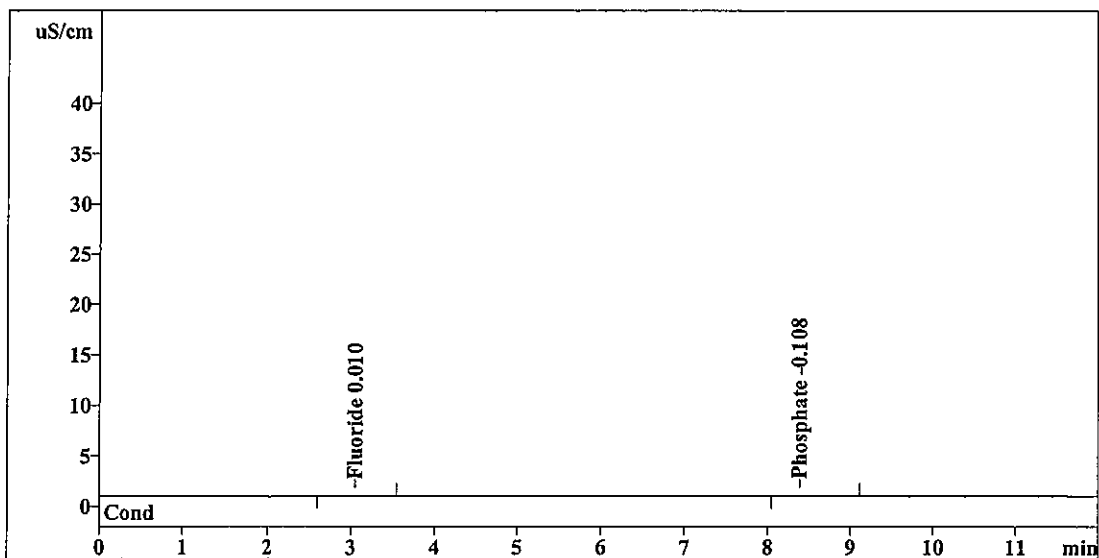
Last save: 10/30/2009 4:45:37 AM

Method: 3-102909.mtw
Run operator: User
Analysis number: 9925

Last save: 10/29/2009 12:39:00 P

SAMPLE: 9056/300.0
:
Vial number: 71
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	3.06	0.181	0.010	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	8.39	1.265	0.108	Phosphate
7	0.00	0.000	0.000	Sulfate
<hr/>				
7	12.00	1.446	0.118	

OK
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RP103009

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Report date: 10/30/2009 4:59:42 AM
Printed by: User

Ident: R0905894-009
Analysis from: 10/30/2009 4:47:44 AM
File: TA300447.CHW

Last save: 10/30/2009 4:59:42 AM

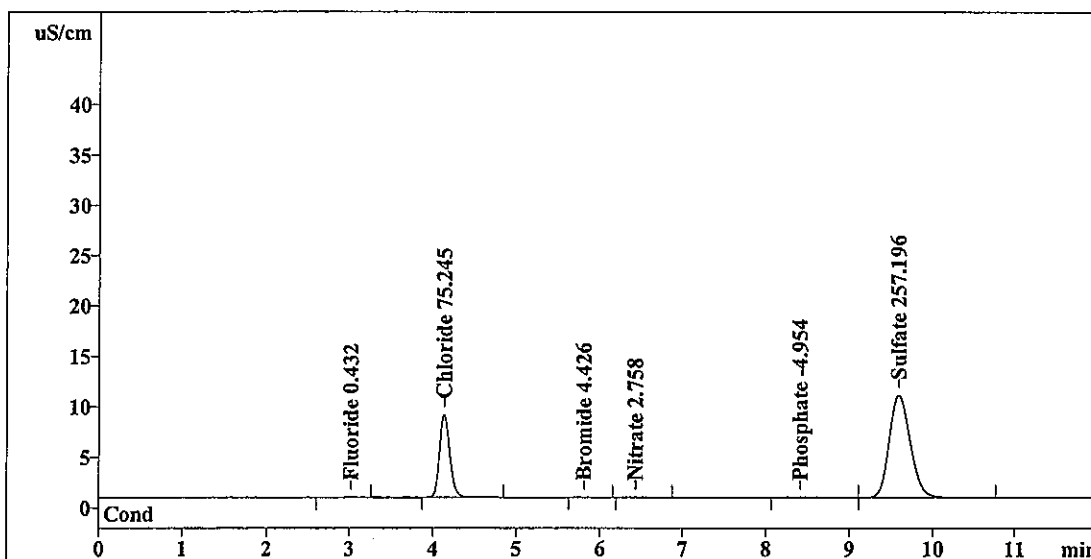
Method: 3-102909.mtw
Run operator: User
Analysis number: 9926

Last save: 10/29/2009 12:39:00 P

SAMPLE: S (300.0)

Vial number: 72
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	3.02	0.230	0.432	Fluoride
2	4.14	68.532	75.245	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.80	0.074	4.426	Bromide
5	6.43	0.265	2.758	Nitrate
6	8.42	0.610	-4.954	Phosphate
7	9.60	175.746	257.196	Sulfate
<hr/>				
7	12.00	245.458	345.012	

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RP 10/30/09

Report date: 10/30/2009 5:13:47 AM
Printed by: User

Ident: R0905894-010
Analysis from: 10/30/2009 5:01:48 AM
File: TA300501.CHW

Last save: 10/30/2009 5:13:47 AM

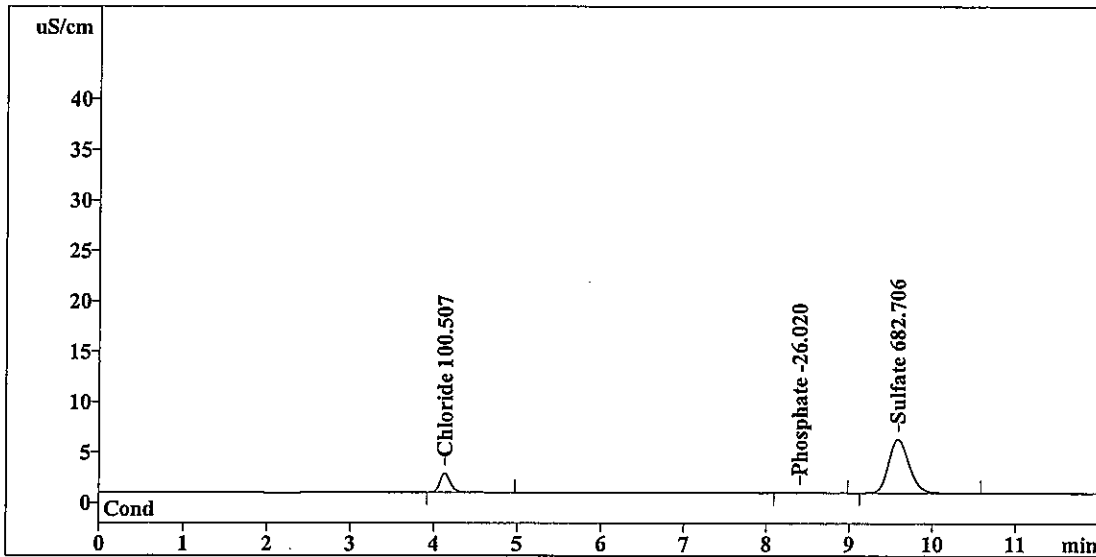
Method: 3-102909.mtw
Run operator: User
Analysis number: 9927

Last save: 10/29/2009 12:39:00 P

SAMPLE: S (300.0)

Vial number: 73
Volume: 1.0 µL
Dilution: 200.00
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	0.00	0.000	0.000	Fluoride
2	4.14	16.056	100.507	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	8.40	0.359	-26.020	Phosphate
7	9.59	91.676	dk 682.706	Sulfate
<hr/>				
7	12.00	108.090	809.233	

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RP 1030109

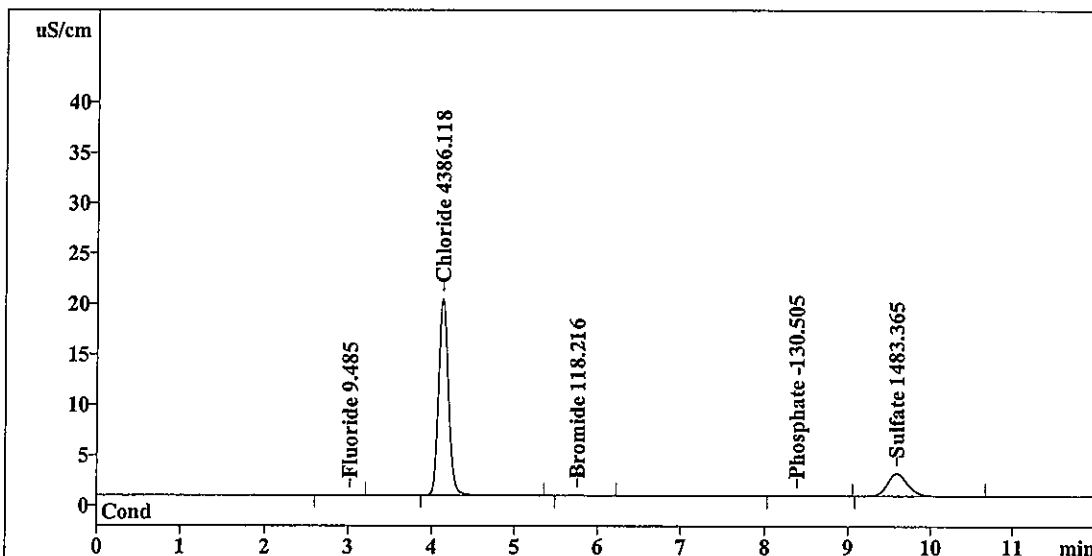
Report date: 10/30/2009 5:27:51 AM
Printed by: User

Ident: R0905636-006
Analysis from: 10/30/2009 5:15:53 AM
File: TA300515.CHW Last save: 10/30/2009 5:27:52 AM

Method: 3-102909.mtw Last save: 10/29/2009 12:39:00 P
Run operator: User
Analysis number: 9928

SAMPLE: C (9056)
:
Vial number: 74
Volume: 1.0 µL
Dilution: 1000.00
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	3.03	0.147	9.485	Fluoride
2	4.14	163.885	4386.118	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.76	0.186	118.216	Bromide
5	0.00	0.000	0.000	Nitrate
6	8.40	0.343	-130.505	Phosphate
7	9.59	37.879	1483.365	Sulfate
7	12.00	202.440	6127.688	

RP 10/30/09

This report has been created by IC Net
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Report date: 10/30/2009 5:41:56 AM
Printed by: User

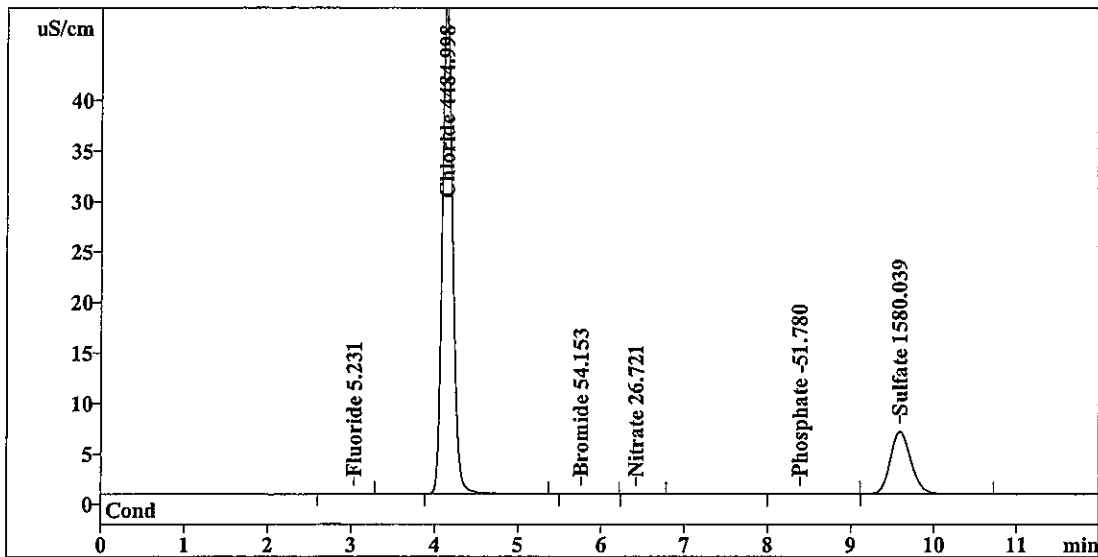
Ident: R0905636-006
Analysis from: 10/30/2009 5:29:58 AM
File: TA300529.CHW Last save: 10/30/2009 5:41:56 AM

Method: 3-102909.mtw Last save: 10/29/2009 12:39:00 P
Run operator: User
Analysis number: 9929

SAMPLE: S (9056)

Vial number: 75
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	3.03	0.374	5.231	Fluoride
2	4.15	423.732	4484.998	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.76	0.441	54.153	Bromide
5	6.43	0.059	26.721	Nitrate
6	8.40	0.385	-51.780	Phosphate
7	9.60	106.631	1580.039	Sulfate
7	12.00	531.622	6202.921	

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RP 10/30/09

Report date: 10/30/2009 5:56:01 AM
Printed by: User

Ident: R0905976-001
Analysis from: 10/30/2009 5:44:03 AM
File: TA300544.CHW

Last save: 10/30/2009 5:56:01 AM

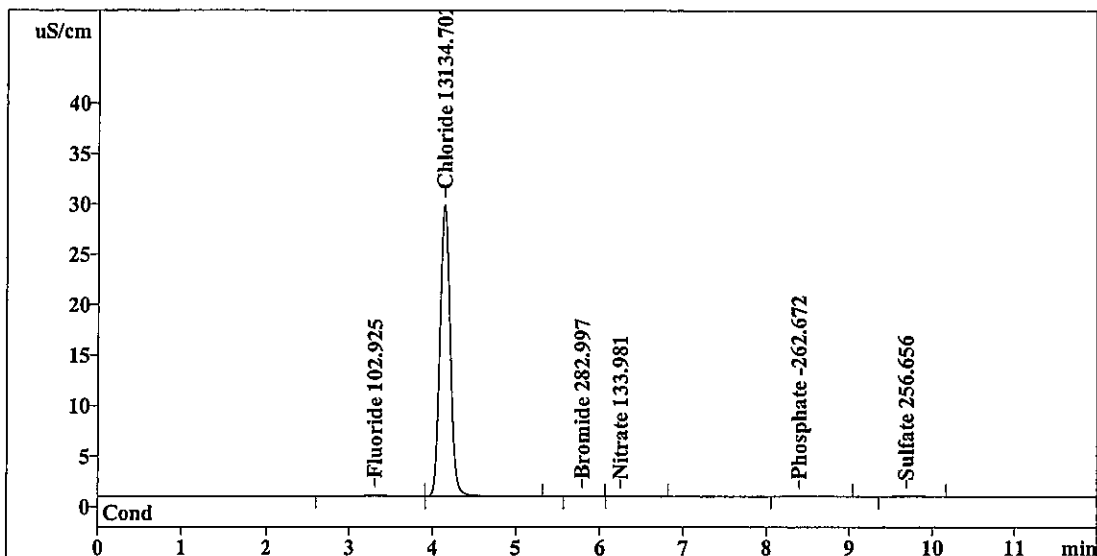
Method: 3-102909.mtw
Run operator: User
Analysis number: 9930

Last save: 10/29/2009 12:39:00 P

SAMPLE: C (300.0)

Vial number: 76
Volume: 1.0 µL
Dilution: 2000.00
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	3.30	2.806	102.925	Fluoride
2	4.14	246.914	13134.702	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.80	0.531	282.997	Bromide
5	6.26	0.077	133.981	Nitrate
6	8.40	0.309	-262.672	Phosphate
7	9.69	0.112	256.656	Sulfate
7	12.00	250.750	14173.932	

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RP103009

Report date: 10/30/2009 6:10:06 AM
Printed by: User

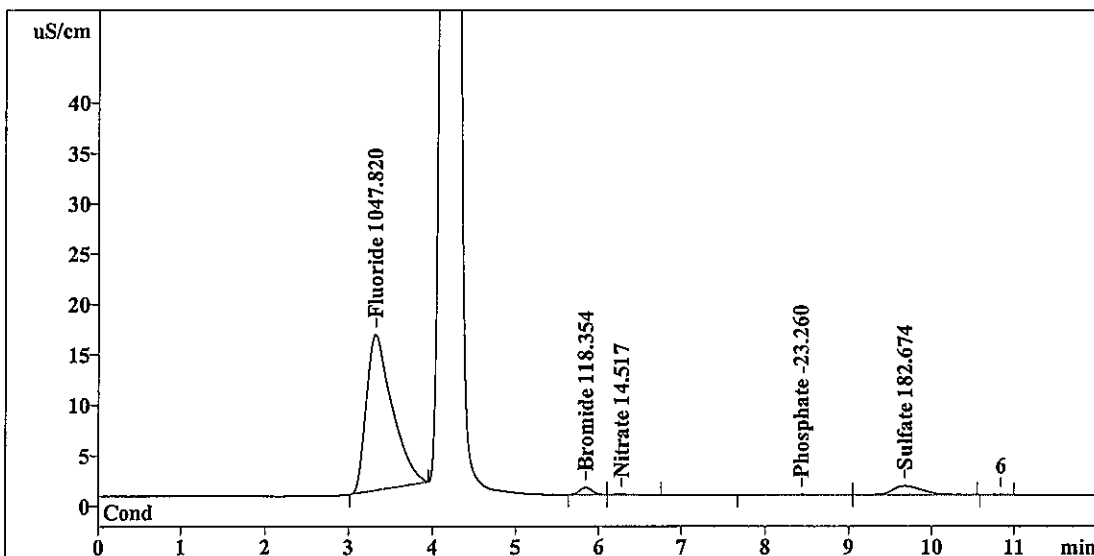
Ident: R0905976-002
Analysis from: 10/30/2009 5:58:07 AM
File: TA300558.CHW Last save: 10/30/2009 6:10:06 AM

Method: 3-102909.mtw Last save: 10/29/2009 12:39:00 P
Run operator: User
Analysis number: 9931

SAMPLE: C (300.0)

Vial number: 77
Volume: 1.0 µL
Dilution: 200.00
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	331.401	1047.820	Fluoride
2	0.00	0.000	$\frac{1}{200}$ 0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.85	7.204	118.354	Bromide
5	6.29	0.611	14.517	Nitrate
6	8.42	0.915	-23.260	Phosphate
7	9.68	21.993	182.674	Sulfate
<hr/>				
7	12.00	362.123	1386.625	

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RP 10/30/09

Report date: 10/30/2009 6:24:10 AM
Printed by: User

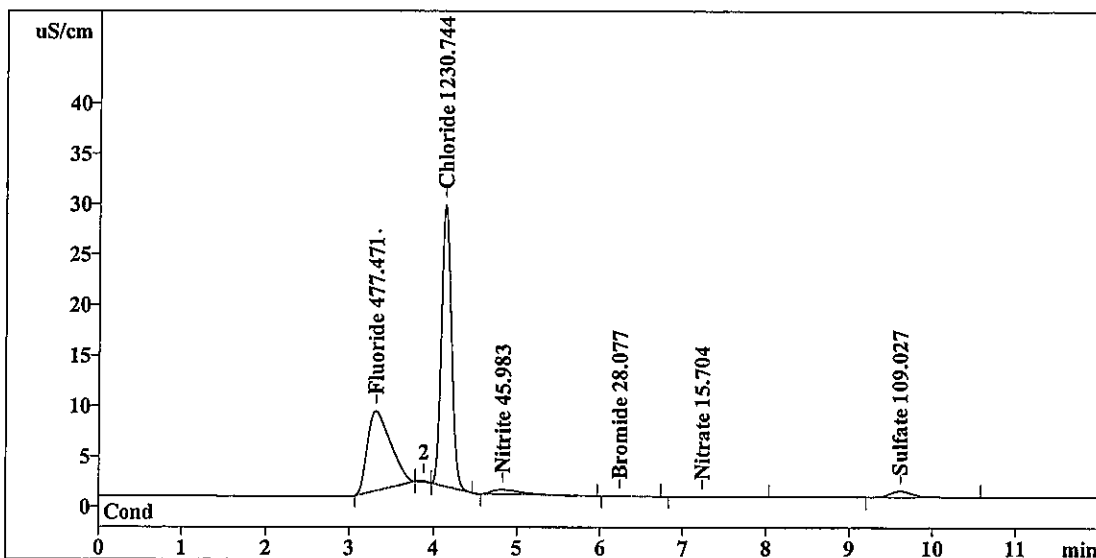
Ident: R0905976-003
Analysis from: 10/30/2009 6:12:12 AM
File: TA300612.CHW Last save: 10/30/2009 6:24:10 AM

Method: 3-102909.mtw Last save: 10/29/2009 12:39:00 P
Run operator: User
Analysis number: 9932

SAMPLE: C (300.0)

Vial number: 78
Volume: 1.0 µL
Dilution: 200.00
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	3.31	150.766	477.471	Fluoride
2	4.15	231.169	1230.744	Chloride
3	4.83	11.661	45.983	Nitrite
4	6.24	0.515	28.077	Bromide
5	7.24	1.177	15.704	Nitrate
6	0.00	0.000	0.000	Phosphate
7	9.62	11.729	109.027	Sulfate
<hr/>				
7	12.00	407.017	1907.007	

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*Reprocess Cl-
RP 10/30/09*

Report date: 10/30/2009 10:34:55 AM
Printed by: User

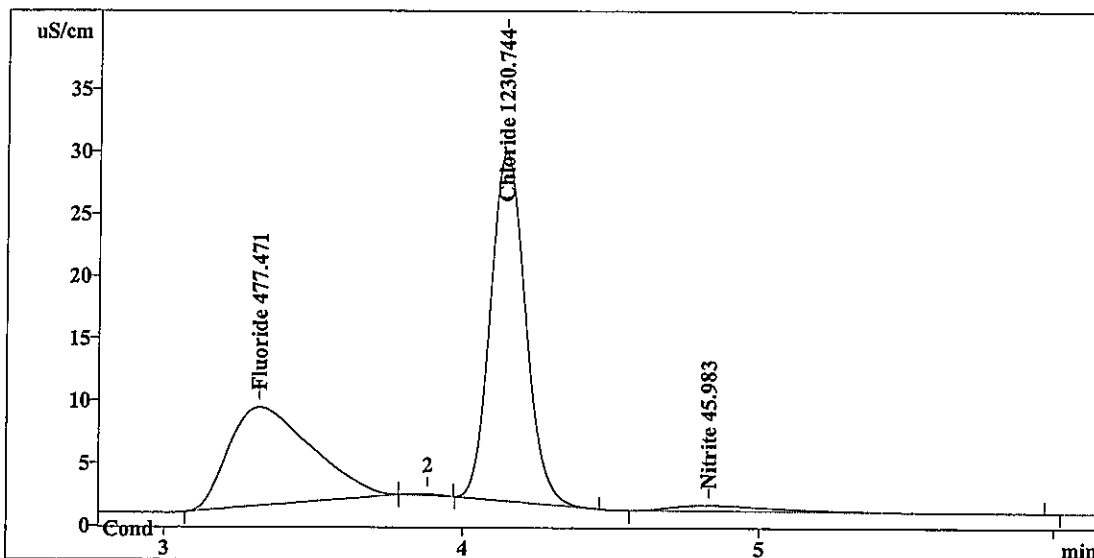
Ident: R0905976-003
Analysis from: 10/30/2009 6:12:12 AM
File: ta300612.chw Last save: 10/30/2009 6:24:10 AM

Method: 3-102909.mtw Last save: 10/29/2009 12:39:00 P
Run operator: User
Analysis number: 9932

SAMPLE: C (300.0)

Vial number: 78
Volume: 1.0 µL
Dilution: 200.00
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	3.31	150.766	477.471	Fluoride
2	4.15	231.169	1230.744	Chloride
3	4.83	11.661	45.983	Nitrite
4	6.24	0.515	28.077	Bromide
5	7.24	1.177	15.704	Nitrate
6	0.00	0.000	0.000	Phosphate
7	9.62	11.729	109.027	Sulfate
7	12.00	407.017	1907.007	

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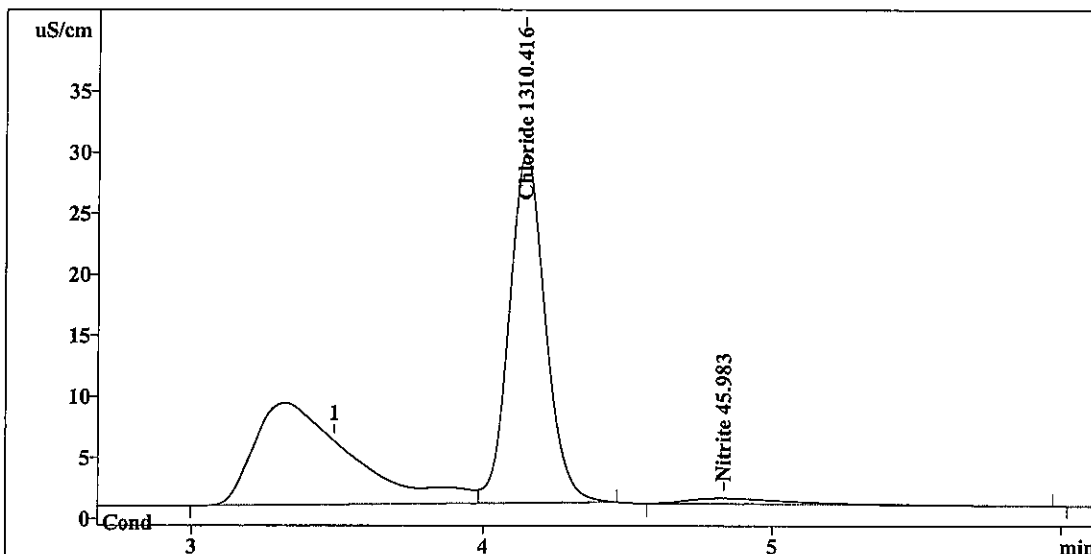
expanded view
RP 10/30/09

Report date: 10/30/2009 10:36:10 AM
Printed by: User

Ident: R0905976-003
Analysis from: 10/30/2009 6:12:12 AM
File: ta300612.chw Last save: 10/30/2009 6:24:10 AM
Modified! Manual peaks!
Method: 3-102909.mtw Last save: 10/29/2009 12:39:00 P
Run operator: User
Analysis number: 9932

SAMPLE: C (300.0)
Vial number: 78
Volume: 1.0 µL
Dilution: 200.00
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	0.00	0.000	0.000	Fluoride
2	4.15	246.333	1310.416	Chloride
3	4.83	11.661	45.983	Nitrite
4	6.24	0.515	28.077	Bromide
5	7.24	1.177	15.704	Nitrate
6	0.00	0.000	0.000	Phosphate
7	9.62	11.729	109.027	Sulfate
7	12.00	271.415	1509.208	

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RP 10/30/09
expanded view;
reprocessed

AY
10/30/09

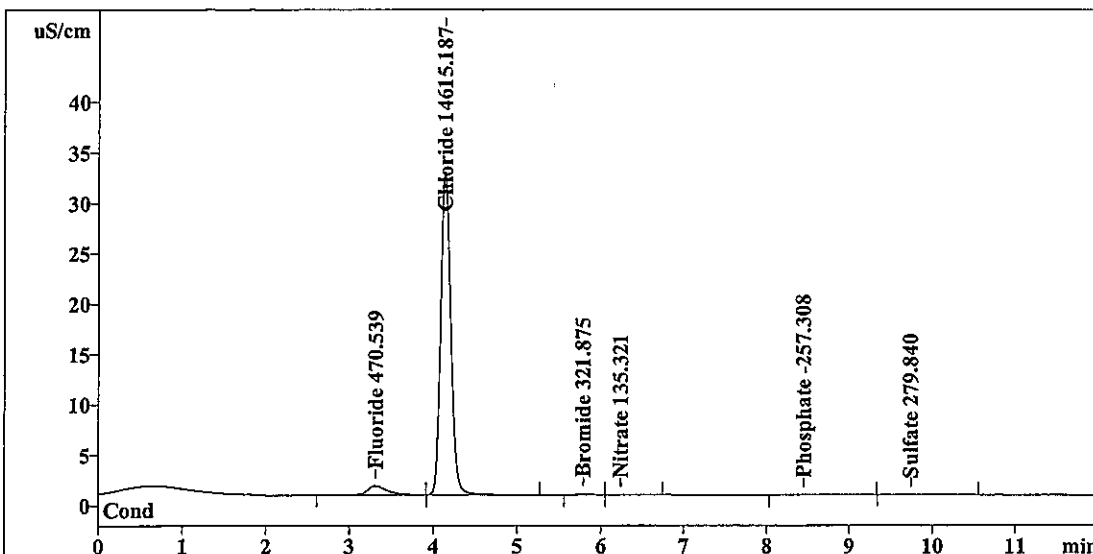
Report date: 10/30/2009 6:38:20 AM
Printed by: User

Ident: R0905976-004
Analysis from: 10/30/2009 6:26:17 AM
File: TA300626.CHW Last save: 10/30/2009 6:38:20 AM

Method: 3-102909.mtw Last save: 10/29/2009 12:39:00 P
Run operator: User
Analysis number: 9933

SAMPLE: C (300.0)
Vial number: 79
Volume: 1.0 µL
Dilution: 2000.00
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	14.448	470.539	Fluoride
2	4.14	275.092	14615.187	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.80	0.819	321.875	Bromide
5	6.25	0.141	135.321	Nitrate
6	8.44	0.417	-257.308	Phosphate
7	9.75	0.435	279.840	Sulfate
7	12.00	291.353	16080.069	

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RP 10/30/09

Report date: 10/30/2009 6:52:47 AM
Printed by: User

Ident: R0905976-004
Analysis from: 10/30/2009 6:40:49 AM
File: TA300640.CHW

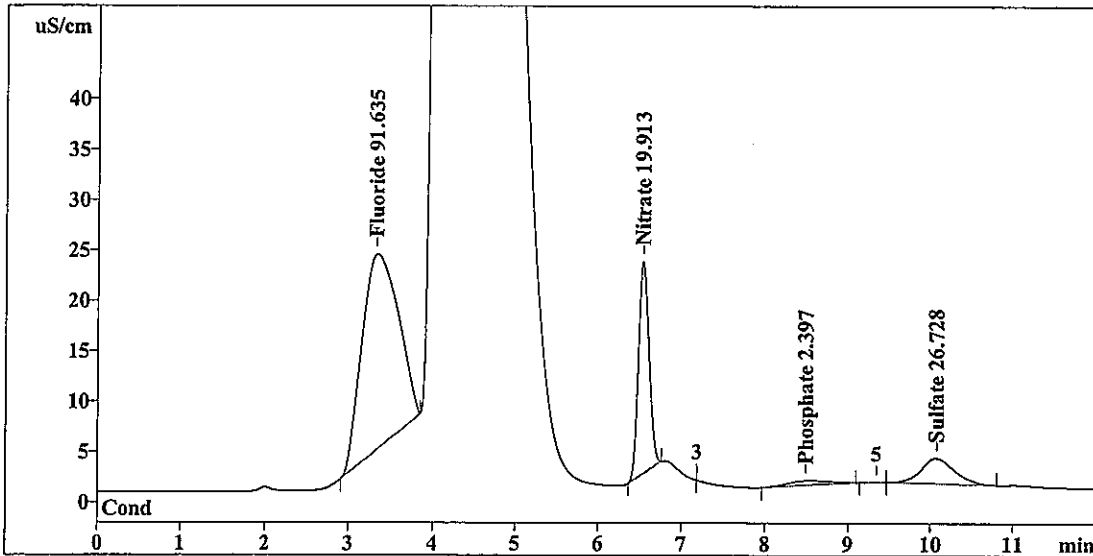
Last save: 10/30/2009 6:52:47 AM

Method: 3-102909.mtw
Run operator: User
Analysis number: 9934

Last save: 10/29/2009 12:39:00 P

SAMPLE: S (300.0)
Vial number: 80
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	3.33	579.978	91.635	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	6.55	183.514	19.913	Nitrate
6	8.49	15.248	2.397	Phosphate
7	10.08	71.032	OK 26.728	Sulfate
7	12.00	849.772	140.673	

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RP1030109

Report date: 10/30/2009 7:06:52 AM
Printed by: User

Ident: R0905976-005
Analysis from: 10/30/2009 6:54:53 AM
File: TA300654.CHW

Last save: 10/30/2009 7:06:52 AM

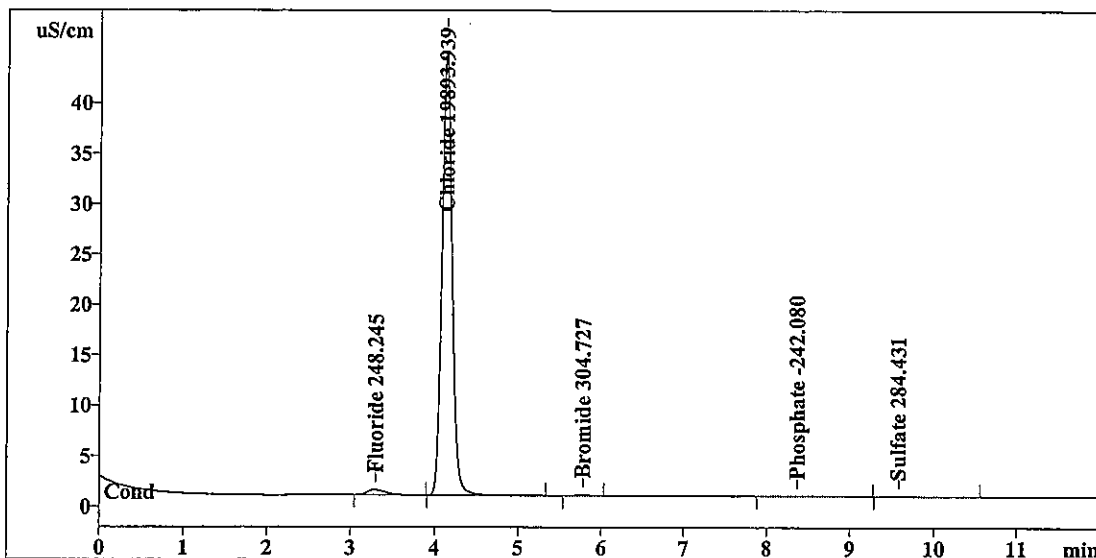
Method: 3-102909.mtw
Run operator: User
Analysis number: 9935

Last save: 10/29/2009 12:39:00 P

SAMPLE: C (300.0)

Vial number: 81
Volume: 1.0 µL
Dilution: 2000.00
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	3.30	7.408	248.245	Fluoride
2	4.14	375.560	19893.939	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.78	0.692	304.727	Bromide
5	0.00	0.000	0.000	Nitrate
6	8.37	0.724	-242.080	Phosphate
7	9.58	0.499	284.431	Sulfate
<hr/>				
7	12.00	384.883	20973.423	

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RP 10/30/09

Report date: 10/30/2009 7:20:56 AM
Printed by: User

Ident: CCV
Analysis from: 10/30/2009 7:08:58 AM
File: TA300708.CHW

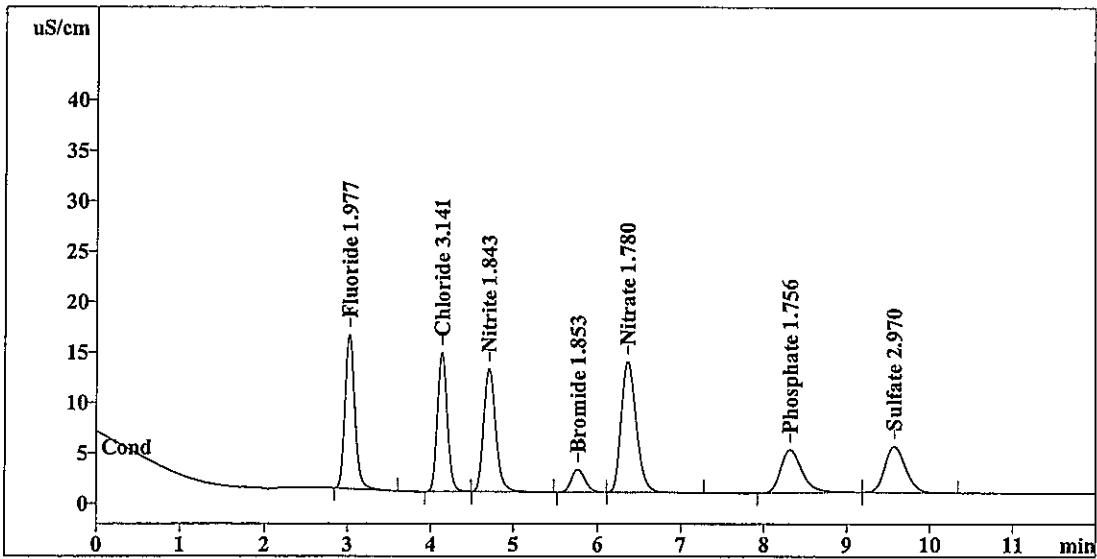
Last save: 10/30/2009 7:20:56 AM

Method: 3-102909.mtw
Run operator: User
Analysis number: 9936

Last save: 10/29/2009 12:39:00 P

SAMPLE: 9056/300.0
:
Vial number: 82
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	3.02	124.770	1.977	Fluoride
2	4.13	116.491	3.141	Chloride
3	4.70	127.533	1.843	Nitrite
4	5.77	25.895	1.853	Bromide
5	6.37	163.400	1.780	Nitrate
6	8.32	76.309	1.756	Phosphate
7	9.58	79.309	2.970	Sulfate
7	12.00	713.708	15.321	

OK
↓
OK
↓

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Report date: 10/30/2009 7:35:02 AM
Printed by: User

Ident: CCB
Analysis from: 10/30/2009 7:23:04 AM
File: TA300723.CHW

Last save: 10/30/2009 7:35:02 AM

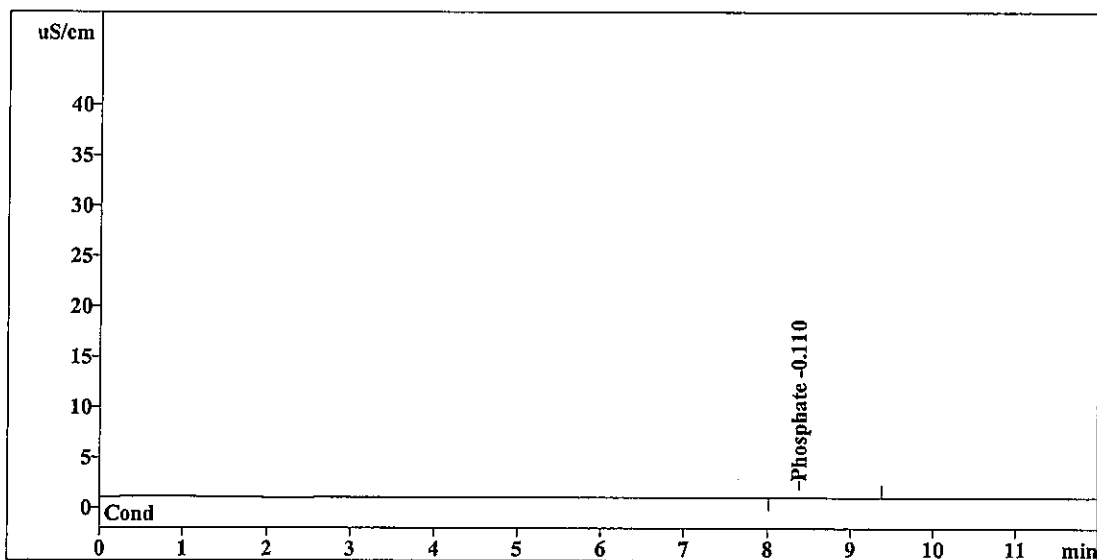
Method: 3-102909.mtw
Run operator: User
Analysis number: 9937

