Appendix F: Laboratory Reports

C.E.M. Solutions, Inc.

1183 E. Overdrive Circle
Hernando, FL 34442

Fagen - GREC

Project # 6132

Analytical Report
(1113-196)

EPA Method 202

Condensable Particulate Matter

Enthalpy Analytical, Inc.

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800-1 Capitola Drive Durham, NC 27713-4385

I certify that to the best of my knowledge all analytical data presented in this report:

- Have been checked for completeness
- Are accurate, error-free, and legible
- Have been conducted in accordance with approved protocol, and that all deviations and analytical problems are summarized in the appropriate narrative(s)

This analytical report was prepared in Portable Document Format (.PDF) and contains ??? pages.

Report Issued: xx/xx/xxxx

Summary of Results

Company	C.E.M. Solutions, Inc.
Analyst	KTH / JMD
Parameters	EPA Method 202

Client #	6132
Job #	1113-196
# Samples	3 Runs, 4 Blanks

Compound	Sample ID / Condensible Particulate Matter (mg)		
	Run 1	***Run 2***	***Run 3***
Net Organic Catch	7.4	4.7	3.3
Corrected Inorganic	7.6	2.6	1.7
TB Corrected CPM	13.0	5.3	3.0

	Field Blank	
Organic Catch	4.2	If Train Blank CPM is >2.0 mg,
Inorganic Catch	1.1	then sample correction is 2.0 mg.
CPM	5.4	

Results

Company	C.E.M. Solutions, Inc.	Client #	6132
Analyst	KTH / JMD	Job #	1113-196
Parameters	EPA Method 202	# Samples	3 Runs, 4 Blanks

Analysis of Condensible Particulate Recovery

Sample ID Number	***Field Blank***		***Run 1***		***Run 2***		***Run 3***	
Organic								
Beaker Number	*8115*		*8112*		*8113*		*8114*	
Initial Hexane/Acetone Volume, mL	176		184		220		338	
Lab Hexane Volume, mL	165	Dates	165	Dates	165	Dates	165	Dates
Final Weight, g	2.2985	12/2/13 4P	2.2649	12/2/13 4P	2.2702	12/2/13 4P	2.2632	12/2/13 4P
Reweigh, Final, g	2.2986	12/3/13 10A	2.2649	12/3/13 10A	2.2702	12/3/13 10A	2.2633	12/3/13 10A
Beaker Tare, g	2.2943	11/25/13	2.2575	11/25/13	2.2656	11/25/13	2.2600	11/25/13
Net Organic Catch, mg	4.2		7.4		4.7		3.3	
Inorganic								
Beaker Number	*8253*	Dates	*8250*	Dates	*8251*	Dates	*8252*	Dates
Final Weight, g	2.2837	12/3/13 10A	2.2992	12/3/13 10A	2.2830	12/3/13 10A	2.2884	12/3/13 10A
Reweigh, Final, g	2.2838	12/3/13 5P	2.2992	12/3/13 5P	2.2829	12/3/13 5P	2.2884	12/3/13 5P
Beaker Tare, g	2.2826	11/29/13	2.2917	11/29/13	2.2804	11/29/13	2.2867	11/29/13
Sample H2O volume, mL	164		1,134		1,078		1,080	
Added H2O, Filter Extraction, mL	75.0		75.0		75.0		75.0	
Removed Pre-aliquot, mL	0.500		0.500		0.500		0.500	
Pre-aliquot CF	1.002		1.000		1.000		1.000	
Resuspended Volume, mL	100		100		100		100	
Removed Post-aliquot, mL	0.500		0.500		0.500		0.500	
Post-aliquot CF	1.005		1.005		1.005		1.005	
Net Inorganic, mg	1.1		7.6		2.6		1.7	
Ammonium Correction, mg	0.0		0.0		0.0		0.0	
Corrected Inorganic, mg	1.1		7.6		2.6		1.7	
Condensible Particulate Matter, mg	5.4		15.0		7.3		5.0	
TB Corrected CPM, mg			13.0		5.3		3.0	

Client Blank Analyses

Type Blank	***Hexane***		Type Blank	***H2O Blank***		Type Blank	***Acetone***	
Beaker Number	*8116*	Dates	Beaker Number	*8254*	Dates	Beaker Number	*8118*	Dates
Dry Residue Weight, g	2.2825	12/2/13 4P	Dry Residue Weight, g	2.2566	12/3/13 10A	Dry Residue Weight, g	2.2746	12/2/13 4P
Reweigh, Final, g	2.2825	12/3/13 10A	Reweigh, Final, g	2.2566	12/3/13 5P	Reweigh, Final, g	2.2747	12/3/13 10A
Tare weight, g	2.2820	11/25/13	Tare weight, g	2.2559	11/29/13	Tare weight, g	2.2739	11/25/13
Hexane Residue, g	0.0005		Water Residue, g	0.0007		Acetone Residue, g	0.0008	
Hexane Volume, mL	196		Water Volume, mL	200		Acetone Volume, mL	198	
Max. Hexane Residue, g	0.0001		Max. Water Residue, g	0.0002		Max. Acetone Residue, g	0.0002	

In-House Blank Analyses

Type Blank	***Hexane***		Type Blank	***H2O Blank***		Type Blank	***Acetone***	
Beaker Number	*8117*	Dates	Beaker Number	*8255*	Dates	Beaker Number	*8119*	Dates
Dry Residue Weight, g	2.2833	12/2/13 4P	Dry Residue Weight, g	2.2752	12/3/13 10A	Dry Residue Weight, g	2.2781	12/2/13 4P
Reweigh, Final, g	2.2834	12/3/13 10A	Reweigh, Final, g	2.2752	12/3/13 5P	Reweigh, Final, g	2.2782	12/3/13 10A
Tare weight, g	2.2835	11/25/13	Tare weight, g	2.2750	11/29/13	Tare weight, g	2.2783	11/25/13
Hexane Residue, g	-0.0001		Water Residue, g	0.0002		Acetone Residue, g	-0.0001	
Hexane Volume, mL	225		Water Volume, mL	250		Acetone Volume, mL	200	
Max. Hexane Residue, g	0.0001		Max. Water Residue, g	0.0003		Max. Acetone Residue, g	0.0002	

Company	C.E.M. Solutions, Inc.	Client #	6132
Analyst	KTH / JMD	Job #	1113-196
Parameters	EPA Method 202	# Samples	3 Runs, 4 Blanks

MDL 0.09 (mg Ammonium)
MDL 0.26 (mg Sulfate)
Blank titrant amount (Vtb) 0.04
NH4OH normality 0.100 Lot # Sigma Aldrich 318620

Sample ID	Volume Resuspended (mL)	Titration Aliquot Vol (mL)	NH_4OH Titration Vol (mL)	Aliquot Factor (mL rec'd/aliq mL)	SO4 Catch (mg)	Ammonium equivalent (mg)
Field Blank	100	99.5	0.00	1.005	0.26 ND	0.09 ND
Run 1	100	99.5	0.00	1.005	0.26 ND	0.09 ND
Run 2	100	99.5	0.00	1.005	0.26 ND	0.09 ND
Run 3	100	99.5	0.00	1.005	0.26 ND	0.09 ND

Narrative Summary

Enthalpy Analytical Narrative Summary

Company	C.E.M. Solutions, Inc.
Analyst	KTH / JMD
Parameters	EPA Method 202

Client #	6132
Job #	1113-196
# Samples	3 Runs, 4 Blanks

Custody

Bryan Tyler of Enthalpy Analytical, Inc. received the samples on 11/24/13 at ambient temperature after being relinquished by C.E.M. Solutions, Inc. The samples were received in good condition. Prior to, during, and after analysis, the samples were kept under lock with access only to authorized personnel by Enthalpy Analytical, Inc.

Analysis

The samples were analyzed for Condensable Particulate Matter using the analytical procedures in EPA Method 202, Determination of Condensible Particulate Emissions from Stationary Sources (40 CFR Part 51, Appendix M).

All samples were weighed on Balance 8 (Sartorius Model ME 5-F, Serial # 23104965) certified by Mettler Toledo through July 31, 2014.

QC Notes

A field blank (train blank) was received and analyzed with these samples. The method specifies that blank corrections are accomplished by subtracting the particulate mass determined for the 'Field Train Blank' or 2 mg (whichever is less) from the sample weight.

Acetone, water, and hexane reagent blanks were received and analyzed with these samples. Results are reported for each of these blanks, but none are used to blank correct the associated sample results.

The inorganic results for the samples were corrected for the ammonium ions used to precipitate the sulfate, per the formula in the Method (Section 12.2.1).

Reporting Notes

Gravimetric analyses are considered to be accurate to ±0.5 mg. Therefore, negative catch weights between 0 and –0.5 mg are set to zero and no investigation is undertaken. Negative catch weights less than -0.5 mg are investigated. There were no catch weights less than -0.5mg for this set of Method 202 samples.

These analyses met the requirements of the TNI Standard. Any deviations from the requirements of the reference method or TNI Standard have been stated above.

The results presented in this report are representative of the samples as provided to the laboratory.

General Reporting Notes

The following are general reporting notes that are applicable to all Enthalpy Analytical, Inc. data reports, unless specifically noted otherwise.

- Any analysis which refers to the method as ***"Type"*** represents a planned deviation from the reference method. For instance a Hydrogen Sulfide assay from a Tedlar bag would be labeled as "EPA Method 16-Type" because Tedlar bags are not mentioned as one of the collection options in EPA Method 16.
- The acronym ***MDL*** represents the Minimum Detection Limit. Below this value the laboratory cannot determine the presence of the analyte of interest reliably.
- The acronym ***LOQ*** represents the Limit of Quantification. Below this value the laboratory cannot quantitate the analyte of interest within the criteria of the method.
- The acronym ***ND*** following a value indicates a non-detect or analytical result below the MDL.
- The letter ***J*** in the Qualifier or Flag column in the results indicates that the value is between the MDL and the LOQ. The laboratory can positively identify the analyte of interest as present, but the value should be considered an estimate.
- The letter ***E*** in the Qualifier or Flag column indicates an analytical result exceeding 100% of the highest calibration point. The associated value should be considered as an estimate.
- The acronym ***DF*** represents Dilution Factor. This number represents dilution of the sample during the preparation and/or analysis process. The analytical result taken from a laboratory instrument is multiplied by the DF to determine the final undiluted sample results.
- The addition of ***MS*** to the Sample ID represents a Matrix Spike. An aliquot of an actual sample is spiked with a known amount of analyte so that a percent recovery value can be determined. The MS analysis indicates what effect the sample matrix may have on the target analyte, i.e. whether or not anything in the sample matrix interferes with the analysis of the analyte(s).
- The addition of ***MSD*** to the Sample ID represents a Matrix Spike Duplicate. Prepared in the same manner as a MS, the use of duplicate matrix spikes allows further confirmation of laboratory quality by showing the consistency of results gained by performing the same steps multiple times.
- The addition of ***LD*** to the Sample ID represents a Laboratory Duplicate. The analyst prepares an additional aliquot of sample for testing and the results of the duplicate analysis are compared to the initial result. The result should have a difference value of within 10% of the initial result (if the results of the original analysis are greater than the LOQ).
- The addition of ***AD*** to the Sample ID represents an Alternate Dilution. The analyst prepares an additional aliquot at a different dilution factor (usually double the initial factor). This analysis helps confirm that no additional compound is present and coeluting or sharing absorbance with the analyte of interest, as they would have a different response/absorbance than the analyte of interest.

General Reporting Notes

(continued)

- The Sample ID ***LCS*** represents a Laboratory Control Sample. Clean matrix, similar to the client sample matrix, prepared and analyzed by the laboratory using the same reagents, spiking standards and procedures used for the client samples. The LCS is used to assess the control of the laboratory's analytical system. Whenever spikes are prepared for our client projects, two spikes are retained as LCSs. The LCSs are labeled with the associated project number and kept in-house at the appropriate temperature conditions. When the project samples are received for analysis, the LCSs are analyzed to confirm that the analyte could be recovered from the media, separate from the samples which were used on the project and which may have been affected by source matrix, sample collection and/or sample transport.
- **Significant Figures**: Where the reported value is much greater than unity (1.00) in the units expressed, the number is rounded to a whole number of units, rather than to 3 significant figures. For example, a value of 10,456.45 ug catch is rounded to 10,456 ug. There are five significant digits displayed, but no confidence should be placed on more than two significant digits.
- **Manual Integration**: The data systems used for processing will flag manually integrated peaks with an "M". There are several reasons a peak may be manually integrated. These reasons will be identified by the following two letter designations on sample chromatograms, if provided in the report. The peak was ***not integrated*** by the software **"NI"**, the peak was ***integrated incorrectly*** by the software **"II"** or the ***wrong peak*** was integrated by the software **"WP"**. These codes will accompany the analyst's manual integration stamp placed next to the compound name on the chromatogram.

Sample Custody

C.E.M. SOLUTIONS
1183 E. Overdrive Circle • Hernando, FL 34442 • Ph: (352) 489-4337 • Fax: (352) 489-4801
www.cem-solutions.com

Chain of Custody Record

Project #	Project Name:	# of Containers	CPM Filter	Cont1-1. Aqueous Liquid Impinger Contents	Cont1-2. Aqueous Liquid Impinger Contents	Cont2. Organic Rinse	DI Water	Acetone	Hexane		Comments
6132	Fagen - GREC										
Samplers: C. Horton/A. Houseal/B. Harris											

Sample ID	Date	Test Method	Comp.	Grab	Sample Location	# of Containers	CPM Filter	Cont1-1. Aqueous Liquid Impinger Contents	Cont1-2. Aqueous Liquid Impinger Contents	Cont2. Organic Rinse	DI Water	Acetone	Hexane		Comments
Run 1	11/20/2013	202	X		Unit 1 Stack	4	X	X	X	X					
Run 2	11/21/2013	202	X		Unit 1 Stack	4	X	X	X	X					
Run 3	11/22/2013	202	X		Unit 1 Stack	4	X	X	X	X					
Field Blank	11/18/2013	202		X	Blank	3	X	X		X					
Acetone Blank	11/18/2013	5/202		X	Blank	3						X			Lot# D3045
Water Blank	11/18/2013	202		X	Blank	3					X				Lot# 061913B
Hexane Blank	11/18/2013	202		X	Blank	3							X		Lot# BOOL0182

Relinquished by:	Date:	Time:	Received By:	Relinquished By:	Date:	Time:	Received By:
[signature]	11/23/13	1325	Bill Harris		11/24/13	1100	[signature] Chemtech
Relinquished by:	Date:	Time:	Received By:	Relinquished By:	Date:	Time:	Received By:
Received for Lab By:	**Date:**	**Time:**	Remarks:				

This Is The Last Page Of This Report.

C.E.M. Solutions, Inc.

1183 E. Overdrive Circle
Hernando, FL 34442

Fagen - GREC

Client Project # 6132

Analytical Report
(1113-210)

EPA CTM-027

Ammonia

EPA Method 26A

Hydrogen fluoride
Hydrogen chloride

NCASI Method 8A

Sulfuric acid mist

Enthalpy Analytical, Inc.

Phone: (919) 850 - 4392 / Fax: (919) 850 - 9012 / www.enthalpy.com
800-1 Capitola Drive Durham, NC 27713-4385

I certify that to the best of my knowledge all analytical data presented in this report:

- Have been checked for completeness
- Are accurate, error-free, and legible
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This analytical report was prepared in Portable Document Format (.PDF) and contains ??? pages.

Report Issued: xx/xx/xxxx

Summary of Results

Company	C.E.M. Solutions, Inc.
Analyst	WJG
Parameters	EPA CTM-027

Client #	6132
Job #	1113-210
# Samples	3 runs plus 1 blank

Compound	Sample ID / Catch Weight (ug)		
	CTM027-R1	***CTM027-R3***	***CTM027-R4***
Ammonia	827	755	819
	CTM027-FB-Imp.1		
Ammonia	3.17 ND		

Company	C.E.M. Solutions, Inc.
Analyst	WJG
Parameters	EPA Method 26A

Client #	6132
Job #	1113-210
# Samples	3 plus 1 Audit

Compound	Sample ID / Catch Weight (ug)		
	M26A-R2	***M26A-R3***	***M26A-R4***
Hydrogen fluoride	52.7 ND	55.3 ND	56.9 ND
Hydrogen chloride	51.4 ND	54.0 ND	55.5 ND

Compound	Sample ID / Concentration (mg/L)
	M26A-Audit-111313F
Hydrogen fluoride	30.3
Hydrogen chloride	29.9

Company	C.E.M. Solutions, Inc.
Analyst	AMP
Parameters	NCASI Method 8A

Client #	6132
Job #	1113-210
# Samples	3 plus 1 Blank

Compound	Sample ID / Catch Weight (ug)		
	M8A-U1S-R2	***M8A-U1S-R3***	***M8A-U1S-R4***
Sulfuric acid mist	6.94 ND	6.23 ND	5.41 ND
	M8A-U1S-FB		
Sulfuric acid mist	5.31 ND		

Results

Company	C.E.M. Solutions, Inc.
Analyst	WJG
Parameters	EPA CTM-027

Client #	6132
Job #	1113-210
# Samples	3 runs plus 1 blank

MDL 0.0235 (ug/mL)
LOQ 0.235 (ug/mL)
Compound Ammonia

Lower Curve Limit 0.235 (ug/mL)
Upper Curve Limit 12.3 (ug/mL)

Sample ID	Lab ID # 1	Lab ID # 2	Analysis Method	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ug/mL)	Conc # 2 (ug/mL)	% Diff Conc	Avg Conc (ug/mL)	DF	Vol (mL)	Catch Weight (ug)	Qual
CTM027-R1 Imp.1	011-1101.D	011-1102.D	HPLC70PG192.M	5.57	5.58	0.1	2.73	2.69	0.7	2.71	1	305	827	
CTM027-R1 Imp.2	012-1201.D	012-1202.D	HPLC70PG192.M	NA	NA	NA	0.0235	0.0235	0.0	0.0235	1	198	4.65	ND
													827	
CTM027-R3 Imp.1	013-1301.D	013-1302.D	HPLC70PG192.M	5.61	5.59	0.4	2.18	2.17	0.0	2.18	1	342	744	
CTM027-R3 Imp.2	014-1401.D	014-1402.D	HPLC70PG192.M	5.53	5.50	0.6	0.0465	0.0463	0.2	0.0464	1	230	10.7	J
													755	
CTM027-R4 Imp.1	015-1501.D	015-1502.D	HPLC70PG192.M	5.62	5.60	0.4	2.37	2.37	0.1	2.37	1	345	819	
CTM027-R4 Imp.2	016-1601.D	016-1602.D	HPLC70PG192.M	NA	NA	NA	0.0235	0.0235	0.0	0.0235	1	212	4.98	ND
													819	
CTM027-FB-Imp.1	017-1701.D	017-1702.D	HPLC70PG192.M	NA	NA	NA	0.0235	0.0235	0.0	0.0235	1	135	3.17	ND
MS/CTM027-R1-Imp.2	018-1801.D	018-1802.D	HPLC70PG192.M	5.59	5.61	0.4	4.20	4.21	0.0	4.20	1	0.520	2.19	
												Spike Amount (ug)	1.89	
												Native Amount (ug)	0.00	
												Spike Recovery (%)	116%	
MSD/CTM027-R1-Imp.2	019-1901.D	019-1902.D	HPLC70PG192.M	5.59	5.61	0.3	4.23	4.32	1.1	4.27	1	0.520	2.22	
												Spike Amount (ug)	1.89	
												Native Amount (ug)	0.00	
												Spike Recovery (%)	118%	
HPLC70PG185 #SS	008-0901.D	008-0902.D	HPLC70PG192.M	5.57	5.60	0.5	5.51	5.46	0.4	5.48	1	1.00	5.48	
												Spike Amount (ug)	5.55	
												Spike Recovery (%)	98.7%	
40 mM H2SO4 (RB)	009-1001.D	009-1002.D	HPLC70PG192.M	5.52	5.55	0.5	0.0346	0.0258	14.6	0.0302	1	1.00	0.0302	J

Company	C.E.M. Solutions, Inc.
Analyst	WJG
Parameters	EPA Method 26A

Client #	6132
Job #	1113-210
# Samples	3 plus 1 Audit

MDL 0.0200 (ug/mL)
LOQ 0.200 (ug/mL)
Compound Hydrogen fluoride

Lower Curve Limit 0.200 (ug/mL)
Upper Curve Limit 15.0 (ug/mL)

Sample ID	Lab ID # 1	Lab ID # 2	Analysis Method	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ug/mL)	Conc # 2 (ug/mL)	% Diff Conc	Avg Conc (ug/mL)	DF	Vol (mL)	CF	Catch Weight (ug)	Qual
M26A-R2 Imp.1&2	062-2201.D	062-2202.D	HPLC78PG054.M	NA	NA	NA	0.0200	0.0200	0.0	0.0200	5	500	1.053	52.7	ND
M26A-R3 Imp.1&2	063-2301.D	063-2302.D	HPLC78PG054.M	NA	NA	NA	0.0200	0.0200	0.0	0.0200	5	525	1.053	55.3	ND
M26A-R4 Imp.1&2	064-2401.D	064-2402.D	HPLC78PG054.M	NA	NA	NA	0.0200	0.0200	0.0	0.0200	5	540	1.053	56.9	ND
M26A-Audit-111313F	065-2501.D	065-2502.D	HPLC78PG054.M	2.81	2.80	0.1	5.74	5.76	0.2	5.75	5	1000	1.053	30,273	
MS/M26A-R2-Imp.1&2	066-2601.D	066-2602.D	HPLC78PG054.M	2.81	2.80	0.1	1.29	1.29	0.1	1.29	1	10.0	1.053	13.6	
													Spike Amount (ug)	13.2	
													Native Amount (ug)	0.00	
													Spike Recovery (%)	103%	
MSD/M26A-R2-Imp.1&2	067-2701.D	067-2702.D	HPLC78PG054.M	2.81	2.80	0.1	1.28	1.28	0.0	1.28	1	10.0	1.053	13.5	
													Spike Amount (ug)	13.2	
													Native Amount (ug)	0.00	
													Spike Recovery (%)	102%	
WJGFB01PG026 #LCS Acid	007-0801.D	007-0802.D	HPLC78PG054.M	2.80	2.80	0.1	4.93	4.96	0.3	4.95	1	10.0	1.053	52.1	
													Spike Amount (ug)	52.7	
													Spike Recovery (%)	98.9%	
Reagent Blank	008-0901.D	008-0902.D	HPLC78PG054.M	NA	NA	NA	0.0200	0.0200	0.0	0.0200	1	1.00	1.053	0.0211	ND

Company	C.E.M. Solutions, Inc.
Analyst	WJG
Parameters	EPA Method 26A

Client #	6132
Job #	1113-210
# Samples	3 plus 1 Audit

MDL 0.0200 (ug/mL)
LOQ 0.200 (ug/mL)
Compound Hydrogen chloride

Lower Curve Limit 0.200 (ug/mL)
Upper Curve Limit 15.0 (ug/mL)

Sample ID	Lab ID # 1	Lab ID # 2	Analysis Method	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ug/mL)	Conc # 2 (ug/mL)	% Diff Conc	Avg Conc (ug/mL)	DF	Vol (mL)	CF	Catch Weight (ug)	Qual
M26A-R2 Imp.1&2	062-2201.D	062-2202.D	HPLC78PG054.M	NA	NA	NA	0.0200	0.0200	0.0	0.0200	5	500	1.028	51.4	ND
M26A-R3 Imp.1&2	063-2301.D	063-2302.D	HPLC78PG054.M	NA	NA	NA	0.0200	0.0200	0.0	0.0200	5	525	1.028	54.0	ND
M26A-R4 Imp.1&2	064-2401.D	064-2402.D	HPLC78PG054.M	NA	NA	NA	0.0200	0.0200	0.0	0.0200	5	540	1.028	55.5	ND
M26A-Audit-111313F	065-2501.D	065-2502.D	HPLC78PG054.M	3.76	3.76	0.0	5.84	5.81	0.2	5.83	5	1000	1.028	29,947	
MS/M26A-R2-Imp.1&2	066-2601.D	066-2602.D	HPLC78PG054.M	3.77	3.77	0.0	2.46	2.46	0.0	2.46	1	10.0	1.028	25.3	
													Spike Amount (ug)	25.7	
													Native Amount (ug)	0.00	
													Spike Recovery (%)	98.3%	
MSD/M26A-R2-Imp.1&2	067-2701.D	067-2702.D	HPLC78PG054.M	3.77	3.77	0.2	2.46	2.46	0.0	2.46	1	10.0	1.028	25.3	
													Spike Amount (ug)	25.7	
													Native Amount (ug)	0.00	
													Spike Recovery (%)	98.5%	
WJGFB01PG026 #LCS Acid	007-0801.D	007-0802.D	HPLC78PG054.M	3.75	3.76	0.1	4.93	4.95	0.2	4.94	1	10.0	1.028	50.8	
													Spike Amount (ug)	51.4	
													Spike Recovery (%)	98.8%	
Reagent Blank	008-0901.D	008-0902.D	HPLC78PG054.M	NA	NA	NA	0.0200	0.0200	0.0	0.0200	1	1.00	1.028	0.0206	ND

Company	C.E.M. Solutions, Inc.
Analyst	WJG
Parameters	NCASI Method 8A

Client #	6132
Job #	1113-210
# Samples	3 plus 1 Blank

MDL 0.0200 (ug/mL)
LOQ 0.200 (ug/mL)
Compound Sulfuric acid mist

Lower Curve Limit 0.200 (ug/mL)
Upper Curve Limit 15.0 (ug/mL)

Sample ID	Lab ID # 1	Lab ID # 2	Analysis Method	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ug/mL)	Conc # 2 (ug/mL)	% Diff Conc	Avg Conc (ug/mL)	DF	Vol (mL)	CF	Catch Weight (ug)	Qual
M8A-U1S-R2 Cond	011-0901.D	011-0902.D	HPLC78PG054.M	NA	NA	NA	0.0200	0.0200	0.0	0.0200	1	340	1.021	6.94	ND
M8A-U1S-R3 Cond	012-1001.D	012-1002.D	HPLC78PG054.M	NA	NA	NA	0.0200	0.0200	0.0	0.0200	1	305	1.021	6.23	ND
M8A-U1S-R4 Cond	013-1101.D	013-1102.D	HPLC78PG054.M	NA	NA	NA	0.0200	0.0200	0.0	0.0200	1	265	1.021	5.41	ND
M8A-U1S-FB Cond	014-1201.D	014-1202.D	HPLC78PG054.M	NA	NA	NA	0.0200	0.0200	0.0	0.0200	1	260	1.021	5.31	ND
MS/M8A-U1S-R2-Cond.	015-1301.D	015-1302.D	HPLC78PG054.M	10.27	10.27	0.0	1.83	1.84	0.3	1.84	1	0.520	1.021	0.975	
													Spike Amount (ug)		1.02	
													Native Amount (ug)		0.00	
													Spike Recovery (%)		95.4%	
MSD/M8A-U1S-R2-Cond.	016-1401.D	016-1402.D	HPLC78PG054.M	10.27	10.25	0.2	1.90	1.92	0.5	1.91	1	0.520	1.021	1.01	
													Spike Amount (ug)		1.02	
													Native Amount (ug)		0.00	
													Spike Recovery (%)		99.4%	
HPLC77PG028 STD#SS	007-0701.D	007-0702.D	HPLC78PG054.M	10.21	10.25	0.4	2.36	2.36	0.1	2.36	1	1.00	1.021	2.41	
													Spike Amount (ug)		2.55	
													Spike Recovery (%)		94.5%	
RB/DI H2O	008-0801.D	008-0802.D	HPLC78PG054.M	NA	NA	NA	0.0200	0.0200	0.0	0.0200	1	1.00	1.021	0.0204	ND

Narrative Summary

Enthalpy Analytical Narrative Summary

Company	C.E.M. Solutions
Analyst	WJG
Parameters	EPA CTM-027

Client #	6132
Job #	1113-210
# Samples	3 Runs plus blank

Custody	Chester Burnett of Enthalpy Analytical, Inc. received the samples on 11/26/13 at 2.9°C after being relinquished by C.E.M. Solutions, Inc. The samples were received in good condition. Prior to, during, and after analysis, the samples were kept under lock with access only to authorized personnel by Enthalpy Analytical, Inc.
Analysis	The samples were analyzed for ammonia using the analytical procedures in EPA Conditional Test Method 027, Procedure for Collection and Analysis of Ammonia in Stationary Sources. The samples were analyzed following the procedures in Section 4.2, Sample Analysis. The volumes measured for all impingers were recorded and used to calculate the µg catch weight. The lower volume samples were not brought up to the method-specfied voluem of 250-mL per the client's directions. The Agilent Model 1100, High Performance Liquid Chromatograph ("Patty" S/N DE22616162) was equipped with a Dionex ED40 Electrochemical Detector and a Dionex Ion Pac CS12, 4 x 250 mm column (S/N 009772).
Calibration	The calibration curve is located in the Raw Data section of this report and referenced in the Analysis Method column on the Detailed Results page. For each calibration curve used, the first page of the curve contains all method specific parameters (i.e., curve type, origin, weight, etc.) used to quantify the samples. The calibration curve section also includes a table with the Retention Time (RetTime), Level (Lvl), Amount (corresponding units), Area, Response Factor (Amt/Area) and the analyte Name. The calibration table is used to identify (by retention time) and quantify each target compound.
Chromatographic Conditions	The acquisition method ENVRNH3_PATTY.M is included in the Raw Data section of this report.

Enthalpy Analytical Narrative Summary
(continued)

QC Notes	The analysis of Field Blank ***CTM027-FB-Imp.1*** did not contain ammonia at a concentration greater than the minimum detection limit. The analysis of the laboratory reagent blank, ***40 mM H2SO4***, contained ammonia at a concentration greater than the MDL, but below the LOQ. The analyses of the second source standard (HPLC70PG185 #SS) was also used as the LCS and exhibited a spike recovery value of 100%.
Reporting Notes	The results presented in this report are representative of the samples as provided to the laboratory.

Enthalpy Analytical Narrative Summary

Company	C.E.M. Solutions, Inc.
Analyst	WJG
Parameters	EPA Method 26A

Client #	6132
Job #	1113-210
# Samples	3 Runs and 1 Audit

Custody

Chester Burnett of Enthalpy Analytical, Inc. received the samples on 11/26/13 at 2.9°C after being relinquished by CEM Solutions, Inc. The samples were received in good condition. Prior to, during, and after analysis, the samples were kept under lock with access only to authorized personnel by Enthalpy Analytical, Inc.

Analysis

The samples were analyzed for fluoride and chloride using the analytical procedures in EPA Method 26A, Determination of Hydrogen Halide and Halogen Emissions from Stationary Sources Isokinetic Method (40 CFR Part 60, Appendix A).

All samples and standards are prepared, stored, and analyzed using high-density polyethylene containers.

The ampulated audit material was prepared and then analyzed with the samples.

The Metrohm 861 Compact IC "Smithers" (S/N 1861002007189) was equipped with a Metrohm 861 Conductivity Detector and a Metrosep A Supp 5 - 110/4.0 mm column (S/N # 7112324).

Calibration

The calibration curves are included in the Raw Data section of this report and referenced in the Analysis Method column on the Detailed Results page.

For each calibration curve used, the first page of the curve contains all method specific parameters (i.e., curve type, origin, weight, etc.) used to quantify the samples. The calibration curve section also includes a table with the Retention Time (RetTime), Level (Lvl), Amount (corresponding units), Area, Response Factor (Amt/Area) and the analyte Name. The calibration table is used to identify (by retention time) and quantify each target compound.

The second injection of the low level standard in the post sample calibration curve was no good. For the low level standard in the cuurve the three good injections have been used to determine the response.

Enthalpy Analytical Narrative Summary
(continued)

Chromatographic Conditions	The acquisition method METROHM.M is included in the Raw Data section of this report.
QC Notes	A client field blank was not received with these samples. No fluoride or chloride was identified in the analysis of the laboratory reagent blank.
Reporting Notes	The sulfuric acid matrix samples were analyzed for chloride and fluoride but are reported as hydrogen chloride and hydrogen fluoride. The results were converted using conversion factors of 1.028 for hydrogen chloride and 1.053 for hydrogen fluoride to account for the additional hydrogen mass. The sample results are reported as ug catch weights as is standard for this method. The audit sample results are displayed as mg/L concentration values on the summary page, as they are to be reported to the provider for the audit program. The catch weight values are shown on the detailed results tables. These analyses met the requirements of the TNI Standard. Any deviations from the requirements of the reference method or TNI Standard have been stated above. The results presented in this report are representative of the samples as provided to the laboratory.

Enthalpy Analytical Narrative Summary

Company	C.E.M. Solutions, Inc.
Analyst	AMP
Parameters	NCASI Method 8A

Client #	6132
Job #	1113-210
# Samples	3 Runs, 1 blank

Custody	Chester Burnett of Enthalpy Analytical, Inc. received the samples on 11/26/13 at 2.9°C after being relinquished by C.E.M. Solutions, Inc. The samples were received in good condition. Prior to, during, and after analysis, the samples were kept under lock with access only to authorized personnel by Enthalpy Analytical, Inc.
Analysis	The samples were analyzed for sulfate using the analytical procedures in NCASI Method 8A (HPLC/IC Analysis), Determination of Sulfuric Acid Vapor or Mist and Sulfur Dioxide Emissions from Kraft Recovery Furnaces. The Agilent Model 1100, High Performance Liquid Chromatograph ("Gonzo") was equipped with a Dionex CD20 Conductivity Detector and a Dionex Ion Pac AS14A, 4 x 250 mm column (S/N005521).
Calibration	The calibration curve is located in the Raw Data section of this report and referenced in the Analysis Method column on the Detailed Results page. For each calibration curve used, the first page of the curve contains all method specific parameters (i.e., curve type, origin, weight, etc.) used to quantify the samples. The calibration curve section also includes a table with the Retention Time (RetTime), Level (Lvl), Amount (corresponding units), Area, Response Factor (Amt/Area) and the analyte Name. The calibration table is used to identify (by retention time) and quantify each target compound.
Chromatographic Conditions	The acquisition method (ANIONS.M) is included in the Raw Data section of this report.
QC Notes	The analysis of the ***M8A-U1S-FB*** did not contain sulfate at a concentration greater than the MDL. The analysis of the laboratory reagent blank did not contain sulfate at a concentration greater than the MDL. Duplicate matrix spikes were prepared using aliquots of the sample ***M8A-U1S-R2-Cond.*** The MS and MSD spike recovery values were 95.4% and 99.4% respectively.

Enthalpy Analytical Narrative Summary
(continued)

Reporting Notes	The analyses of the second source standard (HPLC77PG028 STD#SS) was also used as the LCS and exhibited a spike recovery value of 94.5%. The volumes measured in the laboratory were used when determining the total catch weights. The samples were analyzed for sulfate but were reported as sulfuric acid mist. The sulfuric acid mist results were calculated using a conversion factor of 1.021 to account for the additional hydrogen mass. The results presented in this report are representative of the samples as provided to the laboratory.

General Reporting Notes

The following are general reporting notes that are applicable to all Enthalpy Analytical, Inc. data reports, unless specifically noted otherwise.

- Any analysis which refers to the method as ***"Type"*** represents a planned deviation from the reference method. For instance a Hydrogen Sulfide assay from a Tedlar bag would be labeled as "EPA Method 16-Type" because Tedlar bags are not mentioned as one of the collection options in EPA Method 16.
- The acronym ***MDL*** represents the Minimum Detection Limit. Below this value the laboratory cannot determine the presence of the analyte of interest reliably.
- The acronym ***LOQ*** represents the Limit of Quantification. Below this value the laboratory cannot quantitate the analyte of interest within the criteria of the method.
- The acronym ***ND*** following a value indicates a non-detect or analytical result below the MDL.
- The letter ***J*** in the Qualifier or Flag column in the results indicates that the value is between the MDL and the LOQ. The laboratory can positively identify the analyte of interest as present, but the value should be considered an estimate.
- The letter ***E*** in the Qualifier or Flag column indicates an analytical result exceeding 100% of the highest calibration point. The associated value should be considered as an estimate.
- The acronym ***DF*** represents Dilution Factor. This number represents dilution of the sample during the preparation and/or analysis process. The analytical result taken from a laboratory instrument is multiplied by the DF to determine the final undiluted sample results.
- The addition of ***MS*** to the Sample ID represents a Matrix Spike. An aliquot of an actual sample is spiked with a known amount of analyte so that a percent recovery value can be determined. The MS analysis indicates what effect the sample matrix may have on the target analyte, i.e. whether or not anything in the sample matrix interferes with the analysis of the analyte(s).
- The addition of ***MSD*** to the Sample ID represents a Matrix Spike Duplicate. Prepared in the same manner as a MS, the use of duplicate matrix spikes allows further confirmation of laboratory quality by showing the consistency of results gained by performing the same steps multiple times.
- The addition of ***LD*** to the Sample ID represents a Laboratory Duplicate. The analyst prepares an additional aliquot of sample for testing and the results of the duplicate analysis are compared to the initial result. The result should have a difference value of within 10% of the initial result (if the results of the original analysis are greater than the LOQ).
- The addition of ***AD*** to the Sample ID represents an Alternate Dilution. The analyst prepares an additional aliquot at a different dilution factor (usually double the initial factor). This analysis helps confirm that no additional compound is present and coeluting or sharing absorbance with the analyte of interest, as they would have a different response/absorbance than the analyte of interest.

General Reporting Notes

(continued)

- The Sample ID ***LCS*** represents a Laboratory Control Sample. Clean matrix, similar to the client sample matrix, prepared and analyzed by the laboratory using the same reagents, spiking standards and procedures used for the client samples. The LCS is used to assess the control of the laboratory's analytical system. Whenever spikes are prepared for our client projects, two spikes are retained as LCSs. The LCSs are labeled with the associated project number and kept in-house at the appropriate temperature conditions. When the project samples are received for analysis, the LCSs are analyzed to confirm that the analyte could be recovered from the media, separate from the samples which were used on the project and which may have been affected by source matrix, sample collection and/or sample transport.
- **Significant Figures**: Where the reported value is much greater than unity (1.00) in the units expressed, the number is rounded to a whole number of units, rather than to 3 significant figures. For example, a value of 10,456.45 ug catch is rounded to 10,456 ug. There are five significant digits displayed, but no confidence should be placed on more than two significant digits.
- **Manual Integration**: The data systems used for processing will flag manually integrated peaks with an "M". There are several reasons a peak may be manually integrated. These reasons will be identified by the following two letter designations on sample chromatograms, if provided in the report. The peak was ***not integrated*** by the software **"NI"**, the peak was ***integrated incorrectly*** by the software **"II"** or the ***wrong peak*** was integrated by the software **"WP"**. These codes will accompany the analyst's manual integration stamp placed next to the compound name on the chromatogram.

Sample Custody

C.E.M. SOLUTIONS
1183 E. Overdrive Circle • Hernando, FL 34442 • Ph: (352) 489-4337 • Fax: (352) 489-4801
www.cem-solutions.com

Chain of Custody Record

Project #	Project Name:
6132	Fagen - GREC

Samplers: C. Horton/J. Cooper

Sample ID	Date	Test Method	Comp.	Grab	Sample Location	# of Containers	C1- Impinger 1	C2- Impinger 2							Comments
Run 1	11/23/2013	CTM-027	X		Unit 1 Stack	2	X	X							
Run 3	11/23/2013	CTM-027	X		Unit 1 Stack	2	X	X							
Run 4	11/23/2013	CTM-027	X		Unit 1 Stack	2	X	X							
Field Blank	11/23/2013	CTM-027		X	Blank	1	X								

Relinquished by:	Date:	Time:	Received By:	Relinquished By:	Date:	Time:	Received By:
[signature]	11/26/13	1500					
Relinquished by:	Date:	Time:	Received By:	Relinquished By:	Date:	Time:	Received By:
Received for Lab By: Chester Burnett	Date: 11-26-13	Time: 2:05P	Remarks: ~~2-day tat,~~ stored on Ice CH See S. Johnsen for TAT				

Temp= 2.9E RayGun #1

C.E.M. SOLUTIONS
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www.cem-solutions.com

Chain of Custody Record

Project #	Project Name:
6132	Fagen - GREC

Samplers: C. Horton/J. Cooper

Sample ID	Date	Test Method	Comp.	Grab	Sample Location	# of Containers	C1 - Impingers 1, 2 and rinse								Comments
Run 2	11/23/2013	26A	X		Unit 1 Stack	1	X								
Run 3	11/23/2013	26A	X		Unit 1 Stack	1	X								
Run 4	11/23/2013	26A	X		Unit 1 Stack	1	X								
Audit	11/25/13	26A		x	Audit Sample	1									111313F CCB 11-26-13

Relinquished by:	Date:	Time:	Received By:	Relinquished By:	Date:	Time:	Received By:
	11/25/13	1500					
Relinquished by:	Date:	Time:	Received By:	Relinquished By:	Date:	Time:	Received By:
Received for Lab By: Cheste Burnett	Date: 11-26-13	Time: 2:05P	Remarks: ~~2-day tat~~ See J. Johnson for TAT				

Temp= 2.9C Ray Gun #1

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Chain of Custody Record

Project #: 6132

Project Name: Foam/GREL Unit 1 Compliance

Samplers: AH/D.K.

Sample ID	Date	Test Method	Comp.	Grab	Sample Location	# of Containers	Field Blank	Comments
Run 1 2	11/23/13	8A	X		Unit 1 Stack	1		Contains Filter & condenser rinse
Run 2 3	11/23/13	8A	X		Unit 1 Stack	1		" " " "
Run 3 4 (CB 11-26-13)	11/23/13	8A	X		Unit 1 Stack	1		" " " "
Field Blank	11/23/13	8A		X	Unit 1 Stack		1	" " " "

Relinquished by:	Date: 11/25/13	Time: 1500	Received By:	Relinquished By:	Date:	Time:	Received By:	
Relinquished by:	Date:	Time:	Received By:	Relinquished By:	Date:	Time:	Received By:	
Received for Lab By: Cheryle Burnett	Date: 11-26-13	Time: 2:05P	Remarks: Expecting very low catch, for lowest detection limit possible when analyzing samples, See J. Johnson for T.A.'s					

Temp= 2.9°C Ray Gun #1

Raw Data

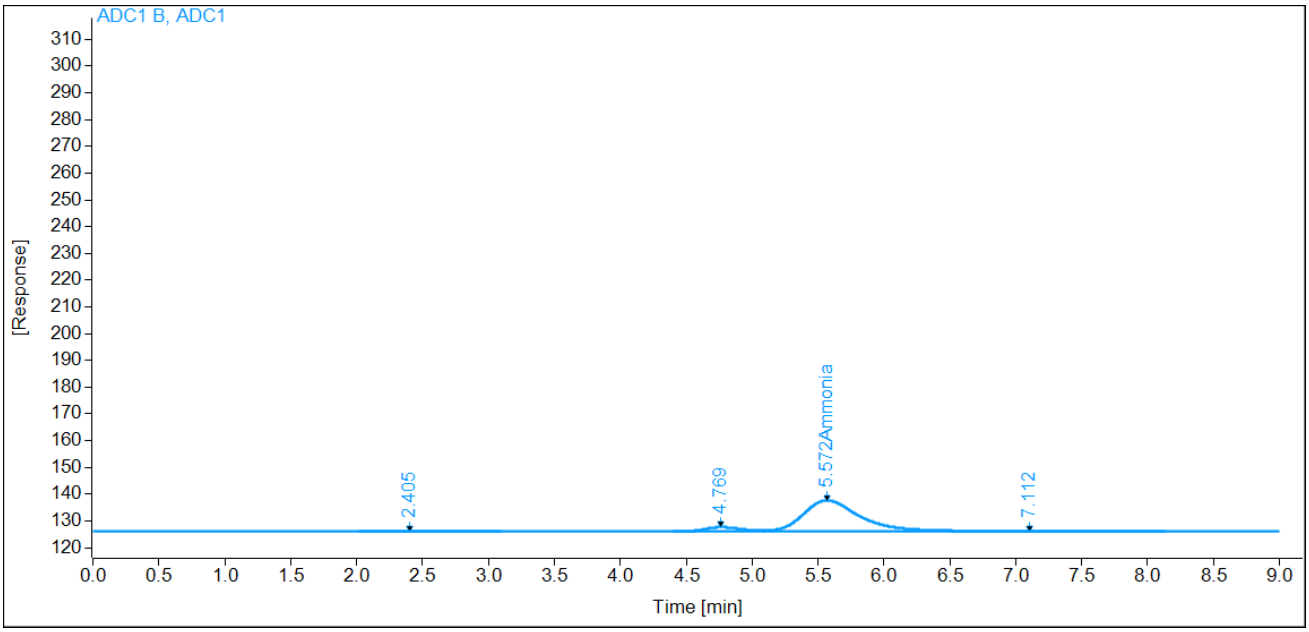
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC70PG192----175\011-1101.D
Sample name: CTM027-R1-Imp.1 1113-210
Description:

Instrument: Patty
Injection date: 11/30/2013 5:52:08 PM
Acq. method: AMM_ENV_18.M
Analysis method: HPLC70PG192.M

Last changed: 12/1/2013 12:12:58 PM

Sample type: Sample
Location: Vial 11
Injection volume: 35.000
Injection: 1 of 2
Acq. operator: Matt Melvin



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Ammonia	VV	5.57	366.9148	0.00744	2.730	ug/mL

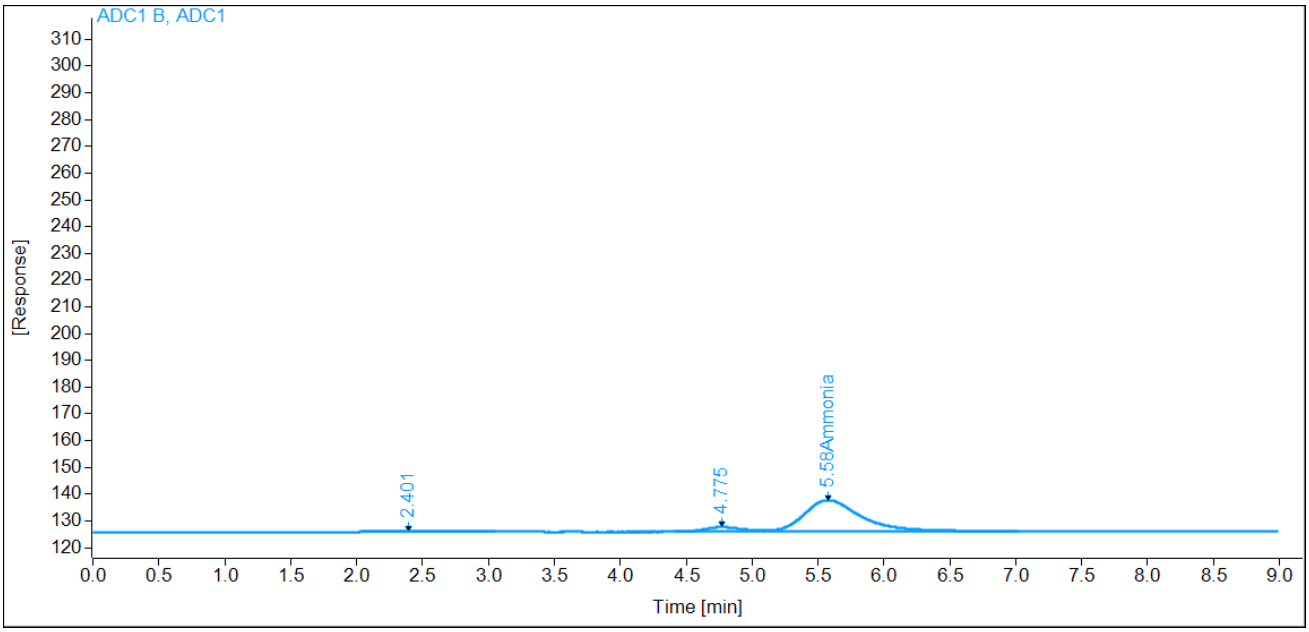
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC70PG192----175\011-1102.D
Sample name: CTM027-R1-Imp.1 1113-210
Description:

Instrument: Patty
Injection date: 11/30/2013 6:04:04 PM
Acq. method: AMM_ENV_18.M
Analysis method: HPLC70PG192.M

Last changed: 12/1/2013 12:12:58 PM

Sample type: Sample
Location: Vial 11
Injection volume: 35.000
Injection: 2 of 2
Acq. operator: Matt Melvin



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Ammonia	VB	5.58	362.1530	0.00743	2.692	ug/mL

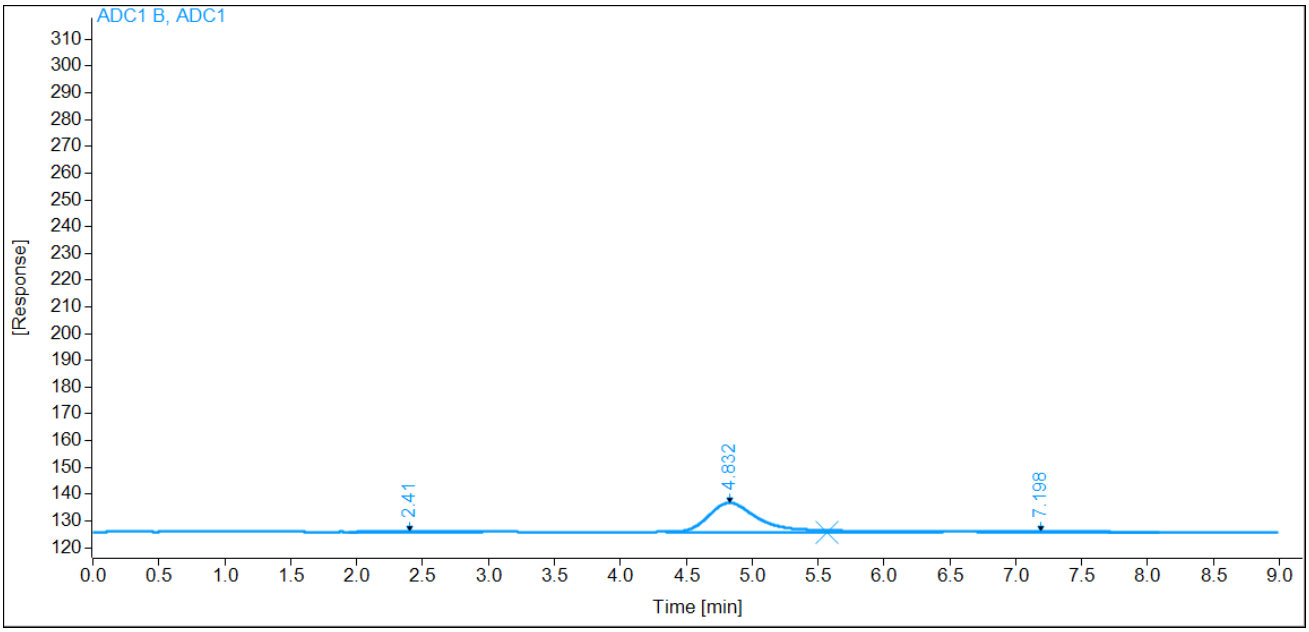
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC70PG192----175\012-1201.D
Sample name: CTM027-R1-Imp.2 1113-210
Description:

Instrument: Patty
Injection date: 11/30/2013 6:15:59 PM
Acq. method: AMM_ENV_18.M
Analysis method: HPLC70PG192.M

Last changed: 12/1/2013 12:12:58 PM

Sample type: Sample
Location: Vial 12
Injection volume: 35.000
Injection: 1 of 2
Acq. operator: Matt Melvin



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Ammonia					0	ug/mL

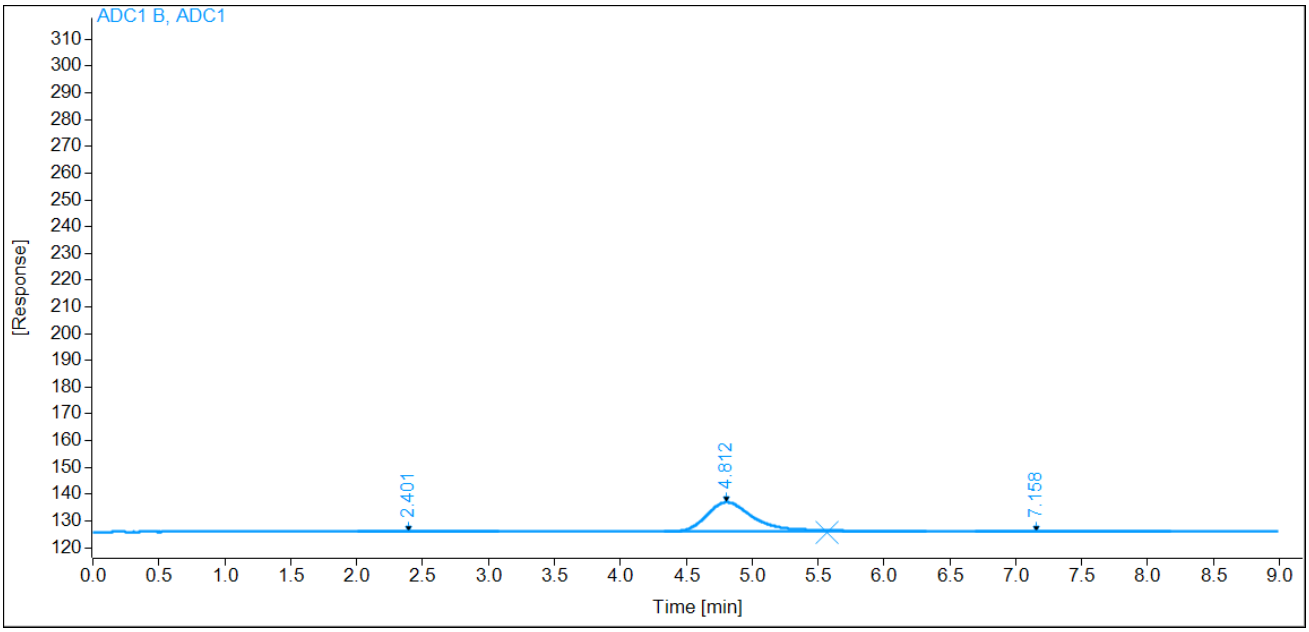
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC70PG192----175\012-1202.D
Sample name: CTM027-R1-Imp.2 1113-210
Description:

Instrument: Patty
Injection date: 11/30/2013 6:28:06 PM
Acq. method: AMM_ENV_18.M
Analysis method: HPLC70PG192.M

Last changed: 12/1/2013 12:12:58 PM

Sample type: Sample
Location: Vial 12
Injection volume: 35.000
Injection: 2 of 2
Acq. operator: Matt Melvin



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Ammonia					0	ug/mL

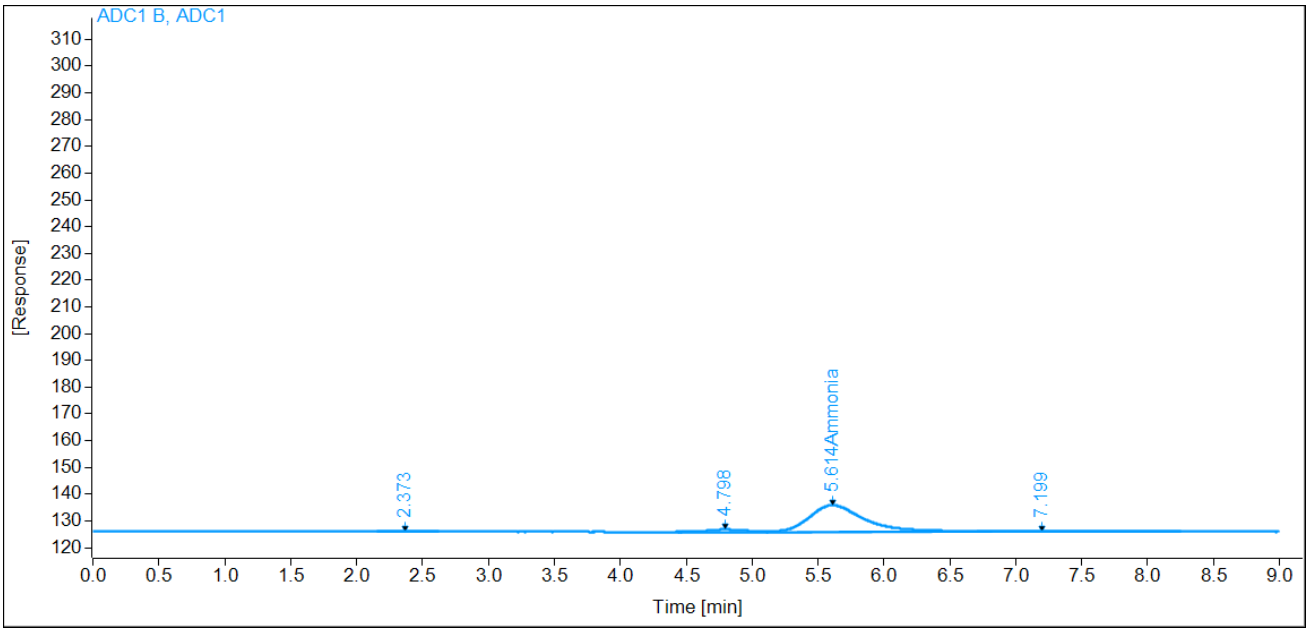
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC70PG192----175\013-1301.D
Sample name: CTM027-R3-Imp.1 1113-210
Description:

Instrument: Patty
Injection date: 11/30/2013 6:39:51 PM
Acq. method: AMM_ENV_18.M
Analysis method: HPLC70PG192.M

Last changed: 12/1/2013 12:12:58 PM

Sample type: Sample
Location: Vial 13
Injection volume: 35.000
Injection: 1 of 2
Acq. operator: Matt Melvin



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Ammonia	VV	5.61	296.7928	0.00733	2.176	ug/mL

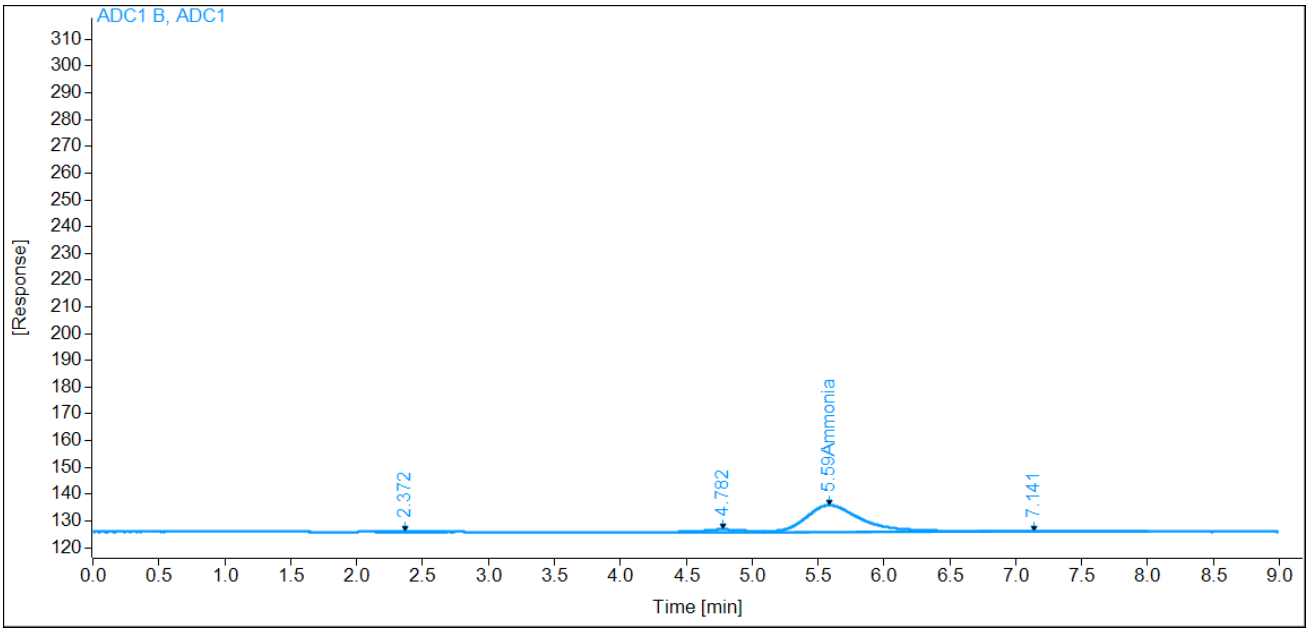
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC70PG192----175\013-1302.D
Sample name: CTM027-R3-Imp.1 1113-210
Description:

Instrument: Patty
Injection date: 11/30/2013 6:51:48 PM
Acq. method: AMM_ENV_18.M
Analysis method: HPLC70PG192.M

Last changed: 12/1/2013 12:12:58 PM

Sample type: Sample
Location: Vial 13
Injection volume: 35.000
Injection: 2 of 2
Acq. operator: Matt Melvin



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Ammonia	VB	5.59	296.6291	0.00733	2.175	ug/mL

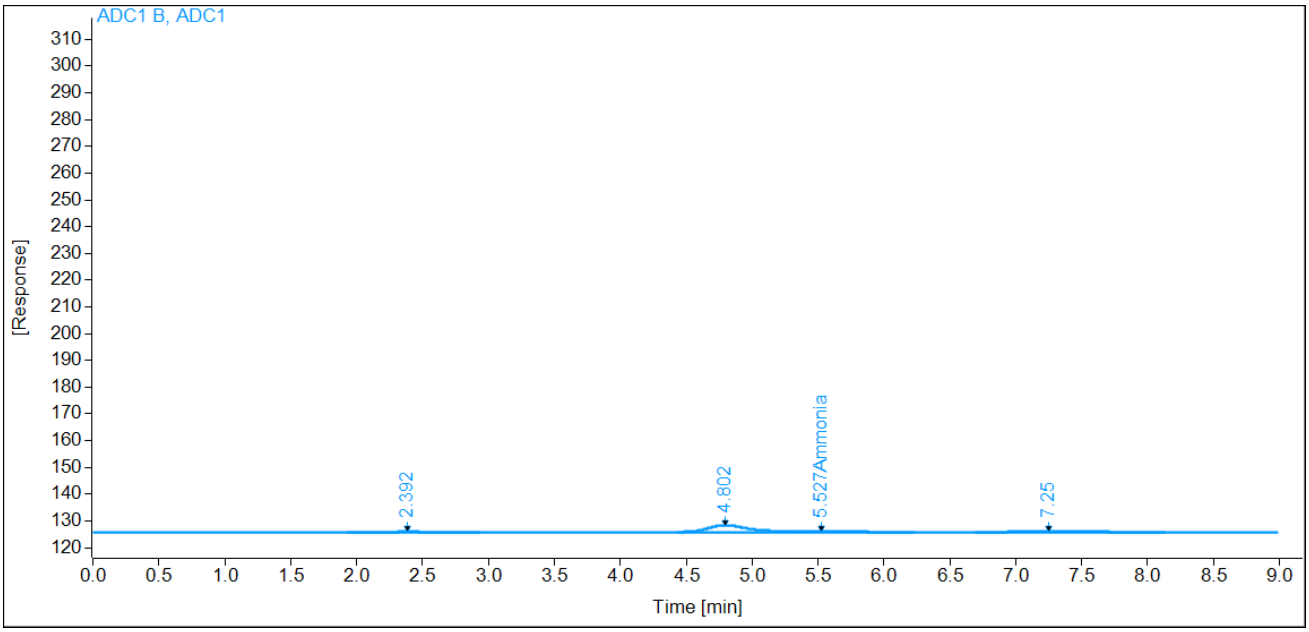
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC70PG192----175\014-1401.D
Sample name: CTM027-R3-Imp.2 1113-210
Description:

Instrument: Patty
Injection date: 11/30/2013 7:03:43 PM
Acq. method: AMM_ENV_18.M
Analysis method: HPLC70PG192.M

Last changed: 12/1/2013 12:12:58 PM

Sample type: Sample
Location: Vial 14
Injection volume: 35.000
Injection: 1 of 2
Acq. operator: Matt Melvin



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Ammonia	VB	5.53	7.7756	0.00598	0.04652	ug/mL

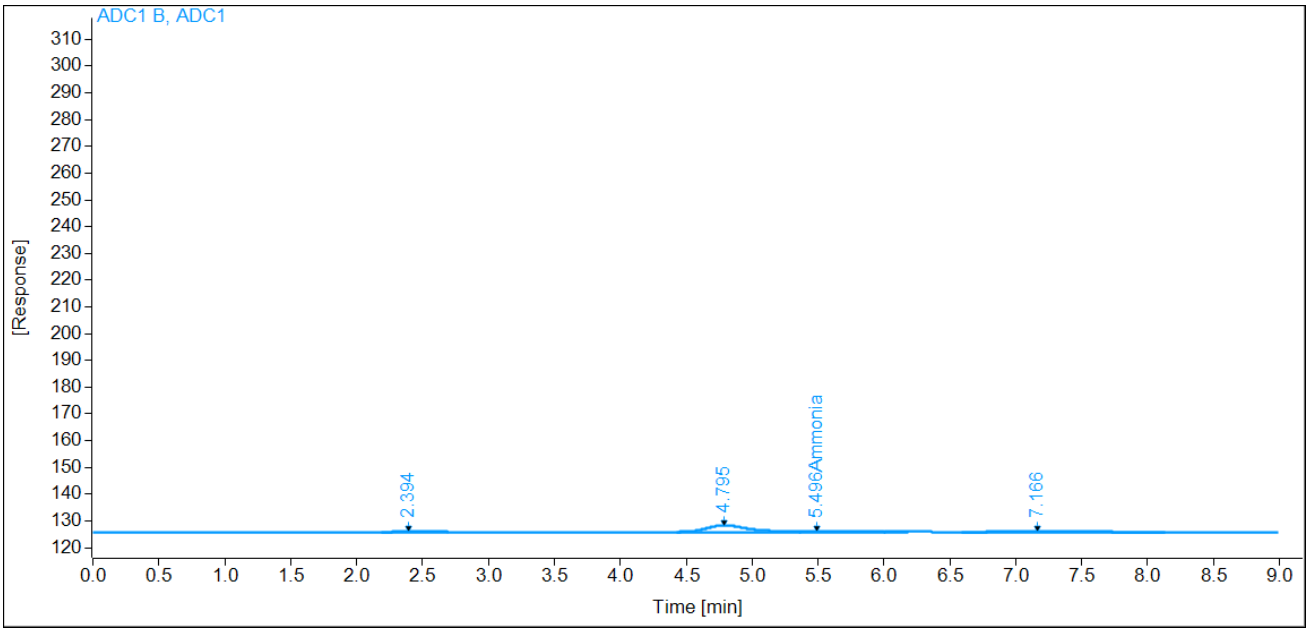
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC70PG192----175\014-1402.D
Sample name: CTM027-R3-Imp.2 1113-210
Description:

Instrument: Patty
Injection date: 11/30/2013 7:15:40 PM
Acq. method: AMM_ENV_18.M
Analysis method: HPLC70PG192.M

Last changed: 12/1/2013 12:12:58 PM

Sample type: Sample
Location: Vial 14
Injection volume: 35.000
Injection: 2 of 2
Acq. operator: Matt Melvin



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Ammonia	VB	5.50	7.7441	0.00598	0.04633	ug/mL

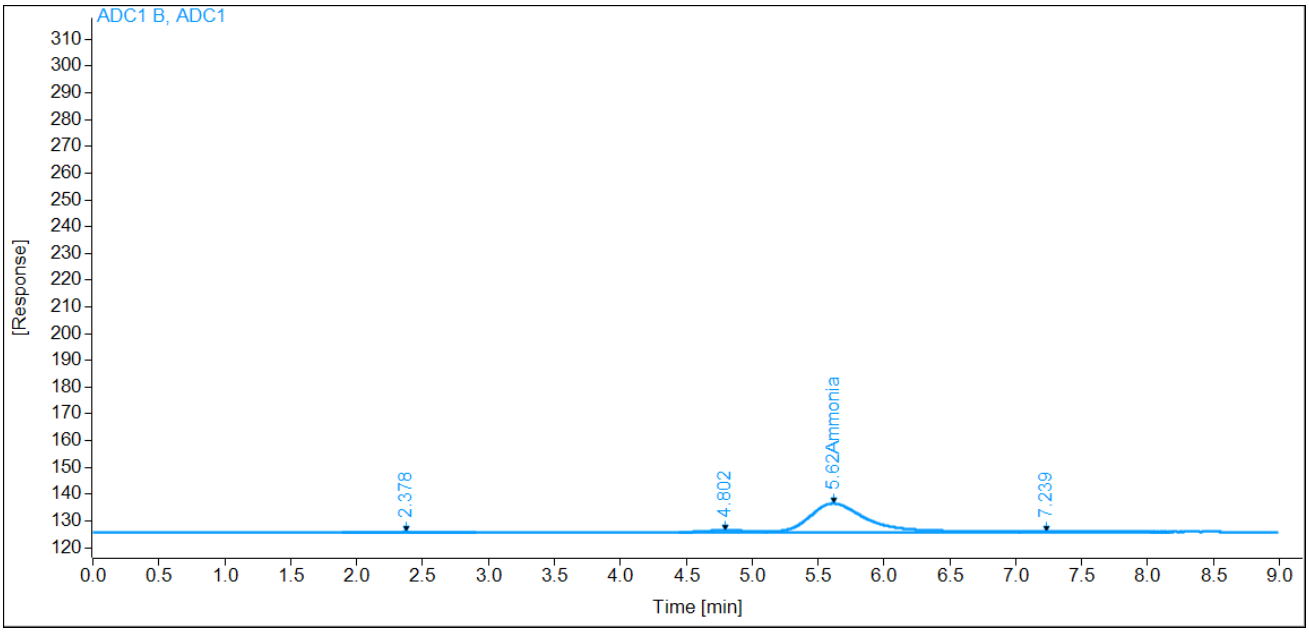
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC70PG192----175\015-1501.D
Sample name: CTM027-R4-Imp.1 1113-210
Description:

Instrument: Patty
Injection date: 11/30/2013 7:27:36 PM
Acq. method: AMM_ENV_18.M
Analysis method: HPLC70PG192.M

Last changed: 12/1/2013 12:12:58 PM

Sample type: Sample
Location: Vial 15
Injection volume: 35.000
Injection: 1 of 2
Acq. operator: Matt Melvin



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Ammonia	VB	5.62	321.7047	0.00737	2.371	ug/mL

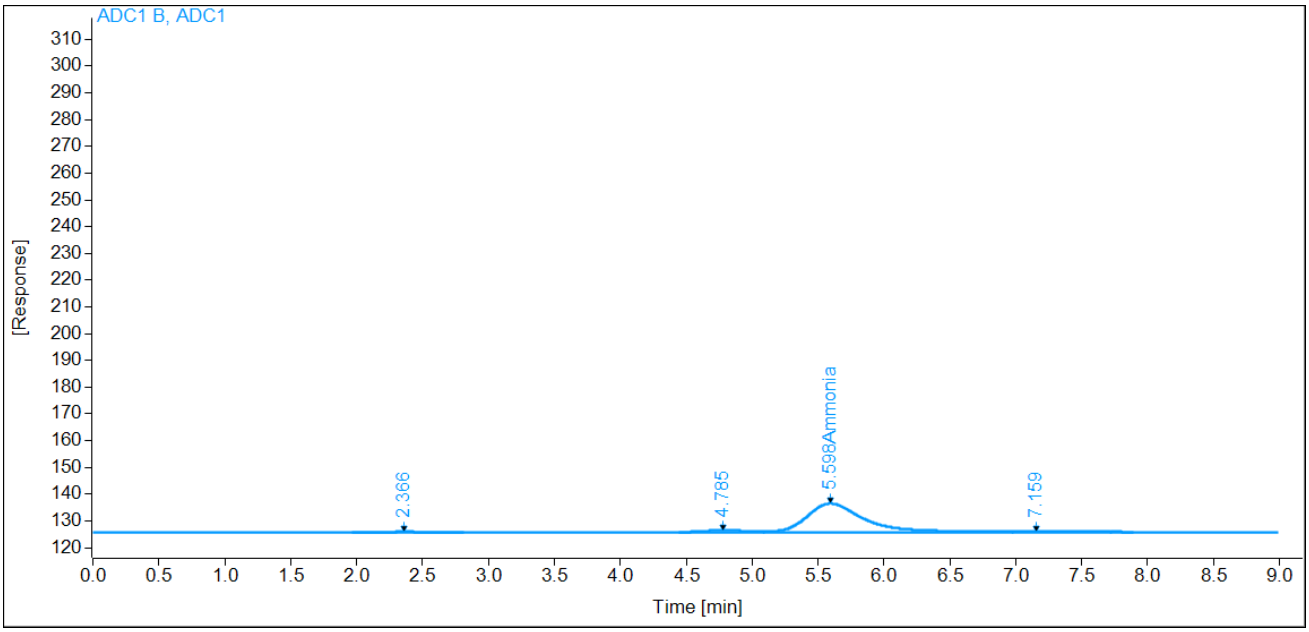
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC70PG192----175\015-1502.D
Sample name: CTM027-R4-Imp.1 1113-210
Description:

Instrument: Patty
Injection date: 11/30/2013 7:39:33 PM
Acq. method: AMM_ENV_18.M
Analysis method: HPLC70PG192.M

Last changed: 12/1/2013 12:12:58 PM

Sample type: Sample
Location: Vial 15
Injection volume: 35.000
Injection: 2 of 2
Acq. operator: Matt Melvin



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Ammonia	VB	5.60	322.1477	0.00737	2.375	ug/mL

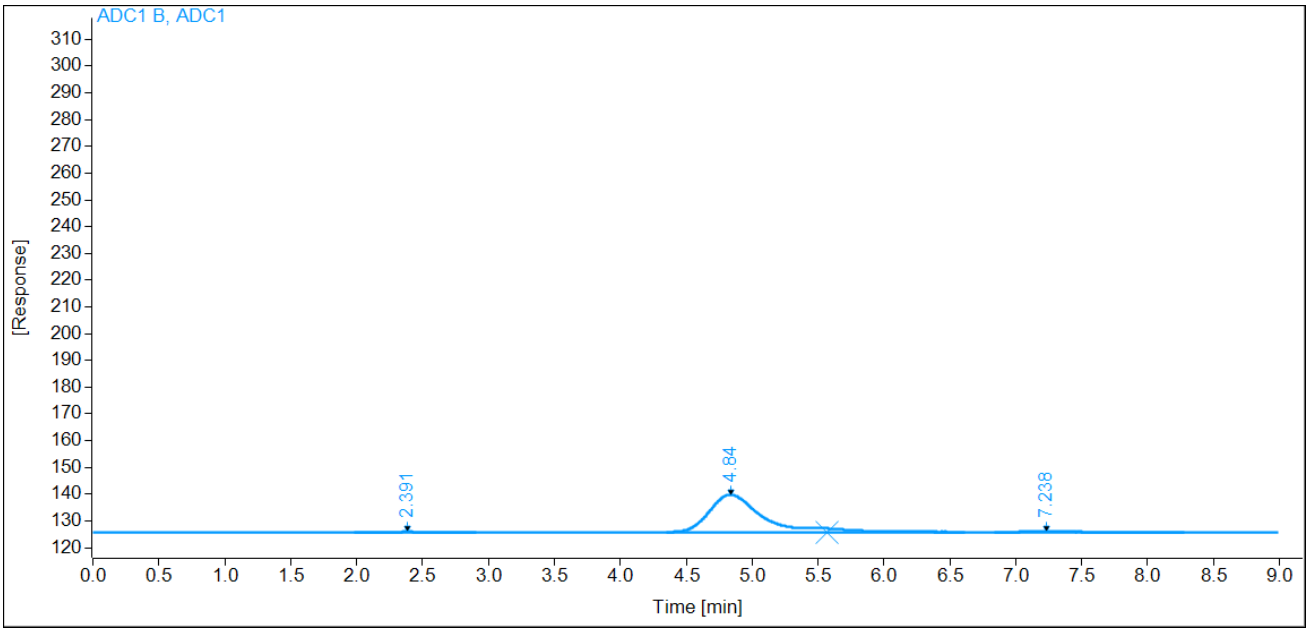
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC70PG192----175\016-1601.D
Sample name: CTM027-R4-Imp.2 1113-210
Description:

Instrument: Patty
Injection date: 11/30/2013 7:51:29 PM
Acq. method: AMM_ENV_18.M
Analysis method: HPLC70PG192.M

Last changed: 12/1/2013 12:12:58 PM

Sample type: Sample
Location: Vial 16
Injection volume: 35.000
Injection: 1 of 2
Acq. operator: Matt Melvin



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Ammonia					0	ug/mL

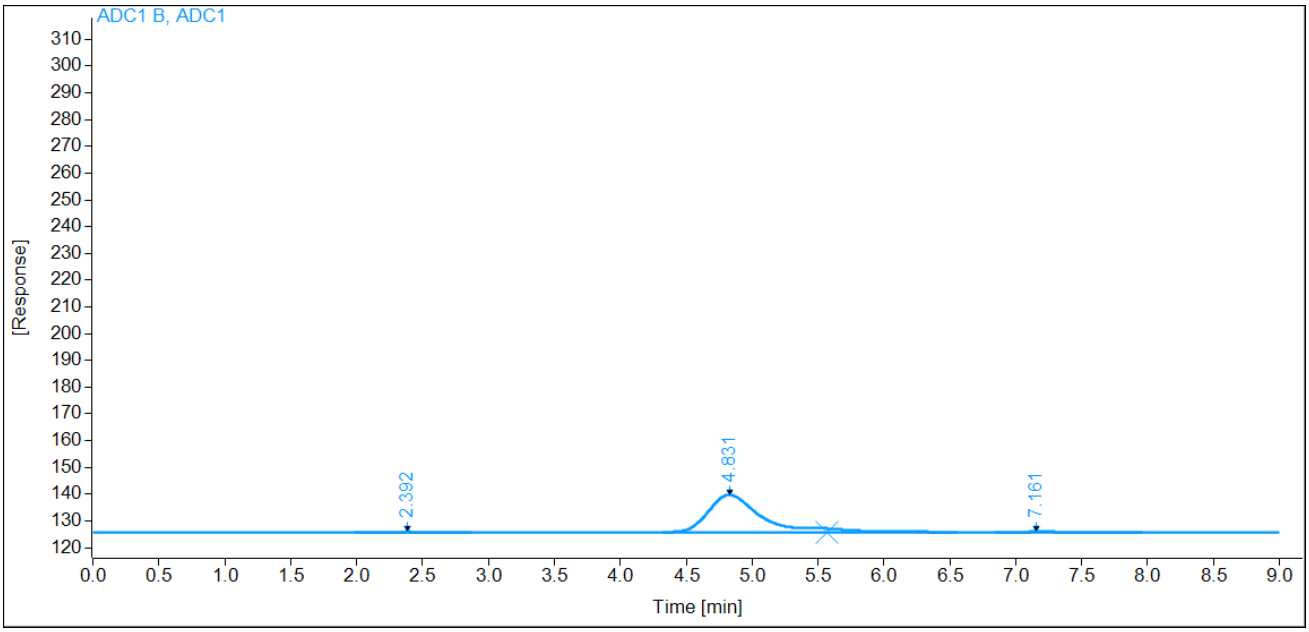
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC70PG192----175\016-1602.D
Sample name: CTM027-R4-Imp.2 1113-210
Description:

Instrument: Patty
Injection date: 11/30/2013 8:03:29 PM
Acq. method: AMM_ENV_18.M
Analysis method: HPLC70PG192.M

Last changed: 12/1/2013 12:12:58 PM

Sample type: Sample
Location: Vial 16
Injection volume: 35.000
Injection: 2 of 2
Acq. operator: Matt Melvin



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Ammonia					0	ug/mL

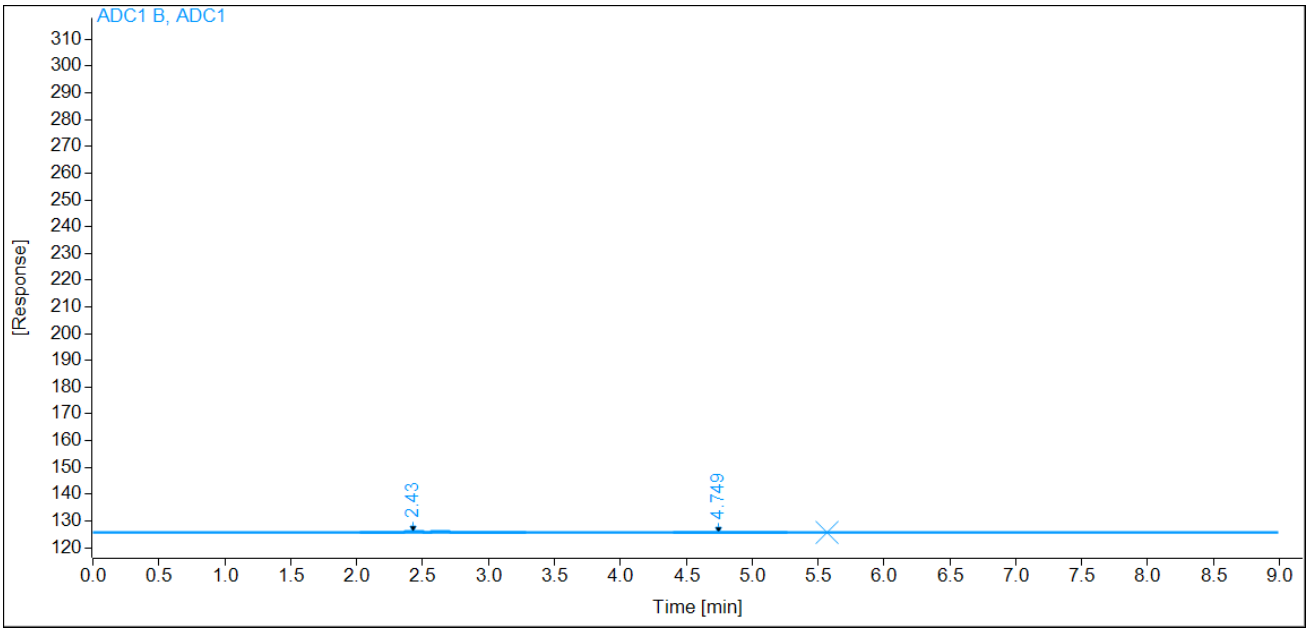
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC70PG192----175\017-1701.D
Sample name: CTM027-FB-Imp.1 1113-210
Description:

Instrument: Patty
Injection date: 11/30/2013 8:15:26 PM
Acq. method: AMM_ENV_18.M
Analysis method: HPLC70PG192.M

Last changed: 12/1/2013 12:12:58 PM

Sample type: Sample
Location: Vial 17
Injection volume: 35.000
Injection: 1 of 2
Acq. operator: Matt Melvin



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Ammonia					0	ug/mL

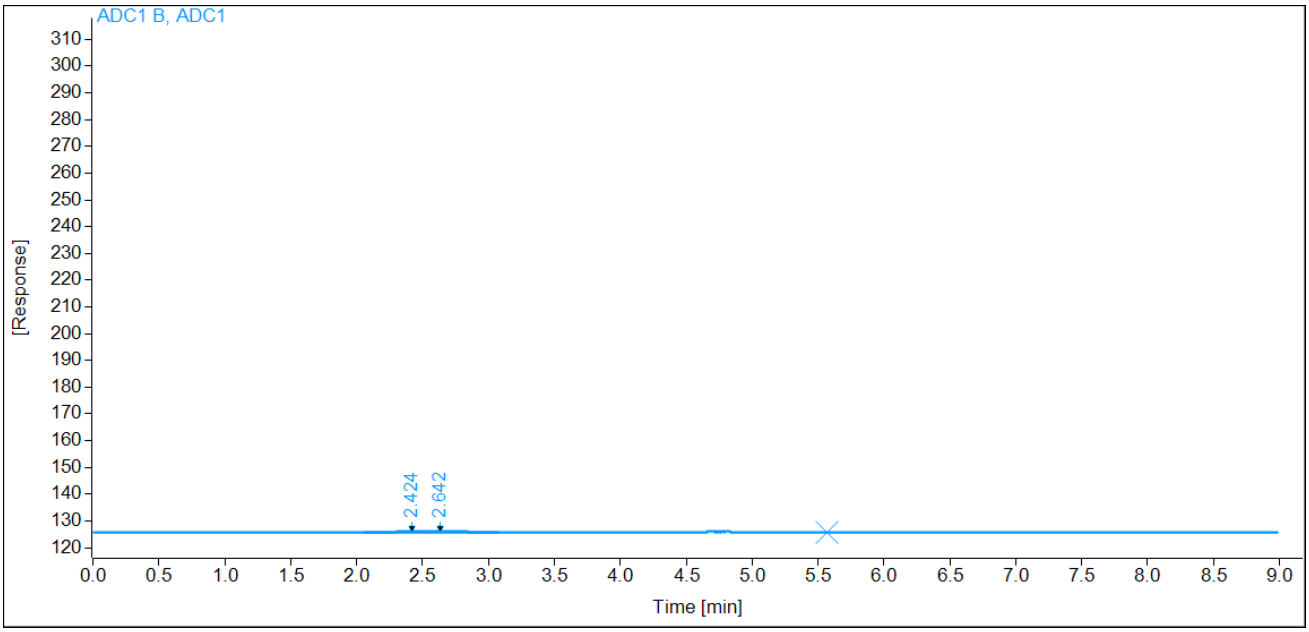
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC70PG192----175\017-1702.D
Sample name: CTM027-FB-Imp.1 1113-210
Description:

Instrument: Patty
Injection date: 11/30/2013 8:27:23 PM
Acq. method: AMM_ENV_18.M
Analysis method: HPLC70PG192.M

Last changed: 12/1/2013 12:12:58 PM

Sample type: Sample
Location: Vial 17
Injection volume: 35.000
Injection: 2 of 2
Acq. operator: Matt Melvin



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Ammonia					0	ug/mL

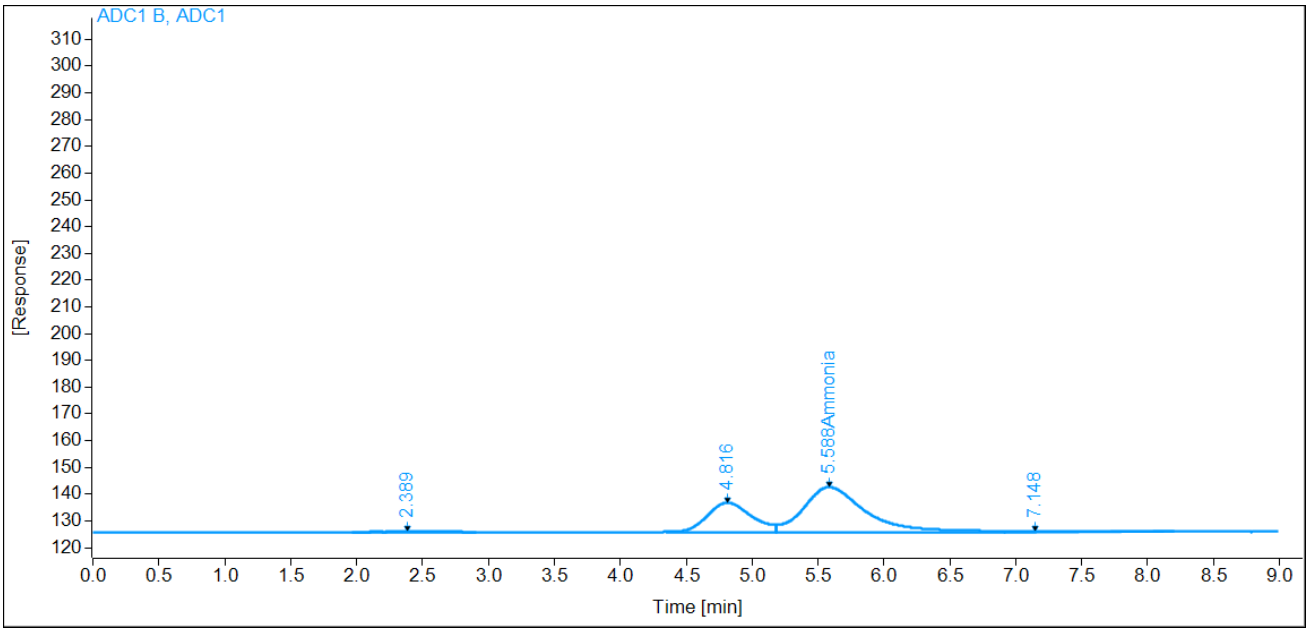
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC70PG192----175\018-1801.D
Sample name: MS/CTM027-R1-Imp.2 1113-210
Description:

Instrument: Patty
Injection date: 11/30/2013 8:39:19 PM
Acq. method: AMM_ENV_18.M
Analysis method: HPLC70PG192.M

Last changed: 12/1/2013 12:12:58 PM

Sample type: Sample
Location: Vial 18
Injection volume: 35.000
Injection: 1 of 2
Acq. operator: Matt Melvin



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Ammonia	VV	5.59	545.7668	0.00770	4.203	ug/mL

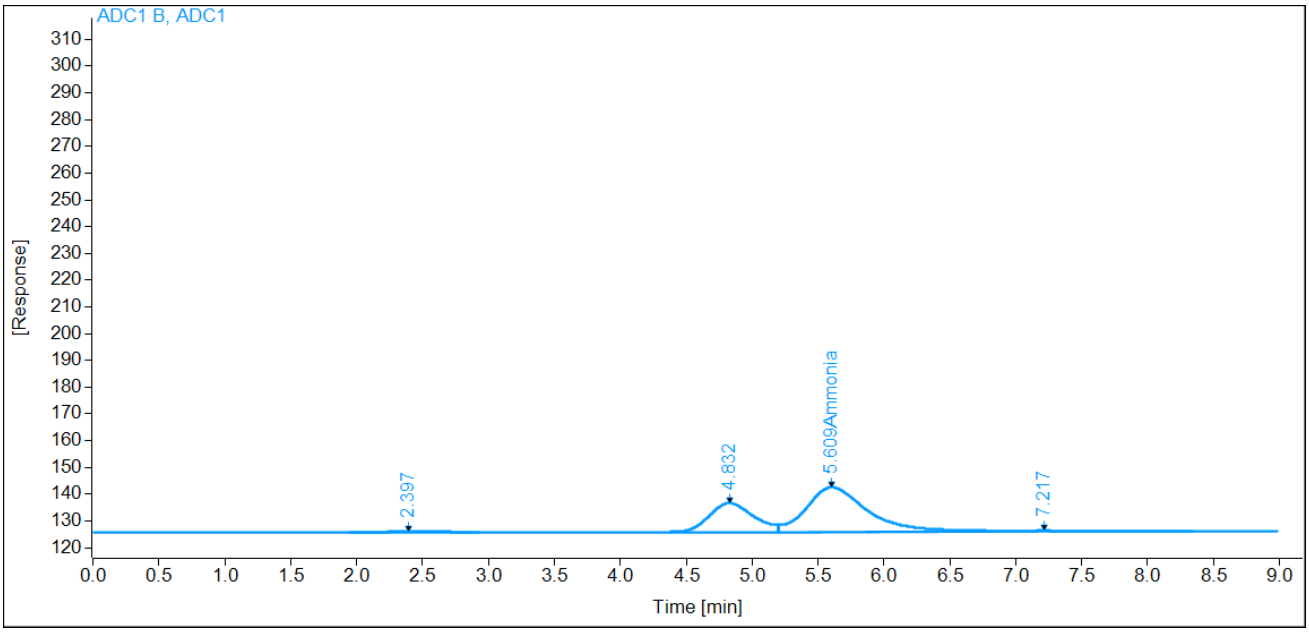
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC70PG192----175\018-1802.D
Sample name: MS/CTM027-R1-Imp.2 1113-210
Description:

Instrument: Patty
Injection date: 11/30/2013 8:51:16 PM
Acq. method: AMM_ENV_18.M
Analysis method: HPLC70PG192.M

Last changed: 12/1/2013 12:12:58 PM

Sample type: Sample
Location: Vial 18
Injection volume: 35.000
Injection: 2 of 2
Acq. operator: Matt Melvin



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Ammonia	VV	5.61	546.0917	0.00770	4.206	ug/mL

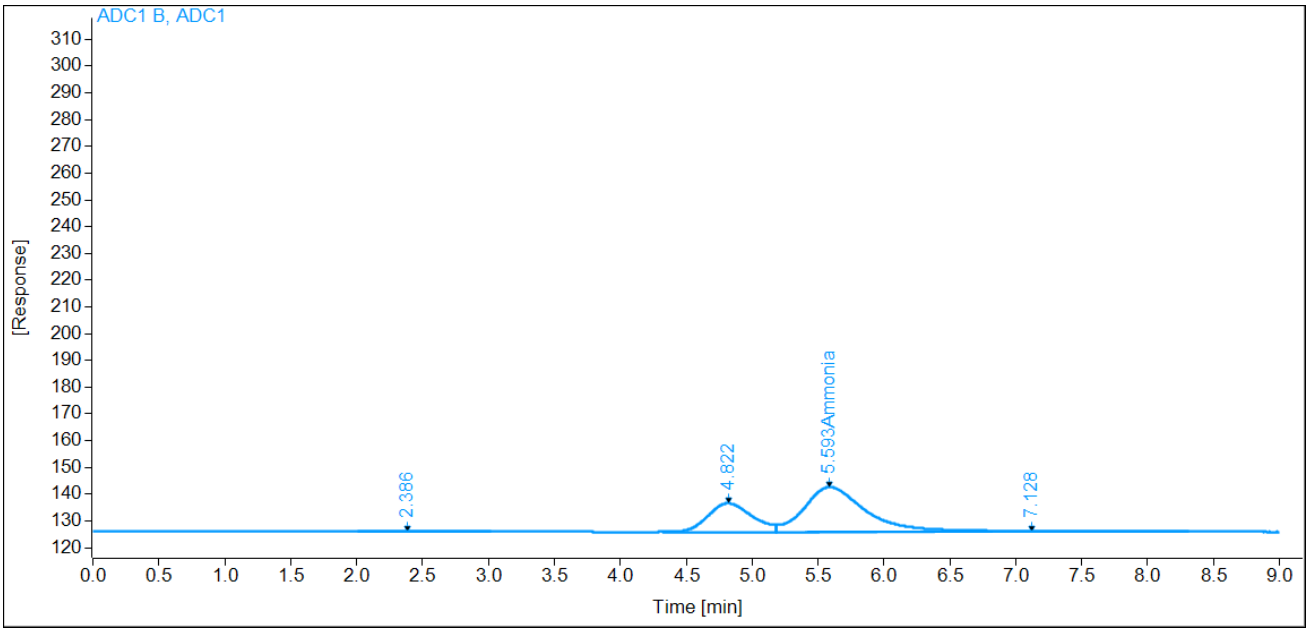
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC70PG192----175\019-1901.D
Sample name: MSD/CTM027-R1-Imp.2 1113-210
Description:

Instrument: Patty
Injection date: 11/30/2013 9:03:15 PM
Acq. method: AMM_ENV_18.M
Analysis method: HPLC70PG192.M

Last changed: 12/1/2013 12:12:58 PM

Sample type: Sample
Location: Vial 19
Injection volume: 35.000
Injection: 1 of 2
Acq. operator: Matt Melvin



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Ammonia	VV	5.59	548.4608	0.00771	4.226	ug/mL

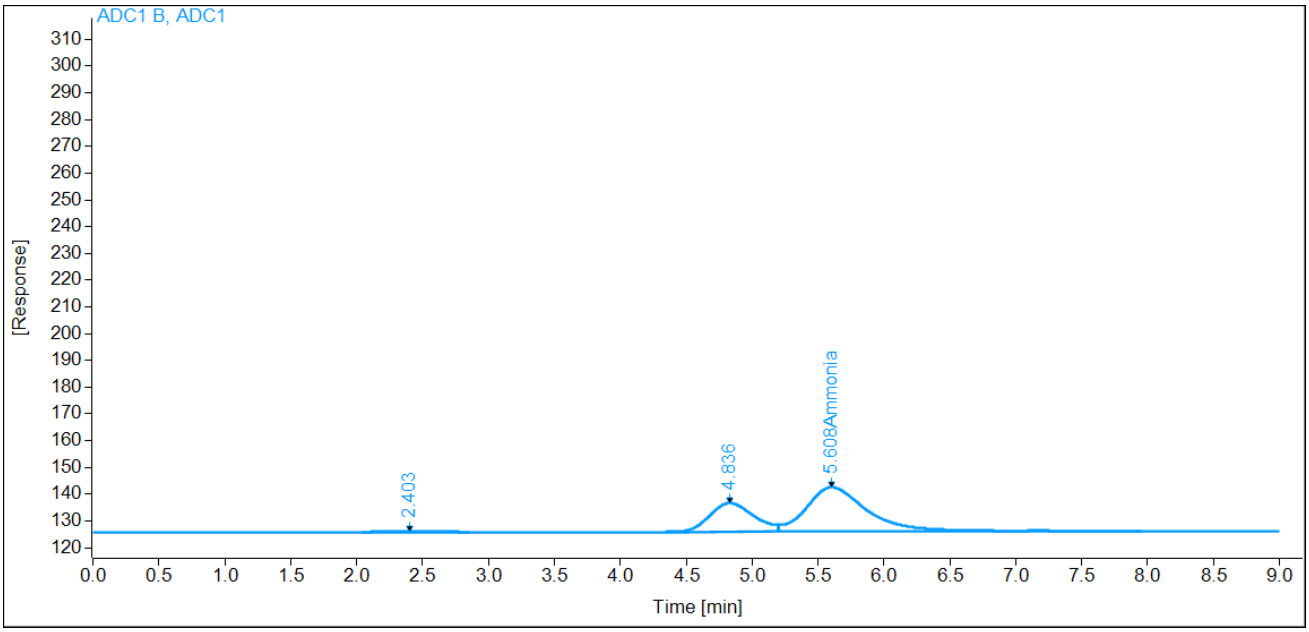
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC70PG192----175\019-1902.D
Sample name: MSD/CTM027-R1-Imp.2 1113-210
Description:

Instrument: Patty
Injection date: 11/30/2013 9:15:13 PM
Acq. method: AMM_ENV_18.M
Analysis method: HPLC70PG192.M

Last changed: 12/1/2013 12:12:58 PM

Sample type: Sample
Location: Vial 19
Injection volume: 35.000
Injection: 2 of 2
Acq. operator: Matt Melvin



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Ammonia	VB	5.61	559.6568	0.00772	4.321	ug/mL

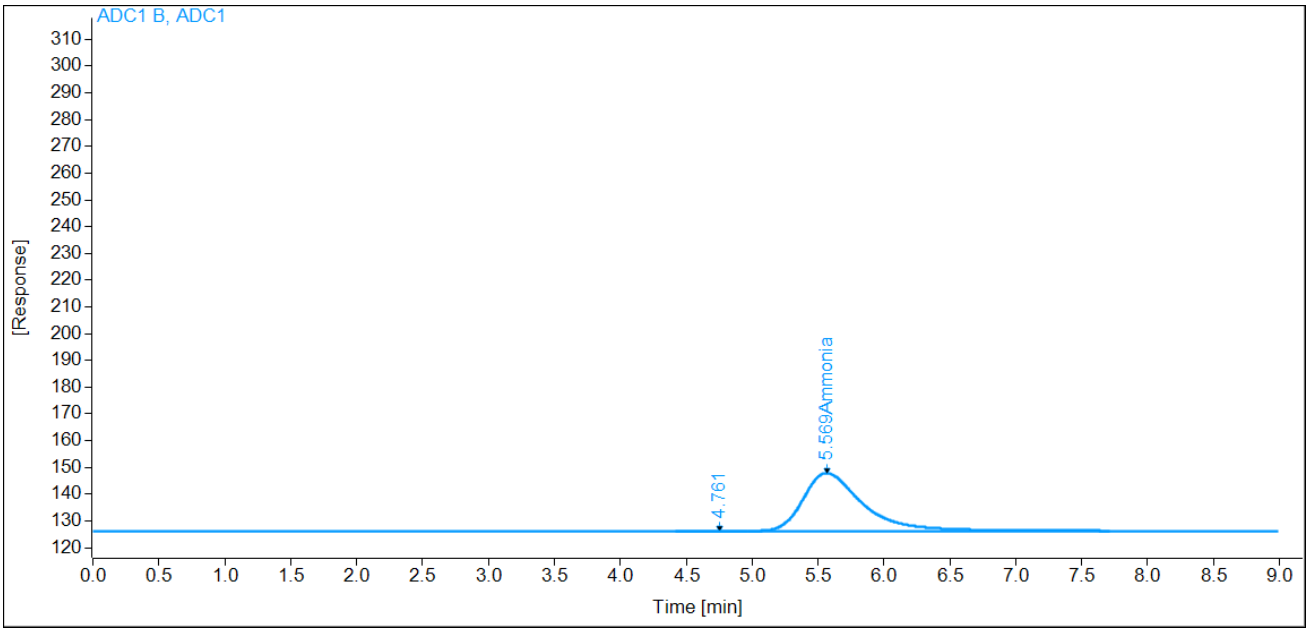
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC70PG192----175\008-0901.D
Sample name: HPLC70PG185 #SS
Description:

Instrument: Patty
Injection date: 11/30/2013 5:04:18 PM
Acq. method: AMM_ENV_18.M
Analysis method: HPLC70PG192.M

Last changed: 12/1/2013 12:12:58 PM

Sample type: Control
Location: Vial 8
Injection volume: 35.000
Injection: 1 of 2
Acq. operator: Matt Melvin



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Ammonia	VB	5.57	695.0616	0.00792	5.507	ug/mL

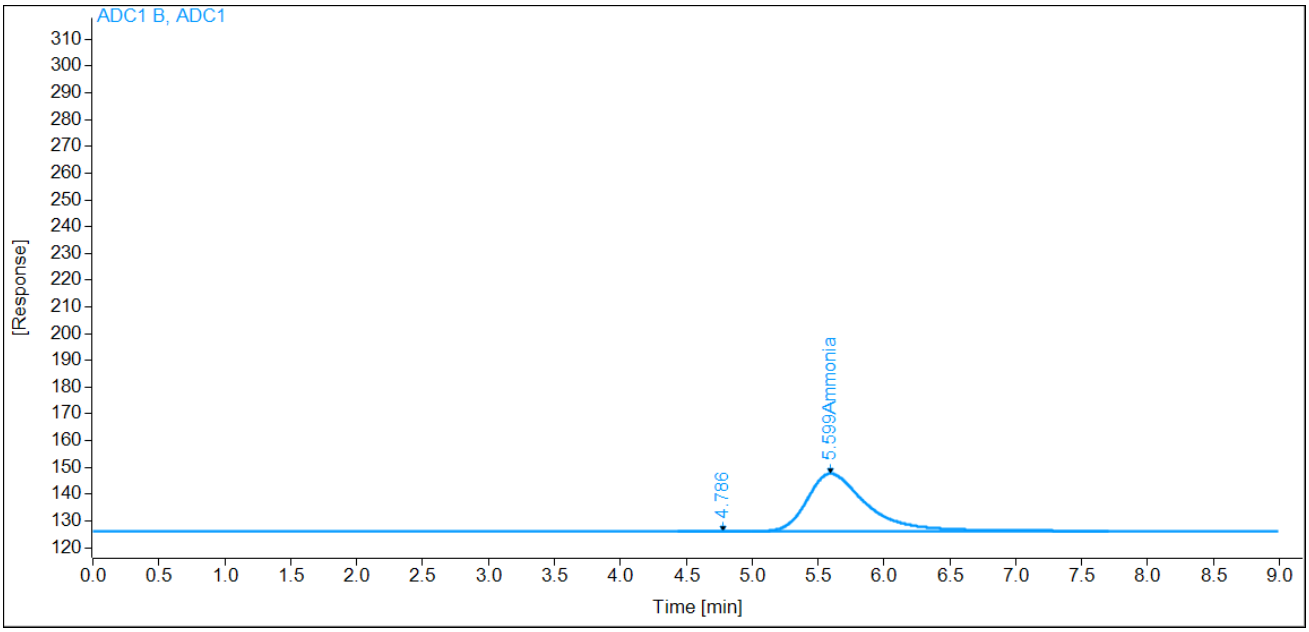
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC70PG192----175\008-0902.D
Sample name: HPLC70PG185 #SS
Description:

Instrument: Patty
Injection date: 11/30/2013 5:16:15 PM
Acq. method: AMM_ENV_18.M
Analysis method: HPLC70PG192.M

Last changed: 12/1/2013 12:12:58 PM

Sample type: Control
Location: Vial 8
Injection volume: 35.000
Injection: 2 of 2
Acq. operator: Matt Melvin



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Ammonia	VB	5.60	689.7642	0.00791	5.459	ug/mL

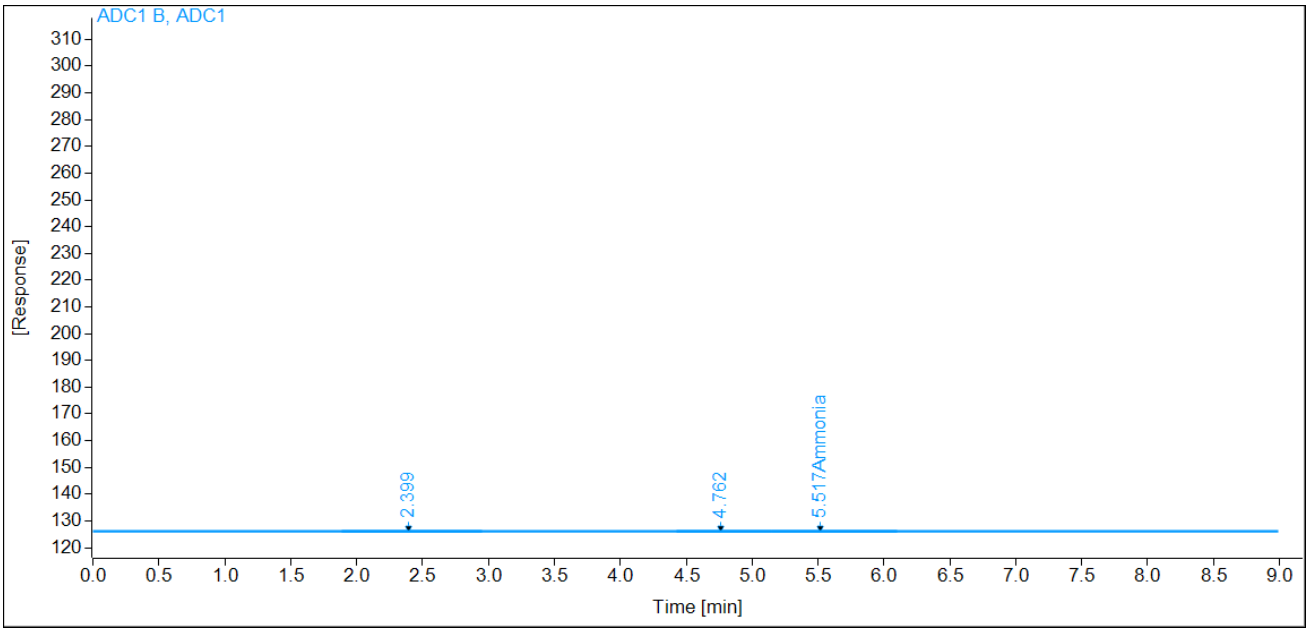
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC70PG192----175\009-1001.D
Sample name: 40 mM H2SO4
Description:

Instrument: Patty
Injection date: 11/30/2013 5:28:12 PM
Acq. method: AMM_ENV_18.M
Analysis method: HPLC70PG192.M

Last changed: 12/1/2013 12:12:58 PM

Sample type: Control
Location: Vial 9
Injection volume: 35.000
Injection: 1 of 2
Acq. operator: Matt Melvin



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Ammonia	VB	5.52	5.7801	0.00598	0.03458	ug/mL

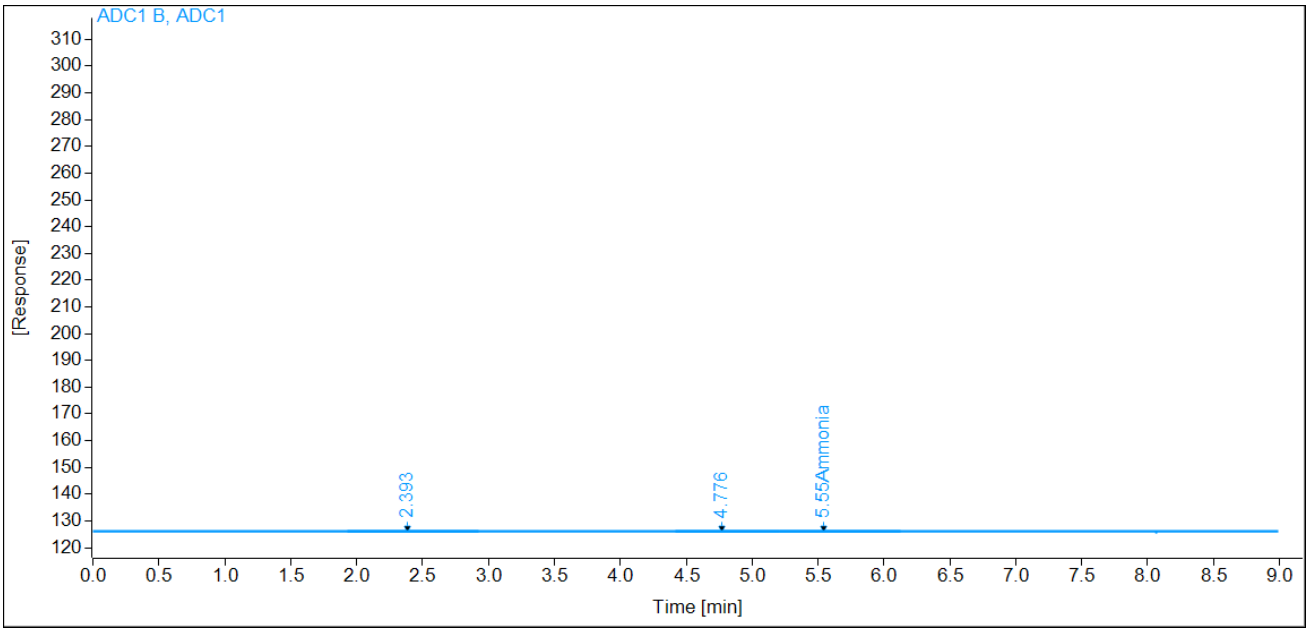
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC70PG192----175\009-1002.D
Sample name: 40 mM H2SO4
Description:

Instrument: Patty
Injection date: 11/30/2013 5:40:21 PM
Acq. method: AMM_ENV_18.M
Analysis method: HPLC70PG192.M

Last changed: 12/1/2013 12:12:58 PM

Sample type: Control
Location: Vial 9
Injection volume: 35.000
Injection: 2 of 2
Acq. operator: Matt Melvin



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Ammonia	VB	5.55	4.3031	0.00598	0.02575	ug/mL

Calibration Table

General Calibration Setting

Calib. Data Modified : Sunday, December 01, 2013 12:12:42 PM

Rel. Reference Window : 5.000 %
Abs. Reference Window : 0.000 min
Rel. Non-ref. Window : 8.000 %
Abs. Non-ref. Window : 0.000 min
Uncalibrated Peaks : not reported
Partial Calibration : Yes, identified peaks are recalibrated
Correct All Ret. Times: No, only for identified peaks

Curve Type : Quadratic
Origin : Connected
Weight : Linear (Amnt)

Recalibration Settings:
Average Response : Average all calibrations
Average Retention Time: Floating Average New 75%

Calibration Report Options :
Printout of recalibrations within a sequence:
Calibration Table after Recalibration
Normal Report after Recalibration
If the sequence is done with bracketing:
Results of first cycle (ending previous bracket)

Signal Details

Signal 1: ADC1 B, ADC1

Overview Table

RT	Sig	Lvl	Amount [ug/ml]	Area	Rsp.Factor	Ref	ISTD	#	Compound
5.571	1	1	2.35000e-1	38.01515	6.18175e-3	No	No		Ammonia
		2	4.70000e-1	73.77814	6.37045e-3				
		3	1.85100	257.51796	7.18785e-3				
		4	4.49500	576.99445	7.79037e-3				
		5	6.58600	807.29187	8.15814e-3				
		6	8.58200	1017.13925	8.43739e-3				
		7	12.31300	1338.11890	9.20172e-3				

Peak Sum Table

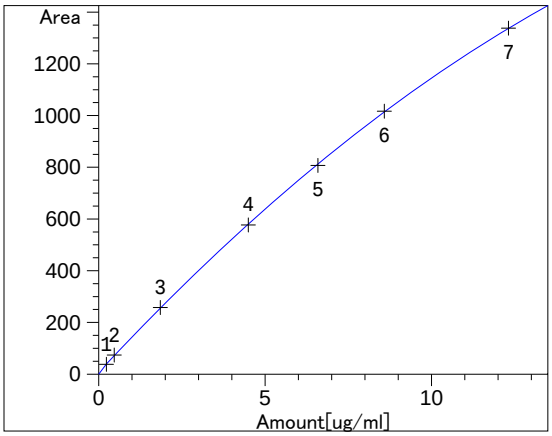
Method C:\CHEM32\1\DATA\HPLC70PG192----175\HPLC70PG192.M

No Entries in table

==========

Calibration Curves

==========



Ammonia at exp. RT: 5.571
ADC1 B, ADC1
Correlation: 0.99996
Residual Std. Dev.: 3.43373
Formula: $y = ax^2 + bx + c$
a: -2.48782
b: 138.67942
c: 6.82492
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.5
Level 3 : 0.126958
Level 4 : 0.05228
Level 5 : 0.035682
Level 6 : 0.027383
Level 7 : 0.019086

==========

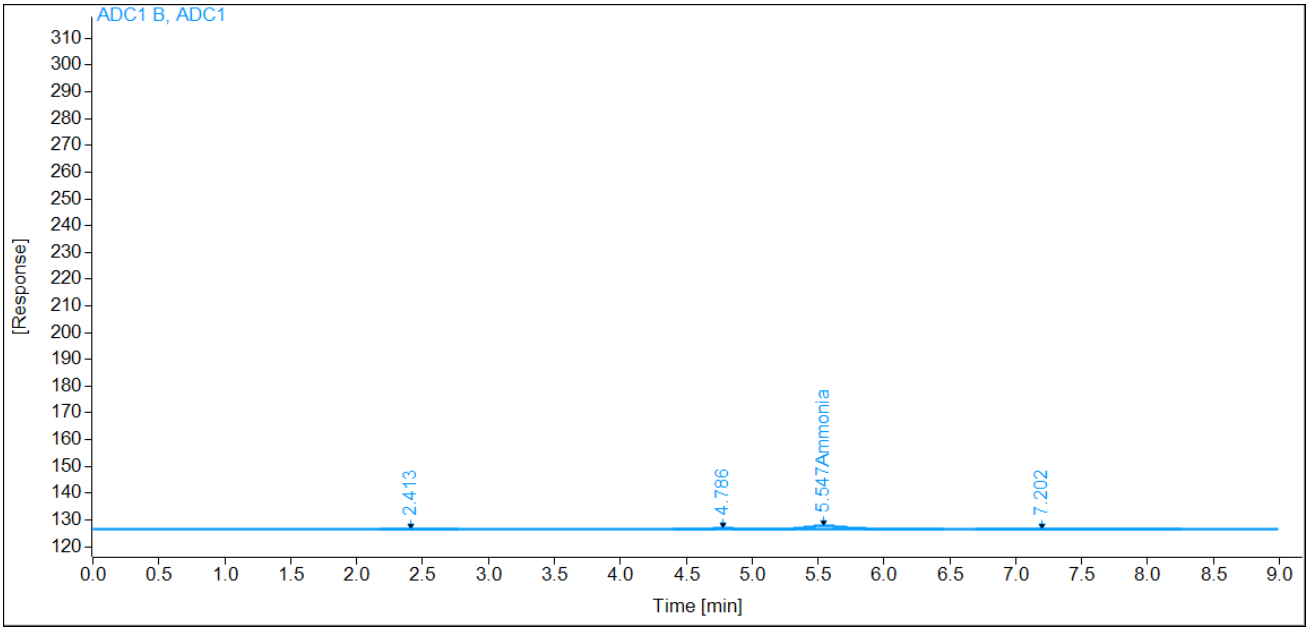
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC70PG192----175\001-0201.D
Sample name: HPLC70PG185 #1
Description:

Instrument: Patty
Injection date: 11/30/2013 2:16:44 PM
Acq. method: AMM_ENV_18.M
Analysis method: HPLC70PG192.M

Last changed: 12/1/2013 12:12:58 PM

Sample type: Control
Location: Vial 1
Injection volume: 35.000
Injection: 1 of 2
Acq. operator: Matt Melvin



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Ammonia	VB	5.55	37.5146	0.00598	0.2245	ug/mL

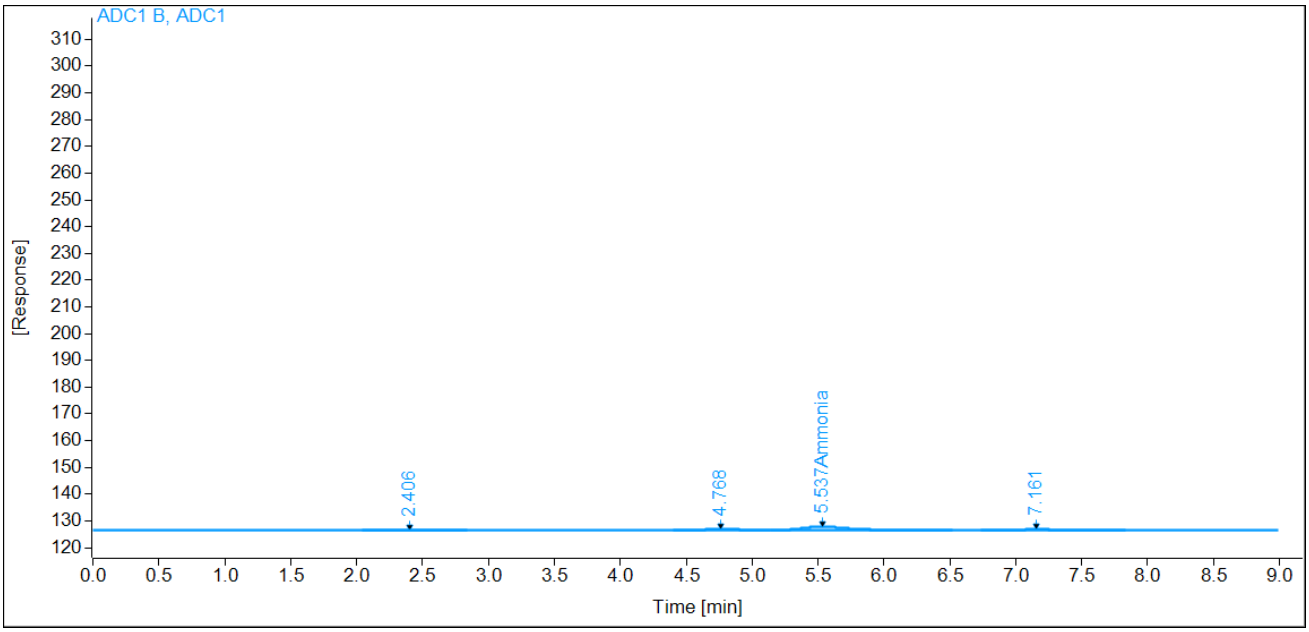
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC70PG192----175\001-0202.D
Sample name: HPLC70PG185 #1
Description:

Instrument: Patty
Injection date: 11/30/2013 2:28:43 PM
Acq. method: AMM_ENV_18.M
Analysis method: HPLC70PG192.M

Last changed: 12/1/2013 12:12:58 PM

Sample type: Control
Location: Vial 1
Injection volume: 35.000
Injection: 2 of 2
Acq. operator: Matt Melvin



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Ammonia	VB	5.54	38.5157	0.00598	0.2304	ug/mL

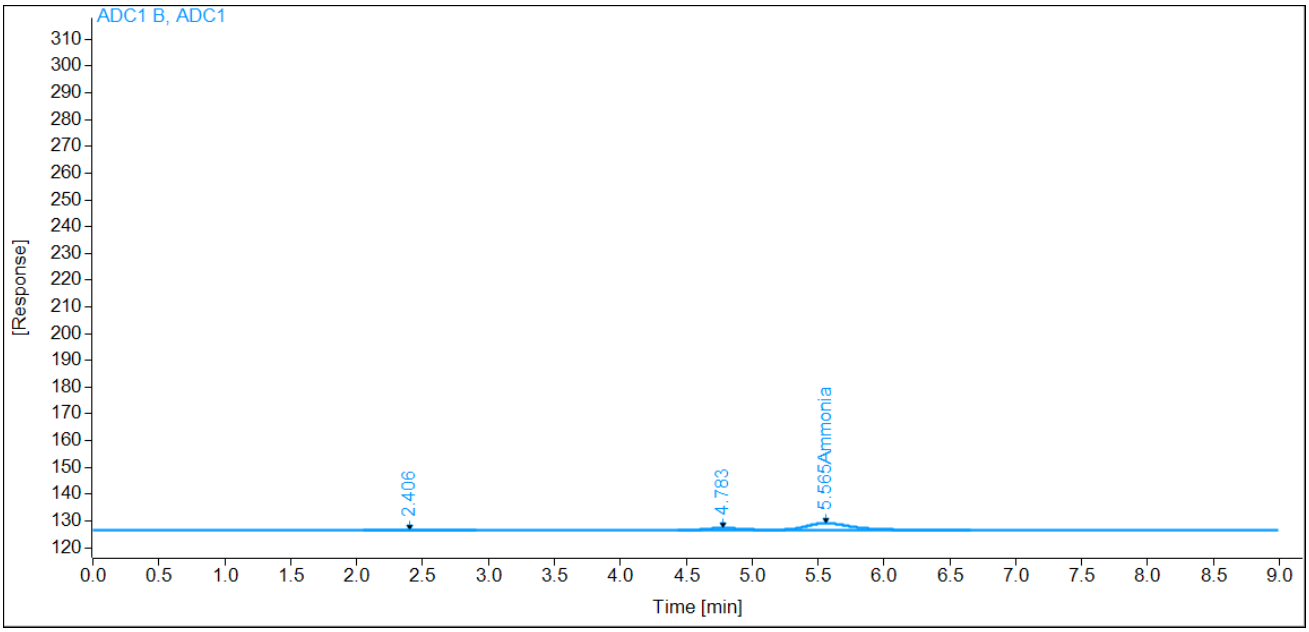
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC70PG192----175\002-0301.D
Sample name: HPLC70PG185 #2
Description:

Instrument: Patty
Injection date: 11/30/2013 2:40:55 PM
Acq. method: AMM_ENV_18.M
Analysis method: HPLC70PG192.M

Last changed: 12/1/2013 12:12:58 PM

Sample type: Control
Location: Vial 2
Injection volume: 35.000
Injection: 1 of 2
Acq. operator: Matt Melvin



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Ammonia	VB	5.56	71.8211	0.00658	0.4727	ug/mL

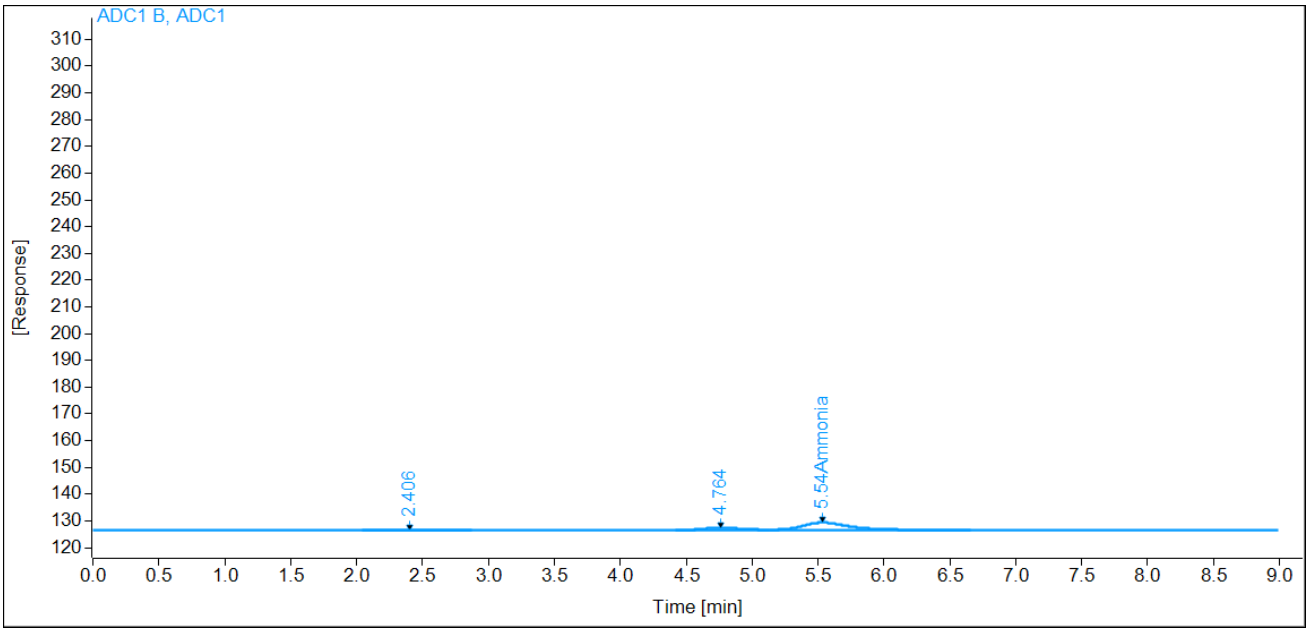
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC70PG192----175\002-0302.D
Sample name: HPLC70PG185 #2
Description:

Instrument: Patty
Injection date: 11/30/2013 2:52:43 PM
Acq. method: AMM_ENV_18.M
Analysis method: HPLC70PG192.M

Last changed: 12/1/2013 12:12:58 PM

Sample type: Control
Location: Vial 2
Injection volume: 35.000
Injection: 2 of 2
Acq. operator: Matt Melvin



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Ammonia	VB	5.54	75.7352	0.00662	0.5014	ug/mL

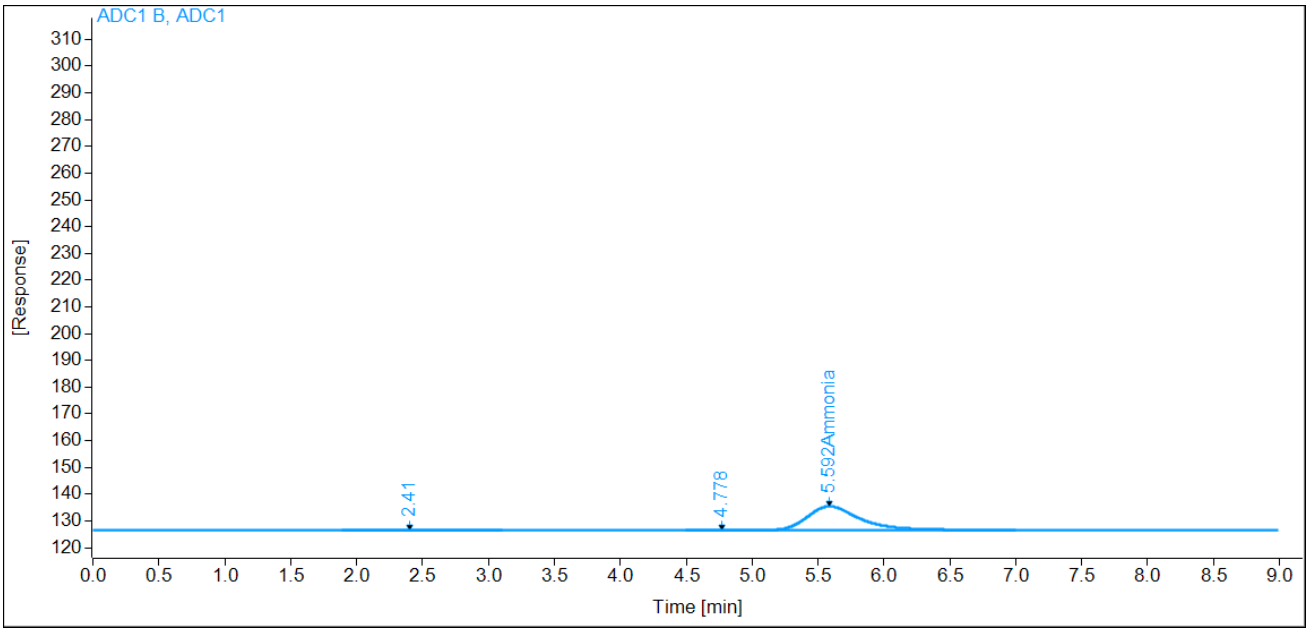
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC70PG192----175\003-0401.D
Sample name: HPLC70PG185 #3
Description:

Instrument: Patty
Injection date: 11/30/2013 3:04:42 PM
Acq. method: AMM_ENV_18.M
Analysis method: HPLC70PG192.M

Last changed: 12/1/2013 12:12:58 PM

Sample type: Control
Location: Vial 3
Injection volume: 35.000
Injection: 1 of 2
Acq. operator: Matt Melvin



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Ammonia	VB	5.59	255.6177	0.00726	1.856	ug/mL

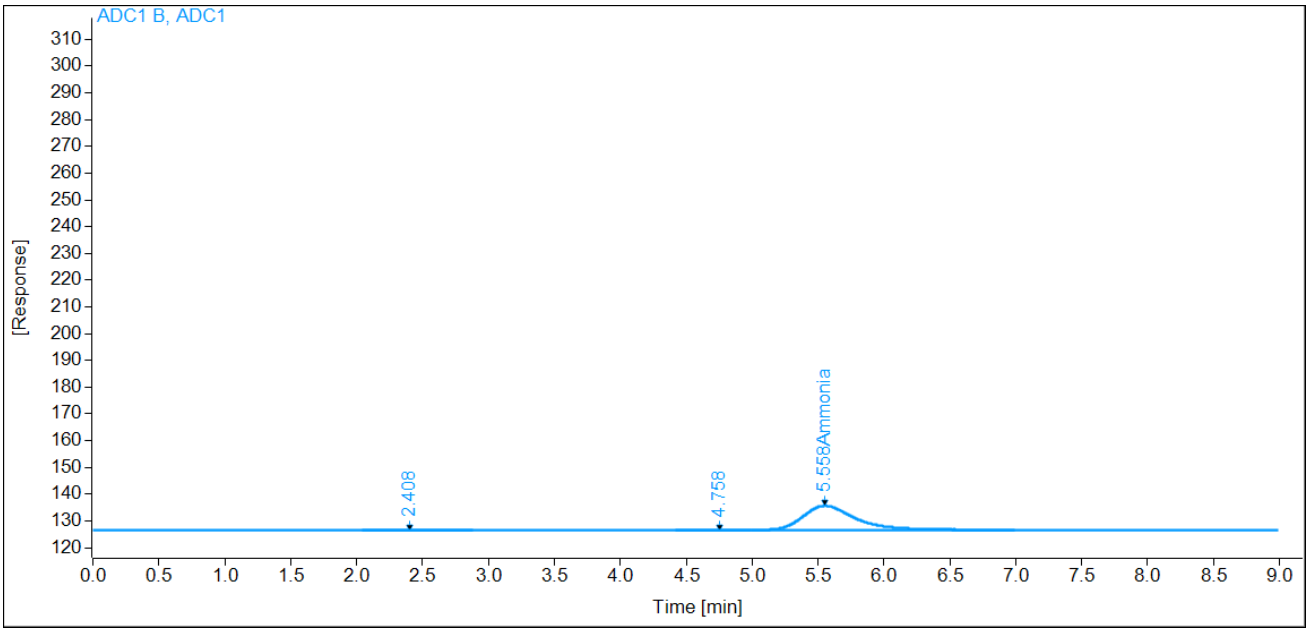
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC70PG192----175\003-0402.D
Sample name: HPLC70PG185 #3
Description:

Instrument: Patty
Injection date: 11/30/2013 3:16:41 PM
Acq. method: AMM_ENV_18.M
Analysis method: HPLC70PG192.M

Last changed: 12/1/2013 12:12:58 PM

Sample type: Control
Location: Vial 3
Injection volume: 35.000
Injection: 2 of 2
Acq. operator: Matt Melvin



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Ammonia	VB	5.56	259.4182	0.00727	1.885	ug/mL

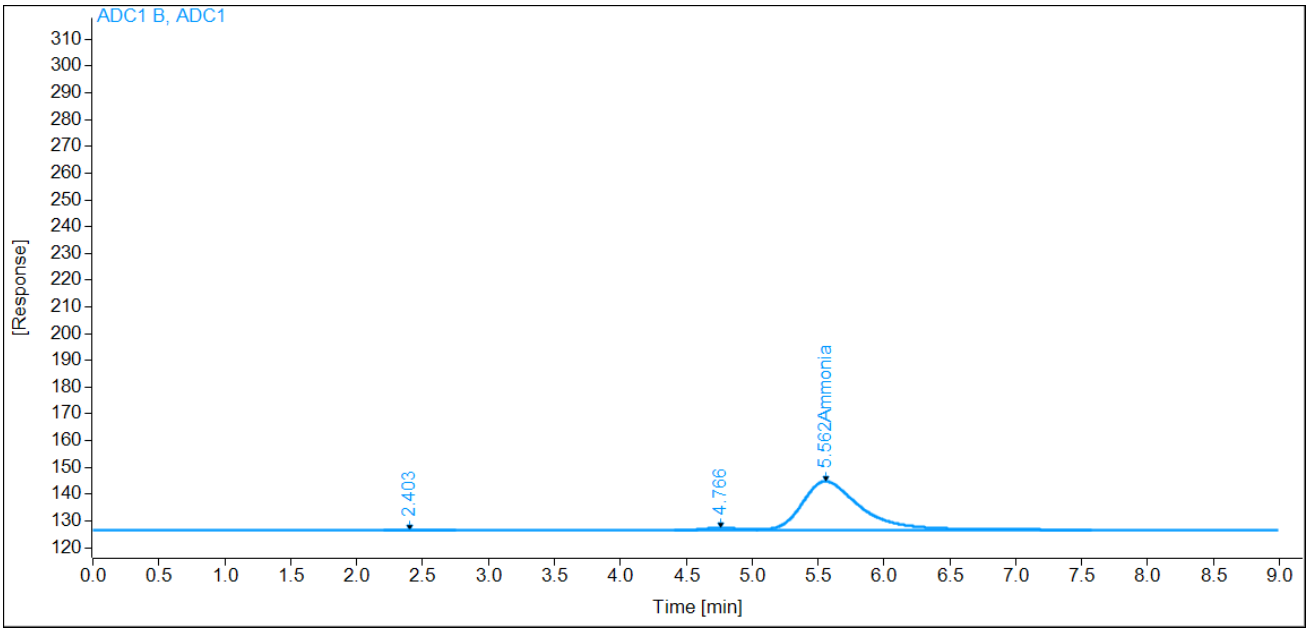
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC70PG192----175\004-0501.D
Sample name: HPLC70PG185 #4
Description:

Instrument: Patty
Injection date: 11/30/2013 3:28:42 PM
Acq. method: AMM_ENV_18.M
Analysis method: HPLC70PG192.M

Last changed: 12/1/2013 12:12:58 PM

Sample type: Control
Location: Vial 4
Injection volume: 35.000
Injection: 1 of 2
Acq. operator: Matt Melvin



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Ammonia	VB	5.56	574.5333	0.00774	4.449	ug/mL

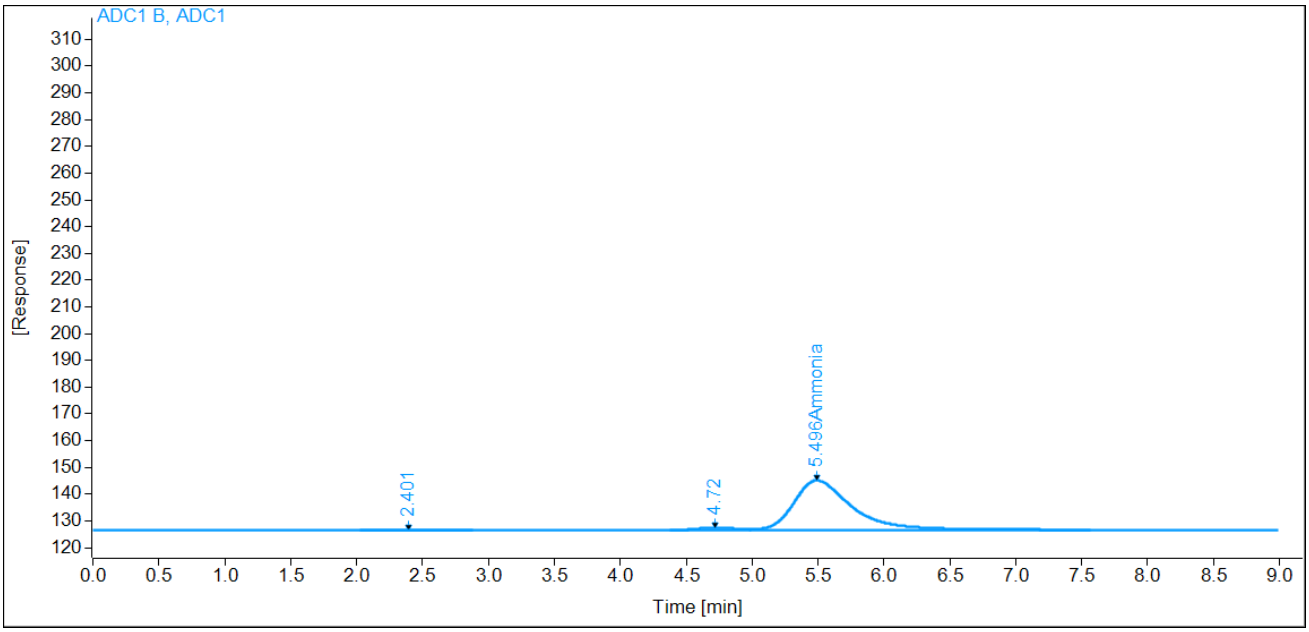
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC70PG192----175\004-0502.D
Sample name: HPLC70PG185 #4
Description:

Instrument: Patty
Injection date: 11/30/2013 3:40:42 PM
Acq. method: AMM_ENV_18.M
Analysis method: HPLC70PG192.M

Last changed: 12/1/2013 12:12:58 PM

Sample type: Control
Location: Vial 4
Injection volume: 35.000
Injection: 2 of 2
Acq. operator: Matt Melvin



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Ammonia	VB	5.50	579.4556	0.00775	4.491	ug/mL

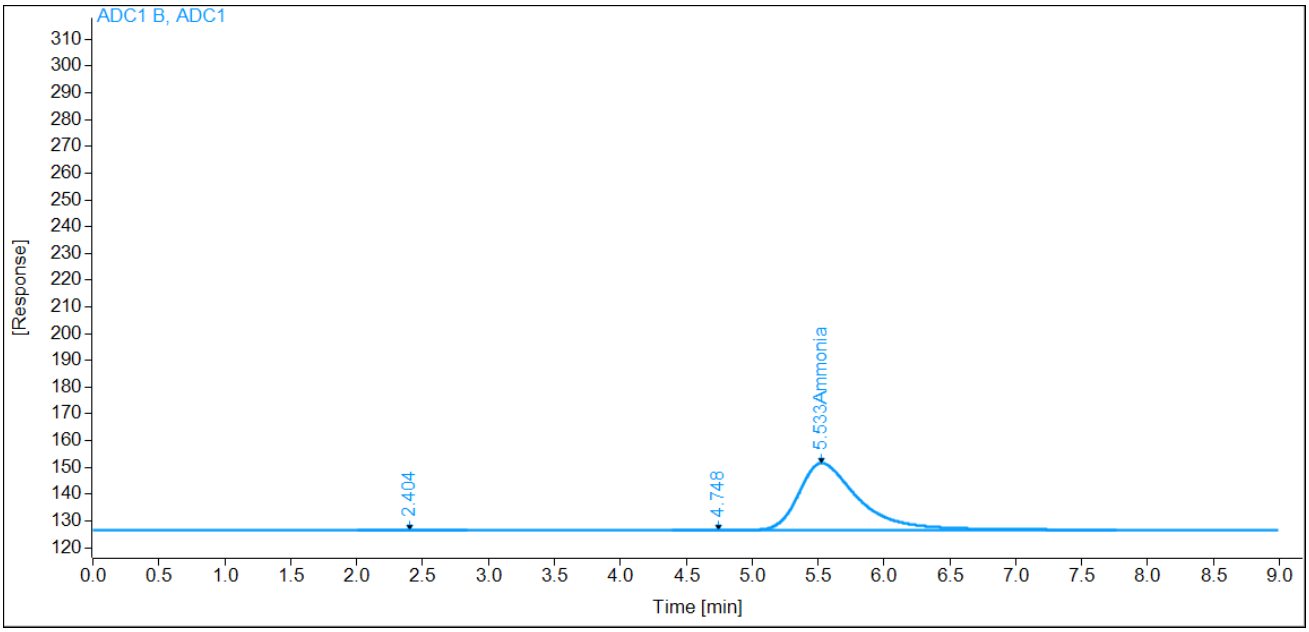
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC70PG192----175\005-0601.D
Sample name: HPLC70PG185 #5
Description:

Instrument: Patty
Injection date: 11/30/2013 3:52:37 PM
Acq. method: AMM_ENV_18.M
Analysis method: HPLC70PG192.M

Last changed: 12/1/2013 12:12:58 PM

Sample type: Control
Location: Vial 5
Injection volume: 35.000
Injection: 1 of 2
Acq. operator: Matt Melvin



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Ammonia	VB	5.53	809.2014	0.00810	6.557	ug/mL

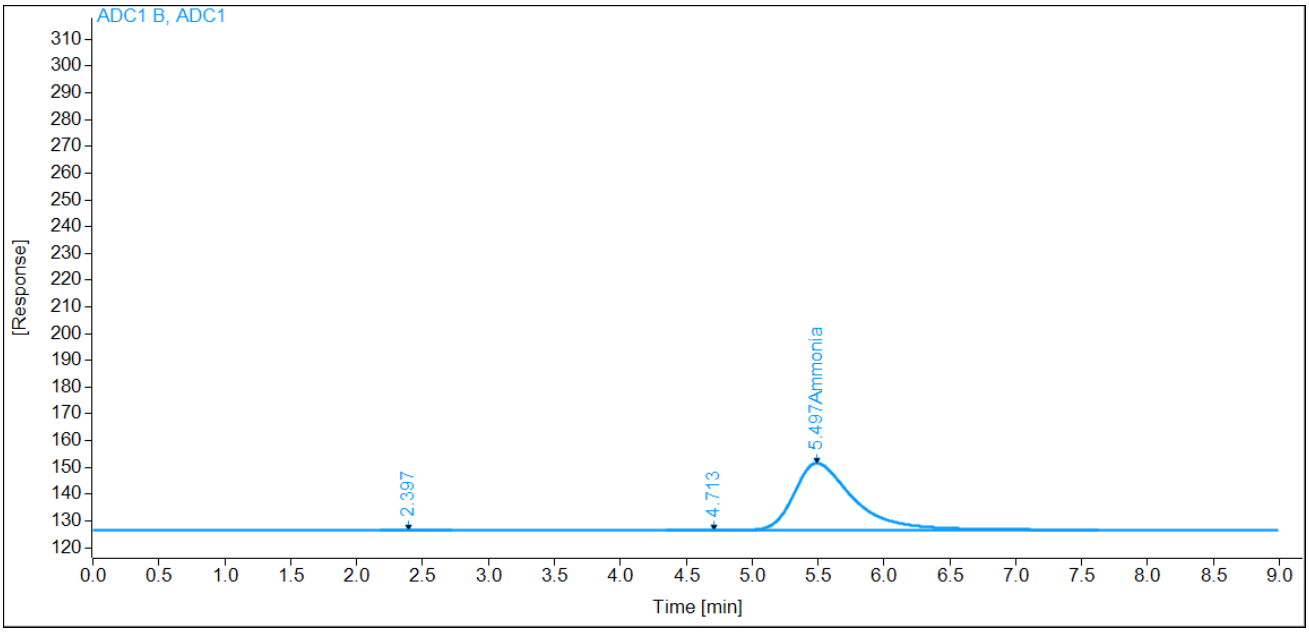
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC70PG192----175\005-0602.D
Sample name: HPLC70PG185 #5
Description:

Instrument: Patty
Injection date: 11/30/2013 4:04:32 PM
Acq. method: AMM_ENV_18.M
Analysis method: HPLC70PG192.M

Last changed: 12/1/2013 12:12:58 PM

Sample type: Control
Location: Vial 5
Injection volume: 35.000
Injection: 2 of 2
Acq. operator: Matt Melvin



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Ammonia	VB	5.50	805.3823	0.00810	6.521	ug/mL

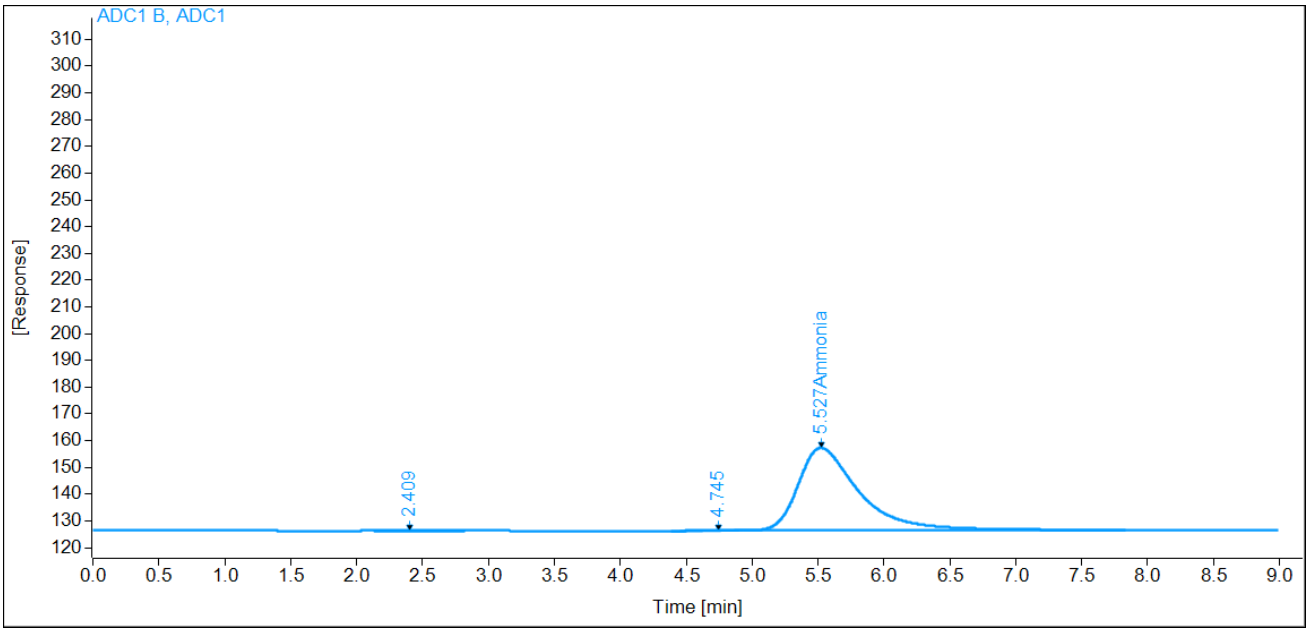
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC70PG192----175\006-0701.D
Sample name: HPLC70PG185 #6
Description:

Instrument: Patty
Injection date: 11/30/2013 4:16:29 PM
Acq. method: AMM_ENV_18.M
Analysis method: HPLC70PG192.M

Last changed: 12/1/2013 12:12:58 PM

Sample type: Control
Location: Vial 6
Injection volume: 35.000
Injection: 1 of 2
Acq. operator: Matt Melvin



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Ammonia	VB	5.53	1014.1645	0.00847	8.586	ug/mL

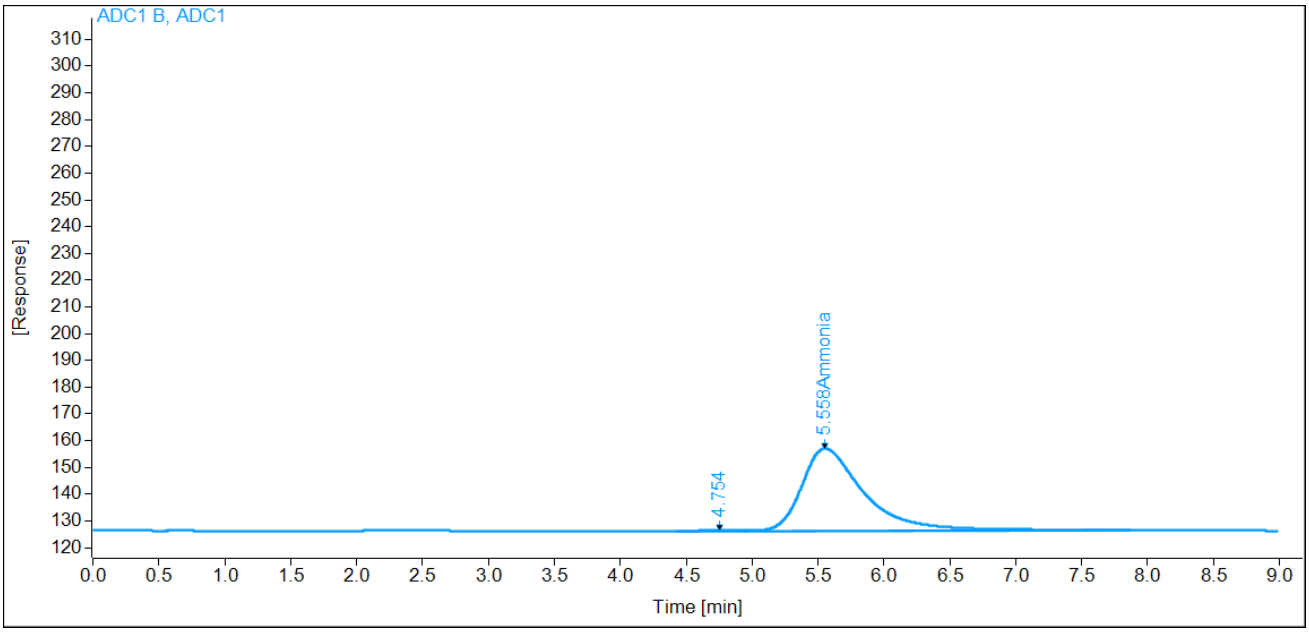
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC70PG192----175\006-0702.D
Sample name: HPLC70PG185 #6
Description:

Instrument: Patty
Injection date: 11/30/2013 4:28:25 PM
Acq. method: AMM_ENV_18.M
Analysis method: HPLC70PG192.M

Last changed: 12/1/2013 12:12:58 PM

Sample type: Control
Location: Vial 6
Injection volume: 35.000
Injection: 2 of 2
Acq. operator: Matt Melvin



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Ammonia	VB	5.56	1020.1140	0.00848	8.649	ug/mL

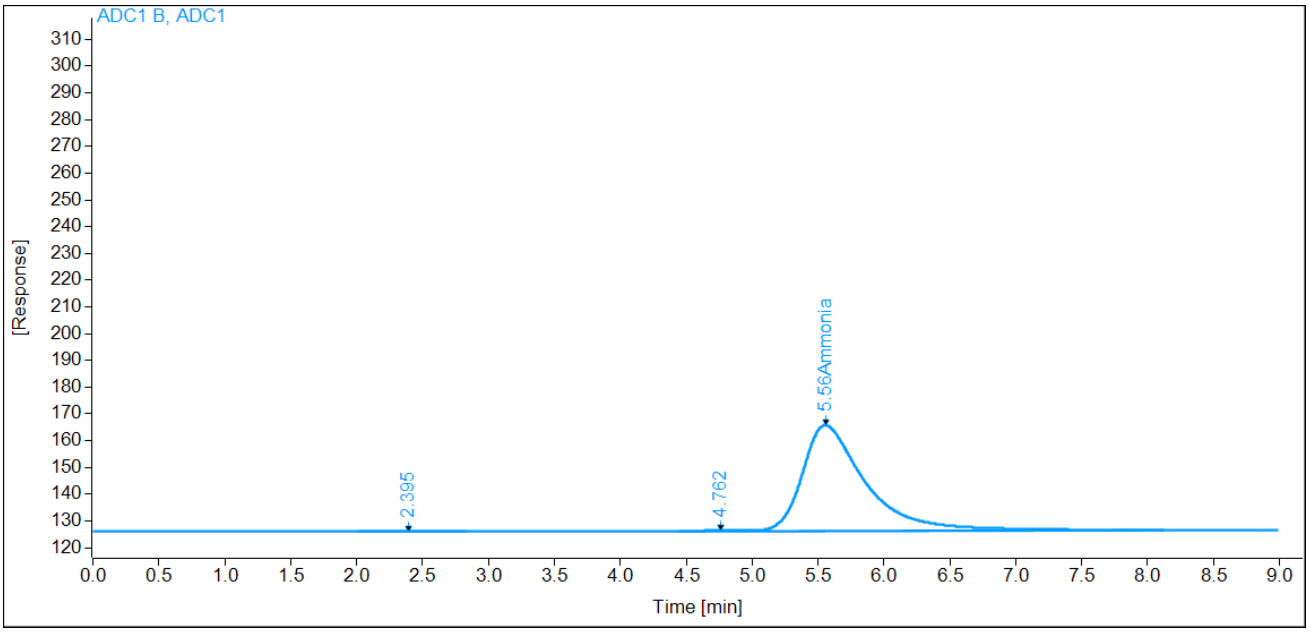
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC70PG192----175\007-0801.D
Sample name: HPLC70PG185 #7
Description:

Instrument: Patty
Injection date: 11/30/2013 4:40:21 PM
Acq. method: AMM_ENV_18.M
Analysis method: HPLC70PG192.M

Last changed: 12/1/2013 12:12:58 PM

Sample type: Control
Location: Vial 7
Injection volume: 35.000
Injection: 1 of 2
Acq. operator: Matt Melvin



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Ammonia	VB	5.56	1334.3154	0.00920	12.28	ug/mL

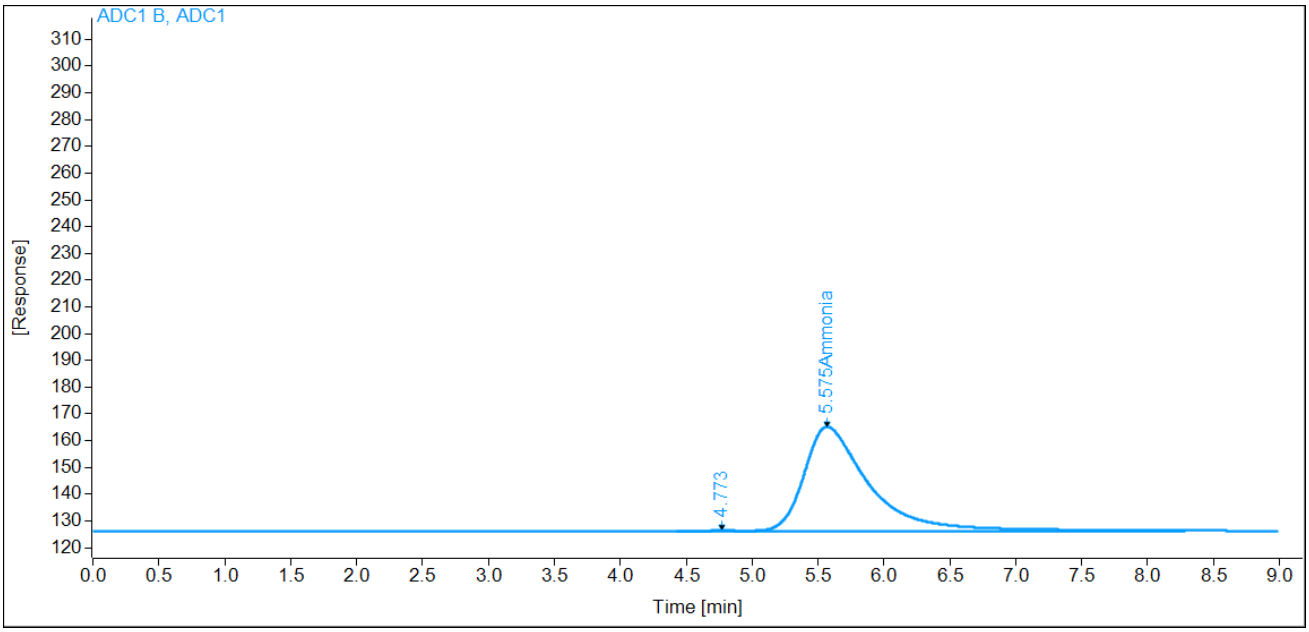
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC70PG192----175\007-0802.D
Sample name: HPLC70PG185 #7
Description:

Instrument: Patty
Injection date: 11/30/2013 4:52:20 PM
Acq. method: AMM_ENV_18.M
Analysis method: HPLC70PG192.M

Last changed: 12/1/2013 12:12:58 PM

Sample type: Control
Location: Vial 7
Injection volume: 35.000
Injection: 2 of 2
Acq. operator: Matt Melvin



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Ammonia	VB	5.58	1341.9224	0.00922	12.37	ug/mL

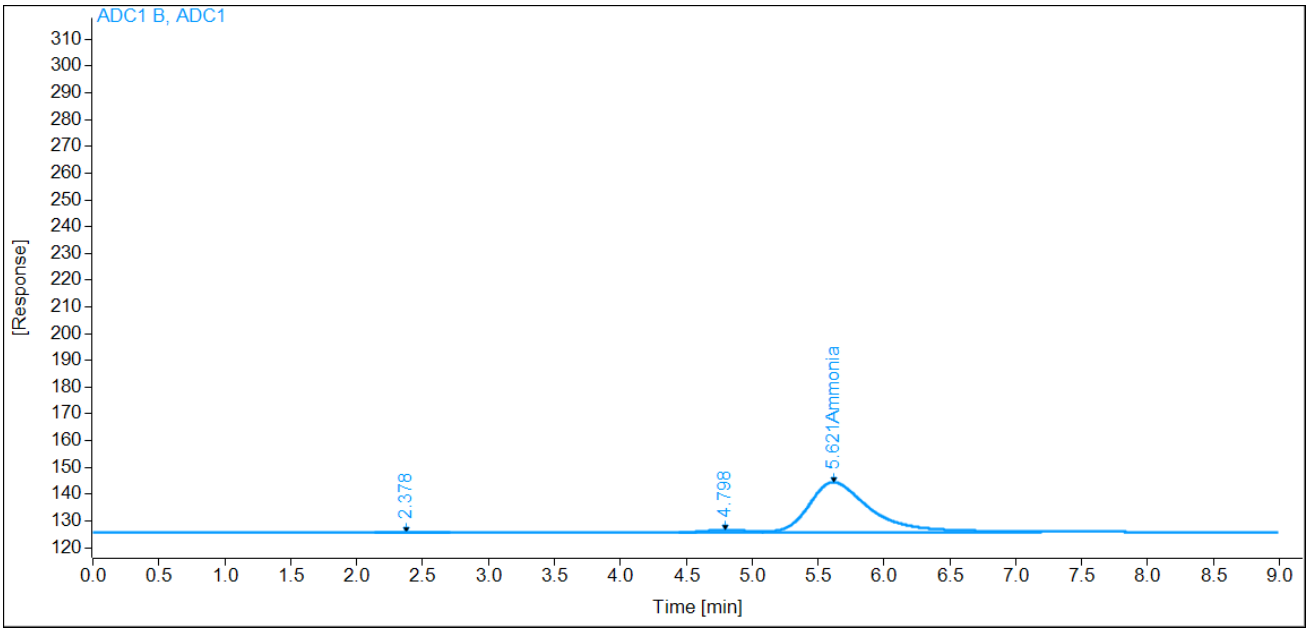
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC70PG192----175\004-2101.D
Sample name: HPLC70PG185 #4
Description:

Instrument: Patty
Injection date: 11/30/2013 9:51:05 PM
Acq. method: AMM_ENV_18.M
Analysis method: HPLC70PG192.M

Last changed: 12/1/2013 12:12:58 PM

Sample type: Control
Location: Vial 4
Injection volume: 35.000
Injection: 1 of 2
Acq. operator: Matt Melvin



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Ammonia	VB	5.62	601.7506	0.00778	4.683	ug/mL

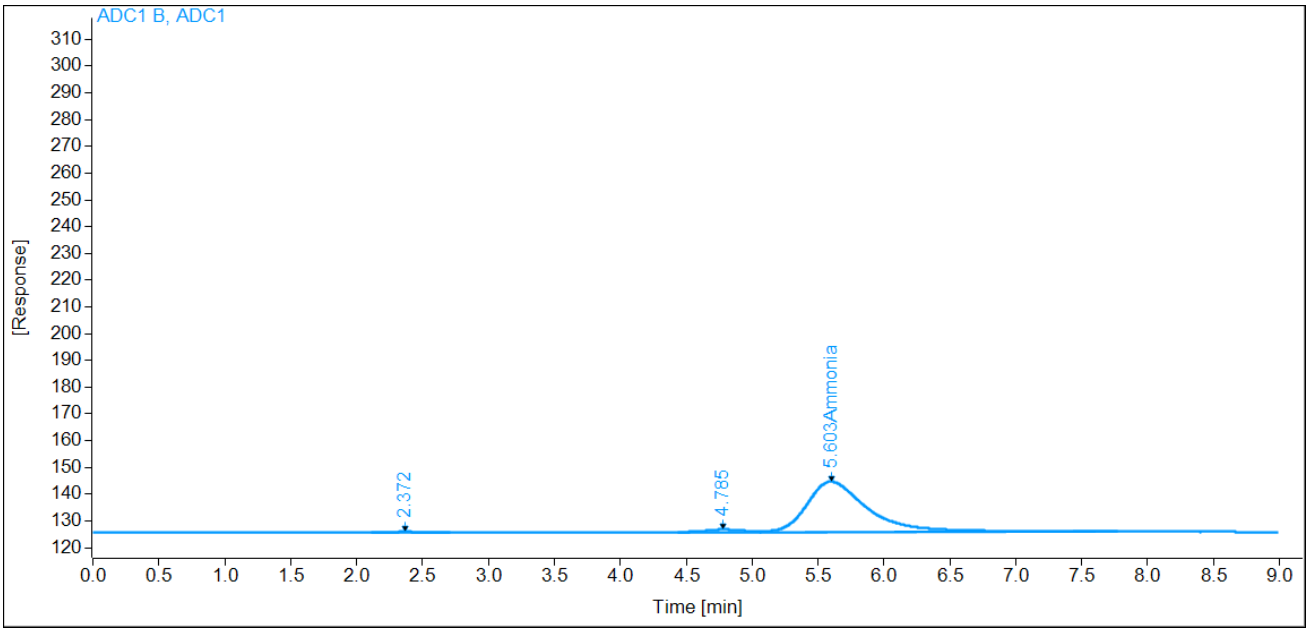
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC70PG192----175\004-2102.D
Sample name: HPLC70PG185 #4
Description:

Instrument: Patty
Injection date: 11/30/2013 10:03:15 PM
Acq. method: AMM_ENV_18.M
Analysis method: HPLC70PG192.M

Last changed: 12/1/2013 12:12:58 PM

Sample type: Control
Location: Vial 4
Injection volume: 35.000
Injection: 2 of 2
Acq. operator: Matt Melvin



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Ammonia	VB	5.60	616.5635	0.00780	4.812	ug/mL

Method Information

Method: C:\CHEM32\1\DATA\HPLC70PG192----175\ENVRNH3_PATTY.M
Modified: 12/1/2013 at 12:06:19 PM

Method Audit Trail

Operator : Wendy Gardow
Date : 7/22/2013 9:09:43 AM
Change Info: This method was created at 7/22/2013 9:09:43 AM and based on method C:\CHEM32\1\DATA\HPLC70PG120----157\NH3_FILLER_DA.M

Operator : Wendy Gardow
Date : 7/22/2013 9:09:44 AM
Change Info: Method saved. User comment: ""

Operator : Wendy Gardow
Date : 12/1/2013 12:06:19 PM
Change Info: Method C:\Chem32\1\METHODS\ENVRNH3_PATTY copied to result set

Run Time Checklist

Pre-Run Cmd/Macro:	off
Data Acquisition:	on
Standard Data Analysis:	on
Customized Data Analysis:	off
Save GLP Data:	off
Post-Run Cmd/Macro:	off
Save Method with Data:	off

==========

Data File : C:\Chem32\2\DATA\HPLC70PG192----175\009-0101.D
Acq. Method: AMM_ENV_18.M

The Acq. Method's Instrument Parameters for the Run were :

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Agilent 1100/1200 Quaternary Pump 1

```
=====================================================================

Control
    Column Flow            :      1.000 ml/min
    Stoptime               :         10.00 min
    Posttime               :      Off

Solvents
    Solvent A              :        0.0 % ( )
    Solvent B              :       72.5 % (10 mN Methanesulfonic Acid)
    Solvent C              :       27.5 % (40 mN Methanesulfonic Acid)
    Solvent D              :        0.0 % ( )

PressureLimits
    Minimum Pressure       :        0 bar
    Maximum Pressure       :      400 bar


Auxiliary
    Maximal Flow Ramp      :      100.00 ml/min^2
    Primary Channel        :      Auto
    Compressibility        :      100*10^-6/bar
    Minimal Stroke         :      Auto

Store Parameters
    Store Ratio A          :      Yes
    Store Ratio B          :      Yes
    Store Ratio C          :      Yes
    Store Ratio D          :      Yes
    Store Flow             :      Yes
    Store Pressure         :      Yes

Timetable

       Time    Solv.B  Solv.C  Solv.D   Flow  Pressure
    |--------|-------|-------|-------|-------|-------|
         0.00   72.5    27.5     0.0
        12.00   72.5    27.5     0.0


=====================================================================
                     Agilent 1100 Autosampler 1
=====================================================================

Injection
    Injection Mode         :    Needle Wash
    Injector volume        :         35.00 µl
    Wash Vial              :        100
    Optimization           :        Prefetch Sample Vial
                                    2.00 min. after Injection

Auxiliary
    Drawspeed              :          100 µl/min
    Ejectspeed             :          100 µl/min
    Draw position          :          0.0 mm

Time
```

Stoptime	:	No Limit
Posttime	:	Off

The Data Analysis Parameters of the used Method are :

Integration Events

Non signal specific Integration Events

Event	Value
Tangent Skim Mode	Standard
Tail Peak Skim Height Ratio	0.000
Front Peak Skim Height Ratio	0.000
Skim Valley Ratio	0.000
Baseline Correction	Advanced
Peak to Valley Ratio	0.000

Default Integration Event Table "Event"

Event	Value	Time
Initial Slope Sensitivity	1.000	Initial
Initial Peak Width	0.020	Initial
Initial Area Reject	1.000	Initial
Initial Height Reject	1.700	Initial
Initial Shoulders	OFF	Initial

Detector Default Integration Event Table "Event_DAD"

Event	Value	Time
Initial Slope Sensitivity	5.000	Initial
Initial Peak Width	0.020	Initial
Initial Area Reject	5.000	Initial
Initial Height Reject	1.000	Initial
Initial Shoulders	OFF	Initial

Detector Default Integration Event Table "Event_FLD"

Event	Value	Time
Initial Slope Sensitivity	1.000	Initial
Initial Peak Width	0.020	Initial
Initial Area Reject	1.000	Initial
Initial Height Reject	1.700	Initial
Initial Shoulders	OFF	Initial

Detector Default Integration Event Table "Event_VWD"

Event	Value	Time
Initial Slope Sensitivity	1.000	Initial
Initial Peak Width	0.020	Initial
Initial Area Reject	1.000	Initial
Initial Height Reject	1.700	Initial
Initial Shoulders	OFF	Initial

Detector Default Integration Event Table "Event_ECD"

Event	Value	Time
Initial Slope Sensitivity	1.000	Initial
Initial Peak Width	0.020	Initial
Initial Area Reject	1.000	Initial
Initial Height Reject	1.700	Initial
Initial Shoulders	OFF	Initial

Detector Default Integration Event Table "Event_MWD"

Event	Value	Time
Initial Slope Sensitivity	1.500	Initial
Initial Peak Width	0.040	Initial
Initial Area Reject	1.000	Initial
Initial Height Reject	1.700	Initial
Initial Shoulders	OFF	Initial

Detector Default Integration Event Table "Event_ADC"

Event	Value	Time
Initial Slope Sensitivity	0.050	Initial
Initial Peak Width	0.300	Initial
Initial Area Reject	1.000	Initial
Initial Height Reject	0.003	Initial
Initial Shoulders	OFF	Initial

Apply Method's Manual Integration Events: No

Specify Report

Calculate: External Standard
Based on: Peak Area
Do not use Multiplier & Dilution Factor with ISTDs

Use Sample Data from Data File
Report mode: Classic
Destination: File (Prefix: Report)
Destination File Types: .TXT
Quantitative Results sorted by: Signal
Report Style: Short
Sample info on each page: No
Add Chromatogram Output: Yes
Chromatogram Output: Portrait
Size in Time direction: 100 % of Page
Size in Response direction: 40 % of Page
Uncalibrated Peaks: Report with Calibrated Peaks

Signal Options

Include: Axes, Compound Names, Retention Times, Baselines, Tick Marks
Font: Arial, Size: 8

Ranges: Full
Multi Chromatograms: Separated, Each in full Scale

Calibration Table

General Calibration Setting

Calib. Data Modified : Monday, July 22, 2013 9:09:14 AM

Rel. Reference Window : 5.000 %
Abs. Reference Window : 0.000 min
Rel. Non-ref. Window : 8.000 %
Abs. Non-ref. Window : 0.000 min
Uncalibrated Peaks : not reported
Partial Calibration : Yes, identified peaks are recalibrated
Correct All Ret. Times: No, only for identified peaks

Curve Type : Quadratic
Origin : Connected
Weight : Linear (Amnt)

Recalibration Settings:
Average Response : Average all calibrations
Average Retention Time: Floating Average New 75%

Calibration Report Options :
Printout of recalibrations within a sequence:
Calibration Table after Recalibration
Normal Report after Recalibration
If the sequence is done with bracketing:
Results of first cycle (ending previous bracket)

Signal Details

Signal 1: ADC1 B, ADC1

Overview Table

RT	Sig	Lvl	Amount [ug/ml]	Area	Rsp.Factor	Ref	ISTD	#	Compound
5.058	1	1	2.35000e-1	49.54081	4.74356e-3	No	No		Ammonia
		2	4.70000e-1	81.11148	5.79449e-3				
		3	1.85100	304.79144	6.07301e-3				
		4	4.49500	692.24829	6.49333e-3				
		5	6.58600	885.57956	7.43694e-3				
		6	8.58200	1087.38440	7.89233e-3				
		7	12.31300	1431.42621	8.60191e-3				

Identification Details Table

RT	From	To	Sig	+-	Pk Usage	Compound
5.058	4.855	5.260	1	0.0000	Main	Ammonia

Peak Sum Table

No Entries in table

Component Details Table

RT	Sig	Grp	Lvl	Amount [ug/ml]	Low Limit	High Limit	Compound
5.058	1		1	2.35000e-1	0.00000	0.00000	Ammonia
			2	4.70000e-1			
			3	1.85100			
			4	4.49500			
			5	6.58600			
			6	8.58200			
			7	12.31300			

==========

Sample related custom fields

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Custom Field	Type	Mand.	Default Value
None defined			

==========

Compound related custom fields

==========

Custom Field	Type	Mand.	Default Value
None defined			

Raw Data

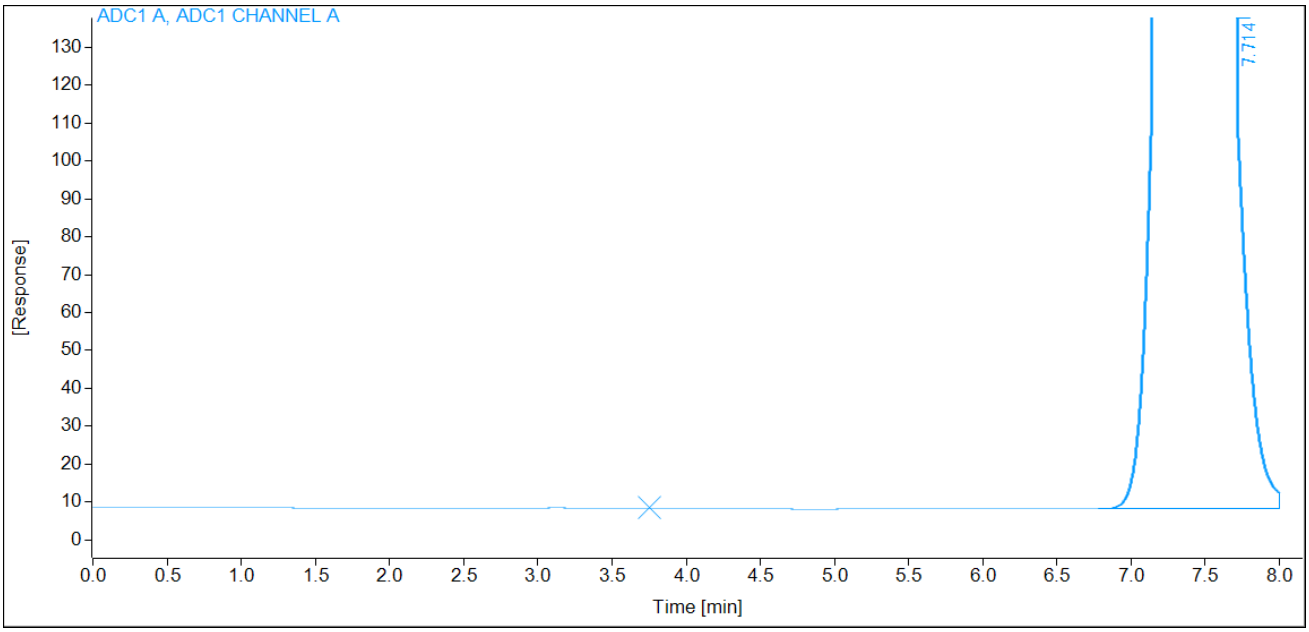
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC78PG054-109\062-2201.D
Sample name: M26A-R2-Imp.1&2*5 1113-210
Description:

Instrument: Smithers
Injection date: 11/28/2013 12:02:05 AM
Acq. method: METROHM.M
Analysis method: HPLC78PG054.M

Last changed: 11/28/2013 9:28:55 AM

Sample type: Sample
Location: Vial 62
Injection volume:
Injection: 1 of 2
Acq. operator: Wendy Gardow



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Chloride					0	ug/mL
Fluoride					0	ug/mL

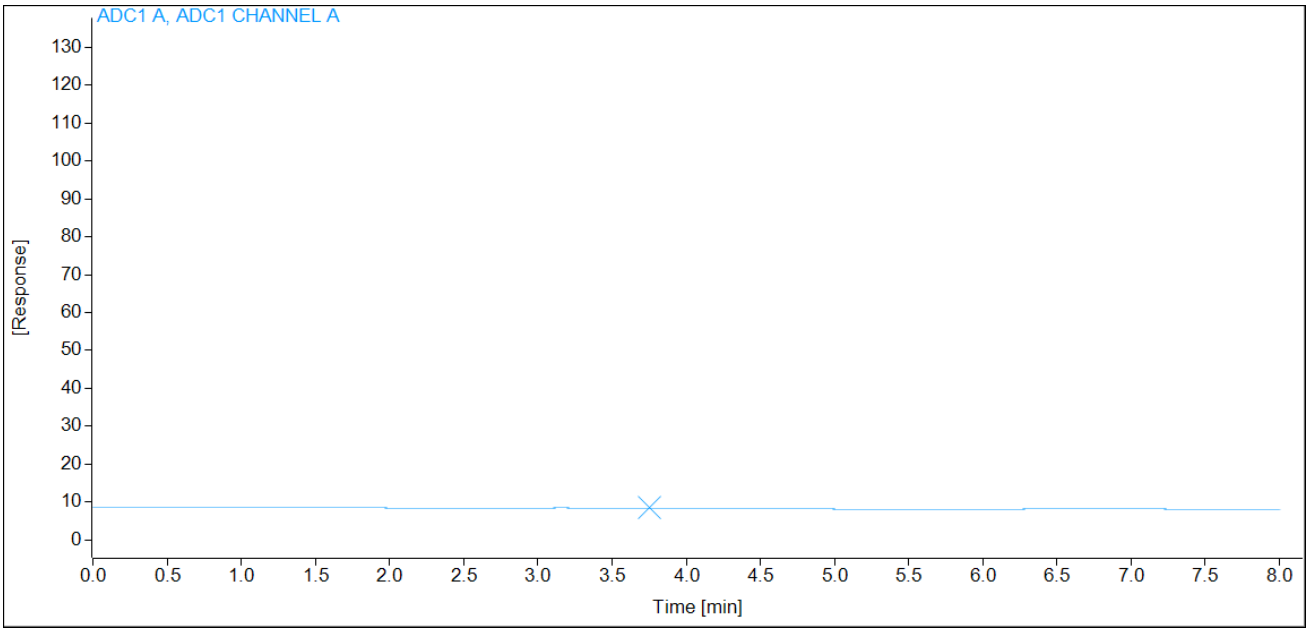
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC78PG054-109\062-2202.D
Sample name: M26A-R2-Imp.1&2*5 1113-210
Description:

Instrument:
Injection date: 11/28/2013 12:12:53 AM
Acq. method: METROHM.M
Analysis method: HPLC78PG054.M

Last changed: 11/28/2013 9:28:55 AM

Sample type: Sample
Location: Vial 62
Injection volume:
Injection: 2 of 2
Acq. operator: Wendy Gardow



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Chloride					0	ug/mL
Fluoride					0	ug/mL

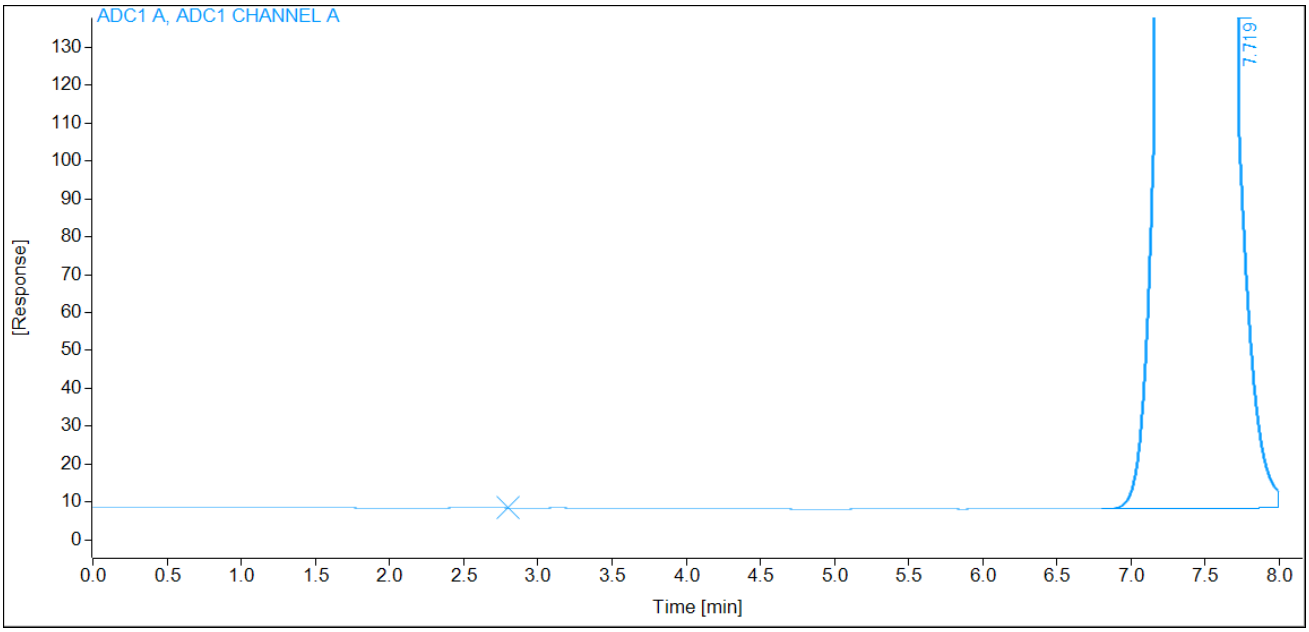
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC78PG054-109\063-2301.D
Sample name: M26A-R3-Imp.1&2*5 1113-210
Description:

Instrument: Smithers
Injection date: 11/28/2013 12:23:41 AM
Acq. method: METROHM.M
Analysis method: HPLC78PG054.M

Last changed: 11/28/2013 9:28:55 AM

Sample type: Sample
Location: Vial 63
Injection volume:
Injection: 1 of 2
Acq. operator: Wendy Gardow



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Fluoride					0	ug/mL
Chloride					0	ug/mL

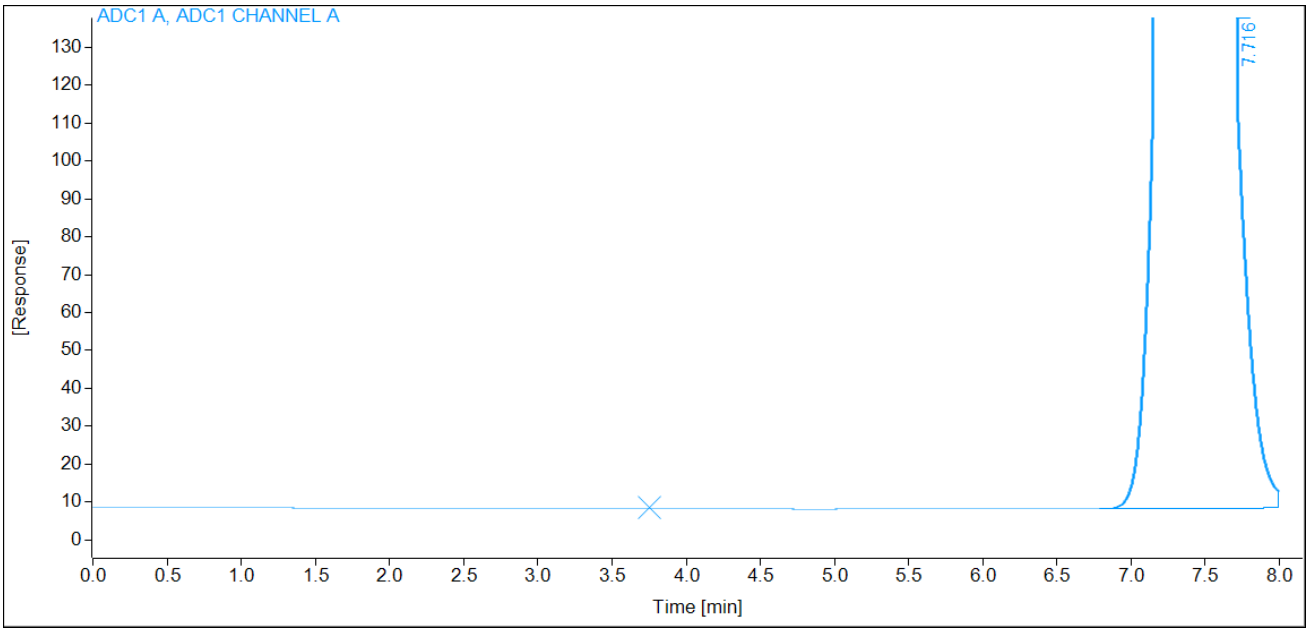
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC78PG054-109\063-2302.D
Sample name: M26A-R3-Imp.1&2*5 1113-210
Description:

Instrument: Smithers
Injection date: 11/28/2013 12:34:29 AM
Acq. method: METROHM.M
Analysis method: HPLC78PG054.M

Last changed: 11/28/2013 9:28:55 AM

Sample type: Sample
Location: Vial 63
Injection volume:
Injection: 2 of 2
Acq. operator: Wendy Gardow



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Chloride					0	ug/mL
Fluoride					0	ug/mL

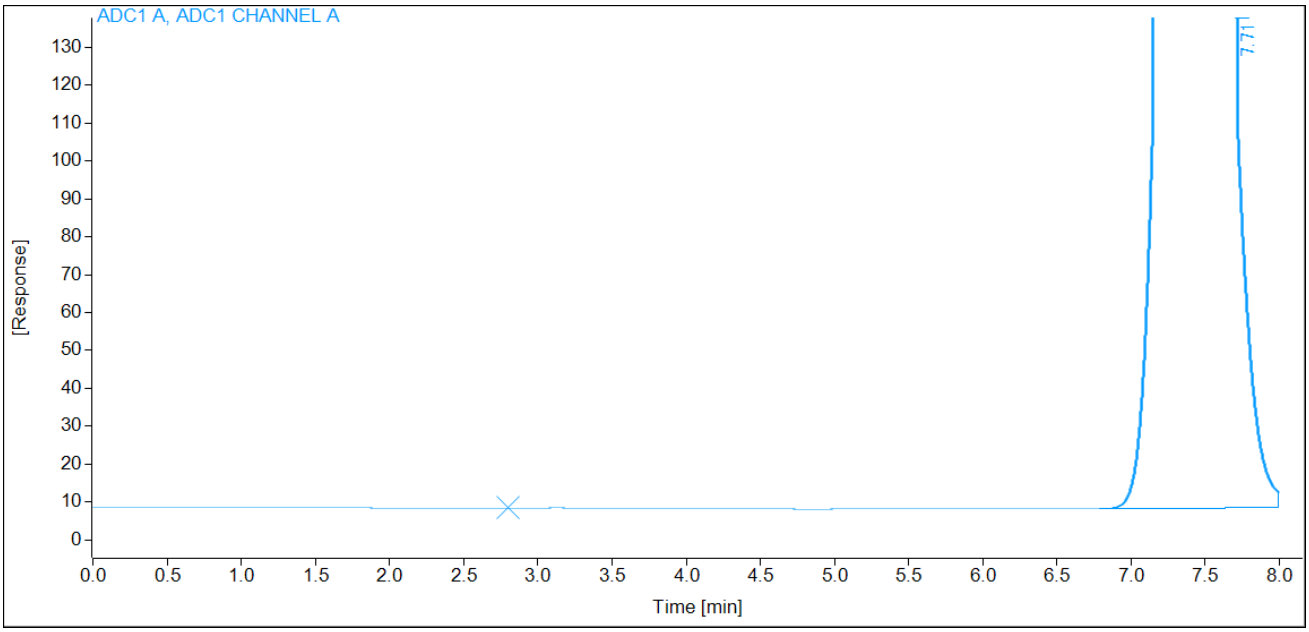
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC78PG054-109\064-2401.D
Sample name: M26A-R4-Imp.1&2*5 1113-210
Description:

Instrument: Smithers
Injection date: 11/28/2013 12:45:17 AM
Acq. method: METROHM.M
Analysis method: HPLC78PG054.M

Last changed: 11/28/2013 9:28:55 AM

Sample type: Sample
Location: Vial 64
Injection volume:
Injection: 1 of 2
Acq. operator: Wendy Gardow



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Fluoride					0	ug/mL
Chloride					0	ug/mL

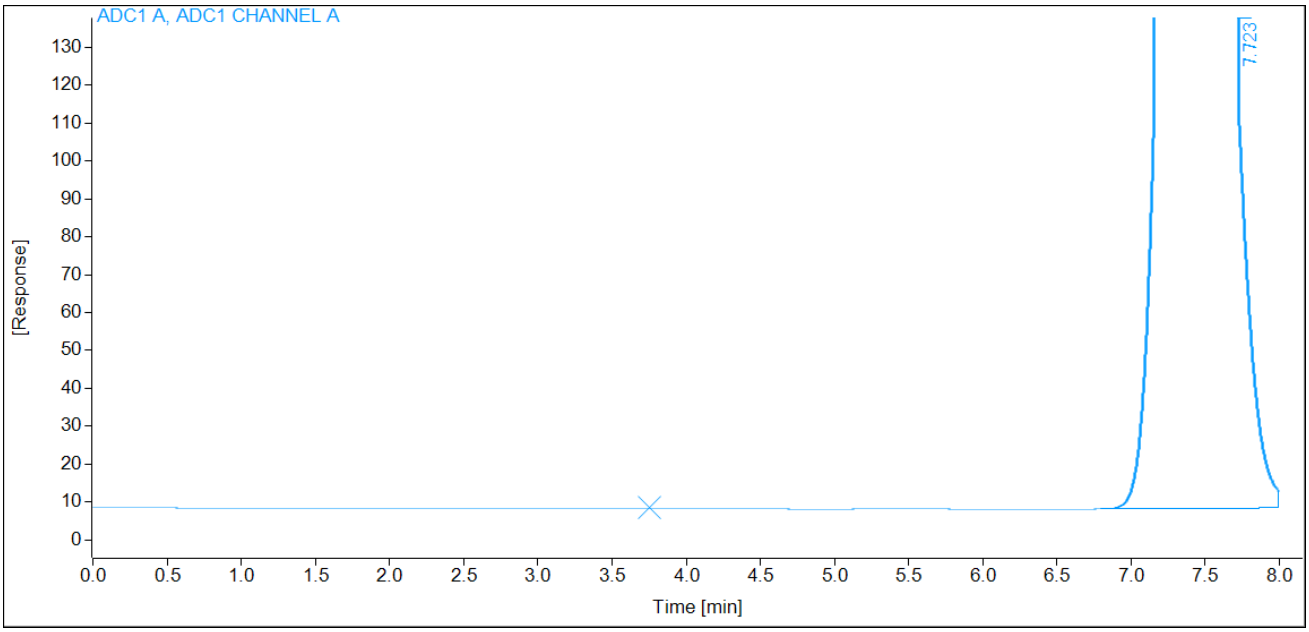
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC78PG054-109\064-2402.D
Sample name: M26A-R4-Imp.1&2*5 1113-210
Description:

Instrument: Smithers
Injection date: 11/28/2013 12:56:04 AM
Acq. method: METROHM.M
Analysis method: HPLC78PG054.M

Last changed: 11/28/2013 9:28:55 AM

Sample type: Sample
Location: Vial 64
Injection volume:
Injection: 2 of 2
Acq. operator: Wendy Gardow



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Chloride					0	ug/mL
Fluoride					0	ug/mL