Last save: 10/29/2009 12:39:00 P

SAMPLE: 9056/300.0

Vial number: 83
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	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	8.38	1.151	0.110	Phosphate
7	0.00	0.000	0.000	Sulfate
<hr/>				
7	12.00	1.151	0.110	

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RP 10/30/09

Report date: 10/30/2009 7:49:06 AM
Printed by: User

Ident: LCS
Analysis from: 10/30/2009 7:37:08 AM
File: TA300737.CHW

Last save: 10/30/2009 7:49:07 AM

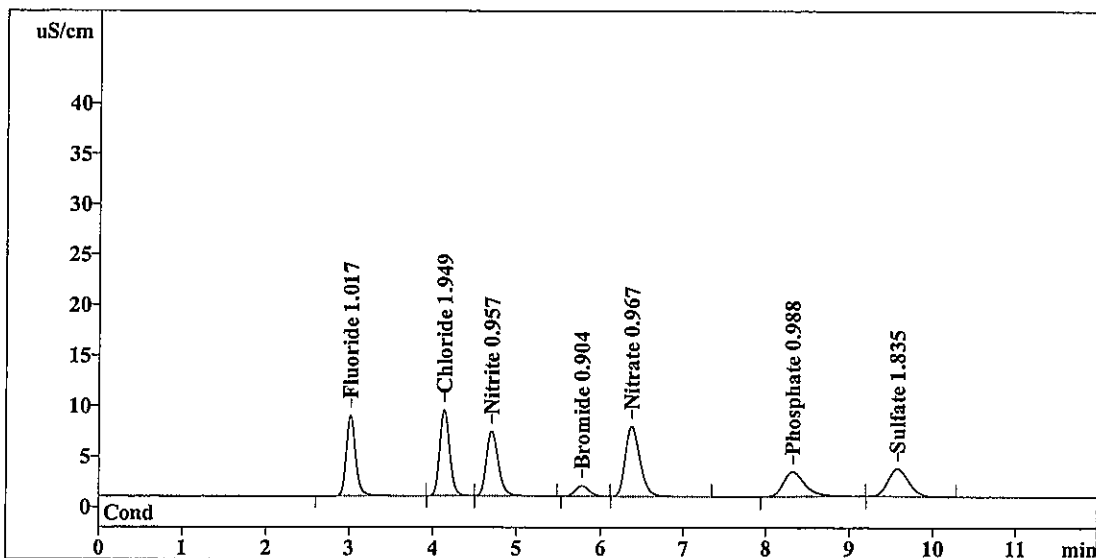
Method: 3-102909.mtw
Run operator: User
Analysis number: 9938

Last save: 10/29/2009 12:39:00 P

SAMPLE: 9056/300.0

Vial number: 84
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	3.02	63.976	1.017	Fluoride
2	4.14	71.113	1.949	Chloride
3	4.70	63.879	0.957	Nitrite
4	5.78	11.830	0.904	Bromide
5	6.38	85.842	0.967	Nitrate
6	8.33	45.373	0.988	Phosphate
7	9.58	47.679	1.835	Sulfate
7	12.00	389.693	8.617	

OK
OK

RP 10/30/09

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Report date: 10/30/2009 8:03:12 AM
Printed by: User

Ident: R0905976-007
Analysis from: 10/30/2009 7:51:13 AM
File: TA300751.CHW

Last save: 10/30/2009 8:03:12 AM

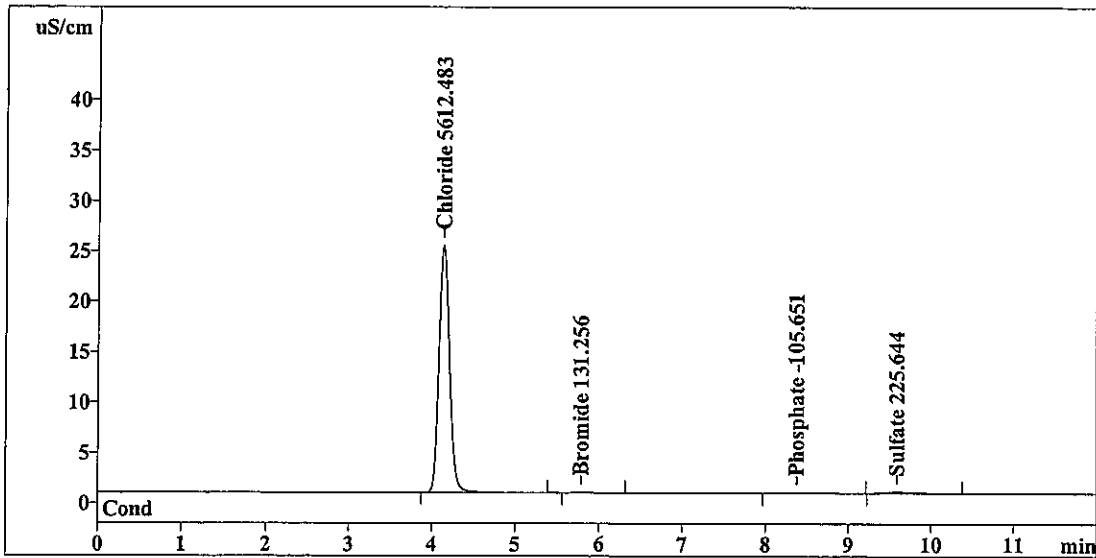
Method: 3-102909.mtw
Run operator: User
Analysis number: 9939

Last save: 10/29/2009 12:39:00 P

SAMPLE: C (300.0)

Vial number: 85
Volume: 1.0 µL
Dilution: 1000.00
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	0.00	0.000	0.000	Fluoride
2	4.14	210.567	OK 5612.483	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.79	0.379	131.256	Bromide
5	0.00	0.000	0.000	Nitrate
6	8.38	1.343	-105.651	Phosphate
7	9.59	2.825	225.644	Sulfate
<hr/>				
7	12.00	215.114	6075.035	

RP103009

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Report date: 10/30/2009 8:17:16 AM
Printed by: User

Ident: R0905976-007 DUP
Analysis from: 10/30/2009 8:05:18 AM
File: TA300805.CHW

Last save: 10/30/2009 8:17:16 AM

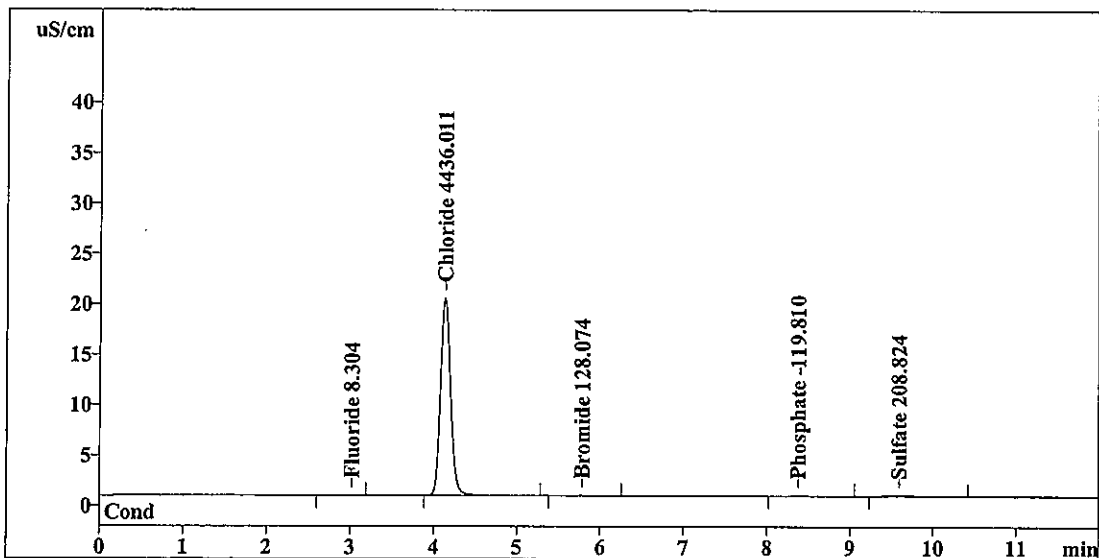
Method: 3-102909.mtw
Run operator: User
Analysis number: 9940

Last save: 10/29/2009 12:39:00 P

SAMPLE: C (300.0)

Vial number: 86
Volume: 1.0 µL
Dilution: 1000.00
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	3.03	0.072	8.304	Fluoride
2	4.14	165.784	OK 4436.011	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.79	0.332	128.074	Bromide
5	0.00	0.000	0.000	Nitrate
6	8.38	0.773	-119.810	Phosphate
7	9.59	2.356	208.824	Sulfate
<hr/>				
7	12.00	169.317	4901.022	

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RP 103007

Report date: 10/30/2009 8:31:21 AM
Printed by: User

Ident: R0905976-007 SPK
Analysis from: 10/30/2009 8:19:23 AM
File: TA300819.CHW

Last save: 10/30/2009 8:31:21 AM

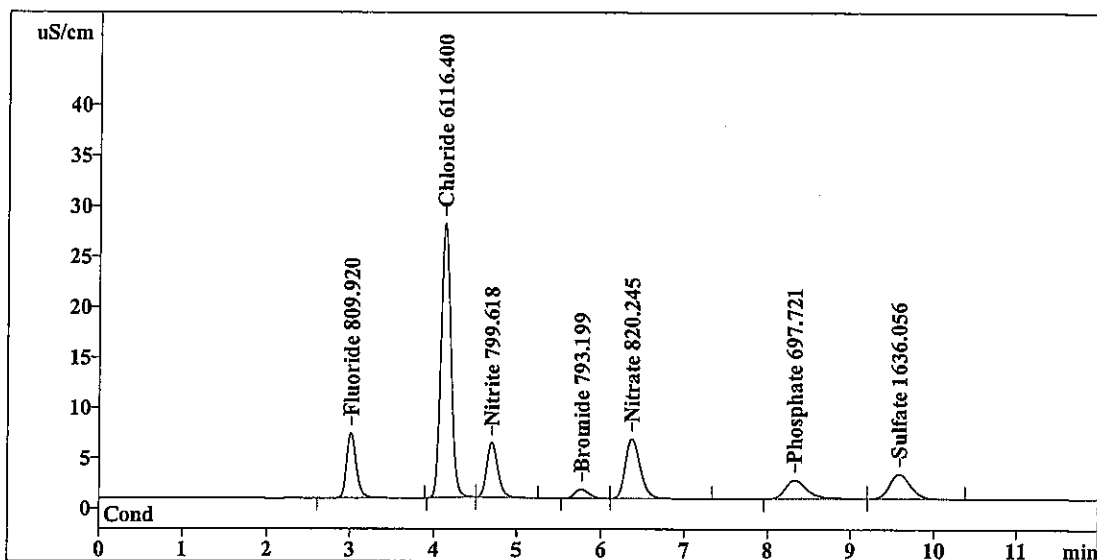
Method: 3-102909.mtw
Run operator: User
Analysis number: 9941

Last save: 10/29/2009 12:39:00 P

SAMPLE: C (300.0)

Vial number: 87
Volume: 1.0 µL
Dilution: 1000.00
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	3.01	50.848	809.920	Fluoride
2	4.14	229.749	6116.400	Chloride
3	4.70	52.580	799.618	Nitrite
4	5.78	10.189	793.199	Bromide
5	6.38	71.882	820.245	Nitrate
6	8.33	33.686	697.721	Phosphate
7	9.59	42.135	1636.056	Sulfate
7	12.00	491.069	11673.160	

RP 10/30/09

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Report date: 10/30/2009 8:45:26 AM
Printed by: User

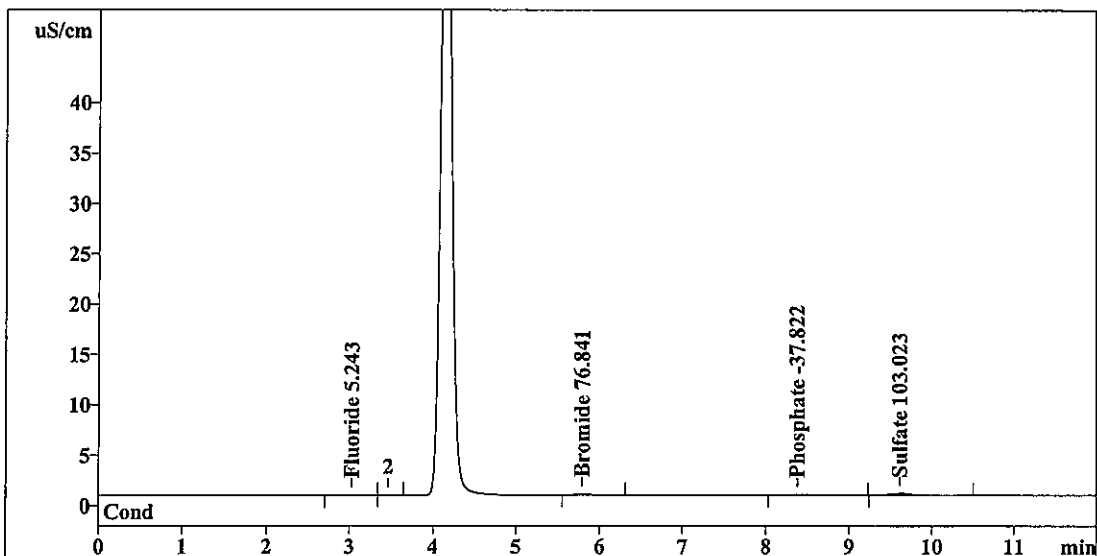
Ident: R0905976-008
Analysis from: 10/30/2009 8:33:28 AM
File: TA300833.CHW Last save: 10/30/2009 8:45:26 AM

Method: 3-102909.mtw Last save: 10/29/2009 12:39:00 P
Run operator: User
Analysis number: 9942

SAMPLE: C (300.0)

Vial number: 88
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	3.03	0.376	5.243	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.80	1.281	76.841	Bromide
5	0.00	0.000	0.000	Nitrate
6	8.38	1.790	-37.822	Phosphate
7	9.61	3.714	103.023	Sulfate
7	12.00	7.161	222.928	

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RP 1013009

Report date: 10/30/2009 8:59:30 AM
Printed by: User

Ident: R0905976-009
Analysis from: 10/30/2009 8:47:32 AM
File: TA300847.CHW

Last save: 10/30/2009 8:59:31 AM

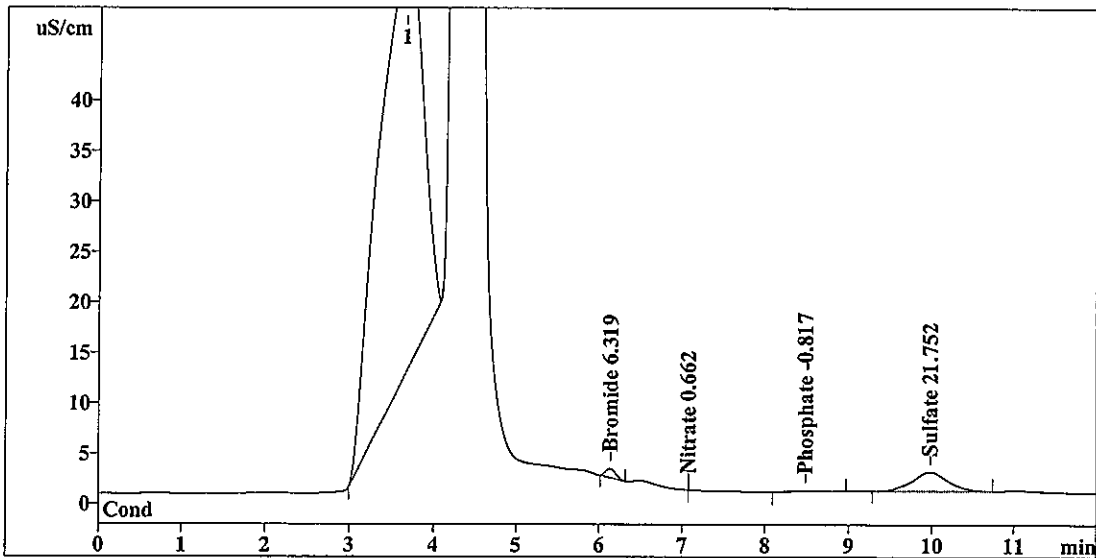
Method: 3-102909.mtw
Run operator: User
Analysis number: 9943

Last save: 10/29/2009 12:39:00 P

SAMPLE: S (300.0)

Vial number: 89
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	0.00	0.000	0.000	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	6.14	7.798	6.319	Bromide
5	7.08	-0.000	0.662	Nitrate
6	8.49	2.306	-0.817	Phosphate
7	9.98	57.161	21.752	Sulfate
<hr/>				
7	12.00	67.265	29.550	

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RP 103009

Report date: 10/30/2009 9:13:35 AM
Printed by: User

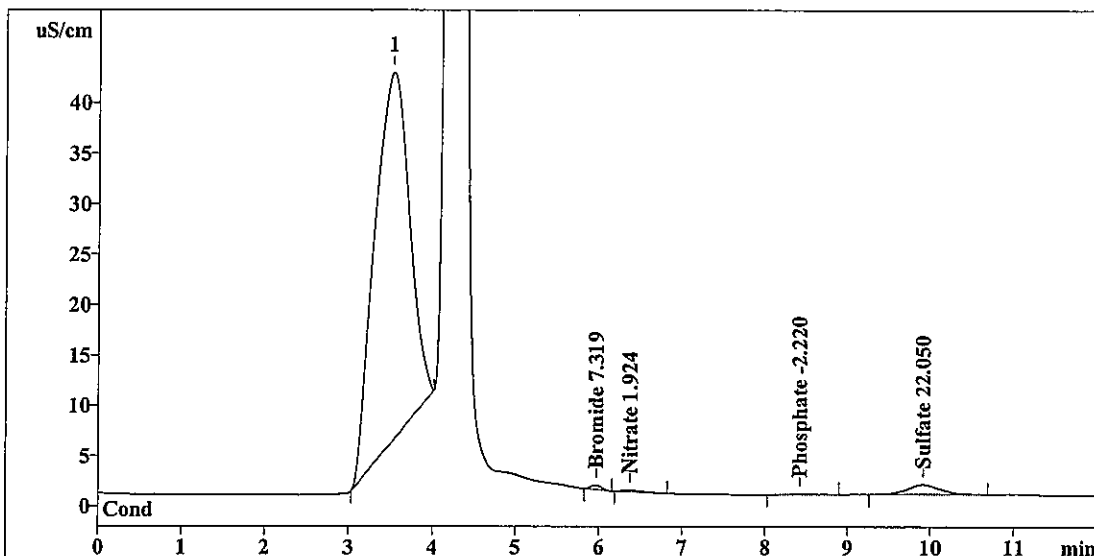
Ident: R0905976-009
Analysis from: 10/30/2009 9:01:37 AM
File: TA300901.CHW Last save: 10/30/2009 9:13:35 AM

Method: 3-102909.mtw Last save: 10/29/2009 12:39:00 P
Run operator: User
Analysis number: 9944

SAMPLE: S (300.0)

Vial number: 90
Volume: 1.0 µL
Dilution: 20.00
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	0.00	0.000	0.000	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.98	3.857	7.319	Bromide
5	6.39	2.864	1.924	Nitrate
6	8.42	1.128	-2.220	Phosphate
7	9.92	27.264	22.050	Sulfate
7	12.00	35.113	33.514	

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Report date: 10/30/2009 9:27:40 AM
Printed by: User

Ident: R0905976-009
Analysis from: 10/30/2009 9:15:42 AM
File: TA300915.CHW

Last save: 10/30/2009 9:27:40 AM

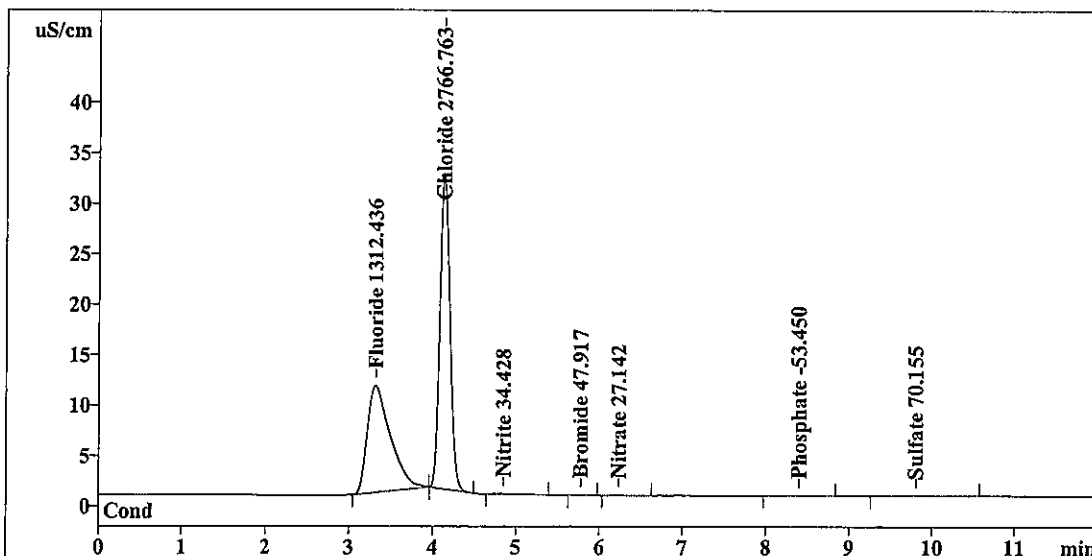
Method: 3-102909.mtw
Run operator: User
Analysis number: 9945

Last save: 10/29/2009 12:39:00 P

SAMPLE: C (300.0)

Vial number: 91
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	3.32	207.377	1312.436	Fluoride
2	4.14	260.220	2766.763	Chloride
3	4.86	1.329	34.428	Nitrite
4	5.78	0.209	47.917	Bromide
5	6.26	0.160	27.142	Nitrate
6	8.41	0.217	-53.450	Phosphate
7	9.81	1.424	70.155	Sulfate
<hr/>				
7	12.00	470.937	4312.292	

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Report date: 10/30/2009 10:38:26 AM
Printed by: User

Ident: R0905976-009
Analysis from: 10/30/2009 9:15:42 AM
File: ta300915.chw

Last save: 10/30/2009 9:27:40 AM

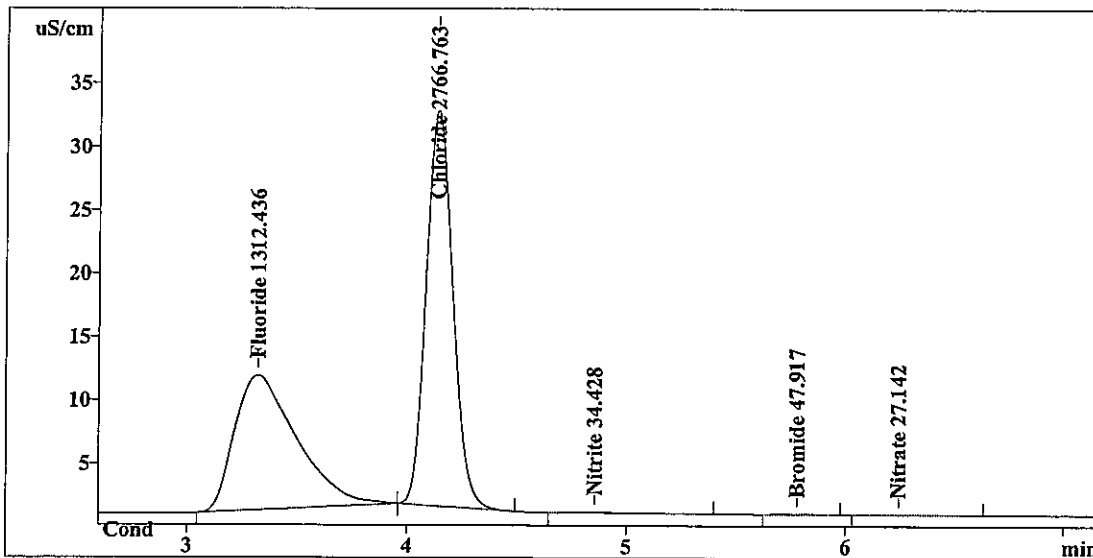
Method: 3-102909.mtw
Run operator: User
Analysis number: 9945

Last save: 10/29/2009 12:39:00 P

SAMPLE: C (300.0)

Vial number: 91
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	3.32	207.377	1312.436	Fluoride
2	4.14	260.220	2766.763	Chloride
3	4.86	1.329	34.428	Nitrite
4	5.78	0.209	47.917	Bromide
5	6.26	0.160	27.142	Nitrate
6	8.41	0.217	-53.450	Phosphate
7	9.81	1.424	70.155	Sulfate
7	12.00	470.937	4312.292	

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RP 10/30/09*

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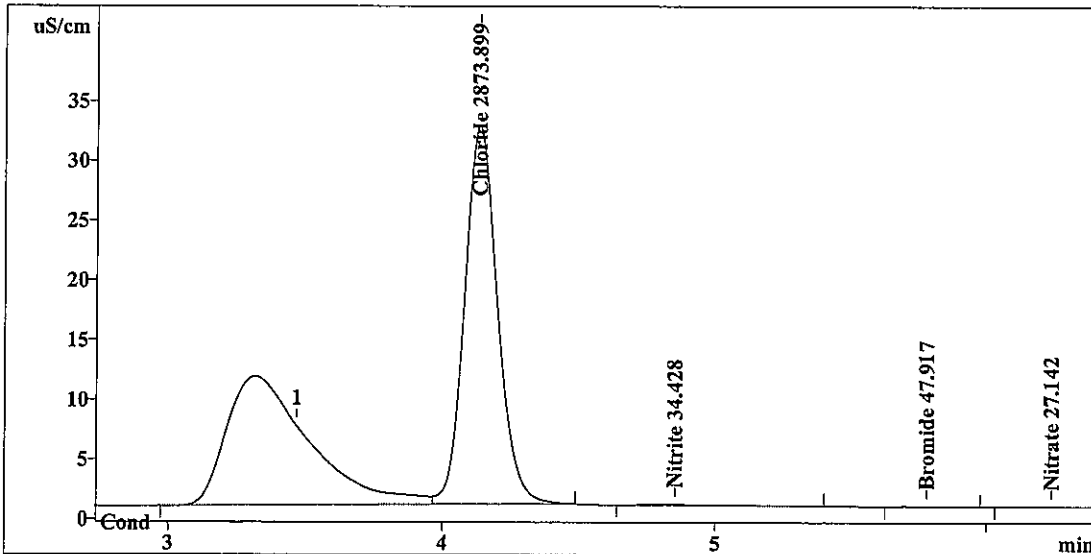
Report date: 10/30/2009 10:39:01 AM
Printed by: User

Ident: R0905976-009
Analysis from: 10/30/2009 9:15:42 AM
File: ta300915.chw Last save: 10/30/2009 9:27:40 AM
Modified! Manual peaks!
Method: 3-102909.mtw Last save: 10/29/2009 12:39:00 P
Run operator: User
Analysis number: 9945

SAMPLE: C (300.0)

Vial number: 91
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	0.00	0.000	0.000	Fluoride
2	4.14	270.416	2873.899	Chloride
3	4.86	1.329	34.428	Nitrite
4	5.78	0.209	47.917	Bromide
5	6.26	0.160	27.142	Nitrate
6	8.41	0.217	-53.450	Phosphate
7	9.81	1.424	70.155	Sulfate
7	12.00	273.755	3106.992	

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ref processed

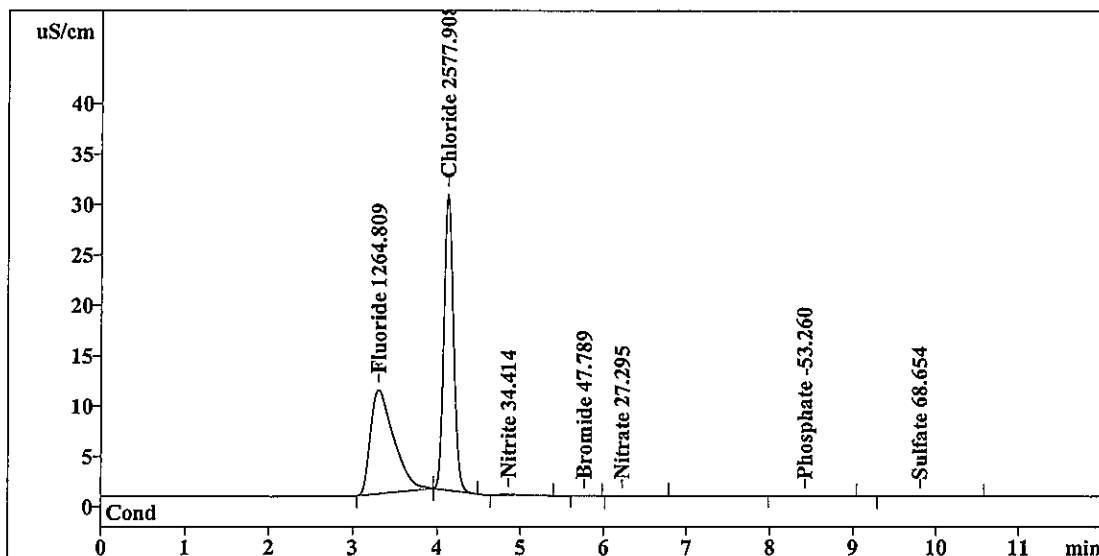
Report date: 10/30/2009 9:41:45 AM
Printed by: User

Ident: R0905976-009 DUP
Analysis from: 10/30/2009 9:29:47 AM
File: TA300929.CHW Last save: 10/30/2009 9:41:45 AM

Method: 3-102909.mtw Last save: 10/29/2009 12:39:00 P
Run operator: User
Analysis number: 9946

SAMPLE: C (300.0)
Vial number: 92
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	3.31	199.835	1264.809	Fluoride
2	4.14	242.248	2577.908	Chloride
3	4.86	1.327	34.414	Nitrite
4	5.77	0.205	47.789	Bromide
5	6.24	0.196	27.295	Nitrate
6	8.44	0.236	-53.260	Phosphate
7	9.81	1.319	68.654	Sulfate
<hr/>				
7	12.00	445.366	4074.129	

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Report date: 10/30/2009 10:40:57 AM
Printed by: User

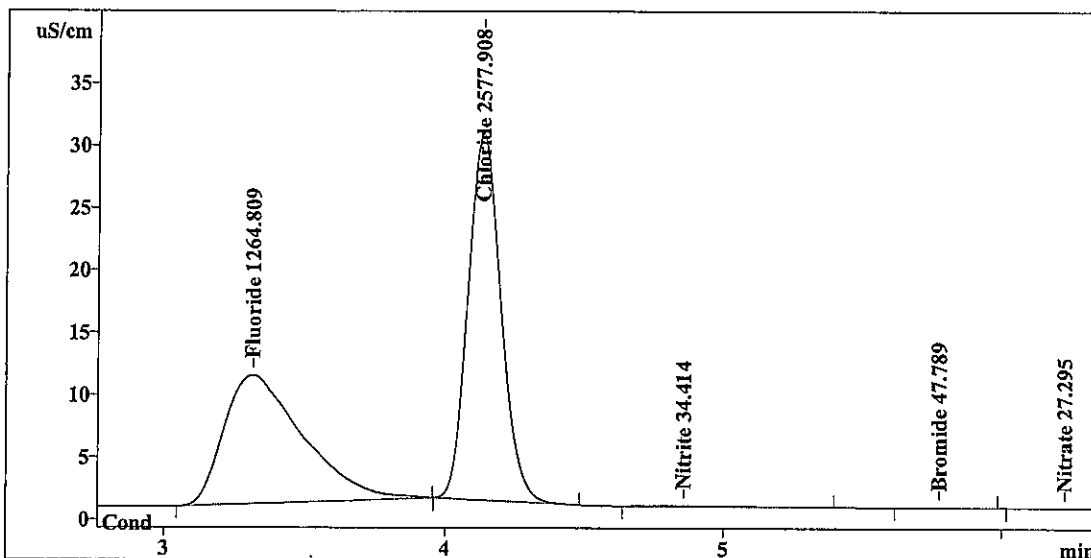
Ident: R0905976-009 DUP
Analysis from: 10/30/2009 9:29:47 AM
File: ta300929.chw Last save: 10/30/2009 9:41:45 AM

Method: 3-102909.mtw Last save: 10/29/2009 12:39:00 P
Run operator: User
Analysis number: 9946

SAMPLE: C (300.0)

Vial number: 92
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	3.31	199.835	1264.809	Fluoride
2	4.14	242.248	2577.908	Chloride
3	4.86	1.327	34.414	Nitrite
4	5.77	0.205	47.789	Bromide
5	6.24	0.196	27.295	Nitrate
6	8.44	0.236	-53.260	Phosphate
7	9.81	1.319	68.654	Sulfate
<hr/>				
7	12.00	445.366	4074.129	

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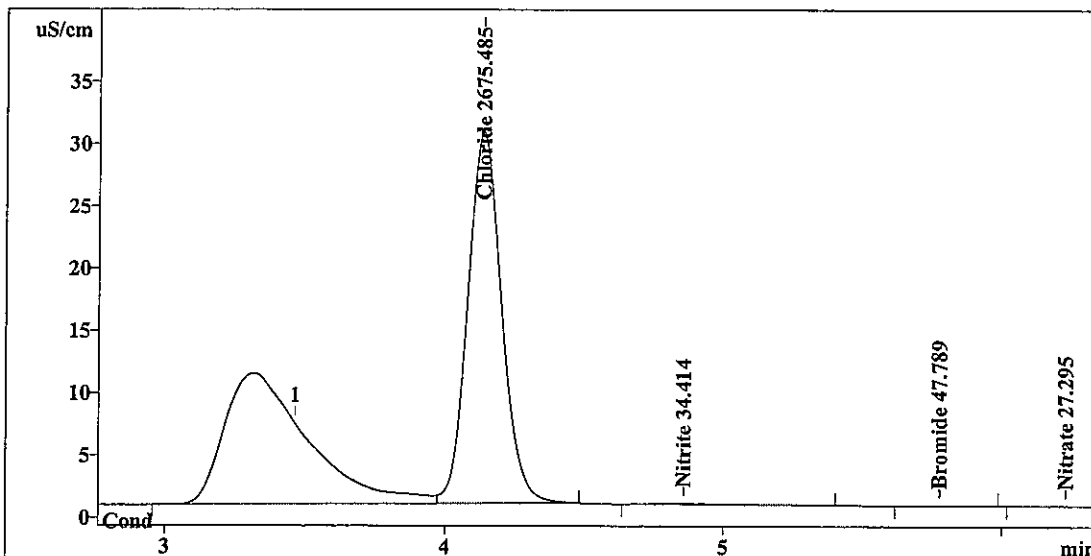
Report date: 10/30/2009 10:41:24 AM
Printed by: User

Ident: R0905976-009 DUP
Analysis from: 10/30/2009 9:29:47 AM
File: ta300929.chw Last save: 10/30/2009 9:41:45 AM
Modified! Manual peaks!
Method: 3-102909.mtw Last save: 10/29/2009 12:39:00 P
Run operator: User
Analysis number: 9946

SAMPLE: C (300.0)

Vial number: 92
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	0.00	0.000	0.000	Fluoride
2	4.14	251.534	2675.485	Chloride
3	4.86	1.327	34.414	Nitrite
4	5.77	0.205	47.789	Bromide
5	6.24	0.196	27.295	Nitrate
6	8.44	0.236	-53.260	Phosphate
7	9.81	1.319	68.654	Sulfate
7	12.00	254.817	2906.897	

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Report date: 10/30/2009 9:55:49 AM
Printed by: User

Ident: R0905976-009 SPK
Analysis from: 10/30/2009 9:43:51 AM
File: TA300943.CHW

Last save: 10/30/2009 9:55:50 AM

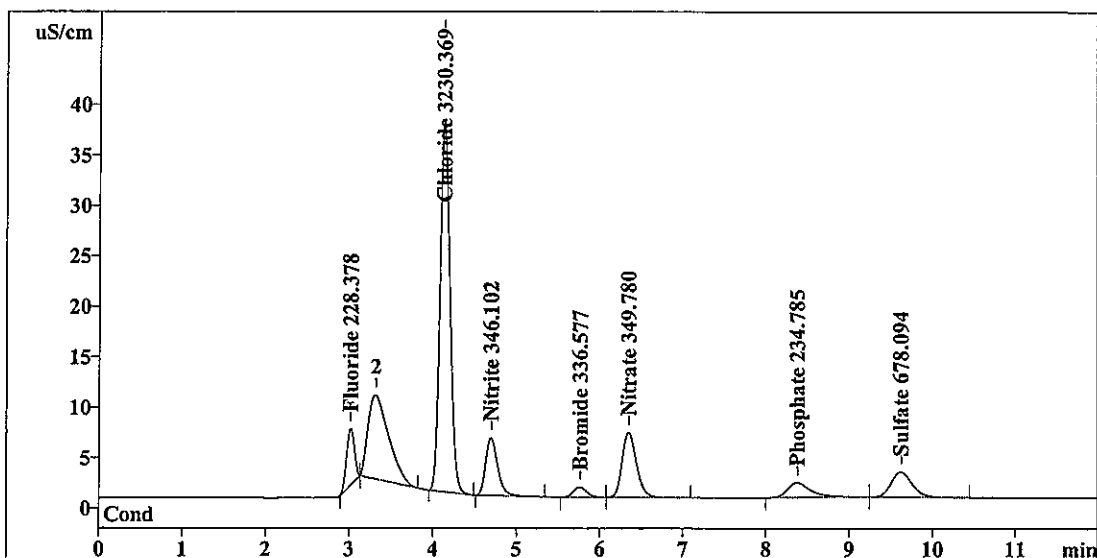
Method: 3-102909.mtw
Run operator: User
Analysis number: 9947

Last save: 10/29/2009 12:39:00 P

SAMPLE: C (300.0)

Vial number: 93
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	3.02	35.711	228.378	Fluoride
2	4.14	304.338	3230.369	Chloride
3	4.70	57.294	346.102	Nitrite
4	5.76	10.904	336.577	Bromide
5	6.35	77.049	349.780	Nitrate
6	8.38	29.227	234.785	Phosphate
7	9.62	43.784	678.094	Sulfate
7	12.00	558.308	5404.083	

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Report date: 10/30/2009 10:42:02 AM
Printed by: User

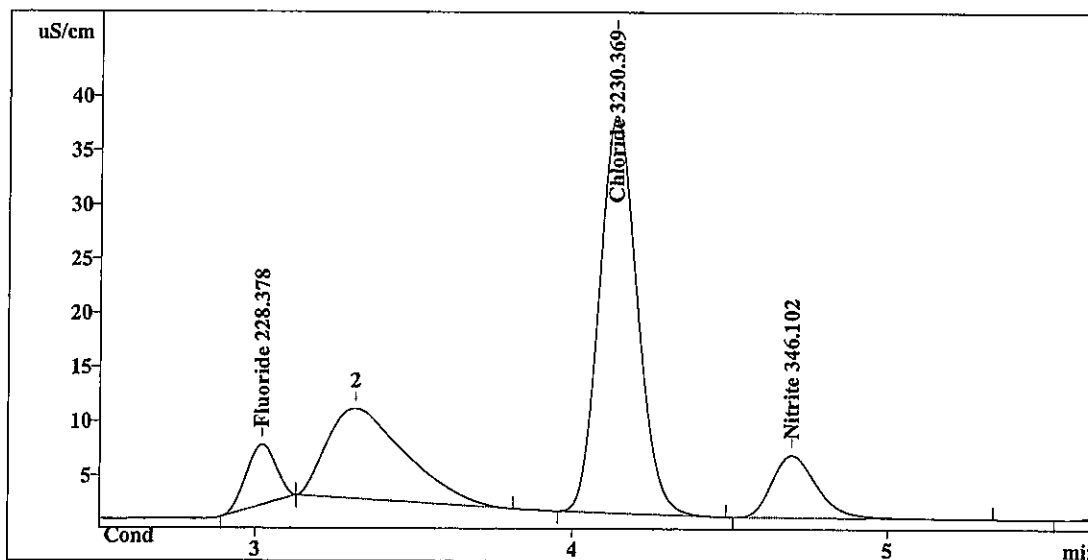
Ident: R0905976-009 SPK
Analysis from: 10/30/2009 9:43:51 AM
File: ta300943.chw Last save: 10/30/2009 9:55:50 AM

Method: 3-102909.mtw Last save: 10/29/2009 12:39:00 P
Run operator: User
Analysis number: 9947

SAMPLE: C (300.0)

Vial number: 93
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	3.02	35.711	228.378	Fluoride
2	4.14	304.338	3230.369	Chloride
3	4.70	57.294	346.102	Nitrite
4	5.76	10.904	336.577	Bromide
5	6.35	77.049	349.780	Nitrate
6	8.38	29.227	234.785	Phosphate
7	9.62	43.784	678.094	Sulfate
7	12.00	558.308	5404.083	

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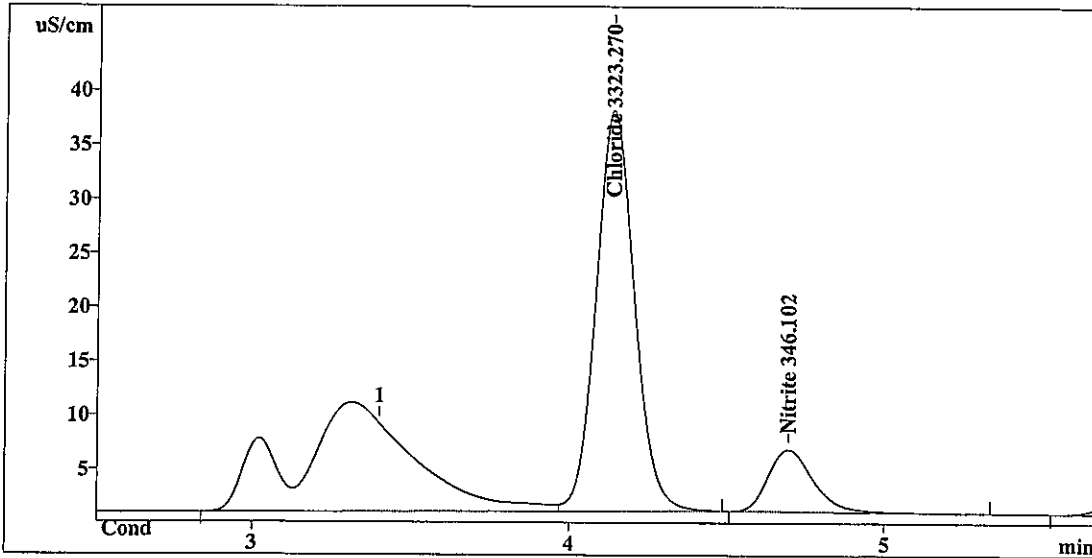
Report date: 10/30/2009 10:42:36 AM
Printed by: User

Ident: R0905976-009 SPK
Analysis from: 10/30/2009 9:43:51 AM
File: ta300943.chw Last save: 10/30/2009 9:55:50 AM
Modified! Manual peaks!
Method: 3-102909.mtw Last save: 10/29/2009 12:39:00 P
Run operator: User
Analysis number: 9947

SAMPLE: C (300.0)

Vial number: 93
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	0.00	0.000	0.000	Fluoride
2	4.14	313.179	OK 3323.270	Chloride
3	4.70	57.294	346.102	Nitrite
4	5.76	10.904	336.577	Bromide
5	6.35	77.049	349.780	Nitrate
6	8.38	29.227	234.785	Phosphate
7	9.62	43.784	678.094	Sulfate
7	12.00	531.438	5268.606	

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OK
11/1/09

Report date: 10/30/2009 10:09:54 AM
Printed by: User

Ident: CCV
Analysis from: 10/30/2009 9:57:56 AM
File: TA300957.CHW

Last save: 10/30/2009 10:09:55 A

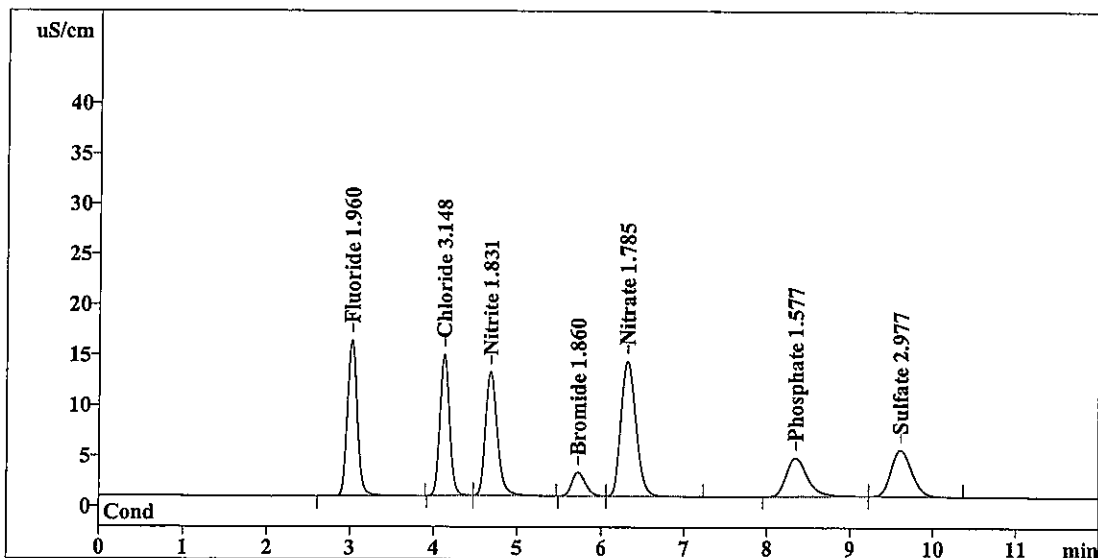
Method: 3-102909.mtw
Run operator: User
Analysis number: 9948

Last save: 10/29/2009 12:39:00 P

SAMPLE: 9056/300.0

Vial number: 94
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	3.02	123.670	OK 1.960	Fluoride
2	4.13	116.743	↓ 3.148	Chloride
3	4.69	126.679	1.831	Nitrite
4	5.74	25.991	1.860	Bromide
5	6.32	163.840	OK 1.785	Nitrate
6	8.35	69.077	1.577	Phosphate
7	9.61	79.509	OK 2.977	Sulfate
7	12.00	705.509	15.137	

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RP 10/30/09

Report date: 10/30/2009 10:23:59 AM
Printed by: User

Ident: CCB
Analysis from: 10/30/2009 10:12:01 AM
File: TA301012.CHW

Last save: 10/30/2009 10:24:00 A

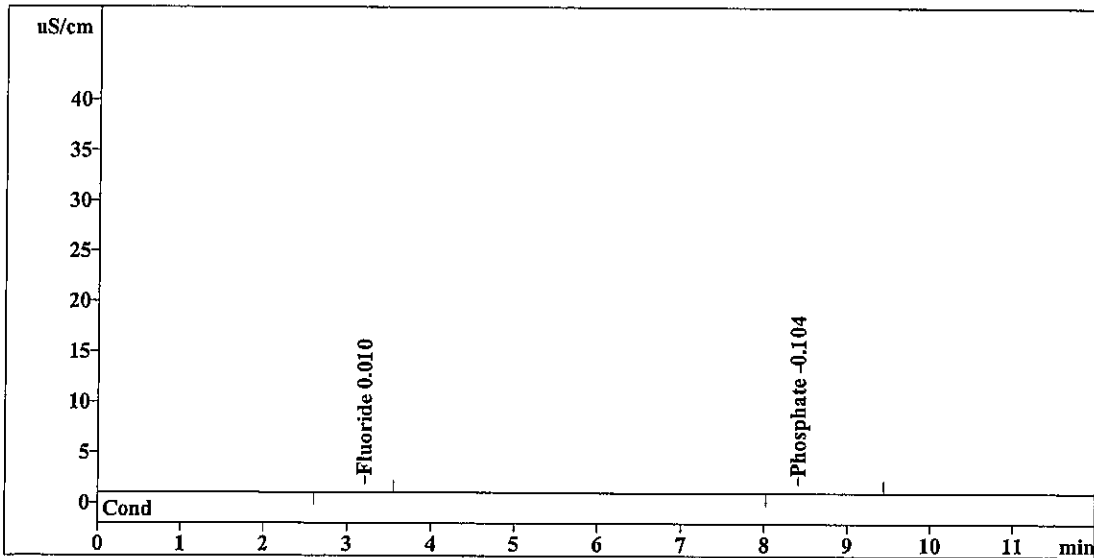
Method: 3-102909.mtw
Run operator: User
Analysis number: 9949

Last save: 10/29/2009 12:39:00 P

SAMPLE: 9056/300.0

Vial number: 95
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	3.20	0.203	0.010	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	8.41	1.411	-0.104	Phosphate
7	0.00	0.000	0.000	Sulfate
7	12.00	1.615	0.114	

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RP 10/30/09

Report date: 10/30/2009 10:38:04 AM
Printed by: User

Ident: R0905976-010
Analysis from: 10/30/2009 10:26:06 AM
File: TA301026.CHW

Last save: 10/30/2009 10:38:05 A

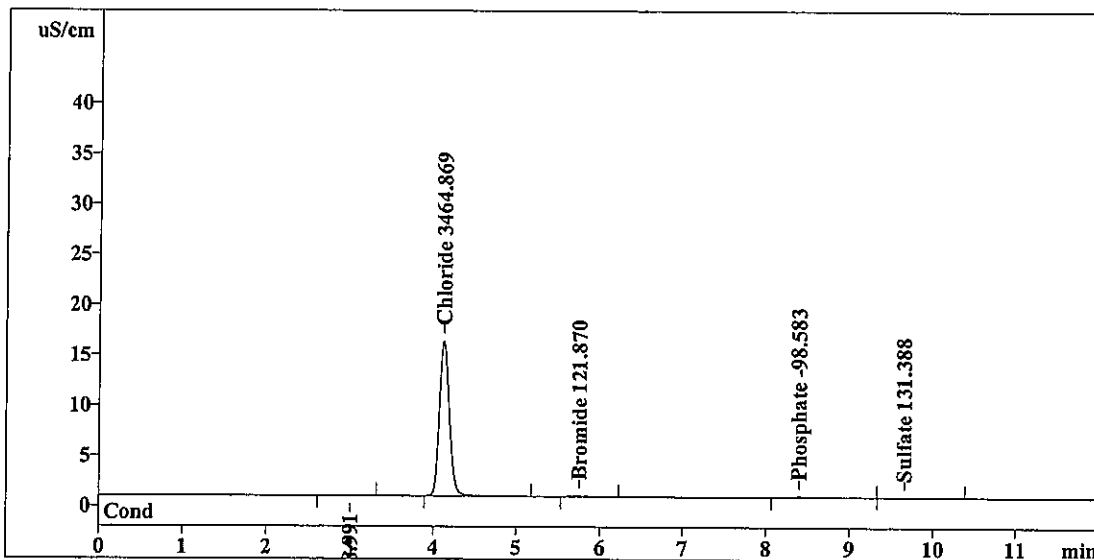
Method: 3-102909.mtw
Run operator: User
Analysis number: 9950

Last save: 10/29/2009 12:39:00 P

SAMPLE: C (300.0)

Vial number: 96
Volume: 1.0 µL
Dilution: 1000.00
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	3.02	0.115	8.991	Fluoride
2	4.13	128.818	OK 3464.869	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.75	0.240	121.870	Bromide
5	0.00	0.000	0.000	Nitrate
6	8.41	1.628	-98.583	Phosphate
7	9.67	0.198	131.388	Sulfate
<hr/>				
7	12.00	130.999	3825.700	

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Report date: 10/30/2009 10:52:10 AM
Printed by: User

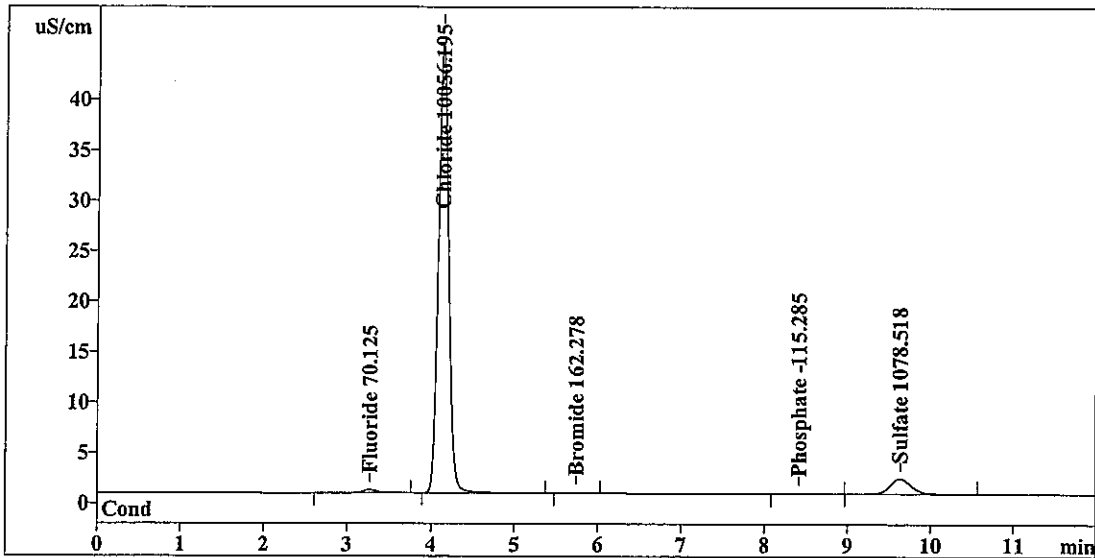
Ident: R0905976-011
Analysis from: 10/30/2009 10:40:12 AM
File: TA301040.CHW Last save: 10/30/2009 10:52:11 A

Method: 3-102909.mtw Last save: 10/29/2009 12:39:00 P
Run operator: User
Analysis number: 9951

SAMPLE: C (300.0)

Vial number: 97
Volume: 1.0 µL
Dilution: 1000.00
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	3.27	3.988	70.125	Fluoride
2	4.13	379.718	10056.195	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.75	0.839	162.278	Bromide
5	0.00	0.000	0.000	Nitrate
6	8.42	0.955	-115.285	Phosphate
7	9.64	26.596	1078.518	Sulfate
7	12.00	412.095	11482.400	

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Report date: 10/30/2009 11:06:15 AM
Printed by: User

Ident: R0905976-011
Analysis from: 10/30/2009 10:54:17 AM
File: TA301054.CHW

Last save: 10/30/2009 11:06:15 A

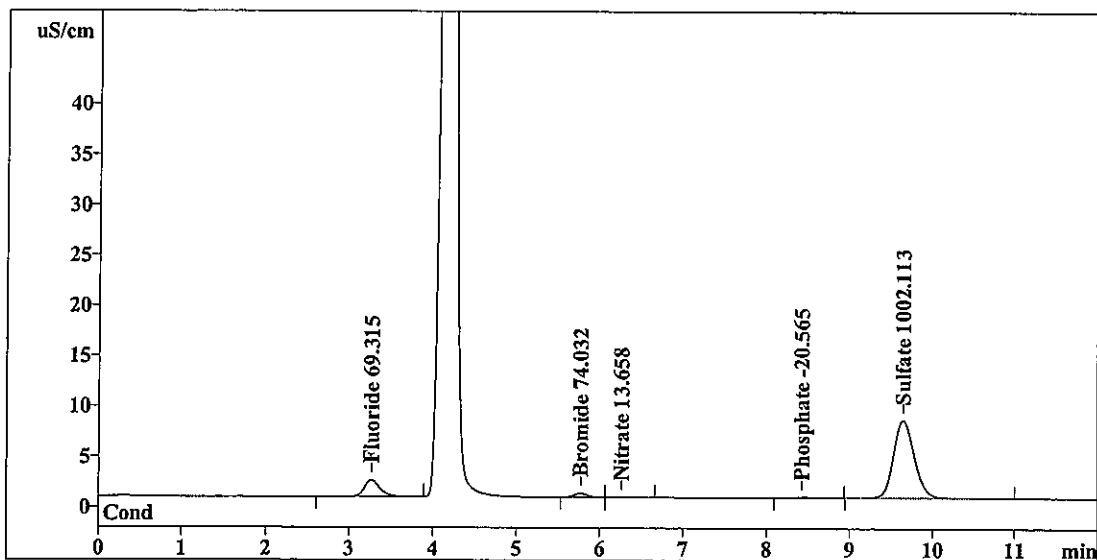
Method: 3-102909.mtw
Run operator: User
Analysis number: 9952

Last save: 10/29/2009 12:39:00 P

SAMPLE: S (300.0)

Vial number: 98
Volume: 1.0 µL
Dilution: 200.00
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	3.27	21.499	69.315	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.77	3.920	74.032	Bromide
5	6.26	0.201	13.658	Nitrate
6	8.43	1.457	-20.565	Phosphate
7	9.64	136.188	OK 1002.113	Sulfate
7	12.00	163.264	1179.683	

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RP 10/30/09

Report date: 10/30/2009 11:20:20 AM
Printed by: User

Ident: R0905976-012
Analysis from: 10/30/2009 11:08:22 AM
File: TA301108.CHW

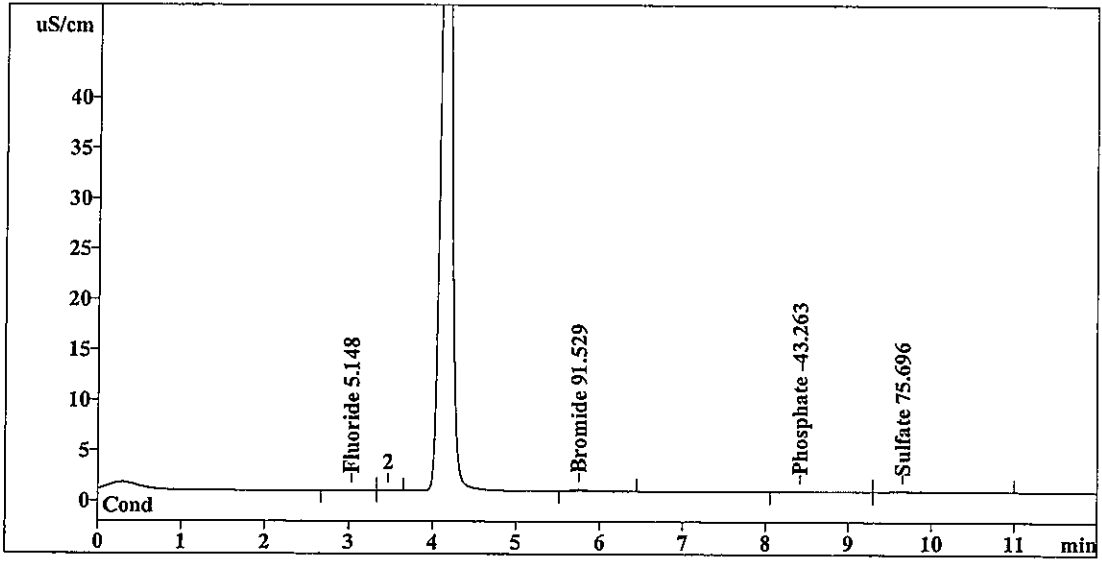
Last save: 10/30/2009 11:20:20 A

Method: 3-102909.mtw
Run operator: User
Analysis number: 9953

Last save: 10/29/2009 12:39:00 P

SAMPLE: C (300.0)
Vial number: 99
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	3.03	0.361	5.148	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.76	1.825	91.529	Bromide
5	0.00	0.000	0.000	Nitrate
6	8.42	1.242	-43.263	Phosphate
7	9.66	1.810	75.696	Sulfate
7	12.00	5.239	215.636	

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Report date: 10/30/2009 11:34:24 AM
 Printed by: User

Ident: R0905977-001
 Analysis from: 10/30/2009 11:22:26 AM
 File: TA301122.CHW

Last save: 10/30/2009 11:34:24 A

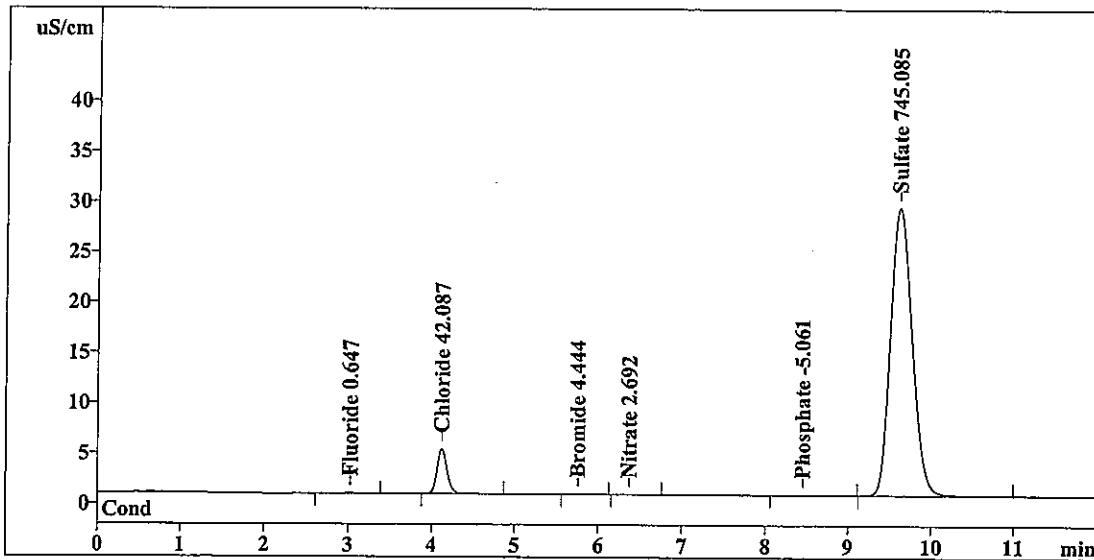
Method: 3-102909.mtw
 Run operator: User
 Analysis number: 9954

Last save: 10/29/2009 12:39:00 P

SAMPLE: CS (300.0)

Vial number: 100
 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	3.02	0.571	0.647	Fluoride
2	4.13	36.978	42.087	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.76	0.081	4.444	Bromide
5	6.37	0.107	2.692	Nitrate
6	8.45	0.502	-5.061	Phosphate
7	9.63	515.701	745.085	Sulfate
7	12.00	553.940	800.017	

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RP 10/30/09

Report date: 10/30/2009 11:48:29 AM
 Printed by: User

Ident: R0905977-001 DUP
 Analysis from: 10/30/2009 11:36:31 AM
 File: TA301136.CHW

Last save: 10/30/2009 11:48:29 A

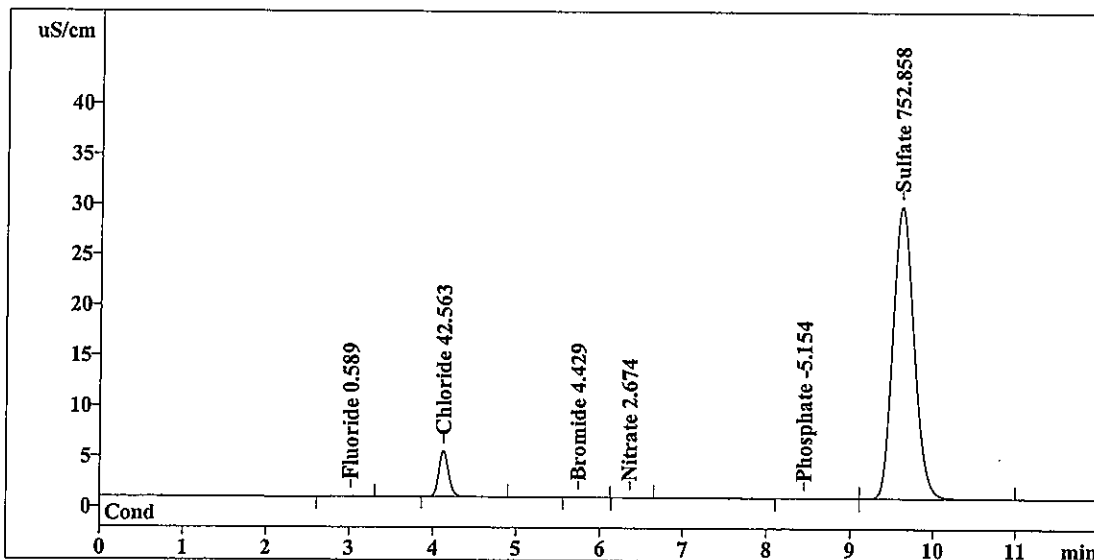
Method: 3-102909.mtw
 Run operator: User
 Analysis number: 9955

Last save: 10/29/2009 12:39:00 P

SAMPLE: CS (300.0)

Vial number: 101
 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	3.02	0.478	0.589	Fluoride
2	4.12	37.431	42.563	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.75	0.075	4.429	Bromide
5	6.36	0.064	2.674	Nitrate
6	8.46	0.409	-5.154	Phosphate
7	9.63	521.117	752.858	Sulfate
7	12.00	559.574	808.267	

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RP 10/30/09

Report date: 10/30/2009 12:18:26 PM
Printed by: User

Ident: R0905977-001 SPK
Analysis from: 10/30/2009 11:50:36 AM
File: ta301150.chw

Last save: 10/30/2009 12:02:34 P

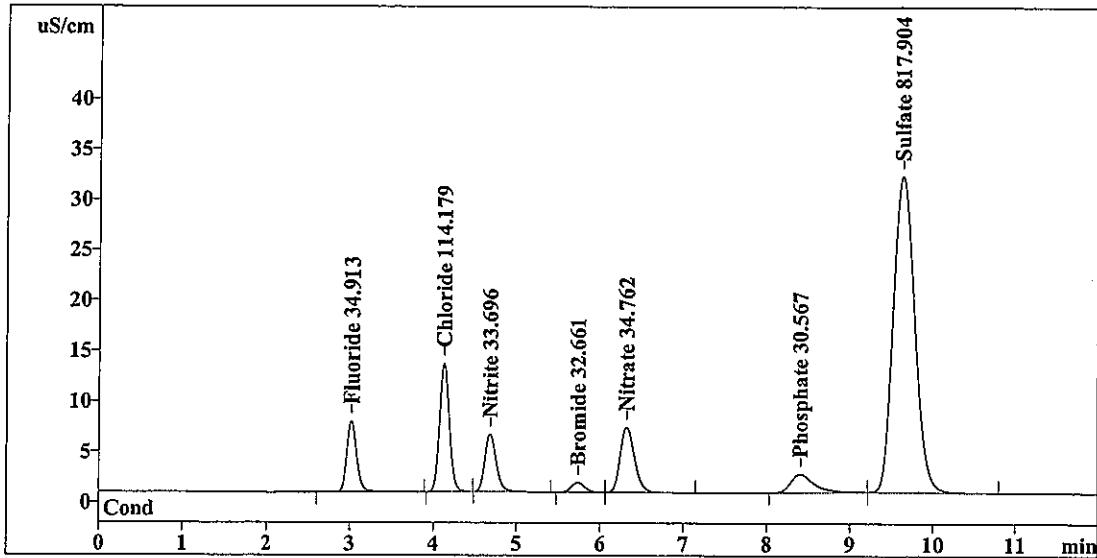
Method: 3-102909.mtw
Run operator: User
Analysis number: 9956

Last save: 10/29/2009 12:39:00 P

SAMPLE: CS (300.0)

Vial number: 102
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



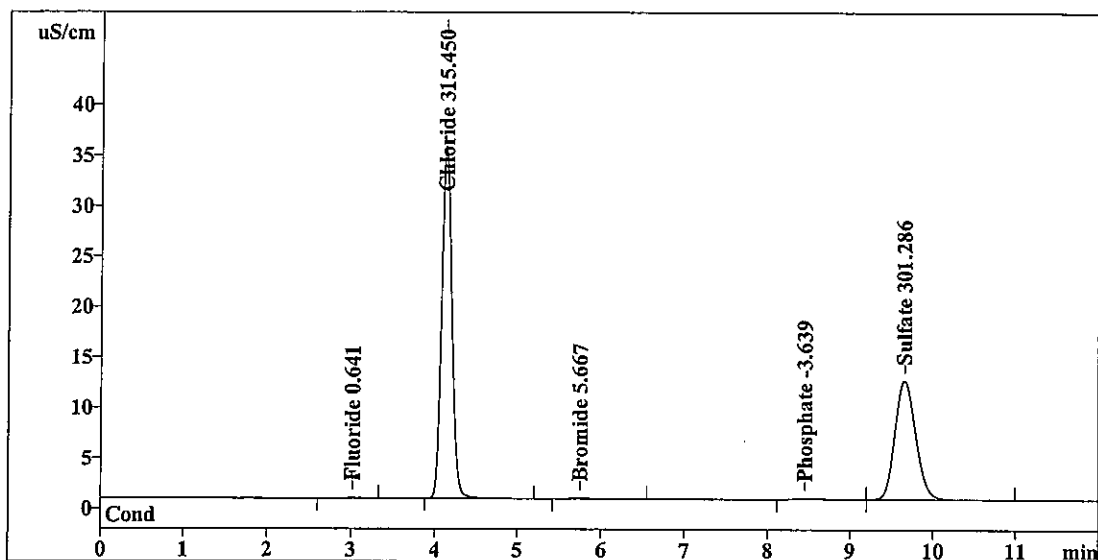
Quantitation method: Custom

No	Retention min	Area uS/cm*sec	Conc. mg/L	Name
1	3.02	54.832	34.913	Fluoride
2	4.13	105.582	114.179	Chloride
3	4.68	55.654	33.696	Nitrite
4	5.74	10.535	32.661	Bromide
5	6.32	76.534	34.762	Nitrate
6	8.41	36.361	30.567	Phosphate
7	9.63	566.440	817.904	Sulfate
7	12.00	905.938	1098.681	

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RP 10/30/09

Report date: 10/30/2009 12:16:39 PM
 Printed by: User
 Ident: R0905977-002
 Analysis from: 10/30/2009 12:04:41 PM
 File: TA301204.CHW Last save: 10/30/2009 12:16:39 P
 Method: 3-102909.mtw Last save: 10/29/2009 12:39:00 P
 Run operator: User
 Analysis number: 9957
 SAMPLE: CS (300.0)
 Vial number: 103
 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	3.02	0.561	0.641	Fluoride
2	4.13	297.119	315.450	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.75	0.534	5.667	Bromide
5	0.00	0.000	0.000	Nitrate
6	8.45	1.934	-3.639	Phosphate
7	9.66	206.468	301.286	Sulfate
7	12.00	506.615	626.684	

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RP 10309

Report date: 10/30/2009 12:30:43 PM
Printed by: User

Ident: R0905977-003
Analysis from: 10/30/2009 12:18:45 PM
File: TA301218.CHW

Last save: 10/30/2009 12:30:43 P

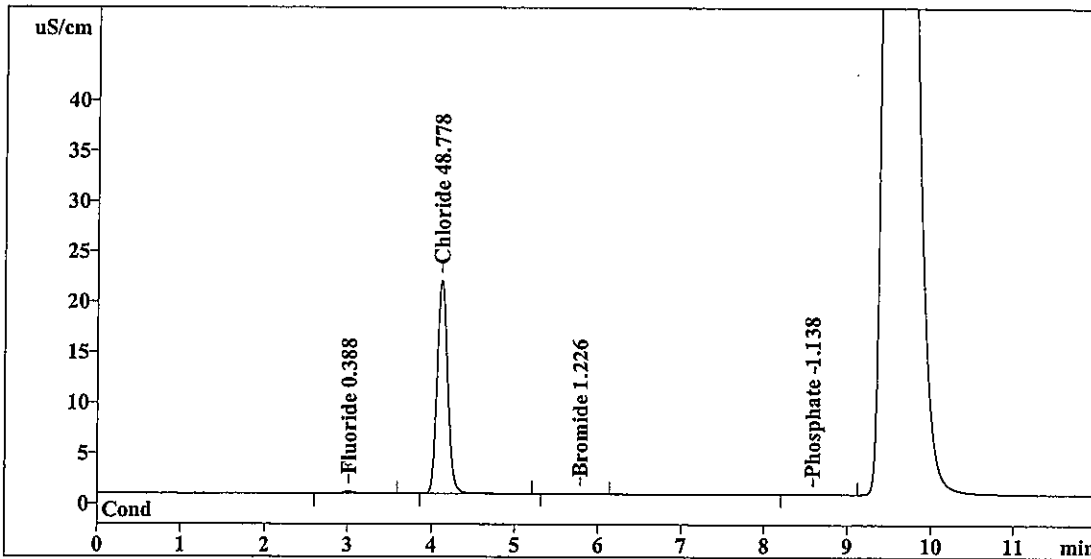
Method: 3-102909.mtw
Run operator: User
Analysis number: 9958

Last save: 10/29/2009 12:39:00 P

SAMPLE: C (300.0)

Vial number: 104
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	3.01	2.000	0.388	Fluoride
2	4.12	182.601	48.778	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.79	0.251	1.226	Bromide
5	0.00	0.000	0.000	Nitrate
6	8.59	1.013	-1.138	Phosphate
7	0.00	0.000	0.000	Sulfate
<hr/>				
7	12.00	185.865	51.530	

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RP 10/30/09

Report date: 10/30/2009 12:44:48 PM
Printed by: User

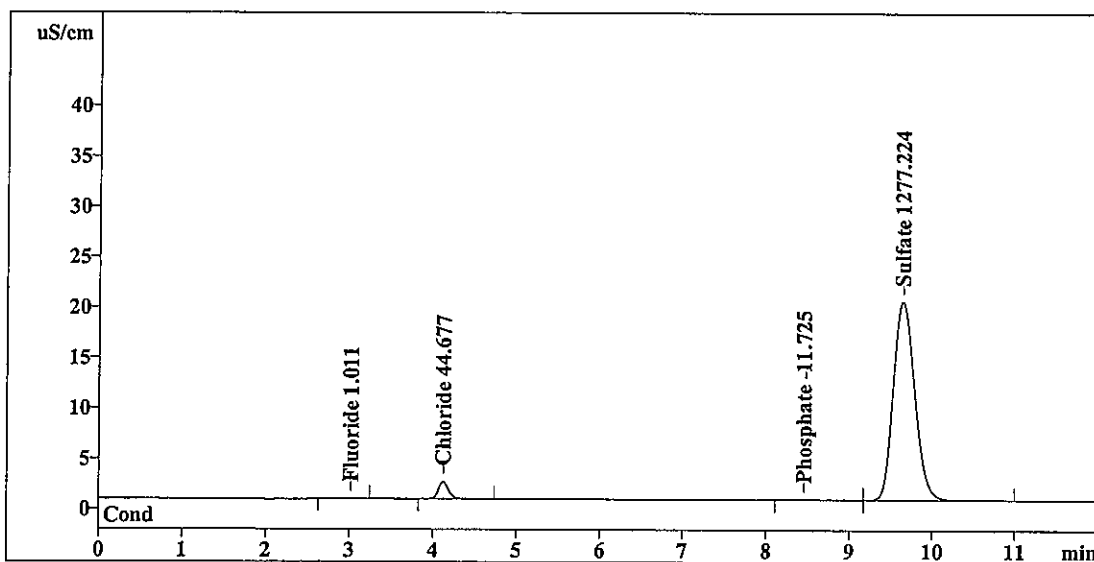
Ident: R0905977-003
Analysis from: 10/30/2009 12:32:50 PM
File: TA301232.CHW Last save: 10/30/2009 12:44:48 P

Method: 3-102909.mtw Last save: 10/29/2009 12:39:00 P
Run operator: User
Analysis number: 9959

SAMPLE: S (300.0)

Vial number: 105
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	3.02	0.186	1.011	Fluoride
2	4.13	13.933	44.677	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	8.46	0.876	-11.725	Phosphate
7	9.65	352.517	12001277.224	Sulfate
7	12.00	367.512	1334.637	

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RP1230109

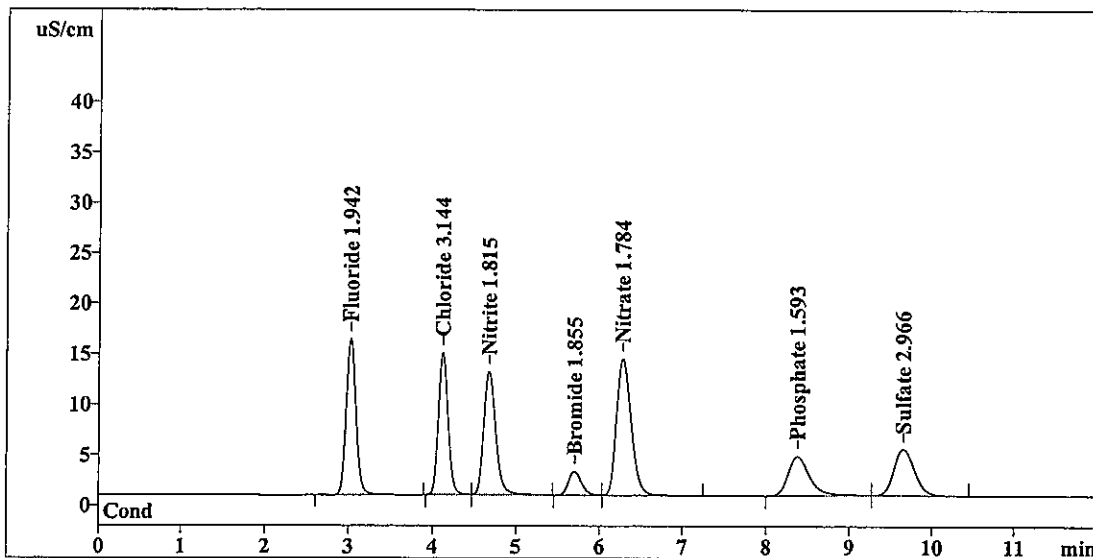
Report date: 10/30/2009 12:58:52 PM
Printed by: User