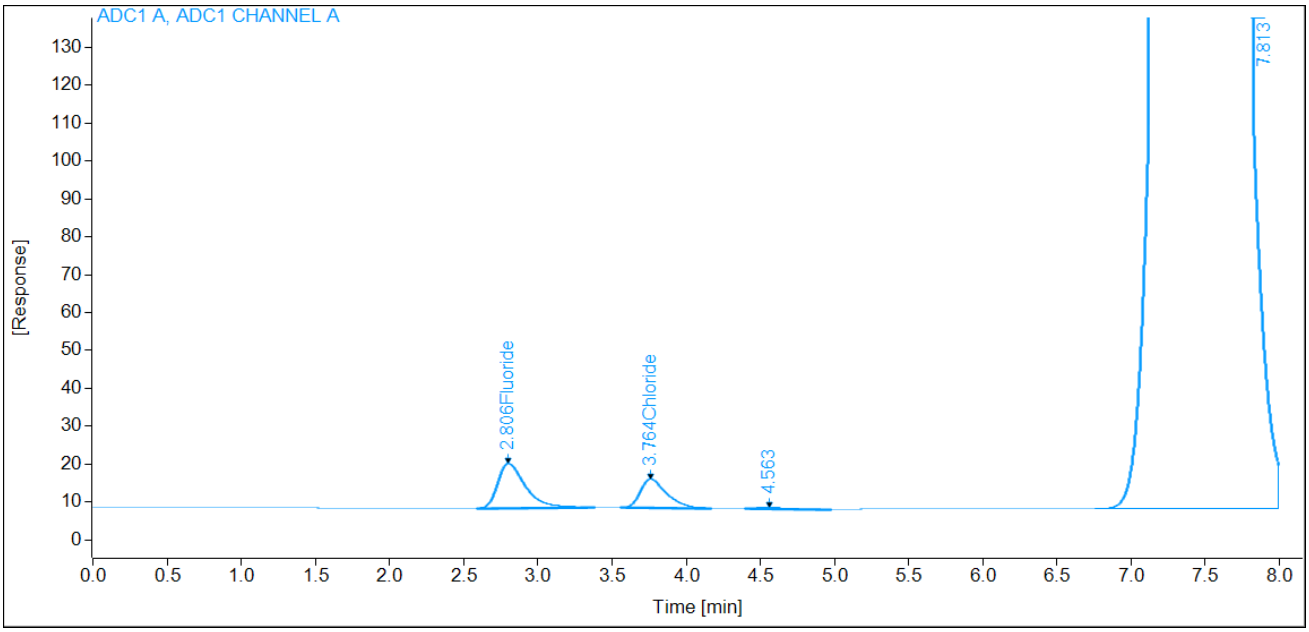
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC78PG054-109\065-2501.D
Sample name: M26A-Audit-111313F*5 1113-210
Description:

Instrument: Smithers
Injection date: 11/28/2013 1:06:53 AM
Acq. method: METROHM.M
Analysis method: HPLC78PG054.M

Last changed: 11/28/2013 9:28:55 AM

Sample type: Sample
Location: Vial 65
Injection volume:
Injection: 1 of 2
Acq. operator: Wendy Gardow



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Fluoride	BB	2.81	153.4398	0.03741	5.740	ug/mL
Chloride	BB	3.76	93.1164	0.06272	5.840	ug/mL

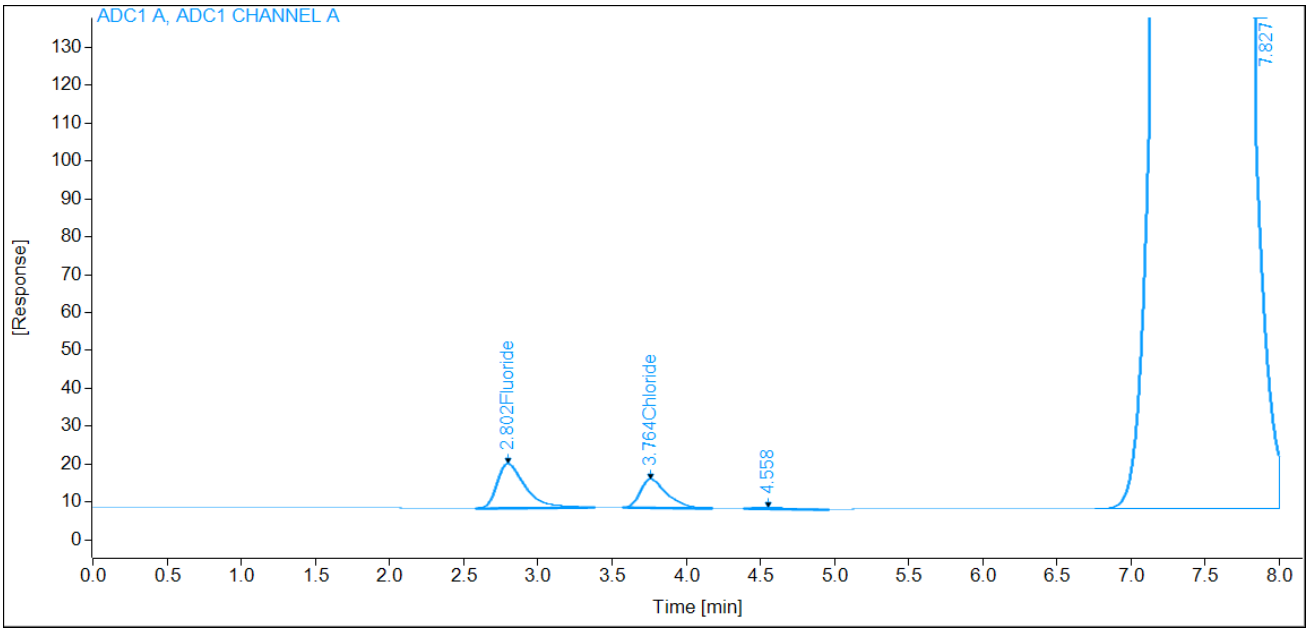
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC78PG054-109\065-2502.D
Sample name: M26A-Audit-111313F*5 1113-210
Description:

Instrument: Smithers
Injection date: 11/28/2013 1:17:41 AM
Acq. method: METROHM.M
Analysis method: HPLC78PG054.M

Last changed: 11/28/2013 9:28:55 AM

Sample type: Sample
Location: Vial 65
Injection volume:
Injection: 2 of 2
Acq. operator: Wendy Gardow



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Fluoride	BB	2.80	153.9672	0.03741	5.760	ug/mL
Chloride	BB	3.76	92.6673	0.06272	5.812	ug/mL

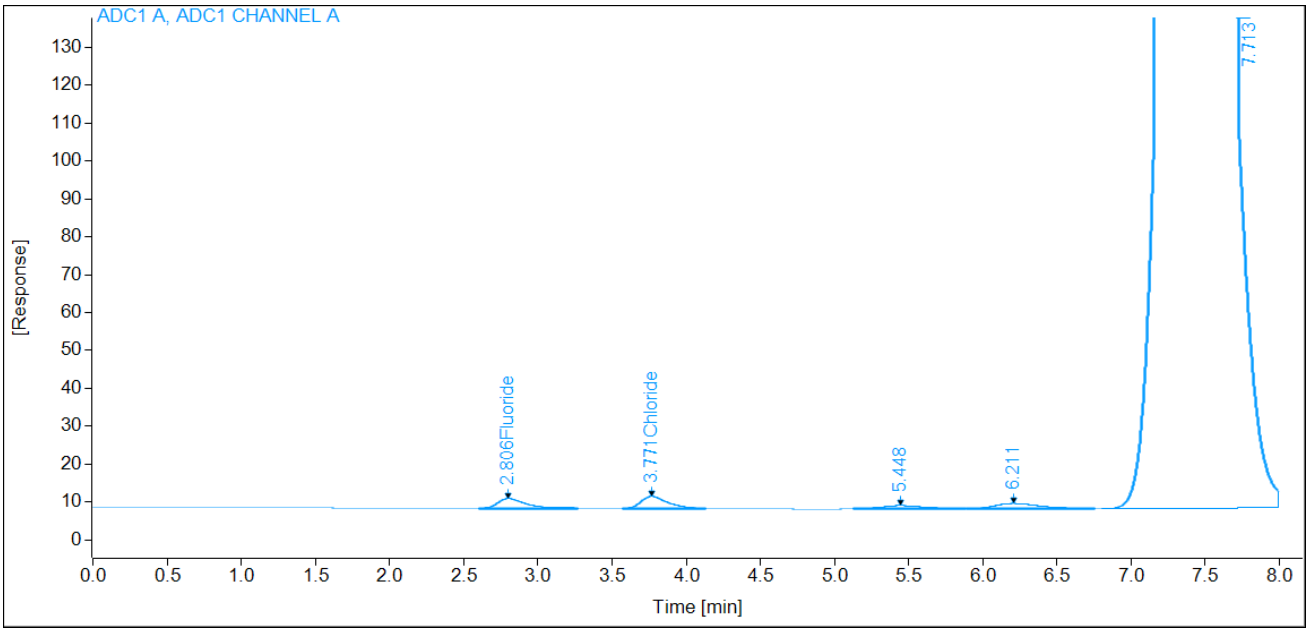
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC78PG054-109\066-2601.D
Sample name: MS/M26A-R2-Imp.1&2 1113-210
Description:

Instrument: Smithers
Injection date: 11/28/2013 1:28:28 AM
Acq. method: METROHM.M
Analysis method: HPLC78PG054.M

Last changed: 11/28/2013 9:28:55 AM

Sample type: Sample
Location: Vial 66
Injection volume:
Injection: 1 of 2
Acq. operator: Wendy Gardow



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Fluoride	BB	2.81	33.4845	0.03849	1.289	ug/mL
Chloride	BB	3.77	38.9297	0.06310	2.456	ug/mL

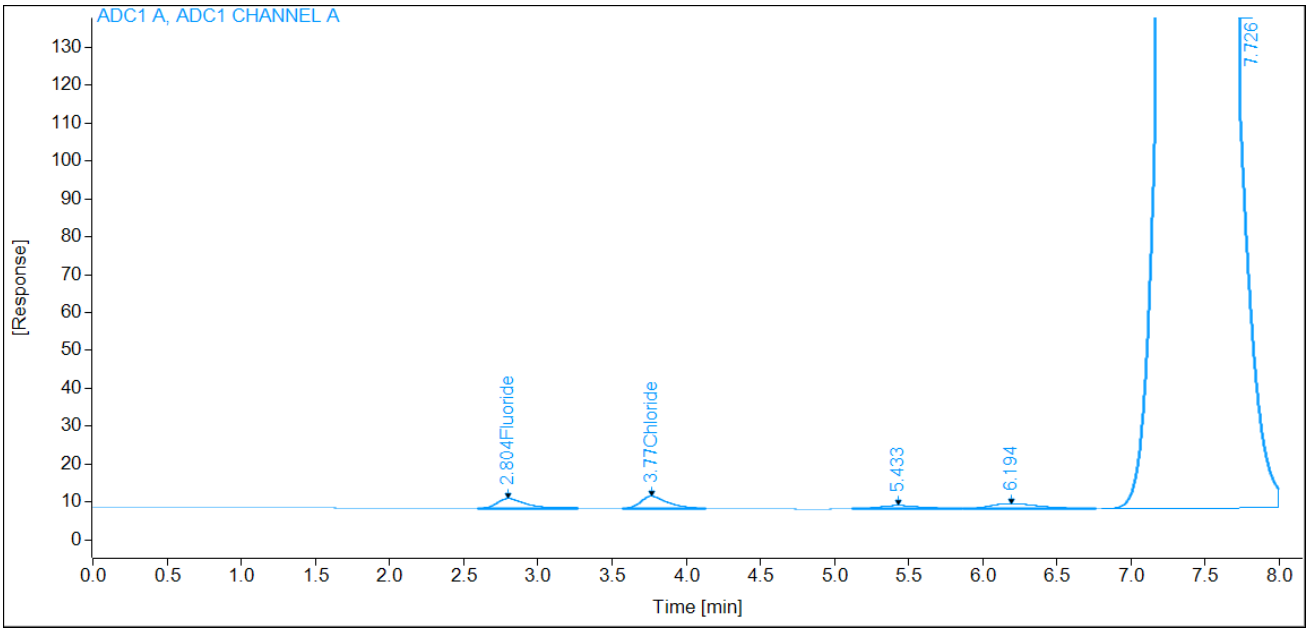
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC78PG054-109\066-2602.D
Sample name: MS/M26A-R2-Imp.1&2 1113-210
Description:

Instrument: Smithers
Injection date: 11/28/2013 1:39:16 AM
Acq. method: METROHM.M
Analysis method: HPLC78PG054.M

Last changed: 11/28/2013 9:28:55 AM

Sample type: Sample
Location: Vial 66
Injection volume:
Injection: 2 of 2
Acq. operator: Wendy Gardow



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Fluoride	BB	2.80	33.4424	0.03849	1.287	ug/mL
Chloride	BB	3.77	38.9362	0.06310	2.457	ug/mL

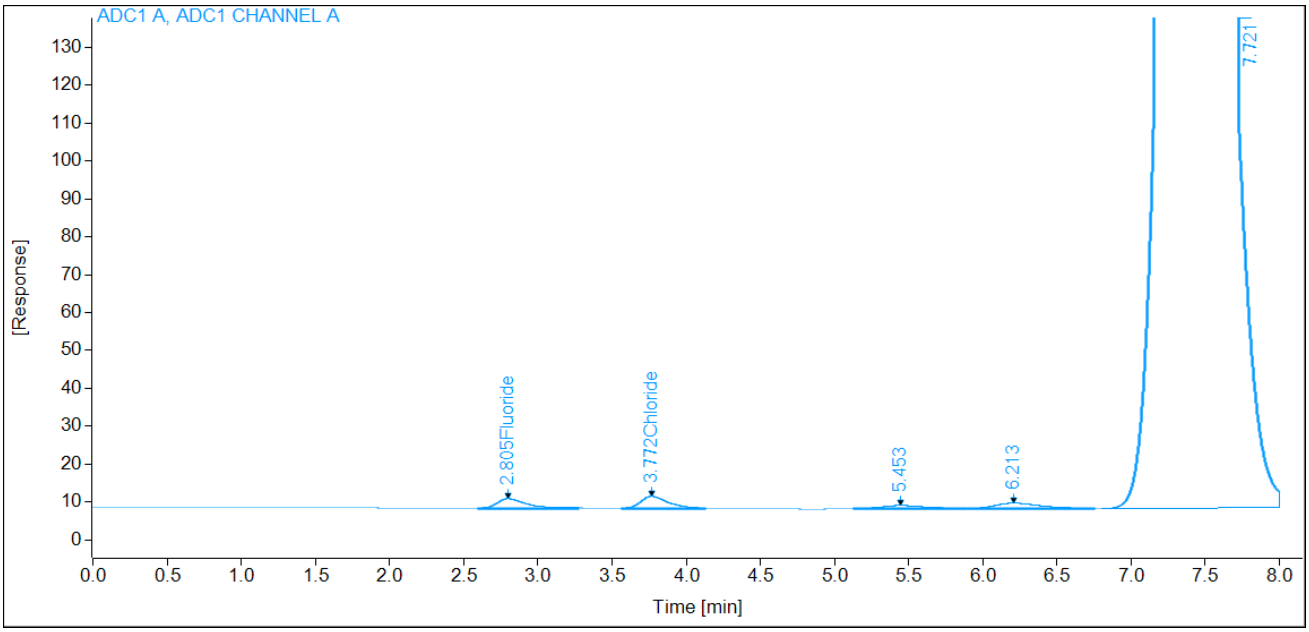
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC78PG054-109\067-2701.D
Sample name: MSD/M26A-R2-Imp.1&2 1113-210
Description:

Instrument: Smithers
Injection date: 11/28/2013 1:50:04 AM
Acq. method: METROHM.M
Analysis method: HPLC78PG054.M

Last changed: 11/28/2013 9:28:55 AM

Sample type: Sample
Location: Vial 67
Injection volume:
Injection: 1 of 2
Acq. operator: Wendy Gardow



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Fluoride	BB	2.80	33.2423	0.03850	1.280	ug/mL
Chloride	BB	3.77	39.0187	0.06310	2.462	ug/mL

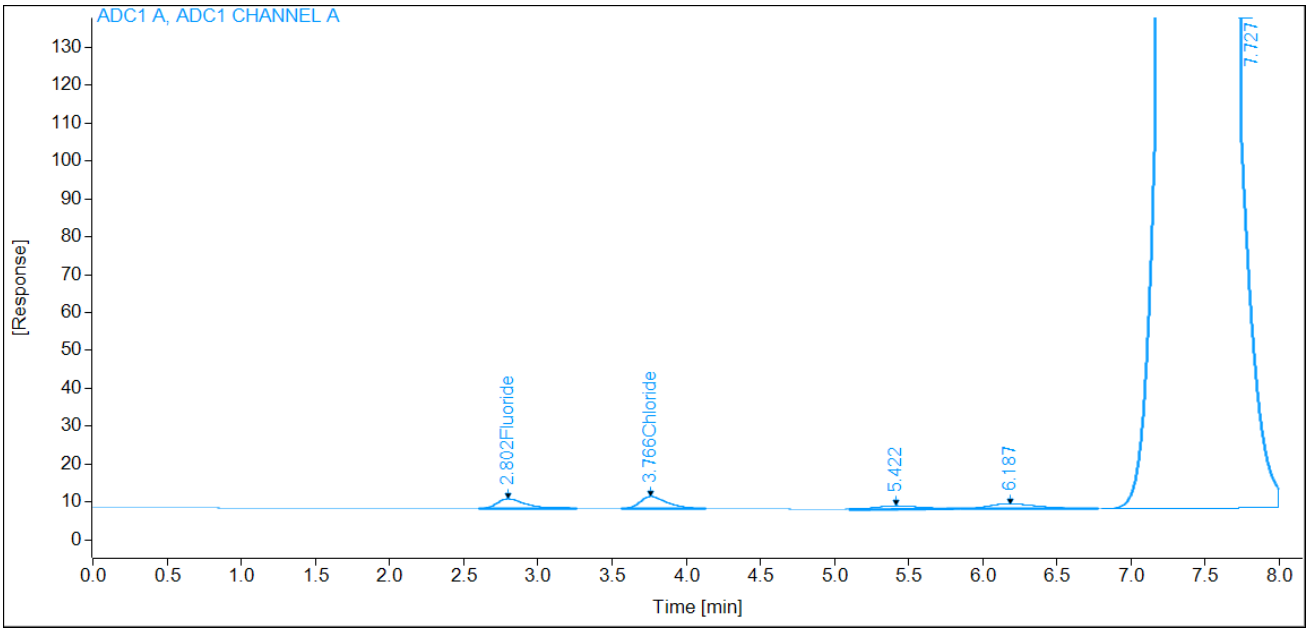
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC78PG054-109\067-2702.D
Sample name: MSD/M26A-R2-Imp.1&2 1113-210
Description:

Instrument: Smithers
Injection date: 11/28/2013 2:00:51 AM
Acq. method: METROHM.M
Analysis method: HPLC78PG054.M

Last changed: 11/28/2013 9:28:55 AM

Sample type: Sample
Location: Vial 67
Injection volume:
Injection: 2 of 2
Acq. operator: Wendy Gardow



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Fluoride	BB	2.80	33.2167	0.03850	1.279	ug/mL
Chloride	BB	3.77	38.9986	0.06310	2.461	ug/mL

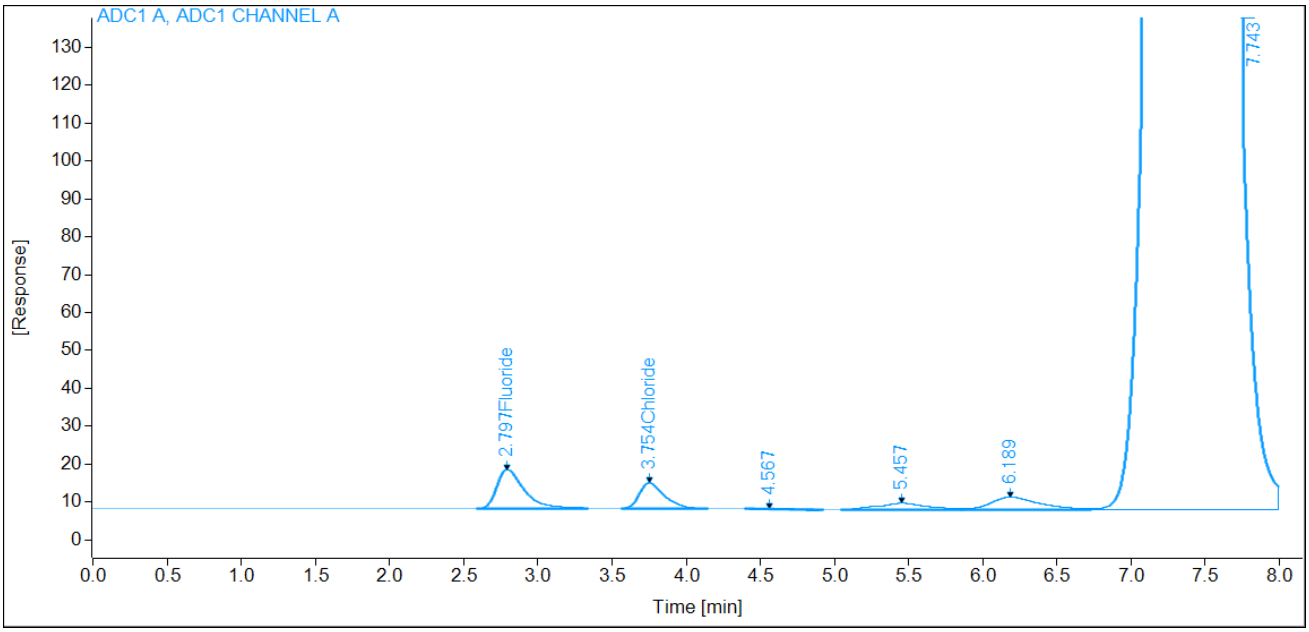
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC78PG054-109\007-0801.D
Sample name: WJGFB01PG026 #LCS Acid
Description:

Instrument: Smithers
Injection date: 11/27/2013 6:59:41 PM
Acq. method: METROHM.M
Analysis method: HPLC78PG054.M

Last changed: 11/28/2013 9:28:55 AM

Sample type: Control
Location: Vial 7
Injection volume:
Injection: 1 of 2
Acq. operator: Wendy Gardow



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Fluoride	BB	2.80	131.7224	0.03746	4.934	ug/mL
Chloride	BB	3.75	78.6047	0.06277	4.934	ug/mL

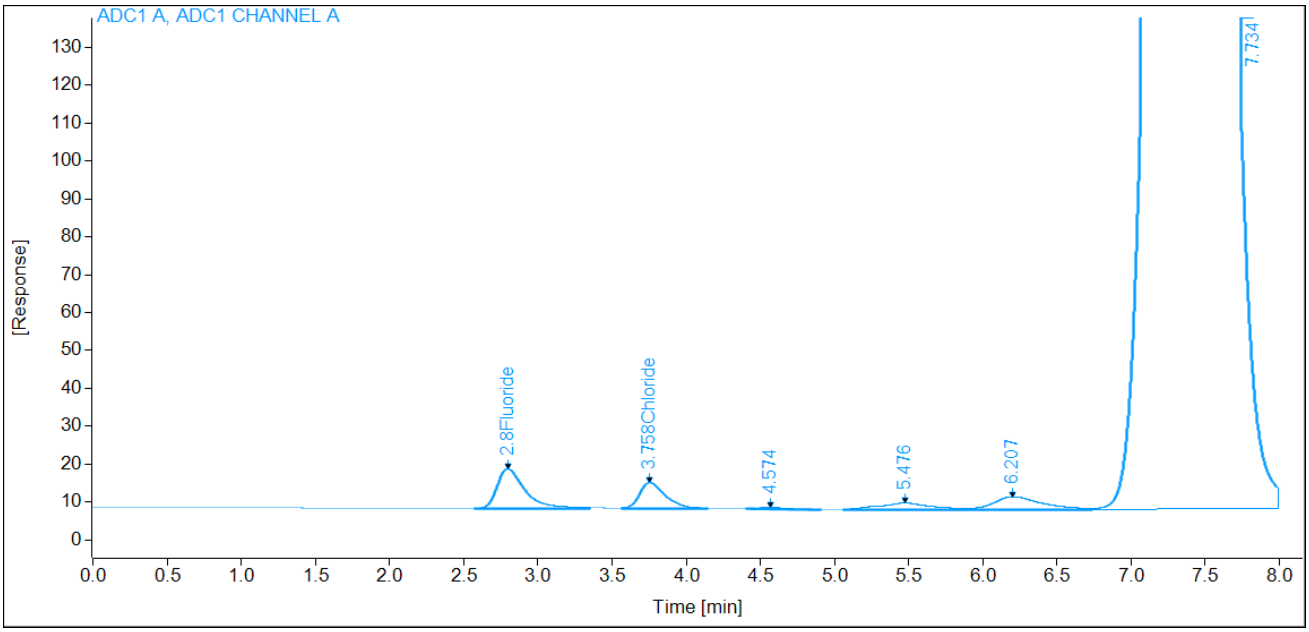
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC78PG054-109\007-0802.D
Sample name: WJGFB01PG026 #LCS Acid
Description:

Instrument: Smithers
Injection date: 11/27/2013 7:10:29 PM
Acq. method: METROHM.M
Analysis method: HPLC78PG054.M

Last changed: 11/28/2013 9:28:55 AM

Sample type: Control
Location: Vial 7
Injection volume:
Injection: 2 of 2
Acq. operator: Wendy Gardow



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Fluoride	BB	2.80	132.4142	0.03746	4.960	ug/mL
Chloride	BB	3.76	78.8709	0.06277	4.951	ug/mL

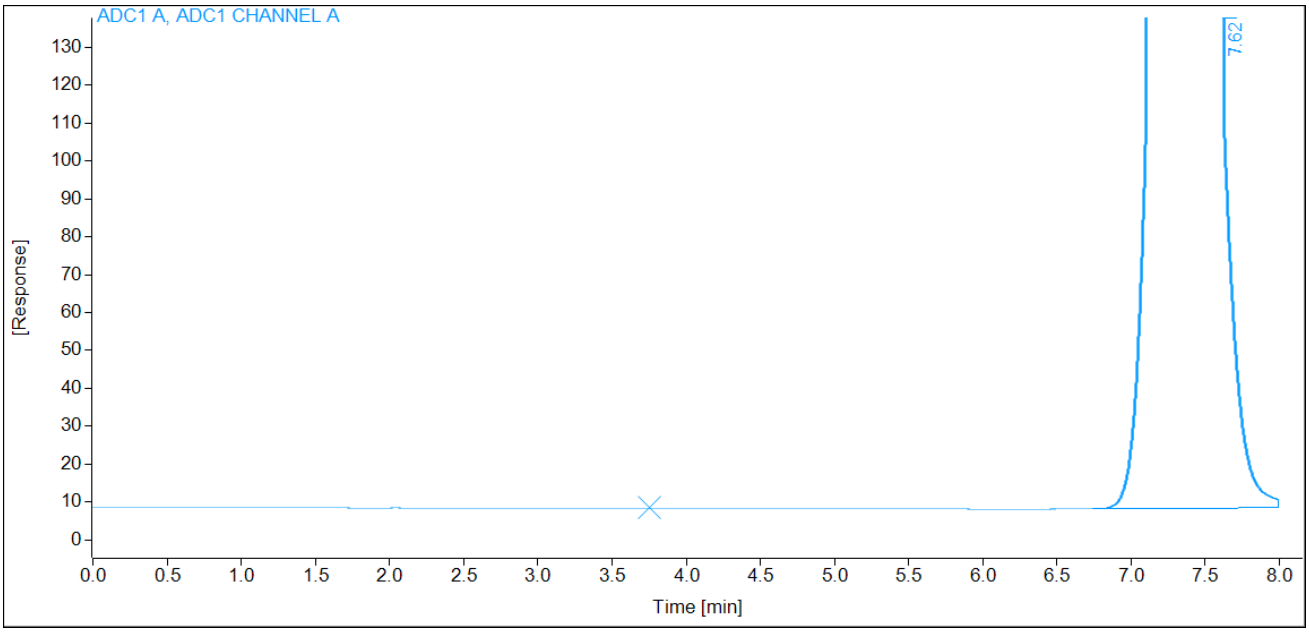
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC78PG054-109\008-0901.D
Sample name: Reagent Blank
Description:

Instrument: Smithers
Injection date: 11/27/2013 7:21:17 PM
Acq. method: METROHM.M
Analysis method: HPLC78PG054.M

Last changed: 11/28/2013 9:28:55 AM

Sample type: Control
Location: Vial 8
Injection volume:
Injection: 1 of 2
Acq. operator: Wendy Gardow



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Chloride					0	ug/mL
Fluoride					0	ug/mL

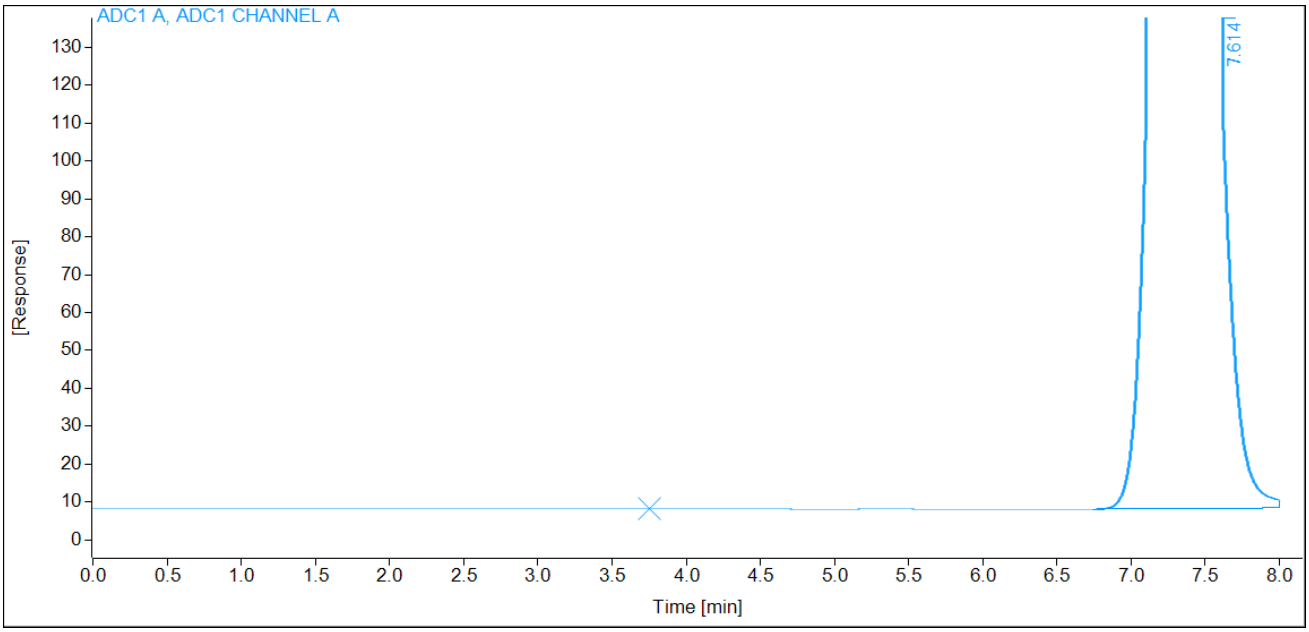
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC78PG054-109\008-0902.D
Sample name: Reagent Blank
Description:

Instrument: Smithers
Injection date: 11/27/2013 7:32:05 PM
Acq. method: METROHM.M
Analysis method: HPLC78PG054.M

Last changed: 11/28/2013 9:28:55 AM

Sample type: Control
Location: Vial 8
Injection volume:
Injection: 2 of 2
Acq. operator: Wendy Gardow



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Chloride					0	ug/mL
Fluoride					0	ug/mL

Calibration Table

General Calibration Setting

Calib. Data Modified : 11/28/2013 10:02:40 AM

Rel. Reference Window : 10.000 %
Abs. Reference Window : 0.000 min
Rel. Non-ref. Window : 10.000 %
Abs. Non-ref. Window : 0.000 min
Uncalibrated Peaks : not reported
Partial Calibration : Yes, identified peaks are recalibrated
Correct All Ret. Times: No, only for identified peaks

Curve Type : Linear
Origin : Connected
Weight : Linear (Amnt)

Recalibration Settings:
Average Response : Average all calibrations
Average Retention Time: Floating Average New 75%

Calibration Report Options :
Printout of recalibrations within a sequence:
Calibration Table after Recalibration
Normal Report after Recalibration
If the sequence is done with bracketing:
Results of first cycle (ending previous bracket)

Signal Details

Signal 1: ADC1 A, ADC1 CHANNEL A

Overview Table

RT	Sig	Lvl	Amount [ug/mL]	Area	Rsp.Factor	Ref	ISTD	#	Compound
2.800	1	1	2.00000e-1	4.48600	4.45831e-2	No	No		Fluoride
		2	1.00000	23.95085	4.17522e-2				
		3	5.00000	133.31442	3.75053e-2				
		4	10.00000	267.46349	3.73883e-2				
		5	15.00000	405.34294	3.70057e-2				
3.757	1	1	2.00000e-1	2.99569	6.67627e-2	No	No		Chloride
		2	1.00000	14.75903	6.77551e-2				
		3	5.00000	78.68644	6.35434e-2				
		4	10.00000	158.08511	6.32571e-2				
		5	15.00000	243.05663	6.17140e-2				

Peak Sum Table

No Entries in table

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Calibration Curves

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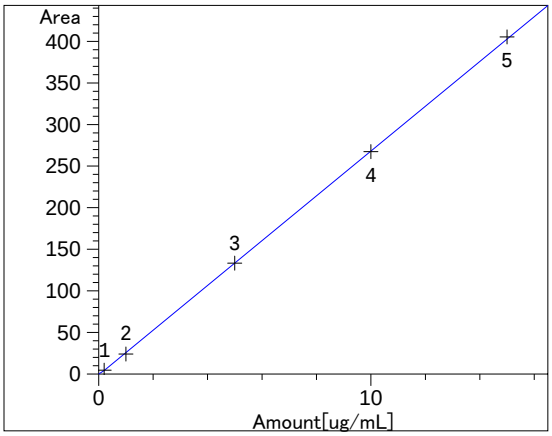
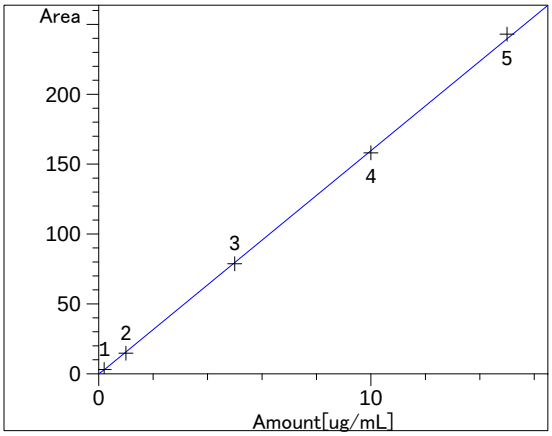


Fluoride at exp. RT: 2.800
ADC1 A, ADC1 CHANNEL A
Correlation: 0.99990
Residual Std. Dev.: 1.77119
Formula: y = mx + b
m: 26.94820
b: -1.24524
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.2
Level 3 : 0.04
Level 4 : 0.02
Level 5 : 0.013333



Chloride at exp. RT: 3.757
ADC1 A, ADC1 CHANNEL A
Correlation: 0.99985
Residual Std. Dev.: 2.24085
Formula: y = mx + b
m: 16.01307
b: -4.04971e-1
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.2
Level 3 : 0.04
Level 4 : 0.02
Level 5 : 0.013333

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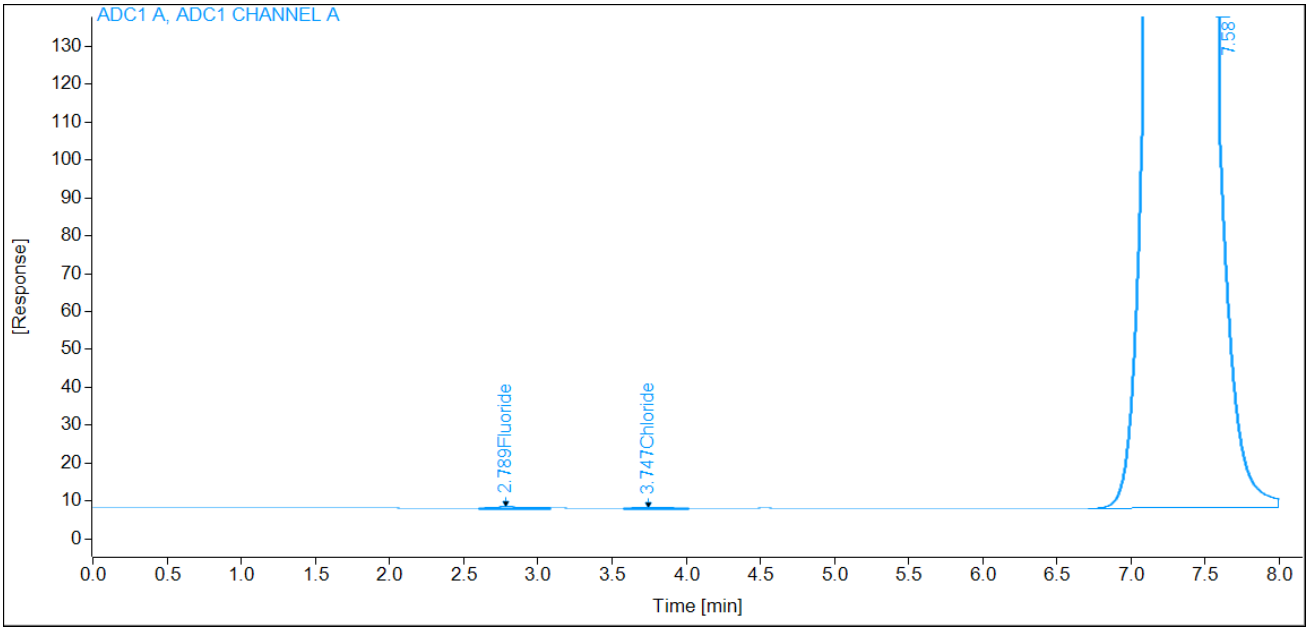
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC78PG054-109\001-0201.D
Sample name: WJGFB01PG026 #1
Description:

Instrument: Smithers
Injection date: 11/27/2013 4:50:05 PM
Acq. method: METROHM.M
Analysis method: HPLC78PG054.M

Last changed: 11/28/2013 9:28:55 AM

Sample type: Sample
Location: Vial 1
Injection volume:
Injection: 1 of 2
Acq. operator: Wendy Gardow



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Fluoride	BB	2.79	4.3924	0.04763	0.2092	ug/mL
Chloride	BB	3.75	2.9136	0.07113	0.2072	ug/mL

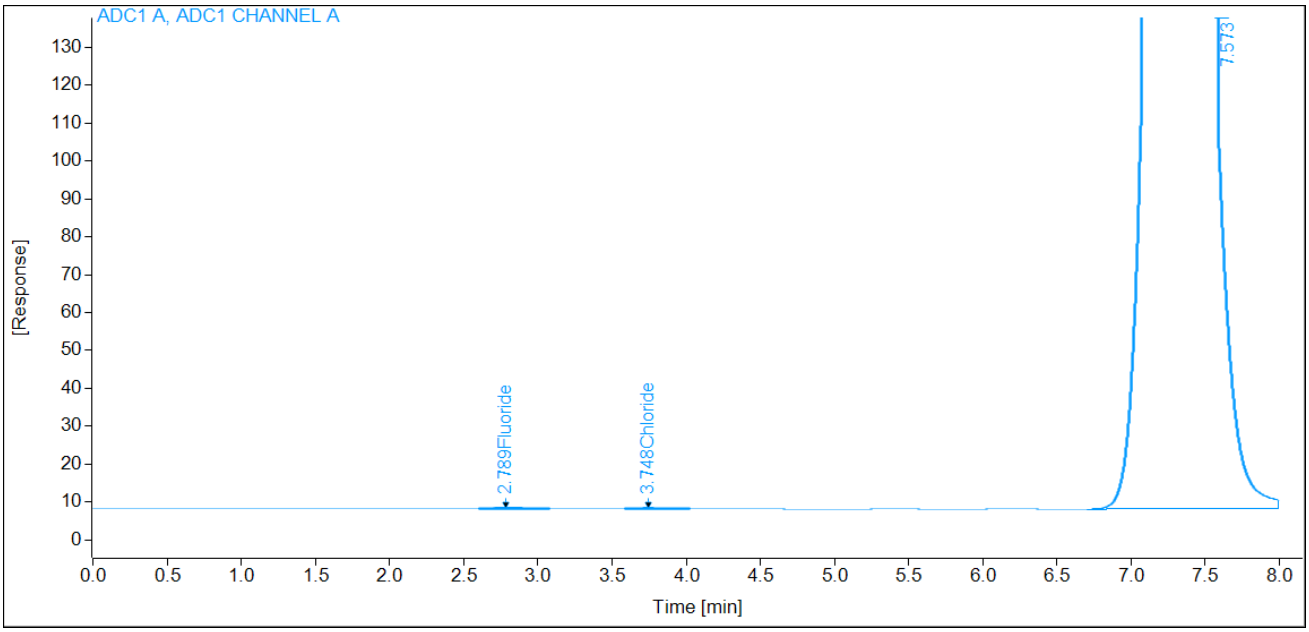
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC78PG054-109\001-0202.D
Sample name: WJGFB01PG026 #1
Description:

Instrument: Smithers
Injection date: 11/27/2013 5:00:53 PM
Acq. method: METROHM.M
Analysis method: HPLC78PG054.M

Last changed: 11/28/2013 9:28:55 AM

Sample type: Sample
Location: Vial 1
Injection volume:
Injection: 2 of 2
Acq. operator: Wendy Gardow



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Fluoride	BB	2.79	4.5205	0.04733	0.2140	ug/mL
Chloride	BB	3.75	3.0160	0.07083	0.2136	ug/mL

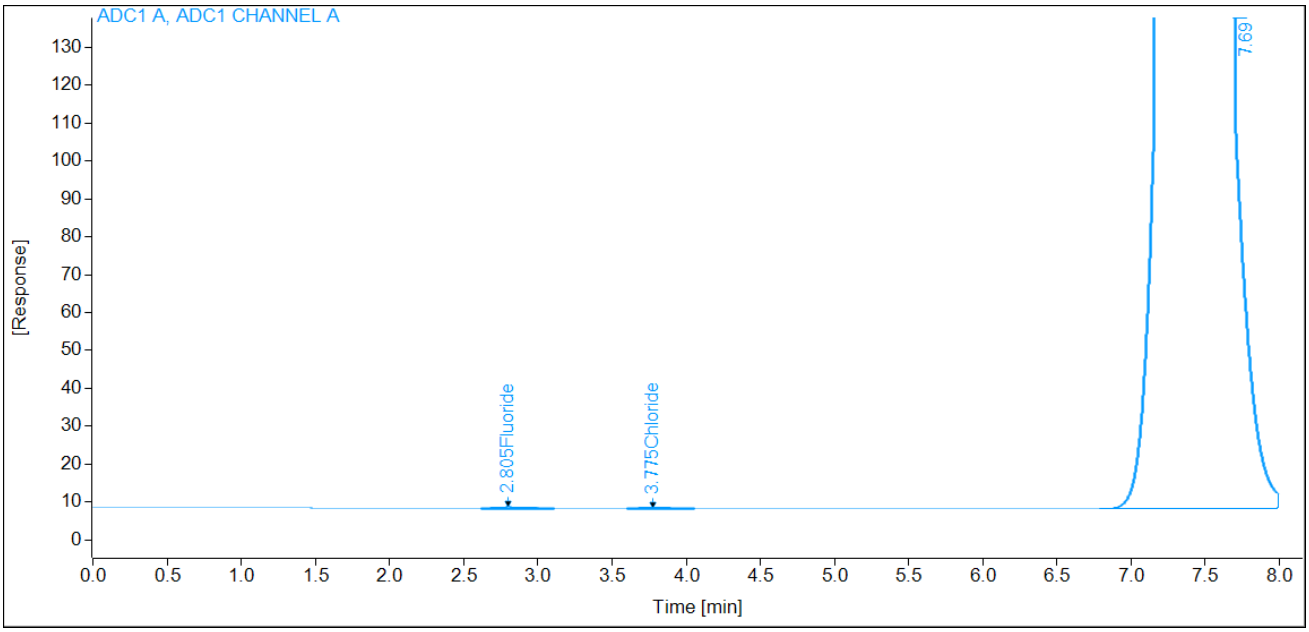
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC78PG054-109\001-2801.D
Sample name: WJGFB01PG026 #1
Description:

Instrument: Smithers
Injection date: 11/28/2013 2:11:39 AM
Acq. method: METROHM.M
Analysis method: HPLC78PG054.M

Last changed: 11/28/2013 9:28:55 AM

Sample type: Sample
Location: Vial 1
Injection volume:
Injection: 1 of 2
Acq. operator: Wendy Gardow



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Fluoride	BB	2.80	4.5451	0.04727	0.2149	ug/mL
Chloride	BB	3.78	3.0575	0.07072	0.2162	ug/mL

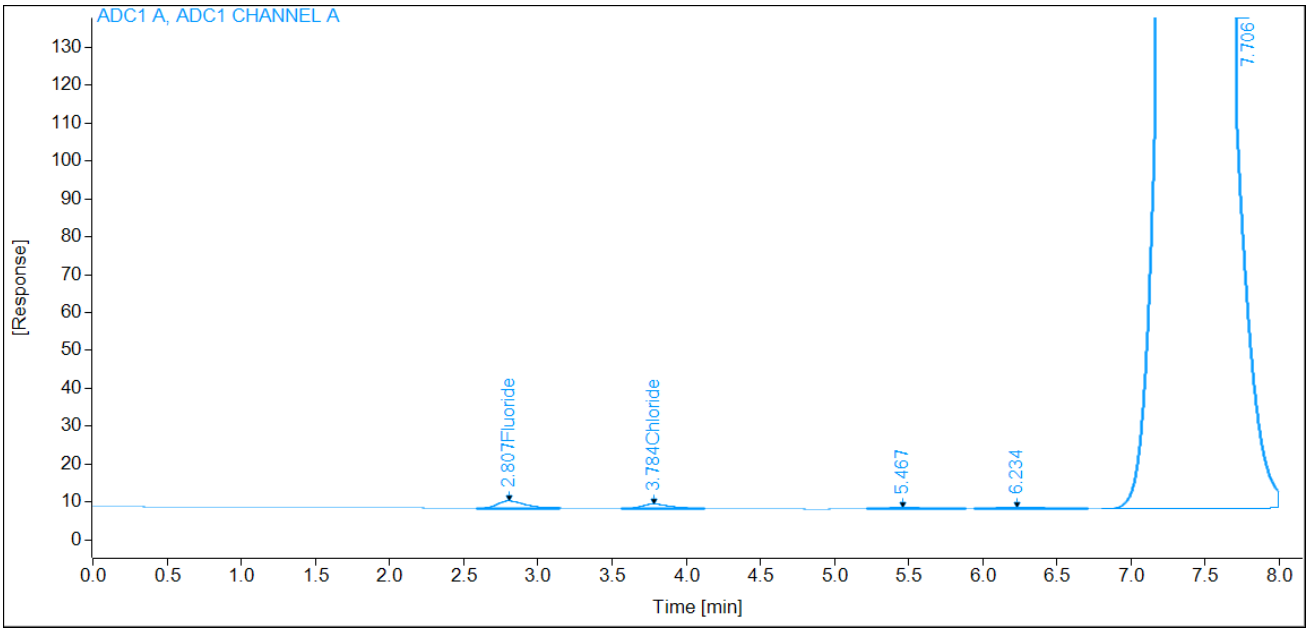
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC78PG054-109\002-2901.D
Sample name: WJGFB01PG026 #2
Description:

Instrument: Smithers
Injection date: 11/28/2013 2:33:16 AM
Acq. method: METROHM.M
Analysis method: HPLC78PG054.M

Last changed: 11/28/2013 9:28:55 AM

Sample type: Sample
Location: Vial 2
Injection volume:
Injection: 1 of 2
Acq. operator: Wendy Gardow



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Fluoride	BB	2.81	23.9533	0.03904	0.9351	ug/mL
Chloride	BB	3.78	14.8573	0.06415	0.9531	ug/mL

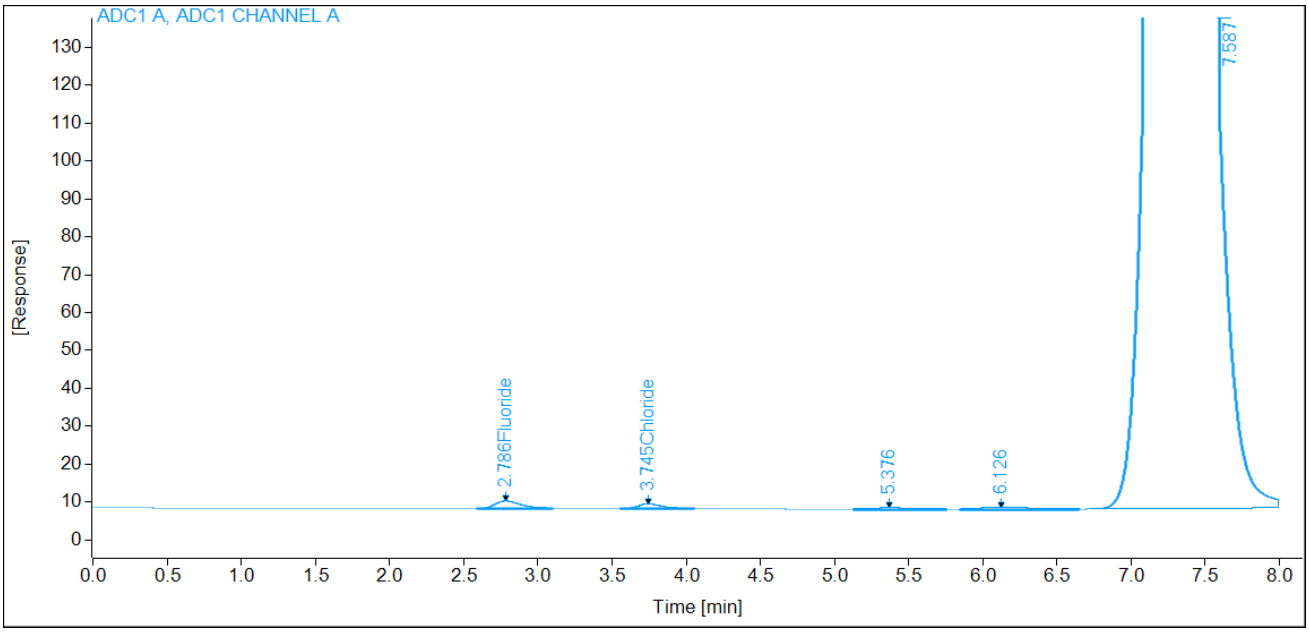
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC78PG054-109\002-0301.D
Sample name: WJGFB01PG026 #2
Description:

Instrument: Smithers
Injection date: 11/27/2013 5:11:42 PM
Acq. method: METROHM.M
Analysis method: HPLC78PG054.M

Last changed: 11/28/2013 9:28:55 AM

Sample type: Sample
Location: Vial 2
Injection volume:
Injection: 1 of 2
Acq. operator: Wendy Gardow



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Fluoride	BB	2.79	23.9186	0.03904	0.9338	ug/mL
Chloride	BB	3.75	14.6573	0.06417	0.9406	ug/mL

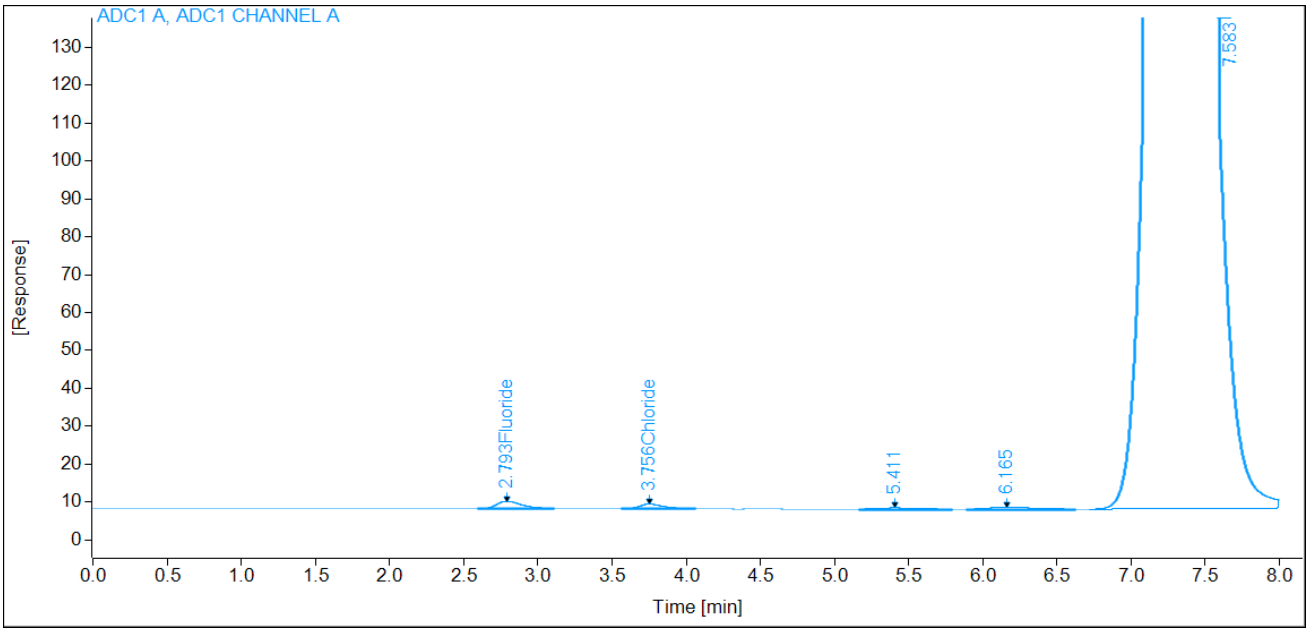
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC78PG054-109\002-0302.D
Sample name: WJGFB01PG026 #2
Description:

Instrument: Smithers
Injection date: 11/27/2013 5:22:30 PM
Acq. method: METROHM.M
Analysis method: HPLC78PG054.M

Last changed: 11/28/2013 9:28:55 AM

Sample type: Sample
Location: Vial 2
Injection volume:
Injection: 2 of 2
Acq. operator: Wendy Gardow



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Fluoride	BB	2.79	23.8151	0.03905	0.9299	ug/mL
Chloride	BB	3.76	14.6513	0.06418	0.9402	ug/mL

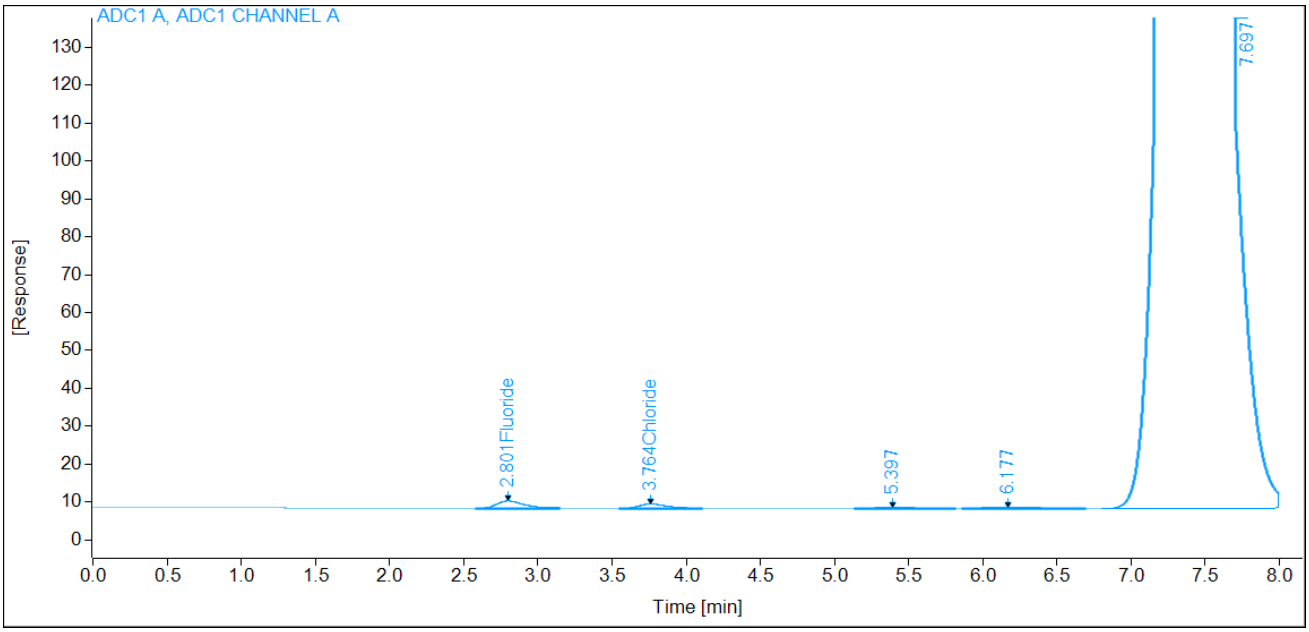
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC78PG054-109\002-2902.D
Sample name: WJGFB01PG026 #2
Description:

Instrument: Smithers
Injection date: 11/28/2013 2:44:03 AM
Acq. method: METROHM.M
Analysis method: HPLC78PG054.M

Last changed: 11/28/2013 9:28:55 AM

Sample type: Sample
Location: Vial 2
Injection volume:
Injection: 2 of 2
Acq. operator: Wendy Gardow



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Fluoride	BB	2.80	24.1164	0.03902	0.9411	ug/mL
Chloride	BB	3.76	14.8702	0.06415	0.9539	ug/mL

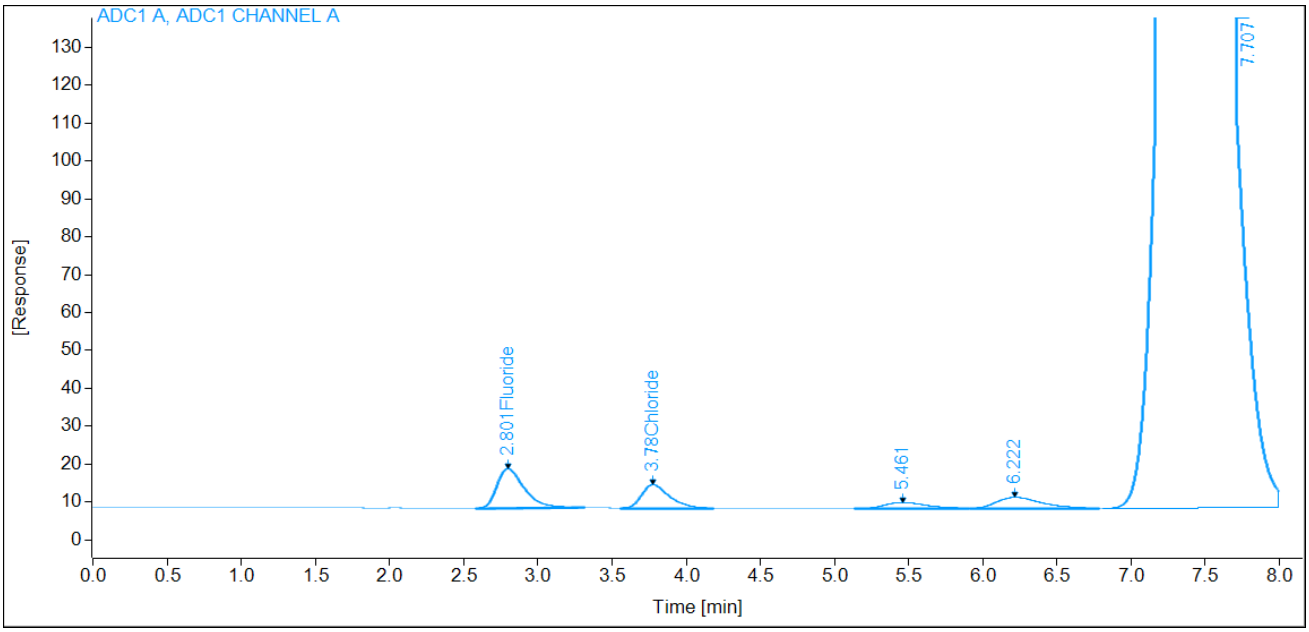
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC78PG054-109\003-3001.D
Sample name: WJGFB01PG026 #3
Description:

Instrument: Smithers
Injection date: 11/28/2013 2:54:51 AM
Acq. method: METROHM.M
Analysis method: HPLC78PG054.M

Last changed: 11/28/2013 9:28:55 AM

Sample type: Sample
Location: Vial 3
Injection volume:
Injection: 1 of 2
Acq. operator: Wendy Gardow



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Fluoride	BB	2.80	133.5788	0.03745	5.003	ug/mL
Chloride	BB	3.78	79.1864	0.06277	4.970	ug/mL

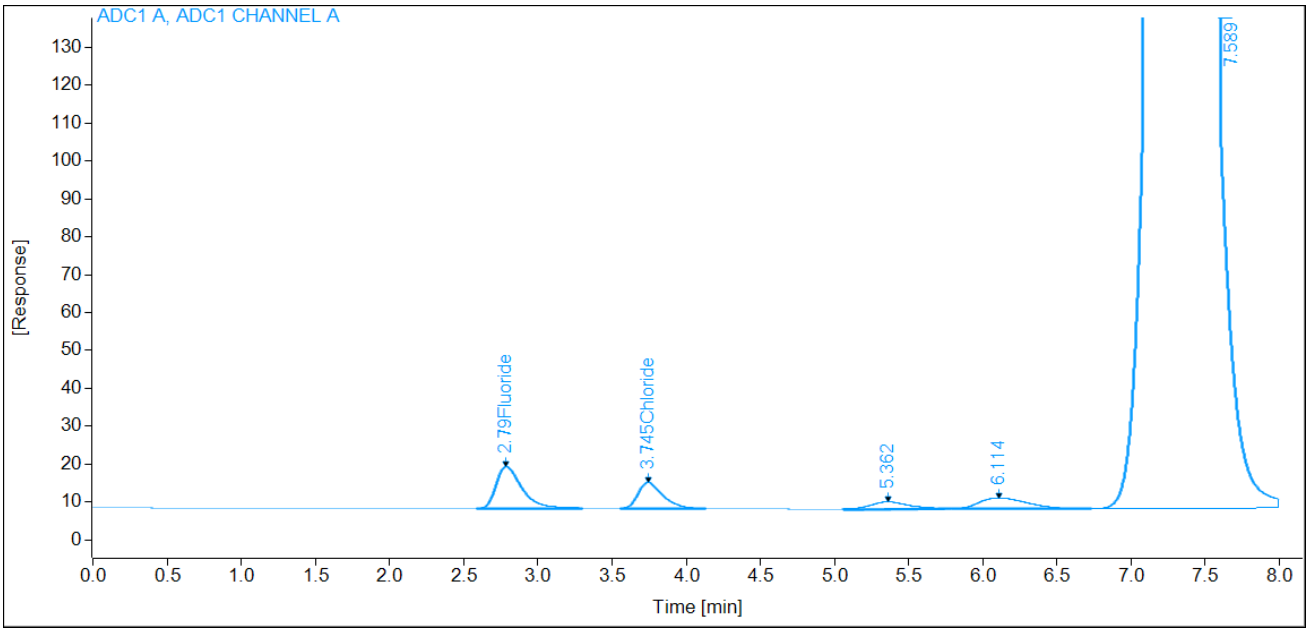
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC78PG054-109\003-0401.D
Sample name: WJGFB01PG026 #3
Description:

Instrument: Smithers
Injection date: 11/27/2013 5:33:18 PM
Acq. method: METROHM.M
Analysis method: HPLC78PG054.M

Last changed: 11/28/2013 9:28:55 AM

Sample type: Sample
Location: Vial 3
Injection volume:
Injection: 1 of 2
Acq. operator: Wendy Gardow



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Fluoride	BB	2.79	133.3851	0.03745	4.996	ug/mL
Chloride	BB	3.75	78.6887	0.06277	4.939	ug/mL

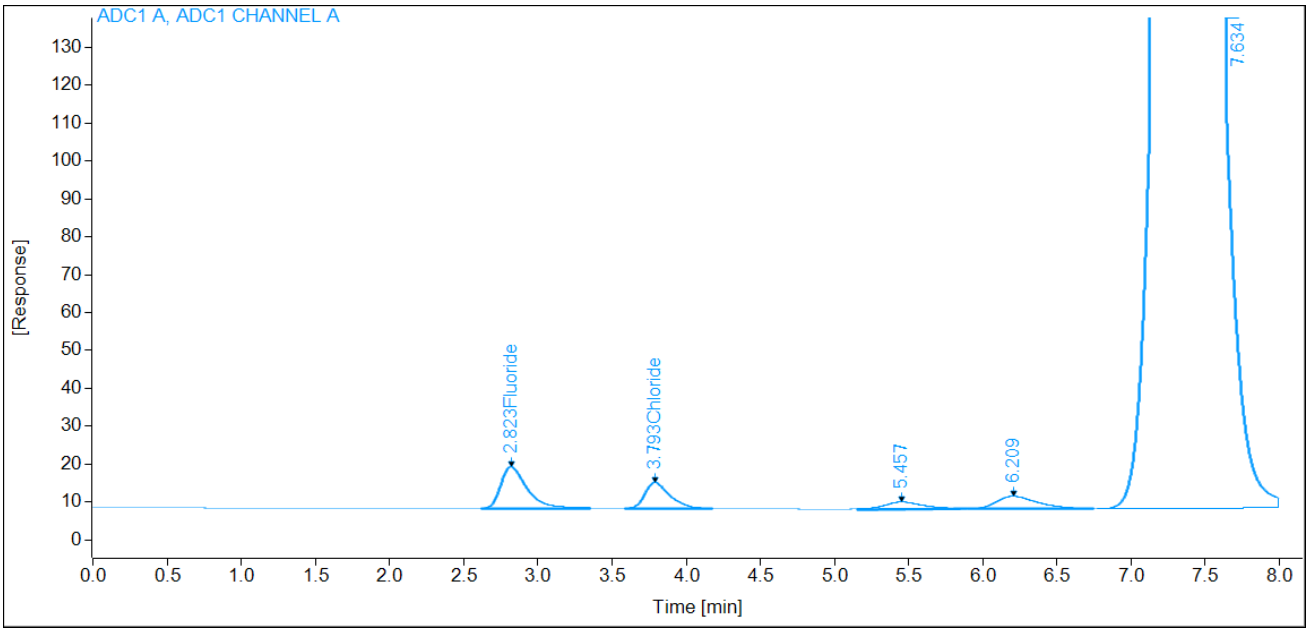
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC78PG054-109\003-0402.D
Sample name: WJGFB01PG026 #3
Description:

Instrument: Smithers
Injection date: 11/27/2013 5:44:06 PM
Acq. method: METROHM.M
Analysis method: HPLC78PG054.M

Last changed: 11/28/2013 9:28:55 AM

Sample type: Sample
Location: Vial 3
Injection volume:
Injection: 2 of 2
Acq. operator: Wendy Gardow



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Fluoride	BB	2.82	134.8677	0.03745	5.051	ug/mL
Chloride	BB	3.79	79.1368	0.06277	4.967	ug/mL

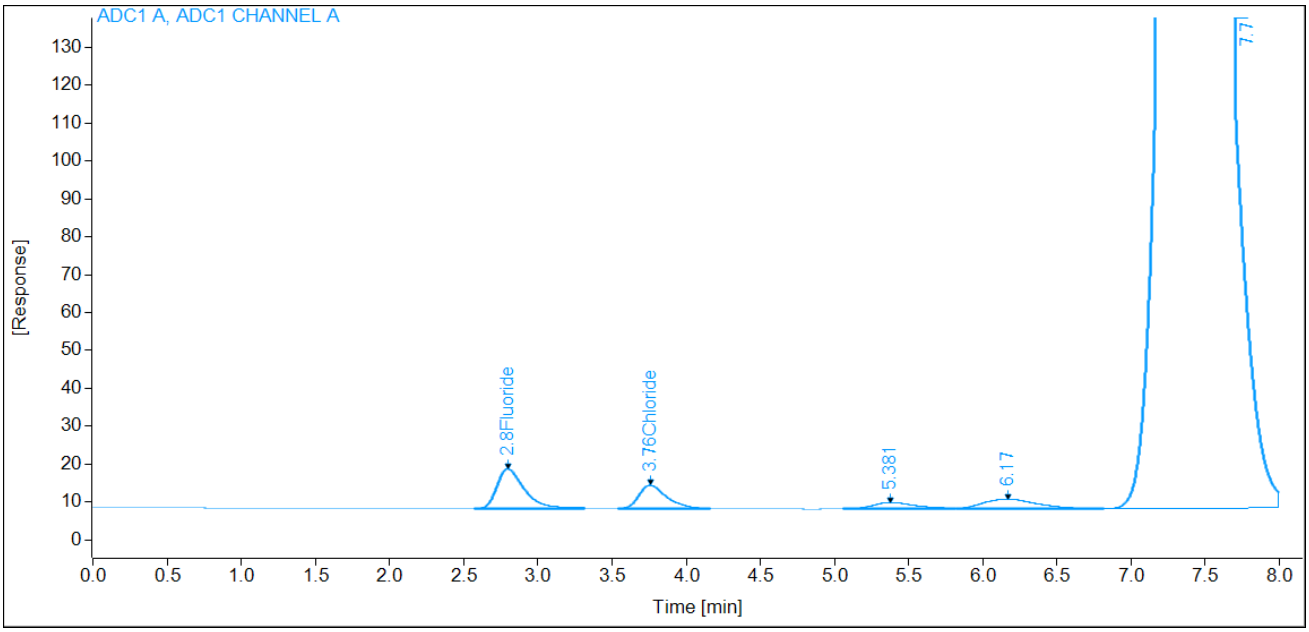
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC78PG054-109\003-3002.D
Sample name: WJGFB01PG026 #3
Description:

Instrument: Smithers
Injection date: 11/28/2013 3:05:39 AM
Acq. method: METROHM.M
Analysis method: HPLC78PG054.M

Last changed: 11/28/2013 9:28:55 AM

Sample type: Sample
Location: Vial 3
Injection volume:
Injection: 2 of 2
Acq. operator: Wendy Gardow



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Fluoride	BB	2.80	131.4262	0.03746	4.923	ug/mL
Chloride	BB	3.76	77.7339	0.06277	4.880	ug/mL

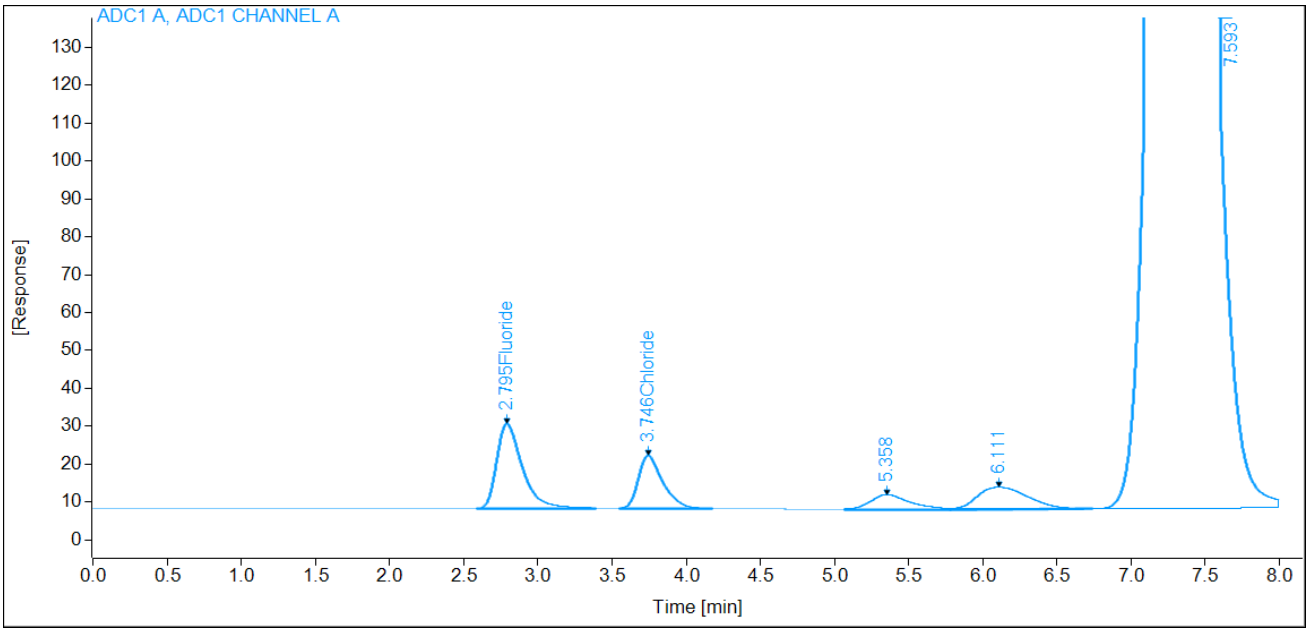
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC78PG054-109\004-0501.D
Sample name: WJGFB01PG026 #4
Description:

Instrument: Smithers
Injection date: 11/27/2013 5:54:54 PM
Acq. method: METROHM.M
Analysis method: HPLC78PG054.M

Last changed: 11/28/2013 9:28:55 AM

Sample type: Sample
Location: Vial 4
Injection volume:
Injection: 1 of 2
Acq. operator: Wendy Gardow



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Fluoride	BB	2.79	272.0737	0.03728	10.14	ug/mL
Chloride	BB	3.75	161.4714	0.06261	10.11	ug/mL

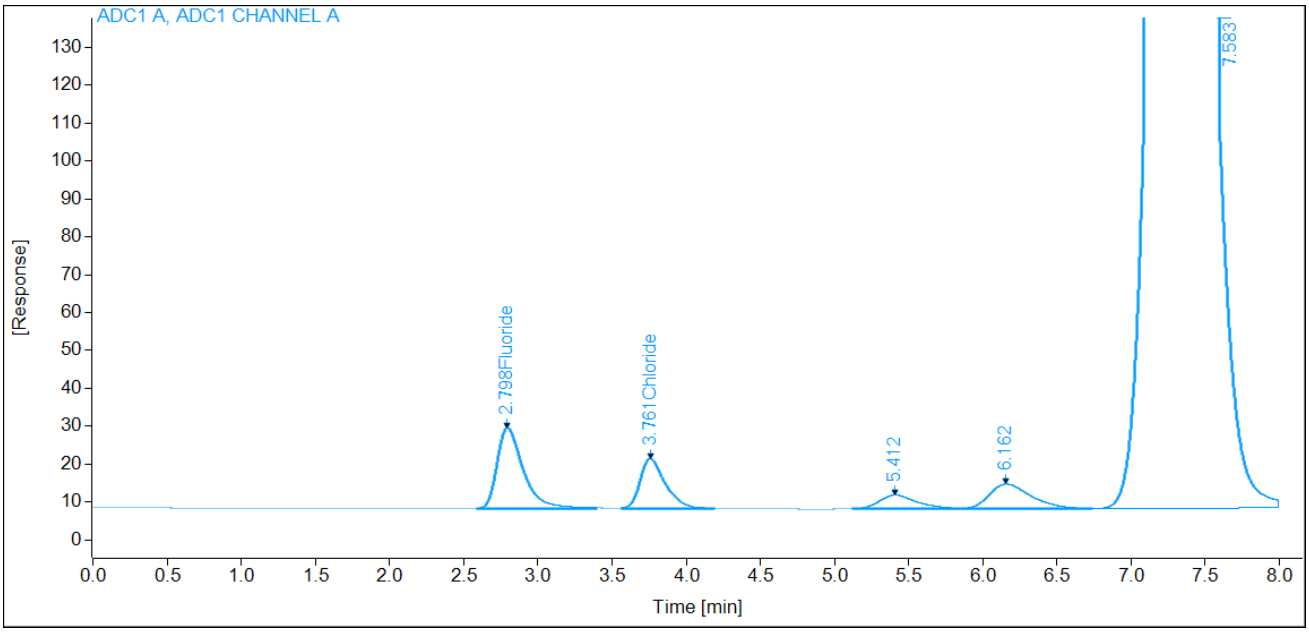
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC78PG054-109\004-0502.D
Sample name: WJGFB01PG026 #4
Description:

Instrument: Smithers
Injection date: 11/27/2013 6:05:42 PM
Acq. method: METROHM.M
Analysis method: HPLC78PG054.M

Last changed: 11/28/2013 9:28:55 AM

Sample type: Sample
Location: Vial 4
Injection volume:
Injection: 2 of 2
Acq. operator: Wendy Gardow



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Fluoride	BB	2.80	258.2101	0.03729	9.628	ug/mL
Chloride	BB	3.76	151.9415	0.06262	9.514	ug/mL

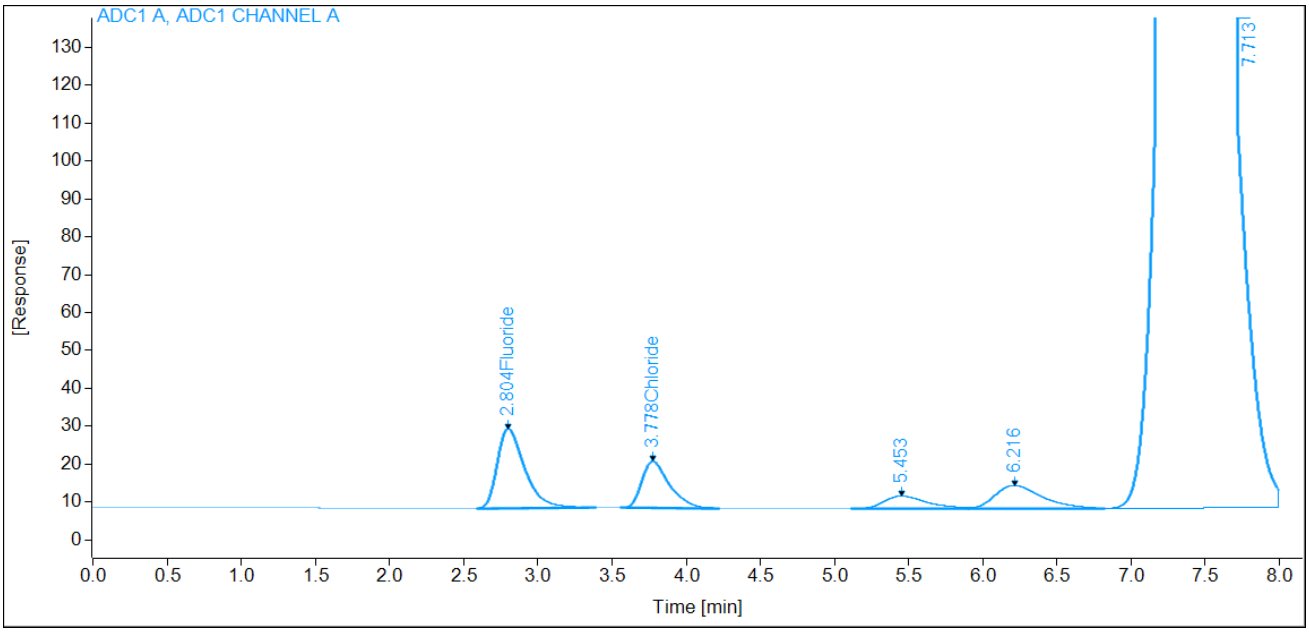
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC78PG054-109\004-3101.D
Sample name: WJGFB01PG026 #4
Description:

Instrument: Smithers
Injection date: 11/28/2013 3:16:26 AM
Acq. method: METROHM.M
Analysis method: HPLC78PG054.M

Last changed: 11/28/2013 9:28:55 AM

Sample type: Sample
Location: Vial 4
Injection volume:
Injection: 1 of 2
Acq. operator: Wendy Gardow



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Fluoride	BB	2.80	269.6573	0.03728	10.05	ug/mL
Chloride	BB	3.78	159.3785	0.06261	9.978	ug/mL

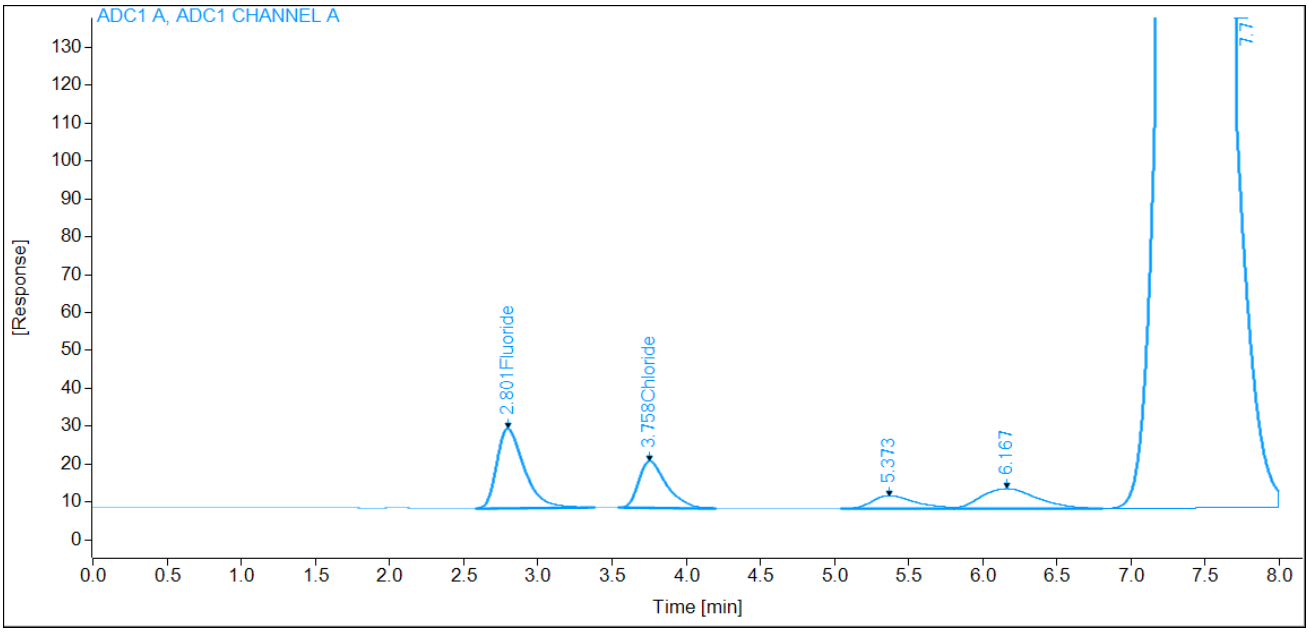
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC78PG054-109\004-3102.D
Sample name: WJGFB01PG026 #4
Description:

Instrument: Smithers
Injection date: 11/28/2013 3:27:15 AM
Acq. method: METROHM.M
Analysis method: HPLC78PG054.M

Last changed: 11/28/2013 9:28:55 AM

Sample type: Sample
Location: Vial 4
Injection volume:
Injection: 2 of 2
Acq. operator: Wendy Gardow



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Fluoride	BB	2.80	269.9129	0.03728	10.06	ug/mL
Chloride	BB	3.76	159.5490	0.06261	9.989	ug/mL

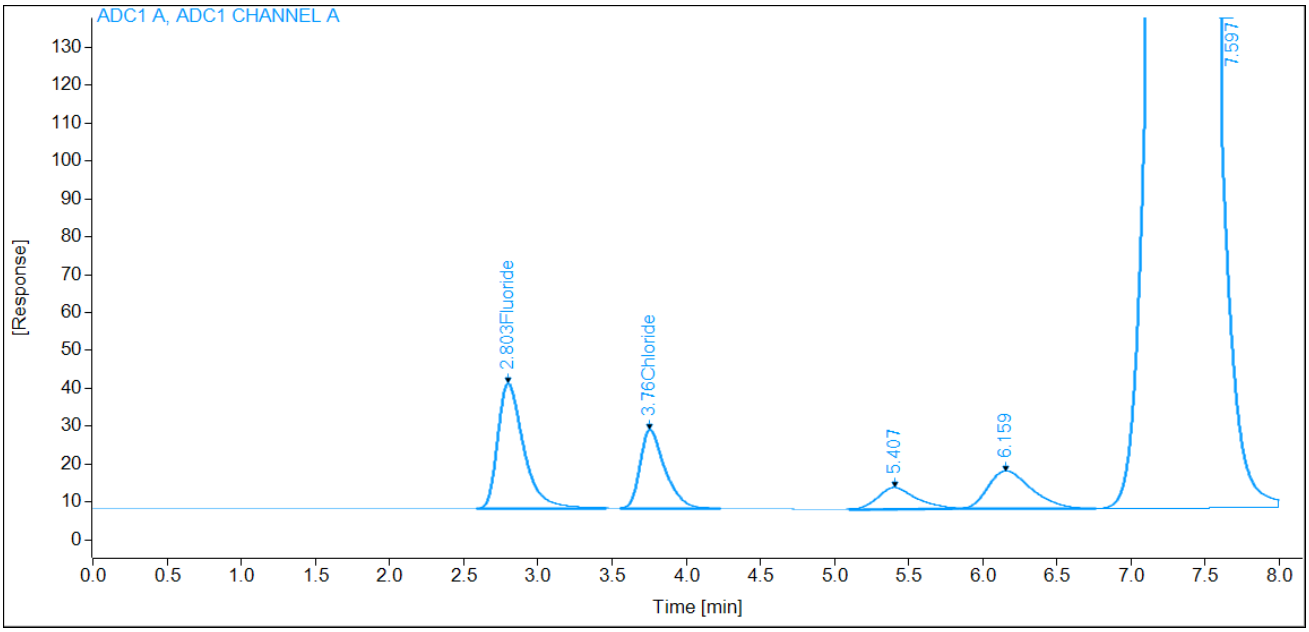
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC78PG054-109\005-0602.D
Sample name: WJGFB01PG026 #5
Description:

Instrument: Smithers
Injection date: 11/27/2013 6:27:18 PM
Acq. method: METROHM.M
Analysis method: HPLC78PG054.M

Last changed: 11/28/2013 9:28:55 AM

Sample type: Sample
Location: Vial 5
Injection volume:
Injection: 2 of 2
Acq. operator: Wendy Gardow



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Fluoride	BB	2.80	405.7815	0.03722	15.10	ug/mL
Chloride	BB	3.76	243.5285	0.06255	15.23	ug/mL

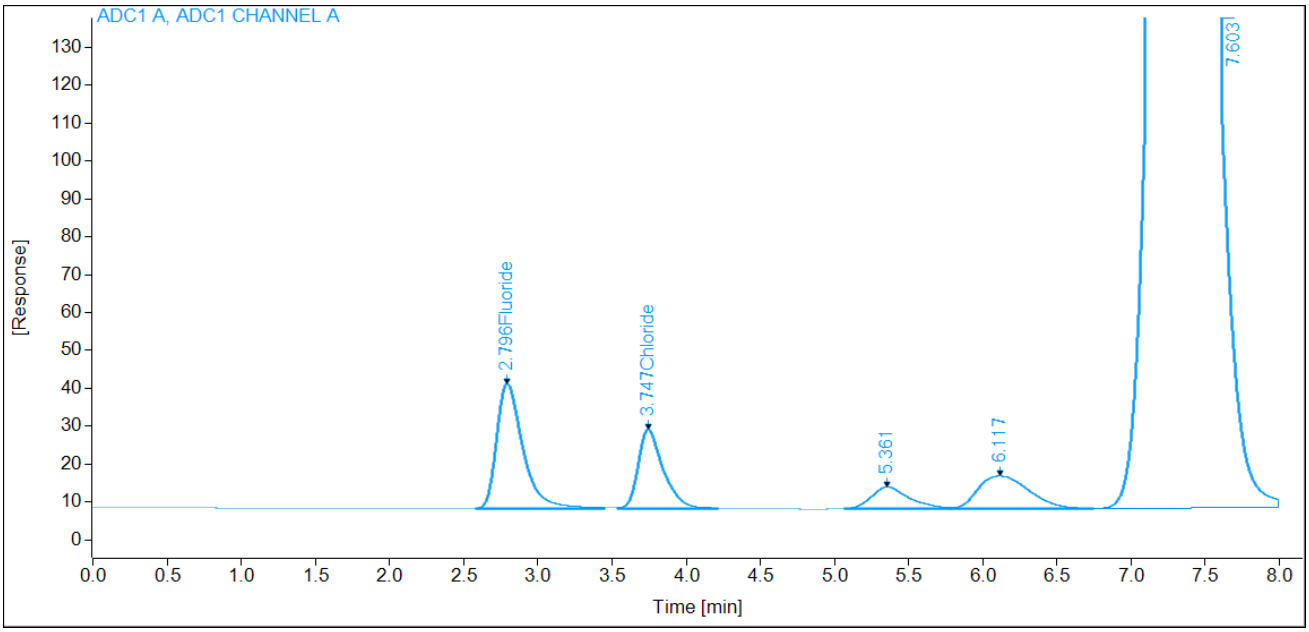
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC78PG054-109\005-0601.D
Sample name: WJGFB01PG026 #5
Description:

Instrument: Smithers
Injection date: 11/27/2013 6:16:29 PM
Acq. method: METROHM.M
Analysis method: HPLC78PG054.M

Last changed: 11/28/2013 9:28:55 AM

Sample type: Sample
Location: Vial 5
Injection volume:
Injection: 1 of 2
Acq. operator: Wendy Gardow



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Fluoride	BB	2.80	405.1619	0.03722	15.08	ug/mL
Chloride	BB	3.75	243.0656	0.06255	15.20	ug/mL

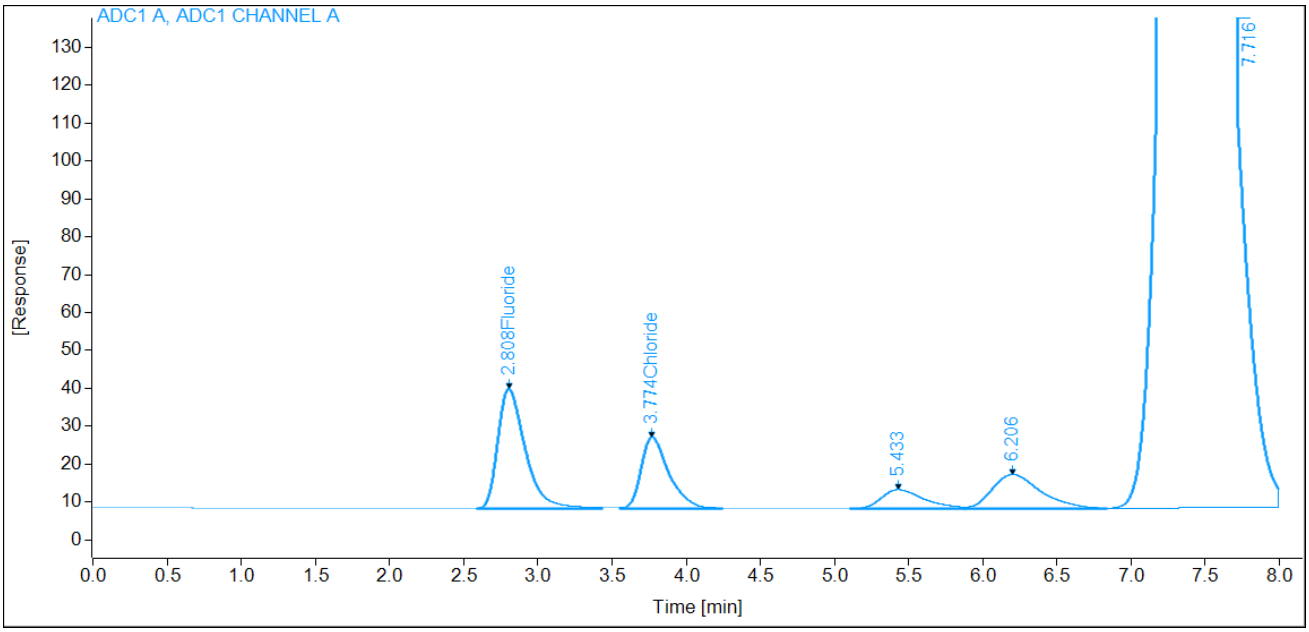
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC78PG054-109\005-3201.D
Sample name: WJGFB01PG026 #5
Description:

Instrument: Smithers
Injection date: 11/28/2013 3:38:02 AM
Acq. method: METROHM.M
Analysis method: HPLC78PG054.M

Last changed: 11/28/2013 9:28:55 AM

Sample type: Sample
Location: Vial 5
Injection volume:
Injection: 1 of 2
Acq. operator: Wendy Gardow



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Fluoride	BB	2.81	405.1760	0.03722	15.08	ug/mL
Chloride	BB	3.77	242.5630	0.06255	15.17	ug/mL

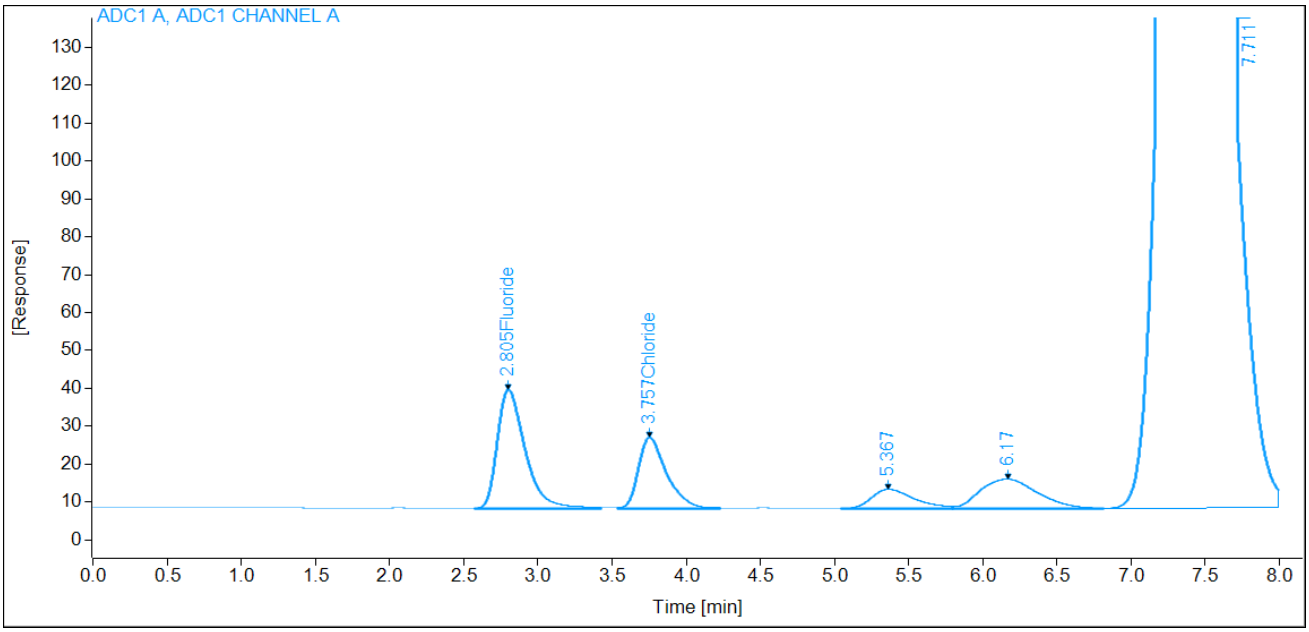
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC78PG054-109\005-3202.D
Sample name: WJGFB01PG026 #5
Description:

Instrument: Smithers
Injection date: 11/28/2013 3:48:50 AM
Acq. method: METROHM.M
Analysis method: HPLC78PG054.M

Last changed: 11/28/2013 9:28:55 AM

Sample type: Sample
Location: Vial 5
Injection volume:
Injection: 2 of 2
Acq. operator: Wendy Gardow



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Fluoride	BB	2.81	405.2524	0.03722	15.08	ug/mL
Chloride	BB	3.76	243.0694	0.06255	15.20	ug/mL