Ident: CCV
Analysis from: 10/30/2009 12:46:54 PM
File: TA301246.CHW Last save: 10/30/2009 12:58:52 P

Method: 3-102909.mtw Last save: 10/29/2009 12:39:00 P
Run operator: User
Analysis number: 9960

SAMPLE: 9056/300.0
Vial number: 106
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	3.03	122.526	OK 1.942	Fluoride
2	4.13	116.586	3.144	Chloride
3	4.68	125.536	1.815	Nitrite
4	5.71	25.926	1.855	Bromide
5	6.29	163.722	OK 1.784	Nitrate
6	8.38	69.742	1.593	Phosphate
7	9.66	79.202	OK 2.966	Sulfate
<hr/>				
7	12.00	703.240	15.099	

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RP 10/30/09

Report date: 10/30/2009 1:12:57 PM
Printed by: User

Ident: CCB
Analysis from: 10/30/2009 1:00:59 PM
File: TA301300.CHW

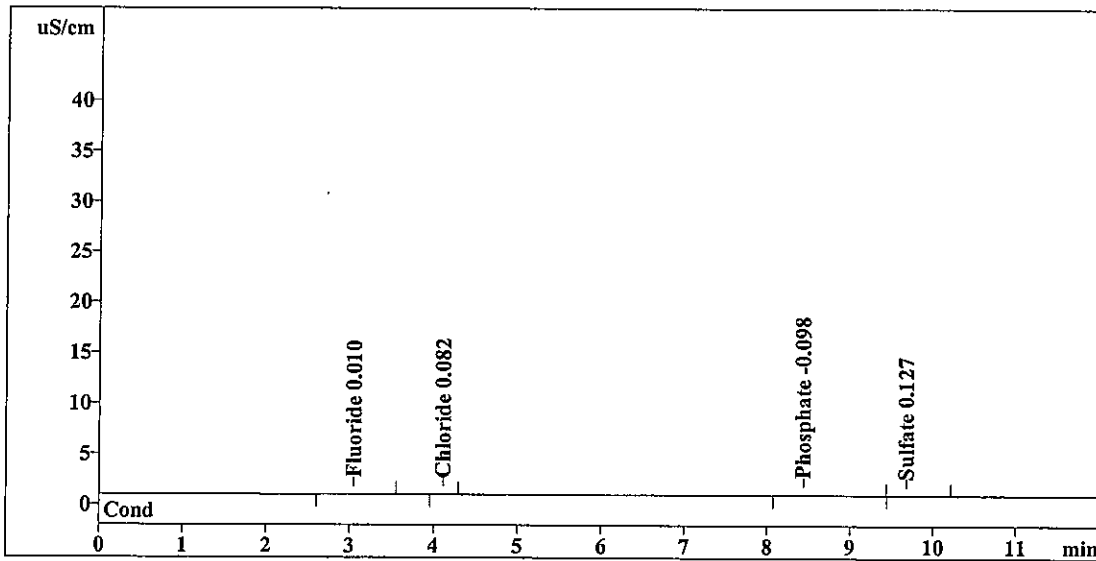
Last save: 10/30/2009 1:12:57 PM

Method: 3-102909.mtw
Run operator: User
Analysis number: 9961

Last save: 10/29/2009 12:39:00 P

SAMPLE: 9056/300.0
Vial number: 107
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	3.03	0.182	0.010	Fluoride
2	4.12	0.050	0.082	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	8.44	1.669	0.098	Phosphate
7	9.68	0.069	0.127	Sulfate
<hr/>				
7	12.00	1.970	0.316	

OK
↓

RP 10/30/09

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Report date: 10/30/2009 1:27:02 PM
Printed by: User

Ident: LCS
Analysis from: 10/30/2009 1:15:04 PM
File: TA301315.CHW

Last save: 10/30/2009 1:27:02 PM

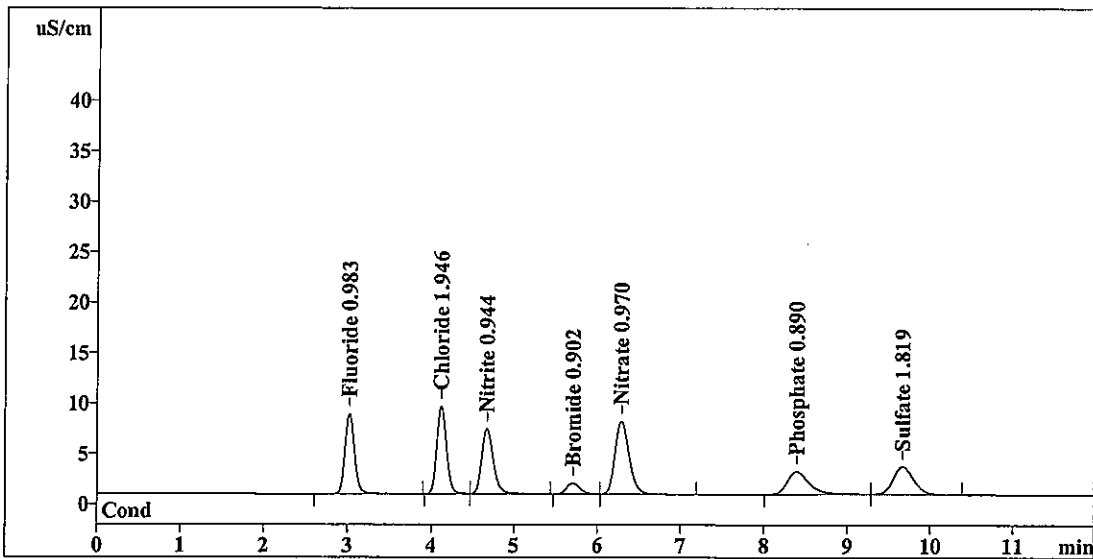
Method: 3-102909.mtw
Run operator: User
Analysis number: 9962

Last save: 10/29/2009 12:39:00 P

SAMPLE: 9056/300.0

Vial number: 108
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	3.02	61.805	OK 0.983	Fluoride
2	4.12	70.992	↓ 1.946	Chloride
3	4.68	62.978	0.944	Nitrite
4	5.71	11.805	- 0.902	Bromide
5	6.29	86.176	OK 0.970	Nitrate
6	8.39	41.424	- 0.890	Phosphate
7	9.67	47.230	OK 1.819	Sulfate
<hr/>				
7	12.00	382.409	8.454	

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RP 10/30/09

Report date: 10/30/2009 1:41:07 PM
Printed by: User

Ident: R0905977-004
Analysis from: 10/30/2009 1:29:08 PM
File: TA301329.CHW

Last save: 10/30/2009 1:41:07 PM

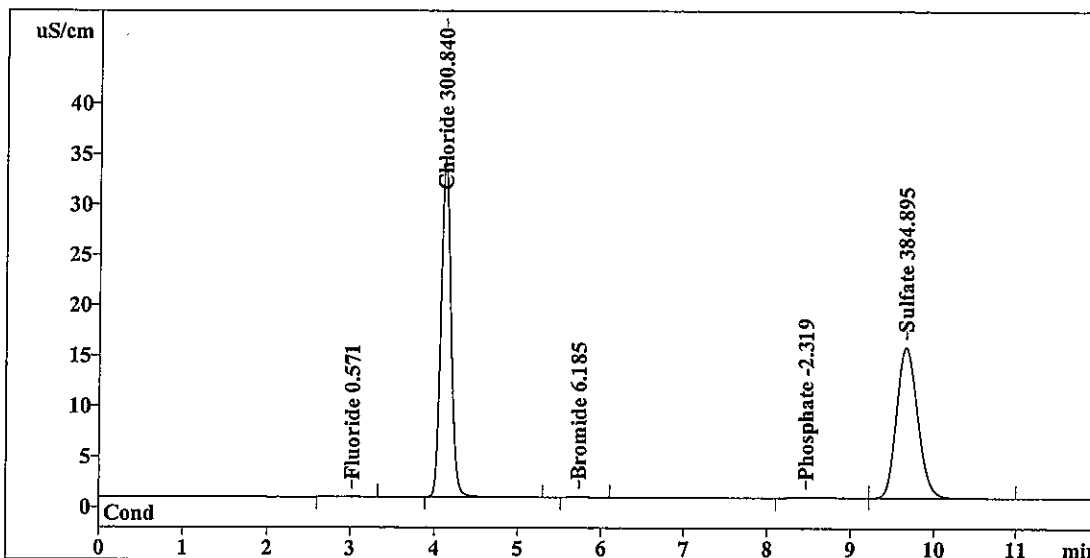
Method: 3-102909.mtw
Run operator: User
Analysis number: 9963

Last save: 10/29/2009 12:39:00 P

SAMPLE: CS (300.0)

Vial number: 109
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	3.03	0.450	0.571	Fluoride
2	4.13	283.215	OK 300.840	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.74	0.726	6.185	Bromide
5	0.00	0.000	0.000	Nitrate
6	8.47	3.263	-2.319	Phosphate
7	9.67	264.725	OK 384.895	Sulfate
<hr/>				
7	12.00	552.379	694.809	

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10/30/09
RP 10/30/09

Report date: 10/30/2009 1:55:11 PM
Printed by: User

Ident: R0905977-005
Analysis from: 10/30/2009 1:43:13 PM
File: TA301343.CHW

Last save: 10/30/2009 1:55:11 PM

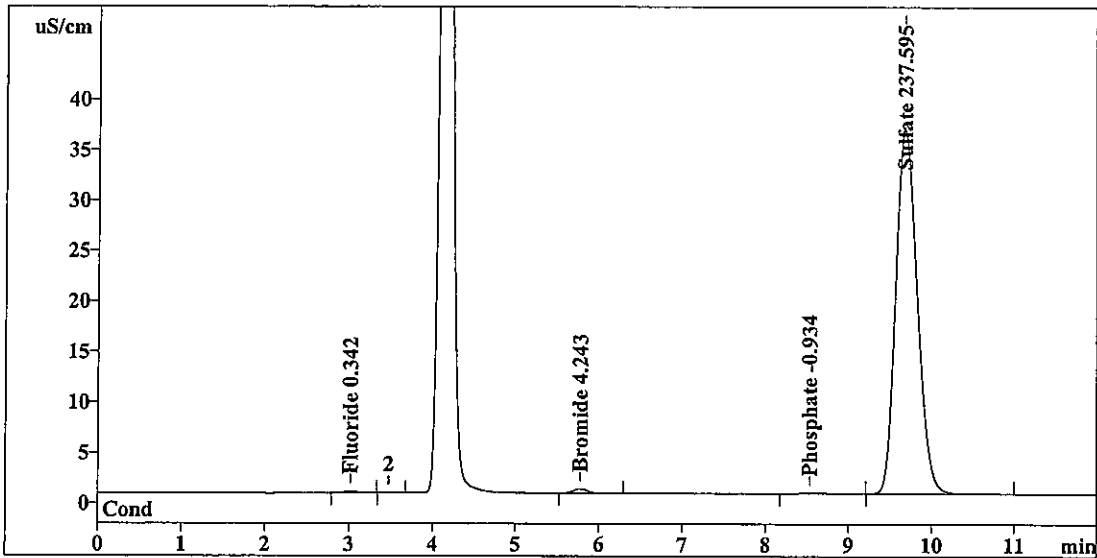
Method: 3-102909.mtw
Run operator: User
Analysis number: 9964

Last save: 10/29/2009 12:39:00 P

SAMPLE: C (300.0)

Vial number: 110
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	3.02	1.711	0.342	Fluoride
2	0.00	0.000	0.000	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.78	4.722	4.243	Bromide
5	0.00	0.000	0.000	Nitrate
6	8.54	1.838	-0.934	Phosphate
7	9.68	658.749	237.595	Sulfate
7	12.00	667.020	243.114	

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RP 10/30/09

Report date: 10/30/2009 2:09:15 PM
Printed by: User

Ident: R0905977-005
Analysis from: 10/30/2009 1:57:18 PM
File: TA301357.CHW

Last save: 10/30/2009 2:09:16 PM

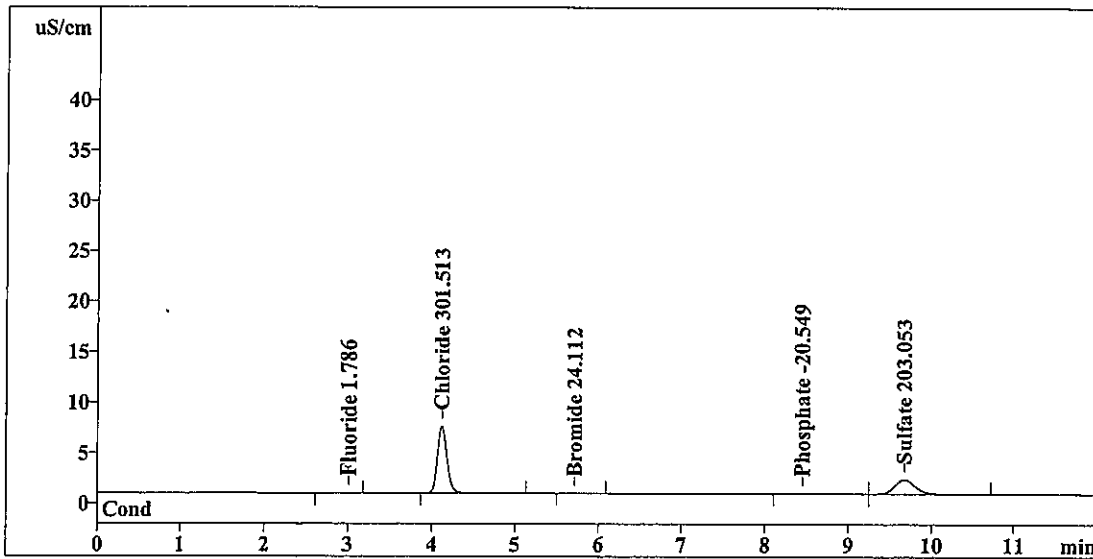
Method: 3-102909.mtw
Run operator: User
Analysis number: 9965

Last save: 10/29/2009 12:39:00 P

SAMPLE: S (300.0)

Vial number: 111
Volume: 1.0 µL
Dilution: 200.00
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	3.01	0.111	1.786	Fluoride
2	4.13	54.312	301.513	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.72	0.221	24.112	Bromide
5	0.00	0.000	0.000	Nitrate
6	8.45	1.460	-20.549	Phosphate
7	9.68	24.833	203.053	Sulfate
7	12.00	80.938	551.013	

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RP 10/30/09

Report date: 10/30/2009 2:23:20 PM
Printed by: User

Ident: R0906002-001
Analysis from: 10/30/2009 2:11:22 PM
File: TA301411.CHW

Last save: 10/30/2009 2:23:21 PM

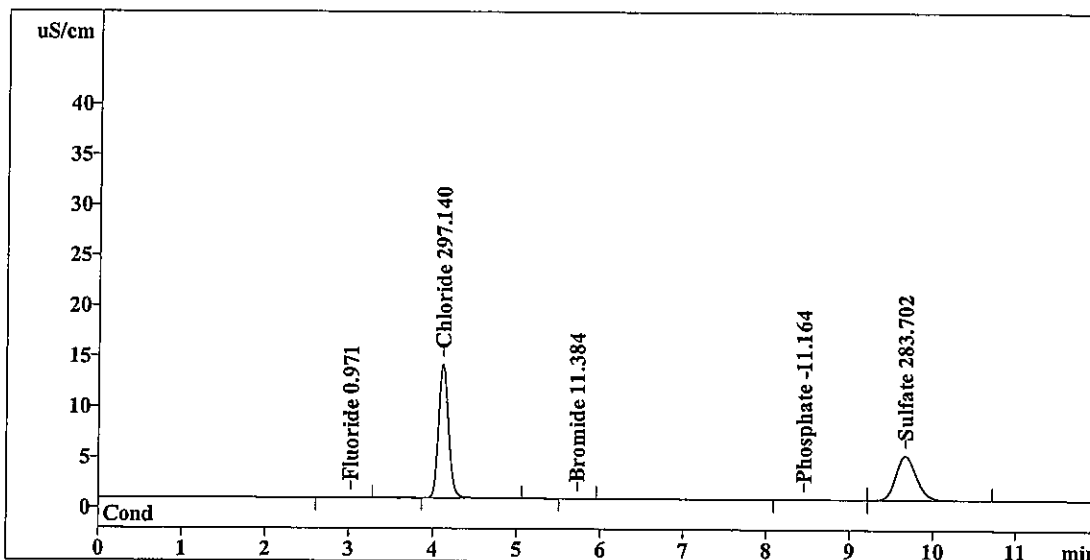
Method: 3-102909.mtw
Run operator: User
Analysis number: 9966

Last save: 10/29/2009 12:39:00 P

SAMPLE: C (300.0)

Vial number: 112
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	3.02	0.161	0.971	Fluoride
2	4.12	110.034	297.140	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.72	0.121	11.384	Bromide
5	0.00	0.000	0.000	Nitrate
6	8.46	1.102	-11.164	Phosphate
7	9.68	75.608	283.702	Sulfate
7	12.00	187.025	604.361	

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RP 10/30/09

Report date: 10/30/2009 2:37:31 PM
Printed by: User

Ident: R0906002-001
Analysis from: 10/30/2009 2:25:28 PM
File: TA301425.CHW

Last save: 10/30/2009 2:37:31 PM

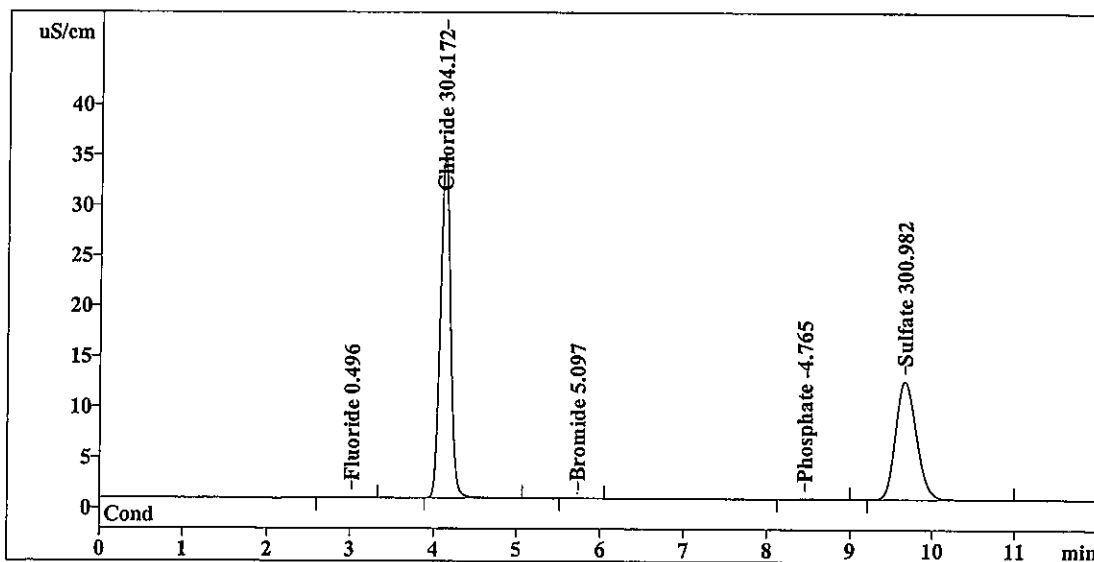
Method: 3-102909.mtw
Run operator: User
Analysis number: 9967

Last save: 10/29/2009 12:39:00 P

SAMPLE: C S (300.0)

Vial number: 113
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	3.02	0.332	0.496	Fluoride
2	4.13	286.386	OK 304.172	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.73	0.323	5.097	Bromide
5	0.00	0.000	0.000	Nitrate
6	8.47	0.801	-4.765	Phosphate
7	9.67	206.256	OK 300.982	Sulfate
<hr/>				
7	12.00	494.097	615.512	

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RP 11/2/09

Report date: 10/30/2009 2:51:54 PM
Printed by: User

Ident: R0906002-002
Analysis from: 10/30/2009 2:39:57 PM
File: TA301439.CHW

Last save: 10/30/2009 2:51:55 PM

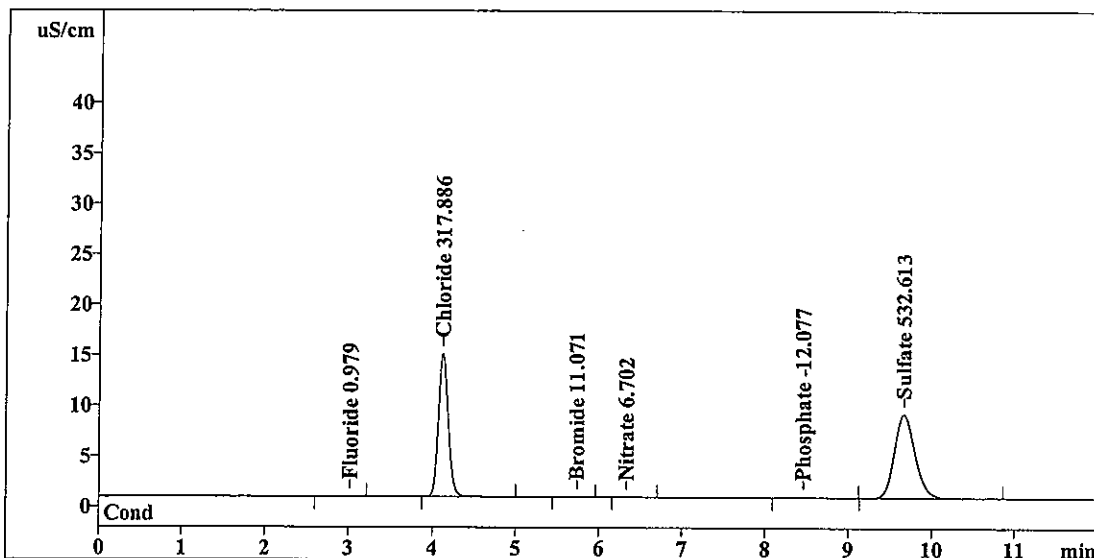
Method: 3-102909.mtw
Run operator: User
Analysis number: 9968

Last save: 10/29/2009 12:39:00 P

SAMPLE: CS (300.0)

Vial number: 114
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	3.02	0.166	0.979	Fluoride
2	4.13	117.931	317.886	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.73	0.075	11.071	Bromide
5	6.34	0.080	6.702	Nitrate
6	8.47	0.735	-12.077	Phosphate
7	9.67	144.983	532.613	Sulfate
7	12.00	263.969	881.328	

This report has been created by IC Net
METROHM LTD

RP 11/2/09

Report date: 10/30/2009 3:06:00 PM
Printed by: User

Ident: R0906002-002 DUP
Analysis from: 10/30/2009 2:54:02 PM
File: TA301454.CHW

Last save: 10/30/2009 3:06:00 PM

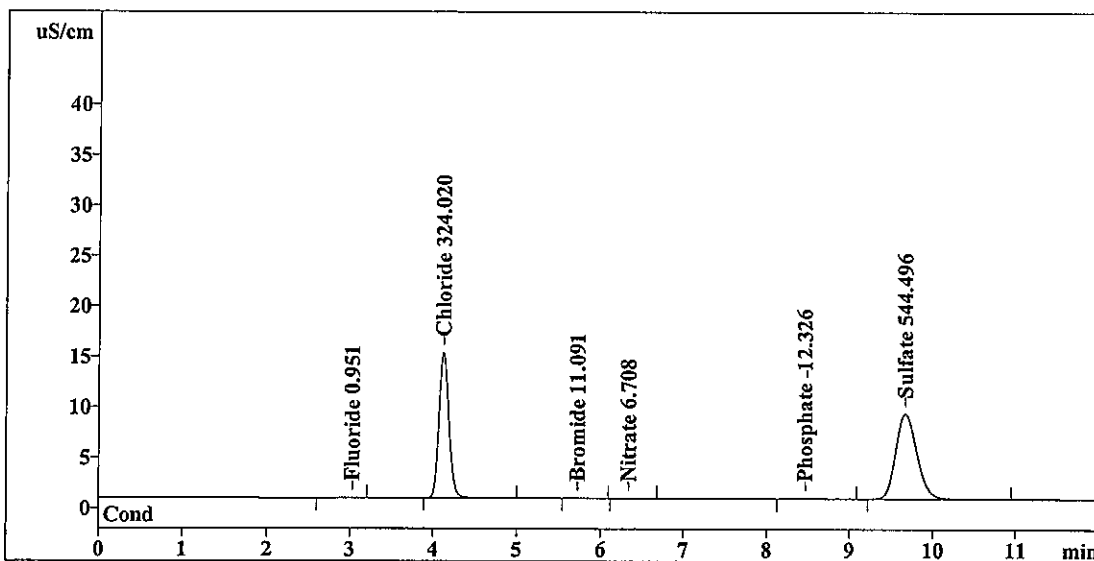
Method: 3-102909.mtw
Run operator: User
Analysis number: 9969

Last save: 10/29/2009 12:39:00 P

SAMPLE: CS (300.0)

Vial number: 115
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	3.03	0.148	0.951	Fluoride
2	4.13	120.265	OK 324.020	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.73	0.078	11.091	Bromide
5	6.34	0.086	6.708	Nitrate
6	8.47	0.634	-12.326	Phosphate
7	9.68	148.295	OK 544.496	Sulfate
<hr/>				
7	12.00	269.506	899.591	

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RP 11/2/09

Report date: 10/30/2009 3:20:04 PM
Printed by: User

Ident: R0906002-002 SPK
Analysis from: 10/30/2009 3:08:06 PM
File: TA301508.CHW

Last save: 10/30/2009 3:20:05 PM

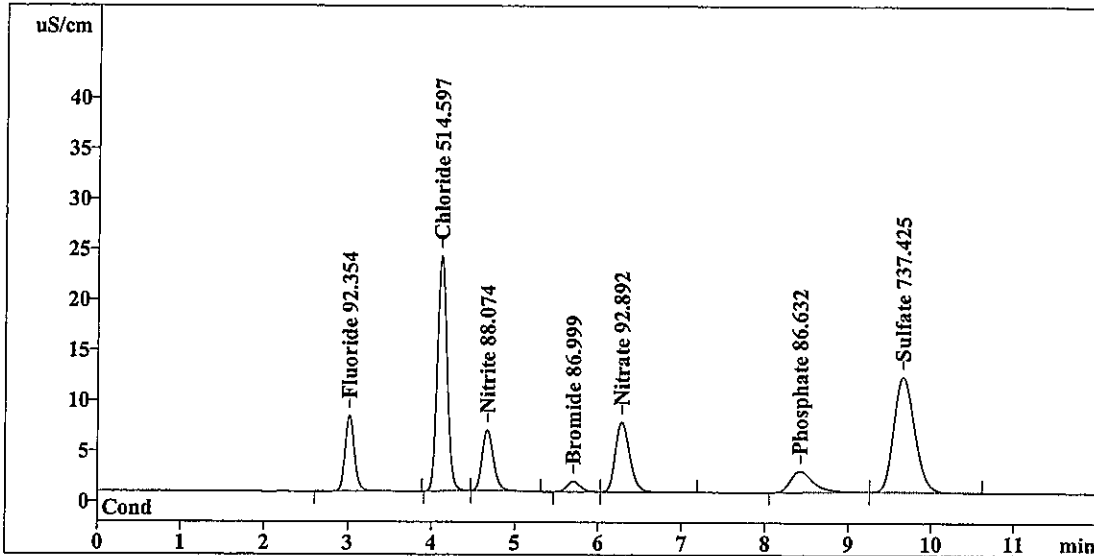
Method: 3-102909.mtw
Run operator: User
Analysis number: 9970

Last save: 10/29/2009 12:39:00 P

SAMPLE: CS (300.0)

Vial number: 116
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	3.02	58.045	92.354	Fluoride
2	4.12	192.809	514.597	Chloride
3	4.68	58.406	88.074	Nitrite
4	5.71	11.327	86.999	Bromide
5	6.29	82.242	92.892	Nitrate
6	8.43	40.474	86.632	Phosphate
7	9.67	202.067	737.425	Sulfate
7	12.00	645.370	1698.973	

OK

OK

RP
11/2/09

This report has been created by IC Net
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Report date: 10/30/2009 3:34:09 PM
Printed by: User

Ident: R0905995-002
Analysis from: 10/30/2009 3:22:11 PM
File: TA301522.CHW

Last save: 10/30/2009 3:34:09 PM

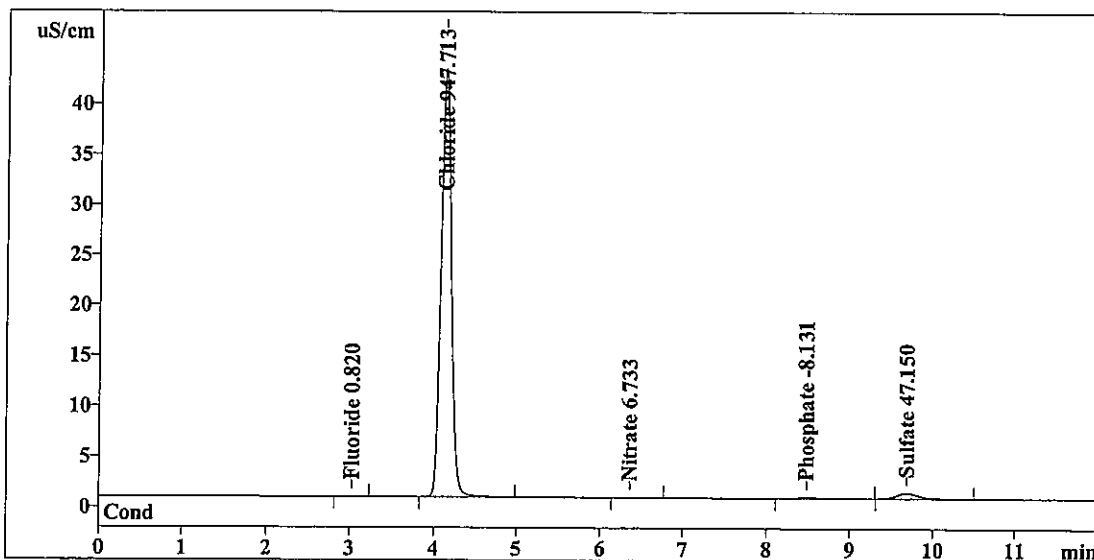
Method: 3-102909.mtw
Run operator: User
Analysis number: 9971

Last save: 10/29/2009 12:39:00 P

SAMPLE: C (300.0)

Vial number: 117
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	3.03	0.065	0.820	Fluoride
2	4.13	357.675	947.713	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.36	0.110	6.733	Nitrate
6	8.48	2.323	-8.131	Phosphate
7	9.69	9.677	47.150	Sulfate
7	12.00	369.851	1010.548	

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RP 11/2/09

Report date: 10/30/2009 4:02:19 PM
Printed by: User

Ident: CCB
Analysis from: 10/30/2009 3:50:21 PM
File: TA301550.CHW

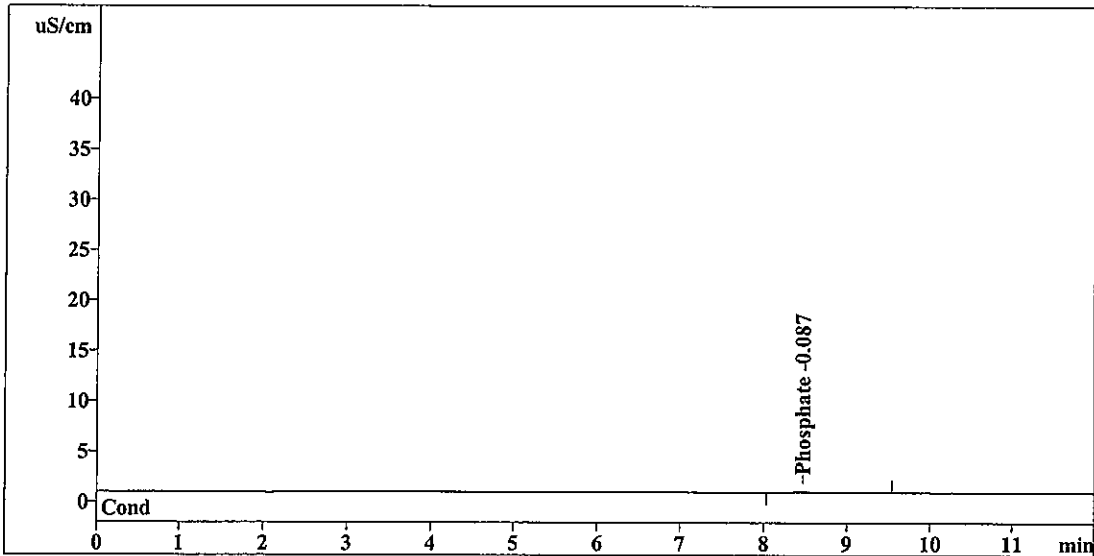
Last save: 10/30/2009 4:02:19 PM

Method: 3-102909.mtw
Run operator: User
Analysis number: 9973

Last save: 10/29/2009 12:39:00 P

SAMPLE: 9056/300.0
Vial number: 119
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	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	8.48	2.100	-0.087	Phosphate
7	0.00	0.000	0.000	Sulfate
<hr/>				
7	12.00	2.100	0.087	

OK
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RP 11/2/09

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Report date: 10/30/2009 4:16:24 PM
Printed by: User

Ident: R0905990-001
Analysis from: 10/30/2009 4:04:26 PM
File: TA301604.CHW

Last save: 10/30/2009 4:16:24 PM

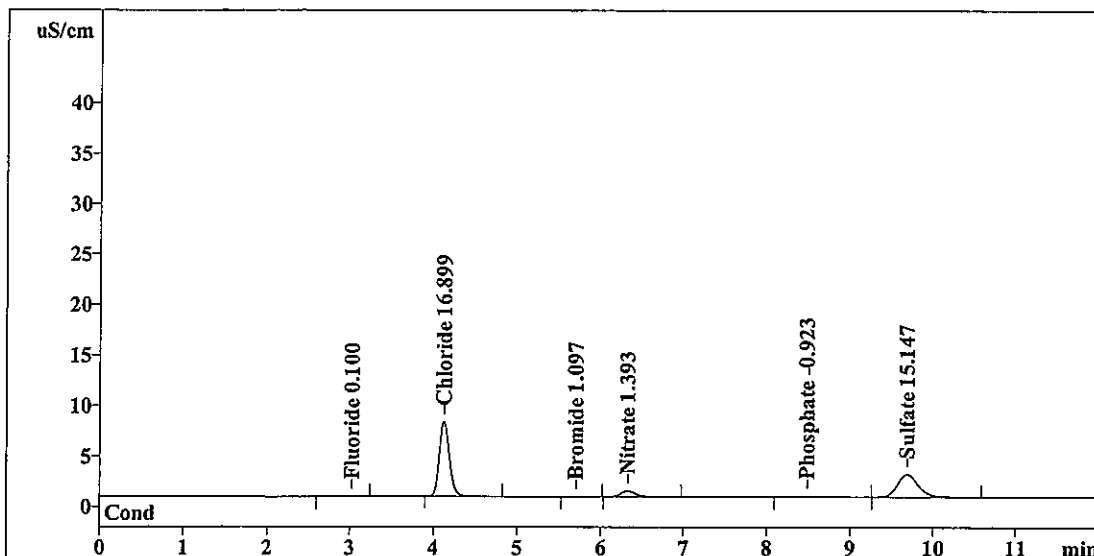
Method: 3-102909.mtw
Run operator: User
Analysis number: 9974

Last save: 10/29/2009 12:39:00 P

SAMPLE: C (300.0)

Vial number: 120
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	3.03	0.181	0.100	Fluoride
2	4.13	61.252	16.899	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.71	0.060	1.097	Bromide
5	6.33	6.970	1.393	Nitrate
6	8.49	1.879	-0.923	Phosphate
7	9.69	38.751	15.147	Sulfate
<hr/>				
7	12.00	109.093	35.559	

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RP 11/2/09

Report date: 10/30/2009 4:30:28 PM
Printed by: User

Ident: R0905990-002
Analysis from: 10/30/2009 4:18:30 PM
File: TA301618.CHW

Last save: 10/30/2009 4:30:28 PM

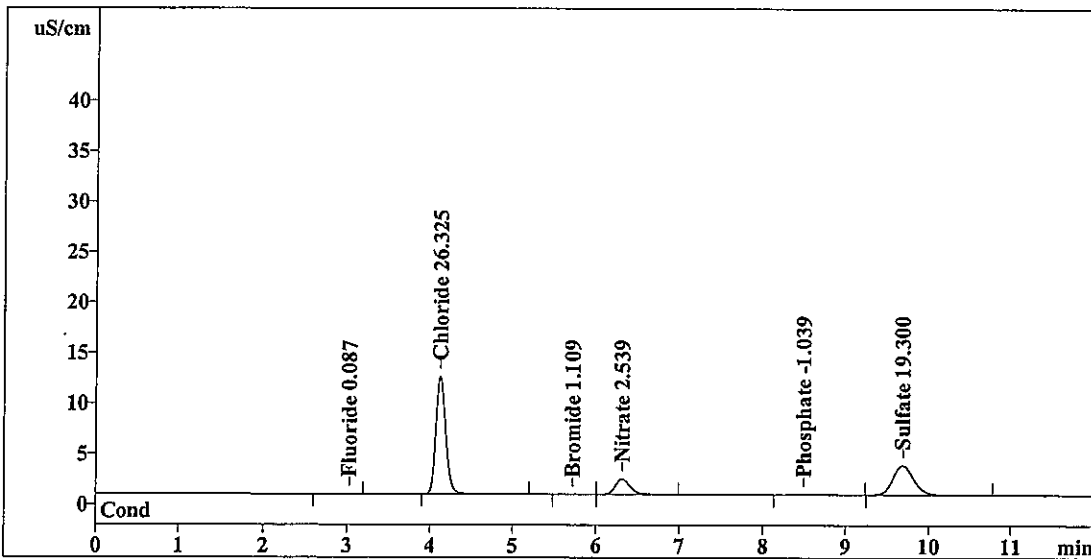
Method: 3-102909.mtw
Run operator: User
Analysis number: 9975

Last save: 10/29/2009 12:39:00 P

SAMPLE: C (300.0)

Vial number: 121
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	3.03	0.098	0.087	Fluoride
2	4.13	97.132	OK 26.325	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.72	0.078	1.109	Bromide
5	6.32	17.892	2.539	Nitrate
6	8.50	1.415	-1.039	Phosphate
7	9.69	50.329	19.300	Sulfate
7	12.00	166.943	50.399	

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RP 11/2/09

Report date: 10/30/2009 4:44:33 PM
Printed by: User

Ident: R0905990-003
Analysis from: 10/30/2009 4:32:35 PM
File: TA301632.CHW

Last save: 10/30/2009 4:44:33 PM

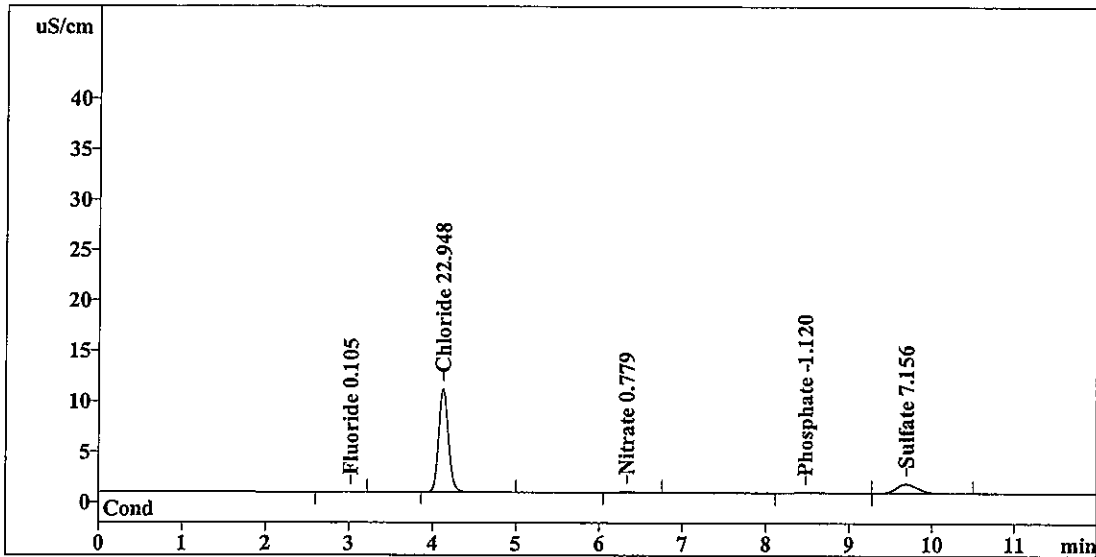
Method: 3-102909.mtw
Run operator: User
Analysis number: 9976

Last save: 10/29/2009 12:39:00 P

SAMPLE: C (300.0)

Vial number: 122
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	3.02	0.210	0.105	Fluoride
2	4.13	84.280	22.948	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.33	1.114	0.779	Nitrate
6	8.48	1.086	-1.120	Phosphate
7	9.69	16.481	7.156	Sulfate
7	12.00	103.170	32.108	

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RP 11/2/09

Report date: 10/30/2009 4:58:38 PM
Printed by: User

Ident: R0905990-004
Analysis from: 10/30/2009 4:46:40 PM
File: TA301646.CHW

Last save: 10/30/2009 4:58:39 PM

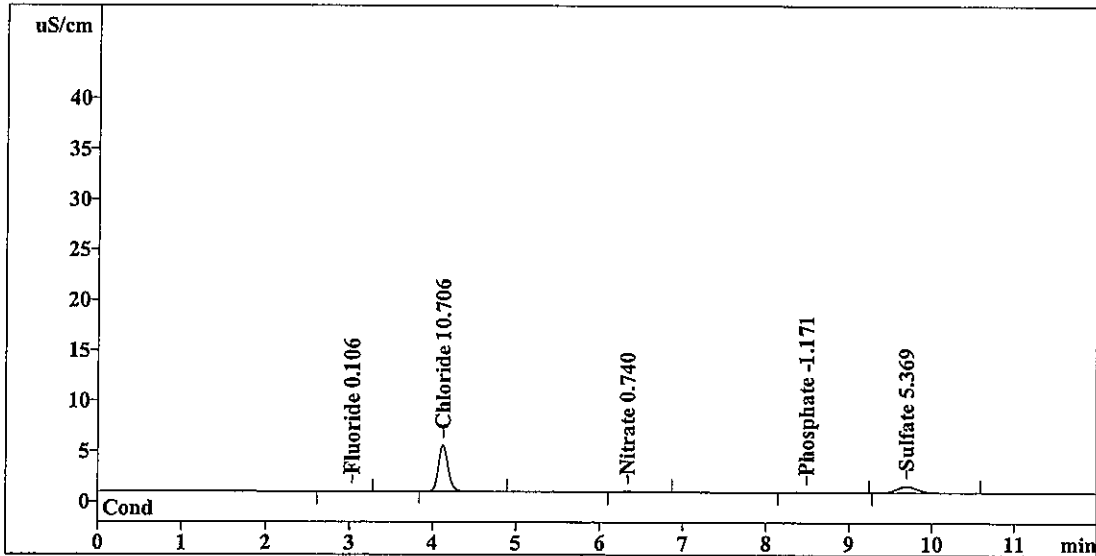
Method: 3-102909.mtw
Run operator: User
Analysis number: 9977

Last save: 10/29/2009 12:39:00 P

SAMPLE: C (300.0)

Vial number: 123
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	3.02	0.219	0.106	Fluoride
2	4.13	37.680	10.706	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.34	0.744	0.740	Nitrate
6	8.49	0.882	-1.171	Phosphate
7	9.70	11.499	5.369	Sulfate
7	12.00	51.024	18.092	

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RP 1112109

Report date: 10/30/2009 5:12:43 PM
Printed by: User

Ident: R0905990-005
Analysis from: 10/30/2009 5:00:45 PM
File: TA301700.CHW

Last save: 10/30/2009 5:12:43 PM

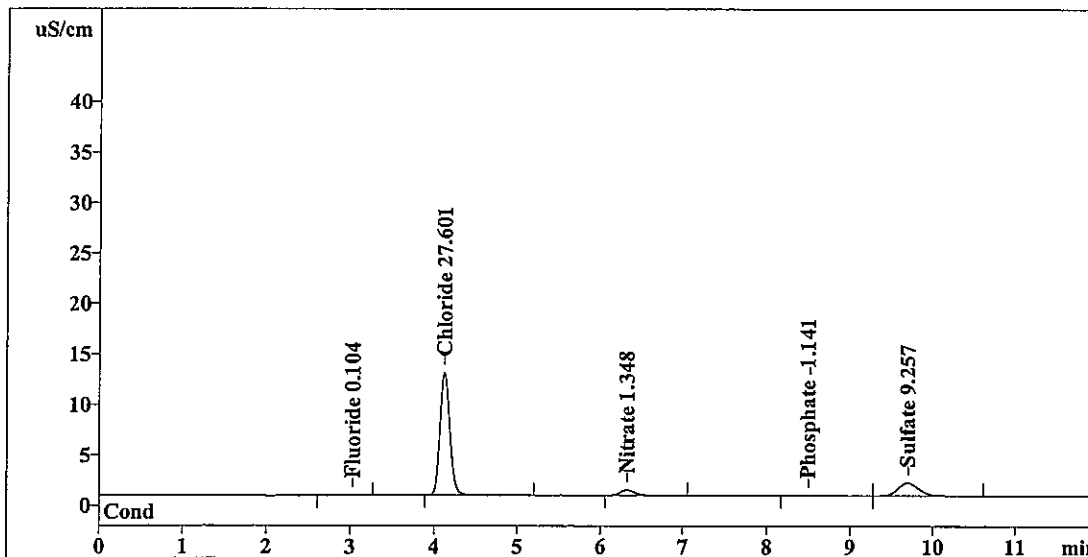
Method: 3-102909.mtw
Run operator: User
Analysis number: 9978

Last save: 10/29/2009 12:39:00 P

SAMPLE: C (300.0)

Vial number: 124
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	3.03	0.208	0.104	Fluoride
2	4.13	101.992	27.601	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.33	6.544	1.348	Nitrate
6	8.50	1.004	-1.141	Phosphate
7	9.70	22.337	9.257	Sulfate
7	12.00	132.084	39.452	

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RP 11/2/09

Report date: 10/30/2009 5:26:54 PM
Printed by: User

Ident: R0905990-006
Analysis from: 10/30/2009 5:14:50 PM
File: TA301714.CHW

Last save: 10/30/2009 5:26:54 PM

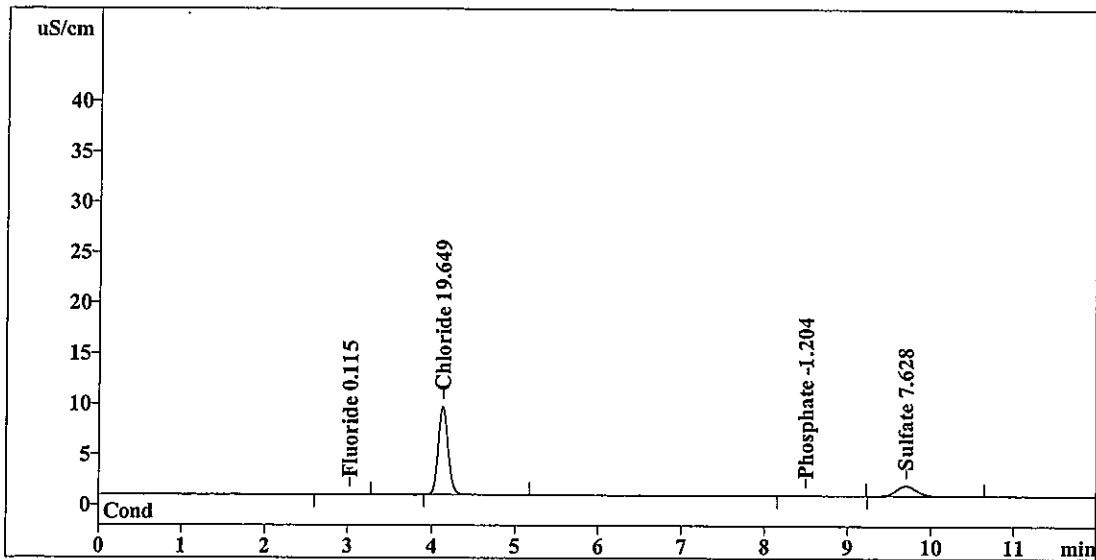
Method: 3-102909.mtw
Run operator: User
Analysis number: 9979

Last save: 10/29/2009 12:39:00 P

SAMPLE: C (300.0)

Vial number: 125
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	3.02	0.275	0.115	Fluoride
2	4.13	71.722	OK 19.649	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	8.49	0.748	-1.204	Phosphate
7	9.70	17.797	7.628	Sulfate
7	12.00	90.542	28.597	

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RP 11/2/09

Report date: 10/30/2009 5:41:19 PM
Printed by: User

Ident: R0905990-007
Analysis from: 10/30/2009 5:29:21 PM
File: TA301729.CHW

Last save: 10/30/2009 5:41:19 PM

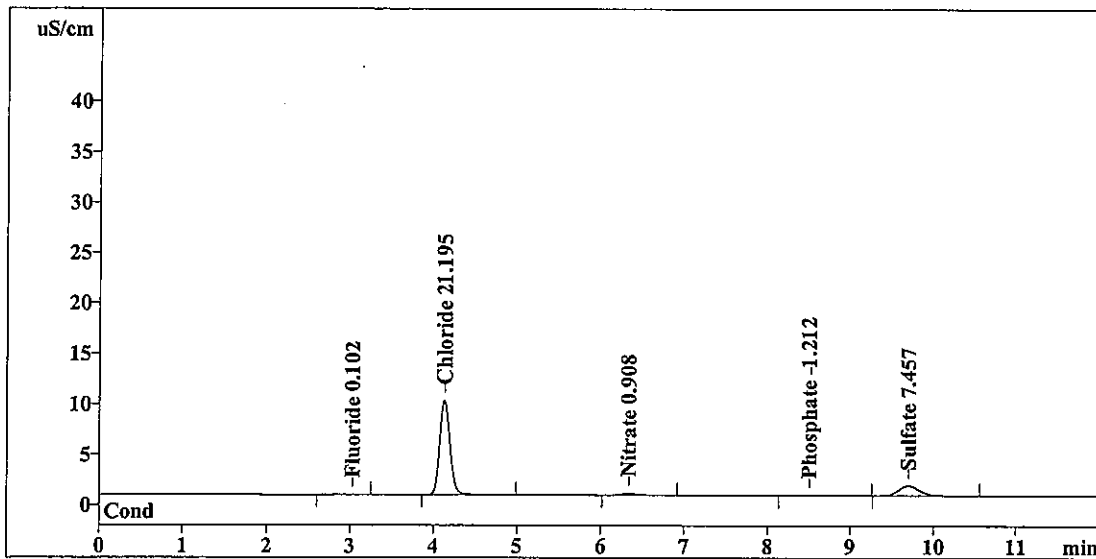
Method: 3-102909.mtw
Run operator: User
Analysis number: 9980

Last save: 10/29/2009 12:39:00 P

SAMPLE: C (300.0)

Vial number: 126
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	3.03	0.190	0.102	Fluoride
2	4.13	77.605	21.195	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.34	2.343	0.908	Nitrate
6	8.51	0.718	-1.212	Phosphate
7	9.70	17.318	7.457	Sulfate
7	12.00	98.174	30.872	

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RP 11/2/09

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Report date: 10/30/2009 5:55:24 PM
Printed by: User

Ident: R0905990-007 DUP
Analysis from: 10/30/2009 5:43:26 PM
File: TA301743.CHW

Last save: 10/30/2009 5:55:24 PM

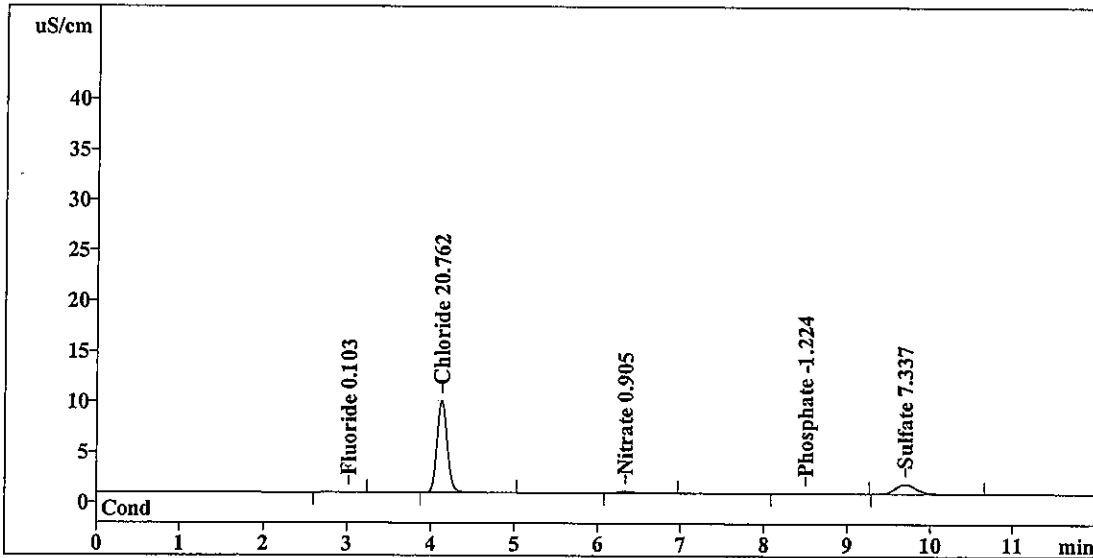
Method: 3-102909.mtw
Run operator: User
Analysis number: 9981

Last save: 10/29/2009 12:39:00 P

SAMPLE: C (300.0)

Vial number: 127
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	3.02	0.199	0.103	Fluoride
2	4.13	75.958	20.762	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.34	2.316	0.905	Nitrate
6	8.51	0.668	-1.224	Phosphate
7	9.70	16.986	7.337	Sulfate
7	12.00	96.127	30.332	

OK

RP 11/2/09

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Report date: 10/30/2009 6:09:29 PM
Printed by: User

Ident: R0905990-007 SPK
Analysis from: 10/30/2009 5:57:31 PM
File: TA301757.CHW

Last save: 10/30/2009 6:09:29 PM

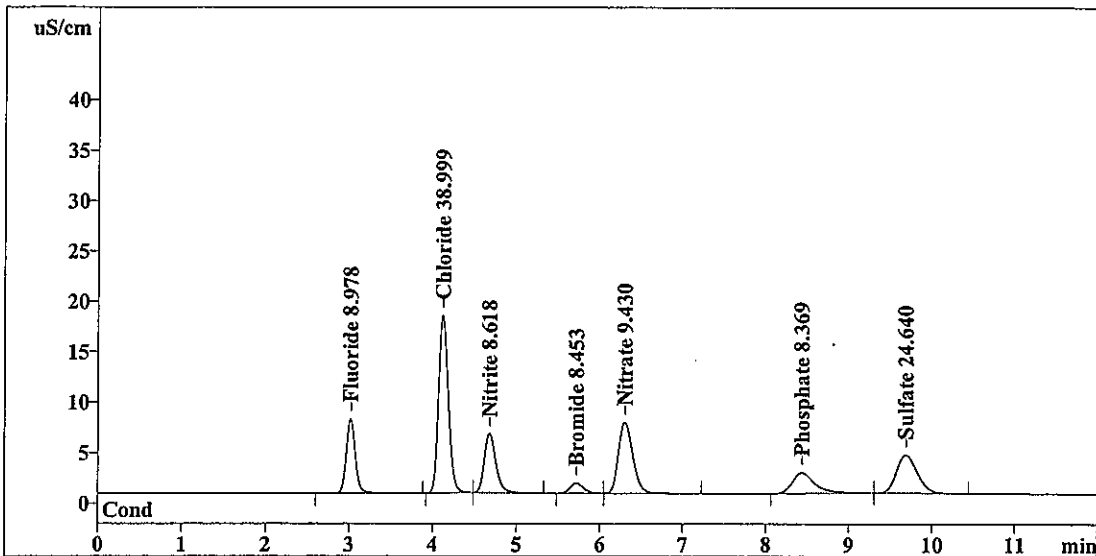
Method: 3-102909.mtw
Run operator: User
Analysis number: 9982

Last save: 10/29/2009 12:39:00 P

SAMPLE: C (300.0)

Vial number: 128
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	3.02	56.417	8.978	Fluoride
2	4.13	145.376	38.999	Chloride
3	4.68	57.046	8.618	Nitrite
4	5.72	10.961	8.453	Bromide
5	6.31	83.579	9.430	Nitrate
6	8.44	39.290	8.369	Phosphate
7	9.69	65.211	24.640	Sulfate
7	12.00	457.880	107.487	

OK

RP 11/2/09

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Report date: 10/30/2009 6:23:34 PM
Printed by: User

Ident: R0906070-001
Analysis from: 10/30/2009 6:11:36 PM
File: TA301811.CHW

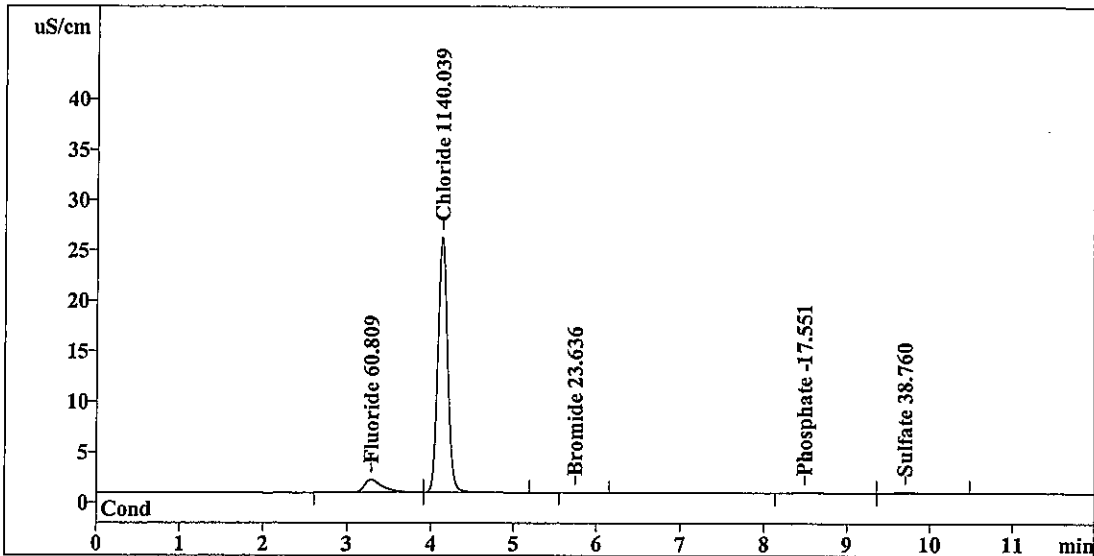
Last save: 10/30/2009 6:23:34 PM

Method: 3-102909.mtw
Run operator: User
Analysis number: 9983

Last save: 10/29/2009 12:39:00 P

SAMPLE: C (300.0)
:
Vial number: 129
Volume: 1.0 µL
Dilution: 200.00
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	3.29	18.805	60.809	Fluoride
2	4.13	213.906	OK 1140.039	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.75	0.186	23.636	Bromide
5	0.00	0.000	0.000	Nitrate
6	8.49	2.064	-17.551	Phosphate
7	9.71	1.937	38.760	Sulfate
<hr/>				
7	12.00	236.897	1280.795	

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RP 11/2/09

Report date: 10/30/2009 6:37:38 PM
Printed by: User

Ident: CCV
Analysis from: 10/30/2009 6:25:40 PM
File: TA301825.CHW

Last save: 10/30/2009 6:37:39 PM

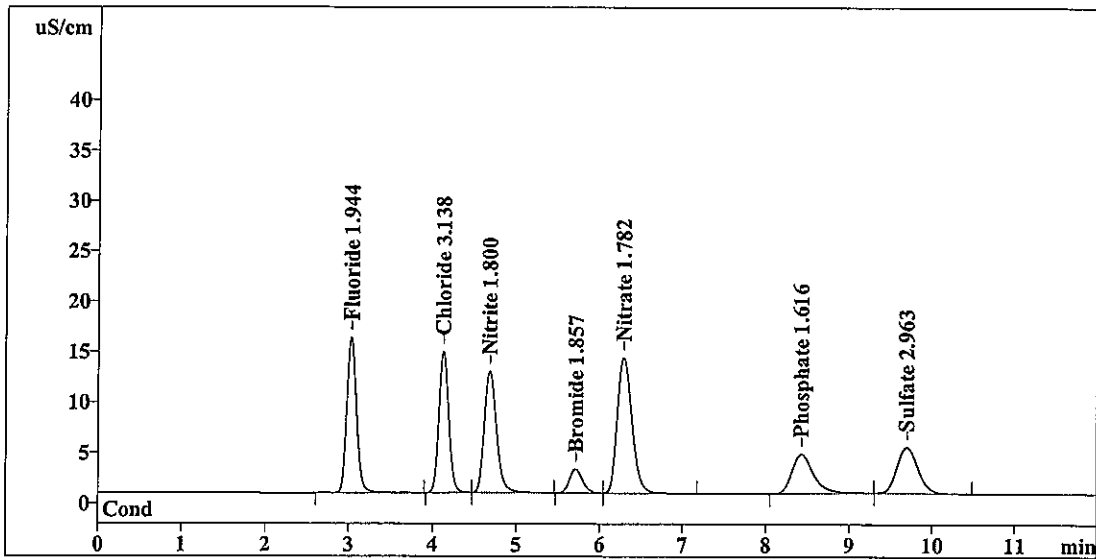
Method: 3-102909.mtw
Run operator: User
Analysis number: 9984

Last save: 10/29/2009 12:39:00 P

SAMPLE: 9056/300.0

Vial number: 130
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	3.03	122.668	OK 1.944	Fluoride
2	4.13	116.378	↓ 3.138	Chloride
3	4.69	124.422	1.800	Nitrite
4	5.72	25.948	1.857	Bromide
5	6.30	163.550	OK 1.782	Nitrate
6	8.43	70.639	1.616	Phosphate
7	9.69	79.126	OK 2.963	Sulfate
<hr/>				
7	12.00	702.732	15.099	

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RP 11/2109

Report date: 10/30/2009 6:51:43 PM
Printed by: User

Ident: CCB
Analysis from: 10/30/2009 6:39:45 PM
File: TA301839.CHW

Last save: 10/30/2009 6:51:43 PM

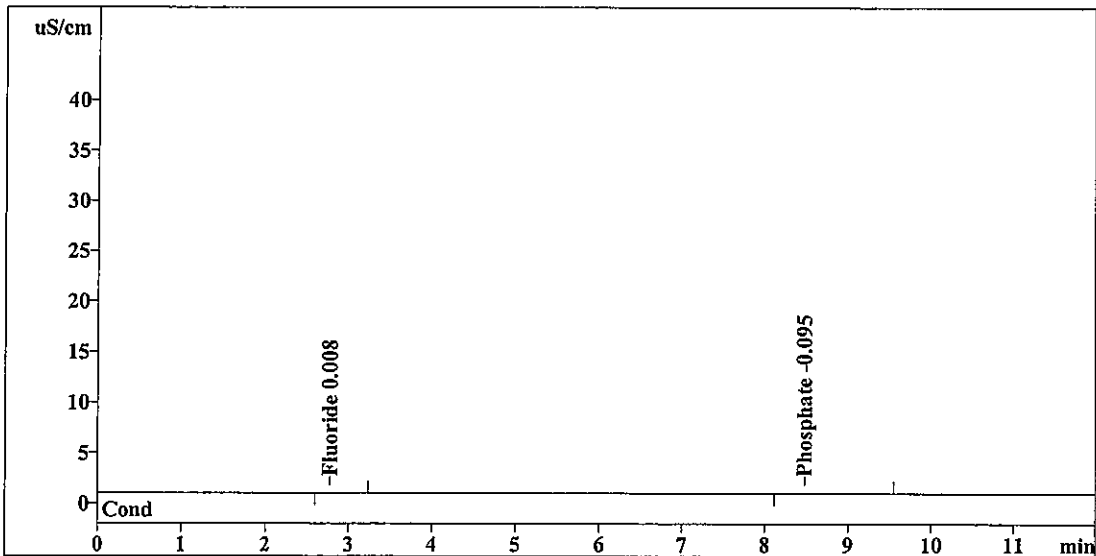
Method: 3-102909.mtw
Run operator: User
Analysis number: 9985

Last save: 10/29/2009 12:39:00 P

SAMPLE: 9056/300.0

Vial number: 131
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	2.78	0.056	0.008	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	8.48	1.775	-0.095	Phosphate
7	0.00	0.000	0.000	Sulfate
<hr/>				
7	12.00	1.831	0.103	

OK
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RP11/2/09

Report date: 10/30/2009 7:05:47 PM
Printed by: User

Ident: LCS
Analysis from: 10/30/2009 6:53:49 PM
File: TA301853.CHW

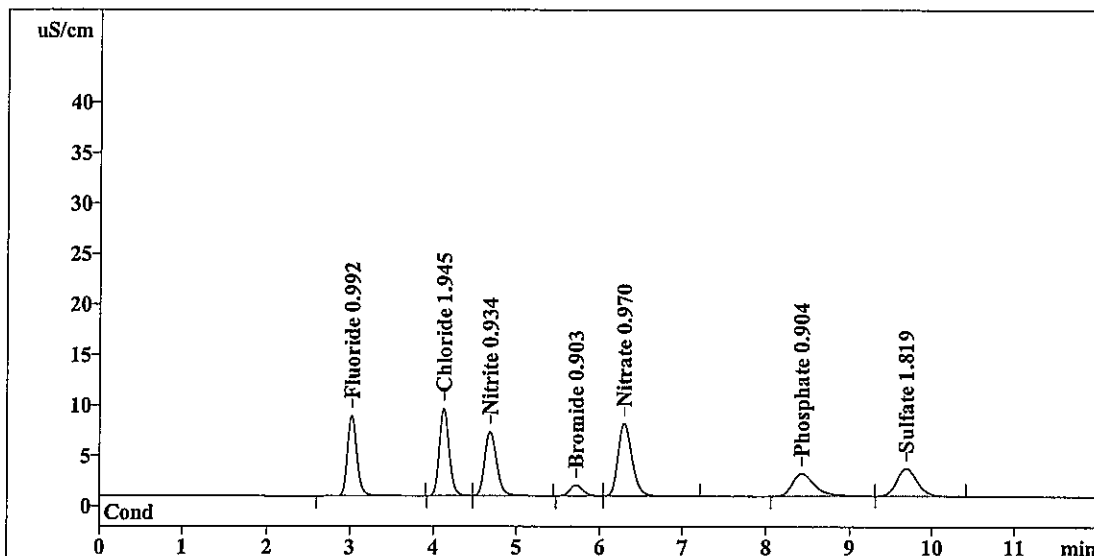
Last save: 10/30/2009 7:05:48 PM

Method: 3-102909.mtw
Run operator: User
Analysis number: 9986

Last save: 10/29/2009 12:39:00 P

SAMPLE: 9056/300.0
:
Vial number: 132
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	3.02	62.400	0.992	Fluoride
2	4.13	70.982	1.945	Chloride
3	4.68	62.260	0.934	Nitrite
4	5.72	11.812	0.903	Bromide
5	6.30	86.161	0.970	Nitrate
6	8.43	42.003	0.904	Phosphate
7	9.69	47.244	1.819	Sulfate
7	12.00	382.861	8.469	

OK
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OK
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RP 11/2/09

Report date: 10/30/2009 7:19:53 PM
Printed by: User

Ident: R0906070-005
Analysis from: 10/30/2009 7:07:55 PM
File: TA301907.CHW

Last save: 10/30/2009 7:19:53 PM

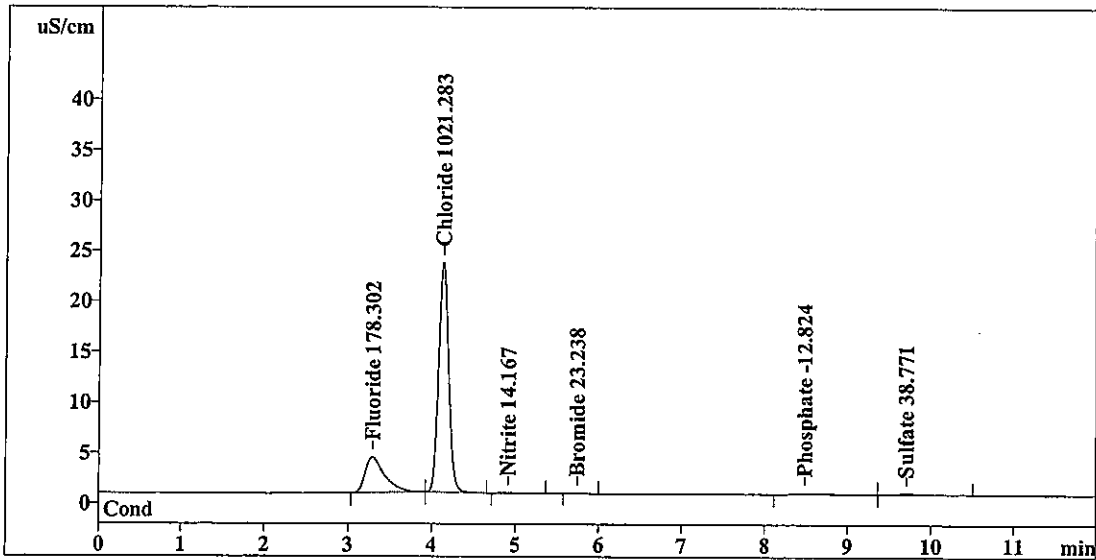
Method: 3-102909.mtw
Run operator: User
Analysis number: 9987

Last save: 10/29/2009 12:39:00 P

SAMPLE: C (300.0)

Vial number: 133
Volume: 1.0 µL
Dilution: 200.00
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	3.29	56.016	178.302	Fluoride
2	4.13	191.303	OK 1021.283	Chloride
3	4.91	0.235	14.167	Nitrite
4	5.75	0.156	23.238	Bromide
5	0.00	0.000	0.000	Nitrate
6	8.49	3.015	-12.824	Phosphate
7	9.71	1.939	38.771	Sulfate
7	12.00	252.664	1288.584	

This report has been created by IC Net
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RP 11/2/09

Report date: 10/30/2009 7:33:58 PM
Printed by: User

Ident: R0906035-002
Analysis from: 10/30/2009 7:22:00 PM
File: TA301922.CHW

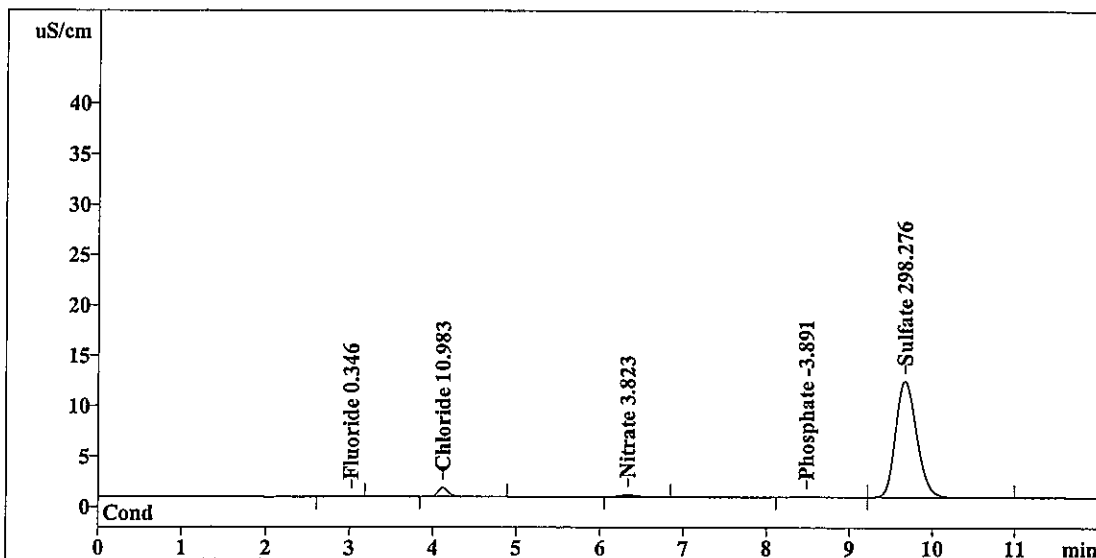
Last save: 10/30/2009 7:33:58 PM

Method: 3-102909.mtw
Run operator: User
Analysis number: 9988

Last save: 10/29/2009 12:39:00 P

SAMPLE: S (300.0)
Vial number: 134
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	3.02	0.094	0.346	Fluoride
2	4.12	7.378	10.983	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.34	2.802	3.823	Nitrate
6	8.49	1.681	-3.891	Phosphate
7	9.68	204.370	298.276	Sulfate
7	12.00	216.325	317.318	

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RP 11/2/09

Report date: 10/30/2009 7:48:03 PM
Printed by: User

Ident: R0906054-013
Analysis from: 10/30/2009 7:36:05 PM
File: TA301936.CHW

Last save: 10/30/2009 7:48:03 PM

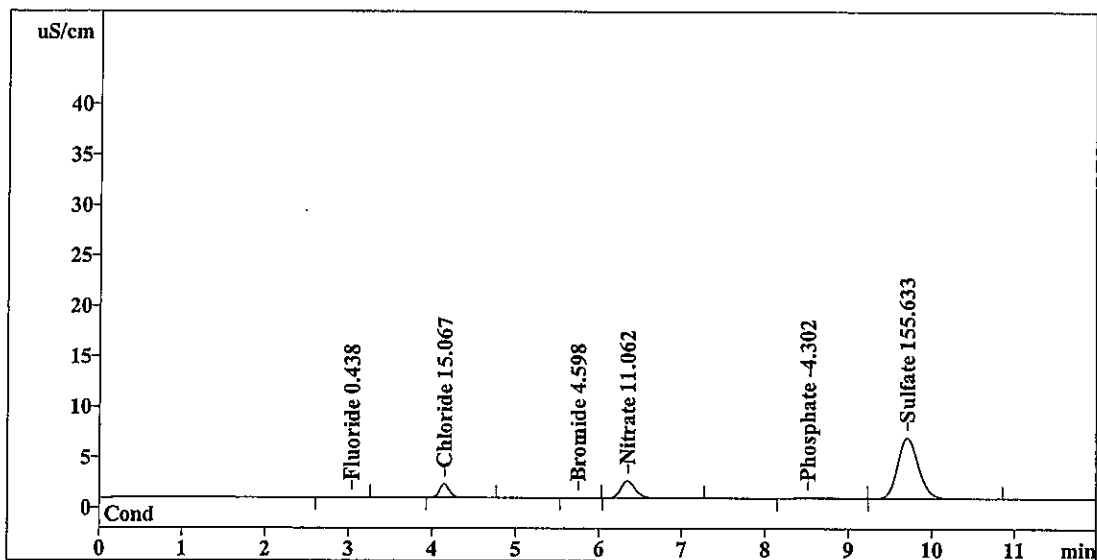
Method: 3-102909.mtw
Run operator: User
Analysis number: 9989

Last save: 10/29/2009 12:39:00 P

SAMPLE: S (300.0)

Vial number: 135
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	3.04	0.240	0.438	Fluoride
2	4.15	11.265	15.067	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.76	0.138	4.598	Bromide
5	6.35	20.055	11.062	Nitrate
6	8.52	1.267	-4.302	Phosphate
7	9.71	104.979	155.633	Sulfate
7	12.00	137.943	191.101	

RP 11/2/09

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Report date: 10/30/2009 8:02:09 PM
Printed by: User

Ident: R0906054-013 DUP
Analysis from: 10/30/2009 7:50:11 PM
File: TA301950.CHW

Last save: 10/30/2009 8:02:10 PM

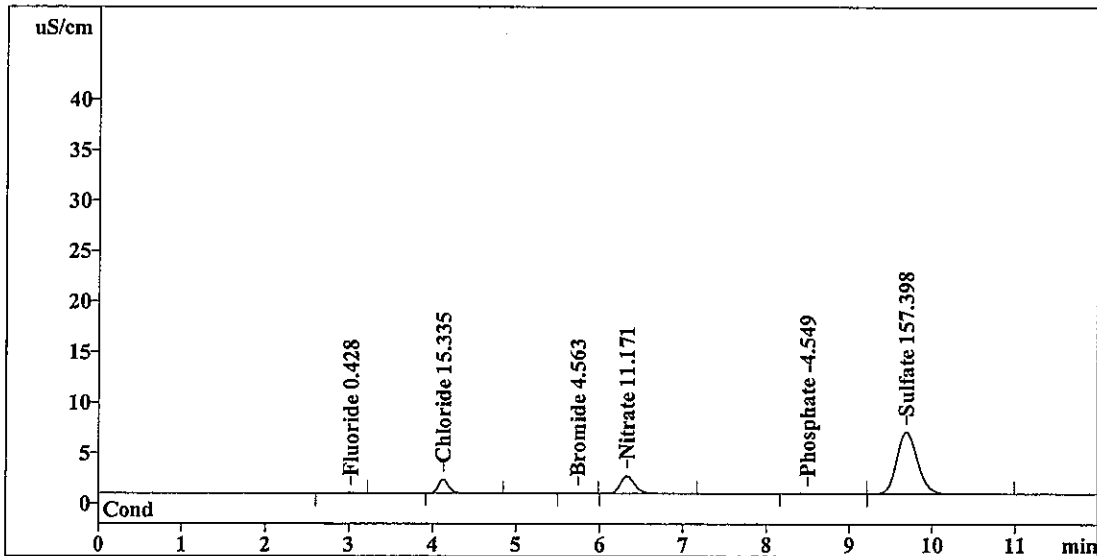
Method: 3-102909.mtw
Run operator: User
Analysis number: 9990

Last save: 10/29/2009 12:39:00 P

SAMPLE: S (300.0)

Vial number: 136
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	3.02	0.224	0.428	Fluoride
2	4.13	11.519	15.335	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.74	0.125	4.563	Bromide
5	6.33	20.313	11.171	Nitrate
6	8.50	1.018	-4.549	Phosphate
7	9.69	106.209	157.398	Sulfate
<hr/>				
7	12.00	139.407	193.443	