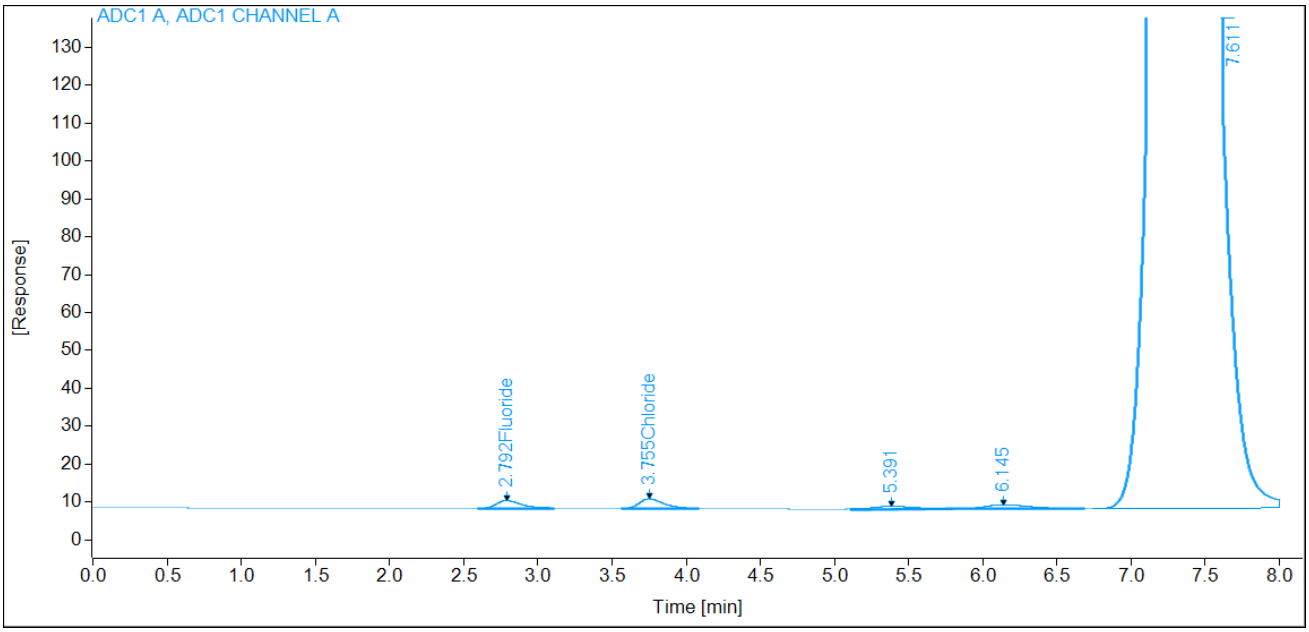
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC78PG054-109\006-0701.D
Sample name: WJGFB01PG026 #SS
Description:

Instrument: Smithers
Injection date: 11/27/2013 6:38:05 PM
Acq. method: METROHM.M
Analysis method: HPLC78PG054.M

Last changed: 11/28/2013 9:28:55 AM

Sample type: Control
Location: Vial 6
Injection volume:
Injection: 1 of 2
Acq. operator: Wendy Gardow



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Fluoride	BB	2.79	23.9724	0.03904	0.9358	ug/mL
Chloride	BB	3.76	30.0718	0.06329	1.903	ug/mL

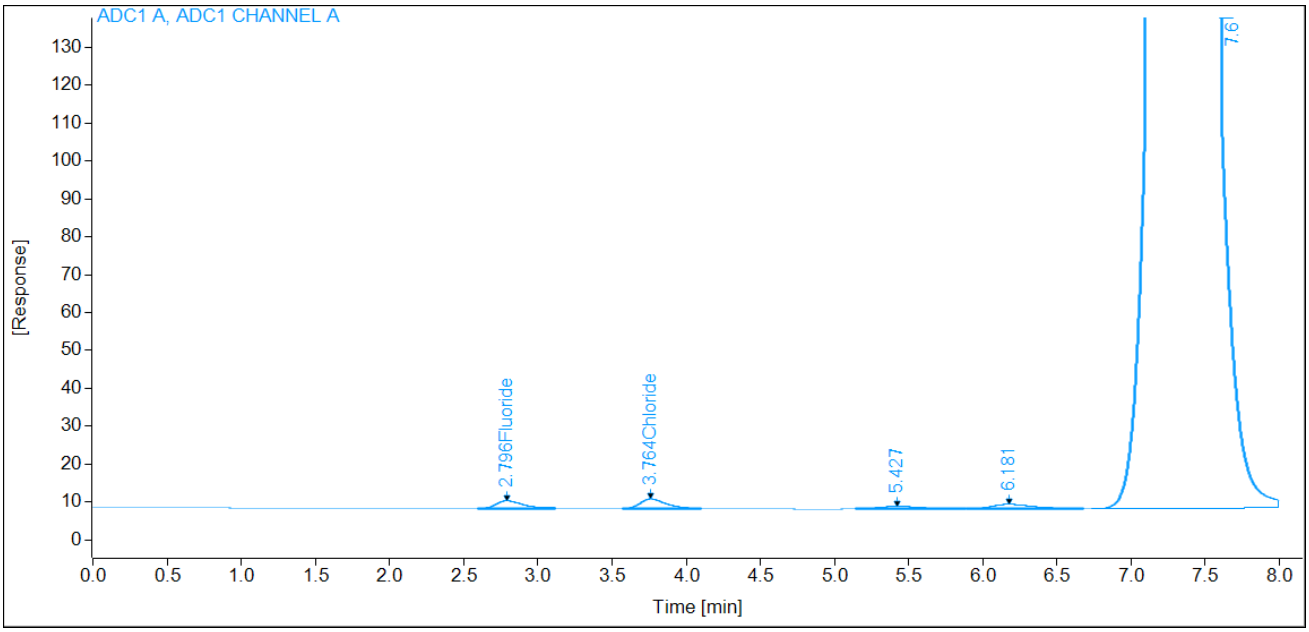
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC78PG054-109\006-0702.D
Sample name: WJGFB01PG026 #SS
Description:

Instrument: Smithers
Injection date: 11/27/2013 6:48:53 PM
Acq. method: METROHM.M
Analysis method: HPLC78PG054.M

Last changed: 11/28/2013 9:28:55 AM

Sample type: Control
Location: Vial 6
Injection volume:
Injection: 2 of 2
Acq. operator: Wendy Gardow



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Fluoride	BB	2.80	23.8537	0.03905	0.9314	ug/mL
Chloride	BB	3.76	30.1471	0.06329	1.908	ug/mL

Method Information

Method: C:\CHEM32\1\DATA\HPLC78PG054-109\METROHM.M
Modified: 3/8/2013 at 10:49:28 AM

Method Audit Trail

Operator : Gene Gillman
Date : 1/11/2012 11:51:34 AM
Change Info: This method was created at 1/11/2012 11:51:34 AM and based on method C:\HPCHEM\1_000\METHODS\METROHM.M

Operator : Gene Gillman
Date : 1/11/2012 11:51:36 AM
Change Info: Method saved. User comment: ""

Operator : Amelia Paolantonio
Date : 1/18/2013 4:31:24 PM
Change Info: Method saved. User comment: ""

Operator : Amelia Paolantonio
Date : 3/8/2013 10:49:28 AM
Change Info: Method saved. User comment: ""

Run Time Checklist

Pre-Run Cmd/Macro:	off
Data Acquisition:	on
Standard Data Analysis:	off
Customized Data Analysis:	off
Save GLP Data:	off
Post-Run Cmd/Macro:	off
Save Method with Data:	off

==========

Data File : C:\HPCHEM\1\DATA\HPLC78PG054-109\127-0101.D
Acq. Method: METROHM.M

The Acq. Method's Instrument Parameters for the Run were :

The Data Analysis Parameters of the used Method are :

Integration Events

Non signal specific Integration Events

Event	Value
Tangent Skim Mode	Standard
Tail Peak Skim Height Ratio	0.000
Front Peak Skim Height Ratio	0.000
Skim Valley Ratio	20.000
Baseline Correction	Classical
Peak to Valley Ratio	500.000

Default Integration Event Table "Event"

Event	Value	Time
Initial Slope Sensitivity	1.000	Initial
Initial Peak Width	0.040	Initial
Initial Area Reject	1.000	Initial
Initial Height Reject	1.700	Initial
Initial Shoulders	OFF	Initial

Detector Default Integration Event Table "Event_DAD"

Event	Value	Time
Initial Slope Sensitivity	5.000	Initial
Initial Peak Width	0.050	Initial
Initial Area Reject	5.000	Initial
Initial Height Reject	1.000	Initial
Initial Shoulders	OFF	Initial

Detector Default Integration Event Table "Event_ADC"

Event	Value	Time

Initial Slope Sensitivity	1.000	Initial
Initial Peak Width	0.040	Initial
Initial Area Reject	1.000	Initial
Initial Height Reject	1.700	Initial
Initial Shoulders	OFF	Initial

Detector Default Integration Event Table "Event_FLD"

Event	Value	Time
Initial Slope Sensitivity	1.000	Initial
Initial Peak Width	0.040	Initial
Initial Area Reject	1.000	Initial
Initial Height Reject	1.700	Initial
Initial Shoulders	OFF	Initial

Detector Default Integration Event Table "Event_VWD"

Event	Value	Time
Initial Slope Sensitivity	1.000	Initial
Initial Peak Width	0.040	Initial
Initial Area Reject	1.000	Initial
Initial Height Reject	1.700	Initial
Initial Shoulders	OFF	Initial

Detector Default Integration Event Table "Event_ECD"

Event	Value	Time
Initial Slope Sensitivity	1.000	Initial
Initial Peak Width	0.040	Initial
Initial Area Reject	1.000	Initial
Initial Height Reject	1.700	Initial
Initial Shoulders	OFF	Initial

Detector Default Integration Event Table "Event_MWD"

Event	Value	Time
Initial Slope Sensitivity	1.000	Initial
Initial Peak Width	0.040	Initial
Initial Area Reject	1.000	Initial
Initial Height Reject	1.700	Initial
Initial Shoulders	OFF	Initial

Signal Specific Integration Event Table "Event_DAD1A"

Event	Value	Time
Initial Slope Sensitivity	4.688	Initial
Initial Peak Width	0.040	Initial
Initial Area Reject	5.000	Initial
Initial Height Reject	8.000	Initial
Initial Shoulders	OFF	Initial

Apply Method's Manual Integration Events: No

Specify Report

Calculate: External Standard
Based on: Peak Area
Use Multiplier & Dilution Factor with ISTDs

Use Sample Data from Data File
Report mode: Classic
Destination: Printer
Quantitative Results sorted by: Signal
Report Style: Short
Sample info on each page: No
Add Chromatogram Output: Yes
Chromatogram Output: Portrait
Size in Time direction: 100 % of Page
Size in Response direction: 40 % of Page
Uncalibrated Peaks: Report with Calibrated Peaks

Signal Options

Include: Axes, Compound Names, Baselines, Tick Marks
Font: Arial, Size: 8

Ranges: Full
Multi Chromatograms: Separated, All the same Scale

Calibration Table

General Calibration Setting

Calib. Data Modified : Friday, April 25, 1997 4:18:09 PM

```
Rel. Reference Window :      5.000 %
Abs. Reference Window :      0.000 min
Rel. Non-ref. Window  :      5.000 %
Abs. Non-ref. Window  :      0.000 min
Uncalibrated Peaks    :      not reported
Partial Calibration   :      Yes, identified peaks are recalibrated
Correct All Ret. Times:      No, only for identified peaks

Curve Type            :      Linear
Origin                :      Included
Weight                :      Equal

Recalibration Settings:
Average Response      :      Average all calibrations
Average Retention Time:      Floating Average New 75%

Calibration Report Options :
    Printout of recalibrations within a sequence:
        Calibration Table after Recalibration
        Normal Report after Recalibration
    If the sequence is done with bracketing:
        Results of first cycle (ending previous bracket)

--------------------------------------------------------------------------


--------------------------------------------------------------------------
                           Signal Details
--------------------------------------------------------------------------

Signal 1: ADC1 A, ADC1 CHANNEL A

--------------------------------------------------------------------------


--------------------------------------------------------------------------
                           Overview Table
--------------------------------------------------------------------------

***No Entries in table***
--------------------------------------------------------------------------


--------------------------------------------------------------------------
                    Identification Details Table
--------------------------------------------------------------------------

***No Entries in table***
--------------------------------------------------------------------------

--------------------------------------------------------------------------
                           Peak Sum Table
--------------------------------------------------------------------------

***No Entries in table***
--------------------------------------------------------------------------
```

Component Details Table

No Entries in table

Manual Setup Table

No Entries in table

==========

Sample related custom fields

==========

Custom Field	Type	Mand.	Default Value

None defined

==========

Compound related custom fields

==========

Custom Field	Type	Mand.	Default Value

None defined

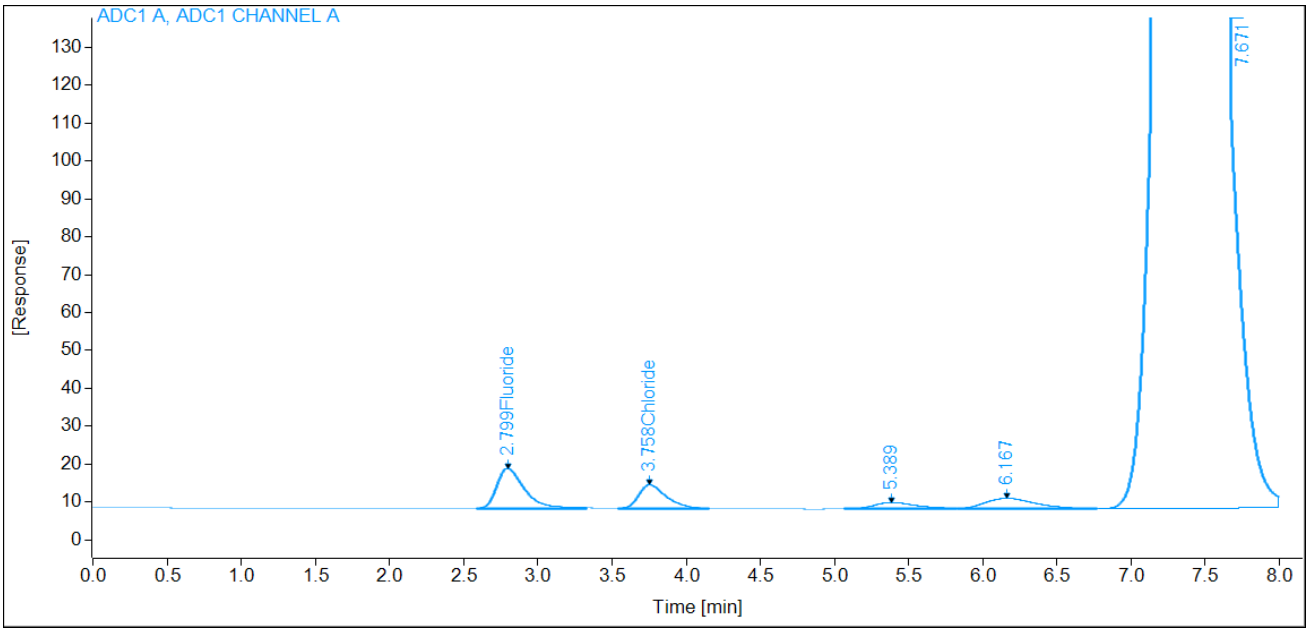
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC78PG054-109\039-2001.D
Sample name: WJGFB01PG026 #3
Description:

Instrument: Smithers
Injection date: 11/27/2013 11:18:52 PM
Acq. method: METROHM.M
Analysis method: HPLC78PG054.M

Last changed: 11/28/2013 9:28:55 AM

Sample type: Sample
Location: Vial 39
Injection volume:
Injection: 1 of 2
Acq. operator: Wendy Gardow



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Fluoride	BB	2.80	133.7211	0.03745	5.008	ug/mL
Chloride	BB	3.76	78.5233	0.06277	4.929	ug/mL

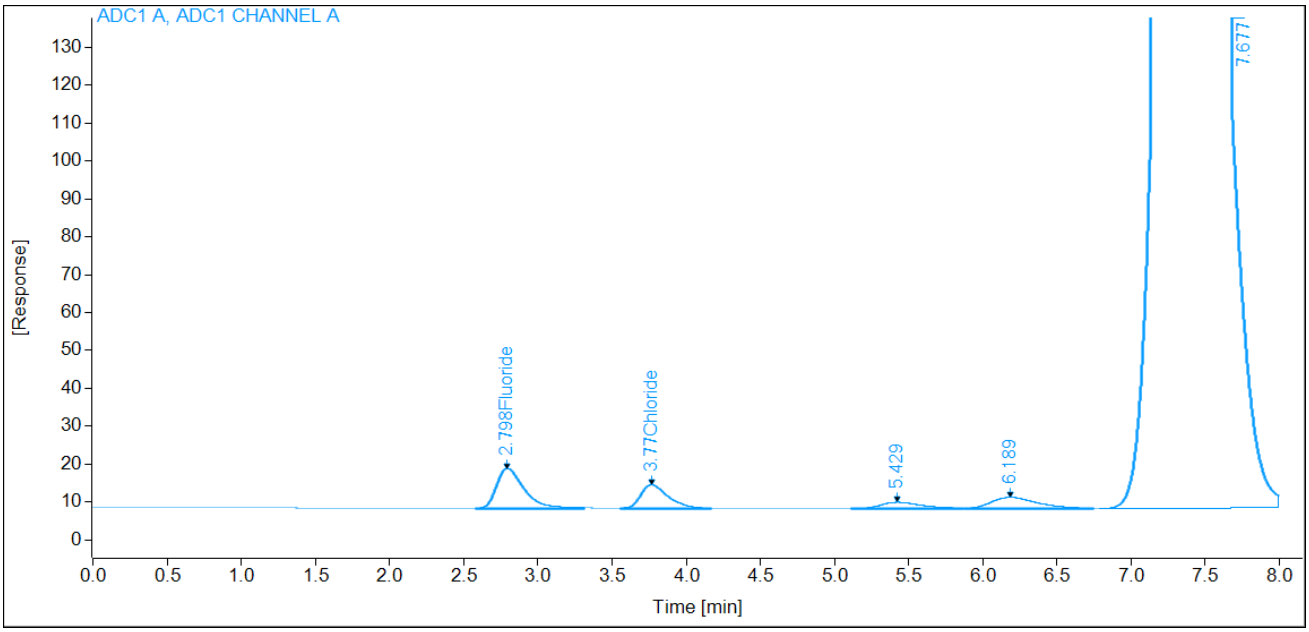
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC78PG054-109\039-2002.D
Sample name: WJGFB01PG026 #3
Description:

Instrument: Smithers
Injection date: 11/27/2013 11:29:40 PM
Acq. method: METROHM.M
Analysis method: HPLC78PG054.M

Last changed: 11/28/2013 9:28:55 AM

Sample type: Sample
Location: Vial 39
Injection volume:
Injection: 2 of 2
Acq. operator: Wendy Gardow



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Fluoride	BB	2.80	133.4192	0.03745	4.997	ug/mL
Chloride	BB	3.77	78.4213	0.06277	4.923	ug/mL

Raw Data

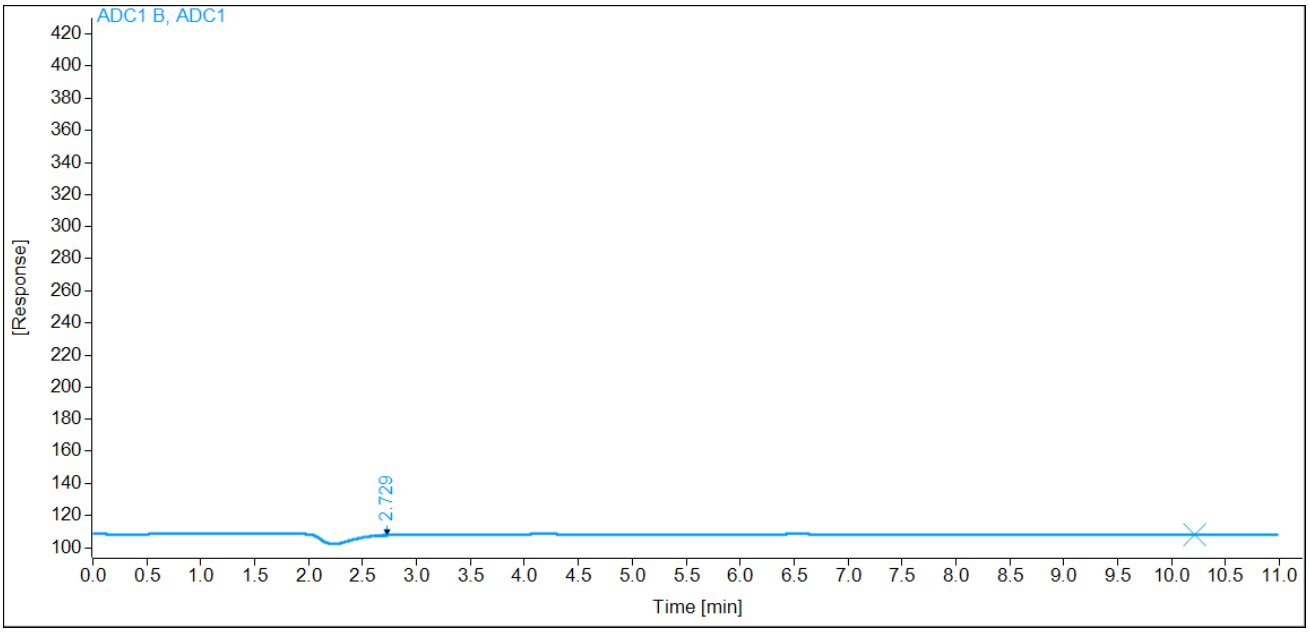
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC77PG32---118\011-0901.D
Sample name: M8A-U1S-R2-Cond. 1113-210
Description:

Instrument: Gonzo
Injection date: 11/27/2013 2:04:04 PM
Acq. method: ANIONS.M
Analysis method: HPLC77PG32.M

Last changed: 11/29/2013 10:28:21 AM

Sample type: Sample
Location: Vial 11
Injection volume: 25.000
Injection: 1 of 2
Acq. operator: Amelia Paolantonio



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Sulfate					0	ug/mL

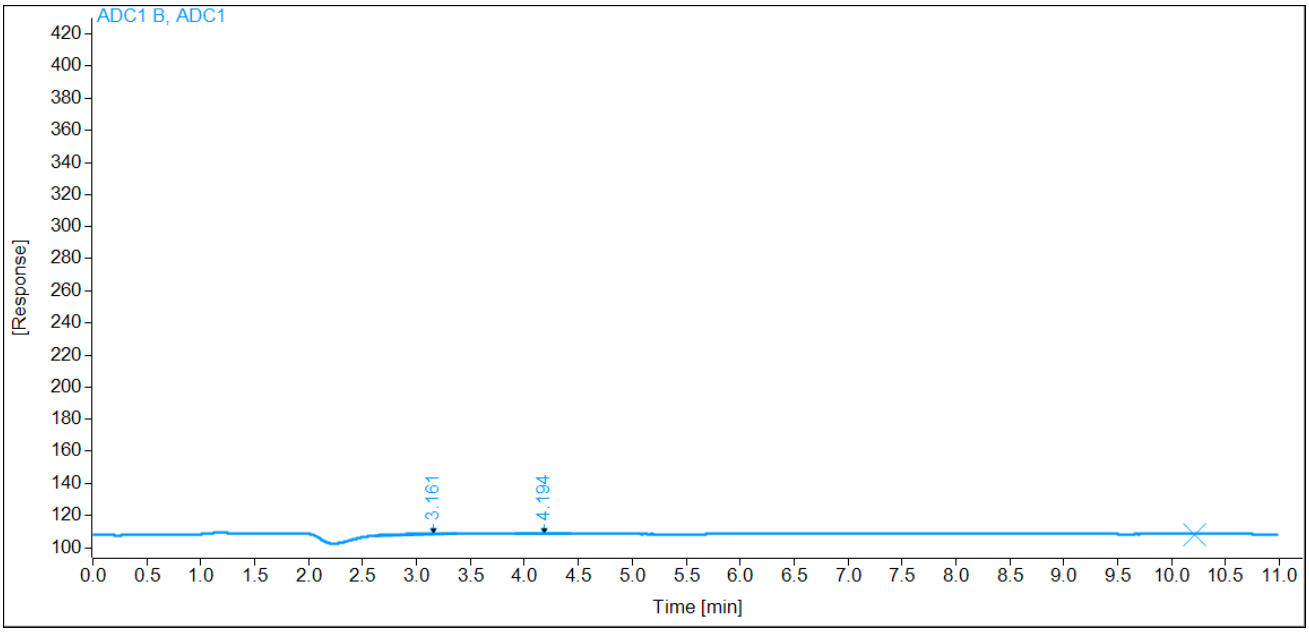
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC77PG32---118\011-0902.D
Sample name: M8A-U1S-R2-Cond. 1113-210
Description:

Instrument: Gonzo
Injection date: 11/27/2013 2:17:43 PM
Acq. method: ANIONS.M
Analysis method: HPLC77PG32.M

Last changed: 11/29/2013 10:28:21 AM

Sample type: Sample
Location: Vial 11
Injection volume: 25.000
Injection: 2 of 2
Acq. operator: Amelia Paolantonio



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Sulfate					0	ug/mL

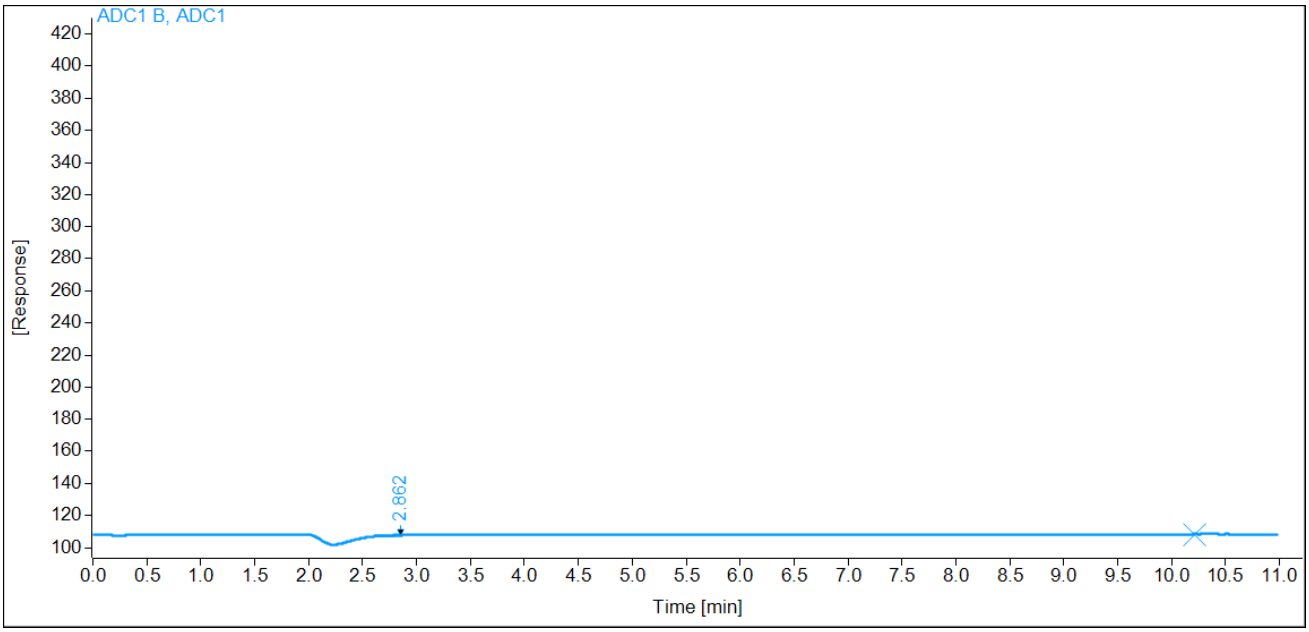
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC77PG32---118\012-1001.D
Sample name: M8A-U1S-R3-Cond. 1113-210
Description:

Instrument: Gonzo
Injection date: 11/27/2013 2:31:19 PM
Acq. method: ANIONS.M
Analysis method: HPLC77PG32.M

Last changed: 11/29/2013 10:28:21 AM

Sample type: Sample
Location: Vial 12
Injection volume: 25.000
Injection: 1 of 2
Acq. operator: Amelia Paolantonio



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Sulfate					0	ug/mL

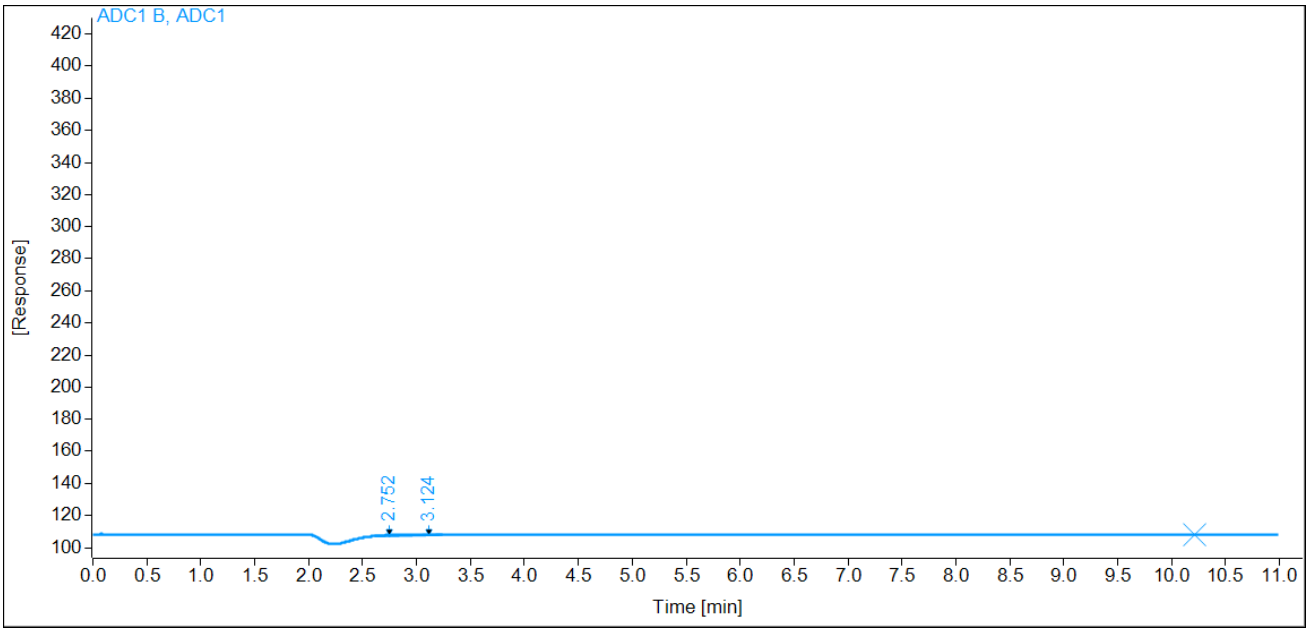
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC77PG32---118\012-1002.D
Sample name: M8A-U1S-R3-Cond. 1113-210
Description:

Instrument: Gonzo
Injection date: 11/27/2013 2:44:54 PM
Acq. method: ANIONS.M
Analysis method: HPLC77PG32.M

Last changed: 11/29/2013 10:28:21 AM

Sample type: Sample
Location: Vial 12
Injection volume: 25.000
Injection: 2 of 2
Acq. operator: Amelia Paolantonio



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Sulfate					0	ug/mL

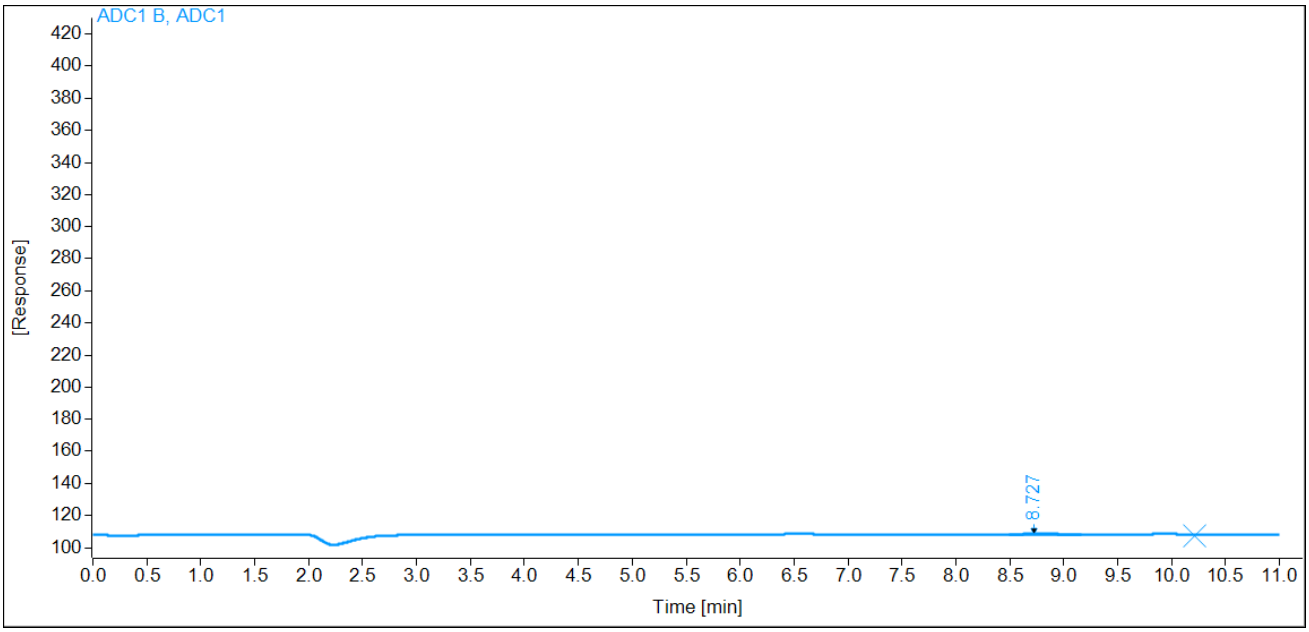
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC77PG32---118\013-1101.D
Sample name: M8A-U1S-R4-Cond. 1113-210
Description:

Instrument: Gonzo
Injection date: 11/27/2013 2:58:16 PM
Acq. method: ANIONS.M
Analysis method: HPLC77PG32.M

Last changed: 11/29/2013 10:28:21 AM

Sample type: Sample
Location: Vial 13
Injection volume: 25.000
Injection: 1 of 2
Acq. operator: Amelia Paolantonio



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Sulfate					0	ug/mL

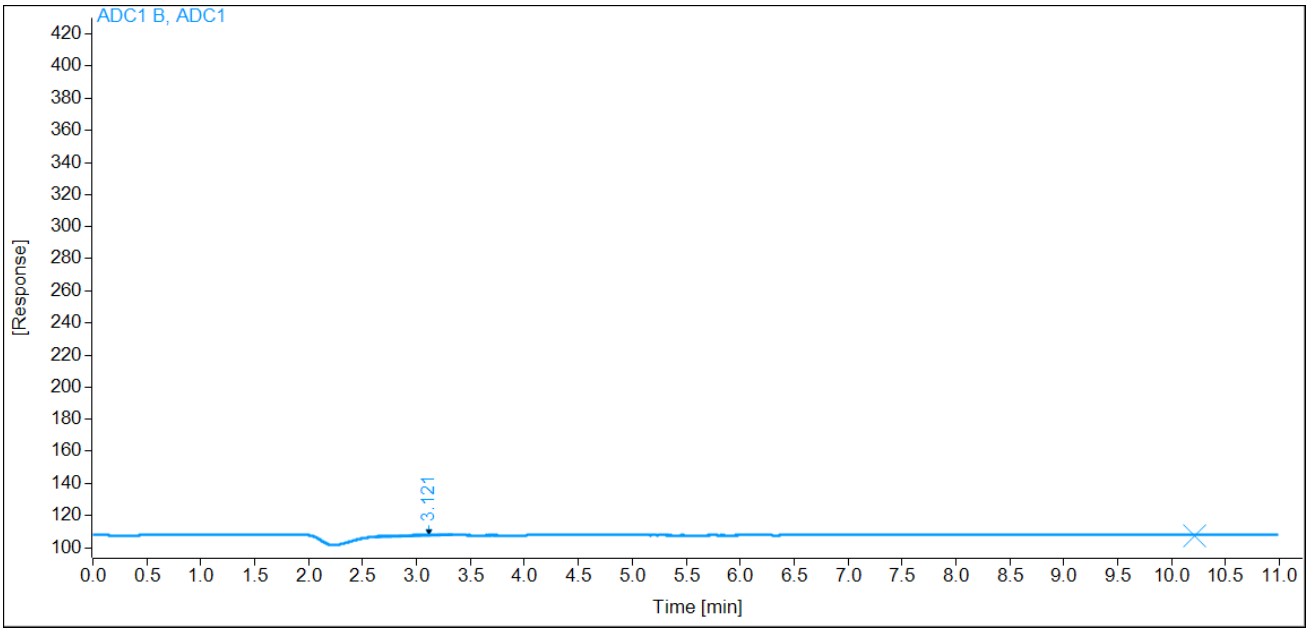
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC77PG32---118\013-1102.D
Sample name: M8A-U1S-R4-Cond. 1113-210
Description:

Instrument: Gonzo
Injection date: 11/27/2013 3:12:04 PM
Acq. method: ANIONS.M
Analysis method: HPLC77PG32.M

Last changed: 11/29/2013 10:28:21 AM

Sample type: Sample
Location: Vial 13
Injection volume: 25.000
Injection: 2 of 2
Acq. operator: Amelia Paolantonio



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Sulfate					0	ug/mL

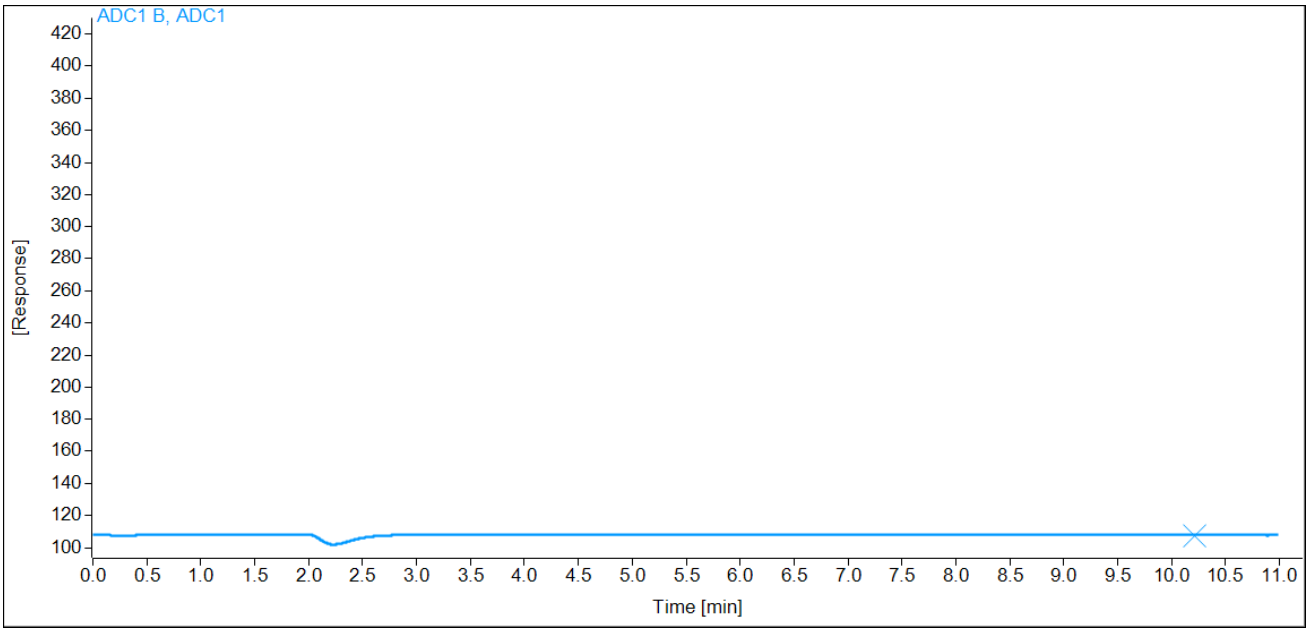
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC77PG32---118\014-1201.D
Sample name: M8A-U1S-FB-Cond. 1113-210
Description:

Instrument:
Injection date: 11/27/2013 3:25:36 PM
Acq. method: ANIONS.M
Analysis method: HPLC77PG32.M

Last changed: 11/29/2013 10:28:21 AM

Sample type: Sample
Location: Vial 14
Injection volume: 25.000
Injection: 1 of 2
Acq. operator: Amelia Paolantonio



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Sulfate					0	ug/mL

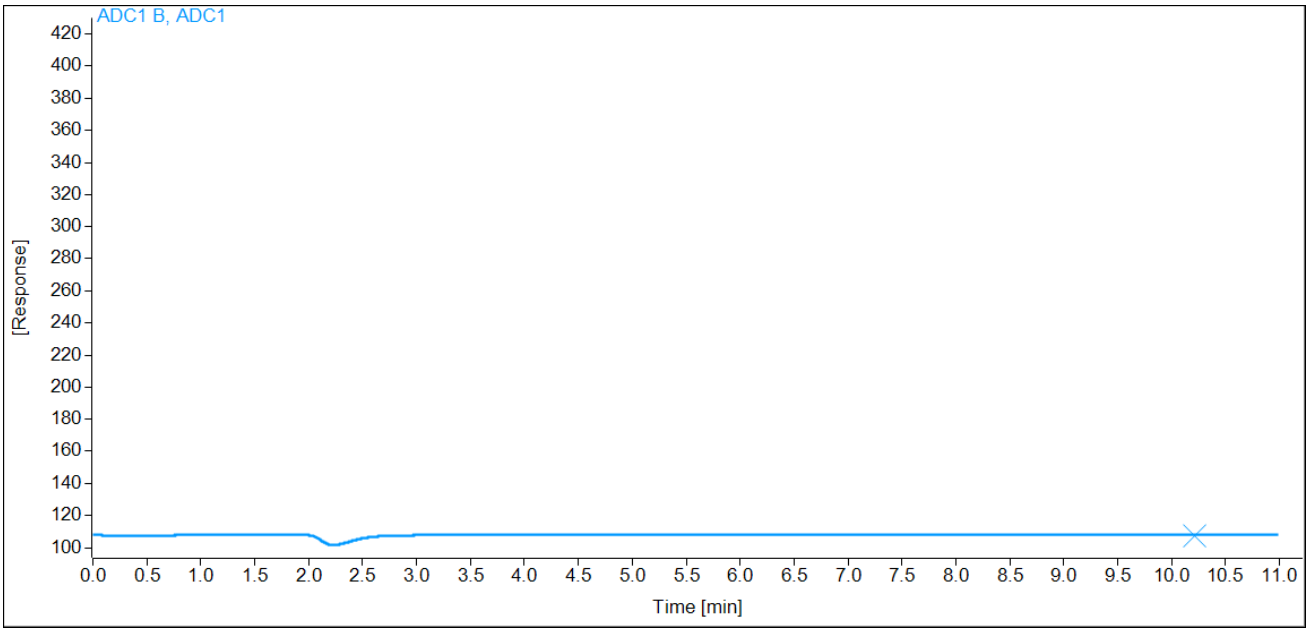
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC77PG32---118\014-1202.D
Sample name: M8A-U1S-FB-Cond. 1113-210
Description:

Instrument:
Injection date: 11/27/2013 3:39:11 PM
Acq. method: ANIONS.M
Analysis method: HPLC77PG32.M

Last changed: 11/29/2013 10:28:21 AM

Sample type: Sample
Location: Vial 14
Injection volume: 25.000
Injection: 2 of 2
Acq. operator: Amelia Paolantonio



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Sulfate					0	ug/mL

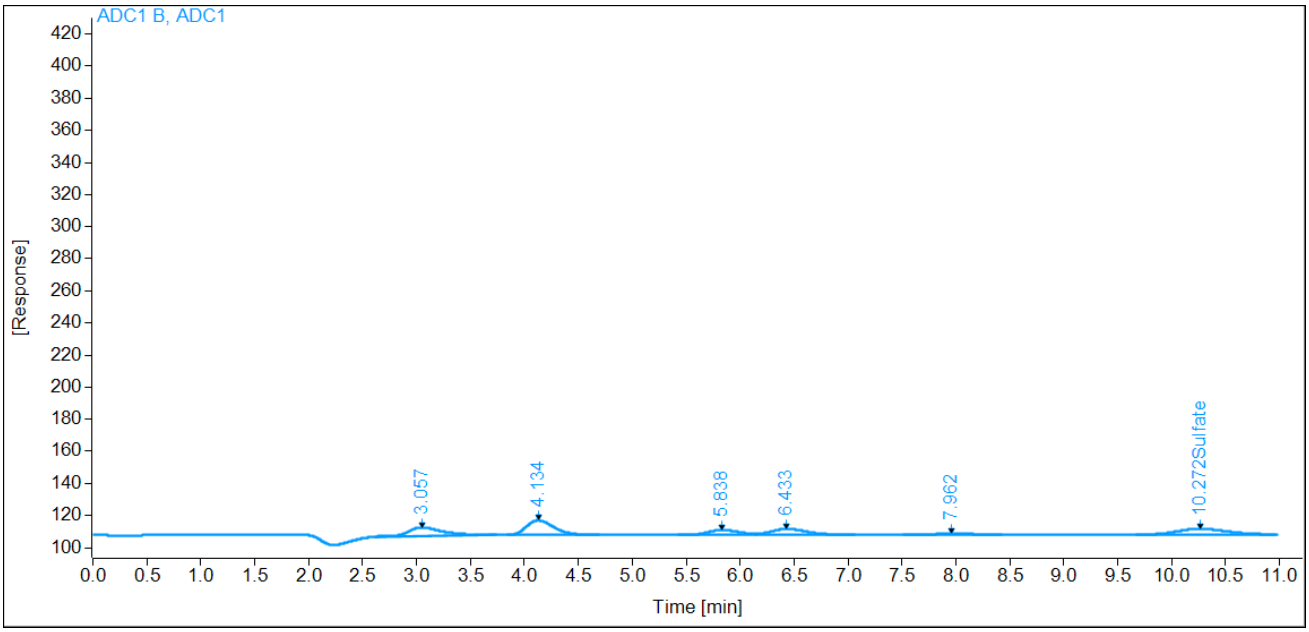
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC77PG32---118\015-1301.D
Sample name: MS/M8A-U1S-R2-Cond. 1113-210
Description:

Instrument: Gonzo
Injection date: 11/27/2013 3:52:48 PM
Acq. method: ANIONS.M
Analysis method: HPLC77PG32.M

Last changed: 11/29/2013 10:28:21 AM

Sample type: Sample
Location: Vial 15
Injection volume: 25.000
Injection: 1 of 2
Acq. operator: Amelia Paolantonio



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Sulfate	BB	10.27	113.2851	0.01615	1.830	ug/mL

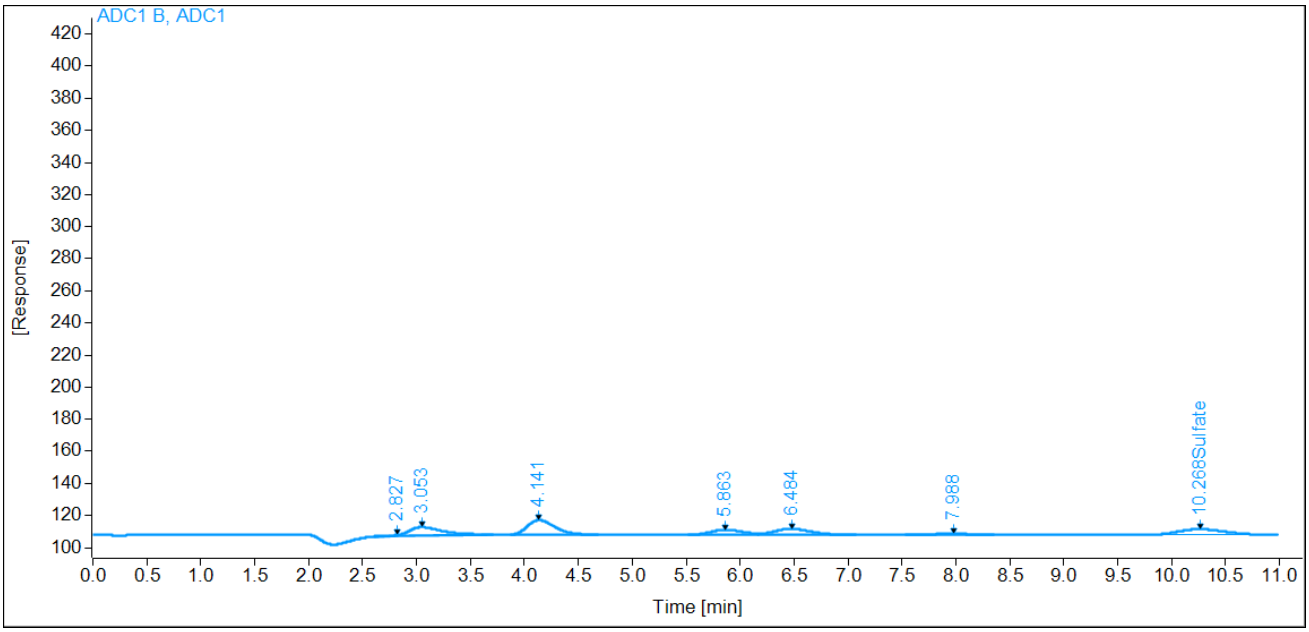
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC77PG32---118\015-1302.D
Sample name: MS/M8A-U1S-R2-Cond. 1113-210
Description:

Instrument: Gonzo
Injection date: 11/27/2013 4:06:30 PM
Acq. method: ANIONS.M
Analysis method: HPLC77PG32.M

Last changed: 11/29/2013 10:28:21 AM

Sample type: Sample
Location: Vial 15
Injection volume: 25.000
Injection: 2 of 2
Acq. operator: Amelia Paolantonio



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Sulfate	BB	10.27	113.9784	0.01615	1.841	ug/mL

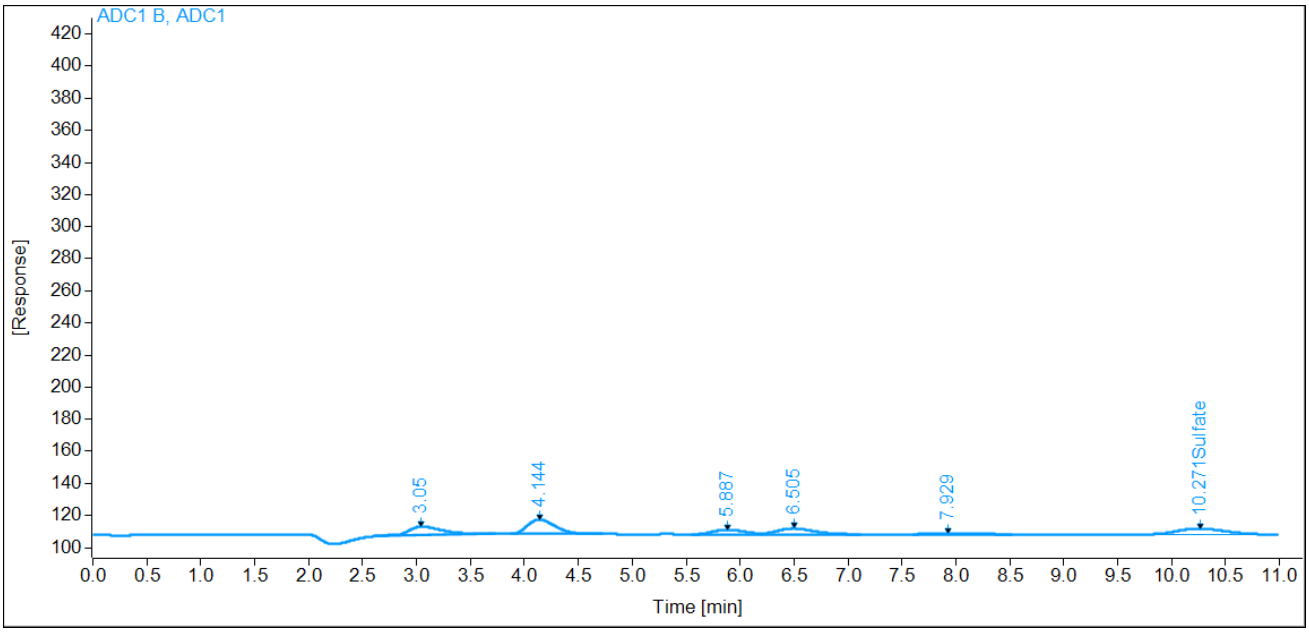
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC77PG32---118\016-1401.D
Sample name: MSD/M8A-U1S-R2-Cond. 1113-210
Description:

Instrument: Gonzo
Injection date: 11/27/2013 4:20:07 PM
Acq. method: ANIONS.M
Analysis method: HPLC77PG32.M

Last changed: 11/29/2013 10:28:21 AM

Sample type: Sample
Location: Vial 16
Injection volume: 25.000
Injection: 1 of 2
Acq. operator: Amelia Paolantonio



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Sulfate	BB	10.27	117.8278	0.01614	1.902	ug/mL

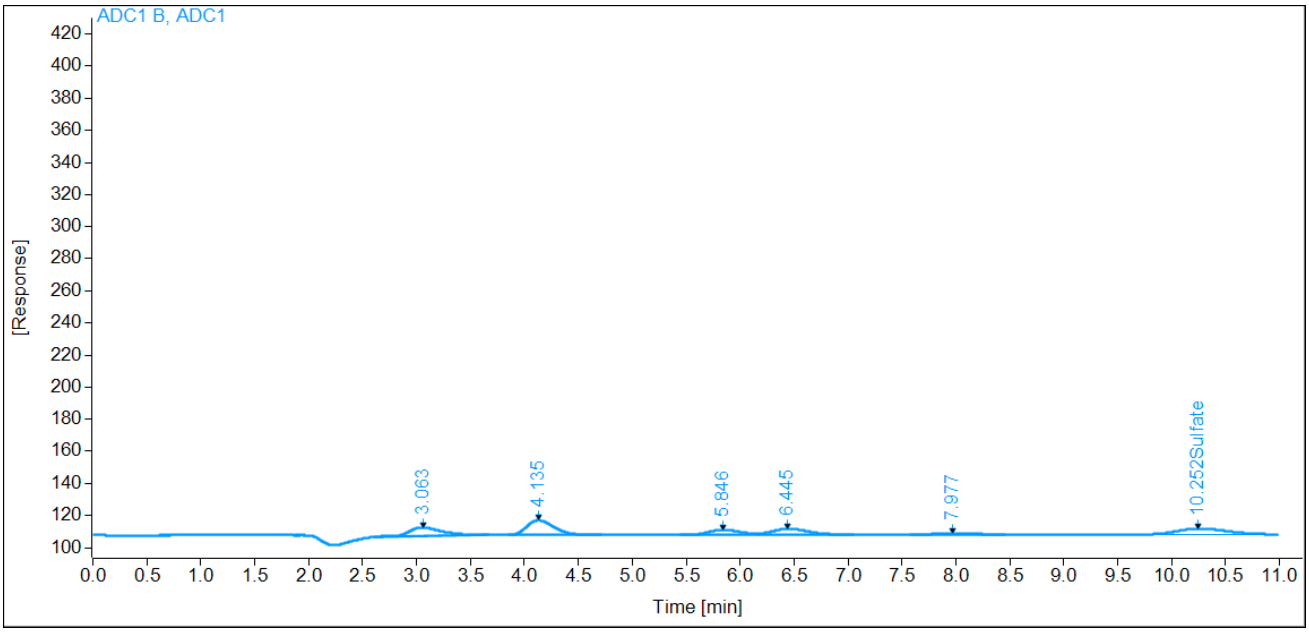
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC77PG32---118\016-1402.D
Sample name: MSD/M8A-U1S-R2-Cond. 1113-210
Description:

Instrument: Gonzo
Injection date: 11/27/2013 4:33:39 PM
Acq. method: ANIONS.M
Analysis method: HPLC77PG32.M

Last changed: 11/29/2013 10:28:21 AM

Sample type: Sample
Location: Vial 16
Injection volume: 25.000
Injection: 2 of 2
Acq. operator: Amelia Paolantonio



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Sulfate	BB	10.25	118.9922	0.01614	1.920	ug/mL

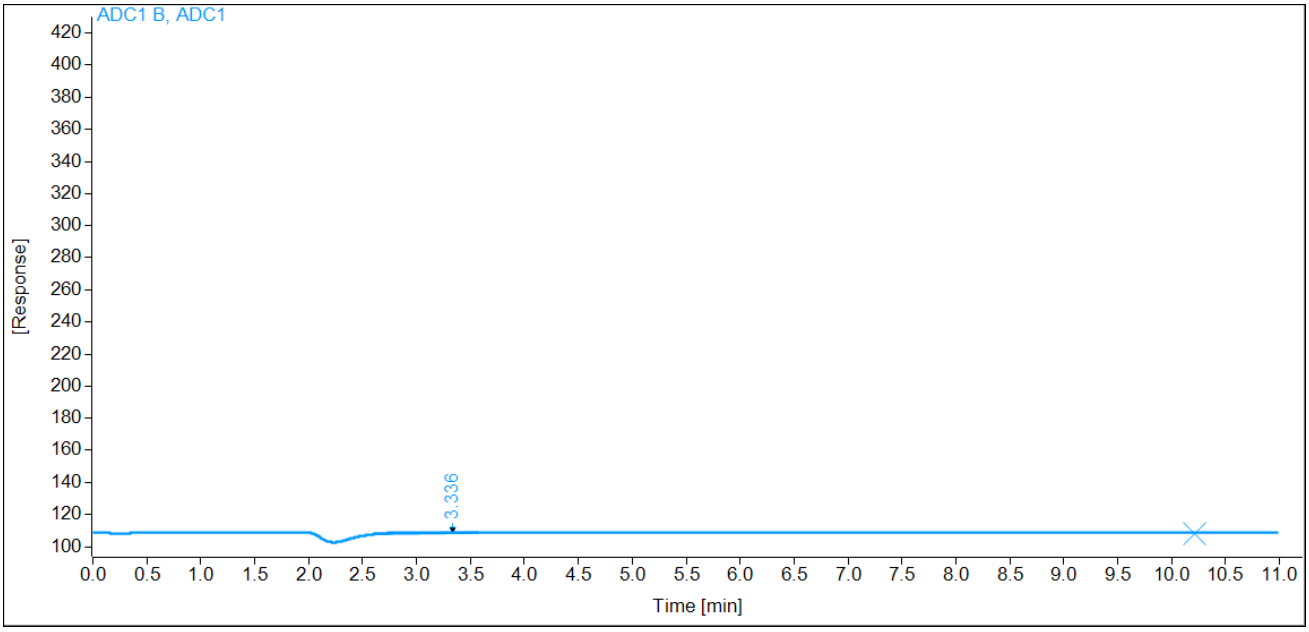
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC77PG32---118\008-0801.D
Sample name: RB/DI H2O
Description:

Instrument: Gonzo
Injection date: 11/27/2013 1:36:49 PM
Acq. method: ANIONS.M
Analysis method: HPLC77PG32.M

Last changed: 11/29/2013 10:28:21 AM

Sample type: Sample
Location: Vial 8
Injection volume: 25.000
Injection: 1 of 2
Acq. operator: Amelia Paolantonio



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Sulfate					0	ug/mL

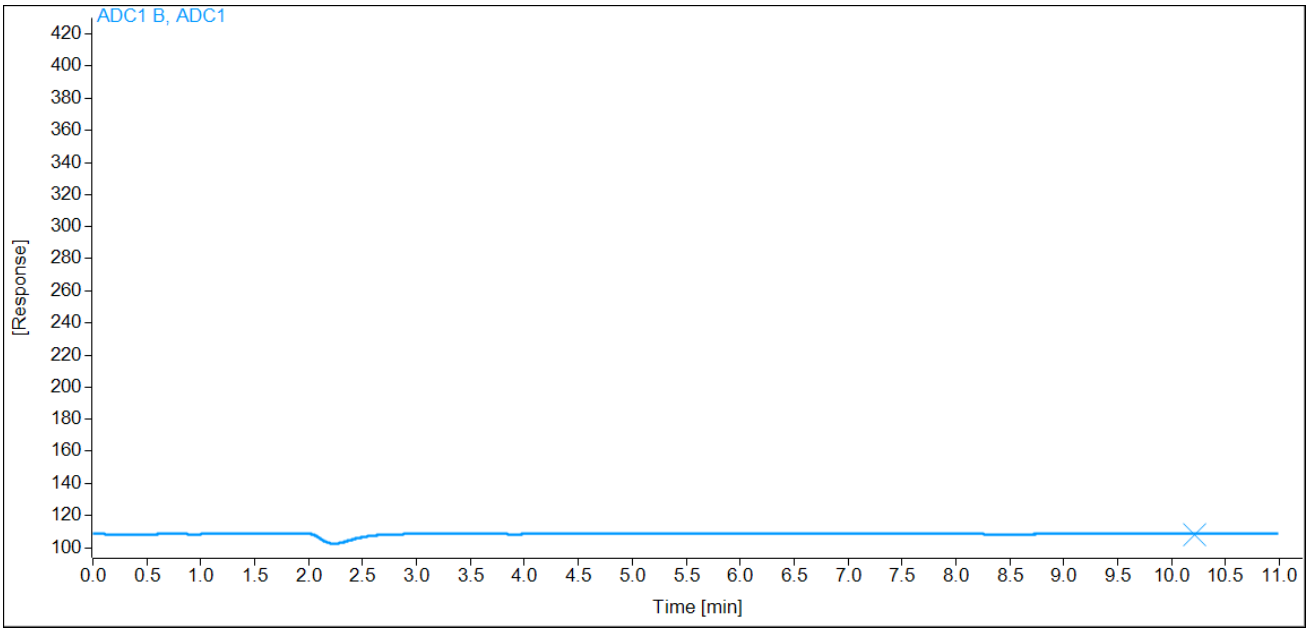
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC77PG32---118\008-0802.D
Sample name: RB/DI H2O
Description:

Instrument:
Injection date: 11/27/2013 1:50:27 PM
Acq. method: ANIONS.M
Analysis method: HPLC77PG32.M

Last changed: 11/29/2013 10:28:21 AM

Sample type: Sample
Location: Vial 8
Injection volume: 25.000
Injection: 2 of 2
Acq. operator: Amelia Paolantonio



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Sulfate					0	ug/mL

Calibration Table

General Calibration Setting

Calib. Data Modified : Friday, November 29, 2013 10:28:18 AM

Rel. Reference Window : 7.000 %
Abs. Reference Window : 0.000 min
Rel. Non-ref. Window : 7.000 %
Abs. Non-ref. Window : 0.000 min
Uncalibrated Peaks : not reported
Partial Calibration : Yes, identified peaks are recalibrated
Correct All Ret. Times: No, only for identified peaks

Curve Type : Linear
Origin : Connected
Weight : Linear (Resp)

Recalibration Settings:
Average Response : Average all calibrations
Average Retention Time: Floating Average New 75%

Calibration Report Options :
Printout of recalibrations within a sequence:
Calibration Table after Recalibration
Normal Report after Recalibration
If the sequence is done with bracketing:
Results of first cycle (ending previous bracket)

Signal Details

Signal 1: ADC1 B, ADC1

Overview Table

RT	Sig	Lvl	Amount [ug/mL]	Area	Rsp.Factor	Ref	ISTD	#	Compound
10.222	1	1	4.95000e-1	30.29712	1.63382e-2	No	No		Sulfate
		2	1.00000	60.19603	1.66124e-2				
		3	5.00000	302.79819	1.65126e-2				
		4	10.00000	623.44174	1.60400e-2				
		5	15.00000	929.98395	1.61293e-2				
		6	25.00000	1619.73334	1.54346e-2				

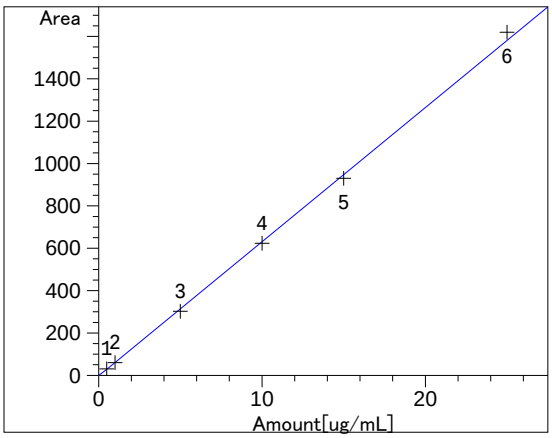
Peak Sum Table

No Entries in table

==========

Calibration Curves

==========



Sulfate at exp. RT: 10.222
ADC1 B, ADC1
Correlation: 0.99968
Residual Std. Dev.: 22.08412
Formula: y = mx + b
m: 63.38391
b: -2.71260
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.503308
Level 3 : 0.100057
Level 4 : 0.048597
Level 5 : 0.032578
Level 6 : 0.018705

==========

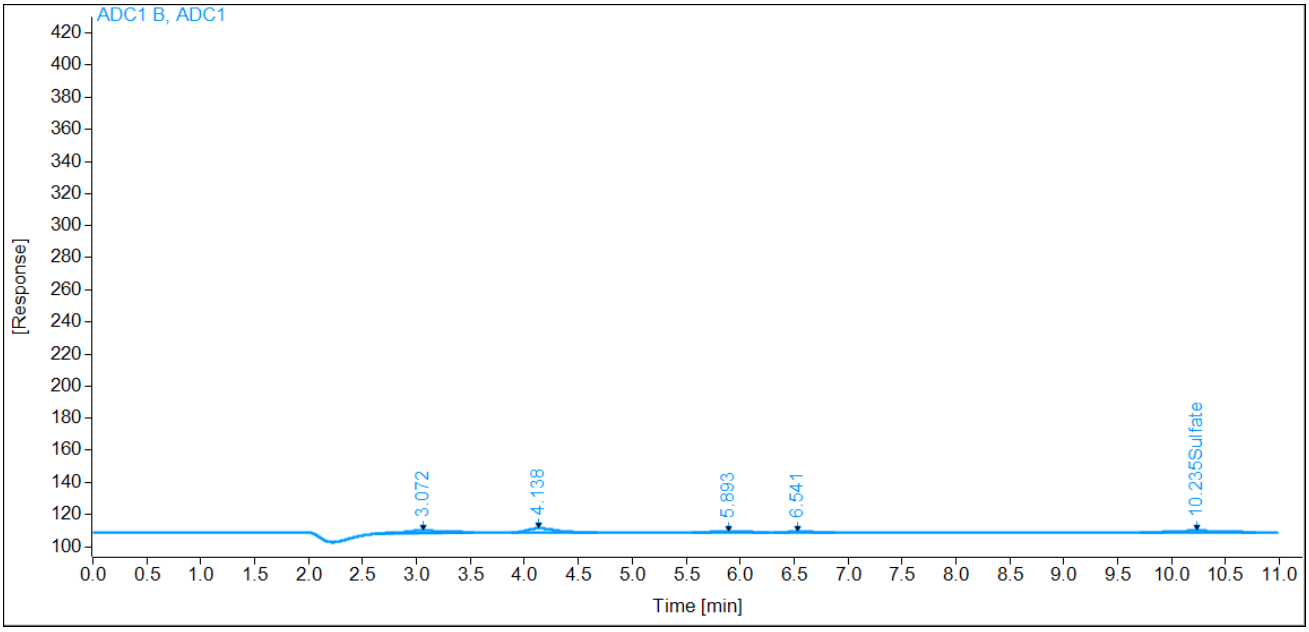
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC77PG32---118\001-0101.D
Sample name: HPLC77PG028 STD#1
Description:

Instrument: Gonzo
Injection date: 11/27/2013 10:19:05 AM
Acq. method: ANIONS.M
Analysis method: HPLC77PG32.M

Last changed: 11/29/2013 10:28:21 AM

Sample type: Sample
Location: Vial 1
Injection volume: 25.000
Injection: 1 of 2
Acq. operator: Amelia Paolantonio



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Sulfate	BB	10.24	29.5689	0.01722	0.5093	ug/mL

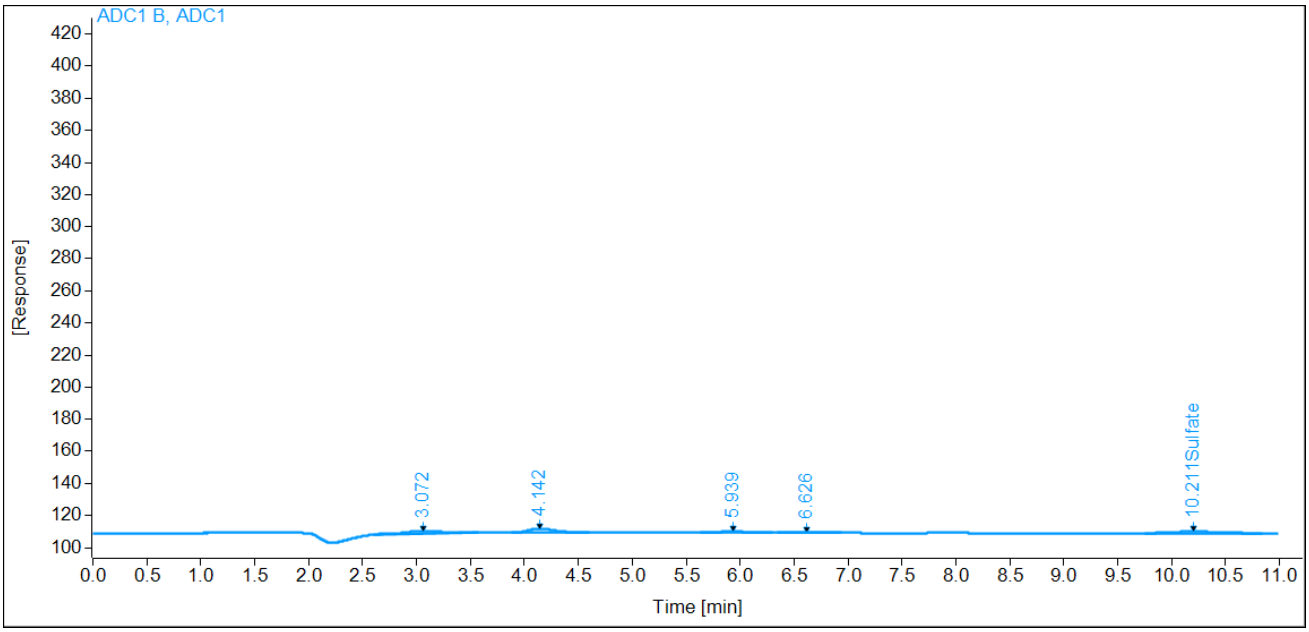
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC77PG32---118\001-0102.D
Sample name: HPLC77PG028 STD#1
Description:

Instrument: Gonzo
Injection date: 11/27/2013 10:33:55 AM
Acq. method: ANIONS.M
Analysis method: HPLC77PG32.M

Last changed: 11/29/2013 10:28:21 AM

Sample type: Sample
Location: Vial 1
Injection volume: 25.000
Injection: 2 of 2
Acq. operator: Amelia Paolantonio



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Sulfate	BB	10.21	31.0253	0.01716	0.5323	ug/mL

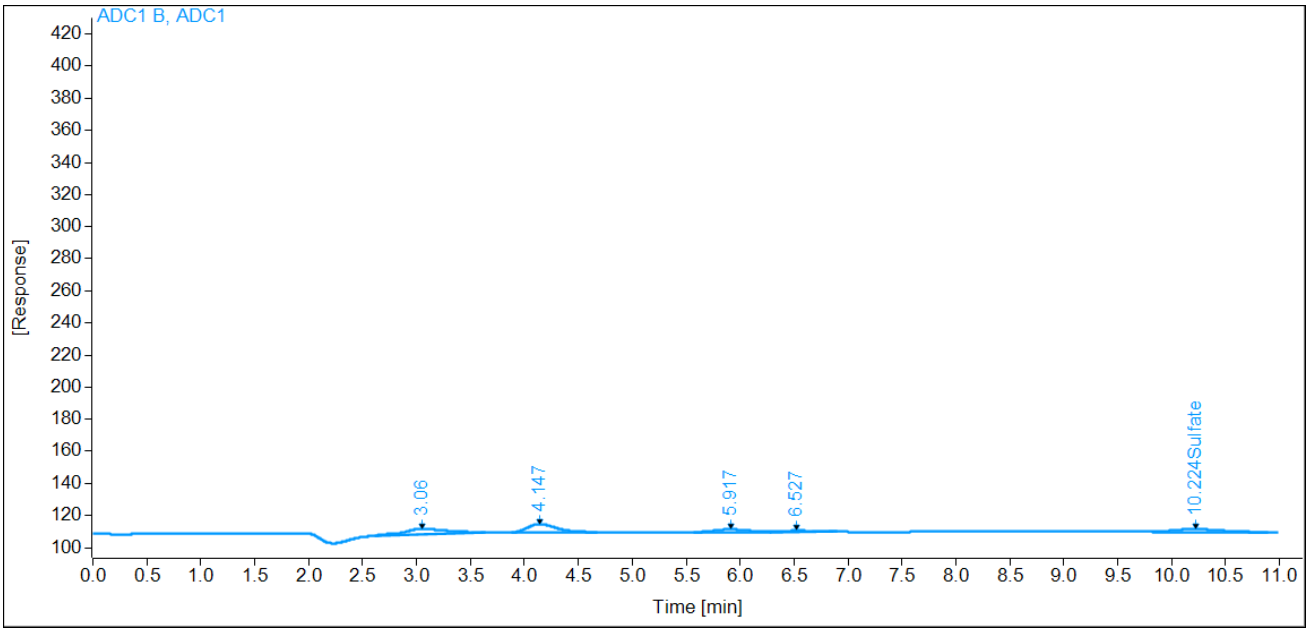
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC77PG32---118\002-0201.D
Sample name: HPLC77PG028 STD#2
Description:

Instrument: Gonzo
Injection date: 11/27/2013 10:48:46 AM
Acq. method: ANIONS.M
Analysis method: HPLC77PG32.M

Last changed: 11/29/2013 10:28:21 AM

Sample type: Sample
Location: Vial 2
Injection volume: 25.000
Injection: 1 of 2
Acq. operator: Amelia Paolantonio



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Sulfate	MM	10.22	57.8014	0.01652	0.9547	ug/mL

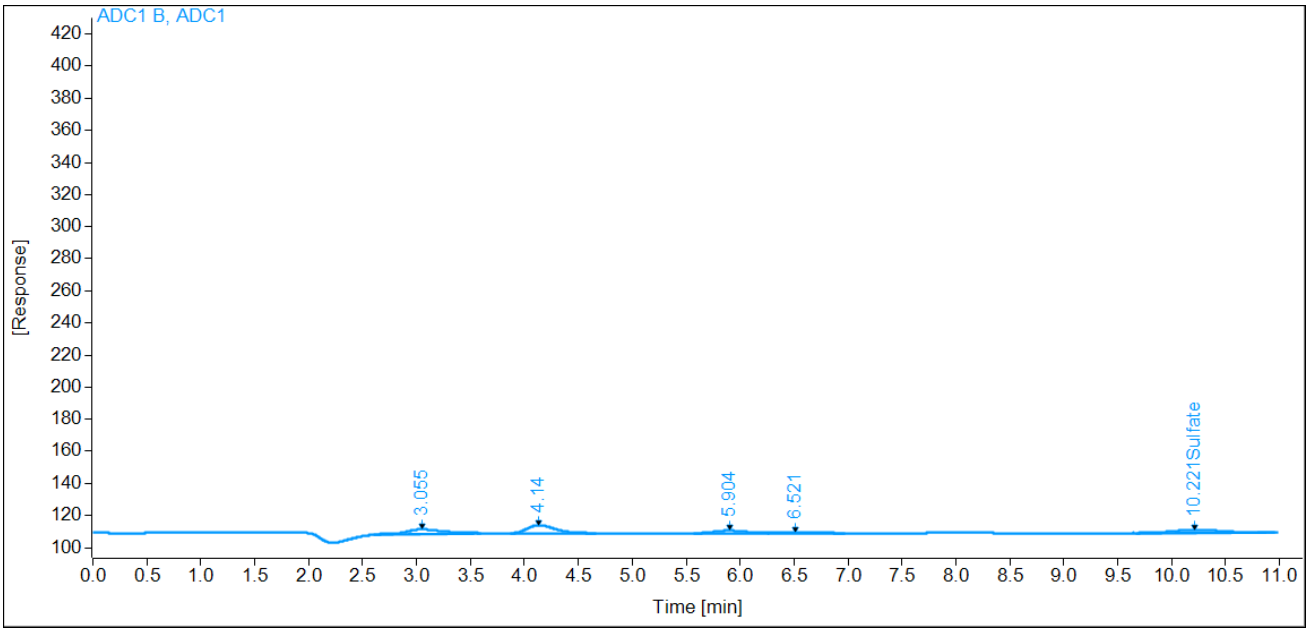
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC77PG32---118\002-0202.D
Sample name: HPLC77PG028 STD#2
Description:

Instrument: Gonzo
Injection date: 11/27/2013 11:03:35 AM
Acq. method: ANIONS.M
Analysis method: HPLC77PG32.M

Last changed: 11/29/2013 10:28:21 AM

Sample type: Sample
Location: Vial 2
Injection volume: 25.000
Injection: 2 of 2
Acq. operator: Amelia Paolantonio



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Sulfate	MM	10.22	62.5907	0.01646	1.030	ug/mL

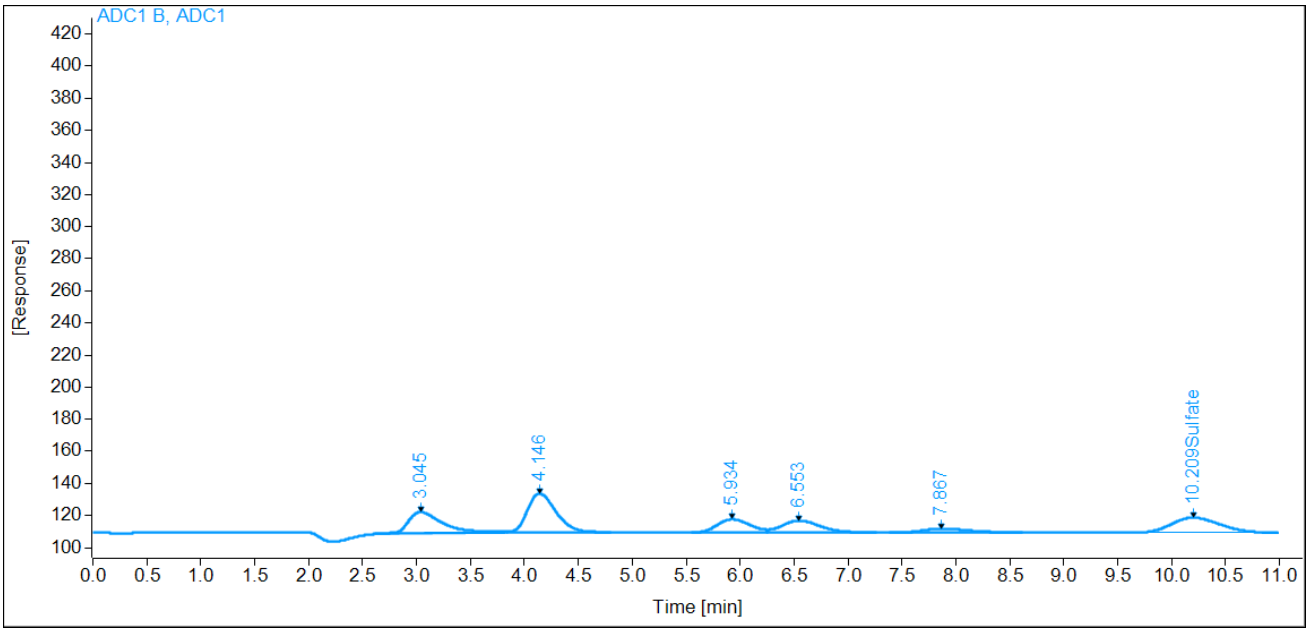
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC77PG32---118\003-0301.D
Sample name: HPLC77PG028 STD#3
Description:

Instrument: Gonzo
Injection date: 11/27/2013 11:18:21 AM
Acq. method: ANIONS.M
Analysis method: HPLC77PG32.M

Last changed: 11/29/2013 10:28:21 AM

Sample type: Sample
Location: Vial 3
Injection volume: 25.000
Injection: 1 of 2
Acq. operator: Amelia Paolantonio



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Sulfate	BB	10.21	302.7563	0.01592	4.819	ug/mL

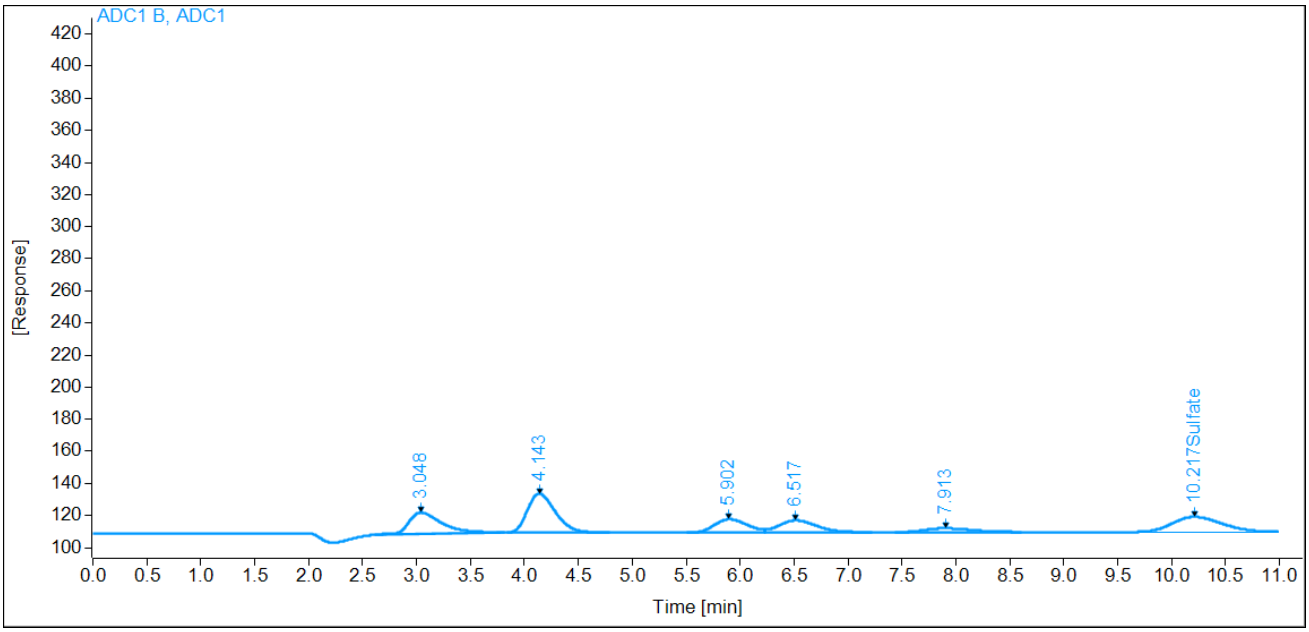
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC77PG32---118\003-0302.D
Sample name: HPLC77PG028 STD#3
Description:

Instrument: Gonzo
Injection date: 11/27/2013 11:33:08 AM
Acq. method: ANIONS.M
Analysis method: HPLC77PG32.M

Last changed: 11/29/2013 10:28:21 AM

Sample type: Sample
Location: Vial 3
Injection volume: 25.000
Injection: 2 of 2
Acq. operator: Amelia Paolantonio



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Sulfate	BB	10.22	302.8401	0.01592	4.821	ug/mL

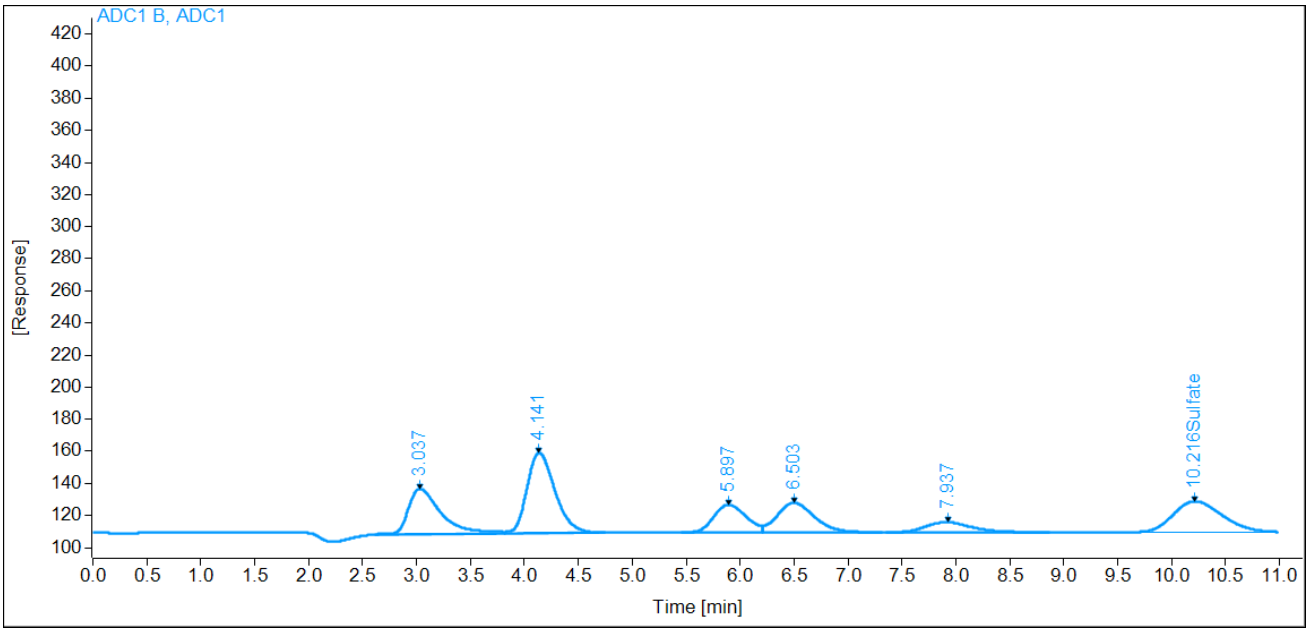
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC77PG32---118\004-0401.D
Sample name: HPLC77PG028 STD#4
Description:

Instrument: Gonzo
Injection date: 11/27/2013 11:46:46 AM
Acq. method: ANIONS.M
Analysis method: HPLC77PG32.M

Last changed: 11/29/2013 10:28:21 AM

Sample type: Sample
Location: Vial 4
Injection volume: 25.000
Injection: 1 of 2
Acq. operator: Amelia Paolantonio



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Sulfate	BB	10.22	621.3488	0.01585	9.846	ug/mL

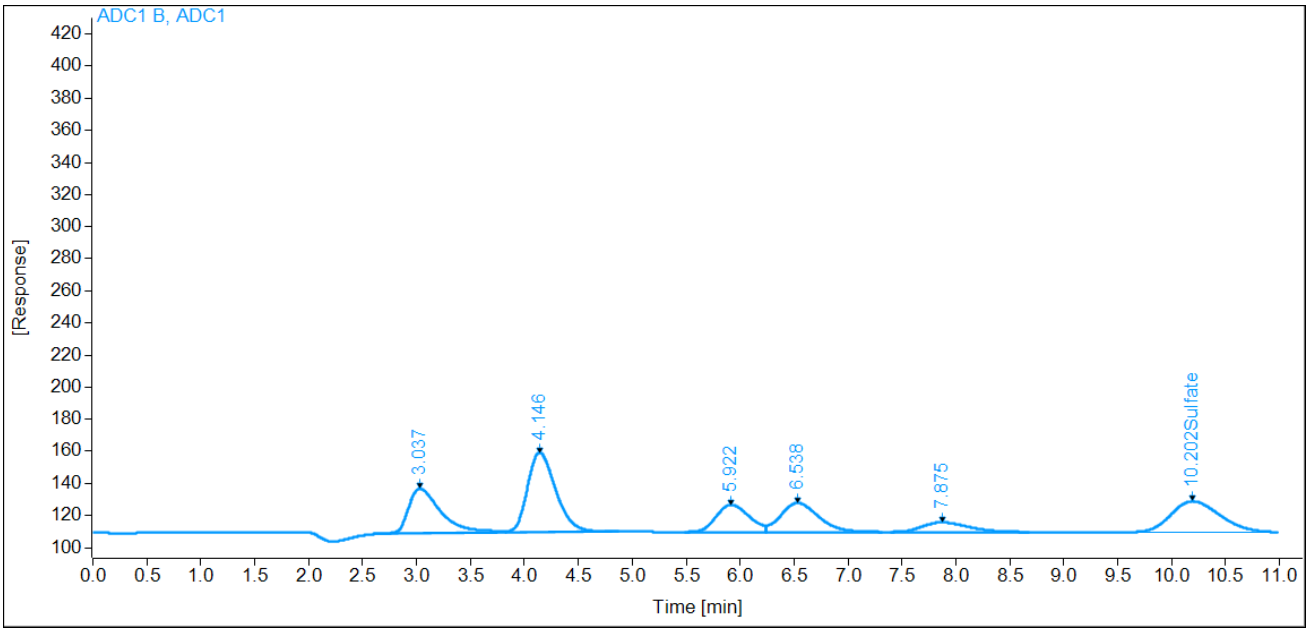
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC77PG32---118\004-0402.D
Sample name: HPLC77PG028 STD#4
Description:

Instrument: Gonzo
Injection date: 11/27/2013 12:00:25 PM
Acq. method: ANIONS.M
Analysis method: HPLC77PG32.M

Last changed: 11/29/2013 10:28:21 AM

Sample type: Sample
Location: Vial 4
Injection volume: 25.000
Injection: 2 of 2
Acq. operator: Amelia Paolantonio



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Sulfate	BB	10.20	625.5347	0.01585	9.912	ug/mL

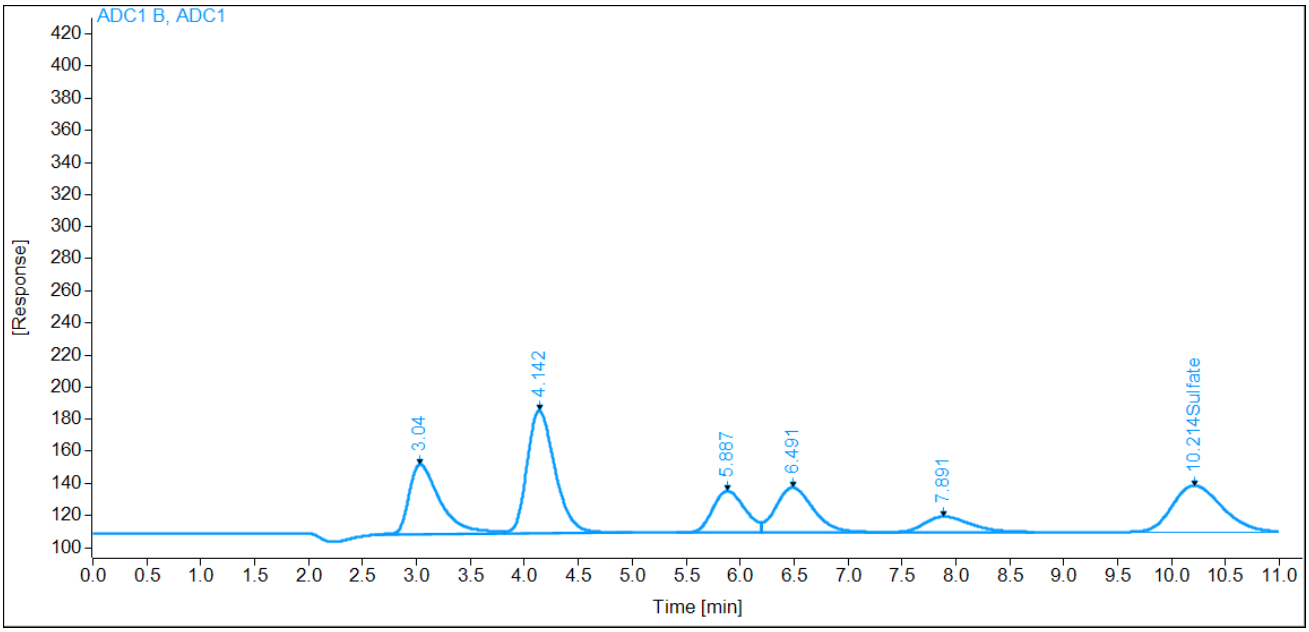
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC77PG32---118\005-0501.D
Sample name: HPLC77PG028 STD#5
Description:

Instrument: Gonzo
Injection date: 11/27/2013 12:13:59 PM
Acq. method: ANIONS.M
Analysis method: HPLC77PG32.M

Last changed: 11/29/2013 10:28:21 AM

Sample type: Sample
Location: Vial 5
Injection volume: 25.000
Injection: 1 of 2
Acq. operator: Amelia Paolantonio



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Sulfate	BB	10.21	933.2124	0.01582	14.77	ug/mL

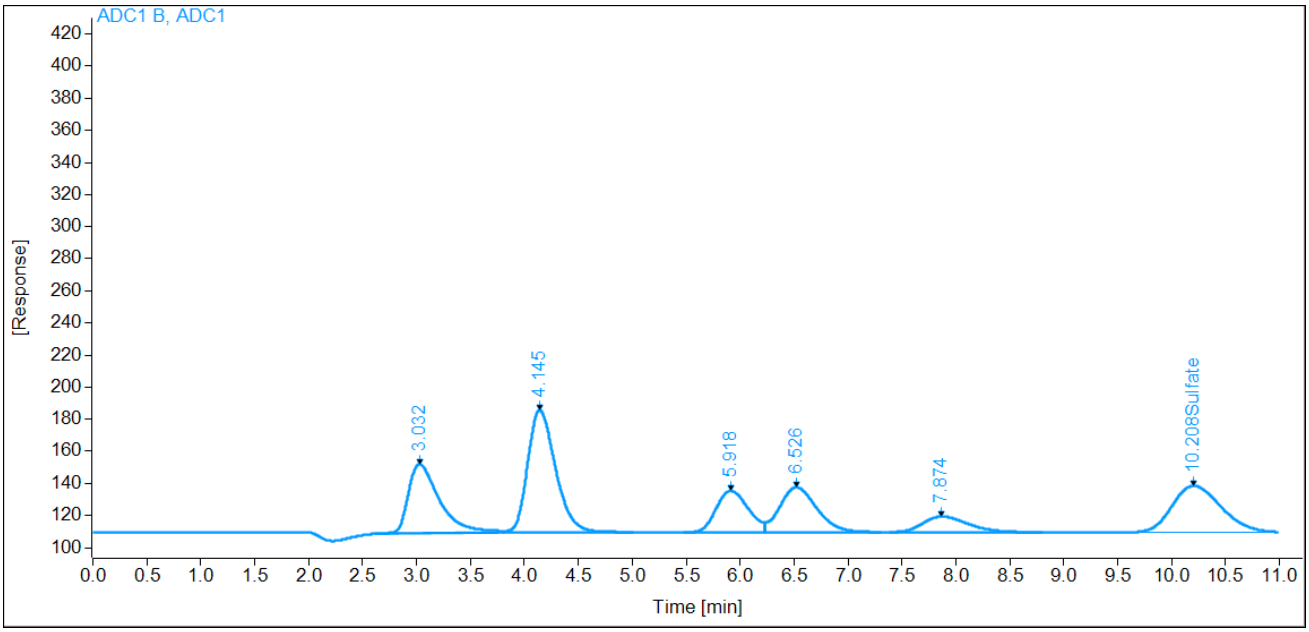
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC77PG32---118\005-0502.D
Sample name: HPLC77PG028 STD#5
Description:

Instrument: Gonzo
Injection date: 11/27/2013 12:27:45 PM
Acq. method: ANIONS.M
Analysis method: HPLC77PG32.M