OK

RP 11/2/09

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Report date: 10/30/2009 8:16:14 PM
Printed by: User

Ident: R0906054-013 SPK
Analysis from: 10/30/2009 8:04:16 PM
File: TA302004.CHW

Last save: 10/30/2009 8:16:14 PM

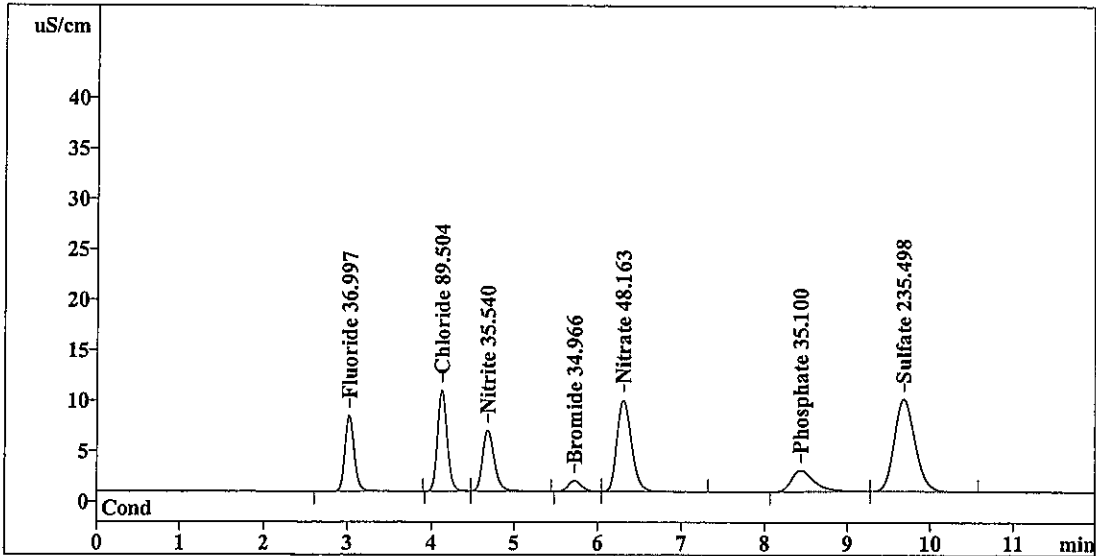
Method: 3-102909.mtw
Run operator: User
Analysis number: 9991

Last save: 10/29/2009 12:39:00 P

SAMPLE: S (300.0)

Vial number: 137
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	3.02	58.132	36.997	Fluoride
2	4.13	82.101	89.504	Chloride
3	4.69	58.965	35.540	Nitrite
4	5.73	11.388	34.966	Bromide
5	6.31	108.472	48.163	Nitrate
6	8.44	40.924	35.100	Phosphate
7	9.69	160.627	235.498	Sulfate
7	12.00	520.610	515.768	

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RP 11/2/09

Report date: 10/30/2009 8:30:19 PM
Printed by: User

Ident: R0906070-002
Analysis from: 10/30/2009 8:18:21 PM
File: TA302018.CHW

Last save: 10/30/2009 8:30:19 PM

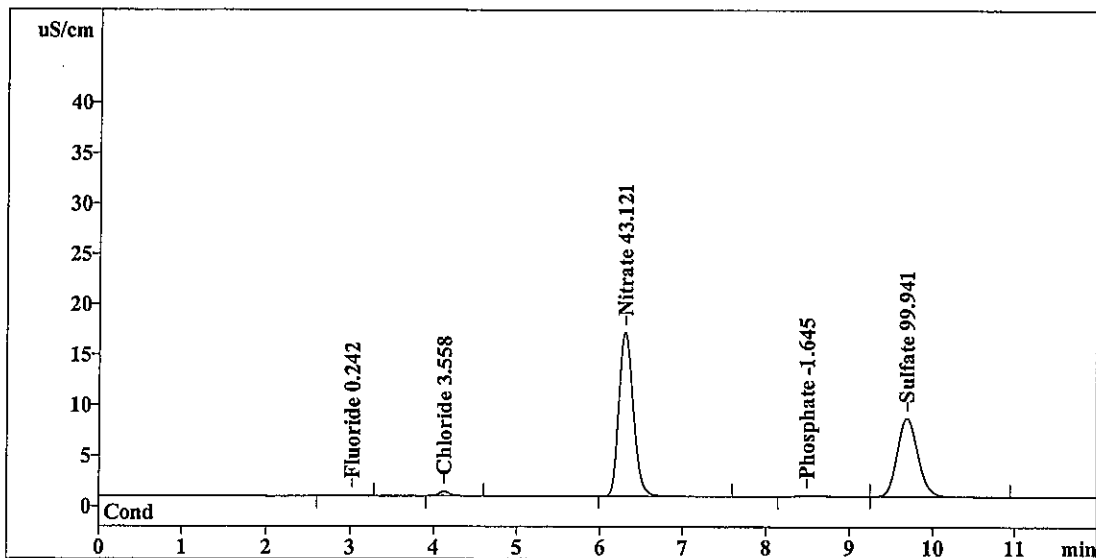
Method: 3-102909.mtw
Run operator: User
Analysis number: 9992

Last save: 10/29/2009 12:39:00 P

SAMPLE: S (300.0)

Vial number: 138
Volume: 1.0 µL
Dilution: 20.00
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	3.02	0.312	0.242	Fluoride
2	4.13	3.699	3.558	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.30	199.218	43.121	Nitrate
6	8.49	2.285	-1.645	Phosphate
7	9.69	135.811	OK 99.941	Sulfate
7	12.00	341.325	148.507	

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RP 11/2/09

Report date: 10/30/2009 8:44:24 PM
Printed by: User

Ident: R0906070-003
Analysis from: 10/30/2009 8:32:25 PM
File: TA302032.CHW

Last save: 10/30/2009 8:44:24 PM

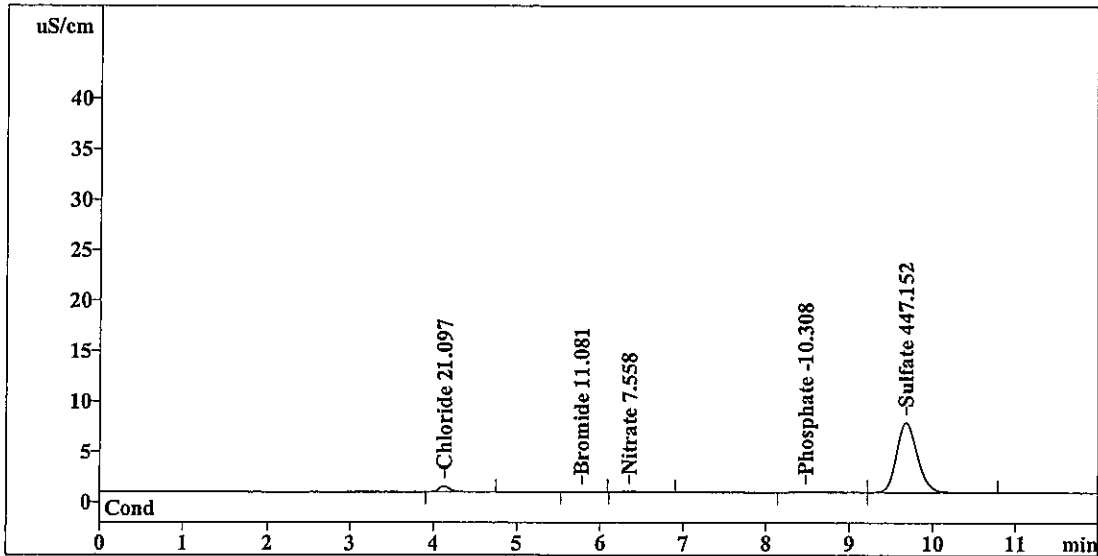
Method: 3-102909.mtw
Run operator: User
Analysis number: 9993

Last save: 10/29/2009 12:39:00 P

SAMPLE: S (300.0)

Vial number: 139
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	0.00	0.000	0.000	Fluoride
2	4.13	4.957	21.097	Chloride
3	0.00	0.000	0.000	Nitrite
4	5.78	0.076	11.081	Bromide
5	6.35	0.896	7.558	Nitrate
6	8.48	1.447	-10.308	Phosphate
7	9.68	121.164	447.152	Sulfate
7	12.00	128.541	497.196	

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RP 11/2/09

Report date: 10/30/2009 8:58:28 PM
Printed by: User

Ident: R0906086-001
Analysis from: 10/30/2009 8:46:30 PM
File: TA302046.CHW

Last save: 10/30/2009 8:58:28 PM

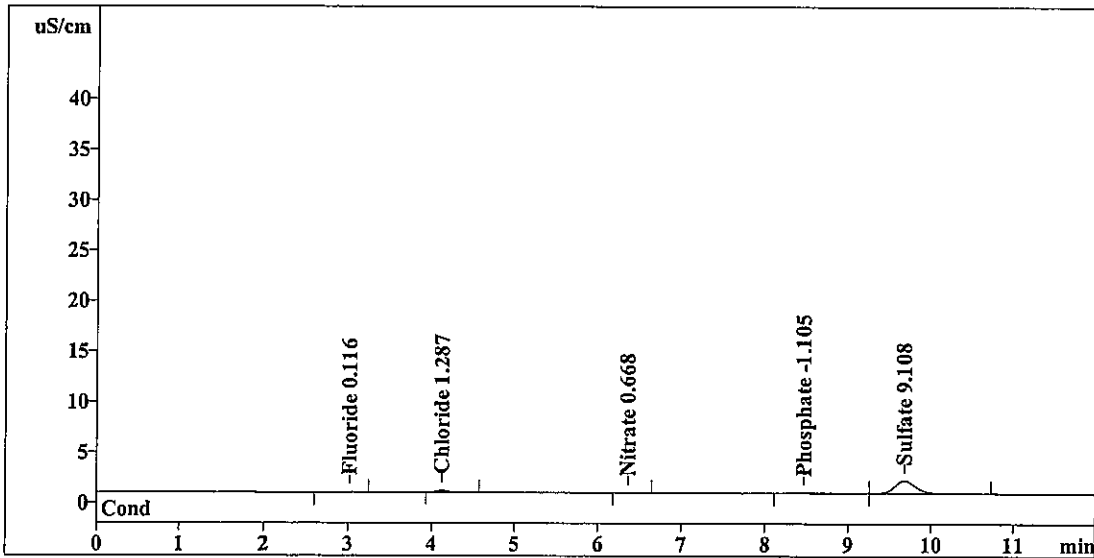
Method: 3-102909.mtw
Run operator: User
Analysis number: 9994

Last save: 10/29/2009 12:39:00 P

SAMPLE: S (300.0)

Vial number: 140
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	3.02	0.278	0.116	Fluoride
2	4.13	1.827	1.287	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.36	0.062	0.668	Nitrate
6	8.48	1.148	-1.105	Phosphate
7	9.69	21.920	9.108	Sulfate
7	12.00	25.236	12.284	

ok

RP 11/2/09

This report has been created by IC Net
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Report date: 10/30/2009 9:12:33 PM
Printed by: User

Ident: R0906086-002
Analysis from: 10/30/2009 9:00:35 PM
File: TA302100.CHW

Last save: 10/30/2009 9:12:33 PM

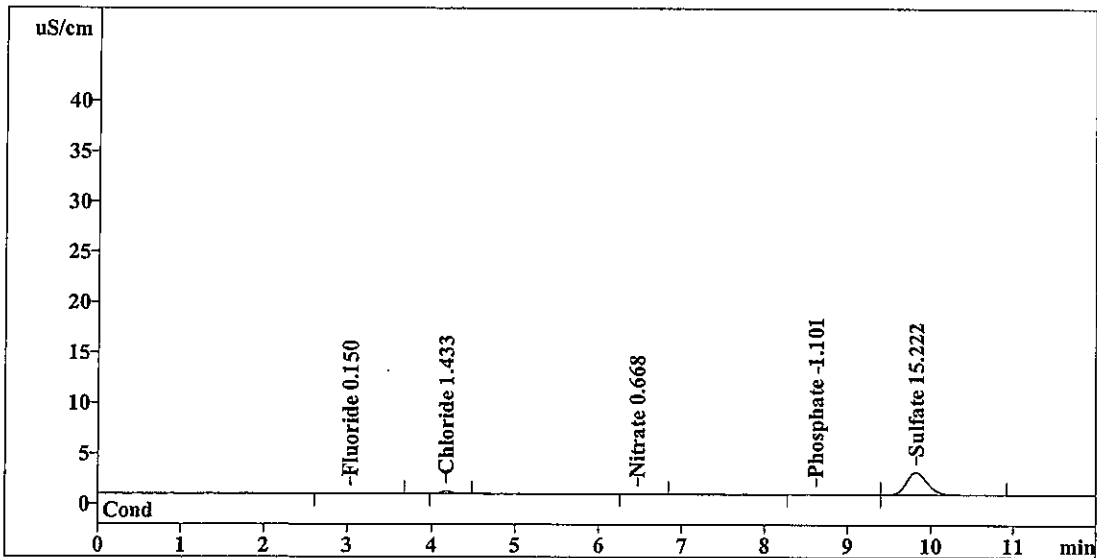
Method: 3-102909.mtw
Run operator: User
Analysis number: 9995

Last save: 10/29/2009 12:39:00 P

SAMPLE: S (300.0)

Vial number: 141
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	3.04	0.495	0.150	Fluoride
2	4.18	2.380	1.433	Chloride
3	0.00	0.000	0.000	Nitrite
4	0.00	0.000	0.000	Bromide
5	6.47	0.059	0.668	Nitrate
6	8.62	1.163	-1.101	Phosphate
7	9.83	38.960	15.222	Sulfate
7	12.00	43.058	18.573	

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RP 11/2/09

Report date: 10/30/2009 9:26:37 PM
Printed by: User

Ident: CCV
Analysis from: 10/30/2009 9:14:39 PM
File: TA302114.CHW

Last save: 10/30/2009 9:26:37 PM

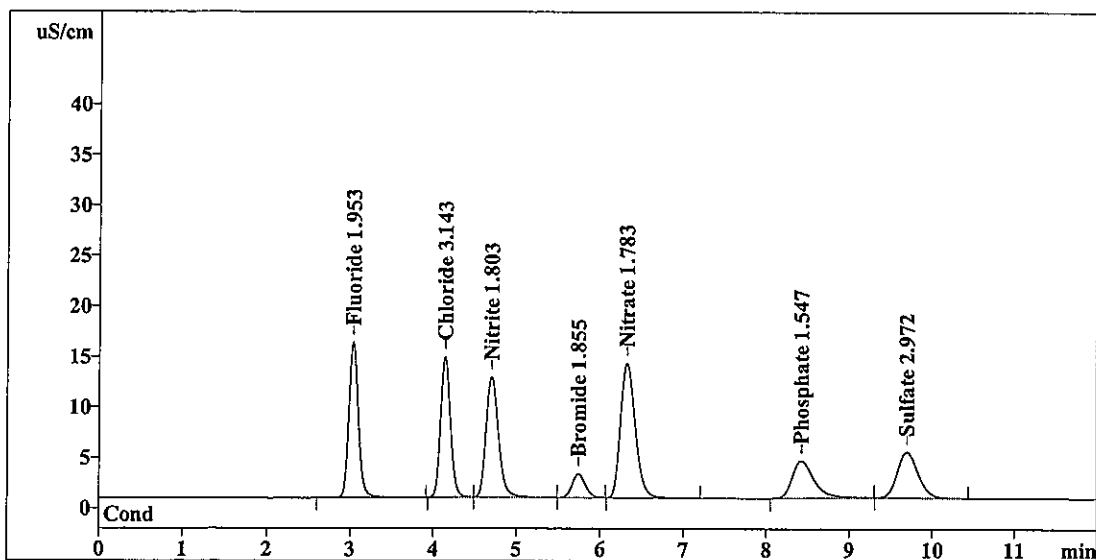
Method: 3-102909.mtw
Run operator: User
Analysis number: 9996

Last save: 10/29/2009 12:39:00 P

SAMPLE: 9056/300.0

Vial number: 142
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	3.04	123.224	1.953	Fluoride
2	4.14	116.583	3.143	Chloride
3	4.70	124.630	1.803	Nitrite
4	5.74	25.918	1.855	Bromide
5	6.33	163.623	1.783	Nitrate
6	8.43	67.874	1.547	Phosphate
7	9.70	79.359	2.972	Sulfate
7	12.00	701.211	15.055	

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RP
11/21/09

Report date: 10/30/2009 9:40:42 PM
Printed by: User

Ident: CCB
Analysis from: 10/30/2009 9:28:44 PM
File: TA302128.CHW

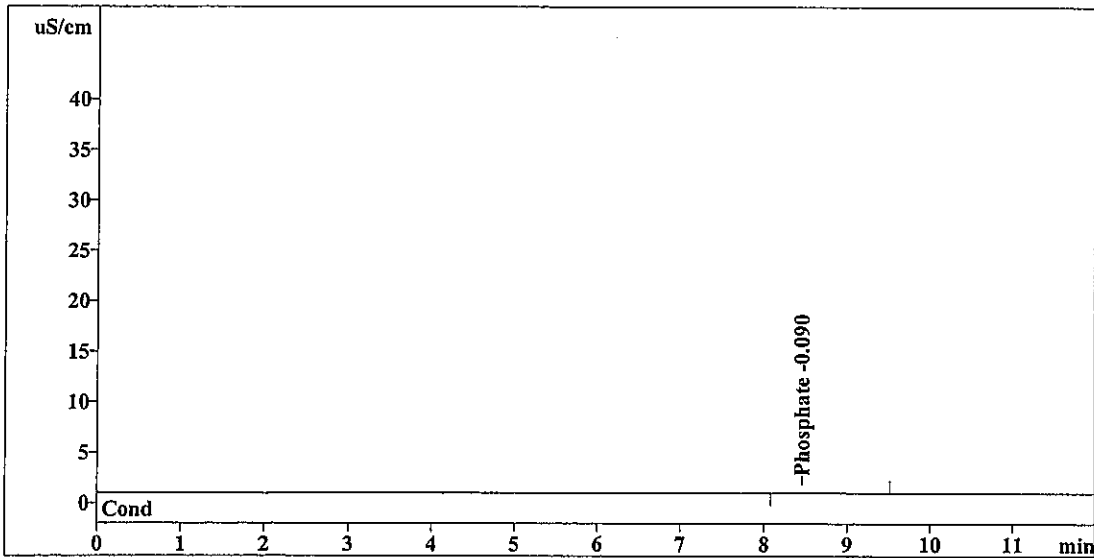
Last save: 10/30/2009 9:40:42 PM

Method: 3-102909.mtw
Run operator: User
Analysis number: 9997

Last save: 10/29/2009 12:39:00 P

SAMPLE: 9056/300.0
Vial number: 143
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	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	8.46	1.981	-0.090	Phosphate
7	0.00	0.000	0.000	Sulfate
<hr/>				
7	12.00	1.981	0.090	

OK
↓

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RP 11/2/09

Ion Chromatography Cover Sheet

Instrument: Metrohm IC 861

Column: Metrosep A Supp 5 - 100, 4mm, 05/05/09

Curve Date: 10/29/09

Loop size: 25 uL Loop _____

Analyst: R. Pawl

Analysis Date: 10/29/09

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	10/06/09	WC94011B		Working Calibration Stds	10/22/09	WC94021C
LCS / MS Intermediate	10/28/09	WC94012A		Working LCS/MS Standard	10/29/09	WC94053B
ICV Intermediate	10/09/09	WC94012H		Working ICV Standard	10/29/09	WC94027O
CCV Intermediate	10/09/09	WC94012H		Working CCV Standard	10/29/09	WC94027O

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

Fluoride: 3.02	Nitrate: 6.34
Chloride: 4.13	Phosphate: 8.35
Nitrite: 4.69	Sulfate: 9.60
Bromide: 5.75	

Additional Comments: Curve not valid for Bromide

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	Exp. Date	Matrix H2SO4 / NaOH / DI	H2SO4 / NaOH Lot #
F	NJC940Z-A	4.00	5.0	10	2.00	RP 10/10/09	A	10/16/09	DI	
Cl		6.50			3.25	RP 10/12/09	B	10/12/09	DI	
NO2		3.60			1.80	RP 10/13/09	C	10/13/09	DI	
Br		4.00			2.00	CS 10/15/09	D	10/14/09	DI	
NO3		3.60			1.80	CS 10/15/09	E	10/22/09	DI	
OPO4		3.60			1.80	CS 10/16/09	F	10/23/09	DI	
SO4		6.40			3.20	CS 10/19/09	G	10/26/09	DI	
						RP 10/20/09	H	10/20/09	DI	
						RP 10/21/09	I	10/21/09	DI	
						RP 10/22/09	J	10/22/09	DI	
						RP 10/23/09	K	10/23/09	DI	
						RP 10/24/09	L	10/24/09	DI	
						RP 10/27/09	M	10/27/09	DI	
						RP 10/28/09	N	10/28/09	DI	
						RP 10/29/09	O	10/29/09	DI	
						CMW 10/30/09	P	10/30/09	DI	
						CMW 10/31/09	Q	10/31/09	DI	

LCS PREP

(Stocks delivered using Volumetric glassware and brought to volume with DI. LCS expires after 7 days; if NO2 is needed, LCS must be prepared daily.)

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

Analyte	Calibration Intermediate Stock ID	Intermediate Stock Conc (mg/L)	mLs Intermediate Stock	Final Vol. mLs	Final Conc. (mg/L)	Analyst/ Date Prepped	Lot ID	Exp. Date	Matrix H2SO4 / NaOH / DI	H2SO4 / NaOH Lot #
F	WX940012A	50	2.0	100	1.0	RP 10/28/09	A	11/4/09	DI	
Cl		100			2.0	RP 10/29/09	B	11/5/09	DI	
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			

Report date: 10/29/2009 8:39:09 AM
Printed by: User

Ident: STANDARD 1
Analysis from: 10/29/2009 8:27:11 AM
File: TA290827.CHW

Last save: 10/29/2009 8:39:10 AM

Method: 3-102909.mtw

Last save: 10/29/2009 8:23:31 AM

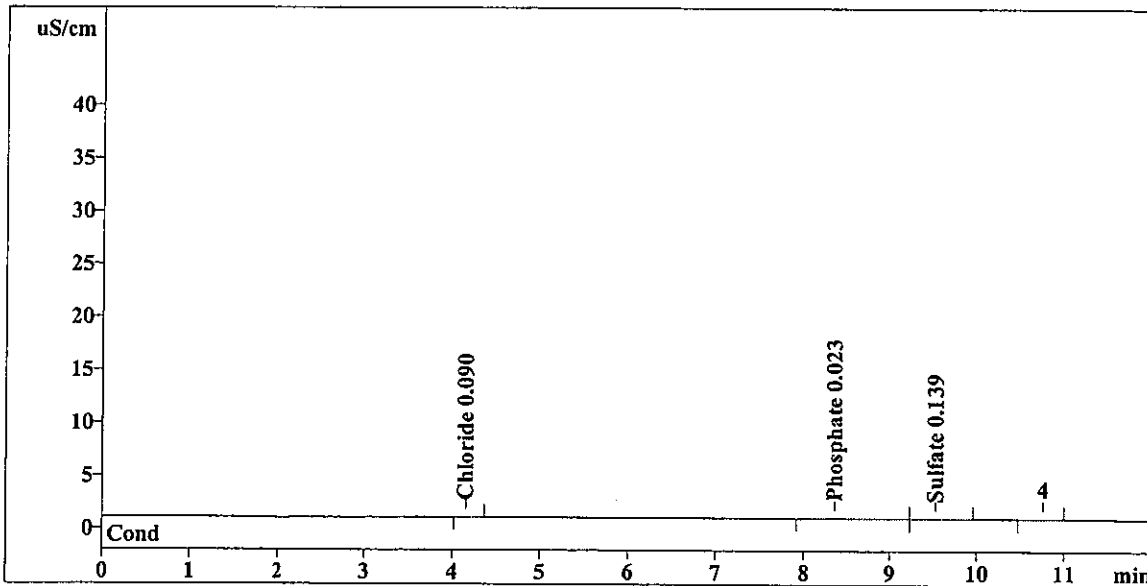
Run operator: User

Analysis number: 9852

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	0.00	0.000	OK 0.000	Fluoride
2	4.15	0.150	↓ 0.090	Chloride
3	0.00	0.000	— 0.000	Nitrite
4	0.00	0.000	— 0.000	Bromide
5	0.00	0.000	OK 0.000	Nitrate
6	8.36	0.949	↓ 0.023	Phosphate
7	9.54	0.289	↓ 0.139	Sulfate
7	12.00	1.388	CS 0.252	

10/29/09

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Report date: 10/29/2009 8:53:16 AM
 Printed by: User

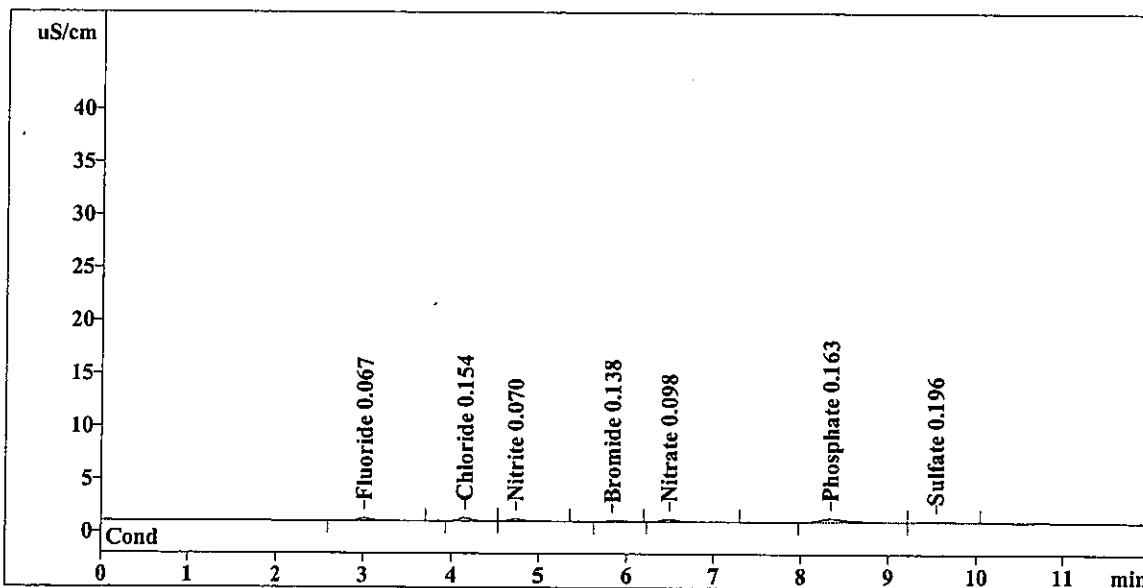
Ident: STANDARD 2
 Analysis from: 10/29/2009 8:41:18 AM
 File: TA290841.CHW Last save: 10/29/2009 8:53:16 AM

Method: 3-102909.mtw Last save: 10/29/2009 8:39:10 AM
 Run operator: User
 Analysis number: 9853

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	3.01	2.457	0.067	Fluoride
2	4.15	2.527	0.154	Chloride
3	4.73	1.991	0.070	Nitrite
4	5.85	0.469	0.138	Bromide
5	6.49	2.818	0.098	Nitrate
6	8.34	7.191	0.163	Phosphate
7	9.54	1.833	0.196	Sulfate

OK
 ↓
 —
 OK
 ↓
 CS
 10/29/09

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Report date: 10/29/2009 9:07:21 AM
Printed by: User

Ident: STANDARD 3
Analysis from: 10/29/2009 8:55:22 AM
File: TA290855.CHW

Last save: 10/29/2009 9:07:21 AM

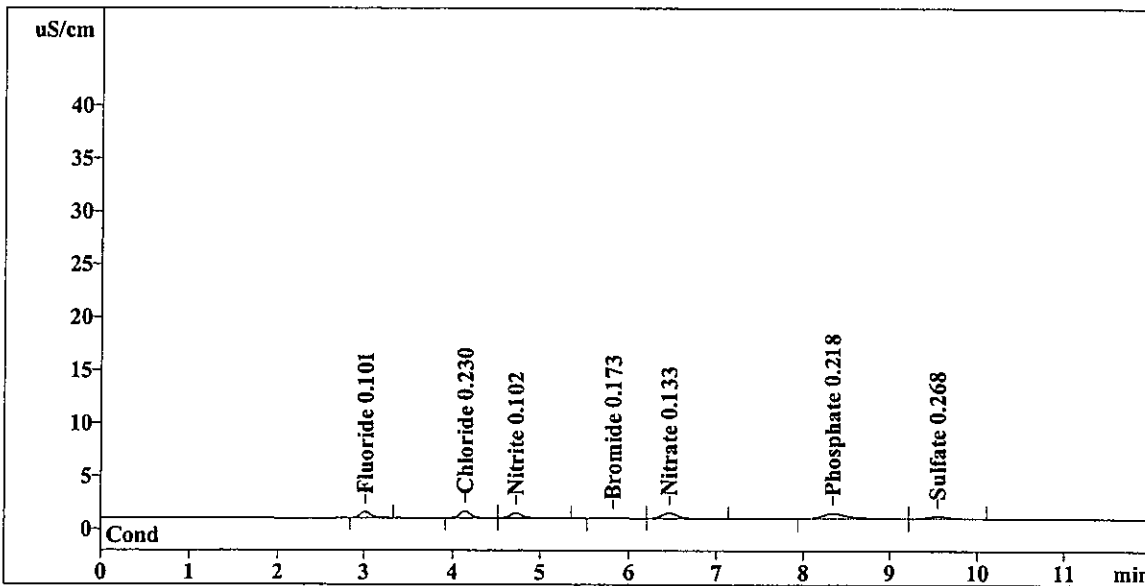
Method: 3-102909.mtw
Run operator: User
Analysis number: 9854

Last save: 10/29/2009 8:53:17 AM

SAMPLE:

Vial number: 3
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	3.01	4.731	OK 0.101	Fluoride
2	4.14	5.354	↓ 0.230	Chloride
3	4.72	4.442	↓ 0.102	Nitrite
4	5.83	0.999	↓ 0.173	Bromide
5	6.46	6.184	OK 0.133	Nitrate
6	8.35	10.329	↓ 0.218	Phosphate
7	9.55	3.854	↓ 0.268	Sulfate
7	12.00	35.895	CS 1.224	

CS
10/29/09

This report has been created by IC Net
METROHM LTD

Report date: 10/29/2009 9:21:25 AM
Printed by: User

Ident: STANDARD 4
Analysis from: 10/29/2009 9:09:27 AM
File: TA290909.CHW

Last save: 10/29/2009 9:21:26 AM

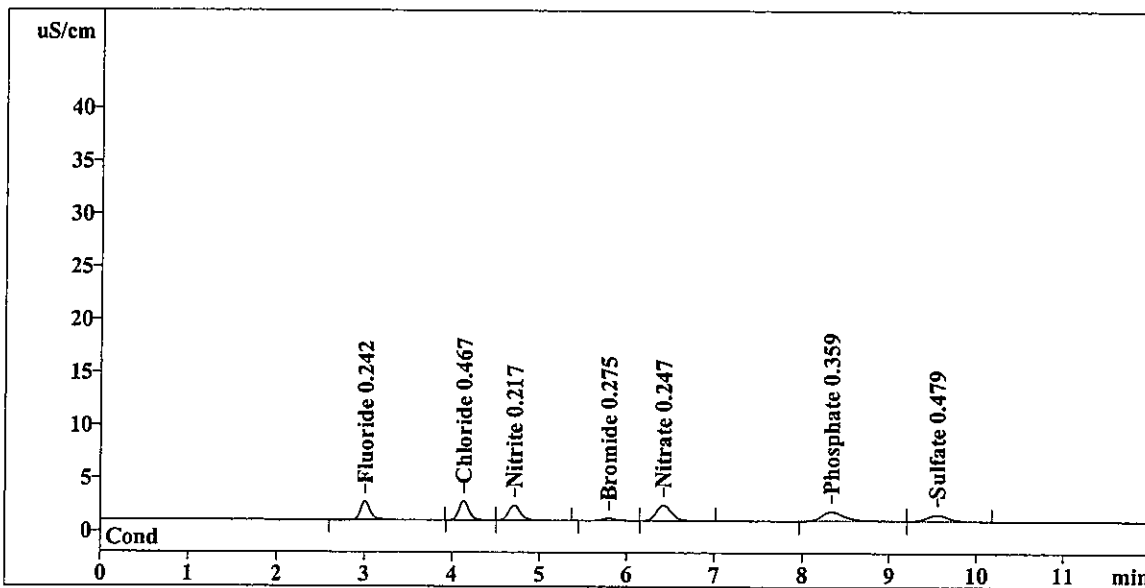
Method: 3-102909.mtw
Run operator: User
Analysis number: 9855

Last save: 10/29/2009 9:07:21 AM

SAMPLE:

Vial number: 4
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	3.01	13.990	0.242	Fluoride
2	4.14	14.473	0.467	Chloride
3	4.71	12.691	0.217	Nitrite
4	5.80	2.538	0.275	Bromide
5	6.43	17.180	0.247	Nitrate
6	8.34	16.958	0.359	Phosphate
7	9.55	9.807	0.479	Sulfate

OK
↓
OK
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OK
10/29/09

This report has been created by IC Net
METROHM LTD

Report date: 10/29/2009 9:35:30 AM
Printed by: User

Ident: STANDARD 5
Analysis from: 10/29/2009 9:23:32 AM
File: TA290923.CHW

Last save: 10/29/2009 9:35:31 AM

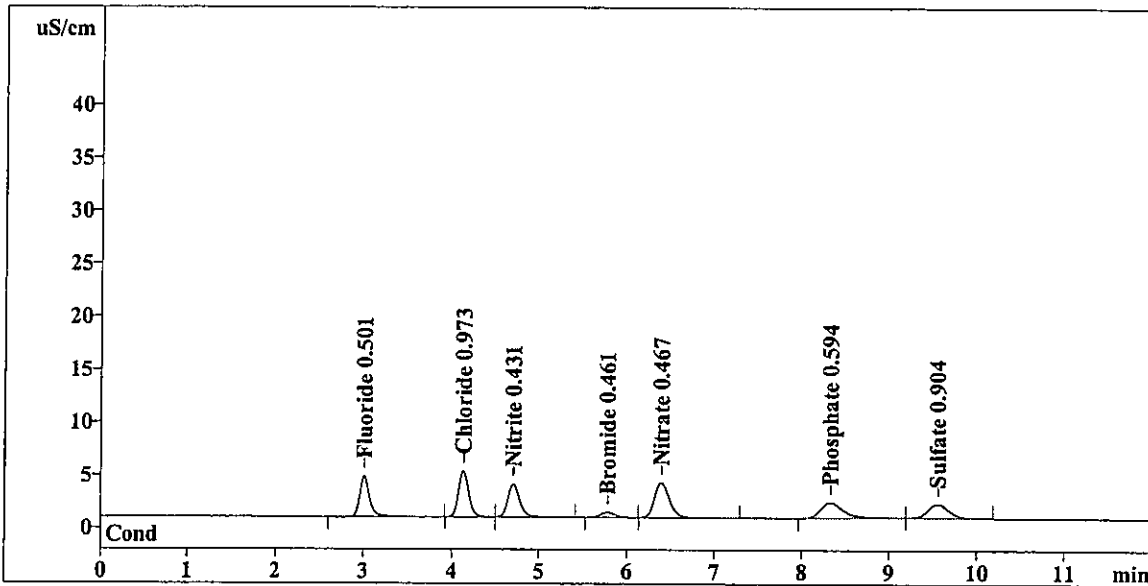
Method: 3-102909.mtw
Run operator: User
Analysis number: 9856

Last save: 10/29/2009 9:21:26 AM

SAMPLE:

Vial number: 5
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	3.01	30.950	OK 0.501	Fluoride
2	4.14	34.435	↓ 0.973	Chloride
3	4.71	28.384	↓ 0.431	Nitrite
4	5.79	5.335	↓ 0.461	Bromide
5	6.40	38.458	OK 0.467	Nitrate
6	8.34	27.264	↓ 0.594	Phosphate
7	9.56	21.869	↓ 0.904	Sulfate

CS
10/29/09 4.331

This report has been created by IC Net
METROHM LTD

Report date: 10/29/2009 9:49:35 AM
Printed by: User

Ident: STANDARD 6
Analysis from: 10/29/2009 9:37:37 AM
File: TA290937.CHW

Last save: 10/29/2009 9:49:35 AM

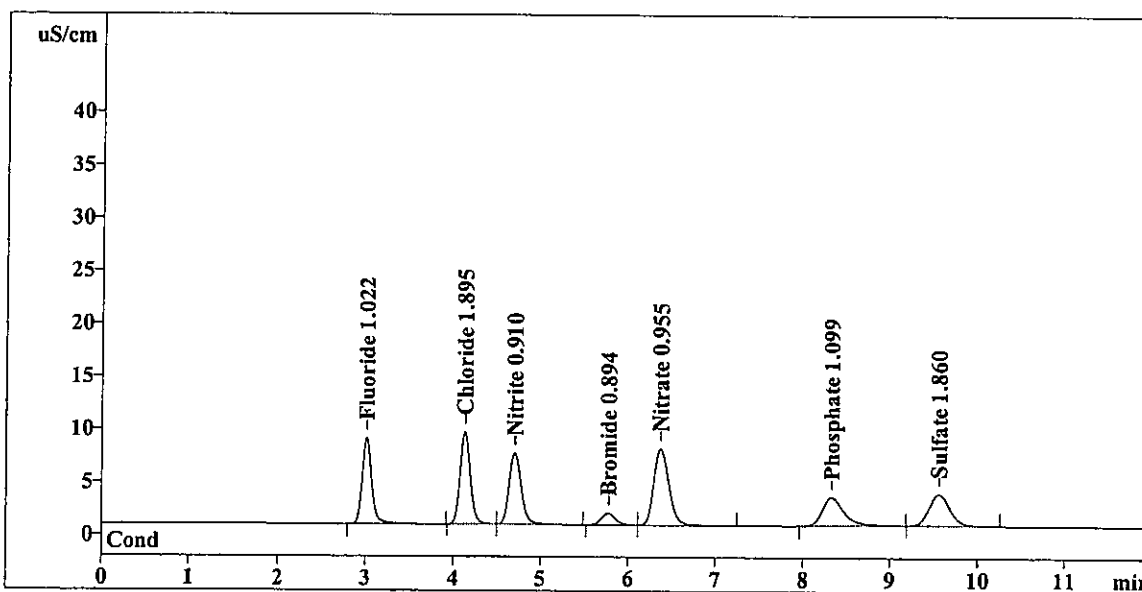
Method: 3-102909.mtw
Run operator: User
Analysis number: 9857

Last save: 10/29/2009 9:35:31 AM

SAMPLE:

Vial number: 6
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	3.01	64.159	OK 1.022	Fluoride
2	4.13	69.791	↓ 1.895	Chloride
3	4.70	64.072	↓ 0.910	Nitrite
4	5.78	11.781	↓ 0.894	Bromide
5	6.38	85.188	OK 0.955	Nitrate
6	8.34	47.605	↓ 1.099	Phosphate
7	9.57	48.647	↓ 1.860	Sulfate
7	12.00	391.243	CS 8.634	

10/29/09

This report has been created by IC Net
METROHM LTD

Report date: 10/29/2009 10:17:44 AM
Printed by: User

Ident: STANDARD 8
Analysis from: 10/29/2009 10:05:46 AM
File: TA291005.CHW

Last save: 10/29/2009 10:17:45 A

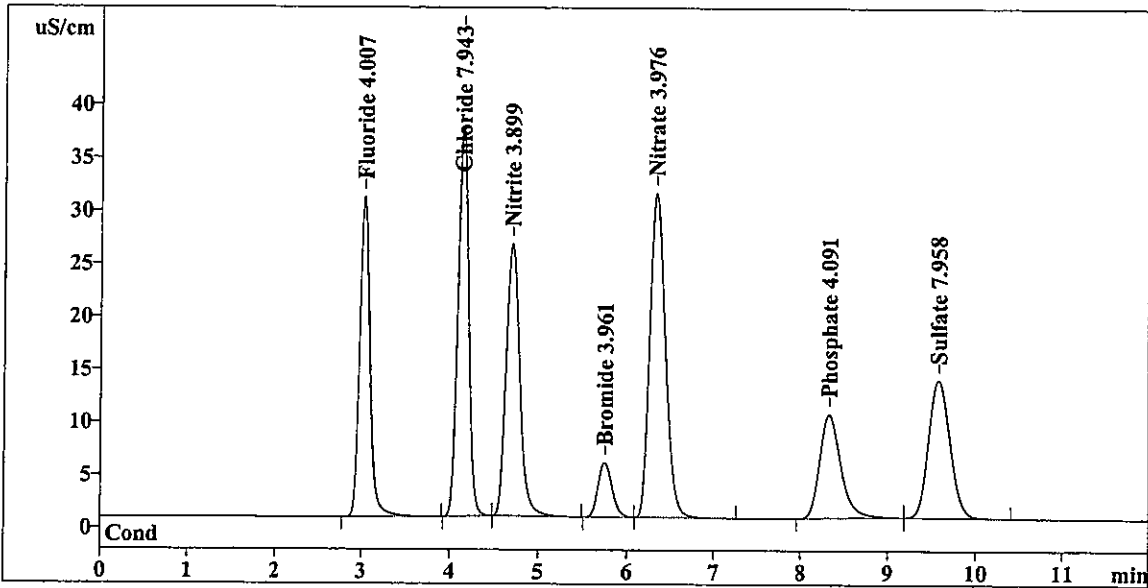
Method: 3-102909.mtw
Run operator: User
Analysis number: 9859

Last save: 10/29/2009 10:03:40 A

SAMPLE:

Vial number: 8
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	3.03	253.923	OK 4.007	Fluoride
2	4.14	301.322	↓ 7.943	Chloride
3	4.70	282.888	↓ 3.899	Nitrite
4	5.76	57.465	↓ 3.961	Bromide
5	6.34	374.418	OK 3.976	Nitrate
6	8.33	166.415	↓ 4.091	Phosphate
7	9.58	219.089	↓ 7.958	Sulfate
7	12.00	1655.520	CS 35.836 10/29/09	

This report has been created by IC Net
METROHM LTD

Report date: 10/29/2009 10:31:49 AM
Printed by: User

Ident: STANDARD 9
Analysis from: 10/29/2009 10:19:51 AM
File: TA291019.CHW

Last save: 10/29/2009 10:31:50 A

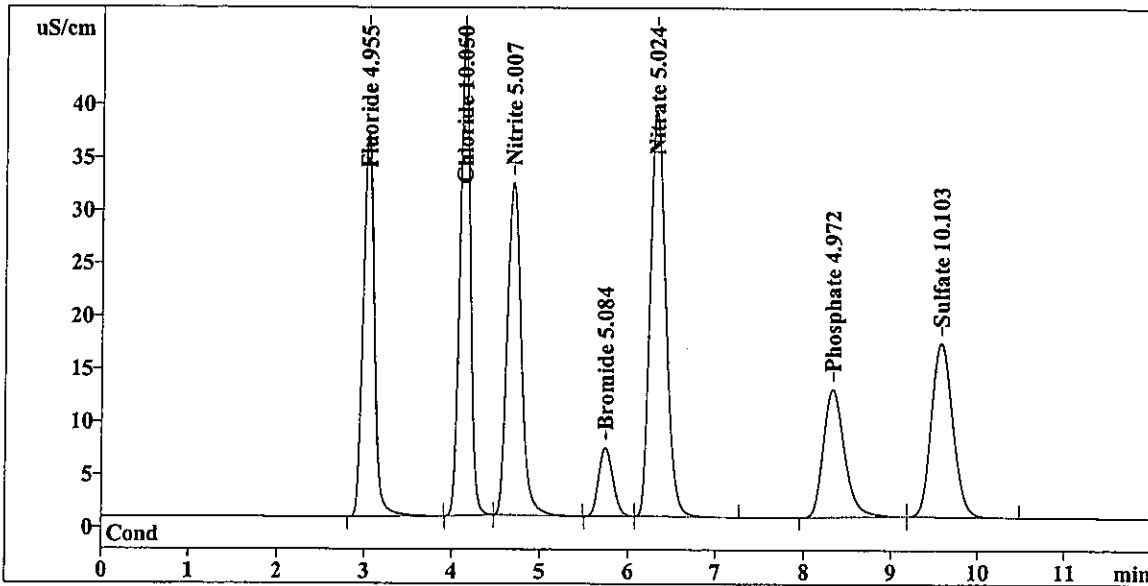
Method: 3-102909.mtw
Run operator: User
Analysis number: 9860

Last save: 10/29/2009 10:17:45 A

SAMPLE:

Vial number: 9
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	3.04	313.424	4.955	Fluoride
2	4.14	379.484	10.050	Chloride
3	4.70	354.799	5.007	Nitrite
4	5.75	73.779	5.084	Bromide
5	6.33	472.606	5.024	Nitrate
6	8.33	205.770	4.972	Phosphate
7	9.59	278.116	10.103	Sulfate
7	12.00	2077.978	45.196	

Handwritten notes: 'OK' with arrows pointing to rows 1, 2, 3, 5, and 6; 'OK' with an arrow pointing to row 7; 'CS' with an arrow pointing to the final row; '10/29/09' written below the final row.

This report has been created by IC Net
METROHM LTD

Report date: 10/29/2009 12:42:01 PM
Printed by: User

Ident: ICV
Analysis from: 10/29/2009 10:33:56 AM
File: ta291033.CHW

Last save: 10/29/2009 12:42:02 P

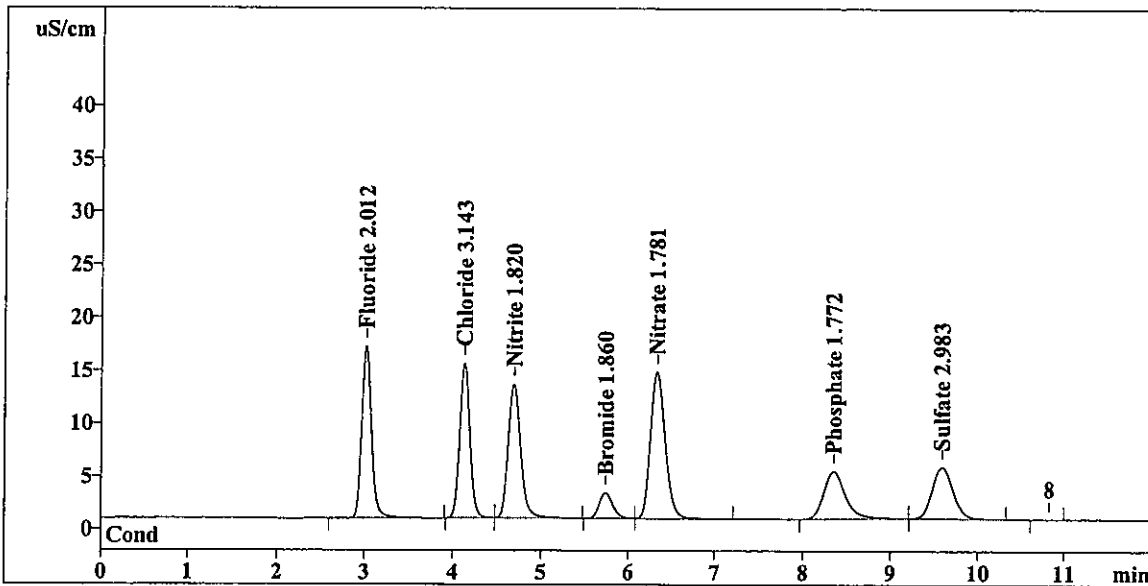
Method: 3-102909.mtw
Run operator: User
Analysis number: 9861

Last save: 10/29/2009 10:31:50 A

SAMPLE:

Vial number: 10
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	3.02	126.994	2.012	Fluoride
2	4.13	116.576	3.143	Chloride
3	4.69	125.854	1.820	Nitrite
4	5.75	26.005	1.860	Bromide
5	6.34	163.478	1.781	Nitrate
6	8.35	76.950	1.772	Phosphate
7	9.60	79.671	2.983	Sulfate
7	12.00	715.527	15.372	

CS
10/29/09

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METROHM LTD

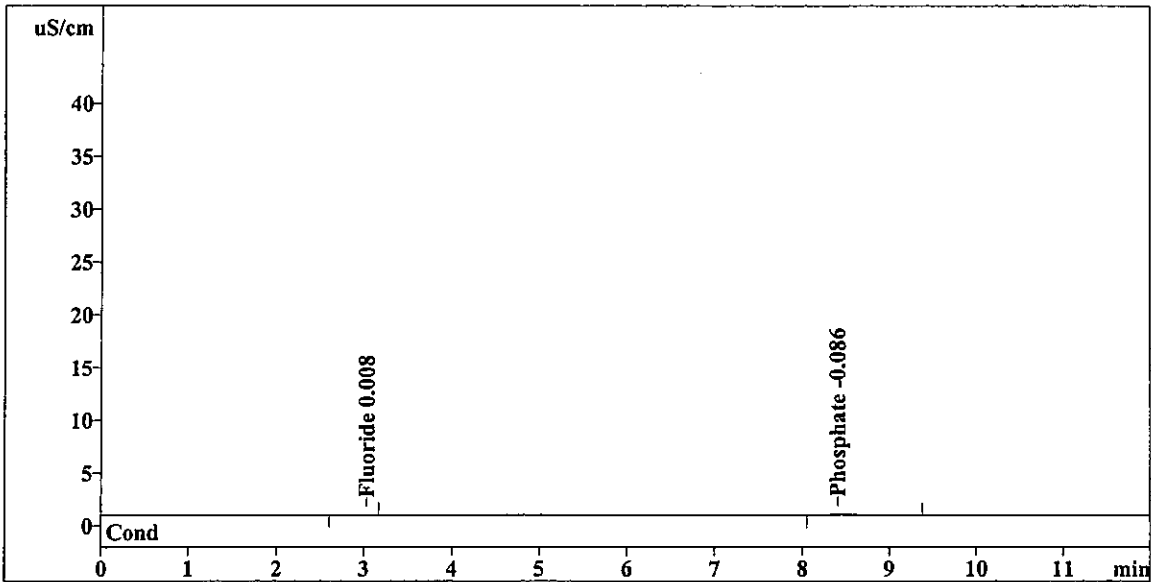
Report date: 10/29/2009 12:42:02 PM
Printed by: User

Ident: ICB
Analysis from: 10/29/2009 10:48:00 AM
File: ta291048.CHW Last save: 10/29/2009 12:42:03 P
Method: 3-102909.mtw Last save: 10/29/2009 10:31:50 A
Run operator: User
Analysis number: 9862

SAMPLE:

Vial number: 11
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	3.03	0.054	0.008	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	8.41	2.135	-0.086	Phosphate
7	0.00	0.000	0.000	Sulfate
7	12.00	2.189	0.094	

OK
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OK
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CS
10/29/09

This report has been created by IC Net
METROHM LTD

Report date: 10/29/2009 12:42:02 PM
Printed by: User

Ident: LCS
Analysis from: 10/29/2009 11:02:06 AM
File: ta291102.CHW

Last save: 10/29/2009 12:42:03 P

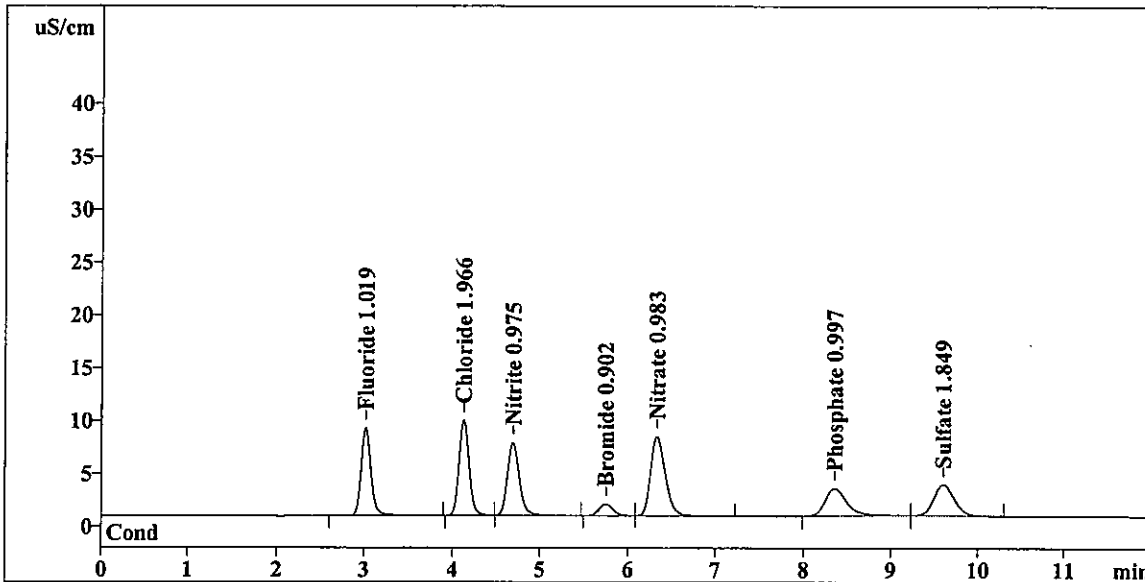
Method: 3-102909.mtw
Run operator: User
Analysis number: 9863

Last save: 10/29/2009 10:31:50 A

SAMPLE:

Vial number: 12
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	3.02	64.093	1.019	Fluoride
2	4.13	71.769	1.966	Chloride
3	4.69	65.165	0.975	Nitrite
4	5.75	11.805	0.902	Bromide
5	6.34	87.390	0.983	Nitrate
6	8.37	45.718	0.997	Phosphate
7	9.61	48.065	1.849	Sulfate

OK
↓
OK
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OK
10/29/09

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ACQUISITION PARAMETERS

Channels: 1
 Method duration: 12.00min
 Run duration: 3.44min
 Measurements (method): 13800
 Measurements (run): 2062
 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: 2.60 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
 2 11.00 Disable detection

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	3.02	10.0	1.579e-02	0.00			0.000
2	4.13	10.0	2.627e-02	0.00			0.000
3	4.69	10.0	1.392e-02	0.00			0.000
4	5.75	10.0	6.748e-02	0.00			0.000
5	6.34	10.0	1.049e-02	0.00			0.000
6	8.35	10.0	2.484e-02	0.00			0.000
7	9.60	10.0	3.588e-02	0.00			0.000

CHANNELS TABLE

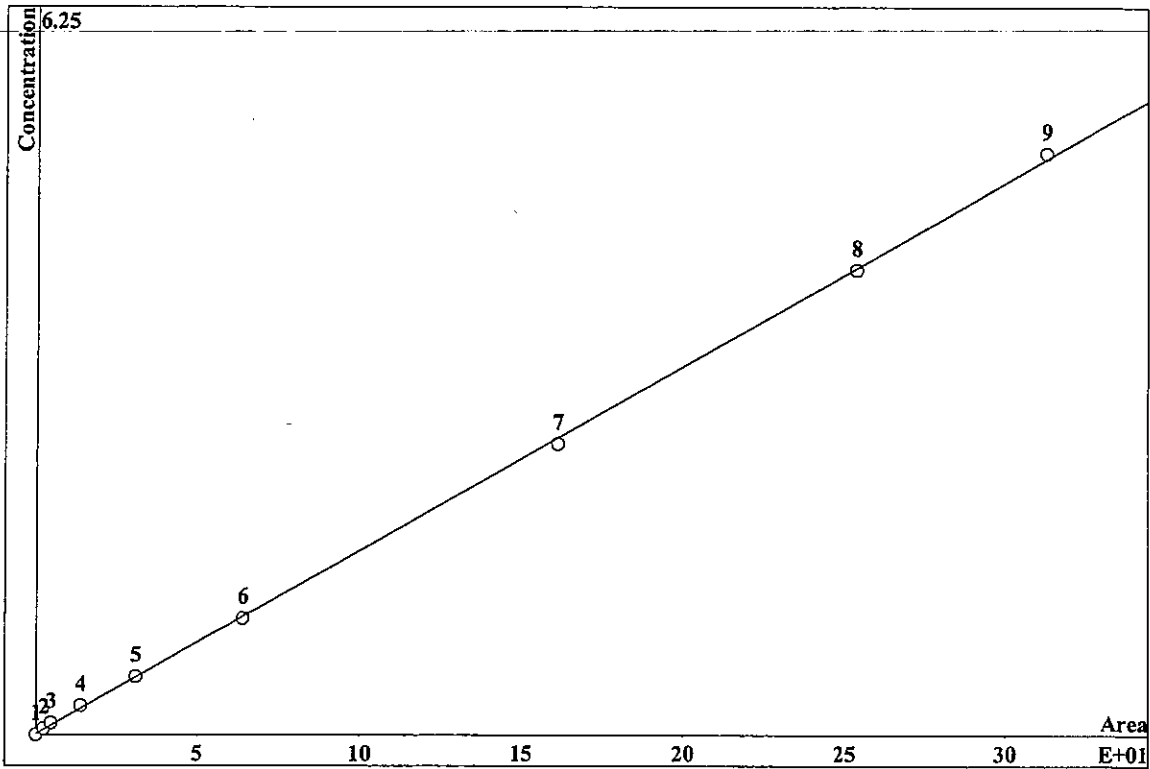
Cond	No	Name	Units	Input	Minimum	Zero	Maximum	Range	Coefficient	N
	1	Cond		uS/cm		1	-2147483647		0	214748
#		Name/Units		Noise		RMS		PeakToPeak		Drift/hour
	1	Cond		1.0		56.7		327.1		-677.973
		uS/cm		1e-05		0.000567		0.00327		-0.00678

No peaks

This report has been created by IC Net
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CALIBRATION OF COMPONENT Fluoride

Method: 3-102909.mtw
 Equation: $Q = 0.0157873 \cdot A + 0.00717007$
 RSD: 2.004 %
 Correlation coefficient: 0.999871



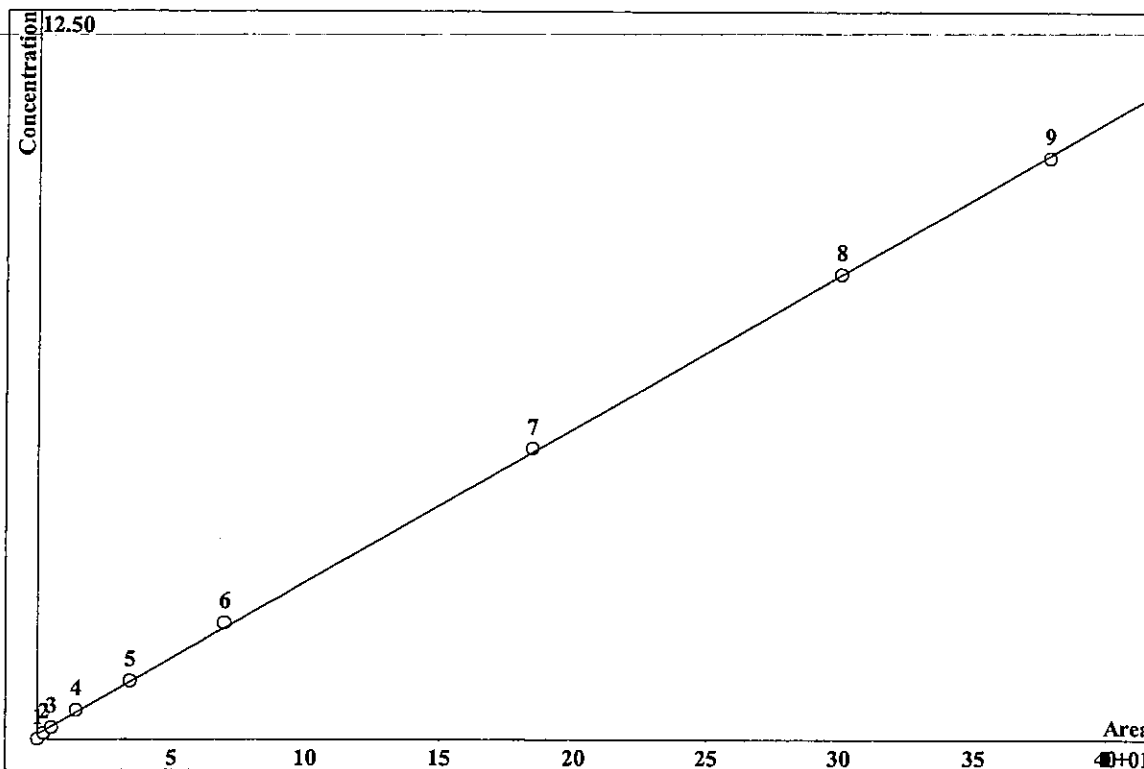
K3 = 0 K2 = 0 K1 = 0.0157873 K0 = 0.00717007
 Base: Area
 Ref.channel: Cond
 ISTD:
 Formula: Linear
 Weight: 1

Level	Height	Area	Conc.	Vol/Dil	Retention	Used	File
1		0	0	0	0		0
2	0.258	2.457	0.05	0.05	1		3.05
3	0.5844	4.731	0.1	0.1	1		3.05
4	1.736	13.99	0.25	0.25	1		3.05
5	3.837	30.95	0.5	0.5	1		3.05
6	8.14	64.16	1	1	1		3.05
7	20.13	161.5	2.5	2.5	1		3.05
8	30.27	253.9	4	4	1		3.05
9	36.39	313.4	5	5	1		3.05

OK
 CS
 10/29/09

CALIBRATION OF COMPONENT Chloride

Method: 3-102909.mtw
 Equation: $Q = 0.0262707 \cdot A + 0.080741$
 RSD: 2.012 %
 Correlation coefficient: 0.999890



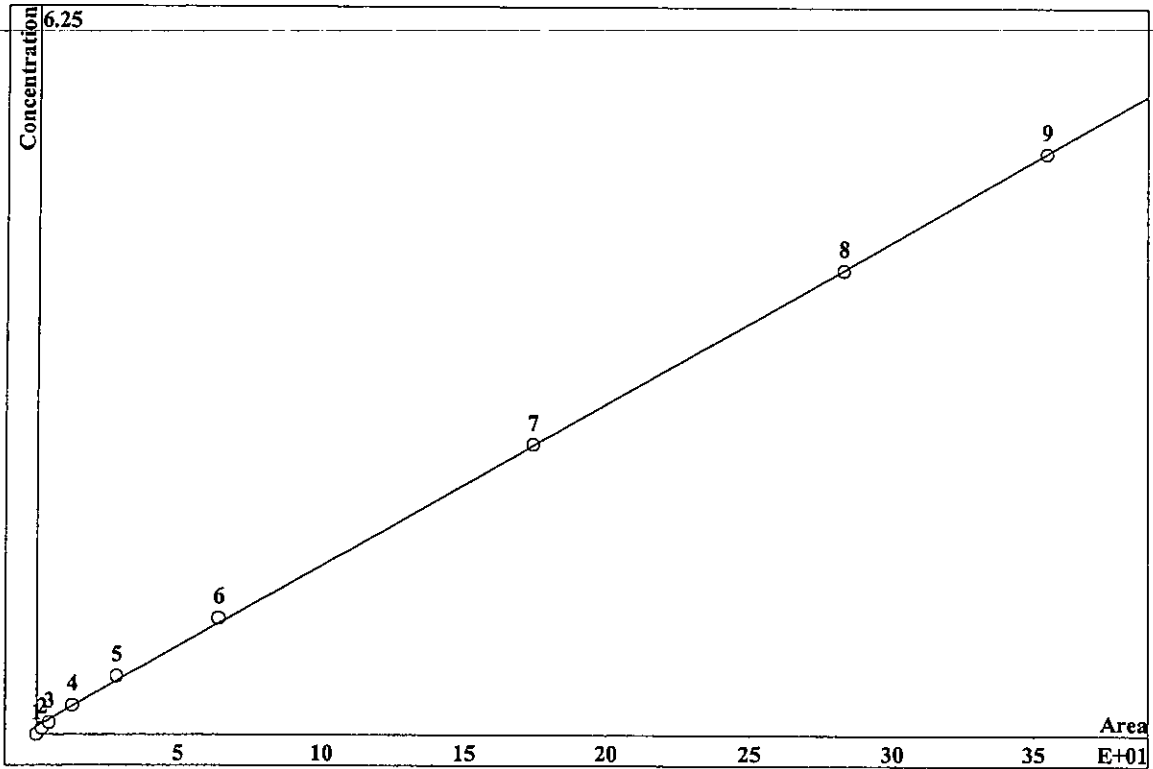
K3 = 0 K2 = 0 K1 = 0.0262707 K0 = 0.080741
 Base: Area
 Ref.channel: Cond
 ISTD:
 Formula: Linear
 Weight: 1

Level	Height	Area	Conc.	Vol/Dil	Retention	Used File
1	0.01833	0.1502	1e-05	1	4.22	
2	0.2951	2.527	0.1	1	4.22	
3	0.6391	5.354	0.2	1	4.22	
4	1.808	14.47	0.5	1	4.22	
5	4.328	34.44	1	1	4.22	
6	8.7	69.79	2	1	4.22	
7	22.96	184.9	5	1	4.22	
8	36.95	301.3	8	1	4.22	
9	46.15	379.5	10	1	4.22	

OK
 CS
 10/29/09

CALIBRATION OF COMPONENT Nitrite

Method: 3-102909.mtw
 Equation: $Q = 0.0139227 \cdot A + 0.067564$
 RSD: 1.901 %
 Correlation coefficient: 0.999884



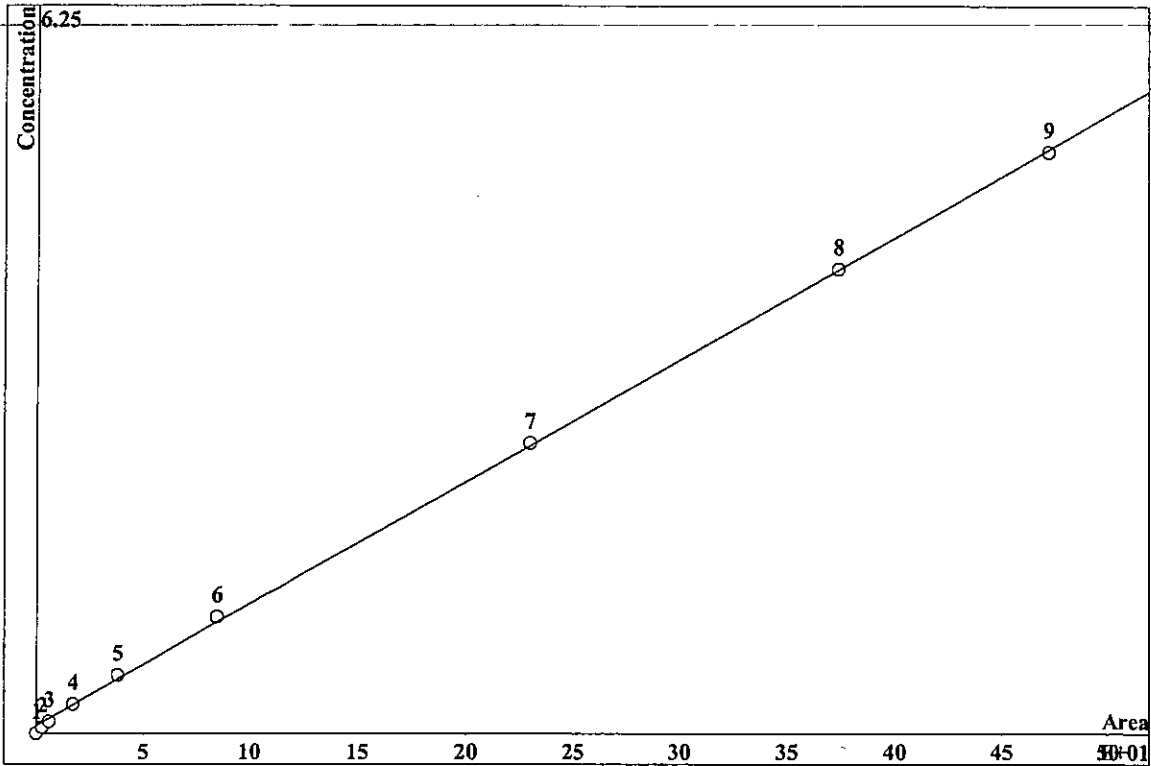
K3 = 0 K2 = 0 K1 = 0.0139227 K0 = 0.067564
 Base: Area
 Ref.channel: Cond
 ISTD:
 Formula: Linear
 Weight: 1

Level	Height	Area	Conc.	Vol/Dil	Retention	Used	File
1	0	0	0	1e-05	0		0
2	0.2064	1.991	1.991	0.05	1		4.82
3	0.4687	4.442	4.442	0.1	1		4.82
4	1.389	12.69	12.69	0.25	1		4.82
5	3.085	28.38	28.38	0.5	1		4.82
6	6.695	64.07	64.07	1	1		4.82
7	16.86	174.4	174.4	2.5	1		4.82
8	25.75	282.9	282.9	4	1		4.82
9	31.45	354.8	354.8	5	1		4.82

OK
 CS
 10/29/09

CALIBRATION OF COMPONENT Nitrate

Method: 3-102909.mtw
 Equation: $Q = 0.0104903 \cdot A + 0.0661776$
 RSD: 1.986 %
 Correlation coefficient: 0.999873



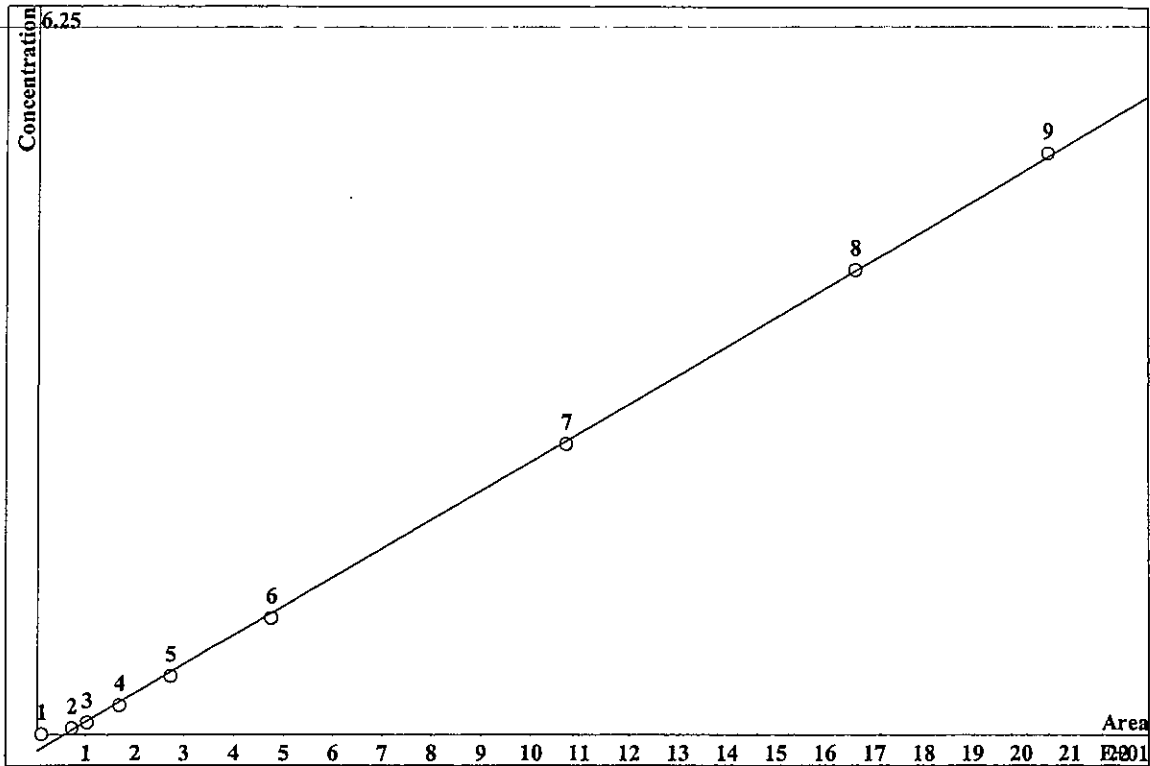
K3 = 0 K2 = 0 K1 = 0.0104903 K0 = 0.0661776
 Base: Area
 Ref.channel: Cond
 ISTD:
 Formula: Linear
 Weight: 1

Level	Height	Area	Conc.	Vol/Dil	Retention	Used	File
1	0	0	0	1e-05	0		0
2	0.2218	2.818	0.05	0.05	1		6.59
3	0.5035	6.184	0.1	0.1	1		6.59
4	1.464	17.18	0.25	0.25	1		6.59
5	3.296	38.46	0.5	0.5	1		6.59
6	7.222	85.19	1	1	1		6.59
7	19.12	230	2.5	2.5	1		6.59
8	30.67	374.4	4	4	1		6.59
9	38.46	472.6	5	5	1		6.59

OK
 CS
 10/29/09

CALIBRATION OF COMPONENT Phosphate

Method: 3-102909.mtw
 Equation: $Q = 0.0248394 \cdot A - 0.139016$
 RSD: 3.563 %
 Correlation coefficient: 0.999656



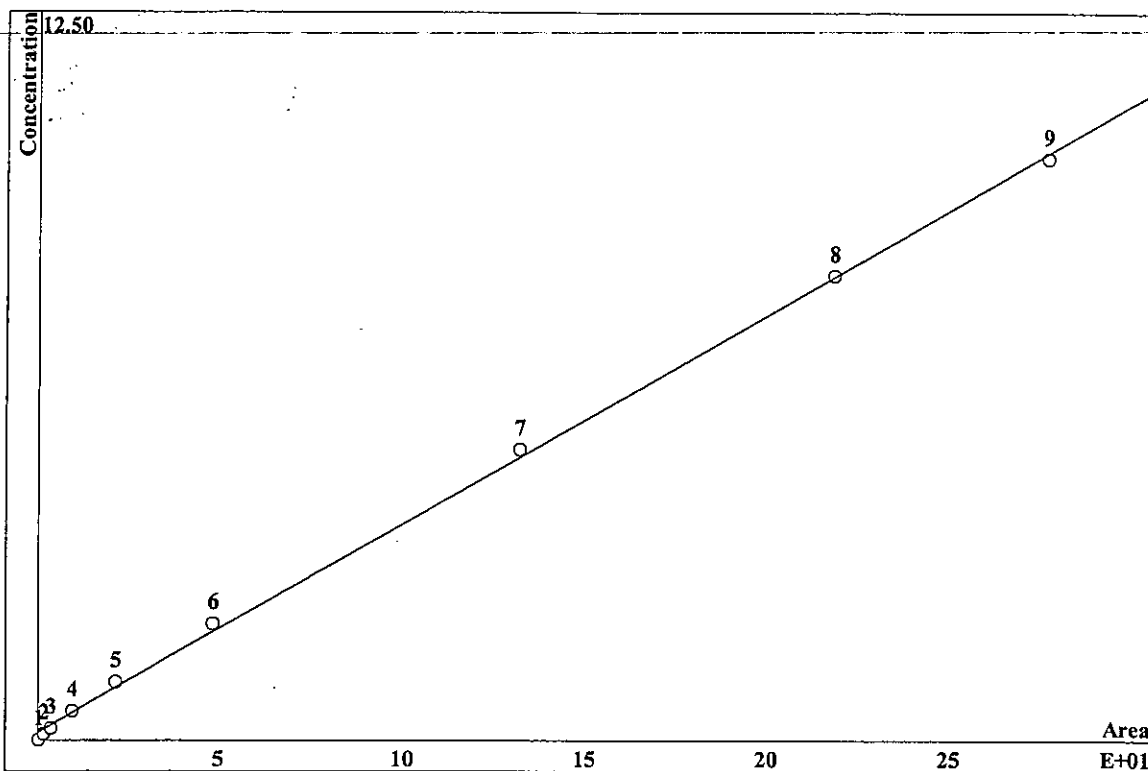
K3 = 0 K2 = 0 K1 = 0.0248394 K0 = -0.139016
 Base: Area
 Ref.channel: Cond
 ISTD:
 Formula: Linear
 Weight: 1

Level	Height	Area	Conc.	Vol/Dil	Retention	Used	File
1	0.03956	0.9485	1e-05	1	8.45		
2	0.3373	7.191	0.05	1	8.45		
3	0.5048	10.33	0.1	1	8.45		
4	0.8782	16.96	0.25	1	8.45		
5	1.477	27.26	0.5	1	8.45		
6	2.694	47.6	1	1	8.45		
7	6.291	107.4	2.5	1	8.45		
8	9.787	166.4	4	1	8.45		
9	12.1	205.8	5	1	8.45		

OK
 CS
 10/29/09

CALIBRATION OF COMPONENT Sulfate

Method: 3-102909.mtw
 Equation: $Q = 0.035879 \cdot A + 0.124296$
 RSD: 3.672 %
 Correlation coefficient: 0.999635



K3 = 0 K2 = 0 K1 = 0.035879 K0 = 0.124296
 Base: Area
 Ref.channel: Cond
 ISTD:
 Formula: Linear
 Weight: 1

Level	Height	Area	Conc.	Vol/Dil	Retention	Used	File
1	0.01655	0.2889	1e-05		1		9.74
2	0.107	1.833	0.1		1		9.74
3	0.2259	3.854	0.2		1		9.74
4	0.5881	9.807	0.5		1		9.74
5	1.333	21.87	1		1		9.74
6	2.98	48.65	2		1		9.74
7	7.988	132.3	5		1		9.74
8	13.03	219.1	8		1		9.74
9	16.42	278.1	10		1		9.74

OK
 CS
 10/29/09

Ion Chromatography Cover Sheet

Instrument: Metrohm IC 861

Column: Metrosep A Supp 5 - 100, 4mm, 05/05/09

Curve Date: 10/29/09

Loop size: 25 uL Loop _____

Analyst: RP/CS

Analysis Date: 10/29/09

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	10/06/09	WC94011B		Working Calibration Stds	10/22/09	WC94021C
LCS / MS Intermediate	10/28/09	WC94012A		Working LCS/MS Standard	10/29/09	WC94053B
ICV Intermediate	10/09/09	WC94012H		Working ICV Standard	10/29/09	WC94027O
CCV Intermediate	10/09/09	WC94012H		Working CCV Standard	10/29/09	WC94027O

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

Fluoride: 3.02	Nitrate: 6.34
Chloride: 4.13	Phosphate: 8.35
Nitrite: 4.69	Sulfate: 9.60
Bromide: 5.75	

Additional Comments: Curve not valid for Bromide

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
F	WC920636	1000	10	200	50	RP	9/10/09	A	1/26/10
Cl	WC72001E	1000	20		100	RP	10/6/09	B	1/26/10
NO2	WC72002F	1000	10		50			C	
Br	WC92063H	1000	10		50			D	
NO3	WC90001I	1000	10		50			E	
OPO4	WC72002P	1000	10		50			F	
SO4	WC72002Q	1000	20		100			G	

CVCCV INTERMEDIATE STOCK PREP

Analyte	ICVCCV Stock ID	Conc. mg/L	mLs Stock	Final Vol. mL	Final Conc. mg/L	Analyst	Date Prepped	Lot ID	Exp. Date
F	WC85284I	1000	4.0	1000	4.00	RP	9/22/09	H	1/26/10
Cl	WC72004E	650	10		6.50	CS	10/9/09	I	1/26/10
NO2	WC72007G	180	20		3.60			J	
Br	WC85087D	1000	4.0		4.00			K	
NO3	WC92006K	180	20		3.60	CS	10/13/09	L	
OPO4	WC72007S	180	20		3.60			M	
SO4	WC72007U	3200	2.0		6.40			N	

01801

0011

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
F	WC92003G	1000	10	200	50	RP	10/28/09	A	1/26/10
Cl	WC72001E	1000	20		100			B	
NO2	WC72002F	1000	10		50			C	
Br	WC92003H	1000	10		50			D	
NO3	WC90001F	1000	10		50			E	
OP04	WC72002P	1000	10		50			F	
SO4	WC72002J	1000	20		100			G	

ICV/CCV INTERMEDIATE STOCK PREP

Analyte	ICV/CCV Stock ID	Conc. mg/L	mLs Stock	Final Vol. mL	Final Conc. mg/L	Analyst	Date Prepped	Lot ID	Exp. Date
F	WC85284I	1000	4.0	1000	4.00	CS	10/9/09	H	1/26/10
Cl	WC72006E	650	10		6.50			I	
NO2	WC72007G	180	20		3.60			J	
Br	WC92085I	1000	4.0		4.00			K	
NO3	WC90006G	180	20		3.60			L	
OP04	WC72007S	180	20		3.60			M	
SO4	WC72007U	3200	2.0		6.40			N	

CALIBRATION STANDARDS PREP

(Stocks delivered using Volumetric glassware and brought to volume with DI. Expire after 7 days.)