Last changed: 11/29/2013 10:28:21 AM

Sample type: Sample
Location: Vial 5
Injection volume: 25.000
Injection: 2 of 2
Acq. operator: Amelia Paolantonio



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Sulfate	BB	10.21	926.7555	0.01582	14.66	ug/mL

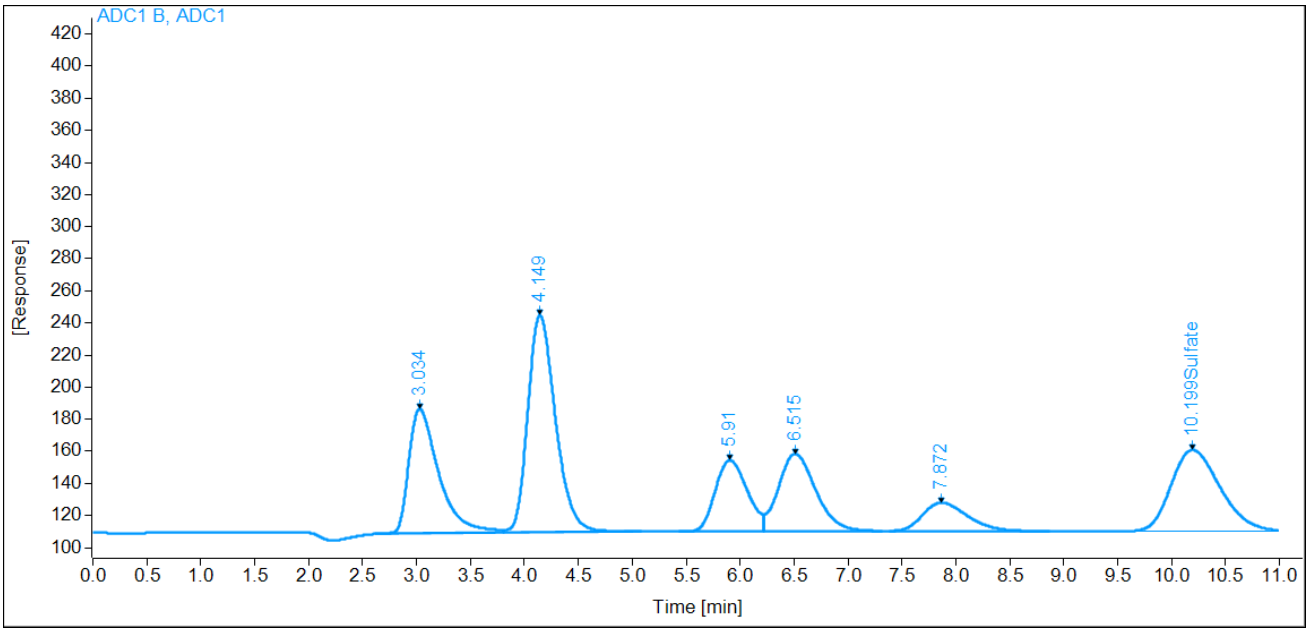
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC77PG32---118\006-0601.D
Sample name: HPLC77PG028 STD#6
Description:

Instrument: Gonzo
Injection date: 11/27/2013 12:41:22 PM
Acq. method: ANIONS.M
Analysis method: HPLC77PG32.M

Last changed: 11/29/2013 10:28:21 AM

Sample type: Sample
Location: Vial 6
Injection volume: 25.000
Injection: 1 of 2
Acq. operator: Amelia Paolantonio



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Sulfate	BB	10.20	1624.4546	0.01580	25.67	ug/mL

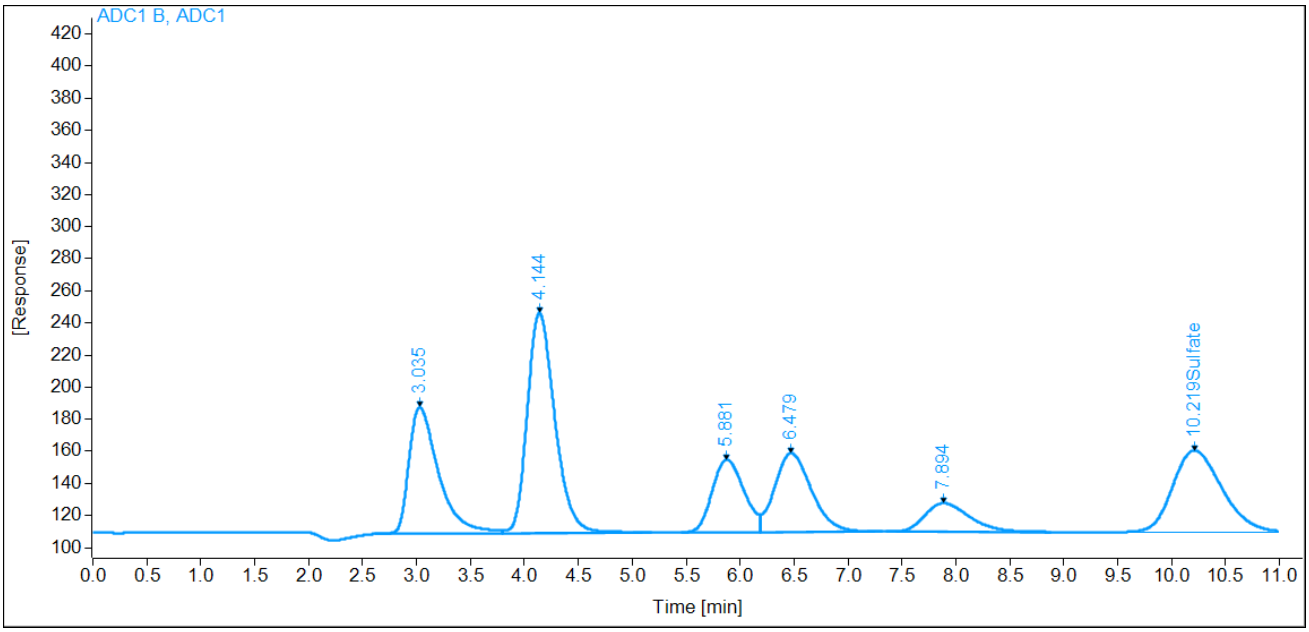
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC77PG32---118\006-0602.D
Sample name: HPLC77PG028 STD#6
Description:

Instrument: Gonzo
Injection date: 11/27/2013 12:55:25 PM
Acq. method: ANIONS.M
Analysis method: HPLC77PG32.M

Last changed: 11/29/2013 10:28:21 AM

Sample type: Sample
Location: Vial 6
Injection volume: 25.000
Injection: 2 of 2
Acq. operator: Amelia Paolantonio



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Sulfate	BB	10.22	1615.0121	0.01580	25.52	ug/mL

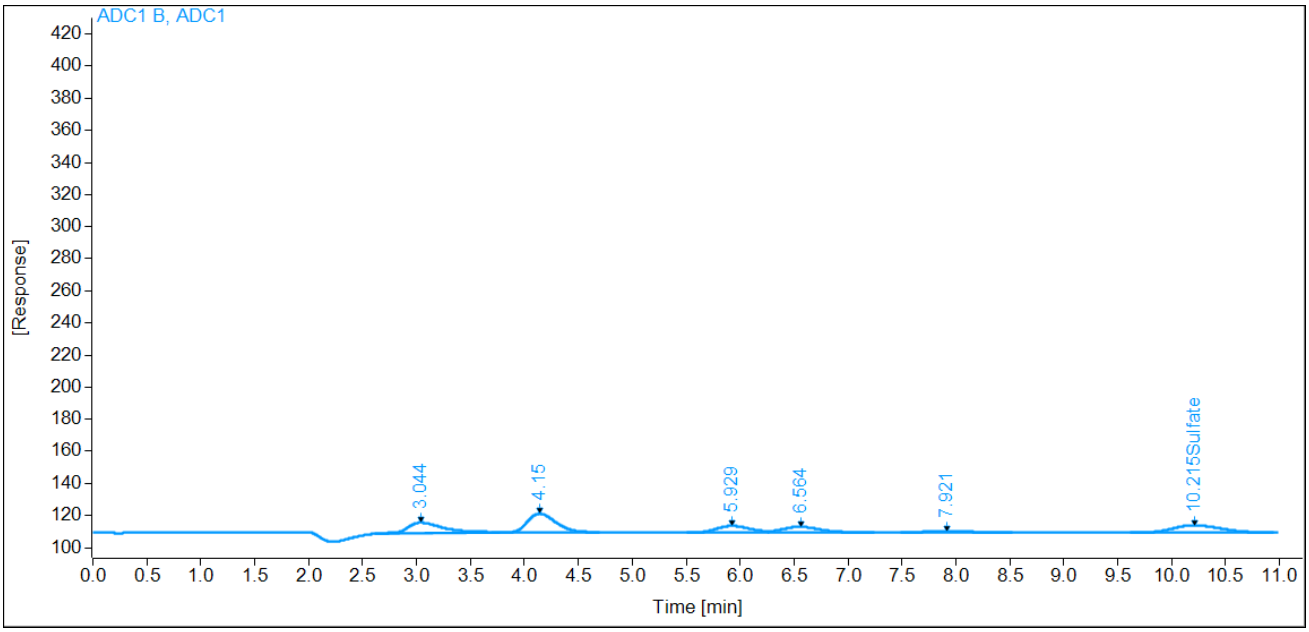
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC77PG32---118\007-0701.D
Sample name: HPLC77PG028 STD#SS
Description:

Instrument: Gonzo
Injection date: 11/27/2013 1:09:11 PM
Acq. method: ANIONS.M
Analysis method: HPLC77PG32.M

Last changed: 11/29/2013 10:28:21 AM

Sample type: Sample
Location: Vial 7
Injection volume: 25.000
Injection: 1 of 2
Acq. operator: Amelia Paolantonio



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Sulfate	BB	10.21	146.7883	0.01607	2.359	ug/mL

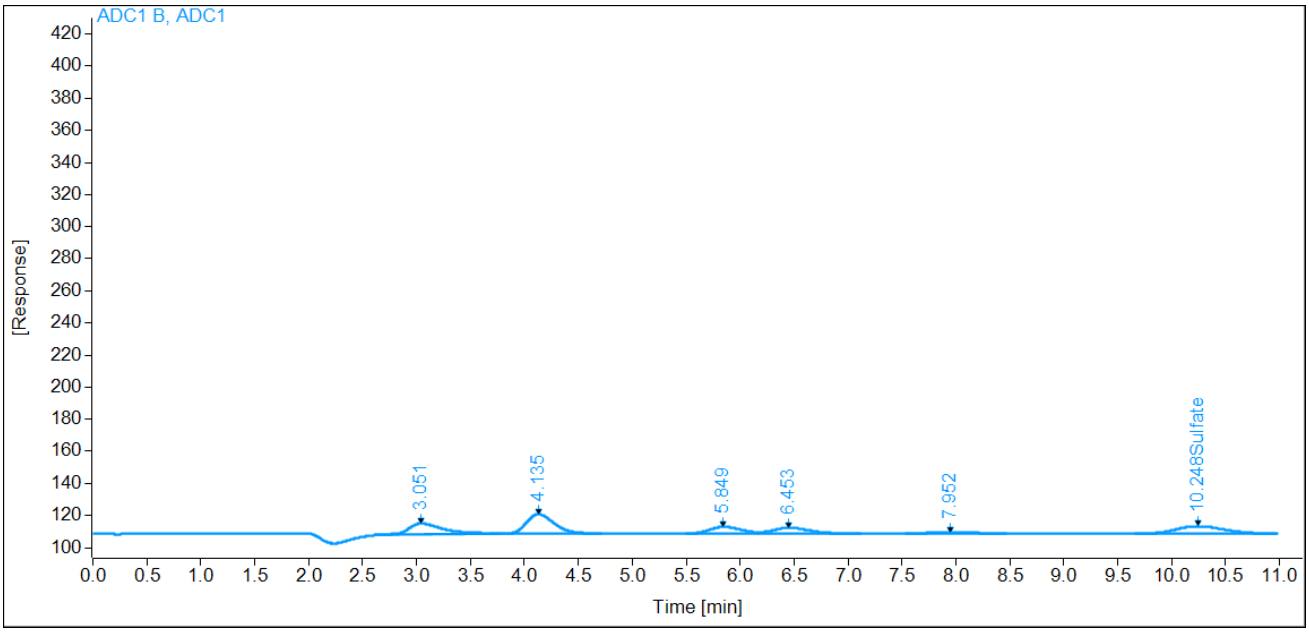
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC77PG32---118\007-0702.D
Sample name: HPLC77PG028 STD#SS
Description:

Instrument: Gonzo
Injection date: 11/27/2013 1:22:57 PM
Acq. method: ANIONS.M
Analysis method: HPLC77PG32.M

Last changed: 11/29/2013 10:28:21 AM

Sample type: Sample
Location: Vial 7
Injection volume: 25.000
Injection: 2 of 2
Acq. operator: Amelia Paolantonio



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Sulfate	BB	10.25	147.1061	0.01607	2.364	ug/mL

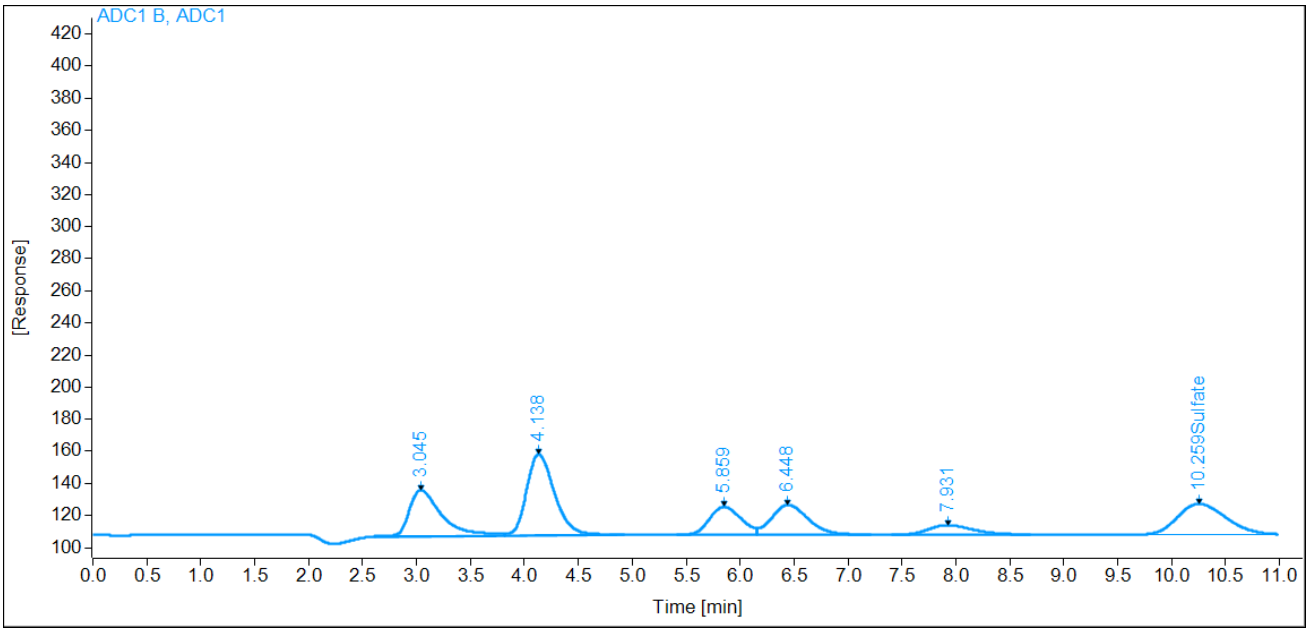
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC77PG32---118\004-1501.D
Sample name: HPLC77PG028 STD#4
Description:

Instrument: Gonzo
Injection date: 11/27/2013 4:47:17 PM
Acq. method: ANIONS.M
Analysis method: HPLC77PG32.M

Last changed: 11/29/2013 10:28:21 AM

Sample type: Sample
Location: Vial 4
Injection volume: 25.000
Injection: 1 of 2
Acq. operator: Amelia Paolantonio



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Sulfate	BB	10.26	612.5793	0.01585	9.707	ug/mL

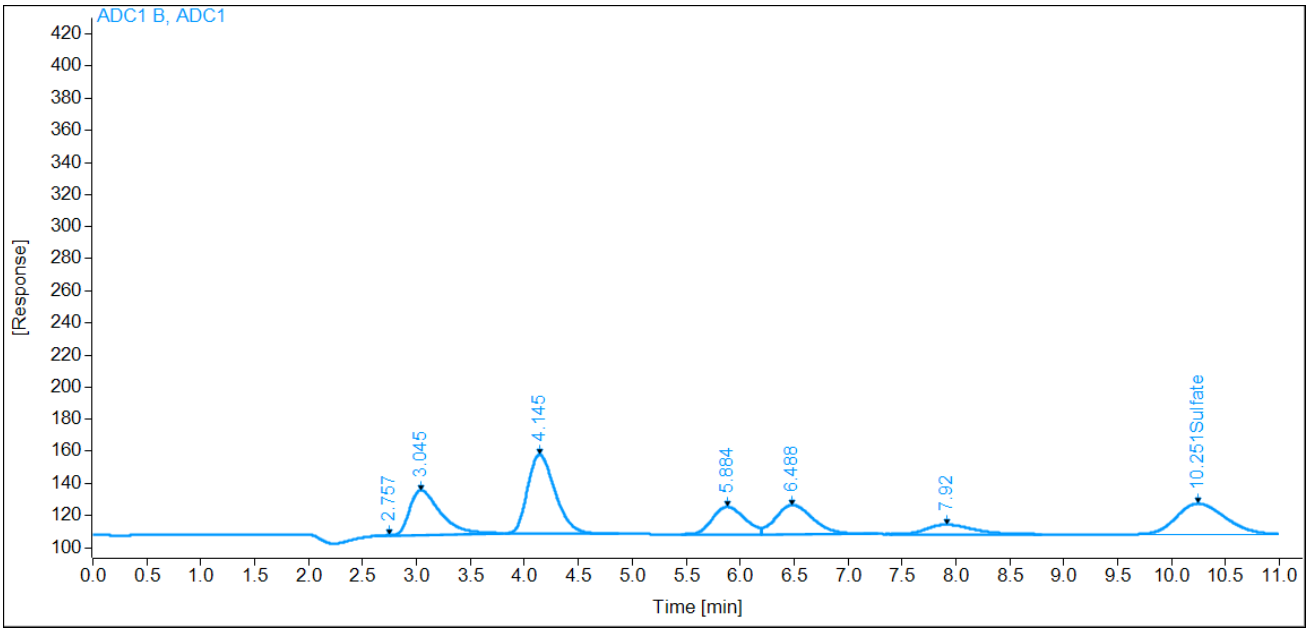
Sequence Summary Report

Data file: C:\CHEM32\1\DATA\HPLC77PG32---118\004-1502.D
Sample name: HPLC77PG028 STD#4
Description:

Instrument: Gonzo
Injection date: 11/27/2013 5:00:54 PM
Acq. method: ANIONS.M
Analysis method: HPLC77PG32.M

Last changed: 11/29/2013 10:28:21 AM

Sample type: Sample
Location: Vial 4
Injection volume: 25.000
Injection: 2 of 2
Acq. operator: Amelia Paolantonio



Name	Peak_Type	RT [min]	Area	RF	Amount	Units
Sulfate	BB	10.25	613.4210	0.01585	9.721	ug/mL

Method Information

Method: H:\HPLC2010Q2\GONZO\METHODS\ANIONS.M
Modified: 5/27/2010 at 4:50:49 PM

Column: Dionex IonPac AS14A, 250*4mm
Mobile Phase: 8mM Na2CO3/1mM NaHCO3
Flow Rate: 1.2 mL/min
Detection: Suppressed Ion Conductivity

ANALOG DIGITAL CONVERTER

	Signal 1
Description:	Dionex ED 40
Source:	Signal
Unit:	uS
Units/Volt:	1000.000
Peakwidth (Data Rate):	0.027 Min (10.00 Hz)
Stop Time:	No Limit
Data Storage:	All

Start Signal Source: External Device Will Start 35900

Timed Event Table:
<no events>

method: H:\HPLC2010Q2\GONZO\METHODS\ANIONS.M
Modified on: 5/27/2010 at 4:50:49 PM

==========
Agilent 1100/1200 Quaternary Pump 1
==========

Control
- Column Flow : 1.200 ml/min
- Stoptime : 15.00 min
- Posttime : Off

Solvents
- Solvent A : 100.0 % (8mM Na2CO3/1mM NaHCO3)
- Solvent B : Off
- Solvent C : Off
- Solvent D : Off

PressureLimits
- Minimum Pressure : 0 bar
- Maximum Pressure : 400 bar

Auxiliary
- Maximal Flow Ramp : 100.00 ml/min^2
- Primary Channel : Auto
- Compressibility : 83*10^-6/bar
- Minimal Stroke : Auto

Store Parameters
- Store Ratio A : Yes
- Store Ratio B : Yes
- Store Ratio C : Yes
- Store Ratio D : Yes
- Store Flow : Yes
- Store Pressure : Yes

==========
Agilent 1100 Variable Wavelength Detector 1
==========

Signal
- Wavelength : 210 nm
- Peakwidth : > 0.1 min

Time
- Stoptime : As pump
- Posttime : Off

Analog Output
- Zero offset analog out.: 5 %
- Attenuation analog out.: 1000 mAU

Store Additionally
- Signal w/o Reference : No
- Reference : No

Autobalance
- Prerun balancing : Yes
- Postrun balancing : No

Special Parameters
- Margin for negative Absorbance: 100 mAU
- Signal Polarity : Positive
- Enable analysis when lamp is off: No
- Scan from : 190 nm

method: H:\HPLC2010Q2\GONZO\METHODS\ANIONS.M
Modified on: 5/27/2010 at 4:50:49 PM

Scan to	:	400 nm
Scan step	:	2 nm

Agilent 1100 Autosampler 1

Injection

Injection Mode	:	Needle Wash
Injector volume	:	25.00 µl
Wash Vial	:	100
Optimization	:	Prefetch Sample Vial 12.00 min. after Injection

Auxiliary

Drawspeed	:	100 µl/min
Ejectspeed	:	1000 µl/min
Draw position	:	2.0 mm

Time

Stoptime	:	As Pump
Posttime	:	Off

Agilent 1100/1200 Column Thermostat 1

Temperature settings

Left temperature	:	30.0°C
Right temperature	:	Same as left
Enable analysis	:	When Temp. is within setpoint +/- 0.8°C
Store left temperature	:	No
Store right temperature	:	No

Time

Stoptime	:	As pump
Posttime	:	Off

Column Switching Valve : Column 1

This Is The Last Page Of This Report.

CEM Solutions

1183 Overdrive Circle
Hernando, FL 34442

Project Number: 6132

Chromium, Lead, Manganese, Phosphorus and Mercury

EPA Method 29 Analysis

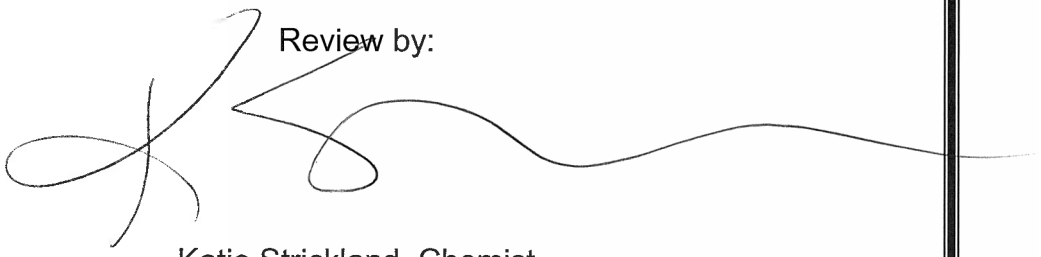
Analytical Report
21557

el1

Element One, Inc.
6319-D Carolina Beach Rd., Wilmington, NC 28412
910-793-0128 FAX: 910-792-6853 e1lab@e1lab.com

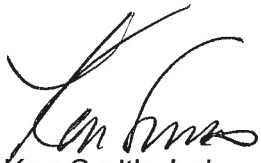
The following data for Analytical Report 21557
has been reviewed for completeness, accuracy,
adherence to method protocol,
and compliance with quality assurance guidelines.

Review by:



Katie Strickland, Chemist
December 6, 2013

Report Reviewed and Finalized By:



Ken Smith, Laboratory Director
December 6, 2013

SUMMARY OF RESULTS

Summary of Analysis

Summary of Method 29 Mercury Analysis

Run Number		Average Total Catch, µg	Front Half µg	H_2O_2 /HNO_3 µg	Empty Impinger µg	$KMnO_4$ µg	HCl µg
U1 Stack R1	#1	2.45	< 0.1	< 1.2	< 0.2	0.960	1.53
	#2		< 0.1	< 1.2	< 0.2	0.941	1.47
U1 Stack R2	#1	2.02	< 0.1	< 1.2	< 0.2	0.702	1.36
	#2		< 0.1	< 1.2	< 0.2	0.667	1.30
U1 Stack R3	#1	2.20	< 0.1	< 1.2	< 0.2	0.654	1.58
	#2		< 0.1	< 1.2	< 0.2	0.597	1.57
Field Blank	#1	< 0.5	< 0.1	< 0.3	< 0.2	< 0.5	< 0.4
	#2		< 0.1	< 0.3	< 0.2	< 0.5	< 0.4
Reagent Blank	#1	< 0.5	< 0.1	< 0.2	< 0.2	< 0.5	< 0.4
	#2		< 0.1	< 0.2	< 0.2	< 0.5	< 0.4

Summary of Analysis

Front Half - Summary of Method 29 Metals Analysis

Element	U1-S-R1 e21557-1 FH Total µg	U1-S-R2 e21557-2 FH Total µg	U1-S-R2 e21557-2 FH dup Total µg	U1-S-R3 e21557-3 FH Total µg	Field Blank e21557-4 FH Total µg	Reagent Blank e21557-5 FH Total µg
Chromium	1.16	1.36	1.39	1.17	1.03	1.05
Lead	0.403	0.434	0.424	0.298	0.264	0.124
Manganese	8.44	10.6	11.6	7.76	1.55	1.52
Phosphorus	52.0	67.7	69.3	51.9	5.31	3.86

Back Half - Summary of Method 29 Metals Analysis

Element	U1-S-R1 e21557-1 BH Total µg	U1-S-R2 e21557-2 BH Total µg	U1-S-R2 e21557-2 BH dup Total µg	U1-S-R3 e21557-3 BH Total µg	Field Blank e21557-4 BH Total µg	Reagent Blank e21557-5 BH Total µg
Chromium	0.395	0.461	0.449	0.438	0.230	< 0.1
Lead	0.293	0.240	0.230	0.358	0.256	0.122
Manganese	1.97	2.34	2.26	2.52	1.67	1.07
Phosphorus	12.0	14.0	13.5	8.52	6.73	2.20

ANALYTICAL NARRATIVE

Element One Analytical Narrative

Client:	CEM Solutions	Element One #:	21557
Client ID:	6132 Fagen - GREC	Analyst:	JWL & DBW
Method:	Method 29	Dates Received:	11/25/13
Analytes:	Cr, Pb, Mn, P & Hg	Dates Analyzed:	12/02-04/13

Summary of Analysis

The Method 29 samples were digested, prepared, and analyzed according to Method 29 protocol. Samples were analyzed for mercury on a PerkinElmer FIMS-100 CVAA mercury analyzer. The samples were analyzed for the other metals on a PerkinElmer ELAN 6100 ICP-MS.

Detection Limits

The FIMS-100 CVAA instrument reporting limit for mercury was 0.004 µg per aliquot analyzed. The ICP-MS instrument reporting limits were 20.0µg/L for phosphorus and 1.0µg/L for the other metals.

Analysis QA/QC

Duplicate analyses relative percent difference (RPD), spike sample recovery, and second source calibration verification data are summarized in the Quality Control Section. All QA/QC data was within the criteria of the method.

Additional Comments

The reported results have not been corrected for any blank values or spike recovery values. The ICP analysis of the Field Blank and Reagent Blank samples revealed detectable concentrations of metals.

QUALITY CONTROL SUMMARY

Summary of Quality Control Data

Mercury Duplicate Analysis RPD

(Method 29 QC limits: < 10% for RPD)

Run Number	Front Half	H_2O_2/HNO_3	Empty Imp	$KMnO_4$	HCl
U1 Stack R1	NA	NA	NA	1.9%	3.9%
U1 Stack R2	NA	NA	NA	5.1%	4.4%
U1 Stack R3	NA	NA	NA	9.1%	0.6%
Field Blank	NA	NA	NA	NA	NA
Reagent Blank	NA	NA	NA	NA	NA

Mercury Spike Recoveries

(Method 29 QC limits: 75-125% for Spike Recoveries)

Run Number		Front Half	H_2O_2/HNO_3	Empty Imp	$KMnO_4$	HCl
U1 Stack R3	#1	100%	102%	99%	101%	98%
	#2	99%	102%	100%	96%	98%

Summary of Quality Control Data

Metals Duplicate Analysis RPD

(Method 29 QC limits: < 20% for RPD)

Element	U1-S-R2 Front Half RPD	U1-S-R2 Back Half RPD
Chromium	2.6%	2.7%
Lead	2.3%	4.4%
Manganese	8.4%	3.5%
Phosphorus	2.3%	4.0%

Metals Analysis Spike Recoveries

(Method 29 QC limits: 75-125% for Spike Recoveries)

Element	U1-S-R3 Front Half Recovery	U1-S-R3 Back Half Recovery
Chromium	105%	92%
Lead	94%	104%
Manganese	114%	96%
Phosphorus	98%	105%

Second Source Calibration Check Recoveries

(Method 29 QC limits: ±10% for Second Source Continuing Check Standard)*

Element	1 ppb	50 ppb	100 ppb*	250 ppb
Chromium	87%	92%	94%	101%
Lead	89%	102%	102%	102%
Manganese	81%	92%	95%	98%

Element	20 ppb	200 ppb	1100 ppb*	2500 ppb
Phosphorus	89%	93%	96%	97%

SAMPLE CUSTODY

21557

1189 E. Overdrive Circle • Hernando, FL 34442 • Ph: (352) 489-4337 • Fax: (352) 489-4801
www.cem-solutions.com

Chain of Custody Record

Project #	Project Name:	# of Containers	Filter	Cont3. Probe Rinse	Cont4. Imp 1,2,3 & Rinse	Cont5a-1. Imp 4 & Rinse	Cont5a-2. Imp 4 & Rinse	Cont5b. Imp 5, 6 & Rinse	Cont5c. HCl Rinse	Reagent Blank	Comments
6132	Fagen - GREC										
Samplers: C. Horton/M. Savin											

Sample ID	Date	Test Method	Comp.	Grab	Sample Location	# of Containers	Filter	Cont3. Probe Rinse	Cont4. Imp 1,2,3 & Rinse	Cont5a-1. Imp 4 & Rinse	Cont5a-2. Imp 4 & Rinse	Cont5b. Imp 5, 6 & Rinse	Cont5c. HCl Rinse	Reagent Blank	Comments
Run 1	11/20/2013	29	X		Unit 1 Stack	7	X	X	X	X	X	X	X		
Run 2	11/21/2013	29	X		Unit 1 Stack	7	X	X	X	X	X	X	X		
Run 3	11/22/2013	29	X		Unit 1 Stack	7	X	X	X	X	X	X	X		
Field Blank	11/20/2013	29	X		Blank	6	X	X	X	X		X	X		
8N HCl	11/21/2013	29		X	Blank	1								X	Lot# SLH1915
5%HNO3/10%H2O2	11/21/2013	29		X	Blank	1								X	Lot# 20131120
0.1N HNO3	11/21/2013	29		X	Blank	1								X	Lot# 211101
DI Water	11/21/2013	29		X	Blank	1								X	Lot# 061913B
KMnO4	11/20/2013	29		X	Blank	1								X	Lot# 20131120
KMnO4	11/21/2013	29		X		1								X	Lot# 20131121
KMnO4	11/22/2013	29		X		1								X	Lot# 20131122

Relinquished by:	Date:	Time:	Received by:	Relinquished By:	Date:	Time:	Received By:
[signature]	11/23/13	1325	Bill Harris				
Relinquished by:	Date:	Time:	Received By:	Relinquished By:	Date:	Time:	Received By:
Received for Lab By:	Date:	Time:	Remarks: Analytes-Chromium,lead,manganese,phosphorus,mercury				
Lisa Bratton	11/25/13	1230					

Samples received in good condition. No empty container.
Per Jeremy via phone, analyze RB KMnO4 dated 11.22.13, FH/BH Separate. LLB 11.26.13

ANALYTICAL DATA

Analytical Calculations

Metals-

Element Results (µg) =ICP Results (µg/L)*Dilution*Final Volume (L)

Where-

ICP Results= Raw sample concentration (ppb)--*ICP-Data Sheet*

Dilution= Diluted Volume--*ICP-MS Run Sheet*
Aliquot

Final Volume=FH=Final Volume (FV)--*Sample Submission*
BH=Received Volume (BV).*Final Volume (FV)--*Sample Submission*
Aliquot (Used)

Mercury-

$$\textbf{Mercury Results (µg)} = \frac{\textbf{CVAA Results (µg)}}{\textbf{Aliquot (ml)}} * \textbf{Final Volume (ml)}$$

Where-

CVAA Results= Raw sample reading (µg)--*Hg-Data Sheet*

Aliquot= Sample Aliquot (Alq.)--*Hg-Data Sheet*

Final Volume=Final Volume (FV)*--*Sample Submission*
* With the exception of the BH fraction where-
=Received Volume (BV)--*Sample Submission*

Analytical Calculations

Spike Recovery-

$$\textbf{Spike (\%)} = \frac{\textbf{(Spiked Result (µg/L) – Sample Result (µg/L))}}{\textbf{Spike Amount (µg/L)}} \textbf{ X100}$$

Where-

Spike Result = Raw sample concentration (ppb)--*ICP-Data Sheet*

Sample Result = Raw sample concentration (ppb)--*ICP-Data Sheet*

Spike Amount--*ICP-MS Spike Table*

Duplicate Analysis RPD-

$$\textbf{RPD (\%)} = \frac{\textbf{(Duplicate Result (µg/L) - Sample Result (µg/L))}}{\textbf{Average (µg/L)}} \textbf{ X100}$$

Where-

Sample Result and Duplicate Results=Raw sample concentration (ppb)--*ICP-Data Sheet*

Average= $\frac{\textit{(Duplicate + Sample Results)}}{2}$

elementOne **AIR TESTING SAMPLE SUBMISSION FORM** **Lab ID 21557**

FH / BH Separate

Analysis Due Date 12.04.13
QA/QC/Report Due Date 12.06.13

Client	CEM Solutions
Project No	6132

Date Received	11.25.13
Time Received	1230

HNO_3 Lot: K14034	HF Lot: 000055115	HCl Lot: 411100	**Ref. Method: 29**
Volume Marked Y / (N)	Volume Loss Y / N (?)		

Sample Identification

1	U1-Stack-M29-R1	4	Field Blank		
2	U1-Stack-M29-R2	5	Reagent Blank		
	U1-Stack-M29-R2 Duplicate				
3	U1-Stack-M29-R3				
	U1-Stack-M29-R3 Spike				

Analyses Requested	Samples 1-5	Hg
	Samples 1-5	Cr, Pb, Mn, P----FH/BH Separate

Runs / FB	Fil / Ace (FH) pH <2.0 Y / N		HNO_3 (FH) pH <2.0 (Y) / N		5% HNO_3/10% H_2O_2 (BH) pH <2.0 (Y) / N			HNO_3 (A) pH <2.0 (Y) / N		$KMnO_4$ (B) pH <2.0 (Y) / N		HCl (C) pH <2.0 (Y) / N	
Lab ID	Fil ID	BV ml	BV ml	FV ml	BV ml	Used	FV ml	BV ml	FV ml	BV ml	FV ml	BV ml	FV ml
1			100	100	1210	605	50	168	200	360	500	220	400
2.D			100	↓	1220	610	↓	110	↓	420	↓	210	↓
3.S			100		1220	610		98		400		120	
4			100		305	153		96		310		220	

M-29 Reagent Blank

Lab ID	Fraction			BV, ml	FV, ml	Comments
5	C 7	FH	Acetone Blank			
	C 8A	FH	0.1N HNO_3	300	100	used 100 ml
	C 8A	A	0.1N HNO_3	300		
	C 8B	B	DI H_2O	100	100/33	used 33 ml
	C 9	BH	5% HNO_3/10% H_2O_2	210	50	~~used~~ see below
	C 10	B	4% $KMnO_4$/10%H_2SO_4	100	100/33	used 100 ml
	C 11	C	8N HCl DI H_2O	230	400	
	C 12	FH	Filter			

Lab Communications

		BV			BV	
21557-1	1 of 2	830	21557-3	1 of 2	750	Sample spk's @ 20uL A, B, & F
	2 of 2	380		2 of 2	470	
21557-2	1 of 2	790				
	2 of 2	430				

LRB + (FH + BH) spiked w/ 100 ul of std A, B, + F @ 25 ppm

200 mLs of C9 combined w/ ~~300 mLs of~~ 100 mLs of C8A → 150 mLs to run raw for Hg
↳ 150 mLs to cook down for metals

Per Jeremy via phone, FH / BH Separate: Analyze RB C10 dated 11.22.13---LLB 11.25.13

Fractions Received: Runs; C1, C3, C4, C5A, C5B, C5C—RB; C12, C8A, C8B, C9, C10, C11—LLB 11.25.13

SS Page1 of 1
11/26/2013 3:01:49 PM
SS by LLB
Labeled By/Date JWL 11.26.13

BV
FH Prep By/Date JWL 12.3.13
BH Prep By/Date LAL 11.27.13
BH/FH Prep By/Date JWL 12.3.13
PM Prep By/Date —

A Prep By/Date LAL 11.27.13
B Prep By/Date JWL 12.2.13
C Prep By/Date JWL 12.3.13
ID Verification By / Date LAL 11.26.13

elementOne

Method 29 Microwave Worksheet

Lab ID # e 21554 / 21557

Client:

Date Digested: 12-3-13 Initials: JWR Worksheet Prepared by: JWR

Auto Sample Loc.	Sample Lab ID	Sample Weight (g)	# of filters digested	Spike	Prep Volume (ml)	Weight In Micro / Weight Out Micro	Units
1	21554 LRB				100		
2	LRB+			100 ml Std. A			
3	- 1		1				
4	- 2						
5	- 3						
6	- 4						
7	- 5						
8	-6						
9	- 7						
10	21557 LRB						
11	LRB+			100ml Std. A, B & F			
12	- 1		1				
13	- 2						
14	- 3						
15	- 4						
16	- 5						

21554 LRB+ spiked w/ 100 ml Std. A

21557 LRB+ spiked w/ 100 ml Std. A, B, & F

Element One, Inc. Form 104 - Revision 1.0

HF Lot # 0000055715

2 ml

HNO_3 Lot # 1113040

6 ml

Sample/Batch Report

12/5/13

User Name: icp
Computer Name: ICP-MS
Sample File: C:\elandata_icp\Sample\x16.sam
Report Date/Time: Thursday, December 05, 2013 09:35:56

A/S Loc.	Batch ID	Sample ID	Description	Sample Type	Init. Quant.	Prep. Vol.	Aliquot Vol.	Diluted Vol.	Solids Ratio
5		QC Std 2		Sample					
403		21554-1		Sample					
404		21554-2		Sample					
405	d	21554-2		Duplicate of 3					
406		21554-3		Sample					
407	s	21554-3		Spike - 1 of 5					
408		21554-4		Sample					
409	d	21554-4		Duplicate of 7					
410		21554-5		Sample					
411	s	21554-5		Spike - 1 of 9					
412		21554-6		Sample					
413		21554-7		Sample					
1		QC Std 1		Sample					
3		QC Std 4		Sample					
5		QC Std 2		Sample					
101		LRB FH		Sample					
102	s	LRB FH		Spike - 1 of 16					
103		21557-1 FH		Sample					
104		21557-2 FH		Sample					
105	d	21557-2 FH		Duplicate of 19					
106		21557-3 FH		Sample					
107	s	21557-3 FH		Spike - 1 of 21					
108		21557-4 FH		Sample					
109		21557-5 FH		Sample					
110		LRB BH		Sample					
111	s	LRB BH		Spike - 1 of 25					
112		21557-1 BH		Sample					
113		21557-2 BH		Sample					
114	d	21557-2 BH		Duplicate of 28					
115		21557-3 BH		Sample					
116	s	21557-3 BH		Spike - 1 of 30					
117		21557-4 BH		Sample					
118		21557-5 BH		Sample					
5		QC Std 2		Sample					
313	x5	21579		Sample					
314	x5d	21579		Duplicate of 35					
252	x500	21449-1 TOT		Sample					

Dataset Report

User Name: icp
Computer Name: ICP-MS
Dataset File Path: C:\elandata_icp\DataSet\120413-3\
Report Date/Time: Thursday, December 05, 2013 09:35:51

12/5/13

Autosampler Position: 3

The Dataset

Time	Sample ID	Batch ID	Read Type	Description	Init. Quant	Prep. Vol.	Aliquot. Vol.	Diluted Vol
14:41:49 Wed 04-Dec-13	Blank		Blank					
14:43:24 Wed 04-Dec-13	Standard 1		Standard #1					
14:44:59 Wed 04-Dec-13	Standard 2		Standard #2					
14:46:35 Wed 04-Dec-13	Standard 3		Standard #3					
14:48:10 Wed 04-Dec-13	QC Std 1		QC Std #1					
14:49:46 Wed 04-Dec-13	QC Std 2		QC Std #2					
14:51:21 Wed 04-Dec-13	QC Std 3		QC Std #3					
14:52:57 Wed 04-Dec-13	QC Std 4		QC Std #4					
14:54:34 Wed 04-Dec-13	QC Std 5		QC Std #5					
14:56:09 Wed 04-Dec-13	QC Std 6		QC Std #6					
14:57:44 Wed 04-Dec-13	QC Std 7		QC Std #7					
14:59:21 Wed 04-Dec-13	QC Std 9		QC Std #9					
15:00:57 Wed 04-Dec-13	QC Std 10		QC Std #10					
15:02:34 Wed 04-Dec-13	QC Std 2		Sample					
15:04:12 Wed 04-Dec-13	21554-1		Sample					
15:05:47 Wed 04-Dec-13	21554-2		Sample					
15:07:22 Wed 04-Dec-13	21554-2	d	Duplicate of 16					
15:08:57 Wed 04-Dec-13	21554-3		Sample					
15:10:32 Wed 04-Dec-13	21554-3	s	Spike - 1 of 18					
15:12:08 Wed 04-Dec-13	21554-4		Sample					
15:13:43 Wed 04-Dec-13	21554-4	d	Duplicate of 20					
15:15:18 Wed 04-Dec-13	21554-5		Sample					
15:16:53 Wed 04-Dec-13	21554-5	s	Spike - 1 of 22					
15:18:32 Wed 04-Dec-13	QC Std 1		QC Std #1					
15:20:07 Wed 04-Dec-13	QC Std 4		QC Std #4					
15:21:46 Wed 04-Dec-13	21554-6		Sample					
15:23:21 Wed 04-Dec-13	21554-7		Sample					
15:24:58 Wed 04-Dec-13	QC Std 1		Sample					
15:26:34 Wed 04-Dec-13	QC Std 4		Sample					
15:28:09 Wed 04-Dec-13	Blank		Blank					
15:29:35 Wed 04-Dec-13	Standard 1		Standard #1					
15:31:01 Wed 04-Dec-13	Standard 2		Standard #2					
15:32:27 Wed 04-Dec-13	Standard 3		Standard #3					
15:33:54 Wed 04-Dec-13	QC Std 1		QC Std #1					
15:35:20 Wed 04-Dec-13	QC Std 2		QC Std #2					
15:36:46 Wed 04-Dec-13	QC Std 3		QC Std #3					
15:38:13 Wed 04-Dec-13	QC Std 4		QC Std #4					
15:39:40 Wed 04-Dec-13	QC Std 5		QC Std #5					
15:41:06 Wed 04-Dec-13	QC Std 6		QC Std #6					
15:42:32 Wed 04-Dec-13	QC Std 7		QC Std #7					
15:43:58 Wed 04-Dec-13	QC Std 2		Sample					
15:45:25 Wed 04-Dec-13	LRB FH		Sample					
15:46:51 Wed 04-Dec-13	LRB FH	s	Spike - 1 of 42					

15:48:17 Wed 04-Dec-13	21557-1 FH		Sample
15:49:43 Wed 04-Dec-13	21557-2 FH		Sample
15:51:09 Wed 04-Dec-13	21557-2 FH	d	Duplicate of 45
15:52:37 Wed 04-Dec-13	QC Std 1		QC Std #1
15:54:03 Wed 04-Dec-13	QC Std 4		QC Std #4
15:55:31 Wed 04-Dec-13	21557-3 FH		Sample
15:56:57 Wed 04-Dec-13	21557-3 FH	s	Spike - 1 of 49
15:58:23 Wed 04-Dec-13	21557-4 FH		Sample
15:59:49 Wed 04-Dec-13	21557-5 FH		Sample
16:01:15 Wed 04-Dec-13	LRB BH		Sample
16:02:41 Wed 04-Dec-13	LRB BH	s	Spike - 1 of 53
16:04:07 Wed 04-Dec-13	21557-1 BH		Sample
16:05:33 Wed 04-Dec-13	21557-2 BH		Sample
16:07:00 Wed 04-Dec-13	21557-2 BH	d	Duplicate of 56
16:08:25 Wed 04-Dec-13	21557-3 BH		Sample
16:09:52 Wed 04-Dec-13	21557-3 BH	s	Spike - 1 of 58
16:11:19 Wed 04-Dec-13	QC Std 1		QC Std #1
16:12:46 Wed 04-Dec-13	QC Std 4		QC Std #4
16:14:13 Wed 04-Dec-13	21557-4 BH		Sample
16:15:39 Wed 04-Dec-13	21557-5 BH		Sample
16:17:08 Wed 04-Dec-13	Blank		Blank
16:19:05 Wed 04-Dec-13	Standard 1		Standard #1
16:20:58 Wed 04-Dec-13	Standard 2		Standard #2
16:22:52 Wed 04-Dec-13	Standard 3		Standard #3
16:24:46 Wed 04-Dec-13	QC Std 1		QC Std #1
16:26:41 Wed 04-Dec-13	QC Std 2		QC Std #2
16:28:34 Wed 04-Dec-13	QC Std 3		QC Std #3
16:30:29 Wed 04-Dec-13	QC Std 4		QC Std #4
16:32:24 Wed 04-Dec-13	QC Std 5		QC Std #5
16:34:18 Wed 04-Dec-13	QC Std 6		QC Std #6
16:36:12 Wed 04-Dec-13	QC Std 7		QC Std #7
16:38:07 Wed 04-Dec-13	QC Std 9		QC Std #9
16:40:01 Wed 04-Dec-13	QC Std 11		QC Std #11
16:41:57 Wed 04-Dec-13	QC Std 2		Sample
16:43:51 Wed 04-Dec-13	21579	x5	Sample
16:45:45 Wed 04-Dec-13	21579	x5d	Duplicate of 78
16:47:41 Wed 04-Dec-13	21449-1 TOT	x500	Sample
16:49:38 Wed 04-Dec-13	QC Std 1		QC Std #1
16:51:32 Wed 04-Dec-13	QC Std 4		QC Std #4
09:09:45 Thu 05-Dec-13	QC Std 1		Sample
09:11:12 Thu 05-Dec-13	QC Std 4		Sample
09:13:14 Thu 05-Dec-13	Blank		Blank
09:14:40 Thu 05-Dec-13	Standard 1		Standard #1
09:16:06 Thu 05-Dec-13	Standard 2		Standard #2
09:17:31 Thu 05-Dec-13	Standard 3		Standard #3
09:18:58 Thu 05-Dec-13	QC Std 1		QC Std #1
09:20:24 Thu 05-Dec-13	QC Std 2		QC Std #2
09:21:50 Thu 05-Dec-13	QC Std 3		QC Std #3
09:23:17 Thu 05-Dec-13	QC Std 4		QC Std #4
09:24:44 Thu 05-Dec-13	QC Std 5		QC Std #5
09:26:10 Thu 05-Dec-13	QC Std 6		QC Std #6
09:27:36 Thu 05-Dec-13	QC Std 7		QC Std #7
09:29:04 Thu 05-Dec-13	21557-4 BH		Sample
09:30:30 Thu 05-Dec-13	21557-5 BH		Sample
09:31:58 Thu 05-Dec-13	QC Std 1		QC Std #1
09:33:24 Thu 05-Dec-13	QC Std 4		QC Std #4

elementOne
Analyst:--DBW--

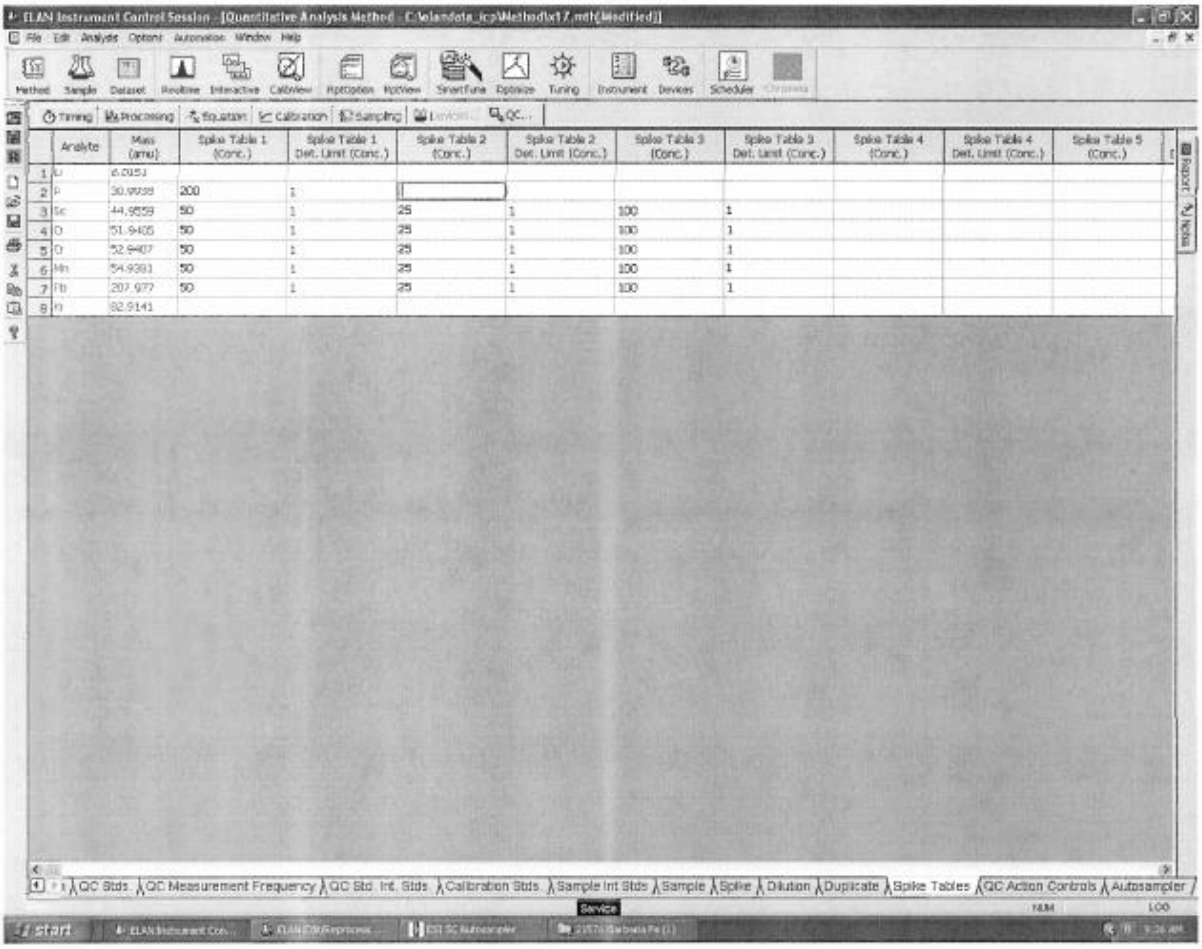
ICP-MS RUN SHEET
12/5/2013

Job Number:
14

A/S Loc.	Dilution	Sample ID	Client	Type	Weight (g)	Prep Vol (ml)
5		QC Std 2		Sample		
101		LRB FH		Sample		100
102	s	LRB FH		Spike - 1 of 16		100
103		21557-1 FH		Sample		100
104		21557-2 FH		Sample		100
105	d	21557-2 FH		Duplicate of 19		100
106		21557-3 FH		Sample		100
107	s	21557-3 FH		Spike - 1 of 21		100
108		21557-4 FH		Sample		100
109		21557-5 FH		Sample		100
110		LRB BH		Sample		50
111	s	LRB BH		Spike - 1 of 25		50
112		21557-1 BH		Sample		50x2
113		21557-2 BH		Sample		50x2
114	d	21557-2 BH		Duplicate of 28		50x2
115		21557-3 BH		Sample		50x2
116	s	21557-3 BH		Spike - 1 of 30		50x2
117		21557-4 BH		Sample		50x2
118		21557-5 BH		Sample		50x2

Spikes are post at 0.02mL of 25ppm spiking solutions lot 021413-AB&F in a final volume of 10mL

Submitted for QC by:	Date/Time:		QC Review By:	Date/Time:	
DBW	12/5/13 9:38		KS	12/6/13 @1238	
Re-Test Required:	No: ✓	Yes:	Comments:		
Resubmitted for QC by:	Date/Time:		QC Review:	By:	Date/Time:



Thursday, Dec 05, 2013 09:36 AM

ICP-MS QC Values Table

Element or Test	ICP Element Mass	Element symbol	Lowest Reported Value (ug)	Upper Reported Value (ug)	Reporting Unit	QC #1	QC #2	QC #3	QC #4	QC #5	QC #6 A	QC #7 AB	QC #8 .25	QC #9 LRB	QC #10 LRB+	QC #11 LRB+
Lithium	6	*Li*														
Lithium	7	Li	1	500	mg/L	0	1	250	100	50				0	50	100
Beryllium	9	Be	1	500	mg/L	0	1	250	100	50			0.25	0	50	100
Boron	10	*B*	5	500	mg/L	0	1	250	100	50				0	50	100
Boron	11	B	5	500	mg/L	0	1	250	100	50				0	50	100
Sodium	23	Na	20	5500	mg/L	0	21	2500	1100	250				0	715	
Magnesium	24	Mg	20	5500	mg/L	0	21	2500	1100	250				0	550	
Magnesium	25	*Mg*	20	5500	mg/L	0	21	2500	1100	250				0	550	
Aluminum	27	Al	1	500	mg/L	0	1	250	100	50				0	50	100
Phosphorus	31	P	20	5000	mg/L	0	20	2500	1000	250				0	200	
Potassium	39	K	20	5500	mg/L	0	20	2000	1000	200				0	500	
Calcium	44	Ca	50	5500	mg/L	0	21	2500	1100	250				0	550	
Scandium	45															
Titanium	47	Ti	1	500	mg/L	0	1	250	100	50			0.25	0	50	100
Titanium	49	Ti	1	500	mg/L	0	1	250	100	50			0.25	0	50	100
Vanadium	51	V	1	500	mg/L	0	1	250	100	50	0	20	0.25	0	50	100
Vanadium	51	V	1	500	mg/L	0	1	250	100	50	0	20	0.25	0	50	100
Chromium	52	Cr	1	500	mg/L	0	1	250	100	50		10	0.25	0	50	100
Chromium	53	*Cr*	1	500	mg/L	0	1	250	100	50		10	0.25	0	50	100
Iron	54	Fe	20	5500	mg/L	0	21	2500	1100	250	0			0		
Manganese	55	Mn	1	500	mg/L	0	1	250	100	50	0	10	0.25	0	50	100
Iron	57	Fe	20	5500	mg/L	0	21	2500	1100	250	0			0		
Cobalt	59	Co	1	500	mg/L	0	1	250	100	50	0	20	0.25	0	50	100
Nickel	60	Ni	1	500	mg/L	0	1	250	100	50	0	20	0.25	0	50	100
Copper	63	Cu	1	500	mg/L	0	1	250	100	50	0	10	0.25	0	50	100
Copper	65	Cu	1	500	mg/L	0	1	250	100	50	0	10	0.25	0	50	100
Zinc	66	Zn	1	500	mg/L	0	1	250	100	50	0	10	0.25	0	50	100
Zinc	67	*Zn*	1	500	mg/L	0	1	250	100	50	0	10	0.25	0	50	100
Zinc	68	*Zn*	1	500	mg/L	0	1	250	100	50	0	10	0.25	0	50	100
Germanium	72	Ge	1	500	mg/L	0	1	250	100	50				0	50	100
Arsenic	75	As	1	500	mg/L	0	1	250	100	50	0	10	0.25	0	50	100
Selenium	77	*Se*	1	500	mg/L	0	1	250	100	50	0	10	0.25	0	50	100
Selenium	82	Se	1	500	mg/L	0	1	250	100	50	0	10	0.25	0	50	100
Strontium	88	Sr	1	500	mg/L	0	1	250	100	50	0			0	50	100
Molybdenum	95	*Mo*	1	500	mg/L	0	1	250	100	50			0.25	0	50	100
Molybdenum	97	*Mo*	1	500	mg/L	0	1	250	100	50			0.25	0	50	100
Molybdenum	98	Mo	1	500	mg/L	0	1	250	100	50			0.25	0	50	100
Rhodium	103															
Silver	107	Ag	1	500	mg/L	0	1	250	100	50	0	10		0	50	100
Silver	109	*Ag*	1	500	mg/L	0	1	250	100	50	0	10		0	50	100
Cadmium	111	Cd	1	500	mg/L	0	1	250	100	50	0	5	0.25	0	50	100
Cadmium	114	*Cd*	1	500	mg/L	0	1	250	100	50	0	5	0.25	0	50	100
Tin	118	Sn	1	500	mg/L	0	1	250	100	50	0			0	50	100
Antimony	121	*Sb*	1	500	mg/L	0	1	250	100	50	0		0.25	0	50	100
Antimony	123	Sb	1	500	mg/L	0	1	250	100	50	0		0.25	0	50	100
Tellurium	126	Te	1	500	mg/L	0	1	250	100	50				0	50	100
Cesium	133															
Barium	135	*Ba*	1	500	mg/L	0	1	250	100	50	0			0	50	100
Barium	137	Ba	1	500	mg/L	0	1	250	100	50	0			0	50	100
Lanthanum	139	La	1	500	mg/L	0	1	250	100	50				0	50	100
Tantalum	159	Ta	1	500	mg/L	0	1	250	100	50				0	50	100
Platinum	195	Pt	1	500	mg/L	0	1	250	100	50				0	50	100
Gold	101	Au	1	500	mg/L	0	1	250	100	50				0	50	100
Thallium	205	Tl	1	500	mg/L	0	1	250	100	50	0			0	50	100
Lead	208	Pb	1	500	mg/L	0	1	250	100	50	0		0.25	0	50	100
Bismuth	209	Bi	1	500	mg/L	0	1	250	100	50				0	50	100
Thorium	232	Th	1	500	mg/L	0	1	250	100	50				0	50	100
Uranium	238	U	1	500	mg/L	0	1	250	100	50				0	50	100
Krypton	83															

sent to 21554

elementOne **MERCURY BATCH DIGESTION - RUN WORKSHEET**

120213-1

Date Prepared/Digested: 12·2·13 Prep By: JWL SIF File #: ~~120313-1~~

Block #1 Temperature: 92.04 Start Time: 9:00 Machine ID: 1

Block #2 Temperature: 94-07 Stop Time: 11:00 Batch Analyst: JWL

Block #3 Temperature: — Typed By: JWL Verified By: LAL

A/S	Curve & QC's	0.4ug/ml working std		BV, ml	FV, ml	Standard Lot Numbers
1	Lab BLK (3/ batch)	0		40	40	Standard #1 (for working std) Lot #: ~~120213-1~~ 131654
2	0.004 ug	0.01ml		40	40	Working Standard
3	0.04 ug	0.10ml		40	40	Lot #: 120213-1 by: JWL
4	0.08 ug	0.20ml		40	40	Standard #2 (QC #2):
5	0.16 ug	0.40ml		40	40	Lot #: 120213-2
6	0.20ug	0.50ml		40	40	Standard #3 (QC #3):
						Lot #: 120213-3
7	QC #2= 0.08ug	0.2ml #2 std		40	40	
8	QC #3= 0.08ug	0.2ml #3 std		40	40	Curve prepared by: JWL

Initial Review By: LAL/JWL Date: 12.2.13 Time: 5:00

Final QC Review By: [illegible] Date: 12.3.13 Time: 930

Comments: Send to 21329 for 112713 stuff. , Run on Low level 2.3 → 5.3, 11.3, 12.3, 11.4, 12.4

(Note # .3 inlets lower than outlets (For 21551))

A/S	LAB #	Client	Wt/FV	Ali Used	ml used	Sample Vol, ml	Spike µg
9	112713-LRB				4	100	
10	-LRB+				3.2		
11	112713mw1				4		
12	-2						
13	-3						
14	112713DATEWHP1						
15	-WP2						
16	-WP3				↓	↓	
17	21554-1C				4	400	
18	-2C				↓	↓	
19	-2C dup				↓	↓	

NOTES: Lab blanks and spikes must be prepared with each batch digestion

Spike for Hg, Use calibration working 0.4ug/ml standard at the rate of 0.20ml per 40ml sample.

Digestion chemicals to be added in order at the following rate per 40ml volumes.

H_2SO_4 @ 2.0ml..... HNO_3 @ 1.0ml..... Persulfate @ 3.0ml..... $KMnO_4$ @ 6.0ml

H_2SO_4 Lot # 51213 HNO_3 Lot # 111100 K1403 HCl Lot #: 111100

Persulfate Lot # 111413-3 $KMnO_4$ Lot # 111413-5 Hydrox Lot#: 111413-4

Clear samples after digestion with 3.2ml of Hydroxylamine solution.

Element One, Inc form 128-Revision 9.0 Page 1 of ~~3~~

elementOne **MERCURY BATCH DIGESTION - RUN WORKSHEET**

120213-1

SIF File #: ~~120313-1~~

A/S	LAB #	Client	Wt/FV	Ali Used	ml used	Sample Vol, ml	Spike µg
20	21554-3C				4	400	
21	-3C SPK				↓	↓	
22	-4C				↓	↓	
23	-4C dup				↓	↓	
24	-5C				↓	↓	
25	-5C SPK				↓	↓	
26	-6C				↓	↓	
27	-7C				↓	↓	
28	21557-1BH				4	1210	
29	-2BH				↓	1220	
30	-2BH dup				↓	↓	
31	-3BH				↓	1220	
32	-3BH SPK				↓	↓	
33	-4BH				↓	305	
34	-5BH				↓	210	
35	21557-1A				4	200	
36	-2A				↓	↓	
37	-2A dup				↓	↓	
38	-3A	✓			↓	↓	
39	-3A SPK				↓	↓	
40	-4A				↓	↓	
41	-5A				↓	↓	
42	21555-1	✓			20	1	
43	-2				↓	↓	
44	-2 dup				↓	↓	
45	-3				↓	↓	
46	-3 SPK	✓			↓	↓	
47	21553-3				10	1	
48	-3+				↓	↓	
49	21553-3				5	1	
50	-3+	✓			↓	↓	
51	21281-30 QC				.1	5	TV = 4.03
52	L/LQC				1	1	TV = .008
53	21519-2				10	1	
54	-2+				↓	↓	

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elementOne **MERCURY BATCH DIGESTION - RUN WORKSHEET**

120213-1

SIF File #: ~~120313~~

A/S	LAB #	Client	Wt/FV	Ali Used	ml used	Sample Vol, ml	Spike µg
55	~~219~~ 21519-2				5	1	
56	-2+				↓	↓	
57	21551-1,3				~~4~~ 10	600	
58	-2.3						
59	-2.3 ~~Inf~~ Dup						
60	-3.3						
61	-3.3 +						
62	-4.3						
63	-5.3						
64	-6.3						
65	-7.3						
66	-7.3dup						
67	-8.3						
68	-8.3 +						
69	-9.3					↓	
70	-10.3						
71	-11.3					500	
72	-12.3				↓	↓	
73	-1.4				20	250	
74	-2.4						
75	-2.4dup						
76	-3.4						
77	-3.4spk						
78	-4.4						
79	-5.4						
80	-6.4						
81	-7.4						
82	-7.4 dup						
83	-8.4						
84	-8.4spk						
85	-9.4						
86	-10.4						
87	-11.4						
88	-12.4				↓	↓	
89							

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elementOne **MERCURY BATCH DIGESTION - RUN WORKSHEET**

Date Prepared/Digested: 12.2.13 Prep By: JWL SIF File #: 120313-1
Block #1 Temperature: 90.58 Start Time: 5:55 Machine ID: #1
Block #2 Temperature: — Stop Time: 8:10 Batch Analyst: JWL
Block #3 Temperature: — Typed By: JWL Verified By: KS

A/S	Curve & QC's	0.4ug/ml working std		BV, ml	FV, ml	Standard Lot Numbers
1	Lab BLK (3/ batch)	0		40	40	Standard #1 (for working std) Lot #: 1316504
2	0.004 ug	0.01ml		40	40	Working Standard
3	0.04 ug	0.10ml		40	40	Lot #: 120213-1 by: JWL
4	0.08 ug	0.20ml		40	40	Standard #2 (QC #2):
5	0.16 ug	0.40ml		40	40	Lot #: 120213-2
6	0.20ug	0.50ml		40	40	Standard #3 (QC #3):
						Lot #: 120213-3
7	QC #2= 0.08ug	0.2ml #2 std		40	40	
8	QC #3= 0.08ug	0.2ml #3 std		40	40	Curve prepared by: JWL

Initial Review By: JWL/LAL Date: 12.3.13 Time: 10:42
Final QC Review By: KS Date: 12.4.13 Time: 1100

Comments: 21551 - 1.5 - 5.5, 8.5+Q 10ml

A/S	LAB #	Client	Wt/FV	Ali Used	ml used	Sample Vol, ml	Spike µg
✓ 9	21549 - 1B				4	1000	
10	- 2B				↓	↓	
11	- 2BD				↓	↓	
12	- 3B				↓	↓	
13	- 3B+				↓	↓	
14	- 4B				10	↓	
✓ 15	21557 - 1B				4	500	
16	- 2B				↓	↓	
17	- 2BD				↓	↓	
18	- 3B				↓	↓	
19	- 3B+				↓	↓	

NOTES: Lab blanks and spikes must be prepared with each batch digestion

Spike for Hg, Use calibration working 0.4ug/ml standard at the rate of 0.20ml per 40ml sample.

Digestion chemicals to be added in order at the following rate per 40ml volumes.

H_2SO_4 @ 2.0ml..... HNO_3 @ 1.0ml..... Persulfate @ 3.0ml..... $KMnO_4$ @ 6.0ml

H_2SO_4 Lot # 51213 HNO_3 Lot # K14034 HCl Lot #: 4111100

Persulfate Lot # 111413-3 $KMnO_4$ Lot # 111413-5 Hydrox Lot#: 120213-6

Clear samples after digestion with 3.2ml of Hydroxylamine solution.

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elementOne **MERCURY BATCH DIGESTION - RUN WORKSHEET**

SIF File #: 120313-1

A/S	LAB #	Client	Wt/FV	Ali Used	ml used	Sample Vol, ml	Spike µg
✓ 20	21557-4B				4	500	
21	-5B				↓	↓	
22	21281 -30 DC				.1	5	
23	LC DC				1	1	
24	21551-1.5				20	500	
25	-2.5				↓	↓	
26	-2.5D						
27	-3.5						
28	-3.5+						
29	-4.5						
30	-5.5						
31	-6.5						
32	-7.5						
33	-7.5D						
34	-8.5						
35	-8.5+						
36	-9.5						
37	-10.5						
38	~~-11.5~~						
39	~~-12.5~~						
40			JWL 12.3.13				
41							
42							
43							
44							
45							
46							
47							
48							
49							
50							
51							
52							
53							
54							

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elementOne **MERCURY BATCH DIGESTION - RUN WORKSHEET**

Date Prepared/Digested: 12·3·13 Prep By: JWL/LAL SIF File #: 120413-1
Block #1 Temperature: 93.24 Start Time: 5:55 Machine ID: #1
Block #2 Temperature: 93.71 Stop Time: 8:10 Batch Analyst: JWL
Block #3 Temperature: — Typed By: JWL Verified By: LAL

A/S	Curve & QC's	0.4ug/ml working std		BV, ml	FV, ml	Standard Lot Numbers
1	Lab BLK (3/ batch)	0		40	40	Standard #1 (for working std) Lot #: 1316504
2	0.004 ug	0.01ml		40	40	Working Standard
3	0.04 ug	0.10ml		40	40	Lot #: 120213-1 by: JWL
4	0.08 ug	0.20ml		40	40	Standard #2 (QC #2):
5	0.16 ug	0.40ml		40	40	Lot #: 120213-2
6	0.20ug	0.50ml		40	40	Standard #3 (QC #3):
						Lot #: 120213-3
7	QC #2= 0.08ug	0.2ml #2 std		40	40	
8	QC #3= 0.08ug	0.2ml #3 std		40	40	Curve prepared by: JWL

Initial Review By: JWL Date: 12·4·13 Time: 1:00
Final QC Review By: [illegible] Date: 12.5.13 Time: 11:05
Comments: 21557 LABFH+ @ 1.6ml 21551-8.5+@5ml

A/S	LAB #	Client	Wt/FV	Ali Used	ml used	Sample Vol, ml	Spike µg
9	21551-1.5				8	500	
10	-2.5				↓	↓	
11	-2.5 Dup				↓	↓	
12	-3.5				↓	↓	
13	-3.5+				↓	↓	
14	-4.5				↓	↓	
15	-5.5				↓	↓	
16	-8.5				10	500	
17	-8.5+				↓	↓	
18	rcup BLK1	21557,569,514	(1-3)		20	1	
19	BLK1 +	↓			↓	↓	

NOTES: Lab blanks and spikes must be prepared with each batch digestion

Spike for Hg, Use calibration working 0.4ug/ml standard at the rate of 0.20ml per 40ml sample.

Digestion chemicals to be added in order at the following rate per 40ml volumes.

H_2SO_4 @ 2.0ml..... HNO_3 @ 1.0ml..... Persulfate @ 3.0ml..... $KMnO_4$ @ 6.0ml

H_2SO_4 Lot # 51213 *HNO_3 Lot #* K14034 *HCl Lot #:* 4111100

Persulfate Lot # 111413-3 *$KMnO_4$ Lot #* 111413-5 *Hydrox Lot#:* 120213-6

Clear samples after digestion with 3.2ml of Hydroxylamine solution.

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elementOne **MERCURY BATCH DIGESTION - RUN WORKSHEET**

SIF File #: 120413-1

A/S	LAB #	Client	Wt/FV	Ali Used	ml used	Sample Vol, ml	Spike µg
20	TCLP BLK 2	21574-4, 21577, 78, 79			20	1	
21	BLK 1				↓	↓	
✓22	21553-7				20	1	
23	-7x						
24	-8						
✓25	21569-1						
26	-2						
27	-2D						
28	-3						
✓29	21574-1						
30	-2						
31	-2D						
32	-3						
33	-4						
✓34	-4x						
✓35	21577-1						
36	-2						
37	-2D						
38	-3						
39	-4						
40	-5						
41	-6						
✓42	21578						
43	-Dup						
✓44	21579						
45	-spk				↓	↓	
✓46	21549-1C				4	500	
47	-2C						
48	-2CD						
49	-3C						
50	-3Cx				↓		
✓51	-4C				10	↓	
✓52	21557-1C				4	400	
53	-2C						
54	-2CD				↓	↓	

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elementOne **MERCURY BATCH DIGESTION - RUN WORKSHEET**

SIF File #: 120413-1

A/S	LAB #	Client	Wt/FV	Ali Used	ml used	Sample Vol, ml	Spike µg
55	21557-3C				4	400	
56	-3C+				↓	↓	
57	21281-30 QC				.1	5	TV=4.03
58	L/L QC				1	1	TV=.008
59	21557-4C				4	400	
60	-5C				↓	↓	
61	21557-LRBFH				4	100	
62	-LRBFH+				1.6		
63	-1FH				4		
64	-2FH						
65	-2FHD						
66	-3FH						
67	-3FH+						
68	-4FH						
69	-5FH				↓		
70	21554-LRBFH				4		
71	LRBFH+				1.6		
72	-1FH				4		
73	-2FH						
74	-2FHD						
75	-3FH						
76	-3FH+						
77	-4FH						
78	-4FHD						
79	-5FH						
80	-5FH+						
81	-6FH						
82	-7FH				↓	↓	
83							
84							
85							
86							
87							
88							
89							

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Method 6020 & 200.8 Metals Summary Report
Sample ID: Blank
Sample Da Wednesday, December 04, 2013 15:28:09
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	31890.1		ppb
|-	P	31	4344		ppb
|	Sc	45	289592.8		ppb
|	Cr	52	16264.5		ppb
|	Cr	53	90688.1		ppb
|	Mn	55	6036.7		ppb
|>	Rh	103	945657.3		ppb
|>	Ho	165	1942852.4		ppb
|-	Pb	208	18618.1		ppb
	Kr	83	1819.2		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: Standard 1
Sample Da Wednesday, December 04, 2013 15:29:35
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	31580.8		ppb
|-	P	31	12115.4	23.0663	ppb
|	Sc	45	292294.6		ppb
|	Cr	52	28685.9	1.17567	ppb
|	Cr	53	95356.2	4.86795	ppb
|	Mn	55	25729.7	1.19164	ppb
|>	Rh	103	932467.9		ppb
|>	Ho	165	1916032.1		ppb
|-	Pb	208	99746.1	1.0438	ppb
	Kr	83	1454		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: Standard 2
Sample Da Wednesday, December 04, 2013 15:31:01
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	30976.6		ppb
|-	P	31	406040.7	1212.9372	ppb
|	Sc	45	283951.5		ppb
|	Cr	52	1111767.4	104.95679	ppb
|	Cr	53	223870.2	115.50424	ppb
|	Mn	55	1833135.6	113.05137	ppb
|>	Rh	103	901258.9		ppb
|>	Ho	165	1894633.8		ppb
|-	Pb	208	8092142.4	104.59404	ppb
	Kr	83	-24669.3		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: Standard 3
Sample Da Wednesday, December 04, 2013 15:32:27
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	28953.7		ppb
|-	P	31	1834521.8	4997.5995	ppb
|	Sc	45	271186.5		ppb
|	Cr	52	5364379	501.05916	ppb
|	Cr	53	693496.4	499.36388	ppb
|	Mn	55	8654649	500.49121	ppb
|>	Rh	103	831295.6		ppb
|>	Ho	165	1822355.2		ppb
|-	Pb	208	37955263	499.54758	ppb
	Kr	83	-119780.2		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 1
Sample Da Wednesday, December 04, 2013 15:33:54
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	29984.5		ppb
|-	P	31	4020.6	-0.55977	ppb
|	Sc	45	272029.7		ppb
|	Cr	52	15434.4	-0.03983	ppb
|	Cr	53	89773.1	0.78569	ppb
|	Mn	55	5526.7	-0.01961	ppb
|>	Rh	103	924940.2		ppb
|>	Ho	165	1920773.3		ppb
|-	Pb	208	18621.5	0.00272	ppb
	Kr	83	1786.4		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 2
Sample Da Wednesday, December 04, 2013 15:35:20
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	29718		ppb
|-	P	31	11365.4	17.78775	ppb
|	Sc	45	277036.3		ppb
|	Cr	52	25878.8	0.86491	ppb
|	Cr	53	92397.2	3.49918	ppb
|	Mn	55	21236.5	0.81035	ppb
|>	Rh	103	914218.5		ppb
|>	Ho	165	1883254.4		ppb
|-	Pb	208	87598.9	0.8863	ppb
	Kr	83	1543.5		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 3
Sample Da Wednesday, December 04, 2013 15:36:46
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	27413		ppb
|-	P	31	876765.3	2430.5816	ppb
|	Sc	45	263513.2		ppb
|	Cr	52	2647486.1	251.65653	ppb
|	Cr	53	373453.4	245.06029	ppb
|	Mn	55	4173998.6	246.00294	ppb
|>	Rh	103	815154.5		ppb
|>	Ho	165	1761691.5		ppb
|-	Pb	208	18645270	253.75216	ppb
	Kr	83	-56849.1		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 4
Sample Da Wednesday, December 04, 2013 15:38:13
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	28670.3		ppb
|-	P	31	378624.3	961.76598	ppb
|	Sc	45	266265.5		ppb
|	Cr	52	1081536.1	93.93565	ppb
|	Cr	53	213770.2	98.72783	ppb
|	Mn	55	1745592.3	94.69941	ppb
|>	Rh	103	883842.1		ppb
|>	Ho	165	1871044.3		ppb
|-	Pb	208	7975411.4	102.06085	ppb
	Kr	83	-24261.3		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 5
Sample Da Wednesday, December 04, 2013 15:39:40
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	28698.3		ppb
|-	P	31	78378.8	185.76724	ppb
|	Sc	45	271188.2		ppb
|	Cr	52	549592.9	45.85275	ppb
|	Cr	53	150403.7	47.328	ppb
|	Mn	55	873834.3	46.04324	ppb
|>	Rh	103	906975.4		ppb
|>	Ho	165	1898729.6		ppb
|-	Pb	208	4045337.7	50.89415	ppb
	Kr	83	1809.9		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 6
Sample Da Wednesday, December 04, 2013 15:41:06
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	33637.9		ppb
|-	P	31	18546818	54535.404	ppb
|	Sc	45	294309.5		ppb
|	Cr	52	23114	0.99483	ppb
|	Cr	53	83020.7	7.92792	ppb
|	Mn	55	19950.9	0.93659	ppb
|>	Rh	103	771474		ppb
|>	Ho	165	2214784.5		ppb
|-	Pb	208	21455.9	0.00249	ppb
	Kr	83	1472		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 7
Sample Da Wednesday, December 04, 2013 15:42:32
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	34150.2		ppb
|-	P	31	18841382	54504.789	ppb
|	Sc	45	297071.3		ppb
|	Cr	52	132200.3	11.78388	ppb
|	Cr	53	97988.3	19.64114	ppb
|	Mn	55	184601.3	11.01334	ppb
|>	Rh	103	784354.2		ppb
|>	Ho	165	2268431.6		ppb
|-	Pb	208	23050.8	0.01383	ppb
	Kr	83	1413.1		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 2
Sample Da Wednesday, December 04, 2013 15:43:58
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	26198.8		ppb
|-	P	31	9939.8	15.60688	ppb
|	Sc	45	242847.1		ppb
|	Cr	52	23401.1	0.76351	ppb
|	Cr	53	85371.3	1.77188	ppb
|	Mn	55	19315.2	0.76518	ppb
|>	Rh	103	866582.1		ppb
|>	Ho	165	1868973.3		ppb
|-	Pb	208	85696.4	0.8702	ppb
	Kr	83	1476.6		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: LRB FH
Sample Da Wednesday, December 04, 2013 15:45:25
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	28835		ppb
|-	P	31	9198.3	12.81296	ppb
|	Sc	45	270653.3		ppb
|	Cr	52	14796	-0.05681	ppb
|	Cr	53	33187.1	-39.85294	ppb
|	Mn	55	33606.7	1.49232	ppb
|>	Rh	103	898621.7		ppb
|>	Ho	165	1944723.2		ppb
|-	Pb	208	19870.8	0.01533	ppb
	Kr	83	1440.1		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: LRB FH
Sample Da Wednesday, December 04, 2013 15:46:51
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	32677.3		ppb
|-	P	31	69636.8	155.11667	ppb
|	Sc	45	311299		ppb
|	Cr	52	659788.3	52.47671	ppb
|	Cr	53	103214.3	8.29631	ppb
|	Mn	55	973818	48.76147	ppb
|>	Rh	103	954631.5		ppb
|>	Ho	165	2185294.4		ppb
|-	Pb	208	4243909.2	46.36884	ppb
	Kr	83	1734.2		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: 21557-1 FH
Sample Da Wednesday, December 04, 2013 15:48:17
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	32476.8		ppb
|-	P	31	214487.1	519.83433	ppb
|	Sc	45	712052.4		ppb
|	Cr	52	152362.6	11.58756	ppb
|	Cr	53	44059.3	-32.36785	ppb
|	Mn	55	1615811.1	84.36739	ppb
|>	Rh	103	917623.5		ppb
|>	Ho	165	1970313.2		ppb
|-	Pb	208	349668.9	4.02894	ppb
	Kr	83	-3113.9		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: 21557-2 FH
Sample Da Wednesday, December 04, 2013 15:49:43
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	36492.5		ppb
|-	P	31	282744.4	677.41292	ppb
|	Sc	45	816931.7		ppb
|	Cr	52	178603.2	13.56707	ppb
|	Cr	53	48785.4	-29.49247	ppb
|	Mn	55	2067076.1	106.29187	ppb
|>	Rh	103	932916.7		ppb
|>	Ho	165	1988165.7		ppb
|-	Pb	208	378472.4	4.33807	ppb
	Kr	83	-5030.9		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: 21557-2 FH
Sample Da Wednesday, December 04, 2013 15:51:09
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	36004.3		ppb
|-	P	31	284730	692.9836	ppb
|	Sc	45	795677.4		ppb
|	Cr	52	180087.3	13.92396	ppb
|	Cr	53	49522.9	-28.39427	ppb
|	Mn	55	2213892.9	115.62433	ppb
|>	Rh	103	918635.6		ppb
|>	Ho	165	1942296.4		ppb
|-	Pb	208	361784.8	4.24006	ppb
	Kr	83	-4976.8		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 1
Sample Da Wednesday, December 04, 2013 15:52:37
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	32436.6		ppb
|-	P	31	3846.5	-1.19845	ppb
|	Sc	45	301063.1		ppb
|	Cr	52	14406.4	-0.15349	ppb
|	Cr	53	82884.9	-5.61176	ppb
|	Mn	55	2946.8	-0.15724	ppb
|>	Rh	103	946100.3		ppb
|>	Ho	165	1927471.7		ppb
|-	Pb	208	6585.6	-0.14797	ppb
	Kr	83	1898.8		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 4
Sample Da Wednesday, December 04, 2013 15:54:03
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	31201		ppb
|-	P	31	405844.5	1007.782	ppb
|	Sc	45	288500.8		ppb
|	Cr	52	1136395.5	96.47122	ppb
|	Cr	53	219813.9	99.50766	ppb
|	Mn	55	1876116.2	99.46642	ppb
|>	Rh	103	904513.4		ppb
|>	Ho	165	1902058.2		ppb
|-	Pb	208	8066537.6	101.53834	ppb
	Kr	83	-25269.2		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: 21557-3 FH
Sample Da Wednesday, December 04, 2013 15:55:31
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	35546.5		ppb
|-	P	31	218247	519.02966	ppb
|	Sc	45	507027.3		ppb
|	Cr	52	156516.7	11.68351	ppb
|	Cr	53	48425.7	-29.82721	ppb
|	Mn	55	1514600.4	77.58565	ppb
|>	Rh	103	935434.6		ppb
|>	Ho	165	2078338.6		ppb
|-	Pb	208	277783.3	2.98167	ppb
	Kr	83	-3456.1		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: 21557-3 FH
Sample Da Wednesday, December 04, 2013 15:56:57
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	36365.3		ppb
|-	P	31	299006.8	714.09386	ppb
|	Sc	45	511279.8		ppb
|	Cr	52	787562.8	64.12729	ppb
|	Cr	53	118212.2	20.52168	ppb
|	Mn	55	2629570.6	134.74905	ppb
|>	Rh	103	936644.8		ppb
|>	Ho	165	2070494.5		ppb
|-	Pb	208	4332999.3	50.04655	ppb
	Kr	83	-3430		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: 21557-4 FH
Sample Da Wednesday, December 04, 2013 15:58:23
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	37766.6		ppb
|-	P	31	26723.9	53.08574	ppb
|	Sc	45	733096.9		ppb
|	Cr	52	142692	10.29492	ppb
|	Cr	53	42504.8	-34.74486	ppb
|	Mn	55	313840	15.50331	ppb
|>	Rh	103	954830.6		ppb
|>	Ho	165	2022667.8		ppb
|-	Pb	208	241692.4	2.64044	ppb
	Kr	83	568.6		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: 21557-5 FH
Sample Da Wednesday, December 04, 2013 15:59:49
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	39240		ppb
|-	P	31	21475	38.586	ppb
|	Sc	45	599001.7		ppb
|	Cr	52	151031.9	10.48287	ppb
|	Cr	53	41735.5	-36.45517	ppb
|	Mn	55	321562.3	15.24473	ppb
|>	Rh	103	994648.8		ppb
|>	Ho	165	2164638.1		ppb
|-	Pb	208	132550.2	1.23962	ppb
	Kr	83	819.5		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: LRB BH
Sample Da Wednesday, December 04, 2013 16:01:15
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	34569.5		ppb
|-	P	31	8862.7	10.92779	ppb
|	Sc	45	340264.7		ppb
|	Cr	52	25012.4	0.72825	ppb
|	Cr	53	24205.5	-47.4869	ppb
|	Mn	55	94357.8	4.51181	ppb
|>	Rh	103	941962.5		ppb
|>	Ho	165	1949138.8		ppb
|-	Pb	208	21877.3	0.03939	ppb
	Kr	83	1848.3		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: LRB BH
Sample Da Wednesday, December 04, 2013 16:02:41
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	34778.8		ppb
|-	P	31	81981.7	183.81069	ppb
|	Sc	45	342703.5		ppb
|	Cr	52	637543.5	50.4863	ppb
|	Cr	53	95005.9	2.21727	ppb
|	Mn	55	1067586	53.31167	ppb
|>	Rh	103	957830.2		ppb
|>	Ho	165	2117411.9		ppb
|-	Pb	208	4188481.9	47.23683	ppb
	Kr	83	1916.8		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: 21557-1 BH
Sample Da Wednesday, December 04, 2013 16:04:07
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	34634.2		ppb
|-	P	31	53877.2	120.10517	ppb
|	Sc	45	346745.9		ppb
|	Cr	52	63689.7	3.95343	ppb
|	Cr	53	27008	-45.34069	ppb
|	Mn	55	390006.6	19.72027	ppb
|>	Rh	103	936856.7		ppb
|>	Ho	165	2081061.3		ppb
|-	Pb	208	273603.3	2.92756	ppb
	Kr	83	89.3		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: 21557-2 BH
Sample Da Wednesday, December 04, 2013 16:05:33
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	37913		ppb
|-	P	31	65396.1	140.10184	ppb
|	Sc	45	380088.8		ppb
|	Cr	52	75384	4.61345	ppb
|	Cr	53	27689.7	-45.86228	ppb
|	Mn	55	485000	23.35562	ppb
|>	Rh	103	985953.1		ppb
|>	Ho	165	2198458.9		ppb
|-	Pb	208	241085.6	2.40152	ppb
	Kr	83	-217.6		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: 21557-2 BH
Sample Da Wednesday, December 04, 2013 16:07:00
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	39225.8		ppb
|-	P	31	65114.1	134.57176	ppb
|	Sc	45	388774.8		ppb
|	Cr	52	76287.8	4.49078	ppb
|	Cr	53	27853.5	-46.32386	ppb
|	Mn	55	484293.5	22.55664	ppb
|>	Rh	103	1019366.3		ppb
|>	Ho	165	2284292.7		ppb
|-	Pb	208	240703.5	2.29881	ppb
	Kr	83	-181.9		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: 21557-3 BH
Sample Da Wednesday, December 04, 2013 16:08:25
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	29089.4		ppb
|-	P	31	36431.9	85.19761	ppb
|	Sc	45	176659.7		ppb
|	Cr	52	63526.2	4.38084	ppb
|	Cr	53	32966.4	-39.09314	ppb
|	Mn	55	457590.3	25.16768	ppb
|>	Rh	103	864769.8		ppb
|>	Ho	165	1774757		ppb
|-	Pb	208	281939.1	3.58443	ppb
	Kr	83	66.1		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: 21557-3 BH
Sample Da Wednesday, December 04, 2013 16:09:52
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	27618.6		ppb
|-	P	31	111010.7	295.57838	ppb
|	Sc	45	216888.5		ppb
|	Cr	52	545839.7	50.25801	ppb
|	Cr	53	89683.7	8.73129	ppb
|	Mn	55	1255099.5	73.04361	ppb
|>	Rh	103	823737.5		ppb
|>	Ho	165	1738035.6		ppb
|-	Pb	208	4037814.2	55.51885	ppb
	Kr	83	117.5		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 1
Sample Da Wednesday, December 04, 2013 16:11:19
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	31294		ppb
|-	P	31	4424.1	0.34798	ppb
|	Sc	45	299752.7		ppb
|	Cr	52	14160.4	-0.15598	ppb
|	Cr	53	75685.5	-9.919	ppb
|	Mn	55	7689.3	0.08975	ppb
|>	Rh	103	931845.2		ppb
|>	Ho	165	1926475		ppb
|-	Pb	208	18740.9	0.00347	ppb
	Kr	83	1758.8		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 4
Sample Da Wednesday, December 04, 2013 16:12:46
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	30303.3		ppb
|-	P	31	397786.6	1008.4035	ppb
|	Sc	45	287874.1		ppb
|	Cr	52	1135188.5	98.39995	ppb
|	Cr	53	213353.9	97.99043	ppb
|	Mn	55	1823809.5	98.70553	ppb
|>	Rh	103	886090.8		ppb
|>	Ho	165	1891690.2		ppb
|-	Pb	208	7974833.1	100.93034	ppb
	Kr	83	-24371.5		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: Blank
Sample Da Thursday, December 05, 2013 09:13:14
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	24305		ppb
|-	P	31	3050.5		ppb
|	Sc	45	200428.5		ppb
|	Cr	52	16057.5		ppb
|	Cr	53	113693.9		ppb
|	Mn	55	1641.1		ppb
|>	Rh	103	783658.6		ppb
|>	Ho	165	1739307		ppb
|-	Pb	208	4392.4		ppb
	Kr	83	1508.6		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: Standard 1
Sample Da Thursday, December 05, 2013 09:14:40
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	25456		ppb
|-	P	31	8434.9	15.32166	ppb
|	Sc	45	209005.3		ppb
|	Cr	52	25392.4	0.89929	ppb
|	Cr	53	113234.6	-1.49378	ppb
|	Mn	55	15528.6	0.84154	ppb
|>	Rh	103	792681.8		ppb
|>	Ho	165	1768128.8		ppb
|-	Pb	208	78734.5	1.008	ppb
	Kr	83	1266.4		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: Standard 2
Sample Da Thursday, December 05, 2013 09:16:06
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	24810		ppb
|-	P	31	276931.9	811.49824	ppb
|	Sc	45	203591.7		ppb
|	Cr	52	855293.5	84.95139	ppb
|	Cr	53	206579	83.43	ppb
|	Mn	55	1296834.7	81.18677	ppb
|>	Rh	103	772454.9		ppb
|>	Ho	165	1754651.5		ppb
|-	Pb	208	7252857.5	99.25007	ppb
	Kr	83	-19025.4		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: Standard 3
Sample Da Thursday, December 05, 2013 09:17:31
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	23327		ppb
|-	P	31	1292979.5	5005.1745	ppb
|	Sc	45	199262.2		ppb
|	Cr	52	4108315.5	501.16231	ppb
|	Cr	53	567076.5	501.3027	ppb
|	Mn	55	6316670.2	501.16167	ppb
|>	Rh	103	707886.5		ppb
|>	Ho	165	1649531.7		ppb
|-	Pb	208	33547273	499.69668	ppb
	Kr	83	-92903		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 1
Sample Da Thursday, December 05, 2013 09:18:58
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	23824.6		ppb
|-	P	31	2881.8	-0.54682	ppb
|	Sc	45	202542.2		ppb
|	Cr	52	13678.3	-0.25617	ppb
|	Cr	53	99055.8	-13.82777	ppb
|	Mn	55	1797.8	0.0118	ppb
|>	Rh	103	780097.1		ppb
|>	Ho	165	1711081.6		ppb
|-	Pb	208	7223.8	0.04172	ppb
	Kr	83	1485.4		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 2
Sample Da Thursday, December 05, 2013 09:20:24
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	24529.6		ppb
|-	P	31	8198.7	17.64982	ppb
|	Sc	45	210546.3		ppb
|	Cr	52	21953.2	0.61864	ppb
|	Cr	53	99804.9	-14.86673	ppb
|	Mn	55	13863.6	0.86263	ppb
|>	Rh	103	794501.4		ppb
|>	Ho	165	1755848.6		ppb
|-	Pb	208	71591.3	0.93993	ppb
	Kr	83	1341.4		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 3
Sample Da Thursday, December 05, 2013 09:21:50
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	23105.6		ppb
|-	P	31	652476.1	2424.665	ppb
|	Sc	45	200629.3		ppb
|	Cr	52	2078907.5	242.95657	ppb
|	Cr	53	332580.5	234.52033	ppb
|	Mn	55	3151560.4	240.46309	ppb
|>	Rh	103	735860.1		ppb
|>	Ho	165	1660524.7		ppb
|-	Pb	208	17159437	253.86653	ppb
	Kr	83	-46567.8		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 4
Sample Da Thursday, December 05, 2013 09:23:17
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	24122.2		ppb
|-	P	31	279251.1	974.0993	ppb
|	Sc	45	201797.5		ppb
|	Cr	52	856913.3	93.57994	ppb
|	Cr	53	198080	83.50766	ppb
|	Mn	55	1284675.9	92.55627	ppb
|>	Rh	103	778730.3		ppb
|>	Ho	165	1742422.3		ppb
|-	Pb	208	7286416.9	102.69957	ppb
	Kr	83	-19606.5		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 5
Sample Da Thursday, December 05, 2013 09:24:44
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	24120.5		ppb
|-	P	31	57091.4	188.60933	ppb
|	Sc	45	204770.2		ppb
|	Cr	52	435269.5	46.17046	ppb
|	Cr	53	149189.9	34.065	ppb
|	Mn	55	651967.9	46.43712	ppb
|>	Rh	103	786703.1		ppb
|>	Ho	165	1743813.8		ppb
|-	Pb	208	3580560.4	50.39647	ppb
	Kr	83	1544.3		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 6
Sample Da Thursday, December 05, 2013 09:26:10
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	29165.8		ppb
|-	P	31	15955349	59380.177	ppb
|	Sc	45	257810		ppb
|	Cr	52	22200.4	0.83252	ppb
|	Cr	53	100334.3	-6.92622	ppb
|	Mn	55	15901.9	1.09331	ppb
|>	Rh	103	737707.2		ppb
|>	Ho	165	1924108.6		ppb
|-	Pb	208	13886.8	0.11529	ppb
	Kr	83	1421.1		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 7
Sample Da Thursday, December 05, 2013 09:27:36
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	30530.5		ppb
|-	P	31	16499016	59356.816	ppb
|	Sc	45	270278.3		ppb
|	Cr	52	125594.9	12.48419	ppb
|	Cr	53	117246.9	6.53198	ppb
|	Mn	55	167019.9	12.17381	ppb
|>	Rh	103	763311		ppb
|>	Ho	165	2036368.8		ppb
|-	Pb	208	19112.9	0.16883	ppb
	Kr	83	1434.3		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: 21557-4 BH
Sample Da Thursday, December 05, 2013 09:29:04
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	25609.6		ppb
|-	P	31	23344.6	67.27898	ppb
|	Sc	45	239650.3		ppb
|	Cr	52	38674.8	2.30135	ppb
|	Cr	53	44507.3	-69.42938	ppb
|	Mn	55	246756.6	16.74216	ppb
|>	Rh	103	822427.5		ppb
|>	Ho	165	1837968.2		ppb
|-	Pb	208	196109.9	2.56003	ppb
	Kr	83	983		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: 21557-5 BH
Sample Da Thursday, December 05, 2013 09:30:30
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	22430.5		ppb
|-	P	31	8618.4	22.01833	ppb
|	Sc	45	77069.8		ppb
|	Cr	52	18870.6	0.48378	ppb
|	Cr	53	48007.6	-60.23013	ppb
|	Mn	55	139161.2	10.72305	ppb
|>	Rh	103	723785.6		ppb
|>	Ho	165	1140242.5		ppb
|-	Pb	208	59295	1.21578	ppb
	Kr	83	1289		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 1
Sample Da Thursday, December 05, 2013 09:31:58
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	23537.5		ppb
|-	P	31	2950.5	-0.73373	ppb
|	Sc	45	217741.3		ppb
|	Cr	52	12161.1	-0.48046	ppb
|	Cr	53	86868.3	-29.29503	ppb
|	Mn	55	2669.4	0.06663	ppb
|>	Rh	103	813813.8		ppb
|>	Ho	165	1768612.2		ppb
|-	Pb	208	4497.4	0.00042	ppb
	Kr	83	1540.9		mg/L

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 4
Sample Da Thursday, December 05, 2013 09:33:24
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	23702.6		ppb
|-	P	31	288807.3	993.52857	ppb
|	Sc	45	212740.7		ppb
|	Cr	52	884201.9	95.24574	ppb
|	Cr	53	195850.2	78.64858	ppb
|	Mn	55	1330415.8	94.52019	ppb
|>	Rh	103	789695.6		ppb
|>	Ho	165	1742907.8		ppb
|-	Pb	208	7272391.8	102.47464	ppb
	Kr	83	-20262.8		mg/L

PerkinElmer FIMS-100 CVAA Mercury Analyzer

Sample_ID	Date	Time	Mean_Sig	Mean_Rd	Mean_Rt	Units	Alq.	Vol.	Sig 1	Reading-1	Result-1	Sig 2	Reading-2	Result-2
Calib Blank	12/2/2013	11:13:01 AM	9.47E-05			µg			5.52E-05			0.0001342		
STD1 = .004ug	12/2/2013	11:14:41 AM	0.0010464			µg			0.0010753			0.0010175		
STD2 = .04ug	12/2/2013	11:16:22 AM	0.0100142			µg			0.0102077			0.0098206		
STD3 = .08ug	12/2/2013	11:18:16 AM	0.0195782			µg			0.0196492			0.0195072		
STD4 = .16ug	12/2/2013	11:20:10 AM	0.0372093			µg			0.0375034			0.0369153		
STD5 = .2ug	12/2/2013	11:22:05 AM	0.0463999			µg			0.0464985			0.0463012		
Reagent Blank	12/2/2013	11:23:58 AM	6.98E-05	0.0002985	0.0002985	µg			6.57E-05	0.000281	0.000281	7.39E-05	0.0003161	0.0003161
0.080ug = QC STD 2	12/2/2013	11:27:22 AM	0.0174721	0.0747356	0.0747356	µg			0.0175223	0.0749503	0.0749503	0.0174219	0.0745209	0.0745209
0.080ug = QC STD 3	12/2/2013	11:29:18 AM	0.0185109	0.0791789	0.0791789	µg			0.0186207	0.0796484	0.0796484	0.0184012	0.0787095	0.0787095
Reagent Blank	12/2/2013	11:31:12 AM	6.93E-05	0.0002965	0.0002965	µg			0.0001027	0.0004392	0.0004392	3.59E-05	0.0001537	0.0001537
0.004ug = DL	12/2/2013	11:51:12 AM	0.000937	0.0040081	0.0040081	µg			0.0009351	0.0039997	0.0039997	0.000939	0.0040165	0.0040165
0.080ug = QC STD 2	12/2/2013	11:52:55 AM	0.0172565	0.0738132	0.0738132	µg			0.01727	0.0738711	0.0738711	0.0172429	0.0737552	0.0737552
Reagent Blank	12/2/2013	11:54:49 AM	8.35E-05	0.0003573	0.0003573	µg			9.19E-05	0.0003931	0.0003931	7.52E-05	0.0003216	0.0003216
21557-1BH	12/2/2013	12:12:12 PM	0.0005517	0.0020615	0.6235959	µg	4	1210	0.0005525	0.0020648	0.6245902	0.000551	0.0020582	0.6226015
0.004ug = DL	12/2/2013	12:13:54 PM	0.000977	0.0041791	0.0041791	µg			0.0009585	0.0041	0.0041	0.0009955	0.0042582	0.0042582
0.080ug = QC STD 2	12/2/2013	12:15:37 PM	0.0172767	0.0738995	0.0738995	µg			0.0172964	0.0739838	0.0739838	0.017257	0.0738153	0.0738153
Reagent Blank	12/2/2013	12:17:31 PM	6.23E-05	0.0002667	0.0002667	µg			6.86E-05	0.0002935	0.0002935	5.61E-05	0.0002398	0.0002398
21557-2BH	12/2/2013	12:19:14 PM	0.0004494	0.0016239	0.4952809	µg	4	1220	0.0004601	0.0016697	0.5092453	0.0004387	0.0015781	0.4813165
21557-2BH DUP	12/2/2013	12:20:59 PM	0.0004822	0.0017641	0.5380576	µg	4	1220	0.0004956	0.0018212	0.555474	0.0004689	0.001707	0.5206412
21557-3BH	12/2/2013	12:22:44 PM	0.0003723	0.0012941	0.394712	µg	4	1220	0.0003851	0.0013485	0.4112948	0.0003596	0.0012398	0.3781292
21557-3BH SPK	12/2/2013	12:24:27 PM	0.0191113	0.0814484	24.841763	µg	4	1220	0.0191469	0.0816007	24.888226	0.0190757	0.0812961	24.7953
21557-4BH	12/2/2013	12:26:16 PM	0.0001865	0.0004991	0.0380529	µg	4	305	0.0001737	0.0004443	0.0338792	0.0001993	0.0005538	0.0422267
21557-5BH	12/2/2013	12:27:56 PM	0.0001772	0.0004596	0.024129	µg	4	210	0.0001818	0.0004789	0.025141	0.0001727	0.0004403	0.023117
21557-1A	12/2/2013	12:29:35 PM	0.0002123	0.0006094	0.0304704	µg	4	200	0.0002107	0.0006028	0.0301404	0.0002138	0.000616	0.0308004
21557-2A	12/2/2013	12:31:15 PM	0.0001315	0.0002638	0.0131899	µg	4	200	0.0001439	0.0003168	0.0158415	0.0001191	0.0002108	0.0105384
21557-2A DUP	12/2/2013	12:32:56 PM	0.0001882	0.0005064	0.025319	µg	4	200	0.0001729	0.000441	0.0220507	0.0002035	0.0005717	0.0285873
21557-3A	12/2/2013	12:34:37 PM	0.0001281	0.0002495	0.0124726	µg	4	200	0.0001383	0.0002932	0.0146614	0.0001179	0.0002057	0.0102837
0.004ug = DL	12/2/2013	12:36:18 PM	0.0010182	0.0043552	0.0043552	µg			0.0010259	0.0043883	0.0043883	0.0010105	0.0043221	0.0043221
0.080ug = QC STD 2	12/2/2013	12:38:01 PM	0.0173144	0.074061	0.074061	µg			0.0173321	0.0741365	0.0741365	0.0172968	0.0739855	0.0739855
Reagent Blank	12/2/2013	12:39:55 PM	8.70E-05	0.0003721	0.0003721	µg			8.20E-05	0.0003506	0.0003506	9.20E-05	0.0003936	0.0003936
Calib Blank	12/2/2013	2:43:02 PM	0.0002384			µg			0.000252			0.0002247		
STD1 = .004ug	12/2/2013	2:44:43 PM	0.0011379			µg			0.0011421			0.0011337		
STD2 = .04ug	12/2/2013	2:46:25 PM	0.0095127			µg			0.0095901			0.0094352		
STD3 = .08ug	12/2/2013	2:48:18 PM	0.0190686			µg			0.019043			0.0190942		
STD4 = .16ug	12/2/2013	2:50:12 PM	0.0370753			µg			0.0371217			0.0370288		
STD5 = .2ug	12/2/2013	2:52:07 PM	0.0462263			µg			0.0463307			0.0461219		
Reagent Blank	12/2/2013	2:54:00 PM	-4.81E-05	-0.0002074	-0.0002074	µg			-4.03E-05	-0.0001737	-0.0001737	-5.60E-05	-0.0002411	-0.0002411
0.004ug = DL	12/2/2013	2:55:40 PM	0.0009444	0.004068	0.004068	µg			0.0009365	0.004034	0.004034	0.0009523	0.004102	0.004102
0.080ug = QC STD 2	12/2/2013	2:57:23 PM	0.0179087	0.0771447	0.0771447	µg			0.0179157	0.0771748	0.0771748	0.0179017	0.0771146	0.0771146
0.080ug = QC STD 3	12/2/2013	2:59:20 PM	0.0183423	0.0790123	0.0790123	µg			0.0183179	0.0789073	0.0789073	0.0183666	0.0791173	0.0791173
Reagent Blank	12/2/2013	3:01:14 PM	-3.69E-05	-0.000159	-0.000159	µg			-4.14E-05	-0.0001784	-0.0001784	-3.24E-05	-0.0001396	-0.0001396
21557-3A SPK	12/2/2013	3:02:55 PM	0.0184511	0.0796887	3.9844335	µg	4	200	0.0183355	0.0791907	3.9595375	0.0185667	0.0801866	4.0093295
21557-4A	12/2/2013	3:04:48 PM	-4.47E-05	1.49E-05	0.0007469	µg	4	200	-4.02E-05	3.43E-05	0.0017142	-4.92E-05	-4.41E-06	-0.0002205
21557-5A	12/2/2013	3:06:31 PM	-5.86E-05	-4.52E-05	-0.0022614	µg	4	200	-5.95E-05	-4.90E-05	-0.0024494	-5.78E-05	-4.15E-05	-0.0020733
0.004ug = DL	12/2/2013	3:20:38 PM	0.0009072	0.003908	0.003908	µg			0.0009139	0.0039369	0.0039369	0.0009005	0.0038791	0.0038791
0.080ug = QC STD 2	12/2/2013	3:22:22 PM	0.0174644	0.075231	0.075231	µg			0.0176118	0.0758656	0.0758656	0.0173171	0.0745963	0.0745963
Reagent Blank	12/2/2013	3:24:16 PM	-4.56E-05	-0.0001963	-0.0001963	µg			-6.18E-05	-0.0002664	-0.0002664	-2.93E-05	-0.0001261	-0.0001261
Calib Blank	12/3/2013	8:59:57 AM	-1.23E-05			µg			1.56E-05			-4.02E-05		
STD1 = .004ug	12/3/2013	9:01:37 AM	0.0008695			µg			0.0008871			0.0008519		
STD2 = .04ug	12/3/2013	9:03:19 AM	0.0091678			µg			0.0093925			0.0089431		
STD3 = .08ug	12/3/2013	9:05:12 AM	0.0180947			µg			0.0184604			0.0177291		
STD4 = .16ug	12/3/2013	9:07:06 AM	0.0333861			µg			0.0341424			0.0326298		
STD5 = .2ug	12/3/2013	9:09:01 AM	0.044716			µg			0.045976			0.043456		
Reagent Blank	12/3/2013	9:10:54 AM	9.39E-05	0.0004287	0.0004287	µg			0.000149	0.0006802	0.0006802	3.88E-05	0.0001773	0.0001773
0.004ug = DL	12/3/2013	9:14:15 AM	0.0009542	0.0043571	0.0043571	µg			0.0010005	0.0045688	0.0045688	0.0009078	0.0041454	0.0041454
0.080ug = QC STD 2	12/3/2013	9:15:59 AM	0.0175109	0.0799612	0.0799612	µg			0.0180541	0.0824417	0.0824417	0.0169677	0.0774808	0.0774808
0.080ug = QC STD 3	12/3/2013	9:17:56 AM	0.0183287	0.0836957	0.0836957	µg			0.0189184	0.0863882	0.0863882	0.0177391	0.0810032	0.0810032
Reagent Blank	12/3/2013	9:19:50 AM	0.0001517	0.0006926	0.0006926	µg			0.0001933	0.0008828	0.0008828	0.00011	0.0005024	0.0005024
21557-1B	12/3/2013	9:31:56 AM	0.0017589	0.0076033	0.9504065	µg	4	500	0.001775	0.0076765	0.9595585	0.0017429	0.00753	0.9412544
21557-2B	12/3/2013	9:33:42 AM	0.0012935	0.0054778	0.6847212	µg	4	500	0.0013239	0.0056166	0.7020736	0.0012631	0.005339	0.6673688
21557-2B DUP	12/3/2013	9:35:26 AM	0.0012978	0.0054973	0.6871588	µg	4	500	0.0013283	0.005637	0.704619	0.0012672	0.0053576	0.6696986
21557-3B	12/3/2013	9:37:05 AM	0.00119	0.0050054	0.6256706	µg	4	500	0.0012396	0.0052319	0.6539919	0.0011404	0.0047788	0.5973492
0.004ug = DL	12/3/2013	9:42:07 AM	0.000954	0.0043564	0.0043564	µg			0.0010092	0.0046083	0.0046083	0.0008988	0.0041045	0.0041045
0.080ug = QC STD 2	12/3/2013	9:43:50 AM	0.01787	0.081601	0.081601	µg			0.0178238	0.08139	0.08139	0.0179162	0.081812	0.081812
Reagent Blank	12/3/2013	9:45:44 AM	0.0002495	0.0011392	0.0011392	µg			0.0002896	0.0013222	0.0013222	0.0002094	0.0009562	0.0009562
21557-3B SPK	12/3/2013	9:47:24 AM	0.0184051	0.0836157	10.451964	µg	4	500	0.0188437	0.0856187	10.702344	0.0179664	0.0816127	10.201585
21557-4B	12/3/2013	9:49:14 AM	0.0002086	0.0005238	0.0654705	µg	4	500	0.0002865	0.0008795	0.109933	0.0001307	0.0001681	0.0210079
21557-5B	12/3/2013	9:50:55 AM	0.0002268	0.0006069	0.0758675	µg	4	500	0.0002226	0.0005877	0.0734653	0.000231	0.0006262	0.0782698
0.004ug = DL	12/3/2013	10:07:25 AM	0.0009167	0.0041858	0.0041858	µg			0.0009558	0.0043644	0.0043644	0.0008776	0.0040072	0.0040072
0.080ug = QC STD 2	12/3/2013	10:09:08 AM	0.0181277	0.0827777	0.0827777	µg			0.0180901	0.0826061	0.0826061	0.0181653	0.0829494	0.0829494
Reagent Blank	12/3/2013	10:11:01 AM	0.0003554	0.0016228	0.0016228	µg			0.0004299	0.0019629	0.0019629	0.0002809	0.0012827	0.0012827
Calib Blank	12/4/2013	10:30:57 AM	0.0001838			µg			0.0001649			0.0002027		
STD1 = .004ug	12/4/2013	10:32:37 AM	-0.0001566			µg			-0.0001699			-0.0001432		
STD2 = .04ug	12/4/2013	10:34:18 AM	0.009486			µg			0.0094591			0.0095129		
STD3 = .08ug	12/4/2013	10:36:12 AM	0.0183201			µg			0.0184868			0.0181533		
STD4 = .16ug	12/4/2013	10:38:06 AM	0.0363659			µg			0.0363614			0.0363703		
STD4 = .16ug	12/4/2013	10:38:06 AM	0.0363659			µg			0.0363614			0.0363703		
STD4 = .16ug	12/4/2013	10:49:40 AM	0.0371847			µg			0.0374338			0.0369355		

PerkinElmer FIMS-100 CVAA Mercury Analyzer

Sample_ID	Date	Time	Mean_Sig	Mean_Rd	Mean_Rt	Units	Alq.	Vol.	Sig 1	Reading-1	Result-1	Sig 2	Reading-2	Result-2
STD5 = .2ug	12/4/2013	10:51:35 AM	0.0474243			µg			0.0474355			0.047413		
Reagent Blank	12/4/2013	10:53:28 AM	-7.16E-06	-3.05E-05	-3.05E-05	µg			-6.36E-07	-2.71E-06	-2.71E-06	-1.37E-05	-5.83E-05	-5.83E-05
0.004ug = DL	12/4/2013	10:55:09 AM	0.0010325	0.0043971	0.0043971	µg			0.0010618	0.0045217	0.0045217	0.0010033	0.0042726	0.0042726
0.080ug = QC STD 2	12/4/2013	10:56:52 AM	0.0183919	0.0783238	0.0783238	µg			0.0184575	0.0786032	0.0786032	0.0183263	0.0780444	0.0780444
Reagent Blank	12/4/2013	10:58:46 AM	-1.31E-05	-5.57E-05	-5.57E-05	µg			-3.14E-05	-0.0001337	-0.0001337	5.25E-06	2.24E-05	2.24E-05
0.004ug = DL	12/4/2013	11:40:12 AM	0.0009644	0.0041071	0.0041071	µg			0.0009617	0.0040954	0.0040954	0.0009672	0.0041187	0.0041187
0.080ug = QC STD 2	12/4/2013	11:41:55 AM	0.0181296	0.0772067	0.0772067	µg			0.0181249	0.0771869	0.0771869	0.0181342	0.0772265	0.0772265
Reagent Blank	12/4/2013	11:43:48 AM	-5.17E-05	-0.0002201	-0.0002201	µg			-6.17E-05	-0.0002627	-0.0002627	-4.17E-05	-0.0001776	-0.0001776
21557-1C	12/4/2013	11:50:35 AM	0.0035161	0.0150043	1.5004349	µg	4	400	0.0035847	0.0152963	1.5296293	0.0034476	0.0147124	1.4712405
21557-2C	12/4/2013	11:52:15 AM	0.0031217	0.0133244	1.3324377	µg	4	400	0.0031902	0.0136162	1.3616219	0.0030531	0.0130325	1.3032534
21557-2C DUP	12/4/2013	11:53:56 AM	0.0032441	0.013846	1.384599	µg	4	400	0.0032345	0.0138048	1.3804811	0.0032538	0.0138872	1.3887169
21557-3C	12/4/2013	11:55:38 AM	0.003689	0.0157407	1.5740676	µg	4	400	0.0036995	0.0157852	1.5785219	0.0036786	0.0156961	1.5696134
21557-3C SPK	12/4/2013	11:57:20 AM	0.0221009	0.0941493	9.4149306	µg	4	400	0.0221239	0.0942475	9.4247514	0.0220778	0.0940511	9.4051097
0.004ug = DL	12/4/2013	12:02:49 PM	0.0009243	0.0039361	0.0039361	µg			0.0009111	0.0038798	0.0038798	0.0009375	0.0039924	0.0039924
0.080ug = QC STD 2	12/4/2013	12:04:32 PM	0.018355	0.0781666	0.0781666	µg			0.0183794	0.0782705	0.0782705	0.0183306	0.0780627	0.0780627
Reagent Blank	12/4/2013	12:06:25 PM	-2.99E-05	-0.0001271	-0.0001271	µg			-3.51E-05	-0.0001494	-0.0001494	-2.46E-05	-0.0001048	-0.0001048
21557-4C	12/4/2013	12:08:07 PM	8.60E-05	0.0003968	0.039677	µg	4	400	9.37E-05	0.0004294	0.0429364	7.84E-05	0.0003642	0.0364176
21557-5C	12/4/2013	12:09:51 PM	-1.74E-05	-4.37E-05	-0.0043706	µg	4	400	-2.40E-05	-7.18E-05	-0.0071805	-1.08E-05	-1.56E-05	-0.0015607
21557-LRB FH	12/4/2013	12:11:35 PM	-4.12E-05	-0.0001451	-0.0036264	µg	4	100	-4.46E-05	-0.0001593	-0.0039831	-3.79E-05	-0.0001308	-0.0032697
21557 LRB FH SPK	12/4/2013	12:13:19 PM	0.013705	0.0583947	3.6496673	µg	1.6	100	0.0137445	0.0585628	3.660173	0.0136655	0.0582266	3.6391617
21557-1FH	12/4/2013	12:15:12 PM	2.50E-05	0.000137	0.003425	µg	4	100	1.81E-05	0.0001077	0.0026937	3.19E-05	0.0001663	0.0041564
21557-2FH	12/4/2013	12:16:51 PM	0.0001133	0.000513	0.0128241	µg	4	100	0.0001114	0.0005048	0.0126193	0.0001152	0.0005212	0.0130289
21557-2FH DUP	12/4/2013	12:18:29 PM	1.74E-06	3.79E-05	0.0009474	µg	4	100	2.48E-05	0.0001361	0.0034032	-2.13E-05	-6.03E-05	-0.0015083
21557-3FH	12/4/2013	12:20:08 PM	6.49E-05	0.0003071	0.0076775	µg	4	100	7.24E-05	0.0003389	0.0084731	5.75E-05	0.0002753	0.0068818
21557-3FH SPK	12/4/2013	12:21:48 PM	0.0186615	0.0795024	1.9875589	µg	4	100	0.0187133	0.0797232	1.9930788	0.0186096	0.0792816	1.982039
21557-4FH	12/4/2013	12:23:39 PM	6.51E-05	0.0003076	0.0076898	µg	4	100	6.05E-05	0.0002881	0.0072017	6.96E-05	0.0003271	0.0081779
0.004ug = DL	12/4/2013	12:25:20 PM	0.0009471	0.0040332	0.0040332	µg			0.0009288	0.0039555	0.0039555	0.0009653	0.0041109	0.0041109
0.080ug = QC STD 2	12/4/2013	12:27:03 PM	0.0181819	0.0774294	0.0774294	µg			0.0182244	0.0776103	0.0776103	0.0181394	0.0772486	0.0772486
Reagent Blank	12/4/2013	12:28:57 PM	2.44E-05	0.0001041	0.0001041	µg			3.38E-05	0.0001441	0.0001441	1.50E-05	6.41E-05	6.41E-05
21557-5FH	12/4/2013	12:30:37 PM	8.95E-05	0.0004115	0.0102872	µg	4	100	8.48E-05	0.0003917	0.0097923	9.41E-05	0.0004313	0.0107822
0.004ug = DL	12/4/2013	12:48:00 PM	0.0009306	0.0039629	0.0039629	µg			0.0009536	0.0040612	0.0040612	0.0009075	0.0038646	0.0038646
0.080ug = QC STD 2	12/4/2013	12:49:44 PM	0.0183198	0.0780167	0.0780167	µg			0.0184538	0.0785874	0.0785874	0.0181858	0.0774459	0.0774459
Reagent Blank	12/4/2013	12:51:38 PM	2.70E-05	0.000115	0.000115	µg			4.19E-05	0.0001782	0.0001782	1.21E-05	5.17E-05	5.17E-05
Calib Blank	12/5/2013	10:11:45 AM	-3.65E-05			µg			-3.13E-05			-4.17E-05		
STD1 = .004ug	12/5/2013	10:13:25 AM	0.000912			µg			0.0009891			0.0008349		
STD2 = .04ug	12/5/2013	10:15:07 AM	0.0114074			µg			0.0115993			0.0112155		
STD3 = .08ug	12/5/2013	10:17:00 AM	0.0223632			µg			0.0224649			0.0222615		
STD4 = .16ug	12/5/2013	10:18:54 AM	0.045132			µg			0.0450757			0.0451884		
STD5 = .2ug	12/5/2013	10:20:49 AM	0.0551264			µg			0.0558208			0.054432		
Reagent Blank	12/5/2013	10:22:42 AM	2.94E-05	0.0001058	0.0001058	µg			9.72E-06	3.49E-05	3.49E-05	4.92E-05	0.0001766	0.0001766
0.004ug = DL	12/5/2013	10:24:22 AM	0.0011081	0.0039795	0.0039795	µg			0.0011266	0.004046	0.004046	0.0010896	0.003913	0.003913
0.080ug = QC STD 2	12/5/2013	10:26:05 AM	0.0218268	0.0783876	0.0783876	µg			0.0220548	0.0792065	0.0792065	0.0215988	0.0775686	0.0775686
0.080ug = QC STD 3	12/5/2013	10:28:02 AM	0.0219636	0.0788787	0.0788787	µg			0.0220346	0.0791337	0.0791337	0.0218925	0.0786236	0.0786236
Reagent Blank	12/5/2013	10:29:56 AM	6.68E-05	0.00024	0.00024	µg			8.67E-05	0.0003112	0.0003112	4.70E-05	0.0001688	0.0001688
0.004ug = DL	12/5/2013	10:49:46 AM	0.0011593	0.0041635	0.0041635	µg			0.0011806	0.0042398	0.0042398	0.0011381	0.0040873	0.0040873
0.080ug = QC STD 2	12/5/2013	10:51:29 AM	0.0213091	0.0765283	0.0765283	µg			0.0213671	0.0767366	0.0767366	0.0212511	0.0763199	0.0763199
Reagent Blank	12/5/2013	10:53:23 AM	0.0001016	0.0003649	0.0003649	µg			0.0001082	0.0003888	0.0003888	9.49E-05	0.000341	0.000341
21557 LRB FH	12/5/2013	10:55:03 AM	0.0001002	0.000254	0.0063501	µg	4	100	7.94E-05	0.0001795	0.0044882	0.0001209	0.0003285	0.0082119
21557 LRB FH SPK	12/5/2013	10:56:43 AM	0.0171945	0.0616457	3.8528539	µg	1.6	100	0.0173111	0.0620642	3.8790116	0.017078	0.0612271	3.8266962
0.004ug = DL	12/5/2013	11:13:11 AM	0.001188	0.0042666	0.0042666	µg			0.0011823	0.0042462	0.0042462	0.0011937	0.004287	0.004287
0.080ug = QC STD 3	12/5/2013	11:14:55 AM	0.0212173	0.0761985	0.0761985	µg			0.0211758	0.0760497	0.0760497	0.0212587	0.0763472	0.0763472
Reagent Blank	12/5/2013	11:16:49 AM	0.0001661	0.0005965	0.0005965	µg			0.0001607	0.000577	0.000577	0.0001715	0.0006159	0.0006159

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

PROJECT NO. 6132

Fagen, Inc-GREC RATA 8315

Lot #: H3K260418

Charles Horton

C.E.M. Solutions Incorporated
1183 E Overdrive Circle
Hernando, FL 34442

TESTAMERICA LABORATORIES, INC.

Kevin S. Woodcock
Project Manager

December 3, 2013

PROJECT NARRATIVE
H3K260418

The results reported herein are applicable to the samples submitted for analysis only. If you have any questions about this report, please call (865) 291-3000 to speak with the TestAmerica project manager listed on the cover page.

This report shall not be reproduced except in full, without the written approval of the laboratory.

The original chain of custody documentation is included with this report.

Sample Receipt

The collection dates were not listed on the chain of custody documentation; however the sample collection dates were noted on the sample containers labels.

Subcontract

The following analysis was performed by the TestAmerica Tallahassee Laboratory (NELAP Accrediting Authority: FLDOH; Lab ID E81005), 2846 Industrial Plaza Drive, Tallahassee, FL 32301, (850-878-3994), Todd Baumgartner, Laboratory Director: Carbonyl Compounds (SW846 8315A).

Quality Control and Data Interpretation

Unless otherwise noted, all holding times and QC criteria were met and the test results shown in this report meet all applicable NELAC requirements.

Sample Data Summary

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CEM Solutions
Fagen, Inc - GREC RATA
Formaldehyde and Acetaldehyde Sample Results
December 3, 2013

Client Sample No.	Sample Location	Date of Collection	Sample Description	Lab Formaldehyde Result in µg/L (Based on the MDL)	Lab Acetaldehyde Result in µg/L (Based on the MDL)	Sample Volume in Liters (L)	Formaldehyde Result (µg)	Acetaldehyde Result (µg)
Run 1	Unit 1 Stack	11/20/13	Impingers 1,2,3 and Rinses Composite	82	15 J	1.050	86	16 J
Run 2	Unit 1 Stack	11/21/13	Impingers 1,2,3 and Rinses Composite	71	ND (10)	0.696	49	ND (7.0)
Run 3	Unit 1 Stack	11/22/13	Impingers 1,2,3 and Rinses Composite	70	13 J	0.910	64	12 J
Reagent Blank	DI Water	11/16/13	HPLC Grade DI Water	9.6 J	ND (11)	0.100	0.96 J	ND (1.1)
Field Blank	Unit 1 Stack	11/16/13	Impingers 1,2,3 and Rinses Composite	12 J	ND (10)	0.100	1.2 J	ND (1.0)

Analysis Performed at TestAmerica Laboratories, Inc., Tallahassee, Florida

Sample Dates:
Samples Prepped on 11/27/2013
Samples Analyzed on 11/27/2013

Method Citations:
Appendix A to Part 63--EPA Test Method 316 - "Sampling and Analysis for Formaldehyde Emissions"
SW-846 Method 8315A, "Determination of Carbonyl Compounds by High Performance Liquid Chromatography (HPLC)"

Notes:
For the purpose of normalizing sample results, field blank and reagent blank volumes are set at 0.1L
MDL = Method Detection Limit
L = Liter
µg = Microgram

Qualifiers:
"J" = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Lab Lot Numbers:
TestAmerica Knoxville: H3K260418
TestAmerica Tallahassee: 640-45935

Sample Receipt Documentation

H3152b0418

1183 E. Overdrive Circle • Hernando, FL 34442 • Ph: (352) 489-4337 • Fax: (352) 489-4801
www.cem-solutions.com

Chain of Custody Record

Project #	Project Name:
6132	Fagen, Inc - GREC RATA

Samplers: Charles Horton / Alex Houseal / Matt Savin

	Sample ID	Date	Test Method	Comp.	Grab	Sample Location	# of Containers	Imp. 1, 2, 3 and rinses		HPLC-grade DI H2O						Comments
11:20	Run 1		316	x		Unit 1 Stack	1	X								
11:21	Run 2		316	x		Unit 1 Stack	1	X								
11:22	Run 3		316	x		Unit 1 Stack	1	X								
																HAND DELIVERED
																NO CUSTODY SEALS
																RECEIVED AT 2.0°C
																3rd 11-26-13
	Reagent Blank	11/16/2013	316		x	DI Water	1			x						Lot# DF171-D
	Field Blank	11/16/2013	316	x		Unit 1 Stack	1	x								

Relinquished by:	Date:	Time:	Received By:	Relinquished By:	Date:	Time:	Received By:
[signature]	11/25/13	0930	[signature]	[signature]	11/26/13	8:15	[signature] 11-26-13 0811
Relinquished by:	Date:	Time:	Received By:	Relinquished By:	Date:	Time:	Received By:
Received for Lab By:	**Date:**	**Time:**	Remarks: Analytes: Formaldehyde and Acetaldehyde; Store chilled on Ice				

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: H3K260418

Review Items	Yes	No	NA	If No, what was the problem?
1. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **1a** Do not match COC ☐ **1b** Incomplete information ☐ **1c** Marking smeared ☐ **1d** Label torn ☐ **1e** No label ☐ **1f** COC not received ☐ **1g** Other:
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C)	✓			☐ **2a** Temp Blank = _____ ☐ **2b** Cooler Temp = _____ ☐ **2c** Cooling initiated for recently collected samples, ice present.
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **3a** See box 3A for pH Preservation ☐ **3b** Other:
4. Were custody seals present/intact on cooler and/or containers?		✓		☑ **4a** Not present ☐ **4b** Not intact ☐ **4c** Other:
5. Were all of the samples listed on the COC received?	✓			☐ **5a** Samples received-not on COC ☐ **5b** Samples not received-on COC
6. Were all of the sample containers received intact?	✓			☐ **6a** Leaking ☐ **6b** Broken
7. Were VOA samples received without headspace?	✓			☐ **7a** Headspace (VOA only)
8. Were samples received in appropriate containers?	✓			☐ **8a** Improper container
9. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668)			✓	☐ **9a** Could not be determined due to matrix interference
10. Were samples received within holding time?	✓			☐ **10a** Holding time expired
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information
12. For 1613B water samples is pH<9?			✓	If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____
13. Are the shipping containers intact?	✓			☐ **13a** Leaking ☐ **13b** Other:
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **14a** Not relinquished
15. Are tests/parameters listed for each sample?	✓			☐ **15a** Incomplete information
16. Is the matrix of the samples noted?	✓			☐ **15a** Incomplete information
17. Is the date/time of sample collection noted?	✓	✓		☑ **15a** Incomplete information
18. Is the client and project name/# identified?	✓			☐ **15a** Incomplete information
19. Was the sampler identified on the COC?	✓			☐ **19a** Other

Comments/Actions Taken

4A, HNO3 ADJUSTED

1SA, NO COLLECTION DATE ON COC FOR RUNS 1-3, LISTED ON LABELS

RUN 1 11-20-13
RUN 2 11-21-13
RUN 3 11-22-13

	Box 3A: pH Preservation	Box 9A: Residual Chlorine
Preservative:		
Lot Number:		
Exp Date:		
Analyst:		
Date:		
Time:		

Quote #: 90265 PM Instructions: _____

Sample Receiving Associate: _____ Date: 11-26-13

TestAmerica
Tallahassee

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 640-45935-1

SDG Number: H3K260418

Job Description: CEM Solutions

For:
TestAmerica Laboratories, Inc.
5815 Middlebrook Pike
Knoxville, TN 37921

Attention: Mr. Kevin S Woodcock

Approved for release.
Noel Savoie
Project Management Assistant II
12/3/2013 2:52 PM

Noel Savoie, Project Management Assistant II
2846 Industrial Plaza Drive, Tallahassee, FL, 32301
(850)878-3994
noel.savoie@testamericainc.com
12/03/2013
Revision: 1

These test results meet all the requirements of NELAC unless specified in the case narrative. All questions regarding this test report should be directed to the TestAmerica Project Manager who signed this test report. The estimated uncertainty associated with these reported results is available upon request. The results contained in this test report relate only to the samples included herein.

TestAmerica Tallahassee Florida Department of Health Certification No. E81005

Table of Contents

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CASE NARRATIVE
Client: TestAmerica Laboratories, Inc.
Project: CEM Solutions
Report Number: 640-45935-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.
All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.
This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT
The samples were received on 11/27/2013; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.0 C.

FORMALDEHYDE
Samples IMP 1,2,3+ RINSES RUN 1 (640-45935-1), IMP 1,2,3+ RINSES RUN 2 (640-45935-2), IMP 1,2,3+ RINSES RUN 3 (640-45935-3), HPLC REAGENT BLANK (640-45935-4) and IMP 1,2,3+ FIELD BLANK (640-45935-5) were analyzed for formaldehyde in accordance with SW-846 Method 8315A. The samples were prepared and analyzed on 11/27/2013.

The samples were received outside of the three day holding time. The data is part of a calculation for method 316, which has a fourteen day hold time, therefore the flags were removed.

No difficulties were encountered during the formaldehyde analysis.
All quality control parameters were within the acceptance limits.

SAMPLE SUMMARY

Client: TestAmerica Laboratories, Inc.

Job Number: 640-45935-1
Sdg Number: H3K260418

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
640-45935-1	IMP 1,2,3+ RINSES RUN 1	Water	11/20/2013 0000	11/27/2013 0935
640-45935-2	IMP 1,2,3+ RINSES RUN 2	Water	11/21/2013 0000	11/27/2013 0935
640-45935-3	IMP 1,2,3+ RINSES RUN 3	Water	11/22/2013 0000	11/27/2013 0935
640-45935-4	HPLC REAGENT BLANK	Water	11/16/2013 0000	11/27/2013 0935
640-45935-5FB	IMP 1,2,3+ FIELD BLANK	Water	11/16/2013 0000	11/27/2013 0935

EXECUTIVE SUMMARY - Detections

Client: TestAmerica Laboratories, Inc.

Job Number: 640-45935-1
Sdg Number: H3K260418

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
640-45935-1	**IMP 1,2,3+ RINSES RUN 1**					
Formaldehyde		82		50	ug/L	8315A
Acetaldehyde		15	J	100	ug/L	8315A
640-45935-2	**IMP 1,2,3+ RINSES RUN 2**					
Formaldehyde		71		50	ug/L	8315A
640-45935-3	**IMP 1,2,3+ RINSES RUN 3**					
Formaldehyde		70		50	ug/L	8315A
Acetaldehyde		13	J	100	ug/L	8315A
640-45935-4	**HPLC REAGENT BLANK**					
Formaldehyde		9.6	J	56	ug/L	8315A
640-45935-5FB	**IMP 1,2,3+ FIELD BLANK**					
Formaldehyde		12	J	50	ug/L	8315A

METHOD SUMMARY

Client: TestAmerica Laboratories, Inc.

Job Number: 640-45935-1
Sdg Number: H3K260418

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Carbonyl Compounds (HPLC)	TAL TAL	SW846 8315A	
Solid-Phase Extraction (SPE)	TAL TAL		SW846 8315_W_Prep

Lab References:

TAL TAL = TestAmerica Tallahassee

Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: TestAmerica Laboratories, Inc.

Job Number: 640-45935-1
Sdg Number: H3K260418

Method	Analyst	Analyst ID
SW846 8315A	Smith, Daniel N	DNS

Analytical Data

Client: TestAmerica Laboratories, Inc.

Job Number: 640-45935-1
Sdg Number: H3K260418

Client Sample ID: **IMP 1,2,3+ RINSES RUN 1**

Lab Sample ID: 640-45935-1
Client Matrix: Water

Date Sampled: 11/20/2013 0000
Date Received: 11/27/2013 0935

8315A Carbonyl Compounds (HPLC)

Analysis Method:	8315A	Analysis Batch:	640-106175	Instrument ID:	LCI
Prep Method:	8315_W_Prep	Prep Batch:	640-106138	Lab File ID:	1K27I16.d
Dilution:	1.0			Initial Weight/Volume:	100 mL
Analysis Date:	11/27/2013 1207			Final Weight/Volume:	4.0 mL
Prep Date:	11/27/2013 1015			Injection Volume:	10 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Formaldehyde	82		5.0	50
Acetaldehyde	15	J	10	100

Analytical Data

Client: TestAmerica Laboratories, Inc.

Job Number: 640-45935-1
Sdg Number: H3K260418

Client Sample ID: **IMP 1,2,3+ RINSES RUN 2**

Lab Sample ID: 640-45935-2
Client Matrix: Water

Date Sampled: 11/21/2013 0000
Date Received: 11/27/2013 0935

8315A Carbonyl Compounds (HPLC)

Analysis Method:	8315A	Analysis Batch:	640-106175	Instrument ID:	LCI
Prep Method:	8315_W_Prep	Prep Batch:	640-106138	Lab File ID:	1K27I19.d
Dilution:	1.0			Initial Weight/Volume:	100 mL
Analysis Date:	11/27/2013 1242			Final Weight/Volume:	4.0 mL
Prep Date:	11/27/2013 1015			Injection Volume:	10 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Formaldehyde	71		5.0	50
Acetaldehyde	ND		10	100

Analytical Data

Client: TestAmerica Laboratories, Inc.

Job Number: 640-45935-1
Sdg Number: H3K260418

Client Sample ID: **IMP 1,2,3+ RINSES RUN 3**

Lab Sample ID: 640-45935-3
Client Matrix: Water

Date Sampled: 11/22/2013 0000
Date Received: 11/27/2013 0935

8315A Carbonyl Compounds (HPLC)

Analysis Method:	8315A	Analysis Batch:	640-106175	Instrument ID:	LCI
Prep Method:	8315_W_Prep	Prep Batch:	640-106138	Lab File ID:	1K27I20.d
Dilution:	1.0			Initial Weight/Volume:	100 mL
Analysis Date:	11/27/2013 1254			Final Weight/Volume:	4.0 mL
Prep Date:	11/27/2013 1015			Injection Volume:	10 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Formaldehyde	70		5.0	50
Acetaldehyde	13	J	10	100

Analytical Data

Client: TestAmerica Laboratories, Inc.

Job Number: 640-45935-1
Sdg Number: H3K260418

Client Sample ID: **HPLC REAGENT BLANK**

Lab Sample ID: 640-45935-4
Client Matrix: Water

Date Sampled: 11/16/2013 0000
Date Received: 11/27/2013 0935

8315A Carbonyl Compounds (HPLC)

Analysis Method:	8315A	Analysis Batch:	640-106175	Instrument ID:	LCI
Prep Method:	8315_W_Prep	Prep Batch:	640-106138	Lab File ID:	1K27I21.d
Dilution:	1.0			Initial Weight/Volume:	90 mL
Analysis Date:	11/27/2013 1306			Final Weight/Volume:	4.0 mL
Prep Date:	11/27/2013 1015			Injection Volume:	10 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Formaldehyde	9.6	J	5.6	56
Acetaldehyde	ND		11	110

Analytical Data

Client: TestAmerica Laboratories, Inc.

Job Number: 640-45935-1
Sdg Number: H3K260418

Client Sample ID: **IMP 1,2,3+ FIELD BLANK**

Lab Sample ID: 640-45935-5FB
Client Matrix: Water

Date Sampled: 11/16/2013 0000
Date Received: 11/27/2013 0935

8315A Carbonyl Compounds (HPLC)

Analysis Method:	8315A	Analysis Batch:	640-106175	Instrument ID:	LCI
Prep Method:	8315_W_Prep	Prep Batch:	640-106138	Lab File ID:	1K27I22.d
Dilution:	1.0			Initial Weight/Volume:	100 mL
Analysis Date:	11/27/2013 1318			Final Weight/Volume:	4.0 mL
Prep Date:	11/27/2013 1015			Injection Volume:	10 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Formaldehyde	12	J	5.0	50
Acetaldehyde	ND		10	100

Quality Control Results

Client: TestAmerica Laboratories, Inc.

Job Number: 640-45935-1
Sdg Number: H3K260418

Method Blank - Batch: 640-106138

Method: 8315A
Preparation: 8315_W_Prep

Lab Sample ID:	MB 640-106138/1-A	Analysis Batch:	640-106175	Instrument ID:	LCI
Client Matrix:	Water	Prep Batch:	640-106138	Lab File ID:	1K27I12.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	11/27/2013 1120	Units:	ug/L	Final Weight/Volume:	4.0 mL
Prep Date:	11/27/2013 1015			Injection Volume:	10 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Formaldehyde	ND		5.0	50
Acetaldehyde	ND		10	100

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 640-106138

Method: 8315A
Preparation: 8315_W_Prep

LCS Lab Sample ID:	LCS 640-106138/2-A	Analysis Batch:	640-106175	Instrument ID:	LCI
Client Matrix:	Water	Prep Batch:	640-106138	Lab File ID:	1K27I13.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	11/27/2013 1132	Units:	ug/L	Final Weight/Volume:	4.0 mL
Prep Date:	11/27/2013 1015			Injection Volume:	10 uL
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 640-106138/3-A	Analysis Batch:	640-106175	Instrument ID:	LCI
Client Matrix:	Water	Prep Batch:	640-106138	Lab File ID:	1K27I14.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	11/27/2013 1143	Units:	ug/L	Final Weight/Volume:	4.0 mL
Prep Date:	11/27/2013 1015			Injection Volume:	10 uL
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Formaldehyde	112	115	73 - 133	2	20		
Acetaldehyde	95	97	70 - 132	2	20		

Quality Control Results

Client: TestAmerica Laboratories, Inc.

Job Number: 640-45935-1
Sdg Number: H3K260418

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 640-106138

Method: 8315A
Preparation: 8315_W_Prep

LCS Lab Sample ID:	LCS 640-106138/2-A	Units: ug/L	LCSD Lab Sample ID:	LCSD 640-106138/3-A	
Client Matrix:	Water		Client Matrix:	Water	
Dilution:	1.0		Dilution:	1.0	
Analysis Date:	11/27/2013 1132		Analysis Date:	11/27/2013 1143	
Prep Date:	11/27/2013 1015		Prep Date:	11/27/2013 1015	
Leach Date:	N/A		Leach Date:	N/A	

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Formaldehyde	150	150	169	173
Acetaldehyde	150	150	142	145

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 640-106138

Method: 8315A
Preparation: 8315_W_Prep

MS Lab Sample ID:	640-45935-1	Analysis Batch:	640-106175	Instrument ID:	LCI
Client Matrix:	Water	Prep Batch:	640-106138	Lab File ID:	1K27I17.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	11/27/2013 1219			Final Weight/Volume:	4.0 mL
Prep Date:	11/27/2013 1015			Injection Volume:	10 uL
Leach Date:	N/A				
MSD Lab Sample ID:	640-45935-1	Analysis Batch:	640-106175	Instrument ID:	LCI
Client Matrix:	Water	Prep Batch:	640-106138	Lab File ID:	1K27I18.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	11/27/2013 1231			Final Weight/Volume:	4.0 mL
Prep Date:	11/27/2013 1015			Injection Volume:	10 uL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Formaldehyde	84	84	40 - 142	0	26		
Acetaldehyde	92	94	51 - 151	2	20		

Quality Control Results

Client: TestAmerica Laboratories, Inc.

Job Number: 640-45935-1
Sdg Number: H3K260418

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 640-106138

Method: 8315A
Preparation: 8315_W_Prep

MS Lab Sample ID:	640-45935-1	Units:	ug/L	MSD Lab Sample ID:	640-45935-1
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	11/27/2013 1219			Analysis Date:	11/27/2013 1231
Prep Date:	11/27/2013 1015			Prep Date:	11/27/2013 1015
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Formaldehyde	82		150	150	209	208
Acetaldehyde	15	J	150	150	154	157

DATA REPORTING QUALIFIERS

Client: TestAmerica Laboratories, Inc.

Job Number: 640-45935-1
Sdg Number: H3K260418

Lab Section	Qualifier	Description
HPLC/IC		
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Quality Control Results

Client: TestAmerica Laboratories, Inc.

Job Number: 640-45935-1
Sdg Number: H3K260418

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
HPLC/IC					
Prep Batch: 640-106138					
LCS 640-106138/2-A	Lab Control Sample	T	Water	8315_W_Prep	
LCSD 640-106138/3-A	Lab Control Sample Duplicate	T	Water	8315_W_Prep	
MB 640-106138/1-A	Method Blank	T	Water	8315_W_Prep	
640-45935-1	IMP 1,2,3+ RINSES RUN 1	T	Water	8315_W_Prep	
640-45935-1MS	Matrix Spike	T	Water	8315_W_Prep	
640-45935-1MSD	Matrix Spike Duplicate	T	Water	8315_W_Prep	
640-45935-2	IMP 1,2,3+ RINSES RUN 2	T	Water	8315_W_Prep	
640-45935-3	IMP 1,2,3+ RINSES RUN 3	T	Water	8315_W_Prep	
640-45935-4	HPLC REAGENT BLANK	T	Water	8315_W_Prep	
640-45935-5FB	IMP 1,2,3+ FIELD BLANK	T	Water	8315_W_Prep	
Analysis Batch:640-106175					
LCS 640-106138/2-A	Lab Control Sample	T	Water	8315A	640-106138
LCSD 640-106138/3-A	Lab Control Sample Duplicate	T	Water	8315A	640-106138
MB 640-106138/1-A	Method Blank	T	Water	8315A	640-106138
640-45935-1	IMP 1,2,3+ RINSES RUN 1	T	Water	8315A	640-106138
640-45935-1MS	Matrix Spike	T	Water	8315A	640-106138
640-45935-1MSD	Matrix Spike Duplicate	T	Water	8315A	640-106138
640-45935-2	IMP 1,2,3+ RINSES RUN 2	T	Water	8315A	640-106138
640-45935-3	IMP 1,2,3+ RINSES RUN 3	T	Water	8315A	640-106138
640-45935-4	HPLC REAGENT BLANK	T	Water	8315A	640-106138
640-45935-5FB	IMP 1,2,3+ FIELD BLANK	T	Water	8315A	640-106138

Report Basis
T = Total

Client: TestAmerica Laboratories, Inc.

Job Number: 640-45935-1
SDG: H3K260418

Laboratory Chronicle

Lab ID: 640-45935-1 **Client ID: IMP 1,2,3+ RINSES RUN 1**

Sample Date/Time: 11/20/2013 00:00 Received Date/Time: 11/27/2013 09:35

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8315_W_Prep	640-45935-A-1-A		640-106175	640-106138	11/27/2013 10:15	1	TAL TAL	DNS
A:8315A	640-45935-A-1-A		640-106175	640-106138	11/27/2013 12:07	1	TAL TAL	DNS

Lab ID: 640-45935-1 MS **Client ID: IMP 1,2,3+ RINSES RUN 1**

Sample Date/Time: 11/20/2013 00:00 Received Date/Time: 11/27/2013 09:35

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8315_W_Prep	640-45935-A-1-B MS		640-106175	640-106138	11/27/2013 10:15	1	TAL TAL	DNS
A:8315A	640-45935-A-1-B MS		640-106175	640-106138	11/27/2013 12:19	1	TAL TAL	DNS

Lab ID: 640-45935-1 MSD **Client ID: IMP 1,2,3+ RINSES RUN 1**

Sample Date/Time: 11/20/2013 00:00 Received Date/Time: 11/27/2013 09:35

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8315_W_Prep	640-45935-A-1-C MSD		640-106175	640-106138	11/27/2013 10:15	1	TAL TAL	DNS
A:8315A	640-45935-A-1-C MSD		640-106175	640-106138	11/27/2013 12:31	1	TAL TAL	DNS

Lab ID: 640-45935-2 **Client ID: IMP 1,2,3+ RINSES RUN 2**

Sample Date/Time: 11/21/2013 00:00 Received Date/Time: 11/27/2013 09:35

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8315_W_Prep	640-45935-A-2-B		640-106175	640-106138	11/27/2013 10:15	1	TAL TAL	DNS
A:8315A	640-45935-A-2-B		640-106175	640-106138	11/27/2013 12:42	1	TAL TAL	DNS

Lab ID: 640-45935-3 **Client ID: IMP 1,2,3+ RINSES RUN 3**

Sample Date/Time: 11/22/2013 00:00 Received Date/Time: 11/27/2013 09:35

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8315_W_Prep	640-45935-A-3-B		640-106175	640-106138	11/27/2013 10:15	1	TAL TAL	DNS
A:8315A	640-45935-A-3-B		640-106175	640-106138	11/27/2013 12:54	1	TAL TAL	DNS

Client: TestAmerica Laboratories, Inc.

Job Number: 640-45935-1
SDG: H3K260418

Laboratory Chronicle

Lab ID: 640-45935-4 **Client ID:** HPLC REAGENT BLANK

Sample Date/Time: 11/16/2013 00:00 Received Date/Time: 11/27/2013 09:35

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8315_W_Prep	640-45935-A-4-B		640-106175	640-106138	11/27/2013 10:15	1	TAL TAL	DNS
A:8315A	640-45935-A-4-B		640-106175	640-106138	11/27/2013 13:06	1	TAL TAL	DNS

Lab ID: 640-45935-5 **Client ID:** IMP 1,2,3+ FIELD BLANK

Sample Date/Time: 11/16/2013 00:00 Received Date/Time: 11/27/2013 09:35

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8315_W_Prep	640-45935-A-5-B		640-106175	640-106138	11/27/2013 10:15	1	TAL TAL	DNS
A:8315A	640-45935-A-5-B		640-106175	640-106138	11/27/2013 13:18	1	TAL TAL	DNS

Lab ID: MB **Client ID:** N/A

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8315_W_Prep	MB 640-106138/1-A		640-106175	640-106138	11/27/2013 10:15	1	TAL TAL	DNS
A:8315A	MB 640-106138/1-A		640-106175	640-106138	11/27/2013 11:20	1	TAL TAL	DNS

Lab ID: LCS **Client ID:** N/A

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8315_W_Prep	LCS 640-106138/2-A		640-106175	640-106138	11/27/2013 10:15	1	TAL TAL	DNS
A:8315A	LCS 640-106138/2-A		640-106175	640-106138	11/27/2013 11:32	1	TAL TAL	DNS

Lab ID: LCSD **Client ID:** N/A

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8315_W_Prep	LCSD 640-106138/3-A		640-106175	640-106138	11/27/2013 10:15	1	TAL TAL	DNS
A:8315A	LCSD 640-106138/3-A		640-106175	640-106138	11/27/2013 11:43	1	TAL TAL	DNS

Lab References:
TAL TAL = TestAmerica Tallahassee

Certification Summary

Client: TestAmerica Laboratories, Inc.
Project/Site: CEM Solutions

TestAmerica Job ID: 640-45935-1
SDG: H3K260418

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Tallahassee	Florida	NELAP	4	E81005
TestAmerica Tallahassee	Georgia	State Program	4	
TestAmerica Tallahassee	Louisiana	NELAP	6	30663
TestAmerica Tallahassee	New Jersey	NELAP	2	FL012
TestAmerica Tallahassee	Texas	NELAP	6	T104704459-11-2
TestAmerica Tallahassee	USDA	Federal		P330-08-00158

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Method 8315

Carbonyl Compounds (HPLC) by Method 8315

Data File: \\TALSVR05.tai.com\chem\LC\TLCIUV1.i\1IK27M.b\1K27I16.d Page 1
Report Date: 27-Nov-2013 13:03

TestAmerica Tallahassee

Semivolatile REPORT SW-846 Method 8315

Data file : \\TALSVR05.tai.com\chem\LC\TLCIUV1.i\1IK27M.b\1K27I16.d
Lab Smp Id: 640-45935-A-1-A Client Smp ID: IMP 1,2,3+ RINSE
Inj Date : 27-NOV-2013 12:07
Operator : DS Inst ID: TLCIUV1.i
Smp Info : 640-45935-A-1-A
Misc Info : 640-45935-A-1-A
Comment   :
Method   : \\TALSVR05.tai.com\chem\LC\TLCIUV1.i\1IK27M.b\8315_A&F.m
Meth Date : 27-Nov-2013 10:22 Smithdn Quant Type: ESTD
Cal Date : 26-NOV-2013 09:37 Cal File: 1K26I6.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 831509J.sub
Target Version: 4.14
Processing Host: TALSG01

Concentration Formula: Amt * DF * Vt/Vo * A * E * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	4.000	Final Volume
Vo	100.000	Sample Volume
A	1000.000	mL to L conversion
E	1.000	ug to mg conversion (1 if no conversion)
Cpnd Variable		Local Compound Variable

					CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)	
Compounds	RT	EXP RT	DLT RT	RESPONSE			REVIEW CODE
1 Formaldehyde	2.850	2.850	0.000	56468	2.05928	82.4	
2 Acetaldehyde	4.033	4.033	0.000	4039	0.38041	15.2(a)	

QC Flag Legend

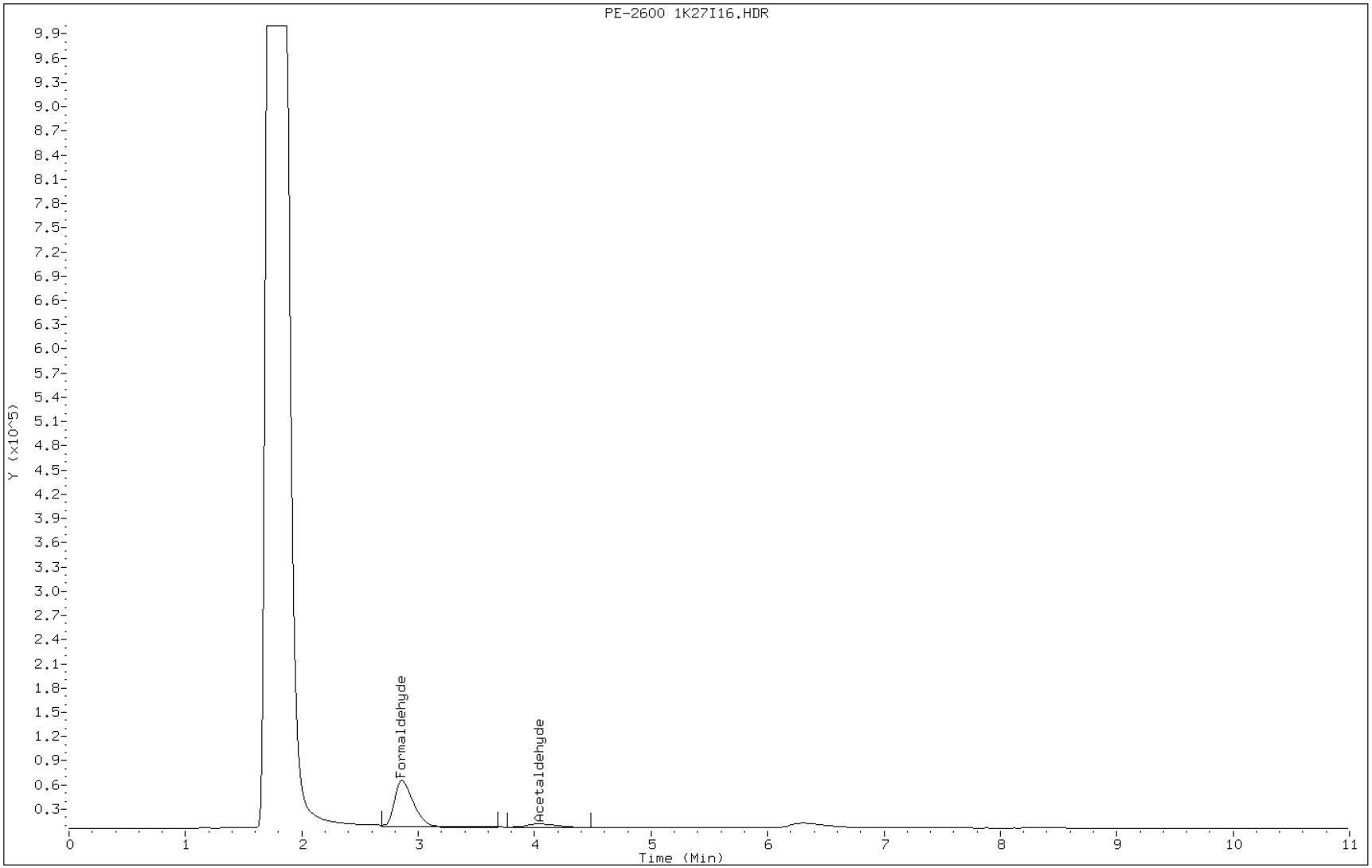
a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Data File: 1K27I16.d

Date: 27-NOV-2013 12:07

Client ID: IMP 1,2,3+ RINSE Instrument: TLCIUV1.i

Sample Info: 640-45935-A-1-A Operator: DS



Data File: \\TALSVR05.tai.com\chem\LC\TLCIUV1.i\1IK27M.b\1K27I19.d Page 1
Report Date: 27-Nov-2013 13:31

TestAmerica Tallahassee

Semivolatile REPORT SW-846 Method 8315

Data file : \\TALSVR05.tai.com\chem\LC\TLCIUV1.i\1IK27M.b\1K27I19.d
Lab Smp Id: 640-45935-A-2-B Client Smp ID: IMP 1,2,3+ RINSES R
Inj Date : 27-NOV-2013 12:42
Operator : DS Inst ID: TLCIUV1.i
Smp Info : 640-45935-A-2-B
Misc Info : 640-45935-A-2-B
Comment   :
Method   : \\TALSVR05.tai.com\chem\LC\TLCIUV1.i\1IK27M.b\8315_A&F.m
Meth Date : 27-Nov-2013 10:22 Smithdn Quant Type: ESTD
Cal Date : 26-NOV-2013 09:37 Cal File: 1K26I6.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 831509J.sub
Target Version: 4.14
Processing Host: TALSG01

Concentration Formula: Amt * DF * Vt/Vo * A * E * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	4.000	Final Volume
Vo	100.000	Sample Volume
A	1000.000	mL to L conversion
E	1.000	ug to mg conversion (1 if no conversion)
Cpnd Variable		Local Compound Variable

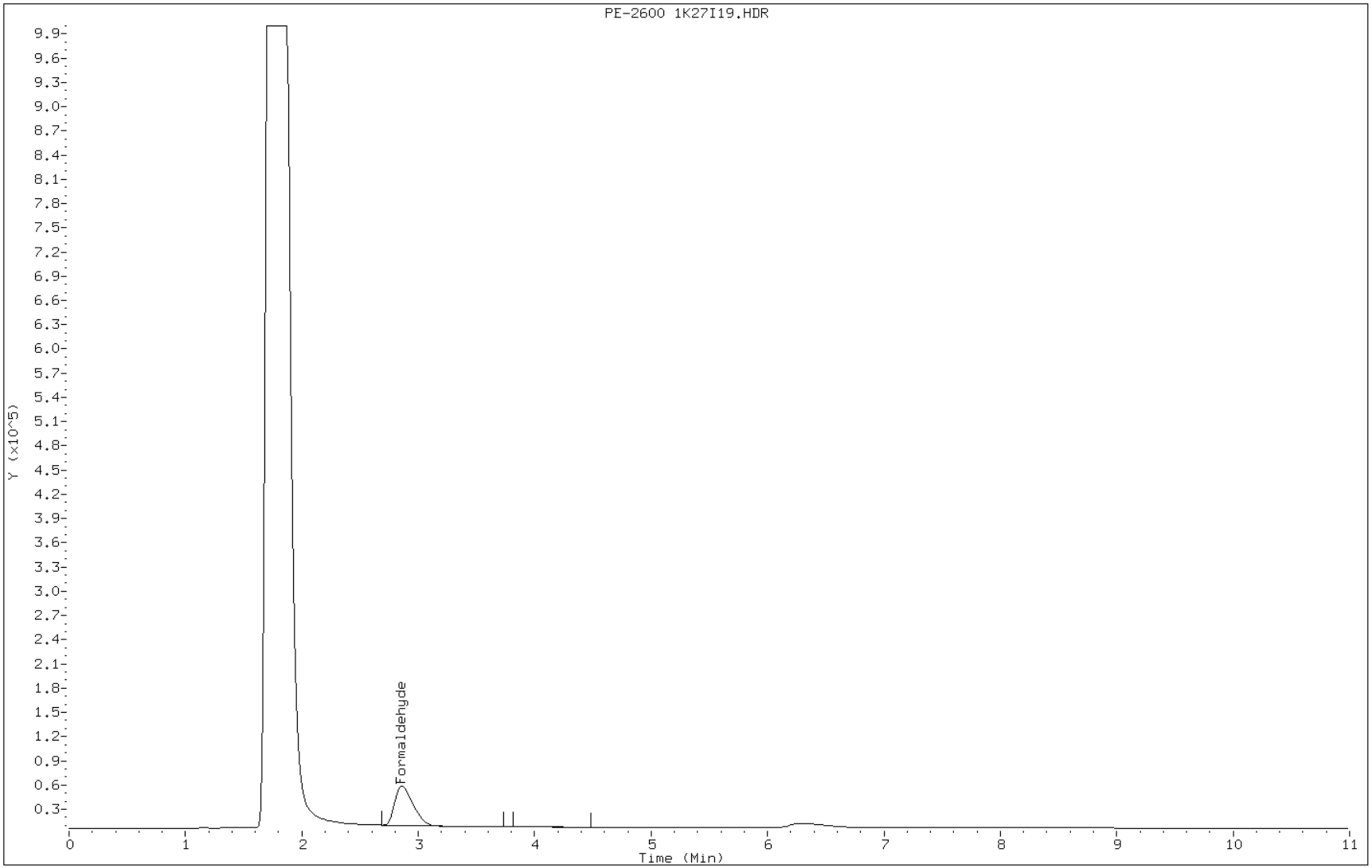
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)	REVIEW CODE
1 Formaldehyde	2.850	2.850	0.000	50029	1.77397	71.0	
2 Acetaldehyde	Compound Not Detected.						

Data File: 1K27I19.d

Date: 27-NOV-2013 12:42

Client ID: IMP 1,2,3+ RINSES R Instrument: TLCIUV1.i

Sample Info: 640-45935-A-2-B Operator: DS



Data File: \\TALSVR05.tai.com\chem\LC\TLCIUV1.i\1IK27M.b\1K27I20.d Page 1
Report Date: 27-Nov-2013 13:32

TestAmerica Tallahassee

Semivolatile REPORT SW-846 Method 8315

Data file : \\TALSVR05.tai.com\chem\LC\TLCIUV1.i\1IK27M.b\1K27I20.d
Lab Smp Id: 640-45935-A-3-B Client Smp ID: IMP 1,2,3+ RINSES R
Inj Date : 27-NOV-2013 12:54
Operator : DS Inst ID: TLCIUV1.i
Smp Info : 640-45935-A-3-B
Misc Info : 640-45935-A-3-B
Comment   :
Method   : \\TALSVR05.tai.com\chem\LC\TLCIUV1.i\1IK27M.b\8315_A&F.m
Meth Date : 27-Nov-2013 10:22 Smithdn Quant Type: ESTD
Cal Date : 26-NOV-2013 09:37 Cal File: 1K26I6.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 831509J.sub
Target Version: 4.14
Processing Host: TALSG01

Concentration Formula: Amt * DF * Vt/Vo * A * E * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	4.000	Final Volume
Vo	100.000	Sample Volume
A	1000.000	mL to L conversion
E	1.000	ug to mg conversion (1 if no conversion)
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)	REVIEW CODE
1 Formaldehyde	2.850	2.850	0.000	49206	1.73751	69.5	
2 Acetaldehyde	4.033	4.033	0.000	3384	0.31872	12.7(a)	

QC Flag Legend

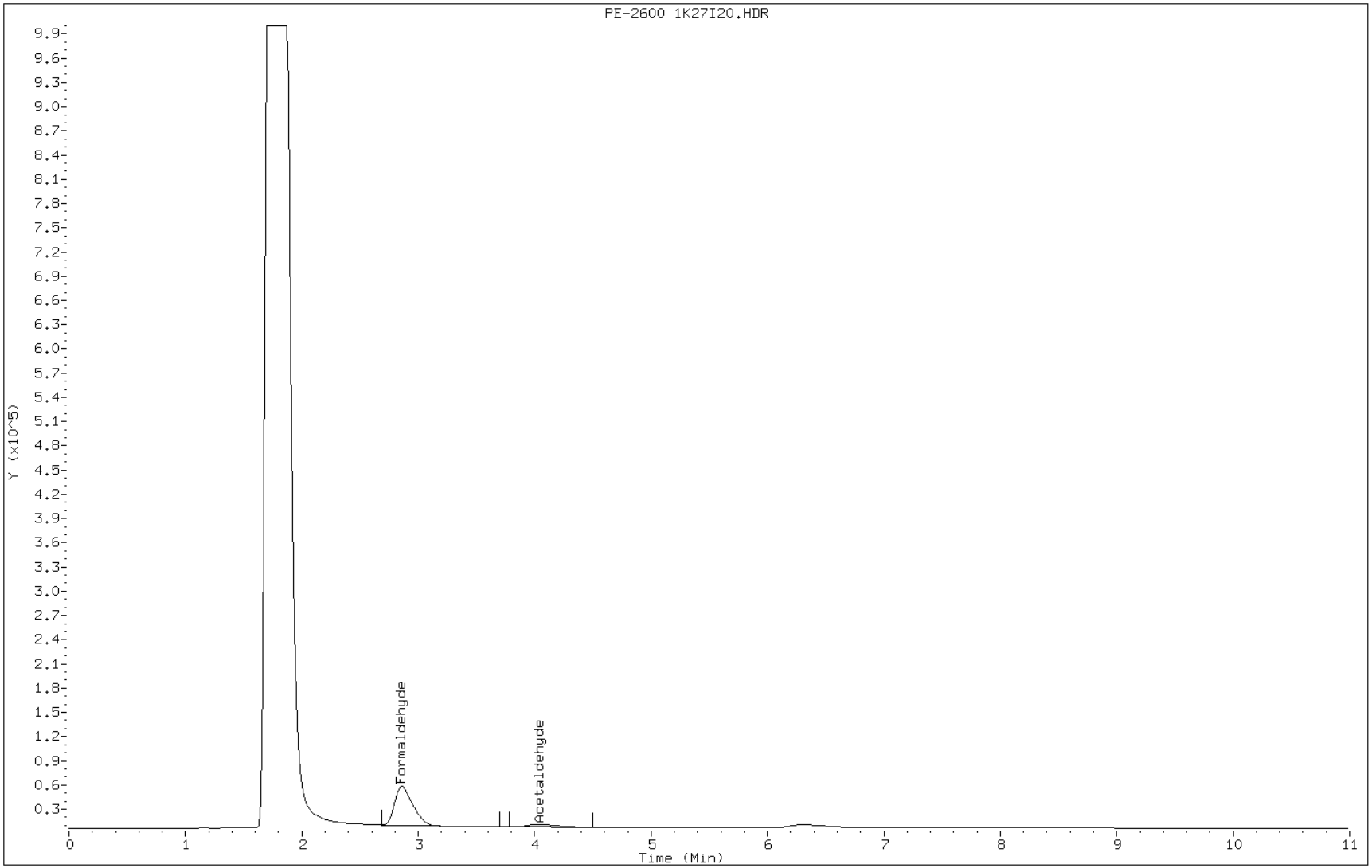
a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Data File: 1K27I20.d

Date: 27-NOV-2013 12:54

Client ID: IMP 1,2,3+ RINSES R Instrument: TLCIUV1.i

Sample Info: 640-45935-A-3-B Operator: DS



Data File: \\TALSVR05.tai.com\chem\LC\TLCIUV1.i\1IK27M.b\1K27I21.d Page 1
Report Date: 27-Nov-2013 13:55

TestAmerica Tallahassee

Semivolatile REPORT SW-846 Method 8315

Data file : \\TALSVR05.tai.com\chem\LC\TLCIUV1.i\1IK27M.b\1K27I21.d
Lab Smp Id: 640-45935-A-4-B Client Smp ID: HPLC REAGENT BLANK
Inj Date : 27-NOV-2013 13:06
Operator : DS Inst ID: TLCIUV1.i
Smp Info : 640-45935-A-4-B
Misc Info : 640-45935-A-4-B
Comment :
Method : \\TALSVR05.tai.com\chem\LC\TLCIUV1.i\1IK27M.b\8315_A&F.m
Meth Date : 27-Nov-2013 10:22 Smithdn Quant Type: ESTD
Cal Date : 26-NOV-2013 09:37 Cal File: 1K26I6.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 831509J.sub
Target Version: 4.14
Processing Host: TALSG01

Concentration Formula: Amt * DF * Vt/Vo * A * E * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	4.000	Final Volume
Vo	90.000	Sample Volume
A	1000.000	mL to L conversion
E	1.000	ug to mg conversion (1 if no conversion)
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)	REVIEW CODE
1 Formaldehyde	2.850	2.850	0.000	14852	0.21533	9.57(a)	
2 Acetaldehyde	Compound Not Detected.						

QC Flag Legend

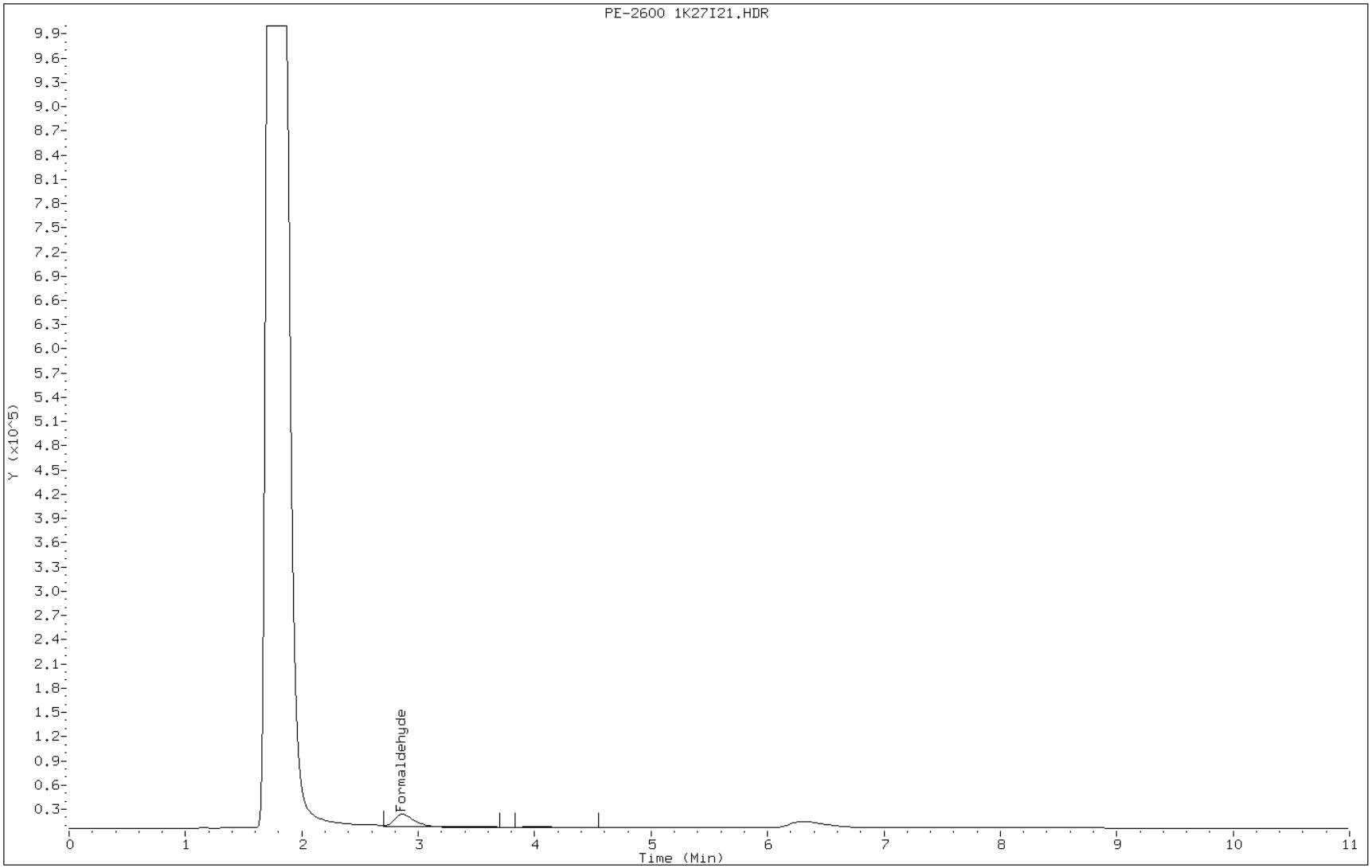
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: 1K27I21.d

Date: 27-NOV-2013 13:06

Client ID: HPLC REAGENT BLANK Instrument: TLCIUV1.i

Sample Info: 640-45935-A-4-B Operator: DS



Data File: \\TALSVR05.tai.com\chem\LC\TLCIUV1.i\1IK27M.b\1K27I22.d Page 1
Report Date: 27-Nov-2013 13:56

TestAmerica Tallahassee

Semivolatile REPORT SW-846 Method 8315

Data file : \\TALSVR05.tai.com\chem\LC\TLCIUV1.i\1IK27M.b\1K27I22.d
Lab Smp Id: 640-45935-A-5-B Client Smp ID: IMP 1,2,3+ FIELD BL
Inj Date : 27-NOV-2013 13:18
Operator : DS Inst ID: TLCIUV1.i
Smp Info : 640-45935-A-5-B
Misc Info : 640-45935-A-5-B
Comment   :
Method   : \\TALSVR05.tai.com\chem\LC\TLCIUV1.i\1IK27M.b\8315_A&F.m
Meth Date : 27-Nov-2013 10:22 Smithdn Quant Type: ESTD
Cal Date : 26-NOV-2013 09:37 Cal File: 1K26I6.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 831509J.sub
Target Version: 4.14
Processing Host: TALSG01

Concentration Formula: Amt * DF * Vt/Vo * A * E * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	4.000	Final Volume
Vo	100.000	Sample Volume
A	1000.000	mL to L conversion
E	1.000	ug to mg conversion (1 if no conversion)
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)	REVIEW CODE
1 Formaldehyde	2.850	2.850	0.000	16811	0.30213	12.1(a)	
2 Acetaldehyde	Compound Not Detected.						

QC Flag Legend

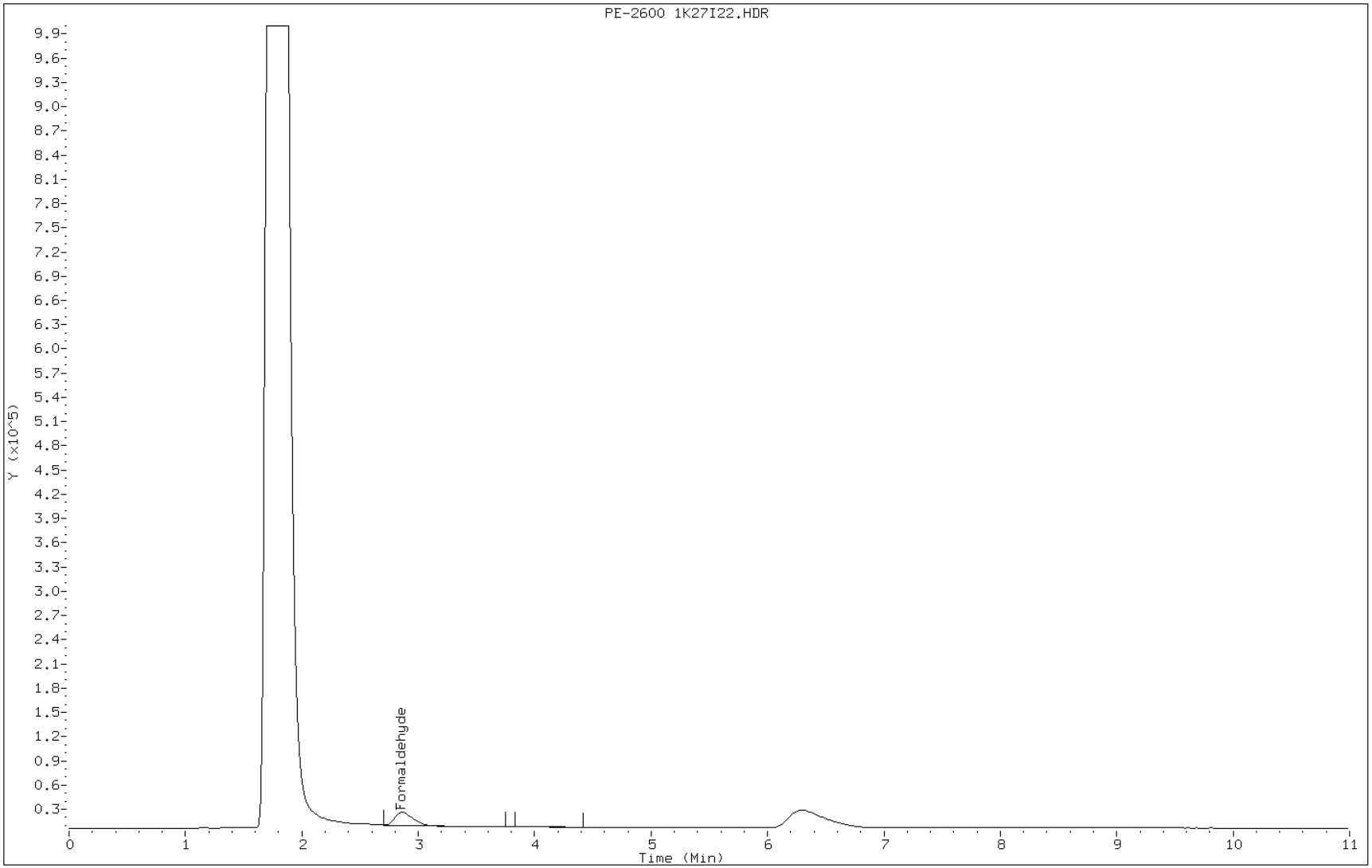
a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Data File: 1K27I22.d

Date: 27-NOV-2013 13:18

Client ID: IMP 1,2,3+ FIELD BL Instrument: TLCIUV1.i

Sample Info: 640-45935-A-5-B Operator: DS



Data File: \\TALSVR05.tai.com\chem\LC\TLCIUV1.i\1IK26M.b\1K26I2.d Page 1
Report Date: 27-Nov-2013 07:47

TestAmerica Tallahassee

Semivolatile REPORT SW-846 Method 8315

Data file : \\TALSVR05.tai.com\chem\LC\TLCIUV1.i\1IK26M.b\1K26I2.d
Lab Smp Id: C1.106125 Client Smp ID: C1.106125
Inj Date : 26-NOV-2013 08:50
Operator : DS Inst ID: TLCIUV1.i
Smp Info : C1.106125
Misc Info : 8315A
Comment :
Method : \\TALSVR05.tai.com\chem\LC\TLCIUV1.i\1IK26M.b\8315_A&F.m
Meth Date : 27-Nov-2013 07:47 TLCIUV1.i Quant Type: ESTD
Cal Date : 26-NOV-2013 09:37 Cal File: 1K26I6.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 831509J.sub
Target Version: 4.14
Processing Host: TALLM05A

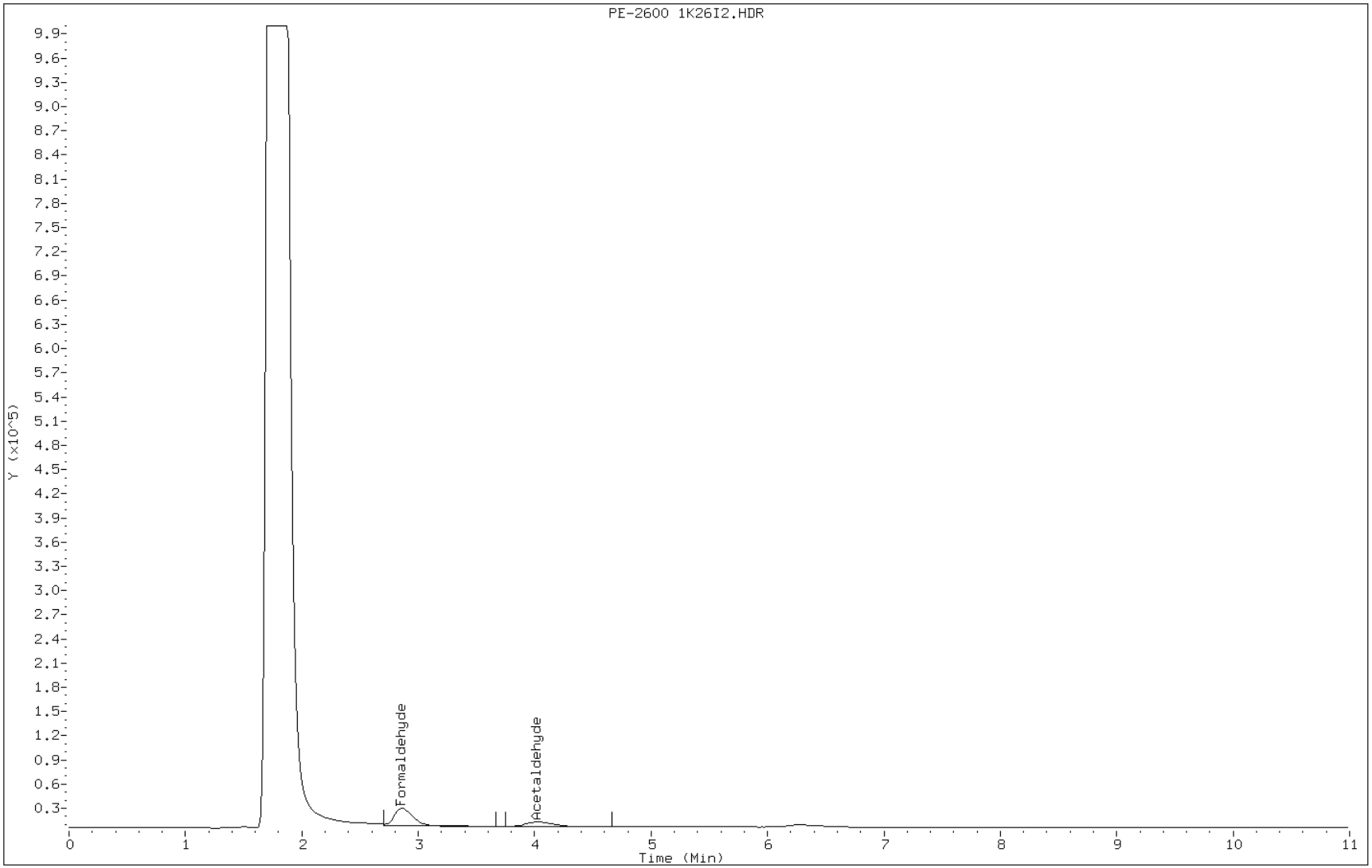
					AMOUNTS		
					CAL-AMT	ON-COL	
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(ug/ml)	REVIEW CODE
1 Formaldehyde	2.850	2.850	0.000	231525	0.50000	0.495	
2 Acetaldehyde	4.016	4.016	0.000	88932	0.50000	0.520	

Data File: 1K26I2.d

Date: 26-NOV-2013 08:50

Client ID: C1.106125 Instrument: TLCIUV1.i

Sample Info: C1.106125 Operator: DS



Data File: \\TALSVR05.tai.com\chem\LC\TLCIUV1.i\1IK26M.b\1K26I3.d Page 1
Report Date: 27-Nov-2013 07:47

TestAmerica Tallahassee

Semivolatile REPORT SW-846 Method 8315

Data file : \\TALSVR05.tai.com\chem\LC\TLCIUV1.i\1IK26M.b\1K26I3.d
Lab Smp Id: C2.106125 Client Smp ID: C2.106125
Inj Date : 26-NOV-2013 09:01
Operator : DS Inst ID: TLCIUV1.i
Smp Info : C2.106125
Misc Info : 8315A
Comment :
Method : \\TALSVR05.tai.com\chem\LC\TLCIUV1.i\1IK26M.b\8315_A&F.m
Meth Date : 27-Nov-2013 07:47 TLCIUV1.i Quant Type: ESTD
Cal Date : 26-NOV-2013 08:50 Cal File: 1K26I2.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 831509J.sub
Target Version: 4.14
Processing Host: TALLM05A

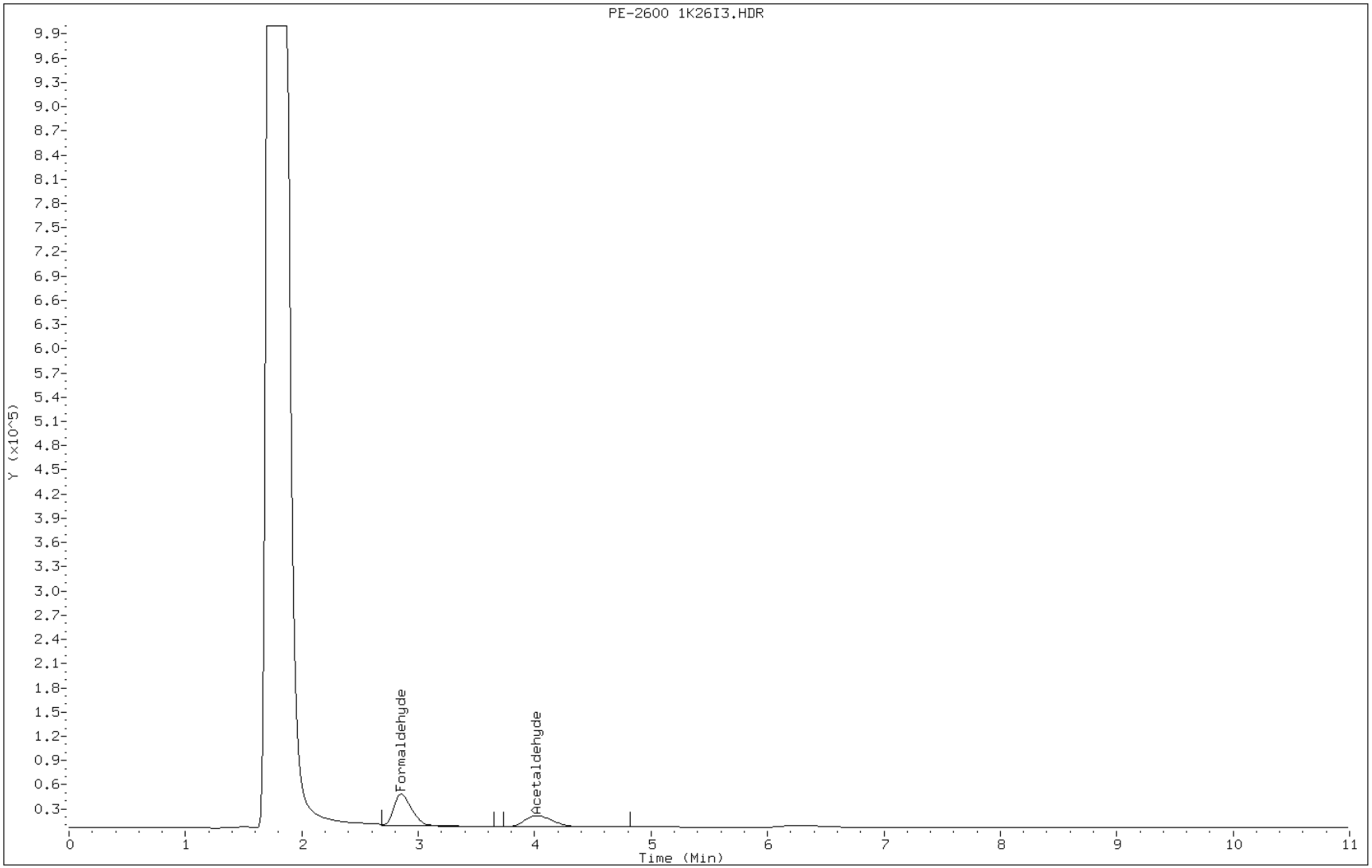
					AMOUNTS		
					CAL-AMT	ON-COL	
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(ug/ml)	REVIEW CODE
1 Formaldehyde	2.850	2.850	0.000	420953	1.25000	1.28	
2 Acetaldehyde	4.016	4.016	0.000	218202	1.25000	1.28	

Data File: 1K26I3.d

Date: 26-NOV-2013 09:01

Client ID: C2.106125 Instrument: TLCIUV1.i

Sample Info: C2.106125 Operator: DS



Data File: \\TALSVR05.tai.com\chem\LC\TLCIUV1.i\1IK26M.b\1K26I4.d Page 1
Report Date: 27-Nov-2013 07:47

TestAmerica Tallahassee

Semivolatile REPORT SW-846 Method 8315

Data file : \\TALSVR05.tai.com\chem\LC\TLCIUV1.i\1IK26M.b\1K26I4.d
Lab Smp Id: C3.106125 Client Smp ID: C3.106125
Inj Date : 26-NOV-2013 09:13
Operator : DS Inst ID: TLCIUV1.i
Smp Info : C3.106125
Misc Info : 8315A
Comment :
Method : \\TALSVR05.tai.com\chem\LC\TLCIUV1.i\1IK26M.b\8315_A&F.m
Meth Date : 27-Nov-2013 07:47 TLCIUV1.i Quant Type: ESTD
Cal Date : 26-NOV-2013 09:01 Cal File: 1K26I3.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 831509J.sub
Target Version: 4.14
Processing Host: TALLM05A

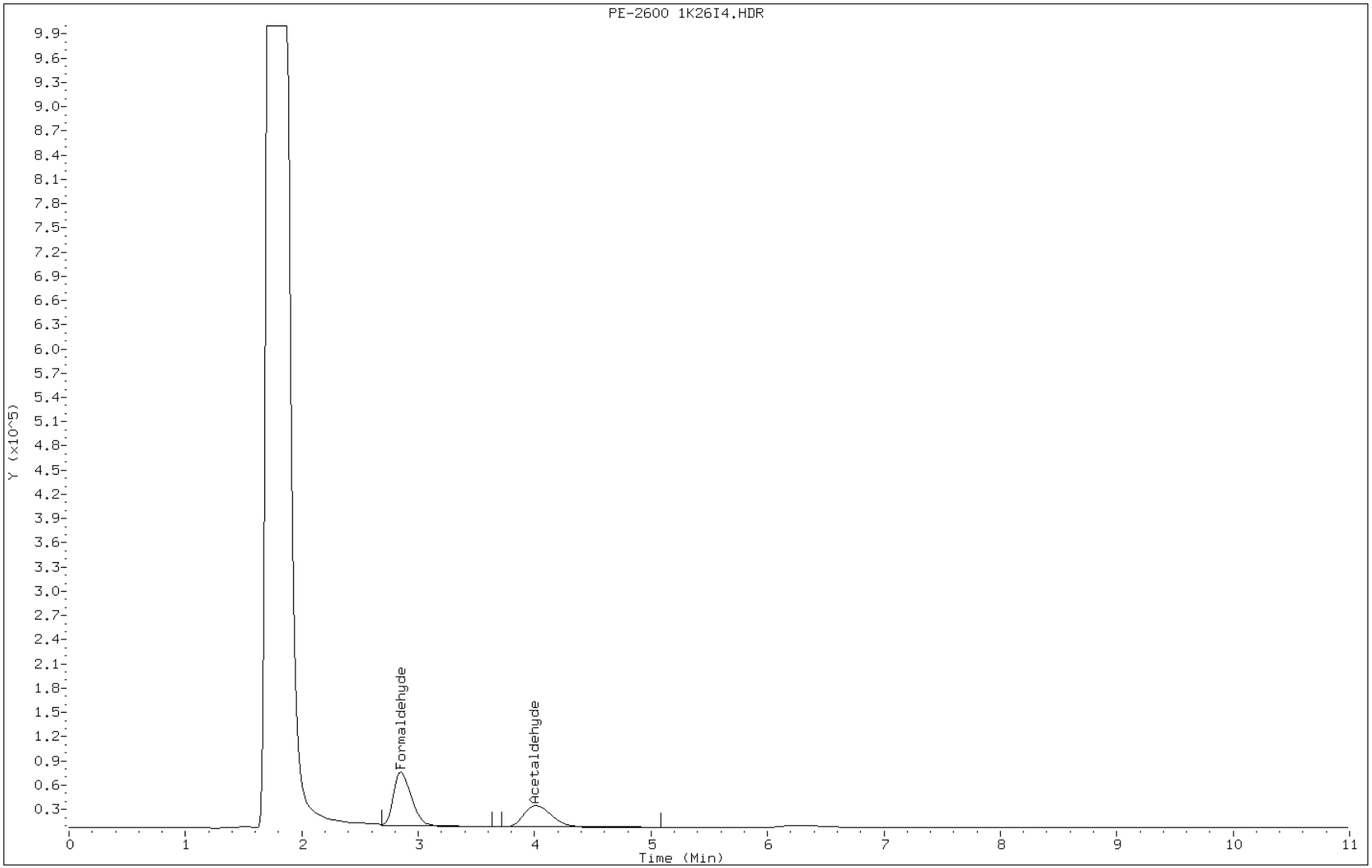
					AMOUNTS		
					CAL-AMT	ON-COL	
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(ug/ml)	REVIEW CODE
1 Formaldehyde	2.850	2.850	0.000	709213	2.50000	2.48	
2 Acetaldehyde	4.000	4.000	0.000	417528	2.50000	2.44	

Data File: 1K26I4.d

Date: 26-NOV-2013 09:13

Client ID: C3.106125 Instrument: TLCIUV1.i

Sample Info: C3.106125 Operator: DS



Data File: \\TALSVR05.tai.com\chem\LC\TLCIUV1.i\1IK26M.b\1K26I5.d Page 1
Report Date: 27-Nov-2013 07:47

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Semivolatile REPORT SW-846 Method 8315

Data file : \\TALSVR05.tai.com\chem\LC\TLCIUV1.i\1IK26M.b\1K26I5.d
Lab Smp Id: C4.106125 Client Smp ID: C4.106125
Inj Date : 26-NOV-2013 09:25
Operator : DS Inst ID: TLCIUV1.i
Smp Info : C4.106125
Misc Info : 8315A
Comment :
Method : \\TALSVR05.tai.com\chem\LC\TLCIUV1.i\1IK26M.b\8315_A&F.m
Meth Date : 27-Nov-2013 07:47 TLCIUV1.i Quant Type: ESTD
Cal Date : 26-NOV-2013 09:13 Cal File: 1K26I4.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 831509J.sub
Target Version: 4.14
Processing Host: TALLM05A