Std #	mLs Intermediate Stock	Final Vol. mLs	Final Std Conc. (mg/L)						Calibration Intermediate Stock ID	Analyst/ Date Prepped	Lot ID	Exp. Date	Matrix H2SO4 / NaOH / DI	H2SO4 / NaOH Lot #
			F	Cl	NO2	Br	NO3	OPO4						
9	10.0	100	5.0	10.0	5.0	5.0	5.0	5.0	10.0	A	10/8/09	H2SO4	WC85297I	
8	8.0	100	4.0	8.0	4.0	4.0	4.0	4.0	8.0	B	10/14/09	DI		
7	5.0	100	2.5	5.0	2.5	2.5	2.5	2.5	5.0	C	10/23/09	DI		
6	2.0	100	1.0	2.0	1.0	1.0	1.0	1.0	2.0	D				
5	1.0	100	0.5	1.0	0.50	0.50	0.50	0.50	1.0	D				
4	0.5	100	0.25	0.50	0.25	0.25	0.25	0.25	0.50	F				
3	0.2	100	0.10	0.20	0.10	0.10	0.10	0.10	0.20	G				
2	0.1	100	0.05	0.10	0.05	0.05	0.05	0.05	0.10	H				
1	0.0	100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	I				
										J				
										K				
										L				
										M				
										N				
										O				
										P				
										Q				

CP
10/22/09

LCS PREP

(Stocks delivered using Volumetric glassware and brought to volume with DI. LCS expires after 7 days; if NO2 is needed, LCS must be prepared daily.)

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

Analyte	Calibration Intermediate Stock ID	Intermediate Stock Conc (mg/L)	mLs Intermediate Stock	Final Vol. mLs	Final Conc. (mg/L)	Analyst/ Date Prepped	Lot ID	Exp. Date	Matrix H2SO4 / NaOH / DI	H2SO4 / NaOH Lot #
F	WC94002A	50	2.0	100	1.0	RP 10/28/09	A	11/4/09	DI	
Cl		100			2.0	RP 10/29/09	B	11/5/09	DI	
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			

10/29/09

OS

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	Exp. Date	Matrix H2SO4 / NaOH / DI	H2SO4 / NaOH Lot #
F	WCGY01Z-A	4.00	5.0	10	2.00	RR 10/10/09	A	10/16/09	DI	
Cl		6.50			3.25	RR 10/12/09	B	10/12/09	DI	
NO2		3.60			1.80	RR 10/13/09	C	10/13/09	DI	
Br		4.00			2.00	CS 10/16/09	D	10/14/09	DI	
NO3		3.60			1.80	CS 10/15/09	E	10/22/09	DI	
OPO4		3.60			1.80	CS 10/16/09	F	10/23/09	DI	
SO4		6.40			3.20	CS 10/14/09	G	10/26/09	DI	
						RR 10/20/09	H	10/20/09	DI	
						RR 10/21/09	I	10/21/09	DI	
						RR 10/22/09	J	10/22/09	DI	
						RR 10/23/09	K	10/23/09	DI	
						RR 10/24/09	L	10/24/09	DI	
						RR 10/27/09	M	10/27/09	DI	
						RR 10/28/09	N	10/28/09	DI	
						RR 10/29/09	O	10/29/09	DI	
							P	CS 10/29/09	DI	
							Q			

Analytical Results Summary

Instrument Name: R-UV-VIS-01 Analyst: DWARD Analysis Lot: 173289 Method/Testcode: SM 5540 C/MBAS Hendext

Lab Code	Target Analytes	QC Type	Parent Sample	Matrix	Raw Result	Sample Amt	Final Result	Dil	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ0909425-01	Surfactants	MB		Soil	0.32 mg/L	25 g	2.0 mg/Kg U	10	2.0			10/3/09 08:40	N	IV
RQ0909497-01	Surfactants	MB		Soil	0.32 mg/L	25 g	2.0 mg/Kg U	10	2.0			10/3/09 08:40	N	IV
RQ0909497-02	Surfactants	LCS		Soil	0.22 mg/L	25 g	0.217 mg/Kg	1	0.20	109		10/3/09 08:40	N	IV
RQ0909497-03	Surfactants	LCS		Soil	3.54 mg/L	25 g	3.54 mg/Kg	1	0.20	101		10/3/09 08:40	N	IV
R0905260-009	Surfactants	N/A		Soil	0.42 mg/L	25 g	3.0 mg/Kg U	10	3.0			10/3/09 08:40	N	IV
R0905260-010	Surfactants	N/A		Soil	0.32 mg/L	25 g	2.2 mg/Kg U	10	2.2			10/3/09 08:40	N	IV
R0905260-012	Surfactants	N/A		Soil	0.52 mg/L	25 g	0.8 mg/Kg J	10	3.1			10/3/09 08:40	N	IV
R0905260-013	Surfactants	N/A		Soil	0.52 mg/L	25 g	2.1 mg/Kg U	10	2.1			10/3/09 08:40	N	IV
R0905260-014	Surfactants	N/A		Soil	0.42 mg/L	25 g	2.1 mg/Kg U	10	2.1			10/3/09 08:40	N	IV
RQ0909497-04	Surfactants	MB		Water	0.00 mg/L	500 mL	0.020 mg/L U	1	0.020			10/3/09 08:40	N	IV
RQ0909497-05	Surfactants	LCS		Water	0.02 mg/L	500 mL	0.0217 mg/L	1	0.020	109		10/3/09 08:40	N	IV
RQ0909497-06	Surfactants	LCS		Water	0.35 mg/L	500 mL	0.354 mg/L	1	0.020	101		10/3/09 08:40	N	IV
R0905635-001	Surfactants	N/A		Water	0.03 mg/L	500 mL	0.031 mg/L	1	0.020			10/3/09 08:40	N	IV
R0905636-001	Surfactants	N/A		Water	0.00 mg/L	500 mL	0.020 mg/L U	1	0.020			10/3/09 08:40	N	IV
R0905636-002	Surfactants	N/A		Water	0.15 mg/L	500 mL	0.149 mg/L	1	0.020			10/3/09 08:40	N	IV
R0905636-003	Surfactants	N/A		Water	0.29 mg/L	500 mL	0.286 mg/L	1	0.020			10/3/09 08:40	N	IV

3 Copies
 R5260
 R5635
 R5636

Reviewed & Approved
 By: [Signature]
 Date: 10/6/09

01896

Analyte: Surfactants (MBAs)
Method: SM20 5540C

Analyst: DWARD
Pipette: Volumetrics

Date: 10/3/09
Time: 8:40

Calibration:

Std	Conc.	Absorb.	Result	% Rec
1	0.00	0.000	0.00323	
2	0.02	0.019	0.02175	108.7%
3	0.04	0.039	0.04124	103.1%
4	0.06	0.059	0.06074	101.2%
5	0.08	0.075	0.07633	95.4%
6	0.10	0.101	0.10168	101.7%
7	0.15	0.154	0.15334	102.2%
8	0.20	0.190	0.18843	94.2%
9	0.25	0.240	0.23717	94.9%
10	0.30	0.319	0.31418	104.7%
11	0.40	0.409	0.40191	100.5%

Curve Date: 5/28/09
C.C = 0.998342
y-int. = -0.003311
Slope: 1.025888

Working Std Stock Log | WC92090E
Working Standard Stock Prep Date: 10/1/2009
Working Ref Stock Log | WC92090F
Working Reference Stock Prep Date: 10/1/2009

* Soil - 25 g diluted to 250 mLs

Misc.	Order #	Sample Vol. (mLs)	Absorbance @ 652 nm	MBAs mg/L	Bench Dilution	Final Dilution	Final Result	*Soil
TV= 0.300	ICV	500.000	0.320	0.3152	1.0	1.00	105.1%	
	ICB/PB	500.000	0.000	0.0032	1.0	1.00	0.0032	
1	TV= 0.300	CCV	500.000	0.2957	1.0	1.00	0.2957	
2		CCB/PB	500.000	0.000	1.0	1.00	0.0032	
3	TV= 0.020	LCS-LL	500.000	0.019	1.0	1.00	0.0217	
4	TV= 0.350	LCS-HL	500.000	0.360	1.0	1.00	0.3541	
5		RQ0909425-01	50.000	0.000	1.0	10.00	0.3227	*
6		R0905260-009	50.000	0.001	1.0	10.00	0.4202	*
7		R0905260-010	50.000	0.000	1.0	10.00	0.3227	*
8		R0905260-012	50.000	0.002	1.0	10.00	0.5177	*
9		R0905260-013	50.000	0.002	1.0	10.00	0.5177	*
10		R0905260-014	50.000	0.001	1.0	10.00	0.4202	*
11		R0905635-001	500.000	0.028	1.0	1.00	0.0305	
12		R0905636-001	500.000	0.000	1.0	1.00	0.0032	
13		CCV	500.000	0.300	1.0	1.00	0.2957	
14		CCB/PB	500.000	0.000	1.0	1.00	0.0032	
15		R0905636-002	500.000	0.150	1.0	1.00	0.1494	
16		R0905636-003	500.000	0.290	1.0	1.00	0.2859	
17		CCV	500.000	0.300	1.0	1.00	0.2957	
18		CCB/PB	500.000	0.000	1.0	1.00	0.0032	
19								
20								
21								
22								
23								
24								
25								
26								
27								

*SPW
10/5/09*

MBAs, mg/L = $\frac{\text{Conc. (mg/L)} \times \text{Dil'n} \times 500 \text{ mL}}{\text{Sample Volume}}$

TITLE PROJECT

Continued from page

9/30/09 (A) Na_2S - Sulfide Reference
GN To a tared amber jar approx 0.4g $\text{Na}_2\text{S} \cdot 9\text{H}_2\text{O}$
GN (WC 9276230 B) and dilute to 100g w/DI. Mix until
5 dissolved. Store at 4°C for 2 weeks. Exp: 10/14/09

9/30/09 (B) Sodium phenolate - NH_3
NM To a tared 1-L amber bottle add:
- 888g UPDI
- 94.2g Liquefied Phenol (WC92085J)
- 320g Sodium Hydroxide Pellets (WC92039±)
10 str until dissolved. Prepare and dissolve in hood.
store @ 4°C Exp. 1 year, 9/30/10

9/30/09 Received from UWR
SBR (C) Ammonium Persulfate 11x500g Cat # AX1340-1 EM-AX1340-1.
CAS # 7727-54-0, EMD lot # 49077931. Store @ 4°C Expires 9/30/14
SBR 9/30/09

10/1/09 (D) 0.1 N HCl - chlor a
SBR To a 100 mL vol flask, add 0.83 mL conc HCl (WC85188F) to DI. Bring
to volume w/ DI. Store @ 0-6°C in plastic. Exp 10/1/10

10/1/09 (E) 1.0ppm LAS working Standard Stock
DW Dilute 1.0 mL of 1000ppm LAS Standard Stock (WC85208F) to 1L volumetrically w/DI.
25 Store @ 4°C, exp: 11/30/09.

(F) 1.0ppm LAS working Reference Stock
Dilute 1.0 mL of 1000ppm LAS Reference Stock (WC92043E) to 1L volumetrically w/DI.
30 Store @ 4°C, exp: 10/1/2010.

DW 10/1/09
(G) LAS MBAS wash solution
Same as WC92087C, prep: 9/30/09, exp: 4/30/2010

(H) MBAS color Reagent
35 Same as WC92084E, exp: 10/1/2010

Continued to page

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DATE

01899

Continued from page

5/25/09 (A) Buffer - TOTN
 NM - same as WC92003E. Exp. 1 year, 5/28/10

5/28/09 Calibration for Surfactants (MBAS)

cm w (B) 1.0ppm Working Standard Stock

Dilute 1mL of 1000ppm Standard (WC85268F) to 1L w/ DI water volumetrically. Store in amber glass @ 4°C. Expires 1 year, 5/28/2010.

(C) 1.0ppm Working Reference Stock

Dilute 1mL of 1000ppm Reference (WC85215G) to 1L w/ DI water volumetrically. Store in amber glass @ 4°C. Expires 1 year, 5/28/2010.

(D) Calibration Standard

Cal Std	mLs DI	mLs Standard (WC92008B)	Conc.
1	500	0	0.00
2	490	10	0.02
3	480	20	0.04
4	470	30	0.06
5	460	40	0.08
6	450	50	0.10
7	425	75	0.15
8	400	100	0.20
9	375	125	0.25
10	350	150	0.30
11	300	200	0.40

(E) ICV/CCV

To a 500mL 1L separatory funnel add 350ml of DI water and 150mL of working reference stock (WC92008C). Analyze as a normal sample.
 True Value = 0.30mg/L.

Continued to page

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DATE

PROPRIETARY INFORMATION 21970

TITLE PROJECT

Continued from page

(A) LCS-Low Level

5/28/09 To a 1L separatory funnel add 490mL of DI water and 10mL of working standard stock (WC92008B). Analyze as normal sample. True Value = 0.02mg/L.

(B) LCS-High Level

To a 1L separatory funnel add 325mL of DI water and 175mL of working standard stock (WC92008B). Analyze as normal sample. True Value = 0.35mg/L.

(C) Matrix Spike

To a 1L separatory funnel add ~~325mL~~^{25/28/09} of 500mL sample and add ~~0.325mL~~^{0.575mL} of 1000ppm Standard Stock (WC85268F). Analyze as normal. True Value = 0.35mg/L.

(D) Ascorbic Acid (D) Tris Oxyd Reagent

Chp Same as WC91001D Store at RT in amber glass Exp 6/28/09

5/28/09 (E) 10% Phosphoric Acid

AB Same as WC 92 007H. Expires 5/28/10.

5/28/09 (F) Ascorbic Acid - KoneLab

Chp Same as WC91002A. Exp 6/2/09

5/28/09 (G) Received from CPI

33 4 (12) x 20 Oil & Grease Filter SPE disks, Cat# 4350-13, CPI Lot# 050809. Store at O/G bench. Exp: NA

Received from VWR.

(H) 1.1 x 2.5 Kg Ammonium Sulfate, Cat# AX1385-3, EMD Lot# 48164910, CAS# 7783-20-2. Store @ R.T. Expires 5/28/14 110181

Continued to page

SIGNATURE DATE

DISCLOSED TO AND UNDERSTOOD BY DATE PROPRIETARY INFORMATION

2/12/09
BB

Ethylene Glycol

(A) ICV/CCV Prep (fixed vol = 1 mL)

0.60 mL DI + 0.40 mL 10 ppm Ref. Stock (WC85268D)

TV = 4.00 ppm

(B) LAS/MS Prep

To 10 mL DI or sample, add 0.30 mL 10 ppm std.

Working Stock (WC85268C).

TV = 3.00 ppm

(C) Glycol std. Working stock, 10 ppm

In a volumetric flask, dilute 0.10 mL Ethylene Glycol
10,000 ppm std (WC85241A) to 100 mLs.

Make fresh per run.

(D) Glycol Ref. Working Stock, 10 ppm

In a volumetric flask, dilute 0.10 mL Ethylene Glycol
10,000 ppm Ref (WC85241A) to 100 mLs. Fresh std run.

(E) Standards for Glycol (fixed vol. = 1.0 mL)

Conc. (ppm)	Vol. 10 ppm std working stock (WC85268C)	Vol. DI (mL)
1.0	0.10 mL	0.90
2.0	0.20 mL	0.80
4.0	0.40 mL	0.60
8.0	0.80 mL	0.20
10.0	1.00 mL	0.0

2/12/09
BB

(F) (1) x 120 mL LAS standard, 1,000 mL = 1.00 mg LAS

Cat # 4350-4, RICA Lot # 2811283, CAS # 7664-93-9,

68411-30-3. Store @ 4°C. Expires 11/30/09 2187

2/13/09
BB

(G) Phosphate buffer for LAS

Same as WC85254G. Expires 2/12/09

(H) KHP std, 500 mg = 12.49 mg

Same as WC85254H, except phosphate buffer is WC85268G
+ KHP is WC85062C.

2/18/09
SBR

(I) Cr⁶⁺ Color Reagent

In a 50 mL vol. flask dissolve 0.25 g 1,5-Diphenylcarbohydrazide (WC85190E) in
acetone (WC85203J) and bring to volume. Store @ 4°C. Exp 3/18/09.

2/18/09
EW

(A) TSS R

0.2148

DI.

TV = ?

2/18/09
EW

(B) Eric

Add 5

(WC69)

Stom

2/18/09
SBR

(C) NO₂ Col.

In a 10

0.10 g NE

volume

(D) Ascorbic

- same

2/18/09
SBR

(E) 10% Ph

- same

(F) Phenol

- same

2/18/09
OK

(G) Cr⁶⁺ Digest

So

2/19/09
NM

(H) NH₃ C

- same

(I) Hypoc

- same

2/20/09
AS

(J) 0.5 mL

0.21

Thorp

Log

TITLE PROJECT

Continued from page

7/17/09 (A) TKN Digest Reagent
SBR - same as WC92029C Exp 8/17/09

7/17/09 Received from VWR
BB (B) (1) x 1 L Alkaline-Iodides-Iodides, Cat # 540-32,
Ricca Lot # 2903812, CAS # 1310-73-2, 7681-11-0,
24628-22-8, 7732-18-5. Store @ R.T. Expires 3/31/11. 10990
(C) (1) x 1 L Manganese Sulfate Soln, Cat # BDH3329-1,
CAS # 10034-96-5, 7732-18-5. Store @ R.T. Expires 1/31/13.
BDH Lot # 9048. 10991

Received from Parr
(D) (1) x 100-1g Pellets Benzoic Acid, Cat # 3415, Parr
Lot # 022508, CAS # 65-85-0. Store @ R.T. Expires 7/17/14. 10984

Received from ERA
(E) (1) x 10ml vial MBAS/LAS Standard, 1000mg/L. ERA
Lot # 170865, Cat # 975. Store @ 4°C. Expires 5/31/11. 10985

7/20/09 Received from EMD
DPW (F) 4X4L Chloroform, Cat #: CX1059-1, lot #: 48171, store @ RT, exp: 7/20/2012
CAS #: 67-66-3.

7/20/09 ~~FSS~~ EW (G) TSS Reference
0.2150g Koolin (WC69285 G) brought to 1000g w/ DI.
Store in plastic bottle @ 4°C
TV = 215 mg/L Exp: 6/2/10 (11013)

7/20/09 (H) Part Digestion Matrix-Match - TKN
EN TO a 2-L nit flask add 800mls TKN Digest Reagent
(WC92043A) and bring to volume w/ UPDI. Mix thoroughly
Pour off 100ml and discard. Bring back to volume w/ UPDI.
Store at RT in amber jar exp 8/17/09

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DATE

01903

Analytical Results Summary

Instrument Name: R-UV-VIS-01

Analyst: DWARD

Analysis Lot: 174308

Method/Testcode: SM 5540 C/MBAS Hendext

Lab Code	Target Analytes	QC Type/Parent Sample	Matrix	Raw Result	Sample Amt	Final Result	Dil	POL	% Rec	% RSD	Date Analyzed	QC? Tier
RQ0909613-01	Surfactants	MB	Soil	0.32 mg/L	25 g	2.0 mg/Kg U	10	2.0			10/8/09 09:09	N IV
RQ0909799-04	Surfactants	MB	Soil	0.32 mg/L	25 g	2.0 mg/Kg U	10	2.0			10/8/09 09:09	N IV
RQ0909799-05	Surfactants	LCS	Soil	0.21 mg/L	25 g	0.208 mg/Kg	1	0.20	104		10/8/09 09:09	N IV
RQ0909799-06	Surfactants	LCS	Soil	3.35 mg/L	25 g	3.35 mg/Kg	1	0.20	96		10/8/09 09:09	N IV
R0905348-003	Surfactants	N/A	Soil	0.52 mg/L	25 g	2.2 mg/Kg U	10	2.2			10/8/09 09:09	Y IV
RQ0909613-02	Surfactants	DUP	R0905348-003	0.52 mg/L	25 g	2.2 mg/Kg U	10	2.2		NC	10/8/09 09:09	N IV
RQ0909613-03	Surfactants	MS	R0905348-003	34.93 mg/L	25 g	38.1 mg/Kg	10	2.2	100		10/8/09 09:09	N IV
R0905387-002	Surfactants	N/A	Soil	1.10 mg/L	25 g	1.2 mg/Kg J	10	2.2			10/8/09 09:09	N IV
R0905387-003	Surfactants	N/A	Soil	0.81 mg/L	25 g	0.9 mg/Kg J	10	2.3			10/8/09 09:09	N IV
R0905387-004	Surfactants	N/A	Soil	0.42 mg/L	25 g	2.2 mg/Kg U	10	2.2			10/8/09 09:09	N IV
R0905387-005	Surfactants	N/A	Soil	0.91 mg/L	25 g	1.4 mg/Kg J	10	3.1			10/8/09 09:09	N IV
R0905387-006	Surfactants	N/A	Soil	9.39 mg/L	25 g	10.2 mg/Kg	10	2.2			10/8/09 09:09	N IV
R0905387-007	Surfactants	N/A	Soil	11.73 mg/L	25 g	12.7 mg/Kg	10	2.2			10/8/09 09:09	N IV
R0905387-008	Surfactants	N/A	Soil	1.30 mg/L	25 g	1.4 mg/Kg J	10	2.2			10/8/09 09:09	N IV
R0905387-009	Surfactants	N/A	Soil	2.17 mg/L	25 g	3.1 mg/Kg	10	2.9			10/8/09 09:09	N IV
R0905387-011	Surfactants	N/A	Soil	2.66 mg/L	25 g	2.9 mg/Kg	10	2.2			10/8/09 09:09	N IV
R0905387-012	Surfactants	N/A	Soil	0.91 mg/L	25 g	1.0 mg/Kg J	10	2.3			10/8/09 09:09	N IV
R0905387-013	Surfactants	N/A	Soil	1.20 mg/L	25 g	1.2 mg/Kg J	10	2.1			10/8/09 09:09	N IV
R0905387-014	Surfactants	N/A	Soil	0.71 mg/L	25 g	0.8 mg/Kg J	10	2.2			10/8/09 09:09	N IV
R0905387-015	Surfactants	N/A	Soil	1.10 mg/L	25 g	1.2 mg/Kg J	10	2.2			10/8/09 09:09	N IV
RQ0909799-01	Surfactants	MB	Water	0.00 mg/L	500 mL	0.020 mg/L U	1	0.020			10/8/09 09:09	N IV
RQ0909799-02	Surfactants	LCS	Water	0.02 mg/L	500 mL	0.0208 mg/L	1	0.020	104		10/8/09 09:09	N IV
RQ0909799-03	Surfactants	LCS	Water	0.33 mg/L	500 mL	0.335 mg/L	1	0.020	96		10/8/09 09:09	N IV
R0905636-006	Surfactants	N/A	Water	0.20 mg/L	500 mL	0.197 mg/L	1	0.020			10/8/09 09:09	N IV

Reviewed & Approved
 By: *CR*
 Date: 10/15/09

R5348
R5387
R5634
3loop

01904

Analyte: Surfactants (MBAs)
Method: SM20 5540C

Analyst: DWARD
Pipette: Volumetrics

Date: 10/8/09
Time: 9:09

Calibration:

Std	Conc.	Absorb.	Result	% Rec
1	0.00	0.000	0.00323	
2	0.02	0.019	0.02175	108.7%
3	0.04	0.039	0.04124	103.1%
4	0.06	0.059	0.06074	101.2%
5	0.08	0.075	0.07633	95.4%
6	0.10	0.101	0.10168	101.7%
7	0.15	0.154	0.15334	102.2%
8	0.20	0.190	0.18843	94.2%
9	0.25	0.240	0.23717	94.9%
10	0.30	0.319	0.31418	104.7%
11	0.40	0.409	0.40191	100.5%

Curve Date: 5/28/09
C.C = 0.998342
y-int. = -0.003311
Slope: 1.025888

Working Std Stock Log WC92090E
Working Standard Stock Prep Date: 10/1/2009
Working Ref Stock Log WC92090F
Working Reference Stock Prep Date: 10/1/2009

* Soil - 25 g diluted to 250 mLs

Misc.	Order #	Sample Vol. (mLs)	Absorbance @ 652 nm	MBAs mg/L	Bench Dilution	Final Dilution	Final Result	*Soil
TV= 0.300	ICV	500.000	0.320	0.3152	1.0	1.00	105.1%	
	ICB/PB	500.000	0.000	0.0032	1.0	1.00	0.0032	
1	TV= 0.300	CCV	500.000	0.299	0.2947	1.0	0.2947	
2		CCB/PB	500.000	0.000	0.0032	1.0	0.0032	
3	TV= 0.020	LCS-LL	500.000	0.018	0.0208	1.0	0.0208	
4	TV= 0.350	LCS-HL	500.000	0.340	0.3346	1.0	0.3346	
5	MB	RQ0909613-01	50.000	0.000	0.0032	1.0	0.3227	*
6		R0905348-003	50.000	0.002	0.0052	1.0	0.5177	*
7	DUP	RQ0909613-02	50.000	0.002	0.0052	1.0	0.5177	*
8	MS	RQ0909613-03	50.000	0.355	0.3493	1.0	34.9269	*
9		R0905387-002	50.000	0.008	0.0110	1.0	1.1026	*
10		R0905387-003	50.000	0.005	0.0081	1.0	0.8101	*
11		R0905387-004	50.000	0.001	0.0042	1.0	0.4202	*
12		R0905387-005	50.000	0.006	0.0091	1.0	0.9076	*
13		CCV	500.000	0.280	0.2762	1.0	0.2762	
14		CCB/PB	500.000	0.000	0.0032	1.0	0.0032	
15		R0905387-006	50.000	0.093	0.0939	1.0	9.3881	*
16		R0905387-007	50.000	0.117	0.1173	1.0	11.7275	*
17		R0905387-008	50.000	0.010	0.0130	1.0	1.2975	*
18		R0905387-009	50.000	0.019	0.0217	1.0	2.1748	*
19		R0905387-011	50.000	0.024	0.0266	1.0	2.6622	*
20		R0905387-012	50.000	0.006	0.0091	1.0	0.9076	*
21		R0905387-013	50.000	0.009	0.0120	1.0	1.2000	*
22		R0905387-014	50.000	0.004	0.0071	1.0	0.7127	*
23		R0905387-015	50.000	0.008	0.0110	1.0	1.1026	*
24		R0905636-006	500.000	0.199	0.1972	1.0	0.1972	
25		CCV	500.000	0.280	0.2762	1.0	0.2762	
26		CCB/PB	500.000	0.000	0.0032	1.0	0.0032	
27								

MBAs, mg/L = $\frac{\text{Conc. (mg/L)} \times \text{Dil'n} \times 500 \text{ mL}}{\text{Sample Volume}}$

Columbia Analytical Services
 1 Mustard Street, Rochester, NY 14609

General Chemistry Analytical Run Cover Sheet

Analyst: Dinked

Date: 10/18/09

Analysis: MBAS (Surfactants)

Instrument: Milton Roy Spec 21

Quality Control:

Curve Date: 05/28/09

	Same as Log	Same as Log Book	Working Stocks Prep.	Stock Sol	Stock Sol	Final Vol	True Value
	Book #	Date	Log#, Date	(mls)	(mg/L)	(mls)	(mg/L)
a) Standards Prep:	WC92008D	5/28/2009	WC92008B, 5/28/09				
b) ICV Prep:	WC92008E	5/28/2009	WC92008C, 5/28/09				
b) CCV Prep:	WC92008E	5/28/2009	see bench sheet	150	1	500	0.3
c) LCS-LL Prep:	WC92009A	5/28/2009	see bench sheet	10	1	500	0.02
c) LCS-HL Prep:	WC92009B	5/28/2009	see bench sheet	175	1	500	0.35
d) Matrix Spike	WC92009C	5/28/2009	WC85268F, 2/12/09	0.175	1000	500	0.35

Instrument log filled in? (Y) (N)

Packages:

Copy and attach Standards Preparation.

Comments: 1000 ppm Standard Stock: WC85268F
 1000 ppm Reference Stock: WC92043E

TITLE

PROJECT

Continued from page

5/28/09 (A) Buffer - TOTN
 Nm - same as WC92003E. Exp. 1 year, 5/28/10

5/28/09 Calibration for Surfactants (MBAS)

cm w (B) 1.0ppm Working Standard Stock
 Dilute 1mL of 1000ppm Standard (WC85268F) to 1L w/ DI water volumetrically. Store in amber glass @ 4°C. Expires 1 year, 5/28/2010.

(C) 1.0ppm Working Reference Stock
 Dilute 1mL of 1000ppm Reference (WC85215G) to 1L w/ DI water volumetrically. Store in amber glass @ 4°C. Expires 1 year, 5/28/2010.

(D) Calibration Standard

Cal Std	mLs DI	mLs Standard (WC92008B)	Conc.
1	500	0	0.00
2	490	10	0.02
3	480	20	0.04
4	470	30	0.06
5	460	40	0.08
6	450	50	0.10
7	425	75	0.15
8	400	100	0.20
9	375	125	0.25
10	350	150	0.30
11	300	200	0.40

(E) ICV/CCV

To a 500mL separatory funnel add 350ml of DI water and 150mL of working reference stock (WC92008C). Analyze as a normal sample.
 True Value = 0.30mg/L.

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PROPRIETARY INFORMATION

TITLE PROJECT

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(A) LCS - Low Level

5/28/09 To a 1L separatory funnel add 490ml of DI water and 10ml of working standard stock (WC92008B). Analyze as normal sample. True Value = 0.02mg/L.

(B) LCS - High Level

To a 1L separatory funnel add 325ml of DI water and 175ml of working standard stock (WC92008B). Analyze as normal sample. True Value = 0.35mg/L.

(C) Matrix Spike

To a 1L separatory funnel add ^{05/28/09} 325ml of 500ml sample ^{0.175 mg 5/28/09} and add 0.325ml of 1000ppm Standard Stock (WC85268F). Analyze as normal. True Value = 0.35mg/L.

(D) 5/28/09 (D) TKH Digest Reagent

CHP same as WC91001D store at RT in amber glass exp 6/28/09

5/28/09 (E) 10% Phosphoric Acid

AB Same as WC 92007H. Expires 5/28/10.

5/28/09 (F) Ascorbic Acid - Konelab

CHP same as WC91002A. exp 6/12/09

5/28/09 (G) Received from CPI

33 4 (12) x 20 Oil & Grease Filter SPE disks, Cat# 4350-13, CPI Lot # 050809. Store at O/G bench. Exp: NA

Received from VWR

(H. U.) x 2.5 Kg Ammonium Sulfate, Cat# AX1385-3, EMD Lot # 48164910, CAS # 7783-20-2. Store @ R.T. Expires 5/28/14 1101811

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PROPRIETARY INFORMATION

2/12/09
BB

Ethylene Glycol

(A) ICV/CCV Prep (final vol = 1ml)
0.60 mL DI + 0.40 mL 10 ppm Ref. Stock (WC85268D)
TV = 4.06 ppm

(B) LAS/MS Prep

In 10 mL DI or sample, add 0.30 mL 10 ppm Std.
Working Stock (WC85268C).
TV = 3.00 ppm

(C) Glycol Std. Working Stock, 10 ppm

In a volumetric flask, dilute 0.10 mL Ethylene Glycol
10,000 ppm Std (WC85241A) to 100 mLs.
Make fresh per run.

(D) Glycol Ref. Working Stock, 10 ppm

In a volumetric flask, dilute 0.10 mL Ethylene Glycol
10,000 ppm Ref (WC85241B) to 100 mLs. Fresh each run.

(E) Standards for Glycol (final vol. = 1.0 mL)

Conc (ppm)	Vol. 10 ppm Std working Stock (WC85268C)	Vol. DI (mL)
1.0	0.10 mL	0.90
2.0	0.20 mL	0.80
4.0	0.40 mL	0.60
8.0	0.80 mL	0.20
10.0	1.00 mL	0.0

2/12/09
BB
Received from VWR

(F) (1) x 120 mL LAS Standard, 100 mL = 1.00 mg LAS
Cat # 4350-4, R100A Lot # 2811283, CAS # 7664-93-9,
68411-30-3, store @ 4°C. Expires 11/30/09 2187

2/13/09
(G) Phosphate buffer for DV254

Same as WC85254G. Expires 2/12/09

(H) KHP Std, 0.5 mg/mL

Same as WC85254H, except phosphate buffer is WC85268G
KHP is WC85062C.

2/18/09
SBR
(I) Cr⁶⁺ Color Reagent

In a 50 mL vol. flask dissolve 0.25 g 1,5-Diphenylcarbohydrazide (WC85190E) in
acetone (WC85203J) and bring to volume. Store @ 4°C. Exp 3/18/09

2/18/09
EW
(A) ISS Re
0.2148
DI.
TV = 6

2/18/09
EW
(B) Ericl
Add 5
(WC685
Store

2/18/09
SBR
(C) NC₂ Calc
In a 100
0.10 g NE
volume

(D) Ascorbic A
- same

2/18/09
SBR
(E) 10% Phos
- same

(F) Phenol
- same

2/18/09
OK
(G) Cr⁶⁺ Digest
See

2/19/09
Nin
(H) NH₃ C
- same

(I) Hypoc
- same

2/20/09
S
(J) 0.5 mL
0.211
Phos
Syringe

TITLE PROJECT

Continued from page

7/17/09 (A) TKN Digest Reagent
SBR - same as WC92029C Exp 8/17/09

7/17/09 Received from VWR

BB (B) (1) x 1 L Urkalim - Iodides - Azides, Cat # 540-32,
RCCA Lot # 2903812, CAS # 1310-73-2, 7681-11-0,
21628-22-8, 7732-18-5. Store @ R.T. Expires 3/31/11. 10990

(C) (1) x 1 L Manganese Sulfate Soln, Cat # BDH3329-1,
CAS # 10034-96-5, 7732-18-5. Store @ R.T. Expires 1/31/13.
BDH Lot # 9048. 10991

Received from Parr

(D) (1) x 100-1g Pellets Benzoic Acid, Cat # 3415, Parr
Lot # 022508, CAS # 65-85-0. Store @ R.T. Expires 7/12/14. 10984

Received from ERA

(E) (1) x 10ml vial MBAS/LAS Standard, 1000mg/L. ERA
Lot # 170865, Cat # 975. Store @ 4°C. Expires 5/31/11. 10985

7/20/09 Received from EMD

DPW (F) 4X4L Chloroform, Cat #: CX1059-1, lot #: 48171, store @ RT, exp: 7/20/2012
CAS #: 67-66-3.

7/20/09 FSS EW 7/20/09

EW (G) TSS Reference

0.2150g Kadin (WC69285 G) brought to 1000g w/ DI.
Store in plastic bottle @ 4°C
TV = 215 mg/L Exp: 6/2/10 (11013)

7/20/09 (H) Part Digestion Matrix - Hotel - TKN

en TO a 2-L nit flask add 300mls TKN Digest Reagent
(WC92043A) and bring to volume w/ UPDI. Mix thoroughly
Pour off volume and discard. Bring back to volume w/ UPDI.
Store at RT in amber jar Exp 8/17/09

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9/30/09 (A) Na₂S - Sulfide Reference

GN To a tared amber jar approx 0.4g Na₂S · 9H₂O
 GN (WC 9876230B) and dilute to 100g w/DI. Mix until
 dissolved. Store at 4°C for 2 weeks. Exp: 10/14/09

9/30/09 (B) Sodium phenolate - NH₃

NM To a tared 1-L amber bottle add:
 - 888g UPDI
 - 94.2g Liquefied Phenol (WC92085J)
 - 320g Sodium Hydroxide Pellets (WC92039±)
 stir until dissolved. Prepare and dissolve in hood.
 store @ 4°C Exp. 1 year, 9/30/10

9/30/09 Received from UWR

SBK (C) Ammonium Persulfate (11x500g Cat # AX1340-1 EM-AX1340-1.
 CAS # 7727-54-0, EMD lot # 49077931. Store @ 4°C. Expires 9/30/14
 see 9/30/09

10/1/09 (D) 0.1 N HCl - chlor a

SBK To a 100 mL vol flask, add 0.83 mL conc HCl (WC85188F) to DI. Bring
 to volume w/ DI. Store @ 0-6°C in plastic. Exp 10/1/10

10/1/09 (E) 1.0ppm LAS working Standard Stock

DPW Dilute 1.0mL of 1000ppm LAS Standard Stock (WC85208F) to 1L volumetrically w/DI.
 Store @ 4°C, Exp: 11/30/09.

(F) 1.0ppm LAS working Reference Stock

Dilute 1.0mL of 1000ppm LAS Reference Stock (WC92043E) to 1L volumetrically w/DI.
 Store @ 4°C, Exp: 10/1/2010.

DPW 10/1/09
 (G) LAS MBAS wash solution

Same as WC42087C, ~~see~~ DPW original prep'd: 9/30/09, Exp: 9/30/2010

(H) MBAS color Reagent

Same as WC92084E, Exp: 10/1/2010

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