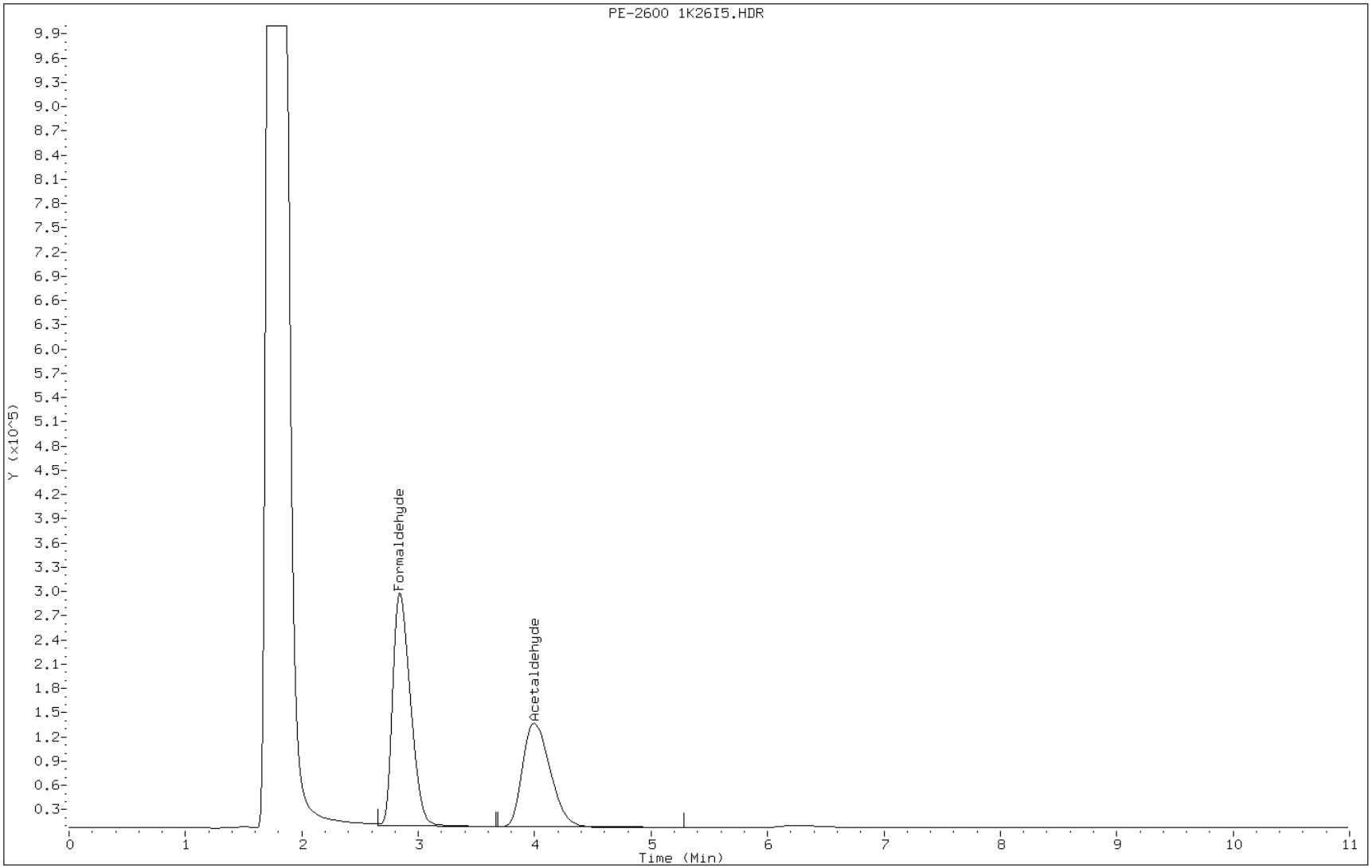
					AMOUNTS		
					CAL-AMT	ON-COL	
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(ug/ml)	REVIEW CODE
1 Formaldehyde	2.833	2.833	0.000	3079147	12.5000	12.4	
2 Acetaldehyde	4.000	4.000	0.000	2070584	12.5000	12.1	

Data File: 1K26I5.d

Date: 26-NOV-2013 09:25

Client ID: C4.106125 Instrument: TLCIUV1.i

Sample Info: C4.106125 Operator: DS



Data File: \\TALSVR05.tai.com\chem\LC\TLCIUV1.i\1IK26M.b\1K26I6.d Page 1
Report Date: 27-Nov-2013 07:47

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Semivolatile REPORT SW-846 Method 8315

Data file : \\TALSVR05.tai.com\chem\LC\TLCIUV1.i\1IK26M.b\1K26I6.d
Lab Smp Id: C5.106125 Client Smp ID: C5.106125
Inj Date : 26-NOV-2013 09:37
Operator : DS Inst ID: TLCIUV1.i
Smp Info : C5.106125
Misc Info : 8315A
Comment :
Method : \\TALSVR05.tai.com\chem\LC\TLCIUV1.i\1IK26M.b\8315_A&F.m
Meth Date : 27-Nov-2013 07:47 TLCIUV1.i Quant Type: ESTD
Cal Date : 26-NOV-2013 09:25 Cal File: 1K26I5.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 831509J.sub
Target Version: 4.14
Processing Host: TALLM05A

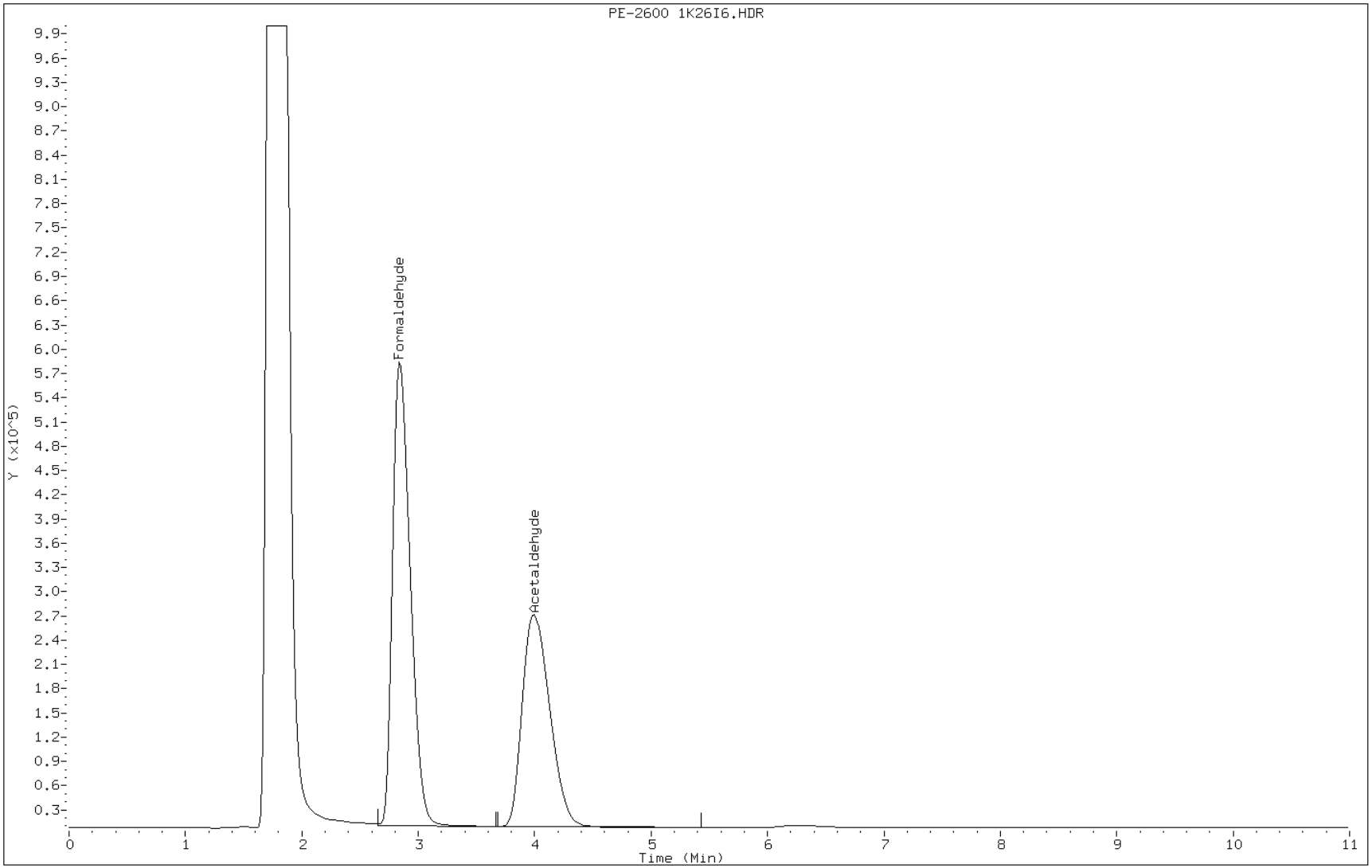
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)	REVIEW CODE
1 Formaldehyde	2.833	2.833	0.000	6113374	25.0000	25.0	
2 Acetaldehyde	4.000	4.000	0.000	4243169	25.0000	24.8	

Data File: 1K26I6.d

Date: 26-NOV-2013 09:37

Client ID: C5.106125 Instrument: TLCIUV1.i

Sample Info: C5.106125 Operator: DS



Data File: \\TALSVR05.tai.com\chem\LC\TLCIUV1.i\1IK27M.b\1K27I9.d Page 1
Report Date: 27-Nov-2013 10:22

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Semivolatile REPORT SW-846 Method 8315

Data file : \\TALSVR05.tai.com\chem\LC\TLCIUV1.i\1IK27M.b\1K27I9.d
Lab Smp Id: M3.106125 Client Smp ID: M3.106125
Inj Date : 27-NOV-2013 09:44
Operator : DS Inst ID: TLCIUV1.i
Smp Info : M3.106125
Misc Info : 8315A
Comment :
Method : \\TALSVR05.tai.com\chem\LC\TLCIUV1.i\1IK27M.b\8315_A&F.m
Meth Date : 27-Nov-2013 10:22 Smithdn Quant Type: ESTD
Cal Date : 26-NOV-2013 09:37 Cal File: 1K26I6.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 831509J.sub
Target Version: 4.14
Processing Host: TALSG01

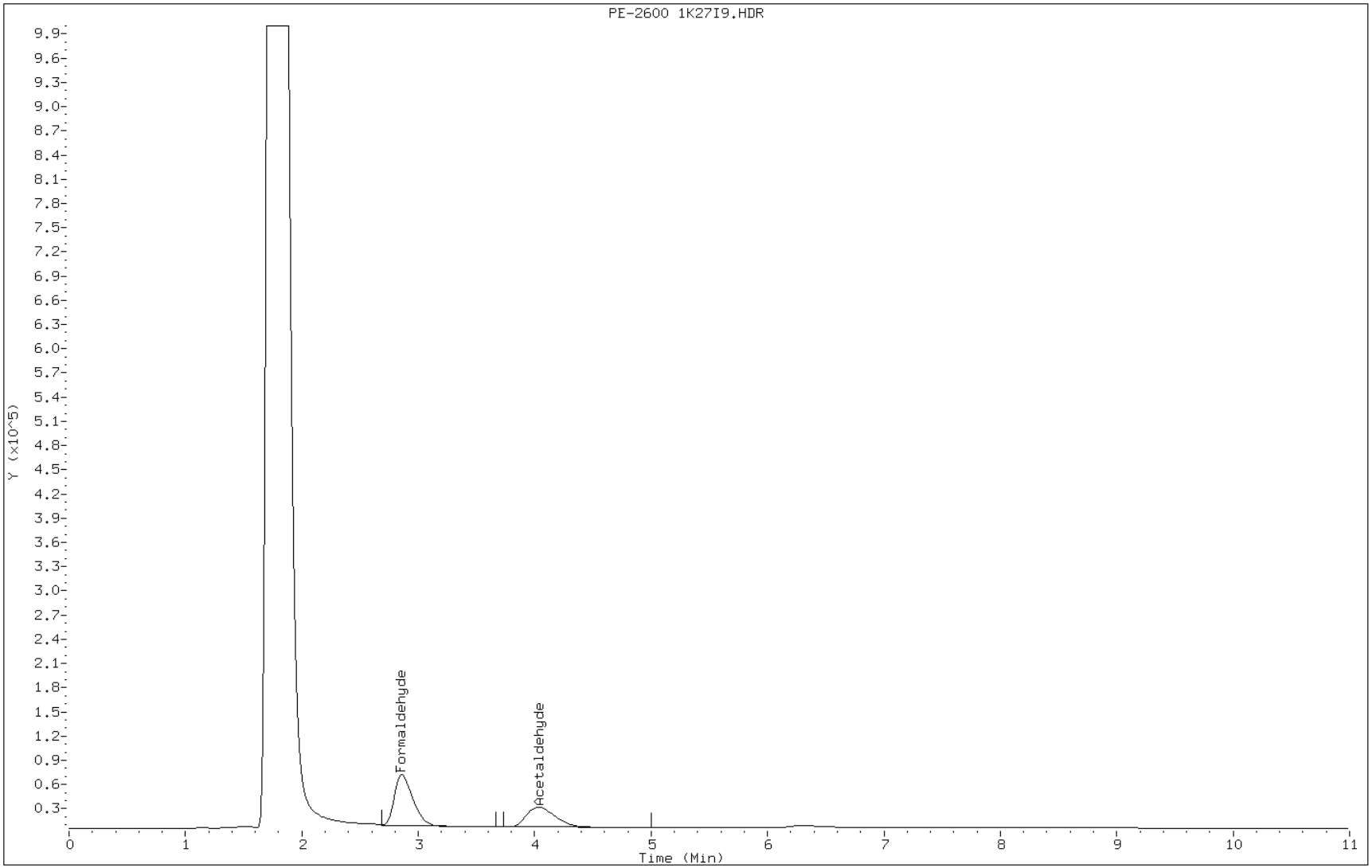
					AMOUNTS		
					CAL-AMT	ON-COL	
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(ug/ml)	REVIEW CODE
1 Formaldehyde	2.850	2.850	0.000	63311	2.50000	2.36	
2 Acetaldehyde	4.033	4.033	0.000	24489	2.50000	2.31	

Data File: 1K27I9.d

Date: 27-NOV-2013 09:44

Client ID: M3.106125 Instrument: TLCIUV1.i

Sample Info: M3.106125 Operator: DS



Data File: \\TALSVR05.tai.com\chem\LC\TLCIUV1.i\1IK27M.b\1K27I23.d Page 1
Report Date: 27-Nov-2013 14:06

TestAmerica Tallahassee

Semivolatile REPORT SW-846 Method 8315

Data file : \\TALSVR05.tai.com\chem\LC\TLCIUV1.i\1IK27M.b\1K27I23.d
Lab Smp Id: M3.106125 Client Smp ID: M3.106125
Inj Date : 27-NOV-2013 13:30
Operator : DS Inst ID: TLCIUV1.i
Smp Info : M3.106125
Misc Info : 8315A
Comment :
Method : \\TALSVR05.tai.com\chem\LC\TLCIUV1.i\1IK27M.b\8315_A&F.m
Meth Date : 27-Nov-2013 14:06 Smithdn Quant Type: ESTD
Cal Date : 26-NOV-2013 09:37 Cal File: 1K26I6.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 831509J.sub
Target Version: 4.14
Processing Host: TALSG01

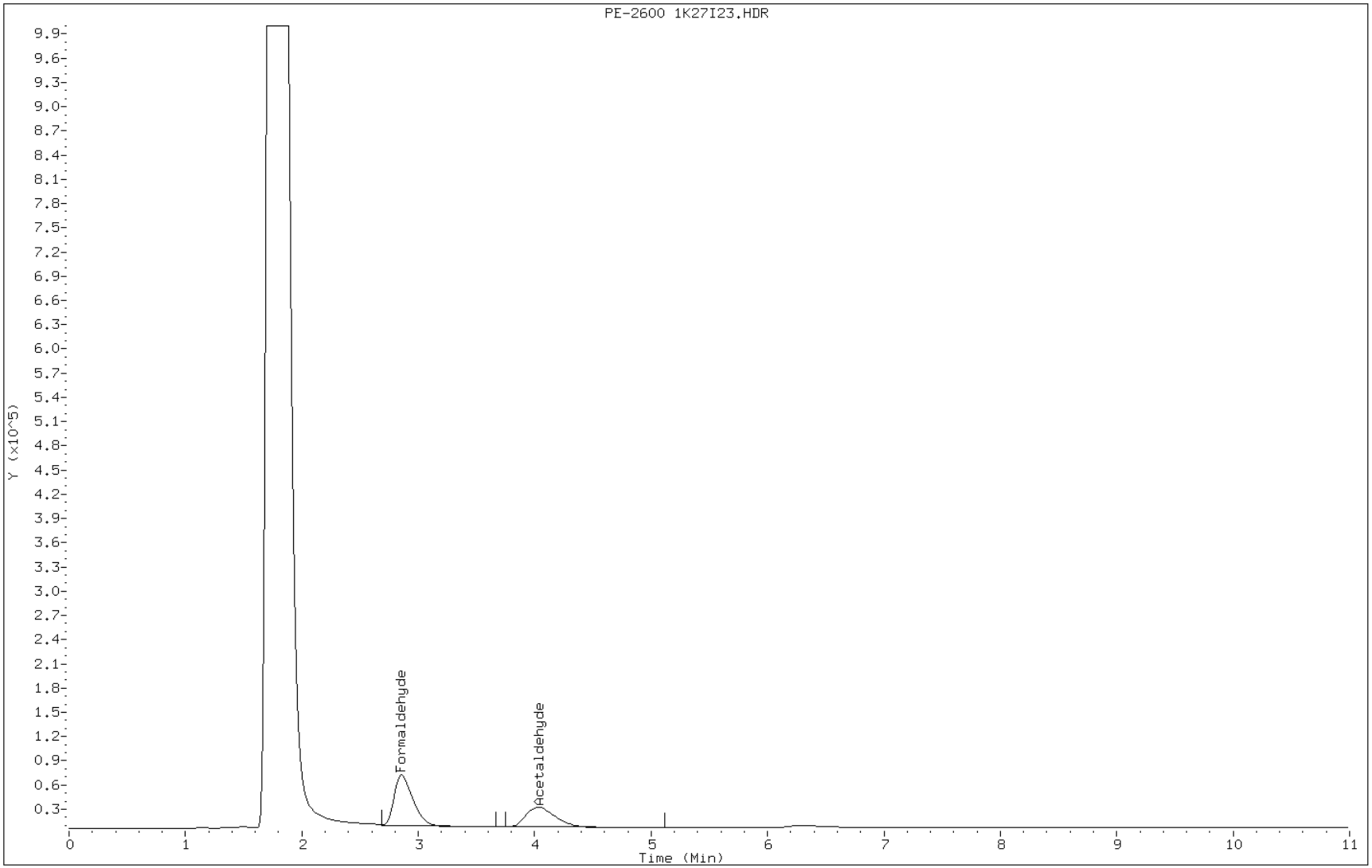
					AMOUNTS		
					CAL-AMT	ON-COL	
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(ug/ml)	REVIEW CODE
1 Formaldehyde	2.850	2.850	0.000	62681	2.50000	2.33	
2 Acetaldehyde	4.033	4.033	0.000	24067	2.50000	2.27	

Data File: 1K27I23.d

Date: 27-NOV-2013 13:30

Client ID: M3.106125 Instrument: TLCIUV1.i

Sample Info: M3.106125 Operator: DS



Data File: \\TALSVR05.tai.com\chem\LC\TLCIUV1.i\1IK27M.b\1K27I12.d Page 1
Report Date: 27-Nov-2013 12:35

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Semivolatile REPORT SW-846 Method 8315

Data file : \\TALSVR05.tai.com\chem\LC\TLCIUV1.i\1IK27M.b\1K27I12.d
Lab Smp Id: MB 640-106138/1A Client Smp ID: 106138MB
Inj Date : 27-NOV-2013 11:20
Operator : DS Inst ID: TLCIUV1.i
Smp Info : MB 640-106138/1A
Misc Info : 8315A
Comment   :
Method   : \\TALSVR05.tai.com\chem\LC\TLCIUV1.i\1IK27M.b\8315_A&F.m
Meth Date : 27-Nov-2013 10:22 Smithdn Quant Type: ESTD
Cal Date : 26-NOV-2013 09:37 Cal File: 1K26I6.d
Als bottle: 1 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 831509J.sub
Target Version: 4.14
Processing Host: TALSG01

Concentration Formula: Amt * DF * Vt/Vo * A * E * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	4.000	Final Volume
Vo	100.000	Sample Volume
A	1000.000	mL to L conversion
E	1.000	ug to mg conversion (1 if no conversion)
Cpnd Variable		Local Compound Variable

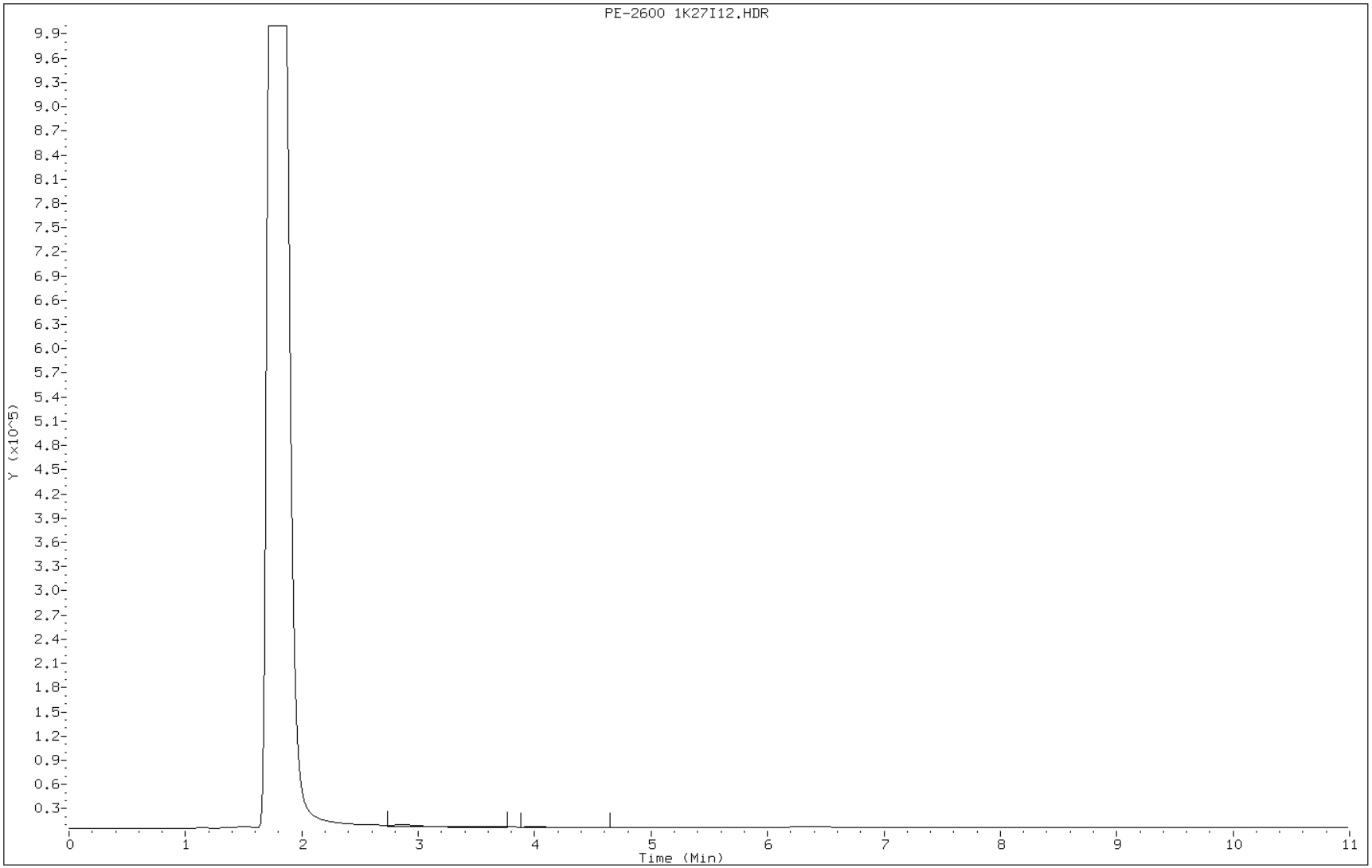
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)	REVIEW CODE
1 Formaldehyde	Compound Not Detected.						
2 Acetaldehyde	Compound Not Detected.						

Data File: 1K27I12.d

Date: 27-NOV-2013 11:20

Client ID: 106138MB Instrument: TLCIUV1.i

Sample Info: MB 640-106138/1A Operator: DS



Data File: \\TALSVR05.tai.com\chem\LC\TLCIUV1.i\1IK27M.b\1K27I13.d Page 1
Report Date: 27-Nov-2013 12:35

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Semivolatile REPORT SW-846 Method 8315

Data file : \\TALSVR05.tai.com\chem\LC\TLCIUV1.i\1IK27M.b\1K27I13.d
Lab Smp Id: LCS 640-106138/2A Client Smp ID: 106138MBLCS
Inj Date : 27-NOV-2013 11:32
Operator : DS Inst ID: TLCIUV1.i
Smp Info : LCS 640-106138/2A
Misc Info : 8315A
Comment   :
Method   : \\TALSVR05.tai.com\chem\LC\TLCIUV1.i\1IK27M.b\8315_A&F.m
Meth Date : 27-Nov-2013 10:22 Smithdn Quant Type: ESTD
Cal Date : 26-NOV-2013 09:37 Cal File: 1K26I6.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 831509J.sub
Target Version: 4.14
Processing Host: TALSG01

Concentration Formula: Amt * DF * Vt/Vo * A * E * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	4.000	Final Volume
Vo	100.000	Sample Volume
A	1000.000	mL to L conversion
E	1.000	ug to mg conversion (1 if no conversion)
Cpnd Variable		Local Compound Variable

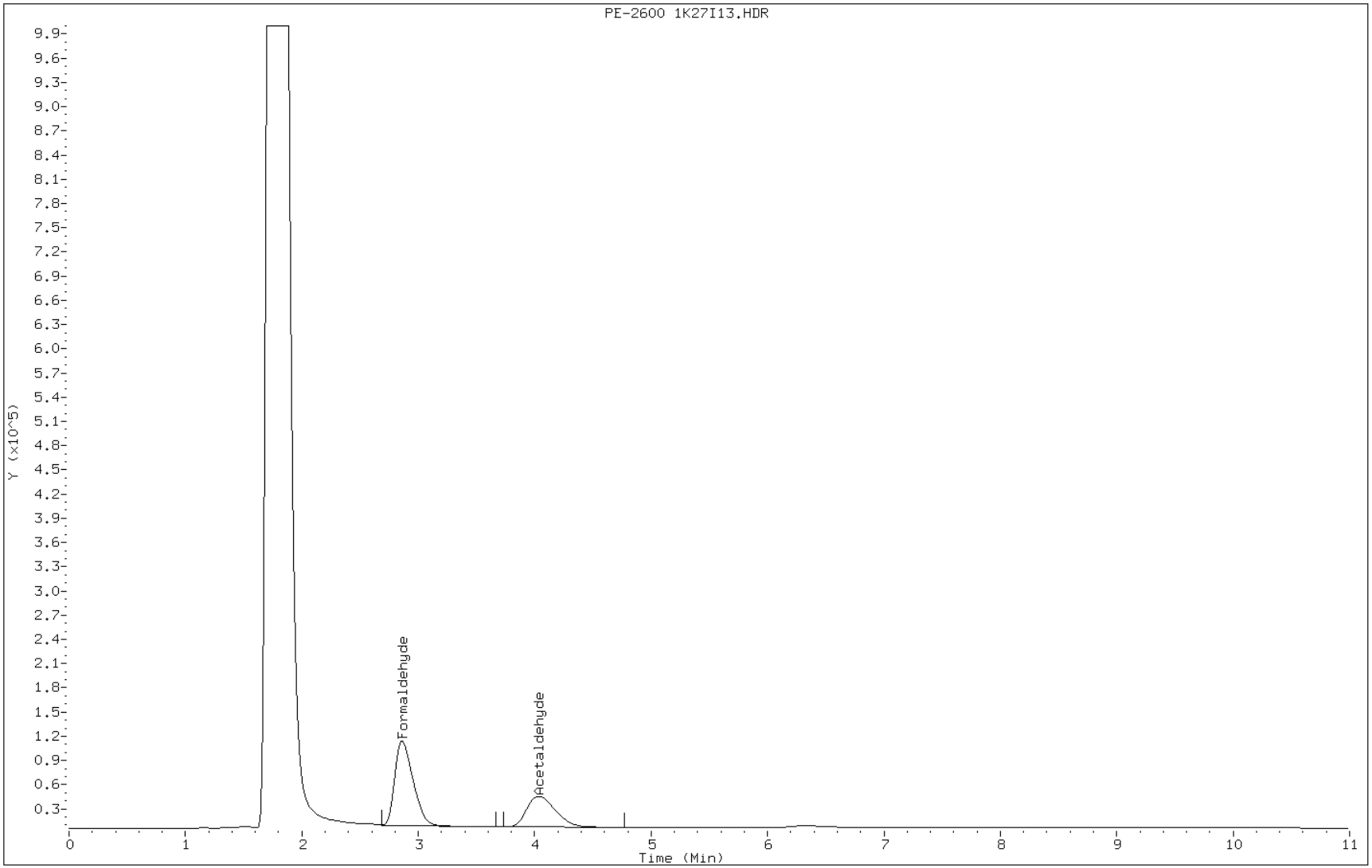
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)	REVIEW CODE
1 Formaldehyde	2.866	2.850	0.016	105167	4.21706	169	
2 Acetaldehyde	4.033	4.033	0.000	37689	3.54972	142	

Data File: 1K27I13.d

Date: 27-NOV-2013 11:32

Client ID: 106138MBLCS Instrument: TLCIUV1.i

Sample Info: LCS 640-106138/2A Operator: DS



Data File: \\TALSVR05.tai.com\chem\LC\TLCIUV1.i\1IK27M.b\1K27I14.d Page 1
Report Date: 27-Nov-2013 12:35

TestAmerica Tallahassee

Semivolatile REPORT SW-846 Method 8315

Data file : \\TALSVR05.tai.com\chem\LC\TLCIUV1.i\1IK27M.b\1K27I14.d
Lab Smp Id: LCSD 640-106138/3A Client Smp ID: 106138MBLCSD
Inj Date : 27-NOV-2013 11:43
Operator : DS Inst ID: TLCIUV1.i
Smp Info : LCSD 640-106138/3A
Misc Info : 8315A
Comment   :
Method   : \\TALSVR05.tai.com\chem\LC\TLCIUV1.i\1IK27M.b\8315_A&F.m
Meth Date : 27-Nov-2013 10:22 Smithdn Quant Type: ESTD
Cal Date : 26-NOV-2013 09:37 Cal File: 1K26I6.d
Als bottle: 1 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 831509J.sub
Target Version: 4.14
Processing Host: TALSG01

Concentration Formula: Amt * DF * Vt/Vo * A * E * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	4.000	Final Volume
Vo	100.000	Sample Volume
A	1000.000	mL to L conversion
E	1.000	ug to mg conversion (1 if no conversion)
Cpnd Variable		Local Compound Variable

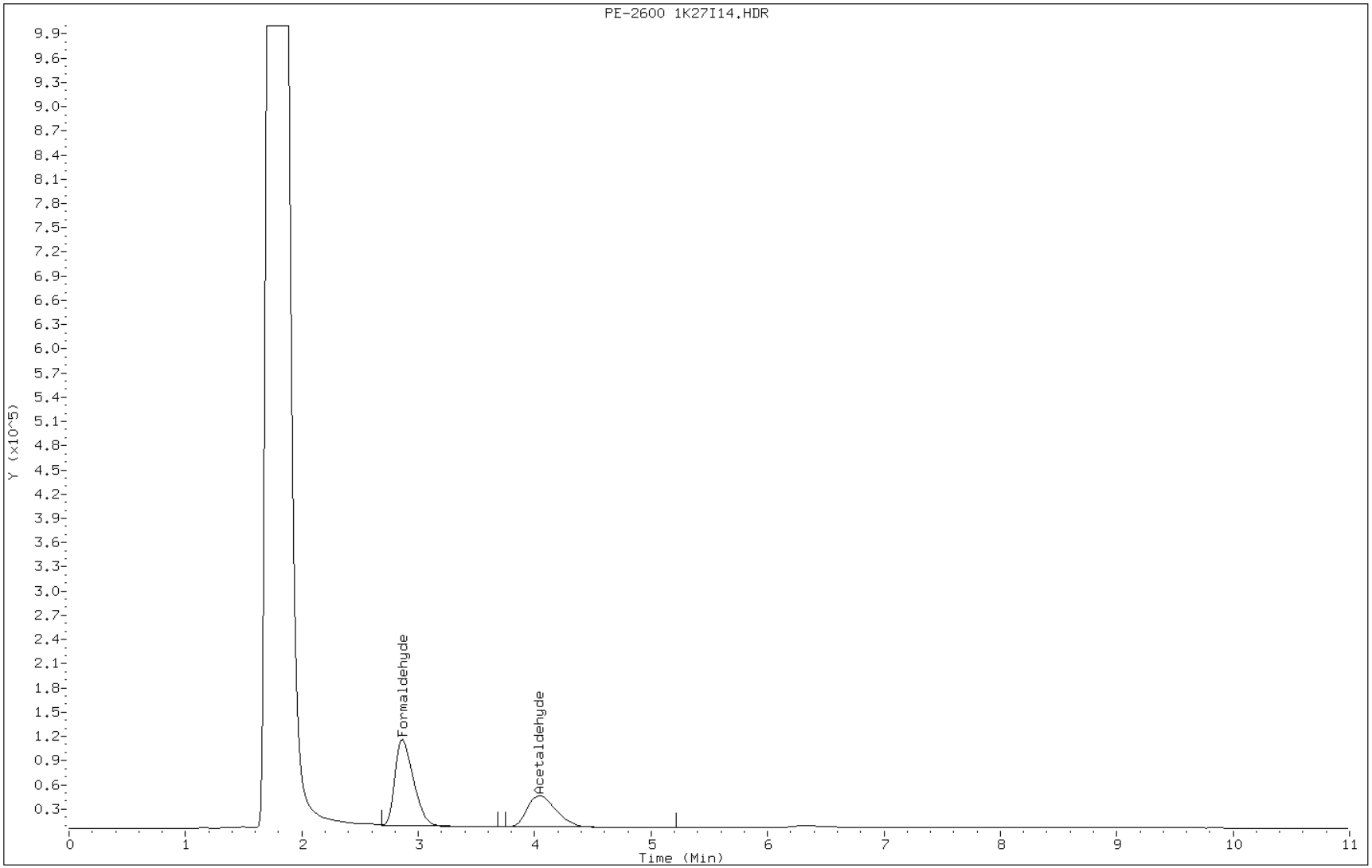
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)	REVIEW CODE
1 Formaldehyde	2.866	2.850	0.016	107382	4.31520	173	
2 Acetaldehyde	4.033	4.033	0.000	38530	3.62893	145	

Data File: 1K27I14.d

Date: 27-NOV-2013 11:43

Client ID: 106138MBLCSD Instrument: TLCIUV1.i

Sample Info: LCSD 640-106138/3A Operator: DS



Data File: \\TALSVR05.tai.com\chem\LC\TLCIUV1.i\1IK27M.b\1K27I17.d Page 1
Report Date: 27-Nov-2013 13:03

TestAmerica Tallahassee

Semivolatile REPORT SW-846 Method 8315

Data file : \\TALSVR05.tai.com\chem\LC\TLCIUV1.i\1IK27M.b\1K27I17.d
Lab Smp Id: 640-45935-A-1-B MS Client Smp ID: IMP 1,2,3+ RINSEMS
Inj Date : 27-NOV-2013 12:19
Operator : DS Inst ID: TLCIUV1.i
Smp Info : 640-45935-A-1-BMS
Misc Info : 640-45935-A-1-B MS
Comment   :
Method   : \\TALSVR05.tai.com\chem\LC\TLCIUV1.i\1IK27M.b\8315_A&F.m
Meth Date : 27-Nov-2013 10:22 Smithdn Quant Type: ESTD
Cal Date : 26-NOV-2013 09:37 Cal File: 1K26I6.d
Als bottle: 1 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 831509J.sub
Target Version: 4.14
Processing Host: TALSG01

Concentration Formula: Amt * DF * Vt/Vo * A * E * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	4.000	Final Volume
Vo	100.000	Sample Volume
A	1000.000	mL to L conversion
E	1.000	ug to mg conversion (1 if no conversion)
Cpnd Variable		Local Compound Variable

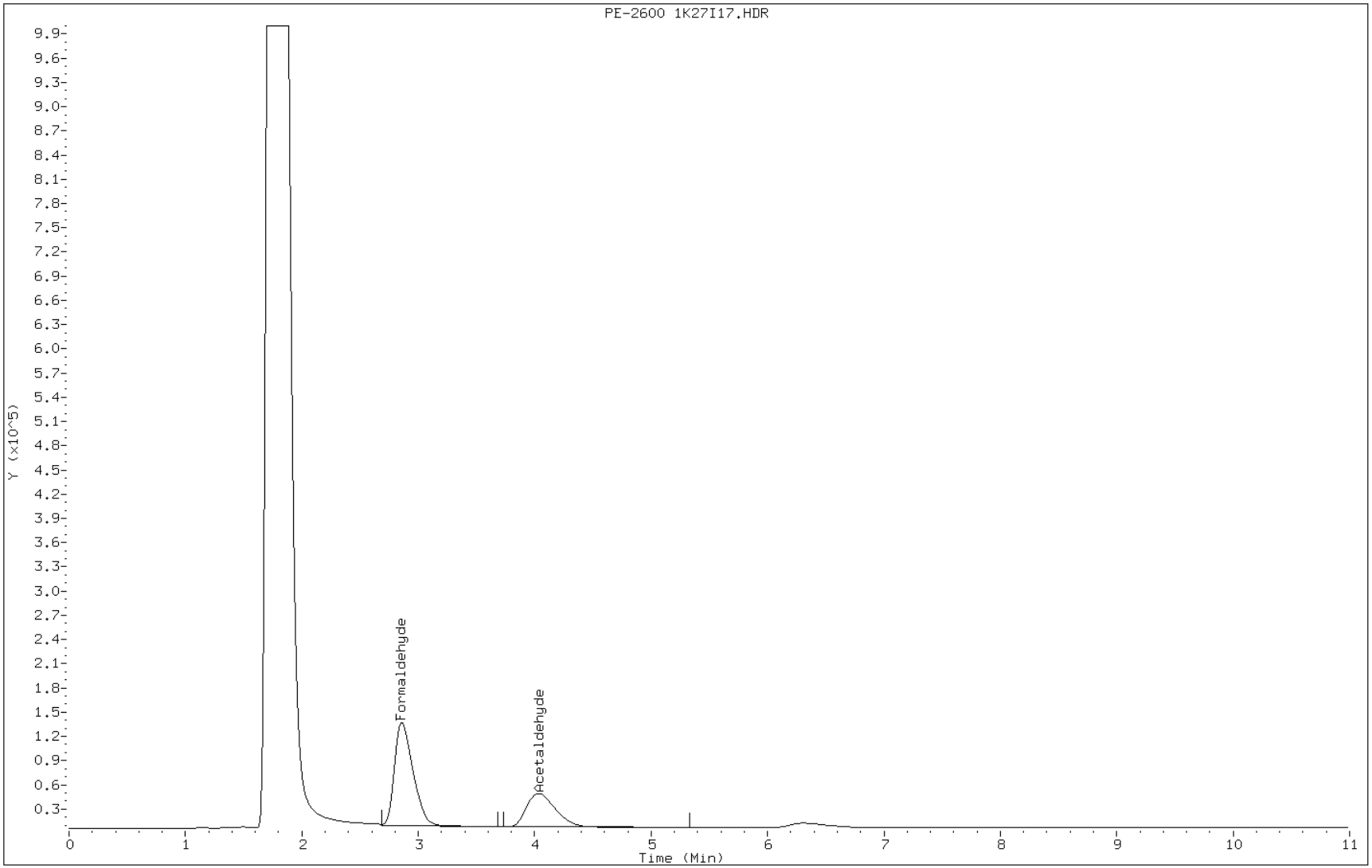
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)	REVIEW CODE
1 Formaldehyde	2.850	2.850	0.000	127697	5.21533	209	
2 Acetaldehyde	4.033	4.033	0.000	40820	3.84462	154	

Data File: 1K27I17.d

Date: 27-NOV-2013 12:19

Client ID: IMP 1,2,3+ RINSEMS Instrument: TLCIUV1.i

Sample Info: 640-45935-A-1-BMS Operator: DS



Data File: \\TALSVR05.tai.com\chem\LC\TLCIUV1.i\1IK27M.b\1K27I18.d Page 1
Report Date: 27-Nov-2013 13:21

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Semivolatile REPORT SW-846 Method 8315

Data file : \\TALSVR05.tai.com\chem\LC\TLCIUV1.i\1IK27M.b\1K27I18.d
Lab Smp Id: 640-45935-A-1-C MSD Client Smp ID: IMP 1,2,3+ RINSEMSD
Inj Date : 27-NOV-2013 12:31
Operator : DS Inst ID: TLCIUV1.i
Smp Info : 640-45935-A-1-CMSD
Misc Info : 640-45935-A-1-C MSD
Comment   :
Method   : \\TALSVR05.tai.com\chem\LC\TLCIUV1.i\1IK27M.b\8315_A&F.m
Meth Date : 27-Nov-2013 10:22 Smithdn Quant Type: ESTD
Cal Date : 26-NOV-2013 09:37 Cal File: 1K26I6.d
Als bottle: 1 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 831509J.sub
Target Version: 4.14
Processing Host: TALSG01

Concentration Formula: Amt * DF * Vt/Vo * A * E * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	4.000	Final Volume
Vo	100.000	Sample Volume
A	1000.000	mL to L conversion
E	1.000	ug to mg conversion (1 if no conversion)
Cpnd Variable		Local Compound Variable

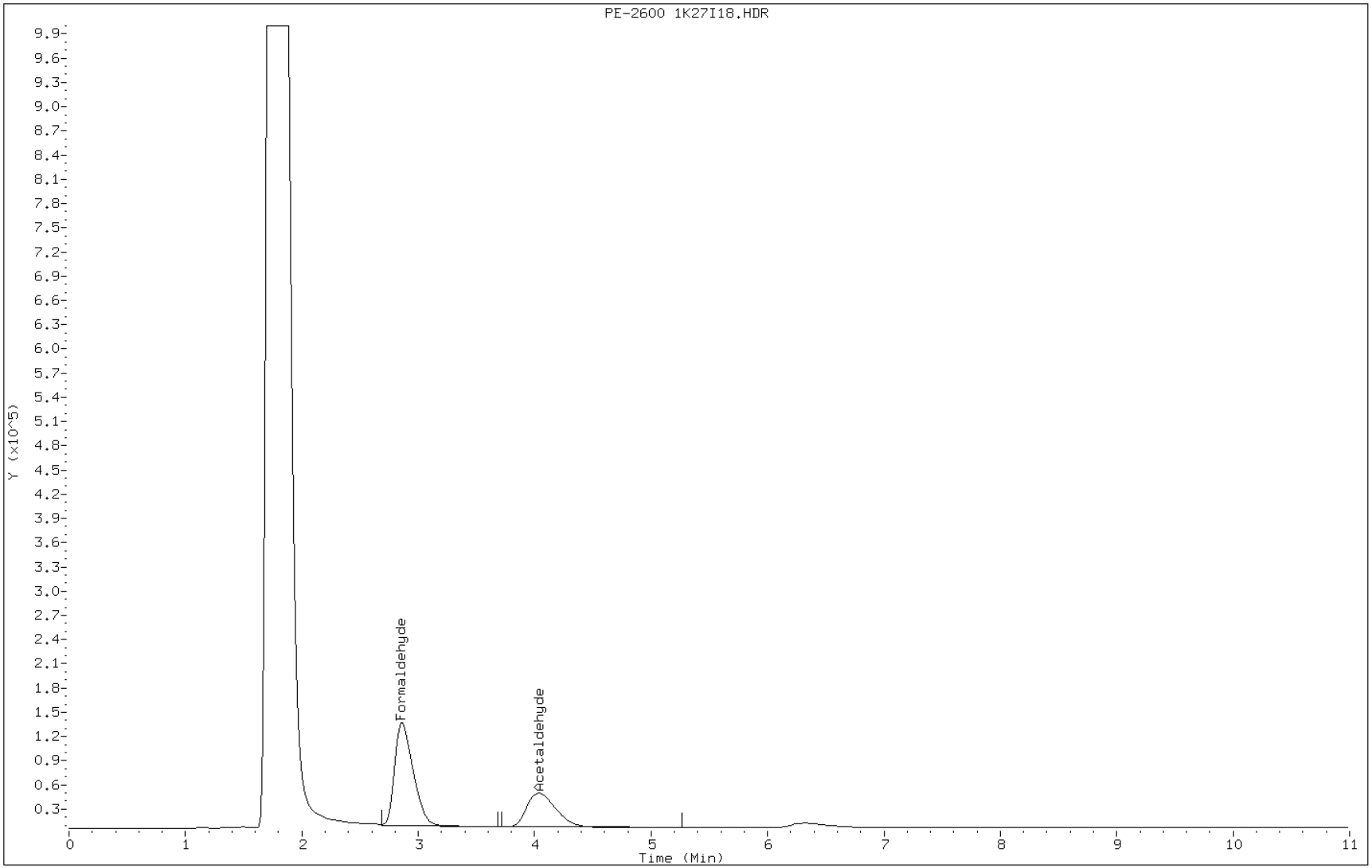
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)	REVIEW CODE
1 Formaldehyde	2.850	2.850	0.000	127172	5.19207	208	
2 Acetaldehyde	4.033	4.033	0.000	41620	3.91996	157	

Data File: 1K27I18.d

Date: 27-NOV-2013 12:31

Client ID: IMP 1,2,3+ RINSEMSD Instrument: TLCIUV1.i

Sample Info: 640-45935-A-1-CMSD Operator: DS



HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Tallahassee Job No.: 640-45935-1

SDG No.: H3K260418

Instrument ID: LCI Start Date: 11/26/2013 08:50

Analysis Batch Number: 106166 End Date: 11/26/2013 11:29

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 640-106166/7		11/26/2013 08:50	1	1K26I2.d	LC-C18
IC 640-106166/8		11/26/2013 09:01	1	1K26I3.d	LC-C18
IC 640-106166/9		11/26/2013 09:13	1	1K26I4.d	LC-C18
IC 640-106166/10		11/26/2013 09:25	1	1K26I5.d	LC-C18
IC 640-106166/11		11/26/2013 09:37	1	1K26I6.d	LC-C18
ZZZZZ		11/26/2013 09:49	1		LC-C18
ZZZZZ		11/26/2013 10:12	1		LC-C18
ZZZZZ		11/26/2013 10:24	1		LC-C18
ZZZZZ		11/26/2013 11:06	1		LC-C18
ZZZZZ		11/26/2013 11:18	1		LC-C18
ZZZZZ		11/26/2013 11:29	1		LC-C18

8315A

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Tallahassee Job No.: 640-45935-1

SDG No.: H3K260418

Instrument ID: LCI Start Date: 11/27/2013 08:16

Analysis Batch Number: 106175 End Date: 11/27/2013 13:30

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 640-106175/17		11/27/2013 08:16	1		LC-C18
ZZZZZ		11/27/2013 08:45	1		LC-C18
ZZZZZ		11/27/2013 08:57	1		LC-C18
ZZZZZ		11/27/2013 09:09	1		LC-C18
ZZZZZ		11/27/2013 09:20	1		LC-C18
ZZZZZ		11/27/2013 09:32	1		LC-C18
CCV 640-106175/19		11/27/2013 09:44	1	1K27I9.d	LC-C18
MB 640-106138/1-A		11/27/2013 11:20	1	1K27I12.d	LC-C18
LCS 640-106138/2-A		11/27/2013 11:32	1	1K27I13.d	LC-C18
LCSD 640-106138/3-A		11/27/2013 11:43	1	1K27I14.d	LC-C18
ZZZZZ		11/27/2013 11:55	1		LC-C18
640-45935-1	IMP 1,2,3+ RINSES RUN 1	11/27/2013 12:07	1	1K27I16.d	LC-C18
640-45935-1 MS	IMP 1,2,3+ RINSES RUN 1 MS	11/27/2013 12:19	1	1K27I17.d	LC-C18
640-45935-1 MSD	IMP 1,2,3+ RINSES RUN 1 MSD	11/27/2013 12:31	1	1K27I18.d	LC-C18
640-45935-2	IMP 1,2,3+ RINSES RUN 2	11/27/2013 12:42	1	1K27I19.d	LC-C18
640-45935-3	IMP 1,2,3+ RINSES RUN 3	11/27/2013 12:54	1	1K27I20.d	LC-C18
640-45935-4	HPLC REAGENT BLANK	11/27/2013 13:06	1	1K27I21.d	LC-C18
640-45935-5	IMP 1,2,3+ FIELD BLANK	11/27/2013 13:18	1	1K27I22.d	LC-C18
CCV 640-106175/18		11/27/2013 13:30	1	1K27I23.d	LC-C18

HPLC/IC BATCH WORKSHEET

Lab Name: TestAmerica Tallahassee Job No.: 640-45935-1

SDG No.: H3K260418

Batch Number: 106138 Batch Start Date: 11/27/13 10:15 Batch Analyst: Smith, Daniel N

Batch Method: 8315_W_Prep Batch End Date: 11/27/13 10:51

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Final pH	LCS8315SPK 00063		
MB 640-106138/1		8315_W_Prep, 8315A		100 mL	4.0 mL	5			
LCS 640-106138/2		8315_W_Prep, 8315A		100 mL	4.0 mL	5	150 uL		
LCSD 640-106138/3		8315_W_Prep, 8315A		100 mL	4.0 mL	5	150 uL		
640-45935-A-1	IMP 1,2,3+ RINSES RUN 1	8315_W_Prep, 8315A	T	100 mL	4.0 mL	5			
640-45935-A-1 MS	IMP 1,2,3+ RINSES RUN 1	8315_W_Prep, 8315A	T	100 mL	4.0 mL	5	150 uL		
640-45935-A-1 MSD	IMP 1,2,3+ RINSES RUN 1	8315_W_Prep, 8315A	T	100 mL	4.0 mL	5	150 uL		
640-45935-A-2	IMP 1,2,3+ RINSES RUN 2	8315_W_Prep, 8315A	T	100 mL	4.0 mL	5			
640-45935-A-3	IMP 1,2,3+ RINSES RUN 3	8315_W_Prep, 8315A	T	100 mL	4.0 mL	5			
640-45935-A-4	HPLC REAGENT BLANK	8315_W_Prep, 8315A	T	90 mL	4.0 mL	5			
640-45935-A-5	IMP 1,2,3+ FIELD BLANK	8315_W_Prep, 8315A	T	100 mL	4.0 mL	5			

Batch Notes	
Acetate Buffer Lot #	LCR1-68-5
Batch Comment	8315A
DNPH Lot#	LCR1-68-4
Eluting Solvent Lot #	LCR1-70-5
HPLC H2O Lot#	112713
Person's name who witnessed reagent drop	DS
Saturated NaCl Lot#	LCR1-68-2

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Shipping and Receiving Documents

640-45935

Laboratory: TestAmerica Tallahassee

2846 Industrial Plaza Drive
Tallahassee, FL 32301

TestAmerica Laboratories, Inc.
Knoxville Laboratory

SAMPLE ANALYSIS REQUISITION

Lab Request: SR128390

Report Package: Expanded Deliverables

Need Analytical Report: 12/18/13

Knoxville Project Manager: KEVIN WOODCOCK

Client Code: 521851

Client Sample ID	Lab Work Order #	Lab Internal ID	Sampling Date/Time	Analysis Required
IMP 1,2,3+RINSES RUN 1	M2K3M	H3K260418-1	11/20/13 00:00	8315 FORMALDEHYDE
IMP 1,2,3+RINSES RUN 2	M2K3P	H3K260418-2	11/21/13 00:00	
IMP 1,2,3+RINSES RUN 3	M2K3Q	H3K260418-3	11/22/13 00:00	
HPLC REAGENT BLANK	M2K3R	H3K260418-4	11/16/13 00:00	
IMP 1,2,3+RINSES FIELD BLANK	M2K3V	H3K260418-5	11/16/13 00:00	

NOTE: Please log samples using Client Sample ID

640-45935 Chain of Custody

Copy of Client chain-of-custody is maintained by TestAmerica Knoxville
Need detection limit and analysis date included in report
Please send a signed copy of this form with the report at completion of analysis

2.0°C

Shipping Method: FEDEX

Relinquished by: _____ Date/Time: 11/26/13 14:15

Relinquished by: _____ Date/Time: _____

Received for lab by: Jennie Carpenter Date/Time: 11/27/13 0935

KNXPM_SampleAnalysisRequest.rdl - v2.0

Login Sample Receipt Checklist

Client: TestAmerica Laboratories, Inc.

Job Number: 640-45935-1
SDG Number: H3K260418

Login Number: 45935
List Source: TestAmerica Tallahassee
List Number: 1
Creator: Carpenter, Jonnie T

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

Sample Receipt Documentation

H3K260418

1183 E. Overdrive Circle • Hernando, FL 34442 • Ph: (352) 489-4337 • Fax: (352) 489-4801
www.cem-solutions.com

Chain of Custody Record

Project #	Project Name:
6132	Fagen, Inc - GREC RATA

Samplers: Charles Horton / Alex Houseal / Matt Savin

	Sample ID	Date	Test Method	Comp.	Grab	Sample Location	# of Containers	Imp. 1, 2, 3 and rinses		HPLC-grade DI H2O						Comments
11-20	Run 1		316	x		Unit 1 Stack	1	X								
11-21	Run 2		316	x		Unit 1 Stack	1	X								
11-22	Run 3		316	x		Unit 1 Stack	1	X								
																HAND DELIVERED
																NO CUSTODY SEALS
																RECEIVED AT 2.0°C
																1120 11-26-13
	Reagent Blank	11/16/2013	316		x	DI Water	1			x						Lot# DF171-D
	Field Blank	11/16/2013	316	x		Unit 1 Stack	1	x								

Relinquished by:	Date:	Time:	Received By:	Relinquished By:	Date:	Time:	Received By:
	11/25/13	0930			11/26/13	8:15	11-26-13 0815
Relinquished by:	Date:	Time:	Received By:	Relinquished By:	Date:	Time:	Received By:
Received for Lab By:	Date:	Time:	Remarks: Analytes: Formaldehyde and Acetaldehyde; Store chilled on Ice				

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: H31K260418

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **1a** Do not match COC ☐ **1b** Incomplete information ☐ **1c** Marking smeared ☐ **1d** Label torn ☐ **1e** No label ☐ **1f** COC not received ☐ **1g** Other:	9A, HAND DELIVERED 15A, NO COLLECTION DATE ON COC FOR RUNS 1-3, LISTED ON LABELS RUN 1 11-20-13 RUN 2 11-21-13 RUN 3 11-22-13
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C)	✓			☐ **2a** Temp Blank = _____ ☐ **2b** Cooler Temp = _____ ☐ **2c** Cooling initiated for recently collected samples, ice present.	
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **3a** See box 3A for pH Preservation ☐ **3b** Other:	
4. Were custody seals present/intact on cooler and/or containers?		✓		☑ **4a** Not present ☐ **4b** Not intact ☐ **4c** Other:	
5. Were all of the samples listed on the COC received?	✓			☐ **5a** Samples received-not on COC ☐ **5b** Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ **6a** Leaking ☐ **6b** Broken	
7. Were VOA samples received without headspace?		✓		☐ **7a** Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ **8a** Improper container	
9. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668)			✓	☐ **9a** Could not be determined due to matrix interference	
10. Were samples received within holding time?	✓			☐ **10a** Holding time expired	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For 1613B water samples is pH<9?			✓	If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	✓			☐ **13a** Leaking ☐ **13b** Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **14a** Not relinquished	
15. Are tests/parameters listed for each sample?	✓			☐ **15a** Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ **15a** Incomplete information	
17. Is the date/time of sample collection noted?	✓	✓		☑ **15a** Incomplete information	
18. Is the client and project name/# identified?	✓			☐ **15a** Incomplete information	
19. Was the sampler identified on the COC?	✓			☐ **19a** Other	

	Box 3A: pH Preservation	Box 9A: Residual Chlorine
Preservative:		
Lot Number:		
Exp Date:		
Analyst:		
Date:		
Time:		

Quote #: 90265 PM Instructions: _____

Sample Receiving Associate: _____ Date: 11-26-13

QA026R25.doc, 071813

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

PROJECT NO. 6132

FAGEN/GREC UNIT 1 - M0030

Lot #: H3K260420

Charles Horton

C.E.M. Solutions Incorporated
1183 E Overdrive Circle
Hernando, FL 34442

TESTAMERICA LABORATORIES, INC.

Kevin S. Woodcock
Project Manager

December 4, 2013

ANALYTICAL METHODS SUMMARY

H3K260420

PARAMETER	ANALYTICAL METHOD
Volatile Organic Sampling Train (VOST)	SW846 VOST
Volatile Organics by GC/MS	SW846 8260B

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

H3K260420

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
M2K4V	001	M0030 RUN 1 SET 1 TUBE 1	11/21/13	
M2K4W	002	M0030 RUN 1 SET 1 TUBE 2	11/21/13	
M2K4X	003	M0030 RUN 1 SET 2 TUBE 1	11/21/13	
M2K40	004	M0030 RUN 1 SET 2 TUBE 2	11/21/13	
M2K41	005	M0030 RUN 1 SET 3 TUBE 1	11/21/13	
M2K42	006	M0030 RUN 1 SET 3 TUBE 2	11/21/13	
M2K43	007	M0030 RUN 1 SET 4 TUBE 1	11/21/13	
M2K44	008	M0030 RUN 1 SET 4 TUBE 2	11/21/13	
M2K45	009	M0030 RUN 1 CONDENSATE	11/21/13	
M2K46	010	M0030 RUN 2 SET 1 TUBE 1	11/22/13	
M2K47	011	M0030 RUN 2 SET 1 TUBE 2	11/22/13	
M2K48	012	M0030 RUN 2 SET 2 TUBE 1	11/22/13	
M2K5C	013	M0030 RUN 2 SET 2 TUBE 2	11/22/13	
M2K5D	014	M0030 RUN 2 SET 3 TUBE 1	11/22/13	
M2K5E	015	M0030 RUN 2 SET 3 TUBE 2	11/22/13	
M2K5H	018	M0030 RUN 2 CONDENSATE	11/22/13	
M2K5L	019	M0030 RUN 3 SET 1 TUBE 1	11/22/13	
M2K5M	020	M0030 RUN 3 SET 1 TUBE 2	11/22/13	
M2K5N	021	M0030 RUN 3 SET 2 TUBE 1	11/22/13	
M2K5P	022	M0030 RUN 3 SET 2 TUBE 2	11/22/13	
M2K5Q	023	M0030 RUN 3 SET 3 TUBE 1	11/22/13	
M2K5R	024	M0030 RUN 3 SET 3 TUBE 2	11/22/13	
M2K5X	027	M0030 RUN 3 CONDENSATE	11/22/13	
M2K50	028	M0030 FIELD BLANK TUBE 1	11/18/13	
M2K51	029	M0030 FIELD BLANK TUBE 2	11/18/13	
M2K52	030	M0030 TRIP BLANK TUBE 1	11/18/13	
M2K53	031	M0030 TRIP BLANK TUBE 2	11/18/13	
M2K54	032	A-5099 MEDIA CHECK TENAX	11/18/13	
M2K55	033	A-5100 MEDIA CHECK TENAX/CHAR	11/18/13	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

PROJECT NARRATIVE
H3K260420

The results reported herein are applicable to the samples submitted for analysis only. If you have any questions about this report, please call (865) 291-3000 to speak with the TestAmerica project manager listed on the cover page.

This report shall not be reproduced except in full, without the written approval of the laboratory.

The original chain of custody documentation is included with this report.

Sample Receipt

There were no problems with the condition of the samples received.

Quality Control and Data Interpretation

Unless otherwise noted, all holding times and QC criteria were met and the test results shown in this report meet all applicable NELAC requirements.

The following water samples were received with the corresponding volumes:

Client ID	Volume (mL)
M0030 RUN 1 CONDENSATE	35.7
M0030 RUN 2 CONDENSATE	40.3
M0030 RUN 3 CONDENSATE	41.2

Volatile Organic Sampling Train (VOST) Preparation and Analysis

VOST tubes and water/ samples were analyzed for the volatile organic target analytes by purge and trap GCMS using TestAmerica Knoxville standard operating procedures KNOX-MS-0011 and KNOX-MS-0015, based on the following methods:

- SW-846 5041A, "Analysis for Desorption of Sorbent Cartridges from Volatile Organic Sampling Train (VOST)"
- SW-846 8260B, "Volatile Organic Compounds by Gas Chromatography/ Mass Spectrometry (GC/MS)"

Samples were received as SW-846 method 0030 trains. Each Tenax and Tenax/charcoal tube is separately prepared by spiking a known amount of surrogate onto the media using a flash vaporization device. Volatile compounds are introduced into the gas chromatograph by thermal desorption of the analytes from the VOST tube using a clamshell oven and a purge and trap device. VOST condensates are spiked with surrogates and purged directly. The components are separated using the chromatograph and detected using a mass spectrometer, which provides both qualitative and quantitative information.

Sample results were calculated using the following equations:

$$\text{VOST Result, ug} = (\text{On column concentration, ug/L}) * (\text{Purge Volume, L})$$

PROJECT NARRATIVE
H3K260420

$$\text{Condensate Result, ug/L} = (\text{On column concentration, ug/L}) * \text{Dilution Factor}$$

Sample M0030 RUN SET 1 TUBE 1 clogged the instruments transfer line from the VOST tube to the sample analyzer during analysis. As a result, the sample was not analyzed with the full volume of desorption gas and resulted in very low internal standards and surrogate recoveries. The archive tubes of M0030 RUN SET 4 TUBE 1 and M0030 RUN SET 4 TUBE 2 were analyzed in addition due to poor recoveries on M0030 RUN SET 1 TUBE 1.

Sample M0030 RUN SET 2 TUBE 1 was spiked twice with surrogate due to operator error. Surrogate recoveries had acceptable recoveries based on a double surrogate spike and the results are adjusted accordingly.

CERTIFICATION SUMMARY

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Knoxville	L-A-B	DoD ELAP		L2311
TestAmerica Knoxville	Arkansas DEQ	State Program	6	88-0688
TestAmerica Knoxville	California	State Program	9	2423
TestAmerica Knoxville	Colorado	State Program	8	N/A
TestAmerica Knoxville	Connecticut	State Program	1	PH-0223
TestAmerica Knoxville	Florida	NELAC	4	E87177
TestAmerica Knoxville	Georgia	State Program	4	906
TestAmerica Knoxville	Hawaii	State Program	9	N/A
TestAmerica Knoxville	Indiana	State Program	5	C-TN-02
TestAmerica Knoxville	Iowa	State Program	7	375
TestAmerica Knoxville	Kansas	NELAC	7	E-10349
TestAmerica Knoxville	Kentucky	State Program	4	90101
TestAmerica Knoxville	Louisiana DOHH	State Program	6	LA110001
TestAmerica Knoxville	Louisiana DEQ	NELAC	6	83979
TestAmerica Knoxville	Maryland	State Program	3	277
TestAmerica Knoxville	Michigan	State Program	5	9933
TestAmerica Knoxville	Minnesota	NELAC	5	047-999-429
TestAmerica Knoxville	Nevada	State Program	9	TN00009
TestAmerica Knoxville	New Jersey	NELAC	2	TN001
TestAmerica Knoxville	New York	NELAC	2	10781
TestAmerica Knoxville	North Carolina DENR	State Program	4	64
TestAmerica Knoxville	North Carolina DHHS	State Program	4	21705
TestAmerica Knoxville	Ohio	OVAP	5	CL0059
TestAmerica Knoxville	Oklahoma	State Program	6	9415
TestAmerica Knoxville	Pennsylvania	NELAC	3	68-00576
TestAmerica Knoxville	South Carolina	State Program	4	84001
TestAmerica Knoxville	Tennessee	State Program	4	2014
TestAmerica Knoxville	Texas	NELAC	6	T104704380-TX
TestAmerica Knoxville	Federal	USDA		P330-11-00035
TestAmerica Knoxville	Utah	NELAC	8	QUAN3
TestAmerica Knoxville	Virginia	NELAC	3	460176
TestAmerica Knoxville	Virginia	State Program	3	165
TestAmerica Knoxville	Washington	State Program	10	C593
TestAmerica Knoxville	West Virginia DEP	State Program	3	345
TestAmerica Knoxville	West Virginia DHHR	State Program	3	9955C

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

QC DATA ASSOCIATION SUMMARY

H3K260420

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	AIR	SW846 VOST		3330044	
002	AIR	SW846 VOST		3330044	
003	AIR	SW846 VOST		3330044	
004	AIR	SW846 VOST		3330044	
005	AIR	SW846 VOST		3330044	
006	AIR	SW846 VOST		3330044	
007	AIR	SW846 VOST		3330044	
008	AIR	SW846 VOST		3330044	
009	WATER	SW846 8260B		3330043	
010	AIR	SW846 VOST		3331037	
011	AIR	SW846 VOST		3331037	
012	AIR	SW846 VOST		3331037	
013	AIR	SW846 VOST		3331037	
014	AIR	SW846 VOST		3331037	
015	AIR	SW846 VOST		3331037	
018	WATER	SW846 8260B		3330043	
019	AIR	SW846 VOST		3331037	
020	AIR	SW846 VOST		3331037	
021	AIR	SW846 VOST		3330044	
022	AIR	SW846 VOST		3330044	
023	AIR	SW846 VOST		3330044	

(Continued on next page)

QC DATA ASSOCIATION SUMMARY

H3K260420

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
024	AIR	SW846 VOST		3330044	
027	WATER	SW846 8260B		3330043	
028	AIR	SW846 VOST		3330044	
029	AIR	SW846 VOST		3330044	
030	AIR	SW846 VOST		3330044	
031	AIR	SW846 VOST		3330044	
032	AIR	SW846 VOST		3330044	
033	AIR	SW846 VOST		3330044	

Sample Data Summary

C.E.M. Solutions Incorporated

Client Sample ID: M0030 RUN 1 SET 1 TUBE 1

GC/MS Volatiles

Lot-Sample #...: H3K260420-001 **Work Order #...:** M2K4V1AA **Matrix.....:** AIR
Date Sampled...: 11/21/13 **Date Received..:** 11/26/13
Prep Date.....: 11/27/13 **Analysis Date..:** 11/27/13
Prep Batch #...: 3330044
Dilution Factor: 1 **Method.....:** SW846 VOST

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acrolein	ND	5.0	ug	5.0
Benzene	ND	0.010	ug	0.0035
Ethylbenzene	ND	0.010	ug	0.0010
Toluene	**0.0043 J,B**	**0.010**	**ug**	**0.0010**
1,1,1-Trichloroethane	ND	0.025	ug	0.0010
m-Xylene & p-Xylene	ND	0.020	ug	0.0020
o-Xylene	ND	0.010	ug	0.0010
Chloromethane	ND	0.050	ug	0.0025

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	0.0	(50 - 134)
1,2-Dichloroethane-d4	0.0	(50 - 127)
Toluene-d8	1.9 *	(57 - 134)
Bromofluorobenzene	2.1 *	(50 - 122)

NOTE(S):

* Surrogate recovery is outside stated control limits.

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

C.E.M. Solutions Incorporated

Client Sample ID: M0030 RUN 1 SET 1 TUBE 2

GC/MS Volatiles

Lot-Sample #...:	H3K260420-002	**Work Order #...:**	M2K4W1AA	**Matrix.....:**	AIR
Date Sampled...:	11/21/13	**Date Received..:**	11/26/13		
Prep Date.....:	11/27/13	**Analysis Date..:**	11/27/13		
Prep Batch #...:	3330044				
Dilution Factor:	1	**Method.....:**	SW846 VOST		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acrolein	ND	5.0	ug	5.0
Benzene	**0.0094 J**	**0.010**	**ug**	**0.0035**
Ethylbenzene	ND	0.010	ug	0.0010
Toluene	**0.0096 J,B**	**0.010**	**ug**	**0.0010**
1,1,1-Trichloroethane	ND	0.025	ug	0.0010
m-Xylene & p-Xylene	ND	0.020	ug	0.0020
o-Xylene	ND	0.010	ug	0.0010
Chloromethane	**0.046 J**	**0.050**	**ug**	**0.0025**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	84	(50 - 134)
1,2-Dichloroethane-d4	66	(50 - 127)
Toluene-d8	101	(57 - 134)
Bromofluorobenzene	83	(50 - 122)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

C.E.M. Solutions Incorporated

Client Sample ID: M0030 RUN 1 SET 2 TUBE 1

GC/MS Volatiles

Lot-Sample #...: H3K260420-003	**Work Order #...:** M2K4X1AA		**Matrix.....:** AIR
Date Sampled...: 11/21/13	**Date Received..:** 11/26/13		
Prep Date.....: 11/27/13	**Analysis Date..:** 11/27/13		
Prep Batch #...: 3330044			
Dilution Factor: 1	**Method.....:** SW846 VOST		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acrolein	ND	5.0	ug	5.0
Benzene	**0.23**	**0.010**	**ug**	**0.0035**
Ethylbenzene	ND	0.010	ug	0.0010
Toluene	**0.0070 J,B**	**0.010**	**ug**	**0.0010**
1,1,1-Trichloroethane	ND	0.025	ug	0.0010
m-Xylene & p-Xylene	ND	0.020	ug	0.0020
o-Xylene	ND	0.010	ug	0.0010
Chloromethane	ND	0.050	ug	0.0025

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	95	(50 - 134)
1,2-Dichloroethane-d4	86	(50 - 127)
Toluene-d8	101	(57 - 134)
Bromofluorobenzene	86	(50 - 122)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

C.E.M. Solutions Incorporated

Client Sample ID: M0030 RUN 1 SET 2 TUBE 2

GC/MS Volatiles

Lot-Sample #...: H3K260420-004	**Work Order #...:** M2K401AA		**Matrix.....:** AIR
Date Sampled...: 11/21/13	**Date Received..:** 11/26/13		
Prep Date.....: 11/27/13	**Analysis Date..:** 11/27/13		
Prep Batch #...: 3330044			
Dilution Factor: 1	**Method.....:** SW846 VOST		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acrolein	ND	5.0	ug	5.0
Benzene	**0.0063 J**	**0.010**	**ug**	**0.0035**
Ethylbenzene	ND	0.010	ug	0.0010
Toluene	**0.0063 J,B**	**0.010**	**ug**	**0.0010**
1,1,1-Trichloroethane	ND	0.025	ug	0.0010
m-Xylene & p-Xylene	ND	0.020	ug	0.0020
o-Xylene	ND	0.010	ug	0.0010
Chloromethane	**0.018 J**	**0.050**	**ug**	**0.0025**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(50 - 134)
1,2-Dichloroethane-d4	94	(50 - 127)
Toluene-d8	112	(57 - 134)
Bromofluorobenzene	99	(50 - 122)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

C.E.M. Solutions Incorporated

Client Sample ID: M0030 RUN 1 SET 3 TUBE 1

GC/MS Volatiles

Lot-Sample #...: H3K260420-005	**Work Order #...:** M2K411AA		**Matrix.....:** AIR
Date Sampled...: 11/21/13	**Date Received..:** 11/26/13		
Prep Date.....: 11/27/13	**Analysis Date..:** 11/27/13		
Prep Batch #...: 3330044			
Dilution Factor: 1	**Method.....:** SW846 VOST		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acrolein	ND	5.0	ug	5.0
Benzene	**1.0**	**0.010**	**ug**	**0.0035**
Ethylbenzene	**0.0017 J**	**0.010**	**ug**	**0.0010**
Toluene	**0.038 B**	**0.010**	**ug**	**0.0010**
1,1,1-Trichloroethane	ND	0.025	ug	0.0010
m-Xylene & p-Xylene	**0.0022 J**	**0.020**	**ug**	**0.0020**
o-Xylene	ND	0.010	ug	0.0010
Chloromethane	**0.0032 J**	**0.050**	**ug**	**0.0025**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	92	(50 - 134)
1,2-Dichloroethane-d4	81	(50 - 127)
Toluene-d8	102	(57 - 134)
Bromofluorobenzene	90	(50 - 122)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

C.E.M. Solutions Incorporated

Client Sample ID: M0030 RUN 1 SET 3 TUBE 2

GC/MS Volatiles

Lot-Sample #...: H3K260420-006	**Work Order #...:** M2K421AA	**Matrix.....:** AIR	
Date Sampled...: 11/21/13	**Date Received..:** 11/26/13		
Prep Date.....: 11/27/13	**Analysis Date..:** 11/27/13		
Prep Batch #...: 3330044			
Dilution Factor: 1	**Method.....:** SW846 VOST		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acrolein	ND	5.0	ug	5.0
Benzene	**0.0038 J**	**0.010**	**ug**	**0.0035**
Ethylbenzene	ND	0.010	ug	0.0010
Toluene	**0.0058 J,B**	**0.010**	**ug**	**0.0010**
1,1,1-Trichloroethane	ND	0.025	ug	0.0010
m-Xylene & p-Xylene	ND	0.020	ug	0.0020
o-Xylene	ND	0.010	ug	0.0010
Chloromethane	**0.068**	**0.050**	**ug**	**0.0025**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	95	(50 - 134)
1,2-Dichloroethane-d4	90	(50 - 127)
Toluene-d8	109	(57 - 134)
Bromofluorobenzene	95	(50 - 122)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

C.E.M. Solutions Incorporated

Client Sample ID: M0030 RUN 1 SET 4 TUBE 1

GC/MS Volatiles

Lot-Sample #...:	H3K260420-007	**Work Order #...:**	M2K431AA	**Matrix.....:**	AIR
Date Sampled...:	11/21/13	**Date Received..:**	11/26/13		
Prep Date.....:	11/27/13	**Analysis Date..:**	11/27/13		
Prep Batch #...:	3330044				
Dilution Factor:	1	**Method.....:**	SW846 VOST		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acrolein	ND	5.0	ug	5.0
Benzene	1.1	**0.010**	**ug**	**0.0035**
Ethylbenzene	0.0012 J	**0.010**	**ug**	**0.0010**
Toluene	0.052 B	**0.010**	**ug**	**0.0010**
1,1,1-Trichloroethane	ND	0.025	ug	0.0010
m-Xylene & p-Xylene	0.0022 J	**0.020**	**ug**	**0.0020**
o-Xylene	ND	0.010	ug	0.0010
Chloromethane	ND	0.050	ug	0.0025

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	75	(50 - 134)
1,2-Dichloroethane-d4	61	(50 - 127)
Toluene-d8	91	(57 - 134)
Bromofluorobenzene	69	(50 - 122)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

C.E.M. Solutions Incorporated

Client Sample ID: M0030 RUN 1 SET 4 TUBE 2

GC/MS Volatiles

Lot-Sample #...: H3K260420-008 **Work Order #...:** M2K441AA **Matrix.....:** AIR
Date Sampled...: 11/21/13 **Date Received..:** 11/26/13
Prep Date.....: 11/27/13 **Analysis Date..:** 11/27/13
Prep Batch #...: 3330044
Dilution Factor: 1 **Method.....:** SW846 VOST

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acrolein	ND	5.0	ug	5.0
Benzene	**0.064**	**0.010**	**ug**	**0.0035**
Ethylbenzene	ND	0.010	ug	0.0010
Toluene	**0.0057 J,B**	**0.010**	**ug**	**0.0010**
1,1,1-Trichloroethane	ND	0.025	ug	0.0010
m-Xylene & p-Xylene	ND	0.020	ug	0.0020
o-Xylene	ND	0.010	ug	0.0010
Chloromethane	**0.015 J**	**0.050**	**ug**	**0.0025**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	86	(50 - 134)
1,2-Dichloroethane-d4	71	(50 - 127)
Toluene-d8	99	(57 - 134)
Bromofluorobenzene	93	(50 - 122)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

C.E.M. Solutions Incorporated

Client Sample ID: M0030 RUN 1 CONDENSATE

GC/MS Volatiles

Lot-Sample #...: H3K260420-009 **Work Order #...:** M2K451AA **Matrix.....:** WATER
Date Sampled...: 11/21/13 **Date Received..:** 11/26/13
Prep Date.....: 11/26/13 **Analysis Date..:** 11/26/13
Prep Batch #...: 3330043
Dilution Factor: 1.16 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acrolein	ND	230	ug/L	230
Benzene	ND	1.2	ug/L	0.029
Chloromethane	ND	2.3	ug/L	0.46
Ethylbenzene	ND	1.2	ug/L	0.046
Toluene	**0.078 J**	**1.2**	**ug/L**	**0.055**
1,1,1-Trichloroethane	ND	1.2	ug/L	0.081
m-Xylene & p-Xylene	ND	2.3	ug/L	0.23
o-Xylene	ND	1.2	ug/L	0.053

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(76 - 121)
1,2-Dichloroethane-d4	105	(73 - 136)
Toluene-d8	97	(79 - 120)
Bromofluorobenzene	102	(80 - 120)

NOTE(S):

J Estimated result. Result is less than RL.

C.E.M. Solutions Incorporated

Client Sample ID: M0030 RUN 2 SET 1 TUBE 1

GC/MS Volatiles

Lot-Sample #...: H3K260420-010 **Work Order #...:** M2K461AA **Matrix.....:** AIR
Date Sampled...: 11/22/13 **Date Received..:** 11/26/13
Prep Date.....: 11/29/13 **Analysis Date..:** 11/29/13
Prep Batch #...: 3331037
Dilution Factor: 1 **Method.....:** SW846 VOST

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acrolein	ND	5.0	ug	5.0
Benzene	**0.85**	**0.010**	**ug**	**0.0035**
Ethylbenzene	ND	0.010	ug	0.0010
Toluene	**0.036 B**	**0.010**	**ug**	**0.0010**
1,1,1-Trichloroethane	ND	0.025	ug	0.0010
m-Xylene & p-Xylene	ND	0.020	ug	0.0020
o-Xylene	ND	0.010	ug	0.0010
Chloromethane	ND	0.050	ug	0.0025

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	85	(50 - 134)
1,2-Dichloroethane-d4	78	(50 - 127)
Toluene-d8	91	(57 - 134)
Bromofluorobenzene	70	(50 - 122)

NOTE(S):

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

C.E.M. Solutions Incorporated

Client Sample ID: M0030 RUN 2 SET 1 TUBE 2

GC/MS Volatiles

Lot-Sample #...: H3K260420-011 **Work Order #...:** M2K471AA **Matrix.....:** AIR
Date Sampled...: 11/22/13 **Date Received..:** 11/26/13
Prep Date.....: 11/29/13 **Analysis Date..:** 11/29/13
Prep Batch #...: 3331037
Dilution Factor: 1 **Method.....:** SW846 VOST

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acrolein	ND	5.0	ug	5.0
Benzene	**0.030**	**0.010**	**ug**	**0.0035**
Ethylbenzene	ND	0.010	ug	0.0010
Toluene	**0.0049 J,B**	**0.010**	**ug**	**0.0010**
1,1,1-Trichloroethane	ND	0.025	ug	0.0010
m-Xylene & p-Xylene	ND	0.020	ug	0.0020
o-Xylene	ND	0.010	ug	0.0010
Chloromethane	**0.011 J,B**	**0.050**	**ug**	**0.0025**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	93	(50 - 134)
1,2-Dichloroethane-d4	82	(50 - 127)
Toluene-d8	106	(57 - 134)
Bromofluorobenzene	85	(50 - 122)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

C.E.M. Solutions Incorporated

Client Sample ID: M0030 RUN 2 SET 2 TUBE 1

GC/MS Volatiles

Lot-Sample #...: H3K260420-012	**Work Order #...:** M2K481AA		**Matrix.....:** AIR
Date Sampled...: 11/22/13	Date Received..: 11/26/13		
Prep Date.....: 11/29/13	Analysis Date..: 11/29/13		
Prep Batch #...: 3331037			
Dilution Factor: 1	Method.....: SW846 VOST		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acrolein	ND	5.0	ug	5.0
Benzene	0.87	0.010	ug	0.0035
Ethylbenzene	0.0013 J	0.010	ug	0.0010
Toluene	0.049 B	0.010	ug	0.0010
1,1,1-Trichloroethane	ND	0.025	ug	0.0010
m-Xylene & p-Xylene	0.0021 J	0.020	ug	0.0020
o-Xylene	0.0015 J	0.010	ug	0.0010
Chloromethane	ND	0.050	ug	0.0025

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	93	(50 - 134)
1,2-Dichloroethane-d4	86	(50 - 127)
Toluene-d8	105	(57 - 134)
Bromofluorobenzene	79	(50 - 122)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

C.E.M. Solutions Incorporated

Client Sample ID: M0030 RUN 2 SET 2 TUBE 2

GC/MS Volatiles

Lot-Sample #...: H3K260420-013 **Work Order #...:** M2K5C1AA **Matrix.....:** AIR
Date Sampled...: 11/22/13 **Date Received..:** 11/26/13
Prep Date.....: 11/29/13 **Analysis Date..:** 11/29/13
Prep Batch #...: 3331037
Dilution Factor: 1 **Method.....:** SW846 VOST

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acrolein	ND	5.0	ug	5.0
Benzene	**0.12**	**0.010**	**ug**	**0.0035**
Ethylbenzene	ND	0.010	ug	0.0010
Toluene	**0.0060 J,B**	**0.010**	**ug**	**0.0010**
1,1,1-Trichloroethane	ND	0.025	ug	0.0010
m-Xylene & p-Xylene	ND	0.020	ug	0.0020
o-Xylene	ND	0.010	ug	0.0010
Chloromethane	**0.0061 J,B**	**0.050**	**ug**	**0.0025**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	94	(50 - 134)
1,2-Dichloroethane-d4	84	(50 - 127)
Toluene-d8	105	(57 - 134)
Bromofluorobenzene	91	(50 - 122)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

C.E.M. Solutions Incorporated

Client Sample ID: M0030 RUN 2 SET 3 TUBE 1

GC/MS Volatiles

Lot-Sample #...: H3K260420-014 **Work Order #...:** M2K5D1AA **Matrix.....:** AIR
Date Sampled...: 11/22/13 **Date Received..:** 11/26/13
Prep Date.....: 11/29/13 **Analysis Date..:** 11/29/13
Prep Batch #...: 3331037
Dilution Factor: 1 **Method.....:** SW846 VOST

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acrolein	ND	5.0	ug	5.0
Benzene	**0.74**	**0.010**	**ug**	**0.0035**
Ethylbenzene	ND	0.010	ug	0.0010
Toluene	**0.033 B**	**0.010**	**ug**	**0.0010**
1,1,1-Trichloroethane	ND	0.025	ug	0.0010
m-Xylene & p-Xylene	ND	0.020	ug	0.0020
o-Xylene	ND	0.010	ug	0.0010
Chloromethane	ND	0.050	ug	0.0025

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	86	(50 - 134)
1,2-Dichloroethane-d4	77	(50 - 127)
Toluene-d8	83	(57 - 134)
Bromofluorobenzene	60	(50 - 122)

NOTE(S):

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

C.E.M. Solutions Incorporated

Client Sample ID: M0030 RUN 2 SET 3 TUBE 2

GC/MS Volatiles

Lot-Sample #...: H3K260420-015 **Work Order #...:** M2K5E1AA **Matrix.....:** AIR
Date Sampled...: 11/22/13 **Date Received..:** 11/26/13
Prep Date.....: 11/29/13 **Analysis Date..:** 11/29/13
Prep Batch #...: 3331037
Dilution Factor: 1 **Method.....:** SW846 VOST

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acrolein	ND	5.0	ug	5.0
Benzene	**0.015**	**0.010**	**ug**	**0.0035**
Ethylbenzene	ND	0.010	ug	0.0010
Toluene	**0.0049 J,B**	**0.010**	**ug**	**0.0010**
1,1,1-Trichloroethane	ND	0.025	ug	0.0010
m-Xylene & p-Xylene	ND	0.020	ug	0.0020
o-Xylene	ND	0.010	ug	0.0010
Chloromethane	**0.014 J,B**	**0.050**	**ug**	**0.0025**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(50 - 134)
1,2-Dichloroethane-d4	85	(50 - 127)
Toluene-d8	107	(57 - 134)
Bromofluorobenzene	88	(50 - 122)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

C.E.M. Solutions Incorporated

Client Sample ID: M0030 RUN 2 CONDENSATE

GC/MS Volatiles

Lot-Sample #...: H3K260420-018 **Work Order #...:** M2K5H1AA **Matrix.....:** WATER
Date Sampled...: 11/22/13 **Date Received..:** 11/26/13
Prep Date.....: 11/26/13 **Analysis Date..:** 11/26/13
Prep Batch #...: 3330043
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acrolein	ND	200	ug/L	200
Benzene	ND	1.0	ug/L	0.025
Chloromethane	ND	2.0	ug/L	0.40
Ethylbenzene	ND	1.0	ug/L	0.040
Toluene	**0.084 J**	**1.0**	**ug/L**	**0.047**
1,1,1-Trichloroethane	ND	1.0	ug/L	0.070
m-Xylene & p-Xylene	ND	2.0	ug/L	0.20
o-Xylene	ND	1.0	ug/L	0.046

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(76 - 121)
1,2-Dichloroethane-d4	98	(73 - 136)
Toluene-d8	98	(79 - 120)
Bromofluorobenzene	102	(80 - 120)

NOTE(S):

J Estimated result. Result is less than RL.

C.E.M. Solutions Incorporated

Client Sample ID: M0030 RUN 3 SET 1 TUBE 1

GC/MS Volatiles

Lot-Sample #...: H3K260420-019	**Work Order #...:** M2K5L1AA		**Matrix.....:** AIR
Date Sampled...: 11/22/13	**Date Received..:** 11/26/13		
Prep Date.....: 11/29/13	**Analysis Date..:** 11/29/13		
Prep Batch #...: 3331037			
Dilution Factor: 1	**Method.....:** SW846 VOST		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acrolein	ND	5.0	ug	5.0
Benzene	**0.90**	**0.010**	**ug**	**0.0035**
Ethylbenzene	**0.0014 J**	**0.010**	**ug**	**0.0010**
Toluene	**0.045 B**	**0.010**	**ug**	**0.0010**
1,1,1-Trichloroethane	ND	0.025	ug	0.0010
m-Xylene & p-Xylene	**0.0023 J**	**0.020**	**ug**	**0.0020**
o-Xylene	**0.0010 J**	**0.010**	**ug**	**0.0010**
Chloromethane	ND	0.050	ug	0.0025

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	95	(50 - 134)
1,2-Dichloroethane-d4	82	(50 - 127)
Toluene-d8	99	(57 - 134)
Bromofluorobenzene	84	(50 - 122)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

C.E.M. Solutions Incorporated

Client Sample ID: M0030 RUN 3 SET 1 TUBE 2

GC/MS Volatiles

Lot-Sample #...: H3K260420-020 **Work Order #...:** M2K5M1AA **Matrix.....:** AIR
Date Sampled...: 11/22/13 **Date Received..:** 11/26/13
Prep Date.....: 11/29/13 **Analysis Date..:** 11/29/13
Prep Batch #...: 3331037
Dilution Factor: 1 **Method.....:** SW846 VOST

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acrolein	ND	5.0	ug	5.0
Benzene	**0.025**	**0.010**	**ug**	**0.0035**
Ethylbenzene	ND	0.010	ug	0.0010
Toluene	**0.0053 J,B**	**0.010**	**ug**	**0.0010**
1,1,1-Trichloroethane	ND	0.025	ug	0.0010
m-Xylene & p-Xylene	ND	0.020	ug	0.0020
o-Xylene	ND	0.010	ug	0.0010
Chloromethane	**0.050 B**	**0.050**	**ug**	**0.0025**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	102	(50 - 134)
1,2-Dichloroethane-d4	91	(50 - 127)
Toluene-d8	106	(57 - 134)
Bromofluorobenzene	94	(50 - 122)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

C.E.M. Solutions Incorporated

Client Sample ID: M0030 RUN 3 SET 2 TUBE 1

GC/MS Volatiles

Lot-Sample #...:	H3K260420-021	**Work Order #...:**	M2K5N1AA	**Matrix.....:**	AIR
Date Sampled...:	11/22/13	**Date Received..:**	11/26/13		
Prep Date.....:	11/27/13	**Analysis Date..:**	11/27/13		
Prep Batch #...:	3330044				
Dilution Factor:	1	**Method.....:**	SW846 VOST		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acrolein	ND	5.0	ug	5.0
Benzene	1.3	**0.010**	**ug**	**0.0035**
Ethylbenzene	0.0019 J	**0.010**	**ug**	**0.0010**
Toluene	0.055 B	**0.010**	**ug**	**0.0010**
1,1,1-Trichloroethane	ND	0.025	ug	0.0010
m-Xylene & p-Xylene	0.0021 J	**0.020**	**ug**	**0.0020**
o-Xylene	ND	0.010	ug	0.0010
Chloromethane	ND	0.050	ug	0.0025

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(50 - 134)
1,2-Dichloroethane-d4	84	(50 - 127)
Toluene-d8	98	(57 - 134)
Bromofluorobenzene	80	(50 - 122)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

C.E.M. Solutions Incorporated

Client Sample ID: M0030 RUN 3 SET 2 TUBE 2

GC/MS Volatiles

Lot-Sample #...:	H3K260420-022	**Work Order #...:**	M2K5P1AA	**Matrix.....:**	AIR
Date Sampled...:	11/22/13	**Date Received..:**	11/26/13		
Prep Date.....:	11/27/13	**Analysis Date..:**	11/27/13		
Prep Batch #...:	3330044				
Dilution Factor:	1	**Method.....:**	SW846 VOST		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acrolein	ND	5.0	ug	5.0
Benzene	**0.12**	**0.010**	**ug**	**0.0035**
Ethylbenzene	ND	0.010	ug	0.0010
Toluene	**0.0060 J,B**	**0.010**	**ug**	**0.0010**
1,1,1-Trichloroethane	ND	0.025	ug	0.0010
m-Xylene & p-Xylene	ND	0.020	ug	0.0020
o-Xylene	ND	0.010	ug	0.0010
Chloromethane	**0.0064 J**	**0.050**	**ug**	**0.0025**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	95	(50 - 134)
1,2-Dichloroethane-d4	90	(50 - 127)
Toluene-d8	105	(57 - 134)
Bromofluorobenzene	96	(50 - 122)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

C.E.M. Solutions Incorporated

Client Sample ID: M0030 RUN 3 SET 3 TUBE 1

GC/MS Volatiles

Lot-Sample #...:	H3K260420-023	**Work Order #...:**	M2K5Q1AA	**Matrix.....:**	AIR
Date Sampled...:	11/22/13	**Date Received..:**	11/26/13		
Prep Date.....:	11/27/13	**Analysis Date..:**	11/27/13		
Prep Batch #...:	3330044				
Dilution Factor:	1	**Method.....:**	SW846 VOST		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acrolein	ND	5.0	ug	5.0
Benzene	1.2	0.010	ug	0.0035
Ethylbenzene	0.0016 J	0.010	ug	0.0010
Toluene	0.059 B	0.010	ug	0.0010
1,1,1-Trichloroethane	ND	0.025	ug	0.0010
m-Xylene & p-Xylene	0.0023 J	0.020	ug	0.0020
o-Xylene	0.0013 J	0.010	ug	0.0010
Chloromethane	ND	0.050	ug	0.0025

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	93	(50 - 134)
1,2-Dichloroethane-d4	86	(50 - 127)
Toluene-d8	100	(57 - 134)
Bromofluorobenzene	83	(50 - 122)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

C.E.M. Solutions Incorporated

Client Sample ID: M0030 RUN 3 SET 3 TUBE 2

GC/MS Volatiles

Lot-Sample #...: H3K260420-024 **Work Order #...:** M2K5R1AA **Matrix.....:** AIR
Date Sampled...: 11/22/13 **Date Received..:** 11/26/13
Prep Date.....: 11/27/13 **Analysis Date..:** 11/27/13
Prep Batch #...: 3330044
Dilution Factor: 1 **Method.....:** SW846 VOST

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acrolein	ND	5.0	ug	5.0
Benzene	**0.030**	**0.010**	**ug**	**0.0035**
Ethylbenzene	ND	0.010	ug	0.0010
Toluene	**0.0055 J,B**	**0.010**	**ug**	**0.0010**
1,1,1-Trichloroethane	ND	0.025	ug	0.0010
m-Xylene & p-Xylene	ND	0.020	ug	0.0020
o-Xylene	ND	0.010	ug	0.0010
Chloromethane	**0.014 J**	**0.050**	**ug**	**0.0025**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(50 - 134)
1,2-Dichloroethane-d4	86	(50 - 127)
Toluene-d8	107	(57 - 134)
Bromofluorobenzene	90	(50 - 122)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

C.E.M. Solutions Incorporated

Client Sample ID: M0030 RUN 3 CONDENSATE

GC/MS Volatiles

Lot-Sample #...: H3K260420-027 **Work Order #...:** M2K5X1AA **Matrix.....:** WATER
Date Sampled...: 11/22/13 **Date Received..:** 11/26/13
Prep Date.....: 11/26/13 **Analysis Date..:** 11/26/13
Prep Batch #...: 3330043
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acrolein	ND	200	ug/L	200
Benzene	ND	1.0	ug/L	0.025
Chloromethane	ND	2.0	ug/L	0.40
Ethylbenzene	ND	1.0	ug/L	0.040
Toluene	**0.062 J**	**1.0**	**ug/L**	**0.047**
1,1,1-Trichloroethane	ND	1.0	ug/L	0.070
m-Xylene & p-Xylene	ND	2.0	ug/L	0.20
o-Xylene	ND	1.0	ug/L	0.046

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	95	(76 - 121)
1,2-Dichloroethane-d4	97	(73 - 136)
Toluene-d8	101	(79 - 120)
Bromofluorobenzene	102	(80 - 120)

NOTE(S):

J Estimated result. Result is less than RL.

C.E.M. Solutions Incorporated

Client Sample ID: M0030 FIELD BLANK TUBE 1

GC/MS Volatiles

Lot-Sample #...: H3K260420-028 **Work Order #...:** M2K501AA **Matrix.....:** AIR
Date Sampled...: 11/18/13 **Date Received..:** 11/26/13
Prep Date.....: 11/27/13 **Analysis Date..:** 11/27/13
Prep Batch #...: 3330044
Dilution Factor: 1 **Method.....:** SW846 VOST

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acrolein	ND	5.0	ug	5.0
Benzene	ND	0.010	ug	0.0035
Ethylbenzene	ND	0.010	ug	0.0010
Toluene	**0.0076 J,B**	**0.010**	**ug**	**0.0010**
1,1,1-Trichloroethane	ND	0.025	ug	0.0010
m-Xylene & p-Xylene	ND	0.020	ug	0.0020
o-Xylene	ND	0.010	ug	0.0010
Chloromethane	ND	0.050	ug	0.0025

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	102	(50 - 134)
1,2-Dichloroethane-d4	91	(50 - 127)
Toluene-d8	113	(57 - 134)
Bromofluorobenzene	102	(50 - 122)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

C.E.M. Solutions Incorporated

Client Sample ID: M0030 FIELD BLANK TUBE 2

GC/MS Volatiles

Lot-Sample #...: H3K260420-029 **Work Order #...:** M2K511AA **Matrix.....:** AIR
Date Sampled...: 11/18/13 **Date Received..:** 11/26/13
Prep Date.....: 11/27/13 **Analysis Date..:** 11/27/13
Prep Batch #...: 3330044
Dilution Factor: 1 **Method.....:** SW846 VOST

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acrolein	ND	5.0	ug	5.0
Benzene	ND	0.010	ug	0.0035
Ethylbenzene	ND	0.010	ug	0.0010
Toluene	**0.0055 J,B**	**0.010**	**ug**	**0.0010**
1,1,1-Trichloroethane	ND	0.025	ug	0.0010
m-Xylene & p-Xylene	ND	0.020	ug	0.0020
o-Xylene	ND	0.010	ug	0.0010
Chloromethane	**0.010 J**	**0.050**	**ug**	**0.0025**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	94	(50 - 134)
1,2-Dichloroethane-d4	80	(50 - 127)
Toluene-d8	104	(57 - 134)
Bromofluorobenzene	95	(50 - 122)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

C.E.M. Solutions Incorporated

Client Sample ID: M0030 TRIP BLANK TUBE 1

GC/MS Volatiles

Lot-Sample #...: H3K260420-030 **Work Order #...:** M2K521AA **Matrix.....:** AIR
Date Sampled...: 11/18/13 **Date Received..:** 11/26/13
Prep Date.....: 11/27/13 **Analysis Date..:** 11/27/13
Prep Batch #...: 3330044
Dilution Factor: 1 **Method.....:** SW846 VOST

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acrolein	ND	5.0	ug	5.0
Benzene	ND	0.010	ug	0.0035
Ethylbenzene	ND	0.010	ug	0.0010
Toluene	**0.0067 J,B**	**0.010**	**ug**	**0.0010**
1,1,1-Trichloroethane	ND	0.025	ug	0.0010
m-Xylene & p-Xylene	ND	0.020	ug	0.0020
o-Xylene	ND	0.010	ug	0.0010
Chloromethane	ND	0.050	ug	0.0025

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(50 - 134)
1,2-Dichloroethane-d4	88	(50 - 127)
Toluene-d8	111	(57 - 134)
Bromofluorobenzene	97	(50 - 122)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

C.E.M. Solutions Incorporated

Client Sample ID: M0030 TRIP BLANK TUBE 2

GC/MS Volatiles

Lot-Sample #...: H3K260420-031 **Work Order #...:** M2K531AA **Matrix.....:** AIR
Date Sampled...: 11/18/13 **Date Received..:** 11/26/13
Prep Date.....: 11/27/13 **Analysis Date..:** 11/27/13
Prep Batch #...: 3330044
Dilution Factor: 1 **Method.....:** SW846 VOST

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acrolein	ND	5.0	ug	5.0
Benzene	ND	0.010	ug	0.0035
Ethylbenzene	ND	0.010	ug	0.0010
Toluene	**0.0053 J,B**	**0.010**	**ug**	**0.0010**
1,1,1-Trichloroethane	ND	0.025	ug	0.0010
m-Xylene & p-Xylene	ND	0.020	ug	0.0020
o-Xylene	ND	0.010	ug	0.0010
Chloromethane	**0.0043 J**	**0.050**	**ug**	**0.0025**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	100	(50 - 134)
1,2-Dichloroethane-d4	89	(50 - 127)
Toluene-d8	105	(57 - 134)
Bromofluorobenzene	93	(50 - 122)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

C.E.M. Solutions Incorporated

Client Sample ID: A-5099 MEDIA CHECK TENAX

GC/MS Volatiles

Lot-Sample #...: H3K260420-032 **Work Order #...:** M2K541AA **Matrix.....:** AIR
Date Sampled...: 11/18/13 **Date Received..:** 11/26/13
Prep Date.....: 11/27/13 **Analysis Date..:** 11/27/13
Prep Batch #...: 3330044
Dilution Factor: 1 **Method.....:** SW846 VOST

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acrolein	ND	5.0	ug	5.0
Benzene	ND	0.010	ug	0.0035
Ethylbenzene	ND	0.010	ug	0.0010
Toluene	**0.0065 J,B**	**0.010**	**ug**	**0.0010**
1,1,1-Trichloroethane	ND	0.025	ug	0.0010
m-Xylene & p-Xylene	ND	0.020	ug	0.0020
o-Xylene	ND	0.010	ug	0.0010
Chloromethane	ND	0.050	ug	0.0025

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	112	(50 - 134)
1,2-Dichloroethane-d4	102	(50 - 127)
Toluene-d8	119	(57 - 134)
Bromofluorobenzene	109	(50 - 122)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

C.E.M. Solutions Incorporated

Client Sample ID: A-5100 MEDIA CHECK TENAX/CHAR

GC/MS Volatiles

Lot-Sample #...: H3K260420-033 **Work Order #...:** M2K551AA **Matrix.....:** AIR
Date Sampled...: 11/18/13 **Date Received..:** 11/26/13
Prep Date.....: 11/27/13 **Analysis Date..:** 11/27/13
Prep Batch #...: 3330044
Dilution Factor: 1 **Method.....:** SW846 VOST

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acrolein	ND	5.0	ug	5.0
Benzene	ND	0.010	ug	0.0035
Ethylbenzene	ND	0.010	ug	0.0010
Toluene	**0.0048 J,B**	**0.010**	**ug**	**0.0010**
1,1,1-Trichloroethane	ND	0.025	ug	0.0010
m-Xylene & p-Xylene	ND	0.020	ug	0.0020
o-Xylene	ND	0.010	ug	0.0010
Chloromethane	**0.0039 J**	**0.050**	**ug**	**0.0025**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(50 - 134)
1,2-Dichloroethane-d4	93	(50 - 127)
Toluene-d8	104	(57 - 134)
Bromofluorobenzene	95	(50 - 122)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: H3K260420 **Work Order #...:** M2K581AA **Matrix.....:** WATER
MB Lot-Sample #: H3K260000-043

Prep Date.....: 11/26/13
Analysis Date..: 11/26/13 **Prep Batch #...:** 3330043
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Acrolein	ND	200	ug/L	SW846 8260B
Benzene	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	2.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
m-Xylene & p-Xylene	ND	2.0	ug/L	SW846 8260B
o-Xylene	ND	1.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(76 - 121)
1,2-Dichloroethane-d4	108	(73 - 136)
Toluene-d8	93	(79 - 120)
Bromofluorobenzene	95	(80 - 120)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: H3K260420 **Work Order #...:** M2K581AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: H3K260000-043 M2K581AD-LCSD
Prep Date.....: 11/26/13 **Analysis Date..:** 11/26/13
Prep Batch #...: 3330043
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Acrolein	112	**(10 - 140)**			**SW846 8260B**
	113	**(10 - 140)**	**0.69**	**(0-50)**	**SW846 8260B**
Benzene	96	**(75 - 120)**			**SW846 8260B**
	100	**(75 - 120)**	**3.7**	**(0-20)**	**SW846 8260B**
Chloromethane	71	**(54 - 133)**			**SW846 8260B**
	84	**(54 - 133)**	**16**	**(0-20)**	**SW846 8260B**
Ethylbenzene	96	**(75 - 120)**			**SW846 8260B**
	100	**(75 - 120)**	**4.4**	**(0-20)**	**SW846 8260B**
Toluene	99	**(72 - 120)**			**SW846 8260B**
	103	**(72 - 120)**	**4.2**	**(0-20)**	**SW846 8260B**
1,1,1-Trichloroethane	94	**(77 - 131)**			**SW846 8260B**
	98	**(77 - 131)**	**4.3**	**(0-24)**	**SW846 8260B**
m-Xylene & p-Xylene	93	**(76 - 120)**			**SW846 8260B**
	99	**(76 - 120)**	**5.7**	**(0-20)**	**SW846 8260B**
o-Xylene	96	**(78 - 120)**			**SW846 8260B**
	101	**(78 - 120)**	**5.3**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	102	(76 - 121)
	103	(76 - 121)
1,2-Dichloroethane-d4	103	(73 - 136)
	106	(73 - 136)
Toluene-d8	98	(79 - 120)
	98	(79 - 120)
Bromofluorobenzene	99	(80 - 120)
	96	(80 - 120)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: H3K260420 **Work Order #...:** M2K581AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: H3K260000-043 M2K581AD-LCSD
Prep Date.....: 11/26/13 **Analysis Date..:** 11/26/13
Prep Batch #...: 3330043
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Acrolein	**1000**	**1120**	**ug/L**	**112**		**SW846 8260B**
	1000	**1130**	**ug/L**	**113**	**0.69**	**SW846 8260B**
Benzene	**10.0**	**9.62**	**ug/L**	**96**		**SW846 8260B**
	10.0	**9.99**	**ug/L**	**100**	**3.7**	**SW846 8260B**
Chloromethane	**10.0**	**7.15**	**ug/L**	**71**		**SW846 8260B**
	10.0	**8.36**	**ug/L**	**84**	**16**	**SW846 8260B**
Ethylbenzene	**10.0**	**9.58**	**ug/L**	**96**		**SW846 8260B**
	10.0	**10.0**	**ug/L**	**100**	**4.4**	**SW846 8260B**
Toluene	**10.0**	**9.86**	**ug/L**	**99**		**SW846 8260B**
	10.0	**10.3**	**ug/L**	**103**	**4.2**	**SW846 8260B**
1,1,1-Trichloroethane	**10.0**	**9.38**	**ug/L**	**94**		**SW846 8260B**
	10.0	**9.79**	**ug/L**	**98**	**4.3**	**SW846 8260B**
m-Xylene & p-Xylene	**10.0**	**9.31**	**ug/L**	**93**		**SW846 8260B**
	10.0	**9.86**	**ug/L**	**99**	**5.7**	**SW846 8260B**
o-Xylene	**10.0**	**9.56**	**ug/L**	**96**		**SW846 8260B**
	10.0	**10.1**	**ug/L**	**101**	**5.3**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	102	(76 - 121)
	103	(76 - 121)
1,2-Dichloroethane-d4	103	(73 - 136)
	106	(73 - 136)
Toluene-d8	98	(79 - 120)
	98	(79 - 120)
Bromofluorobenzene	99	(80 - 120)
	96	(80 - 120)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: H3K260420 **Work Order #...:** M2K591AA **Matrix.....:** AIR
MB Lot-Sample #: H3K260000-044

Prep Date.....: 11/27/13
Analysis Date..: 11/27/13 **Prep Batch #...:** 3330044
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Acrolein	ND	5.0	ug	SW846 VOST
Benzene	ND	0.010	ug	SW846 VOST
Ethylbenzene	ND	0.010	ug	SW846 VOST
Toluene	**0.0068 J**	**0.010**	**ug**	**SW846 VOST**
1,1,1-Trichloroethane	ND	0.025	ug	SW846 VOST
m-Xylene & p-Xylene	ND	0.020	ug	SW846 VOST
o-Xylene	ND	0.010	ug	SW846 VOST
Chloromethane	ND	0.050	ug	SW846 VOST

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(50 - 134)
1,2-Dichloroethane-d4	96	(50 - 127)
Toluene-d8	111	(57 - 134)
Bromofluorobenzene	98	(50 - 122)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

J Estimated result. Result is less than RL.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: H3K260420 **Work Order #...:** M2K591AC-LCS **Matrix.....:** AIR
LCS Lot-Sample#: H3K260000-044 M2K591AD-LCSD
Prep Date.....: 11/27/13 **Analysis Date..:** 11/27/13
Prep Batch #...: 3330044
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Acrolein	62	**(10 - 140)**			**SW846 VOST**
	71	**(10 - 140)**	13	(0-50)	**SW846 VOST**
Benzene	97	**(68 - 128)**			**SW846 VOST**
	96	**(68 - 128)**	0.46	(0-22)	**SW846 VOST**
Ethylbenzene	100	**(72 - 127)**			**SW846 VOST**
	97	**(72 - 127)**	3.1	(0-23)	**SW846 VOST**
Toluene	105	**(70 - 120)**			**SW846 VOST**
	102	**(70 - 120)**	3.1	(0-22)	**SW846 VOST**
1,1,1-Trichloroethane	98	**(65 - 131)**			**SW846 VOST**
	97	**(65 - 131)**	0.89	(0-23)	**SW846 VOST**
m-Xylene & p-Xylene	98	**(74 - 126)**			**SW846 VOST**
	97	**(74 - 126)**	1.2	(0-38)	**SW846 VOST**
o-Xylene	96	**(64 - 120)**			**SW846 VOST**
	92	**(64 - 120)**	4.2	(0-37)	**SW846 VOST**
Chloromethane	104	**(44 - 176)**			**SW846 VOST**
	99	**(44 - 176)**	4.7	(0-50)	**SW846 VOST**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(50 - 134)
	101	(50 - 134)
1,2-Dichloroethane-d4	86	(50 - 127)
	92	(50 - 127)
Toluene-d8	106	(57 - 134)
	109	(57 - 134)
Bromofluorobenzene	93	(50 - 122)
	100	(50 - 122)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: H3K260420 **Work Order #...:** M2K591AC-LCS **Matrix.....:** AIR
LCS Lot-Sample#: H3K260000-044 M2K591AD-LCSD
Prep Date.....: 11/27/13 **Analysis Date..:** 11/27/13
Prep Batch #...: 3330044
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Acrolein	**25.0**	**15.6**	**ug**	**62**		**SW846 VOST**
	25.0	**17.8**	**ug**	**71**	**13**	**SW846 VOST**
Benzene	**0.250**	**0.242**	**ug**	**97**		**SW846 VOST**
	0.250	**0.241**	**ug**	**96**	**0.46**	**SW846 VOST**
Ethylbenzene	**0.250**	**0.250**	**ug**	**100**		**SW846 VOST**
	0.250	**0.242**	**ug**	**97**	**3.1**	**SW846 VOST**
Toluene	**0.250**	**0.264**	**ug**	**105**		**SW846 VOST**
	0.250	**0.256**	**ug**	**102**	**3.1**	**SW846 VOST**
1,1,1-Trichloroethane	**0.250**	**0.245**	**ug**	**98**		**SW846 VOST**
	0.250	**0.243**	**ug**	**97**	**0.89**	**SW846 VOST**
m-Xylene & p-Xylene	**0.250**	**0.245**	**ug**	**98**		**SW846 VOST**
	0.250	**0.243**	**ug**	**97**	**1.2**	**SW846 VOST**
o-Xylene	**0.250**	**0.239**	**ug**	**96**		**SW846 VOST**
	0.250	**0.229**	**ug**	**92**	**4.2**	**SW846 VOST**
Chloromethane	**0.250**	**0.261**	**ug**	**104**		**SW846 VOST**
	0.250	**0.249**	**ug**	**99**	**4.7**	**SW846 VOST**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(50 - 134)
	101	(50 - 134)
1,2-Dichloroethane-d4	86	(50 - 127)
	92	(50 - 127)
Toluene-d8	106	(57 - 134)
	109	(57 - 134)
Bromofluorobenzene	93	(50 - 122)
	100	(50 - 122)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: H3K260420 **Work Order #...:** M2LF71AA **Matrix.....:** AIR
MB Lot-Sample #: H3K270000-037

Prep Date.....: 11/29/13
Analysis Date..: 11/29/13 **Prep Batch #...:** 3331037
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Acrolein	ND	5.0	ug	SW846 VOST
Benzene	ND	0.010	ug	SW846 VOST
Ethylbenzene	ND	0.010	ug	SW846 VOST
Toluene	**0.0053 J**	**0.010**	**ug**	**SW846 VOST**
1,1,1-Trichloroethane	ND	0.025	ug	SW846 VOST
m-Xylene & p-Xylene	ND	0.020	ug	SW846 VOST
o-Xylene	ND	0.010	ug	SW846 VOST
Chloromethane	**0.0056 J**	**0.050**	**ug**	**SW846 VOST**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(50 - 134)
1,2-Dichloroethane-d4	89	(50 - 127)
Toluene-d8	106	(57 - 134)
Bromofluorobenzene	91	(50 - 122)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

J Estimated result. Result is less than RL.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: H3K260420 **Work Order #...:** M2LF71AC-LCS **Matrix.....:** AIR
LCS Lot-Sample#: H3K270000-037 M2LF71AD-LCSD
Prep Date.....: 11/29/13 **Analysis Date..:** 11/29/13
Prep Batch #...: 3331037
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Acrolein	48	(10 - 140)			SW846 VOST
	64	(10 - 140)	27	(0-50)	SW846 VOST
Benzene	90	(68 - 128)			SW846 VOST
	102	(68 - 128)	13	(0-22)	SW846 VOST
Ethylbenzene	100	(72 - 127)			SW846 VOST
	102	(72 - 127)	1.3	(0-23)	SW846 VOST
Toluene	100	(70 - 120)			SW846 VOST
	104	(70 - 120)	3.9	(0-22)	SW846 VOST
1,1,1-Trichloroethane	93	(65 - 131)			SW846 VOST
	101	(65 - 131)	8.7	(0-23)	SW846 VOST
m-Xylene & p-Xylene	97	(74 - 126)			SW846 VOST
	98	(74 - 126)	1.2	(0-38)	SW846 VOST
o-Xylene	90	(64 - 120)			SW846 VOST
	95	(64 - 120)	5.2	(0-37)	SW846 VOST
Chloromethane	87	(44 - 176)			SW846 VOST
	101	(44 - 176)	15	(0-50)	SW846 VOST

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	93	(50 - 134)
	101	(50 - 134)
1,2-Dichloroethane-d4	81	(50 - 127)
	90	(50 - 127)
Toluene-d8	104	(57 - 134)
	106	(57 - 134)
Bromofluorobenzene	90	(50 - 122)
	93	(50 - 122)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: H3K260420 **Work Order #...:** M2LF71AC-LCS **Matrix.....:** AIR
LCS Lot-Sample#: H3K270000-037 M2LF71AD-LCSD
Prep Date.....: 11/29/13 **Analysis Date..:** 11/29/13
Prep Batch #...: 3331037
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Acrolein	**25.0**	**12.1**	**ug**	**48**		**SW846 VOST**
	25.0	**15.9**	**ug**	**64**	**27**	**SW846 VOST**
Benzene	**0.250**	**0.224**	**ug**	**90**		**SW846 VOST**
	0.250	**0.254**	**ug**	**102**	**13**	**SW846 VOST**
Ethylbenzene	**0.250**	**0.251**	**ug**	**100**		**SW846 VOST**
	0.250	**0.254**	**ug**	**102**	**1.3**	**SW846 VOST**
Toluene	**0.250**	**0.250**	**ug**	**100**		**SW846 VOST**
	0.250	**0.261**	**ug**	**104**	**3.9**	**SW846 VOST**
1,1,1-Trichloroethane	**0.250**	**0.232**	**ug**	**93**		**SW846 VOST**
	0.250	**0.253**	**ug**	**101**	**8.7**	**SW846 VOST**
m-Xylene & p-Xylene	**0.250**	**0.243**	**ug**	**97**		**SW846 VOST**
	0.250	**0.246**	**ug**	**98**	**1.2**	**SW846 VOST**
o-Xylene	**0.250**	**0.225**	**ug**	**90**		**SW846 VOST**
	0.250	**0.237**	**ug**	**95**	**5.2**	**SW846 VOST**
Chloromethane	**0.250**	**0.218**	**ug**	**87**		**SW846 VOST**
	0.250	**0.252**	**ug**	**101**	**15**	**SW846 VOST**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	93	(50 - 134)
	101	(50 - 134)
1,2-Dichloroethane-d4	81	(50 - 127)
	90	(50 - 127)
Toluene-d8	104	(57 - 134)
	106	(57 - 134)
Bromofluorobenzene	90	(50 - 122)
	93	(50 - 122)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Sample Receipt Documentation

H3K260420

5.4

Received @ 5.4°C 3 coolers
No custody seal KW 11/26/13
Hand delivered

C.E.M. SOLUTIONS
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www.cem-solutions.com

Chain of Custody Record

Project #: 6132

Project Name: FAGAN/GREC, Compliance Unit 1

Samplers: AH/MM/JC/JLC

Sample ID	Date	Test Method	Comp.	Grab	Sample Location	# of Containers	Comments
Run 1/Set 1	11/21/13	0030	X		Unit 1 Stack	2	~~29075 / 29074~~ 29044/25644
Run 1/Set 2	11/21/13	0030	X		Unit 1 Stack	2	28885/25752
Run 1/Set 3	11/21/13	0030	X		Unit 1 Stack	2	29227/25998
Run 1/Set 4	11/21/13	0030	X		Unit 1 Stack	2	29298/27698
Run 1 Condensate	11/21/13	0030	X		Unit 1 Stack	1	Condensate Catch # ~~002469~~ 002467
~~Run 1 Set 4 Condensate~~ (CAN)	~~11/21/13~~	~~0030~~	~~X~~		~~Unit 1 Stack~~	~~1~~	~~Condensate Catch~~ (CAN) ~~Set 4~~ 002469
Run 2/Set 1	11/22/13	0030	X		Unit 1 Stack	2	27743/29519
Run 2/Set 2	11/22/13	0030	X		Unit 1 Stack	2	26522/25400
Run 2/Set 3	11/22/13	0030	X		Unit 1 Stack	2	29468/25647
Run 2/Set 4	11/22/13	0030	X		Unit 1 Stack	2	29093/27956
Run 2/Condensate	11/22/13	0030	X		Unit 1 Stack	1	002471

Relinquished by:	Date:	Time:	Received By:	Relinquished By:	Date:	Time:	Received By:
	11/25/13	0900			11/26/13	8:10	11:26:13
Relinquished by:	Date:	Time:	Received By:	Relinquished By:	Date:	Time:	Received By:
Received for Lab By:	Date:	Time:	Remarks: Do not analyze Set 4, this is for back-up stored on Ice. Analyze for: Acrolein, benzene, xylene isomers plus ethyl benzene, methylene chloride, methyl chloroform and toluene				

H3K210420

8.4 Received @ 8.4°C 3 coolers
No Custody seal KLV 11/26/13
Hand delivered

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Chain of Custody Record

Project #	Project Name:
6132	Fagan / GREC Unit 1 Comp

Samplers: AH/MM/JLC

Sample ID	Date	Test Method	Comp.	Grab	Sample Location	# of Containers	Comments
Run3/Set1	11/22/13	0030	X		Unit 1 Stack	2	Individual Canisters ID #'s 25685/28948
Run3/Set2	11/23/13	0030	X		Unit 1 Stack	2	25570/28938
Run3/Set3	11/24/13	0030	X		Unit 1 Stack	2	27941/29398
Run3/Set4	11/24/13	0030	X		Unit 1 Stack	2	25675/28810
Run3 Condensate	11/24/13	0030	X		Unit 1 Stack	1	002472
Field Blank	11/18/13	0030		X	Unit 1 Stack	2	28820/26526
Trip Blank	11/18/13	0030		X	Test trailer	2	25600/29055

Relinquished by:	Date:	Time:	Received By:	Relinquished By:	Date:	Time:	Received By:
	11/25/13	0900			11/26/13	8:10	08:16 11-26-13
Relinquished by:	Date:	Time:	Received By:	Relinquished By:	Date:	Time:	Received By:
Received for Lab By:	Date:	Time:	Remarks: Do not analyze Set 4, this is for backup Stored on Ice				

Analyze for: Acrolein, benzene, xylene isomers plus ethyl benzene, methylene chloride, methyl chloroform and toluene

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: H3K260420

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)	/			☐ **1a** Do not match COC ☐ **1b** Incomplete information ☐ **1c** Marking smeared ☐ **1d** Label torn ☐ **1e** No label ☐ **1f** COC not received ☐ **1g** Other:	
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C)	/			☐ **2a** Temp Blank = _____ ☐ **2b** Cooler Temp = _____ ☐ **2c** Cooling initiated for recently collected samples, ice present.	
3. Were samples received with correct chemical preservative (excluding Encore)?			/	☐ **3a** See box 3A for pH Preservation ☐ **3b** Other:	
4. Were custody seals present/intact on cooler and/or containers?		/		☐ **4a** Not present ☐ **4b** Not intact ☐ **4c** Other:	
5. Were all of the samples listed on the COC received?	/			☐ **5a** Samples received-not on COC ☐ **5b** Samples not received-on COC	
6. Were all of the sample containers received intact?	/			☐ **6a** Leaking ☐ **6b** Broken	
7. Were VOA samples received without headspace?			/	☐ **7a** Headspace (VOA only)	
8. Were samples received in appropriate containers?	/			☐ **8a** Improper container	
9. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668)			/	☐ **9a** Could not be determined due to matrix interference	
10. Were samples received within holding time?	/			☐ **10a** Holding time expired	
11. For rad samples, was sample activity info. provided?			/	☐ Incomplete information	
12. For 1613B water samples is pH<9?			/	If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	/			☐ **13a** Leaking ☐ **13b** Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	/			☐ **14a** Not relinquished	
15. Are tests/parameters listed for each sample?	/			☐ **15a** Incomplete information	
16. Is the matrix of the samples noted?	/			☐ **15a** Incomplete information	
17. Is the date/time of sample collection noted?	/			☐ **15a** Incomplete information	
18. Is the client and project name/# identified?	/			☐ **15a** Incomplete information	
19. Was the sampler identified on the COC?	/			☐ **19a** Other	

	Box 3A: pH Preservation	Box 9A: Residual Chlorine
Preservative:		
Lot Number:		
Exp Date:		
Analyst:		
Date:		
Time:		

Quote #: 90265 PM Instructions: (Methyl Chloride ⇒ chloromethane)

Sample Receiving Associate: KL Date: 11/26/10

QA026R25.doc, 071813

SAMPLE SUMMARY

H3K260401

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
M2KW1	001	M0010 RUN 1 FH	11/20/13	
M2KW2	002	M0010 RUN 1 BH	11/20/13	
M2KW3	003	M0010 RUN 1 COND	11/20/13	
M2KW6	005	M0010 RUN 2 FH	11/21/13	
M2KW7	006	M0010 RUN 2 BH	11/21/13	
M2KW8	007	M0010 RUN 2 COND	11/21/13	
M2KXA	009	M0010 RUN 3 FH	11/22/13	
M2KXC	010	M0010 RUN 3 BH	11/22/13	
M2KXD	011	M0010 RUN 3 COND	11/22/13	
M2KXF	013	M0010 FIELD BLANK FH	11/17/13	
M2KXH	014	M0010 FIELD BLANK BH	11/17/13	
M2KXK	016	A-5097 MEDIA CHECK XAD	11/17/13	
M2KXL	017	A-5098 MEDIA CHECK FILTER	11/17/13	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

C.E.M. Solutions Incorporated

Client Sample ID: M0010 RUN 1 FH

GC/MS Semivolatiles

Lot-Sample #...: H3K260401-001 **Work Order #...:** M2KW11AA **Matrix.....:** AIR
Date Sampled...: 11/20/13 **Date Received..:** 11/26/13
Prep Date.....: 12/02/13 **Analysis Date..:** 12/05/13
Prep Batch #...: 3336011
Dilution Factor: 2 **Method.....:** SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	ND	20	ug	2.2
Acenaphthylene	ND	20	ug	2.4
Acetophenone	ND	20	ug	1.1
Aniline	ND	40	ug	3.2
Anthracene	ND	20	ug	2.6
Benzidine	ND	200	ug	5.8
Benzo(a)anthracene	ND	20	ug	2.6
Benzo(b)fluoranthene	ND	20	ug	3.6
Benzo(k)fluoranthene	ND	20	ug	3.4
Benzoic acid	ND	200	ug	30
Benzo(ghi)perylene	ND	20	ug	2.6
Benzo(a)pyrene	ND	20	ug	3.2
Benzyl alcohol	ND	200	ug	4.6
bis(2-Chloroethoxy) methane	ND	20	ug	1.9
bis(2-Chloroethyl)-ether	ND	20	ug	2.4
bis(2-Ethylhexyl) phthalate	**4.2 J**	**20**	**ug**	**3.4**
4-Bromophenyl phenyl ether	ND	20	ug	3.2
Butyl benzyl phthalate	ND	20	ug	3.4
Carbazole	ND	20	ug	2.4
4-Chloroaniline	ND	20	ug	2.6
4-Chloro-3-methylphenol	ND	20	ug	2.6
2-Chloronaphthalene	ND	20	ug	2.4
2-Chlorophenol	ND	20	ug	2.2
4-Chlorophenyl phenyl ether	ND	20	ug	2.8
Chrysene	ND	20	ug	2.2
Dibenz(a,h)anthracene	ND	20	ug	2.4
Dibenzofuran	ND	20	ug	2.4
Di-n-butyl phthalate	ND	20	ug	3.4
1,2-Dichlorobenzene	ND	20	ug	2.4
1,3-Dichlorobenzene	ND	20	ug	2.4
1,4-Dichlorobenzene	ND	20	ug	2.4
3,3'-Dichlorobenzidine	ND	100	ug	2.8
2,4-Dichlorophenol	ND	20	ug	2.6
Diethyl phthalate	ND	20	ug	3.0

(Continued on next page)

C.E.M. Solutions Incorporated

Client Sample ID: M0010 RUN 1 FH

GC/MS Semivolatiles

Lot-Sample #...: H3K260401-001 **Work Order #...:** M2KW11AA **Matrix.....:** AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
2,4-Dimethylphenol	ND	40	ug	20
Dimethyl phthalate	ND	20	ug	2.8
4,6-Dinitro-2-methylphenol	ND	100	ug	10
2,4-Dinitrophenol	ND	100	ug	14
2,4-Dinitrotoluene	ND	20	ug	2.8
2,6-Dinitrotoluene	ND	20	ug	2.8
Di-n-octyl phthalate	ND	20	ug	3.4
1,2-Diphenylhydrazine	ND	20	ug	2.0
Fluoranthene	ND	20	ug	3.0
Fluorene	ND	20	ug	2.6
Hexachlorobenzene	ND	20	ug	2.6
Hexachlorobutadiene	ND	20	ug	2.0
Hexachlorocyclopenta-diene	ND	100	ug	20
Hexachloroethane	ND	20	ug	1.9
Indeno(1,2,3-cd)pyrene	ND	20	ug	2.6
Isophorone	ND	20	ug	2.6
2-Methylnaphthalene	ND	20	ug	2.4
2-Methylphenol	ND	20	ug	2.2
3-Methylphenol & 4-Methylphenol	ND	20	ug	4.4
Naphthalene	ND	20	ug	2.0
2-Nitroaniline	ND	100	ug	2.2
3-Nitroaniline	ND	100	ug	10
4-Nitroaniline	ND	100	ug	2.6
Nitrobenzene	ND	20	ug	2.0
2-Nitrophenol	ND	20	ug	2.2
4-Nitrophenol	ND	100	ug	15
N-Nitrosodimethylamine	ND	20	ug	2.2
N-Nitrosodiphenylamine	ND	20	ug	3.0
N-Nitrosodi-n-propyl-amine	ND	20	ug	2.6
Pentachlorobenzene	ND	20	ug	1.5
Pentachloronitrobenzene	ND	40	ug	20
Pentachlorophenol	ND	100	ug	20
Phenanthrene	ND	20	ug	2.4
Phenol	ND	20	ug	2.4
2,2'-oxybis(1-Chloro-propane)	ND	20	ug	2.6
Pyrene	ND	20	ug	2.4
Pyridine	ND	40	ug	5.4
1,2,4-Trichloro-benzene	ND	20	ug	2.4

(Continued on next page)

C.E.M. Solutions Incorporated

Client Sample ID: M0010 RUN 1 FH

GC/MS Semivolatiles

Lot-Sample #...: H3K260401-001 **Work Order #...:** M2KW11AA **Matrix.....:** AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
2,4,5-Trichloro-phenol	ND	20	ug	2.6
2,4,6-Trichloro-phenol	ND	20	ug	2.4

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	56	(37 - 105)
Phenol-d5	57	(48 - 114)
Nitrobenzene-d5	58	(43 - 107)
2-Fluorobiphenyl	59	(48 - 110)
2,4,6-Tribromophenol	69	(34 - 121)
Terphenyl-d14	79	(67 - 112)

NOTE(S):

J Estimated result. Result is less than RL.

C.E.M. Solutions Incorporated

Client Sample ID: M0010 RUN 1 BH

GC/MS Semivolatiles

Lot-Sample #...: H3K260401-002 **Work Order #...:** M2KW21AA **Matrix.....:** AIR
Date Sampled...: 11/20/13 **Date Received..:** 11/26/13
Prep Date.....: 12/02/13 **Analysis Date..:** 12/05/13
Prep Batch #...: 3336012
Dilution Factor: 2 **Method.....:** SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	ND	20	ug	1.5
Acenaphthylene	ND	20	ug	1.7
Acetophenone	ND	20	ug	1.9
Aniline	ND	40	ug	10
Anthracene	ND	20	ug	1.7
Benzidine	ND	200	ug	100
Benzo(a)anthracene	ND	20	ug	1.3
Benzo(b)fluoranthene	ND	20	ug	1.8
Benzo(k)fluoranthene	ND	20	ug	3.2
Benzoic acid	ND	200	ug	38
Benzo(ghi)perylene	ND	20	ug	1.0
Benzo(a)pyrene	ND	20	ug	2.4
Benzyl alcohol	ND	200	ug	4.4
bis(2-Chloroethoxy) methane	ND	20	ug	1.5
bis(2-Chloroethyl)-ether	ND	20	ug	1.9
bis(2-Ethylhexyl) phthalate	ND	40	ug	15
4-Bromophenyl phenyl ether	ND	20	ug	2.2
Butyl benzyl phthalate	ND	20	ug	2.6
Carbazole	ND	20	ug	1.0
4-Chloroaniline	ND	40	ug	8.6
4-Chloro-3-methylphenol	ND	20	ug	10
2-Chloronaphthalene	ND	20	ug	1.8
2-Chlorophenol	ND	20	ug	1.9
4-Chlorophenyl phenyl ether	ND	20	ug	1.8
Chrysene	ND	20	ug	1.4
Dibenz(a,h)anthracene	ND	20	ug	1.1
Dibenzofuran	ND	20	ug	1.6
Di-n-butyl phthalate	ND	40	ug	2.2
1,2-Dichlorobenzene	ND	20	ug	2.2
1,3-Dichlorobenzene	ND	20	ug	1.8
1,4-Dichlorobenzene	ND	20	ug	1.9
3,3'-Dichlorobenzidine	ND	100	ug	12
2,4-Dichlorophenol	ND	20	ug	1.7
Diethyl phthalate	ND	20	ug	1.5

(Continued on next page)

C.E.M. Solutions Incorporated

Client Sample ID: M0010 RUN 1 BH

GC/MS Semivolatiles

Lot-Sample #...: H3K260401-002 **Work Order #...:** M2KW21AA **Matrix.....:** AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
2,4-Dimethylphenol	ND	20	ug	7.0
Dimethyl phthalate	ND	20	ug	1.4
4,6-Dinitro-2-methylphenol	ND	100	ug	10
2,4-Dinitrophenol	ND	100	ug	22
2,4-Dinitrotoluene	ND	20	ug	2.2
2,6-Dinitrotoluene	ND	20	ug	2.4
Di-n-octyl phthalate	ND	20	ug	3.6
1,2-Diphenylhydrazine	ND	20	ug	1.7
Fluoranthene	ND	20	ug	1.4
Fluorene	ND	20	ug	1.6
Hexachlorobenzene	ND	20	ug	2.0
Hexachlorobutadiene	ND	20	ug	1.6
Hexachlorocyclopenta-diene	ND	100	ug	20
Hexachloroethane	ND	20	ug	2.0
Indeno(1,2,3-cd)pyrene	ND	20	ug	1.1
Isophorone	ND	20	ug	1.5
2-Methylnaphthalene	ND	20	ug	1.6
2-Methylphenol	ND	20	ug	1.7
3-Methylphenol & 4-Methylphenol	ND	20	ug	3.4
Naphthalene	**2.1 J**	**20**	**ug**	**1.9**
2-Nitroaniline	ND	100	ug	2.0
3-Nitroaniline	ND	100	ug	20
4-Nitroaniline	ND	100	ug	10
Nitrobenzene	ND	20	ug	1.7
2-Nitrophenol	ND	20	ug	2.0
4-Nitrophenol	ND	100	ug	10
N-Nitrosodimethylamine	ND	20	ug	1.9
N-Nitrosodiphenylamine	ND	20	ug	1.7
N-Nitrosodi-n-propyl-amine	ND	20	ug	1.8
Pentachlorobenzene	ND	20	ug	2.6
Pentachloronitrobenzene	ND	100	ug	3.4
Pentachlorophenol	ND	100	ug	3.2
Phenanthrene	ND	20	ug	1.5
Phenol	ND	20	ug	1.8
2,2'-oxybis(1-Chloro-propane)	ND	20	ug	2.0
Pyrene	ND	20	ug	1.9
Pyridine	ND	40	ug	3.8
1,2,4-Trichloro-benzene	ND	20	ug	2.0

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C.E.M. Solutions Incorporated

Client Sample ID: M0010 RUN 1 BH

GC/MS Semivolatiles

Lot-Sample #...: H3K260401-002 **Work Order #...:** M2KW21AA **Matrix.....:** AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
2,4,5-Trichloro-phenol	ND	20	ug	1.4
2,4,6-Trichloro-phenol	ND	20	ug	1.9

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	72	(42 - 104)
Phenol-d5	76	(50 - 118)
Nitrobenzene-d5	74	(45 - 110)
2-Fluorobiphenyl	71	(48 - 111)
2,4,6-Tribromophenol	71	(51 - 125)
Terphenyl-d14	81	(73 - 108)
13C6-Naphthalene	64	(50 - 150)

NOTE(S):

J Estimated result. Result is less than RL.

C.E.M. Solutions Incorporated

Client Sample ID: M0010 RUN 1 COND

GC/MS Semivolatiles

Lot-Sample #...: H3K260401-003 **Work Order #...:** M2KW31AA **Matrix.....:** AIR
Date Sampled...: 11/20/13 **Date Received..:** 11/26/13
Prep Date.....: 12/02/13 **Analysis Date..:** 12/05/13
Prep Batch #...: 3336014
Dilution Factor: 2 **Method.....:** SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	ND	20	ug	1.7
Acenaphthylene	ND	20	ug	1.5
Acetophenone	ND	20	ug	2.0
Aniline	ND	40	ug	4.0
Anthracene	ND	20	ug	2.2
Benzidine	ND	200	ug	13
Benzo(a)anthracene	ND	20	ug	2.2
Benzo(b)fluoranthene	ND	20	ug	2.8
Benzo(k)fluoranthene	ND	20	ug	3.2
Benzoic acid	ND	100	ug	50
Benzo(ghi)perylene	ND	20	ug	2.8
Benzo(a)pyrene	ND	20	ug	2.0
Benzyl alcohol	ND	20	ug	2.2
bis(2-Chloroethoxy) methane	ND	20	ug	1.6
bis(2-Chloroethyl)-ether	ND	20	ug	2.2
bis(2-Ethylhexyl) phthalate	**4.3 J**	**20**	**ug**	**3.2**
4-Bromophenyl phenyl ether	ND	20	ug	2.4
Butyl benzyl phthalate	ND	20	ug	3.0
Carbazole	ND	20	ug	2.6
4-Chloroaniline	ND	20	ug	3.4
4-Chloro-3-methylphenol	ND	20	ug	4.0
2-Chloronaphthalene	ND	20	ug	2.0
2-Chlorophenol	ND	20	ug	2.0
4-Chlorophenyl phenyl ether	ND	20	ug	1.7
Chrysene	ND	20	ug	2.6
Dibenz(a,h)anthracene	ND	20	ug	2.6
Dibenzofuran	ND	20	ug	1.5
Di-n-butyl phthalate	ND	20	ug	3.8
1,2-Dichlorobenzene	ND	20	ug	2.2
1,3-Dichlorobenzene	ND	20	ug	2.4
1,4-Dichlorobenzene	ND	20	ug	2.0
3,3'-Dichlorobenzidine	ND	100	ug	1.8
2,4-Dichlorophenol	ND	20	ug	1.6
Diethyl phthalate	ND	20	ug	2.0

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C.E.M. Solutions Incorporated

Client Sample ID: M0010 RUN 1 COND

GC/MS Semivolatiles

Lot-Sample #...: H3K260401-003 **Work Order #...:** M2KW31AA **Matrix.....:** AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
2,4-Dimethylphenol	ND	20	ug	2.8
Dimethyl phthalate	ND	20	ug	1.7
4,6-Dinitro-2-methylphenol	ND	100	ug	7.4
2,4-Dinitrophenol	ND	100	ug	50
2,4-Dinitrotoluene	ND	20	ug	8.0
2,6-Dinitrotoluene	ND	20	ug	8.0
Di-n-octyl phthalate	ND	20	ug	2.2
1,2-Diphenylhydrazine	ND	20	ug	1.9
Fluoranthene	ND	20	ug	2.8
Fluorene	ND	20	ug	1.9
Hexachlorobenzene	ND	20	ug	2.0
Hexachlorobutadiene	ND	20	ug	1.9
Hexachlorocyclopentadiene	ND	100	ug	8.0
Hexachloroethane	ND	20	ug	2.0
Indeno(1,2,3-cd)pyrene	ND	20	ug	2.4
Isophorone	ND	20	ug	1.6
2-Methylnaphthalene	ND	20	ug	1.7
2-Methylphenol	ND	20	ug	1.4
3-Methylphenol & 4-Methylphenol	ND	20	ug	3.2
Naphthalene	ND	20	ug	2.2
2-Nitroaniline	ND	100	ug	4.0
3-Nitroaniline	ND	100	ug	1.4
4-Nitroaniline	ND	100	ug	8.0
Nitrobenzene	ND	20	ug	2.0
2-Nitrophenol	ND	20	ug	4.0
4-Nitrophenol	ND	100	ug	11
N-Nitrosodimethylamine	ND	20	ug	2.2
N-Nitrosodiphenylamine	ND	20	ug	2.4
N-Nitrosodi-n-propylamine	ND	20	ug	1.9
Pentachlorobenzene	ND	20	ug	2.2
Pentachloronitrobenzene	ND	20	ug	8.0
Pentachlorophenol	ND	100	ug	11
Phenanthrene	ND	20	ug	2.2
Phenol	ND	20	ug	2.0
2,2'-oxybis(1-Chloropropane)	ND	20	ug	2.2
Pyrene	ND	20	ug	2.6
Pyridine	ND	40	ug	8.0
1,2,4-Trichlorobenzene	ND	20	ug	2.2

(Continued on next page)

C.E.M. Solutions Incorporated

Client Sample ID: M0010 RUN 1 COND

GC/MS Semivolatiles

Lot-Sample #...: H3K260401-003 **Work Order #...:** M2KW31AA **Matrix.....:** AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
2,4,5-Trichloro-phenol	ND	20	ug	1.4
2,4,6-Trichloro-phenol	ND	20	ug	1.4

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	72	(29 - 90)
Phenol-d5	83	(19 - 134)
Nitrobenzene-d5	86	(52 - 109)
2-Fluorobiphenyl	81	(56 - 109)
2,4,6-Tribromophenol	92	(40 - 127)
Terphenyl-d14	86	(55 - 115)

NOTE(S):

J Estimated result. Result is less than RL.

C.E.M. Solutions Incorporated

Client Sample ID: M0010 RUN 2 FH

GC/MS Semivolatiles

Lot-Sample #...: H3K260401-005 **Work Order #...:** M2KW61AA **Matrix.....:** AIR
Date Sampled...: 11/21/13 **Date Received..:** 11/26/13
Prep Date.....: 12/02/13 **Analysis Date..:** 12/05/13
Prep Batch #...: 3336011
Dilution Factor: 2 **Method.....:** SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	ND	20	ug	2.2
Acenaphthylene	ND	20	ug	2.4
Acetophenone	ND	20	ug	1.1
Aniline	ND	40	ug	3.2
Anthracene	ND	20	ug	2.6
Benzidine	ND	200	ug	5.8
Benzo(a)anthracene	ND	20	ug	2.6
Benzo(b)fluoranthene	ND	20	ug	3.6
Benzo(k)fluoranthene	ND	20	ug	3.4
Benzoic acid	ND	200	ug	30
Benzo(ghi)perylene	ND	20	ug	2.6
Benzo(a)pyrene	ND	20	ug	3.2
Benzyl alcohol	ND	200	ug	4.6
bis(2-Chloroethoxy) methane	ND	20	ug	1.9
bis(2-Chloroethyl)-ether	ND	20	ug	2.4
bis(2-Ethylhexyl) phthalate	**4.3 J**	**20**	**ug**	**3.4**
4-Bromophenyl phenyl ether	ND	20	ug	3.2
Butyl benzyl phthalate	ND	20	ug	3.4
Carbazole	ND	20	ug	2.4
4-Chloroaniline	ND	20	ug	2.6
4-Chloro-3-methylphenol	ND	20	ug	2.6
2-Chloronaphthalene	ND	20	ug	2.4
2-Chlorophenol	ND	20	ug	2.2
4-Chlorophenyl phenyl ether	ND	20	ug	2.8
Chrysene	ND	20	ug	2.2
Dibenz(a,h)anthracene	ND	20	ug	2.4
Dibenzofuran	ND	20	ug	2.4
Di-n-butyl phthalate	ND	20	ug	3.4
1,2-Dichlorobenzene	ND	20	ug	2.4
1,3-Dichlorobenzene	ND	20	ug	2.4
1,4-Dichlorobenzene	ND	20	ug	2.4
3,3'-Dichlorobenzidine	ND	100	ug	2.8
2,4-Dichlorophenol	ND	20	ug	2.6
Diethyl phthalate	ND	20	ug	3.0

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C.E.M. Solutions Incorporated

Client Sample ID: M0010 RUN 2 FH

GC/MS Semivolatiles

Lot-Sample #...: H3K260401-005 **Work Order #...:** M2KW61AA **Matrix.....:** AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
2,4-Dimethylphenol	ND	40	ug	20
Dimethyl phthalate	ND	20	ug	2.8
4,6-Dinitro-2-methylphenol	ND	100	ug	10
2,4-Dinitrophenol	ND	100	ug	14
2,4-Dinitrotoluene	ND	20	ug	2.8
2,6-Dinitrotoluene	ND	20	ug	2.8
Di-n-octyl phthalate	ND	20	ug	3.4
1,2-Diphenylhydrazine	ND	20	ug	2.0
Fluoranthene	ND	20	ug	3.0
Fluorene	ND	20	ug	2.6
Hexachlorobenzene	ND	20	ug	2.6
Hexachlorobutadiene	ND	20	ug	2.0
Hexachlorocyclopentadiene	ND	100	ug	20
Hexachloroethane	ND	20	ug	1.9
Indeno(1,2,3-cd)pyrene	ND	20	ug	2.6
Isophorone	ND	20	ug	2.6
2-Methylnaphthalene	ND	20	ug	2.4
2-Methylphenol	ND	20	ug	2.2
3-Methylphenol & 4-Methylphenol	ND	20	ug	4.4
Naphthalene	ND	20	ug	2.0
2-Nitroaniline	ND	100	ug	2.2
3-Nitroaniline	ND	100	ug	10
4-Nitroaniline	ND	100	ug	2.6
Nitrobenzene	ND	20	ug	2.0
2-Nitrophenol	ND	20	ug	2.2
4-Nitrophenol	ND	100	ug	15
N-Nitrosodimethylamine	ND	20	ug	2.2
N-Nitrosodiphenylamine	ND	20	ug	3.0
N-Nitrosodi-n-propylamine	ND	20	ug	2.6
Pentachlorobenzene	ND	20	ug	1.5
Pentachloronitrobenzene	ND	40	ug	20
Pentachlorophenol	ND	100	ug	20
Phenanthrene	ND	20	ug	2.4
Phenol	ND	20	ug	2.4
2,2'-oxybis(1-Chloropropane)	ND	20	ug	2.6
Pyrene	ND	20	ug	2.4
Pyridine	ND	40	ug	5.4
1,2,4-Trichlorobenzene	ND	20	ug	2.4

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C.E.M. Solutions Incorporated

Client Sample ID: M0010 RUN 2 FH

GC/MS Semivolatiles

Lot-Sample #...: H3K260401-005 **Work Order #...:** M2KW61AA **Matrix.....:** AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
2,4,5-Trichloro-phenol	ND	20	ug	2.6
2,4,6-Trichloro-phenol	ND	20	ug	2.4

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	59	(37 - 105)
Phenol-d5	59	(48 - 114)
Nitrobenzene-d5	60	(43 - 107)
2-Fluorobiphenyl	59	(48 - 110)
2,4,6-Tribromophenol	70	(34 - 121)
Terphenyl-d14	74	(67 - 112)

NOTE(S):

J Estimated result. Result is less than RL.

C.E.M. Solutions Incorporated

Client Sample ID: M0010 RUN 2 BH

GC/MS Semivolatiles

Lot-Sample #...: H3K260401-006 **Work Order #...:** M2KW71AA **Matrix.....:** AIR
Date Sampled...: 11/21/13 **Date Received..:** 11/26/13
Prep Date.....: 12/02/13 **Analysis Date..:** 12/05/13
Prep Batch #...: 3336012
Dilution Factor: 2 **Method.....:** SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	ND	20	ug	1.5
Acenaphthylene	ND	20	ug	1.7
Acetophenone	ND	20	ug	1.9
Aniline	ND	40	ug	10
Anthracene	ND	20	ug	1.7
Benzidine	ND	200	ug	100
Benzo(a)anthracene	ND	20	ug	1.3
Benzo(b)fluoranthene	ND	20	ug	1.8
Benzo(k)fluoranthene	ND	20	ug	3.2
Benzoic acid	ND	200	ug	38
Benzo(ghi)perylene	ND	20	ug	1.0
Benzo(a)pyrene	ND	20	ug	2.4
Benzyl alcohol	ND	200	ug	4.4
bis(2-Chloroethoxy) methane	ND	20	ug	1.5
bis(2-Chloroethyl)-ether	ND	20	ug	1.9
bis(2-Ethylhexyl) phthalate	ND	40	ug	15
4-Bromophenyl phenyl ether	ND	20	ug	2.2
Butyl benzyl phthalate	ND	20	ug	2.6
Carbazole	ND	20	ug	1.0
4-Chloroaniline	ND	40	ug	8.6
4-Chloro-3-methylphenol	ND	20	ug	10
2-Chloronaphthalene	ND	20	ug	1.8
2-Chlorophenol	ND	20	ug	1.9
4-Chlorophenyl phenyl ether	ND	20	ug	1.8
Chrysene	ND	20	ug	1.4
Dibenz(a,h)anthracene	ND	20	ug	1.1
Dibenzofuran	ND	20	ug	1.6
Di-n-butyl phthalate	ND	40	ug	2.2
1,2-Dichlorobenzene	ND	20	ug	2.2
1,3-Dichlorobenzene	ND	20	ug	1.8
1,4-Dichlorobenzene	ND	20	ug	1.9
3,3'-Dichlorobenzidine	ND	100	ug	12
2,4-Dichlorophenol	ND	20	ug	1.7
Diethyl phthalate	**10 J**	**20**	**ug**	**1.5**

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C.E.M. Solutions Incorporated

Client Sample ID: M0010 RUN 2 BH

GC/MS Semivolatiles

Lot-Sample #...: H3K260401-006 **Work Order #...:** M2KW71AA **Matrix.....:** AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
2,4-Dimethylphenol	ND	20	ug	7.0
Dimethyl phthalate	ND	20	ug	1.4
4,6-Dinitro-2-methylphenol	ND	100	ug	10
2,4-Dinitrophenol	ND	100	ug	22
2,4-Dinitrotoluene	ND	20	ug	2.2
2,6-Dinitrotoluene	ND	20	ug	2.4
Di-n-octyl phthalate	ND	20	ug	3.6
1,2-Diphenylhydrazine	ND	20	ug	1.7
Fluoranthene	ND	20	ug	1.4
Fluorene	ND	20	ug	1.6
Hexachlorobenzene	ND	20	ug	2.0
Hexachlorobutadiene	ND	20	ug	1.6
Hexachlorocyclopenta-diene	ND	100	ug	20
Hexachloroethane	ND	20	ug	2.0
Indeno(1,2,3-cd)pyrene	ND	20	ug	1.1
Isophorone	ND	20	ug	1.5
2-Methylnaphthalene	ND	20	ug	1.6
2-Methylphenol	ND	20	ug	1.7
3-Methylphenol & 4-Methylphenol	ND	20	ug	3.4
Naphthalene	ND	20	ug	1.9
2-Nitroaniline	ND	100	ug	2.0
3-Nitroaniline	ND	100	ug	20
4-Nitroaniline	ND	100	ug	10
Nitrobenzene	ND	20	ug	1.7
2-Nitrophenol	ND	20	ug	2.0
4-Nitrophenol	ND	100	ug	10
N-Nitrosodimethylamine	ND	20	ug	1.9
N-Nitrosodiphenylamine	ND	20	ug	1.7
N-Nitrosodi-n-propyl-amine	ND	20	ug	1.8
Pentachlorobenzene	ND	20	ug	2.6
Pentachloronitrobenzene	ND	100	ug	3.4
Pentachlorophenol	ND	100	ug	3.2
Phenanthrene	ND	20	ug	1.5
Phenol	ND	20	ug	1.8
2,2'-oxybis(1-Chloro-propane)	ND	20	ug	2.0
Pyrene	ND	20	ug	1.9
Pyridine	ND	40	ug	3.8
1,2,4-Trichloro-benzene	ND	20	ug	2.0

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C.E.M. Solutions Incorporated

Client Sample ID: M0010 RUN 2 BH

GC/MS Semivolatiles

Lot-Sample #...: H3K260401-006 **Work Order #...:** M2KW71AA **Matrix.....:** AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
2,4,5-Trichloro-phenol	ND	20	ug	1.4
2,4,6-Trichloro-phenol	ND	20	ug	1.9

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	80	(42 - 104)
Phenol-d5	77	(50 - 118)
Nitrobenzene-d5	79	(45 - 110)
2-Fluorobiphenyl	73	(48 - 111)
2,4,6-Tribromophenol	69	(51 - 125)
Terphenyl-d14	82	(73 - 108)
13C6-Naphthalene	68	(50 - 150)

NOTE(S):

J Estimated result. Result is less than RL.

C.E.M. Solutions Incorporated

Client Sample ID: M0010 RUN 2 COND

GC/MS Semivolatiles

Lot-Sample #...: H3K260401-007 **Work Order #...:** M2KW81AA **Matrix.....:** AIR
Date Sampled...: 11/21/13 **Date Received..:** 11/26/13
Prep Date.....: 12/02/13 **Analysis Date..:** 12/05/13
Prep Batch #...: 3336014
Dilution Factor: 2 **Method.....:** SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	ND	20	ug	1.7
Acenaphthylene	ND	20	ug	1.5
Acetophenone	ND	20	ug	2.0
Aniline	ND	40	ug	4.0
Anthracene	ND	20	ug	2.2
Benzidine	ND	200	ug	13
Benzo(a)anthracene	ND	20	ug	2.2
Benzo(b)fluoranthene	ND	20	ug	2.8
Benzo(k)fluoranthene	ND	20	ug	3.2
Benzoic acid	ND	100	ug	50
Benzo(ghi)perylene	ND	20	ug	2.8
Benzo(a)pyrene	ND	20	ug	2.0
Benzyl alcohol	ND	20	ug	2.2
bis(2-Chloroethoxy) methane	ND	20	ug	1.6
bis(2-Chloroethyl)-ether	ND	20	ug	2.2
bis(2-Ethylhexyl) phthalate	ND	20	ug	3.2
4-Bromophenyl phenyl ether	ND	20	ug	2.4
Butyl benzyl phthalate	ND	20	ug	3.0
Carbazole	ND	20	ug	2.6
4-Chloroaniline	ND	20	ug	3.4
4-Chloro-3-methylphenol	ND	20	ug	4.0
2-Chloronaphthalene	ND	20	ug	2.0
2-Chlorophenol	ND	20	ug	2.0
4-Chlorophenyl phenyl ether	ND	20	ug	1.7
Chrysene	ND	20	ug	2.6
Dibenz(a,h)anthracene	ND	20	ug	2.6
Dibenzofuran	ND	20	ug	1.5
Di-n-butyl phthalate	ND	20	ug	3.8
1,2-Dichlorobenzene	ND	20	ug	2.2
1,3-Dichlorobenzene	ND	20	ug	2.4
1,4-Dichlorobenzene	ND	20	ug	2.0
3,3'-Dichlorobenzidine	ND	100	ug	1.8
2,4-Dichlorophenol	ND	20	ug	1.6
Diethyl phthalate	**2.7 J**	**20**	**ug**	**2.0**

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C.E.M. Solutions Incorporated

Client Sample ID: M0010 RUN 2 COND

GC/MS Semivolatiles

Lot-Sample #...: H3K260401-007 **Work Order #...:** M2KW81AA **Matrix.....:** AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
2,4-Dimethylphenol	ND	20	ug	2.8
Dimethyl phthalate	ND	20	ug	1.7
4,6-Dinitro-2-methylphenol	ND	100	ug	7.4
2,4-Dinitrophenol	ND	100	ug	50
2,4-Dinitrotoluene	ND	20	ug	8.0
2,6-Dinitrotoluene	ND	20	ug	8.0
Di-n-octyl phthalate	ND	20	ug	2.2
1,2-Diphenylhydrazine	ND	20	ug	1.9
Fluoranthene	ND	20	ug	2.8
Fluorene	ND	20	ug	1.9
Hexachlorobenzene	ND	20	ug	2.0
Hexachlorobutadiene	ND	20	ug	1.9
Hexachlorocyclopenta-diene	ND	100	ug	8.0
Hexachloroethane	ND	20	ug	2.0
Indeno(1,2,3-cd)pyrene	ND	20	ug	2.4
Isophorone	ND	20	ug	1.6
2-Methylnaphthalene	ND	20	ug	1.7
2-Methylphenol	ND	20	ug	1.4
3-Methylphenol & 4-Methylphenol	ND	20	ug	3.2
Naphthalene	ND	20	ug	2.2
2-Nitroaniline	ND	100	ug	4.0
3-Nitroaniline	ND	100	ug	1.4
4-Nitroaniline	ND	100	ug	8.0
Nitrobenzene	ND	20	ug	2.0
2-Nitrophenol	ND	20	ug	4.0
4-Nitrophenol	ND	100	ug	11
N-Nitrosodimethylamine	ND	20	ug	2.2
N-Nitrosodiphenylamine	ND	20	ug	2.4
N-Nitrosodi-n-propyl-amine	ND	20	ug	1.9
Pentachlorobenzene	ND	20	ug	2.2
Pentachloronitrobenzene	ND	20	ug	8.0
Pentachlorophenol	ND	100	ug	11
Phenanthrene	ND	20	ug	2.2
Phenol	ND	20	ug	2.0
2,2'-oxybis(1-Chloro-propane)	ND	20	ug	2.2
Pyrene	ND	20	ug	2.6
Pyridine	ND	40	ug	8.0
1,2,4-Trichloro-benzene	ND	20	ug	2.2

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C.E.M. Solutions Incorporated

Client Sample ID: M0010 RUN 2 COND

GC/MS Semivolatiles

Lot-Sample #...: H3K260401-007 **Work Order #...:** M2KW81AA **Matrix.....:** AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
2,4,5-Trichloro-phenol	ND	20	ug	1.4
2,4,6-Trichloro-phenol	ND	20	ug	1.4

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	71	(29 - 90)
Phenol-d5	80	(19 - 134)
Nitrobenzene-d5	85	(52 - 109)
2-Fluorobiphenyl	79	(56 - 109)
2,4,6-Tribromophenol	90	(40 - 127)
Terphenyl-d14	86	(55 - 115)

NOTE(S):

J Estimated result. Result is less than RL.

C.E.M. Solutions Incorporated

Client Sample ID: M0010 RUN 3 FH

GC/MS Semivolatiles

Lot-Sample #...: H3K260401-009 **Work Order #...:** M2KXA1AA **Matrix.....:** AIR
Date Sampled...: 11/22/13 **Date Received..:** 11/26/13
Prep Date.....: 12/02/13 **Analysis Date..:** 12/05/13
Prep Batch #...: 3336011
Dilution Factor: 2 **Method.....:** SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	ND	20	ug	2.2
Acenaphthylene	ND	20	ug	2.4
Acetophenone	ND	20	ug	1.1
Aniline	ND	40	ug	3.2
Anthracene	ND	20	ug	2.6
Benzidine	ND	200	ug	5.8
Benzo(a)anthracene	ND	20	ug	2.6
Benzo(b)fluoranthene	ND	20	ug	3.6
Benzo(k)fluoranthene	ND	20	ug	3.4
Benzoic acid	ND	200	ug	30
Benzo(ghi)perylene	ND	20	ug	2.6
Benzo(a)pyrene	ND	20	ug	3.2
Benzyl alcohol	ND	200	ug	4.6
bis(2-Chloroethoxy) methane	ND	20	ug	1.9
bis(2-Chloroethyl)-ether	ND	20	ug	2.4
bis(2-Ethylhexyl) phthalate	**5.9 J**	**20**	**ug**	**3.4**
4-Bromophenyl phenyl ether	ND	20	ug	3.2
Butyl benzyl phthalate	ND	20	ug	3.4
Carbazole	ND	20	ug	2.4
4-Chloroaniline	ND	20	ug	2.6
4-Chloro-3-methylphenol	ND	20	ug	2.6
2-Chloronaphthalene	ND	20	ug	2.4
2-Chlorophenol	ND	20	ug	2.2
4-Chlorophenyl phenyl ether	ND	20	ug	2.8
Chrysene	ND	20	ug	2.2
Dibenz(a,h)anthracene	ND	20	ug	2.4
Dibenzofuran	ND	20	ug	2.4
Di-n-butyl phthalate	ND	20	ug	3.4
1,2-Dichlorobenzene	ND	20	ug	2.4
1,3-Dichlorobenzene	ND	20	ug	2.4
1,4-Dichlorobenzene	ND	20	ug	2.4
3,3'-Dichlorobenzidine	ND	100	ug	2.8
2,4-Dichlorophenol	ND	20	ug	2.6
Diethyl phthalate	ND	20	ug	3.0

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C.E.M. Solutions Incorporated

Client Sample ID: M0010 RUN 3 FH

GC/MS Semivolatiles

Lot-Sample #...: H3K260401-009 **Work Order #...:** M2KXA1AA **Matrix.....:** AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
2,4-Dimethylphenol	ND	40	ug	20
Dimethyl phthalate	ND	20	ug	2.8
4,6-Dinitro-2-methylphenol	ND	100	ug	10
2,4-Dinitrophenol	ND	100	ug	14
2,4-Dinitrotoluene	ND	20	ug	2.8
2,6-Dinitrotoluene	ND	20	ug	2.8
Di-n-octyl phthalate	ND	20	ug	3.4
1,2-Diphenylhydrazine	ND	20	ug	2.0
Fluoranthene	ND	20	ug	3.0
Fluorene	ND	20	ug	2.6
Hexachlorobenzene	ND	20	ug	2.6
Hexachlorobutadiene	ND	20	ug	2.0
Hexachlorocyclopentadiene	ND	100	ug	20
Hexachloroethane	ND	20	ug	1.9
Indeno(1,2,3-cd)pyrene	ND	20	ug	2.6
Isophorone	ND	20	ug	2.6
2-Methylnaphthalene	ND	20	ug	2.4
2-Methylphenol	ND	20	ug	2.2
3-Methylphenol & 4-Methylphenol	ND	20	ug	4.4
Naphthalene	ND	20	ug	2.0
2-Nitroaniline	ND	100	ug	2.2
3-Nitroaniline	ND	100	ug	10
4-Nitroaniline	ND	100	ug	2.6
Nitrobenzene	ND	20	ug	2.0
2-Nitrophenol	ND	20	ug	2.2
4-Nitrophenol	ND	100	ug	15
N-Nitrosodimethylamine	ND	20	ug	2.2
N-Nitrosodiphenylamine	ND	20	ug	3.0
N-Nitrosodi-n-propylamine	ND	20	ug	2.6
Pentachlorobenzene	ND	20	ug	1.5
Pentachloronitrobenzene	ND	40	ug	20
Pentachlorophenol	ND	100	ug	20
Phenanthrene	ND	20	ug	2.4
Phenol	ND	20	ug	2.4
2,2'-oxybis(1-Chloropropane)	ND	20	ug	2.6
Pyrene	ND	20	ug	2.4
Pyridine	ND	40	ug	5.4
1,2,4-Trichlorobenzene	ND	20	ug	2.4

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C.E.M. Solutions Incorporated

Client Sample ID: M0010 RUN 3 FH

GC/MS Semivolatiles

Lot-Sample #...: H3K260401-009 **Work Order #...:** M2KXA1AA **Matrix.....:** AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
2,4,5-Trichloro-phenol	ND	20	ug	2.6
2,4,6-Trichloro-phenol	ND	20	ug	2.4

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	49	(37 - 105)
Phenol-d5	50	(48 - 114)
Nitrobenzene-d5	47	(43 - 107)
2-Fluorobiphenyl	51	(48 - 110)
2,4,6-Tribromophenol	69	(34 - 121)
Terphenyl-d14	74	(67 - 112)

NOTE(S):

J Estimated result. Result is less than RL.

C.E.M. Solutions Incorporated

Client Sample ID: M0010 RUN 3 BH

GC/MS Semivolatiles

Lot-Sample #...: H3K260401-010 **Work Order #...:** M2KXC1AA **Matrix.....:** AIR
Date Sampled...: 11/22/13 **Date Received..:** 11/26/13
Prep Date.....: 12/02/13 **Analysis Date..:** 12/05/13
Prep Batch #...: 3336012
Dilution Factor: 2 **Method.....:** SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	ND	20	ug	1.5
Acenaphthylene	ND	20	ug	1.7
Acetophenone	ND	20	ug	1.9
Aniline	ND	40	ug	10
Anthracene	ND	20	ug	1.7
Benzidine	ND	200	ug	100
Benzo(a)anthracene	ND	20	ug	1.3
Benzo(b)fluoranthene	ND	20	ug	1.8
Benzo(k)fluoranthene	ND	20	ug	3.2
Benzoic acid	ND	200	ug	38
Benzo(ghi)perylene	ND	20	ug	1.0
Benzo(a)pyrene	ND	20	ug	2.4
Benzyl alcohol	ND	200	ug	4.4
bis(2-Chloroethoxy) methane	ND	20	ug	1.5
bis(2-Chloroethyl)-ether	ND	20	ug	1.9
bis(2-Ethylhexyl) phthalate	ND	40	ug	15
4-Bromophenyl phenyl ether	ND	20	ug	2.2
Butyl benzyl phthalate	ND	20	ug	2.6
Carbazole	ND	20	ug	1.0
4-Chloroaniline	ND	40	ug	8.6
4-Chloro-3-methylphenol	ND	20	ug	10
2-Chloronaphthalene	ND	20	ug	1.8
2-Chlorophenol	ND	20	ug	1.9
4-Chlorophenyl phenyl ether	ND	20	ug	1.8
Chrysene	ND	20	ug	1.4
Dibenz(a,h)anthracene	ND	20	ug	1.1
Dibenzofuran	ND	20	ug	1.6
Di-n-butyl phthalate	ND	40	ug	2.2
1,2-Dichlorobenzene	ND	20	ug	2.2
1,3-Dichlorobenzene	ND	20	ug	1.8
1,4-Dichlorobenzene	ND	20	ug	1.9
3,3'-Dichlorobenzidine	ND	100	ug	12
2,4-Dichlorophenol	ND	20	ug	1.7
Diethyl phthalate	ND	20	ug	1.5

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C.E.M. Solutions Incorporated

Client Sample ID: M0010 RUN 3 BH

GC/MS Semivolatiles

Lot-Sample #...: H3K260401-010 **Work Order #...:** M2KXC1AA **Matrix.....:** AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
2,4-Dimethylphenol	ND	20	ug	7.0
Dimethyl phthalate	ND	20	ug	1.4
4,6-Dinitro-2-methylphenol	ND	100	ug	10
2,4-Dinitrophenol	ND	100	ug	22
2,4-Dinitrotoluene	ND	20	ug	2.2
2,6-Dinitrotoluene	ND	20	ug	2.4
Di-n-octyl phthalate	ND	20	ug	3.6
1,2-Diphenylhydrazine	ND	20	ug	1.7
Fluoranthene	ND	20	ug	1.4
Fluorene	ND	20	ug	1.6
Hexachlorobenzene	ND	20	ug	2.0
Hexachlorobutadiene	ND	20	ug	1.6
Hexachlorocyclopenta-diene	ND	100	ug	20
Hexachloroethane	ND	20	ug	2.0
Indeno(1,2,3-cd)pyrene	ND	20	ug	1.1
Isophorone	ND	20	ug	1.5
2-Methylnaphthalene	ND	20	ug	1.6
2-Methylphenol	ND	20	ug	1.7
3-Methylphenol & 4-Methylphenol	ND	20	ug	3.4
Naphthalene	**2.1 J**	**20**	**ug**	**1.9**
2-Nitroaniline	ND	100	ug	2.0
3-Nitroaniline	ND	100	ug	20
4-Nitroaniline	ND	100	ug	10
Nitrobenzene	ND	20	ug	1.7
2-Nitrophenol	ND	20	ug	2.0
4-Nitrophenol	ND	100	ug	10
N-Nitrosodimethylamine	ND	20	ug	1.9
N-Nitrosodiphenylamine	ND	20	ug	1.7
N-Nitrosodi-n-propyl-amine	ND	20	ug	1.8
Pentachlorobenzene	ND	20	ug	2.6
Pentachloronitrobenzene	ND	100	ug	3.4
Pentachlorophenol	ND	100	ug	3.2
Phenanthrene	ND	20	ug	1.5
Phenol	ND	20	ug	1.8
2,2'-oxybis(1-Chloro-propane)	ND	20	ug	2.0
Pyrene	ND	20	ug	1.9
Pyridine	ND	40	ug	3.8
1,2,4-Trichloro-benzene	ND	20	ug	2.0

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C.E.M. Solutions Incorporated

Client Sample ID: M0010 RUN 3 BH

GC/MS Semivolatiles

Lot-Sample #...: H3K260401-010 **Work Order #...:** M2KXC1AA **Matrix.....:** AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
2,4,5-Trichloro-phenol	ND	20	ug	1.4
2,4,6-Trichloro-phenol	ND	20	ug	1.9

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	82	(42 - 104)
Phenol-d5	81	(50 - 118)
Nitrobenzene-d5	81	(45 - 110)
2-Fluorobiphenyl	75	(48 - 111)
2,4,6-Tribromophenol	77	(51 - 125)
Terphenyl-d14	83	(73 - 108)
13C6-Naphthalene	68	(50 - 150)

NOTE(S):

J Estimated result. Result is less than RL.

C.E.M. Solutions Incorporated

Client Sample ID: M0010 RUN 3 COND

GC/MS Semivolatiles

Lot-Sample #...: H3K260401-011 **Work Order #...:** M2KXD1AA **Matrix.....:** AIR
Date Sampled...: 11/22/13 **Date Received..:** 11/26/13
Prep Date.....: 12/02/13 **Analysis Date..:** 12/05/13
Prep Batch #...: 3336014
Dilution Factor: 2 **Method.....:** SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	ND	20	ug	1.7
Acenaphthylene	ND	20	ug	1.5
Acetophenone	ND	20	ug	2.0
Aniline	ND	40	ug	4.0
Anthracene	ND	20	ug	2.2
Benzidine	ND	200	ug	13
Benzo(a)anthracene	ND	20	ug	2.2
Benzo(b)fluoranthene	ND	20	ug	2.8
Benzo(k)fluoranthene	ND	20	ug	3.2
Benzoic acid	ND	100	ug	50
Benzo(ghi)perylene	ND	20	ug	2.8
Benzo(a)pyrene	ND	20	ug	2.0
Benzyl alcohol	ND	20	ug	2.2
bis(2-Chloroethoxy) methane	ND	20	ug	1.6
bis(2-Chloroethyl)-ether	ND	20	ug	2.2
bis(2-Ethylhexyl) phthalate	**69**	**20**	**ug**	**3.2**
4-Bromophenyl phenyl ether	ND	20	ug	2.4
Butyl benzyl phthalate	ND	20	ug	3.0
Carbazole	ND	20	ug	2.6
4-Chloroaniline	ND	20	ug	3.4
4-Chloro-3-methylphenol	ND	20	ug	4.0
2-Chloronaphthalene	ND	20	ug	2.0
2-Chlorophenol	ND	20	ug	2.0
4-Chlorophenyl phenyl ether	ND	20	ug	1.7
Chrysene	ND	20	ug	2.6
Dibenz(a,h)anthracene	ND	20	ug	2.6
Dibenzofuran	ND	20	ug	1.5
Di-n-butyl phthalate	ND	20	ug	3.8
1,2-Dichlorobenzene	ND	20	ug	2.2
1,3-Dichlorobenzene	ND	20	ug	2.4
1,4-Dichlorobenzene	ND	20	ug	2.0
3,3'-Dichlorobenzidine	ND	100	ug	1.8
2,4-Dichlorophenol	ND	20	ug	1.6
Diethyl phthalate	ND	20	ug	2.0

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C.E.M. Solutions Incorporated

Client Sample ID: M0010 RUN 3 COND

GC/MS Semivolatiles

Lot-Sample #...: H3K260401-011 **Work Order #...:** M2KXD1AA **Matrix.....:** AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
2,4-Dimethylphenol	ND	20	ug	2.8
Dimethyl phthalate	ND	20	ug	1.7
4,6-Dinitro-2-methylphenol	ND	100	ug	7.4
2,4-Dinitrophenol	ND	100	ug	50
2,4-Dinitrotoluene	ND	20	ug	8.0
2,6-Dinitrotoluene	ND	20	ug	8.0
Di-n-octyl phthalate	ND	20	ug	2.2
1,2-Diphenylhydrazine	ND	20	ug	1.9
Fluoranthene	ND	20	ug	2.8
Fluorene	ND	20	ug	1.9
Hexachlorobenzene	ND	20	ug	2.0
Hexachlorobutadiene	ND	20	ug	1.9
Hexachlorocyclopenta-diene	ND	100	ug	8.0
Hexachloroethane	ND	20	ug	2.0
Indeno(1,2,3-cd)pyrene	ND	20	ug	2.4
Isophorone	ND	20	ug	1.6
2-Methylnaphthalene	ND	20	ug	1.7
2-Methylphenol	ND	20	ug	1.4
3-Methylphenol & 4-Methylphenol	ND	20	ug	3.2
Naphthalene	ND	20	ug	2.2
2-Nitroaniline	ND	100	ug	4.0
3-Nitroaniline	ND	100	ug	1.4
4-Nitroaniline	ND	100	ug	8.0
Nitrobenzene	ND	20	ug	2.0
2-Nitrophenol	ND	20	ug	4.0
4-Nitrophenol	ND	100	ug	11
N-Nitrosodimethylamine	ND	20	ug	2.2
N-Nitrosodiphenylamine	ND	20	ug	2.4
N-Nitrosodi-n-propyl-amine	ND	20	ug	1.9
Pentachlorobenzene	ND	20	ug	2.2
Pentachloronitrobenzene	ND	20	ug	8.0
Pentachlorophenol	ND	100	ug	11
Phenanthrene	ND	20	ug	2.2
Phenol	ND	20	ug	2.0
2,2'-oxybis(1-Chloro-propane)	ND	20	ug	2.2
Pyrene	ND	20	ug	2.6
Pyridine	ND	40	ug	8.0
1,2,4-Trichloro-benzene	ND	20	ug	2.2

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C.E.M. Solutions Incorporated

Client Sample ID: M0010 RUN 3 COND

GC/MS Semivolatiles

Lot-Sample #...: H3K260401-011 **Work Order #...:** M2KXD1AA **Matrix.....:** AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
2,4,5-Trichloro-phenol	ND	20	ug	1.4
2,4,6-Trichloro-phenol	ND	20	ug	1.4

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	66	(29 - 90)
Phenol-d5	79	(19 - 134)
Nitrobenzene-d5	86	(52 - 109)
2-Fluorobiphenyl	79	(56 - 109)
2,4,6-Tribromophenol	88	(40 - 127)
Terphenyl-d14	86	(55 - 115)

C.E.M. Solutions Incorporated

Client Sample ID: M0010 FIELD BLANK FH

GC/MS Semivolatiles

Lot-Sample #...: H3K260401-013 **Work Order #...:** M2KXF1AA **Matrix.....:** AIR
Date Sampled...: 11/17/13 **Date Received..:** 11/26/13
Prep Date.....: 12/02/13 **Analysis Date..:** 12/05/13
Prep Batch #...: 3336011
Dilution Factor: 2 **Method.....:** SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	ND	20	ug	2.2
Acenaphthylene	ND	20	ug	2.4
Acetophenone	ND	20	ug	1.1
Aniline	ND	40	ug	3.2
Anthracene	ND	20	ug	2.6
Benzidine	ND	200	ug	5.8
Benzo(a)anthracene	ND	20	ug	2.6
Benzo(b)fluoranthene	ND	20	ug	3.6
Benzo(k)fluoranthene	ND	20	ug	3.4
Benzoic acid	ND	200	ug	30
Benzo(ghi)perylene	ND	20	ug	2.6
Benzo(a)pyrene	ND	20	ug	3.2
Benzyl alcohol	ND	200	ug	4.6
bis(2-Chloroethoxy) methane	ND	20	ug	1.9
bis(2-Chloroethyl)-ether	ND	20	ug	2.4
bis(2-Ethylhexyl) phthalate	**7.3 J**	**20**	**ug**	**3.4**
4-Bromophenyl phenyl ether	ND	20	ug	3.2
Butyl benzyl phthalate	ND	20	ug	3.4
Carbazole	ND	20	ug	2.4
4-Chloroaniline	ND	20	ug	2.6
4-Chloro-3-methylphenol	ND	20	ug	2.6
2-Chloronaphthalene	ND	20	ug	2.4
2-Chlorophenol	ND	20	ug	2.2
4-Chlorophenyl phenyl ether	ND	20	ug	2.8
Chrysene	ND	20	ug	2.2
Dibenz(a,h)anthracene	ND	20	ug	2.4
Dibenzofuran	ND	20	ug	2.4
Di-n-butyl phthalate	**4.4 J**	**20**	**ug**	**3.4**
1,2-Dichlorobenzene	ND	20	ug	2.4
1,3-Dichlorobenzene	ND	20	ug	2.4
1,4-Dichlorobenzene	ND	20	ug	2.4
3,3'-Dichlorobenzidine	ND	100	ug	2.8
2,4-Dichlorophenol	ND	20	ug	2.6
Diethyl phthalate	**3.1 J**	**20**	**ug**	**3.0**

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C.E.M. Solutions Incorporated

Client Sample ID: M0010 FIELD BLANK FH

GC/MS Semivolatiles

Lot-Sample #...: H3K260401-013 **Work Order #...:** M2KXF1AA **Matrix.....:** AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
2,4-Dimethylphenol	ND	40	ug	20
Dimethyl phthalate	ND	20	ug	2.8
4,6-Dinitro-2-methylphenol	ND	100	ug	10
2,4-Dinitrophenol	ND	100	ug	14
2,4-Dinitrotoluene	ND	20	ug	2.8
2,6-Dinitrotoluene	ND	20	ug	2.8
Di-n-octyl phthalate	ND	20	ug	3.4
1,2-Diphenylhydrazine	ND	20	ug	2.0
Fluoranthene	ND	20	ug	3.0
Fluorene	ND	20	ug	2.6
Hexachlorobenzene	ND	20	ug	2.6
Hexachlorobutadiene	ND	20	ug	2.0
Hexachlorocyclopentadiene	ND	100	ug	20
Hexachloroethane	ND	20	ug	1.9
Indeno(1,2,3-cd)pyrene	ND	20	ug	2.6
Isophorone	ND	20	ug	2.6
2-Methylnaphthalene	ND	20	ug	2.4
2-Methylphenol	ND	20	ug	2.2
3-Methylphenol & 4-Methylphenol	ND	20	ug	4.4
Naphthalene	ND	20	ug	2.0
2-Nitroaniline	ND	100	ug	2.2
3-Nitroaniline	ND	100	ug	10
4-Nitroaniline	ND	100	ug	2.6
Nitrobenzene	ND	20	ug	2.0
2-Nitrophenol	ND	20	ug	2.2
4-Nitrophenol	ND	100	ug	15
N-Nitrosodimethylamine	ND	20	ug	2.2
N-Nitrosodiphenylamine	ND	20	ug	3.0
N-Nitrosodi-n-propylamine	ND	20	ug	2.6
Pentachlorobenzene	ND	20	ug	1.5
Pentachloronitrobenzene	ND	40	ug	20
Pentachlorophenol	ND	100	ug	20
Phenanthrene	ND	20	ug	2.4
Phenol	ND	20	ug	2.4
2,2'-oxybis(1-Chloropropane)	ND	20	ug	2.6
Pyrene	ND	20	ug	2.4
Pyridine	ND	40	ug	5.4
1,2,4-Trichlorobenzene	ND	20	ug	2.4

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C.E.M. Solutions Incorporated

Client Sample ID: M0010 FIELD BLANK FH

GC/MS Semivolatiles

Lot-Sample #...: H3K260401-013 **Work Order #...:** M2KXF1AA **Matrix.....:** AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
2,4,5-Trichloro-phenol	ND	20	ug	2.6
2,4,6-Trichloro-phenol	ND	20	ug	2.4

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	49	(37 - 105)
Phenol-d5	51	(48 - 114)
Nitrobenzene-d5	49	(43 - 107)
2-Fluorobiphenyl	51	(48 - 110)
2,4,6-Tribromophenol	69	(34 - 121)
Terphenyl-d14	77	(67 - 112)

NOTE(S):

J Estimated result. Result is less than RL.

C.E.M. Solutions Incorporated

Client Sample ID: M0010 FIELD BLANK BH

GC/MS Semivolatiles

Lot-Sample #...: H3K260401-014 **Work Order #...:** M2KXH1AA **Matrix.....:** AIR
Date Sampled...: 11/17/13 **Date Received..:** 11/26/13
Prep Date.....: 12/02/13 **Analysis Date..:** 12/05/13
Prep Batch #...: 3336012
Dilution Factor: 2 **Method.....:** SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	ND	20	ug	1.5
Acenaphthylene	ND	20	ug	1.7
Acetophenone	ND	20	ug	1.9
Aniline	ND	40	ug	10
Anthracene	ND	20	ug	1.7
Benzidine	ND	200	ug	100
Benzo(a)anthracene	ND	20	ug	1.3
Benzo(b)fluoranthene	ND	20	ug	1.8
Benzo(k)fluoranthene	ND	20	ug	3.2
Benzoic acid	**67 J,B**	**200**	**ug**	**38**
Benzo(ghi)perylene	ND	20	ug	1.0
Benzo(a)pyrene	ND	20	ug	2.4
Benzyl alcohol	ND	200	ug	4.4
bis(2-Chloroethoxy) methane	ND	20	ug	1.5
bis(2-Chloroethyl)-ether	ND	20	ug	1.9
bis(2-Ethylhexyl) phthalate	ND	40	ug	15
4-Bromophenyl phenyl ether	ND	20	ug	2.2
Butyl benzyl phthalate	ND	20	ug	2.6
Carbazole	ND	20	ug	1.0
4-Chloroaniline	ND	40	ug	8.6
4-Chloro-3-methylphenol	ND	20	ug	10
2-Chloronaphthalene	ND	20	ug	1.8
2-Chlorophenol	ND	20	ug	1.9
4-Chlorophenyl phenyl ether	ND	20	ug	1.8
Chrysene	ND	20	ug	1.4
Dibenz(a,h)anthracene	ND	20	ug	1.1
Dibenzofuran	ND	20	ug	1.6
Di-n-butyl phthalate	ND	40	ug	2.2
1,2-Dichlorobenzene	ND	20	ug	2.2
1,3-Dichlorobenzene	ND	20	ug	1.8
1,4-Dichlorobenzene	ND	20	ug	1.9
3,3'-Dichlorobenzidine	ND	100	ug	12
2,4-Dichlorophenol	ND	20	ug	1.7
Diethyl phthalate	ND	20	ug	1.5

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C.E.M. Solutions Incorporated

Client Sample ID: M0010 FIELD BLANK BH

GC/MS Semivolatiles

Lot-Sample #...: H3K260401-014 **Work Order #...:** M2KXH1AA **Matrix.....:** AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
2,4-Dimethylphenol	ND	20	ug	7.0
Dimethyl phthalate	ND	20	ug	1.4
4,6-Dinitro-2-methylphenol	ND	100	ug	10
2,4-Dinitrophenol	ND	100	ug	22
2,4-Dinitrotoluene	ND	20	ug	2.2
2,6-Dinitrotoluene	ND	20	ug	2.4
Di-n-octyl phthalate	ND	20	ug	3.6
1,2-Diphenylhydrazine	ND	20	ug	1.7
Fluoranthene	ND	20	ug	1.4
Fluorene	ND	20	ug	1.6
Hexachlorobenzene	ND	20	ug	2.0
Hexachlorobutadiene	ND	20	ug	1.6
Hexachlorocyclopentadiene	ND	100	ug	20
Hexachloroethane	ND	20	ug	2.0
Indeno(1,2,3-cd)pyrene	ND	20	ug	1.1
Isophorone	ND	20	ug	1.5
2-Methylnaphthalene	ND	20	ug	1.6
2-Methylphenol	ND	20	ug	1.7
3-Methylphenol & 4-Methylphenol	ND	20	ug	3.4
Naphthalene	ND	20	ug	1.9
2-Nitroaniline	ND	100	ug	2.0
3-Nitroaniline	ND	100	ug	20
4-Nitroaniline	ND	100	ug	10
Nitrobenzene	ND	20	ug	1.7
2-Nitrophenol	ND	20	ug	2.0
4-Nitrophenol	ND	100	ug	10
N-Nitrosodimethylamine	ND	20	ug	1.9
N-Nitrosodiphenylamine	ND	20	ug	1.7
N-Nitrosodi-n-propylamine	ND	20	ug	1.8
Pentachlorobenzene	ND	20	ug	2.6
Pentachloronitrobenzene	ND	100	ug	3.4
Pentachlorophenol	ND	100	ug	3.2
Phenanthrene	ND	20	ug	1.5
Phenol	ND	20	ug	1.8
2,2'-oxybis(1-Chloropropane)	ND	20	ug	2.0
Pyrene	ND	20	ug	1.9
Pyridine	ND	40	ug	3.8
1,2,4-Trichlorobenzene	ND	20	ug	2.0

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C.E.M. Solutions Incorporated

Client Sample ID: M0010 FIELD BLANK BH

GC/MS Semivolatiles

Lot-Sample #...: H3K260401-014 **Work Order #...:** M2KXH1AA **Matrix.....:** AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
2,4,5-Trichloro-phenol	ND	20	ug	1.4
2,4,6-Trichloro-phenol	ND	20	ug	1.9

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	87	(42 - 104)
Phenol-d5	87	(50 - 118)
Nitrobenzene-d5	87	(45 - 110)
2-Fluorobiphenyl	83	(48 - 111)
2,4,6-Tribromophenol	91	(51 - 125)
Terphenyl-d14	89	(73 - 108)
13C6-Naphthalene	73	(50 - 150)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

C.E.M. Solutions Incorporated

Client Sample ID: A-5097 MEDIA CHECK XAD

GC/MS Semivolatiles

Lot-Sample #...: H3K260401-016 **Work Order #...:** M2KXK1AA **Matrix.....:** AIR
Date Sampled...: 11/17/13 **Date Received..:** 11/26/13
Prep Date.....: 12/02/13 **Analysis Date..:** 12/05/13
Prep Batch #...: 3336012
Dilution Factor: 2 **Method.....:** SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	ND	20	ug	1.5
Acenaphthylene	ND	20	ug	1.7
Acetophenone	ND	20	ug	1.9
Aniline	ND	40	ug	10
Anthracene	ND	20	ug	1.7
Benzidine	ND	200	ug	100
Benzo(a)anthracene	ND	20	ug	1.3
Benzo(b)fluoranthene	ND	20	ug	1.8
Benzo(k)fluoranthene	ND	20	ug	3.2
Benzoic acid	**55 J,B**	**200**	**ug**	**38**
Benzo(ghi)perylene	ND	20	ug	1.0
Benzo(a)pyrene	ND	20	ug	2.4
Benzyl alcohol	ND	200	ug	4.4
bis(2-Chloroethoxy) methane	ND	20	ug	1.5
bis(2-Chloroethyl)-ether	ND	20	ug	1.9
bis(2-Ethylhexyl) phthalate	ND	40	ug	15
4-Bromophenyl phenyl ether	ND	20	ug	2.2
Butyl benzyl phthalate	ND	20	ug	2.6
Carbazole	ND	20	ug	1.0
4-Chloroaniline	ND	40	ug	8.6
4-Chloro-3-methylphenol	ND	20	ug	10
2-Chloronaphthalene	ND	20	ug	1.8
2-Chlorophenol	ND	20	ug	1.9
4-Chlorophenyl phenyl ether	ND	20	ug	1.8
Chrysene	ND	20	ug	1.4
Dibenz(a,h)anthracene	ND	20	ug	1.1
Dibenzofuran	ND	20	ug	1.6
Di-n-butyl phthalate	ND	40	ug	2.2
1,2-Dichlorobenzene	ND	20	ug	2.2
1,3-Dichlorobenzene	ND	20	ug	1.8
1,4-Dichlorobenzene	ND	20	ug	1.9
3,3'-Dichlorobenzidine	ND	100	ug	12
2,4-Dichlorophenol	ND	20	ug	1.7
Diethyl phthalate	ND	20	ug	1.5

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C.E.M. Solutions Incorporated

Client Sample ID: A-5097 MEDIA CHECK XAD

GC/MS Semivolatiles

Lot-Sample #...: H3K260401-016 **Work Order #...:** M2KXK1AA **Matrix.....:** AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
2,4-Dimethylphenol	ND	20	ug	7.0
Dimethyl phthalate	ND	20	ug	1.4
4,6-Dinitro-2-methylphenol	ND	100	ug	10
2,4-Dinitrophenol	ND	100	ug	22
2,4-Dinitrotoluene	ND	20	ug	2.2
2,6-Dinitrotoluene	ND	20	ug	2.4
Di-n-octyl phthalate	ND	20	ug	3.6
1,2-Diphenylhydrazine	ND	20	ug	1.7
Fluoranthene	ND	20	ug	1.4
Fluorene	ND	20	ug	1.6
Hexachlorobenzene	ND	20	ug	2.0
Hexachlorobutadiene	ND	20	ug	1.6
Hexachlorocyclopenta-diene	ND	100	ug	20
Hexachloroethane	ND	20	ug	2.0
Indeno(1,2,3-cd)pyrene	ND	20	ug	1.1
Isophorone	ND	20	ug	1.5
2-Methylnaphthalene	ND	20	ug	1.6
2-Methylphenol	ND	20	ug	1.7
3-Methylphenol & 4-Methylphenol	ND	20	ug	3.4
Naphthalene	ND	20	ug	1.9
2-Nitroaniline	ND	100	ug	2.0
3-Nitroaniline	ND	100	ug	20
4-Nitroaniline	ND	100	ug	10
Nitrobenzene	ND	20	ug	1.7
2-Nitrophenol	ND	20	ug	2.0
4-Nitrophenol	ND	100	ug	10
N-Nitrosodimethylamine	ND	20	ug	1.9
N-Nitrosodiphenylamine	ND	20	ug	1.7
N-Nitrosodi-n-propyl-amine	ND	20	ug	1.8
Pentachlorobenzene	ND	20	ug	2.6
Pentachloronitrobenzene	ND	100	ug	3.4
Pentachlorophenol	ND	100	ug	3.2
Phenanthrene	ND	20	ug	1.5
Phenol	ND	20	ug	1.8
2,2'-oxybis(1-Chloro-propane)	ND	20	ug	2.0
Pyrene	ND	20	ug	1.9
Pyridine	ND	40	ug	3.8
1,2,4-Trichloro-benzene	ND	20	ug	2.0

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C.E.M. Solutions Incorporated

Client Sample ID: A-5097 MEDIA CHECK XAD

GC/MS Semivolatiles

Lot-Sample #...: H3K260401-016 **Work Order #...:** M2KXK1AA **Matrix.....:** AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
2,4,5-Trichloro-phenol	ND	20	ug	1.4
2,4,6-Trichloro-phenol	ND	20	ug	1.9

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	67	(42 - 104)
Phenol-d5	75	(50 - 118)
Nitrobenzene-d5	77	(45 - 110)
2-Fluorobiphenyl	72	(48 - 111)
2,4,6-Tribromophenol	88	(51 - 125)
Terphenyl-d14	84	(73 - 108)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

C.E.M. Solutions Incorporated

Client Sample ID: A-5098 MEDIA CHECK FILTER

GC/MS Semivolatiles

Lot-Sample #...: H3K260401-017 **Work Order #...:** M2KXL1AA **Matrix.....:** AIR
Date Sampled...: 11/17/13 **Date Received..:** 11/26/13
Prep Date.....: 12/02/13 **Analysis Date..:** 12/05/13
Prep Batch #...: 3336011
Dilution Factor: 2 **Method.....:** SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	ND	20	ug	2.2
Acenaphthylene	ND	20	ug	2.4
Acetophenone	ND	20	ug	1.1
Aniline	ND	40	ug	3.2
Anthracene	ND	20	ug	2.6
Benzidine	ND	200	ug	5.8
Benzo(a)anthracene	ND	20	ug	2.6
Benzo(b)fluoranthene	ND	20	ug	3.6
Benzo(k)fluoranthene	ND	20	ug	3.4
Benzoic acid	ND	200	ug	30
Benzo(ghi)perylene	ND	20	ug	2.6
Benzo(a)pyrene	ND	20	ug	3.2
Benzyl alcohol	ND	200	ug	4.6
bis(2-Chloroethoxy) methane	ND	20	ug	1.9
bis(2-Chloroethyl)-ether	ND	20	ug	2.4
bis(2-Ethylhexyl) phthalate	ND	20	ug	3.4
4-Bromophenyl phenyl ether	ND	20	ug	3.2
Butyl benzyl phthalate	ND	20	ug	3.4
Carbazole	ND	20	ug	2.4
4-Chloroaniline	ND	20	ug	2.6
4-Chloro-3-methylphenol	ND	20	ug	2.6
2-Chloronaphthalene	ND	20	ug	2.4
2-Chlorophenol	ND	20	ug	2.2
4-Chlorophenyl phenyl ether	ND	20	ug	2.8
Chrysene	ND	20	ug	2.2
Dibenz(a,h)anthracene	ND	20	ug	2.4
Dibenzofuran	ND	20	ug	2.4
Di-n-butyl phthalate	ND	20	ug	3.4
1,2-Dichlorobenzene	ND	20	ug	2.4
1,3-Dichlorobenzene	ND	20	ug	2.4
1,4-Dichlorobenzene	ND	20	ug	2.4
3,3'-Dichlorobenzidine	ND	100	ug	2.8
2,4-Dichlorophenol	ND	20	ug	2.6
Diethyl phthalate	ND	20	ug	3.0

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C.E.M. Solutions Incorporated

Client Sample ID: A-5098 MEDIA CHECK FILTER

GC/MS Semivolatiles

Lot-Sample #...: H3K260401-017 **Work Order #...:** M2KXL1AA **Matrix.....:** AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
2,4-Dimethylphenol	ND	40	ug	20
Dimethyl phthalate	ND	20	ug	2.8
4,6-Dinitro-2-methylphenol	ND	100	ug	10
2,4-Dinitrophenol	ND	100	ug	14
2,4-Dinitrotoluene	ND	20	ug	2.8
2,6-Dinitrotoluene	ND	20	ug	2.8
Di-n-octyl phthalate	ND	20	ug	3.4
1,2-Diphenylhydrazine	ND	20	ug	2.0
Fluoranthene	ND	20	ug	3.0
Fluorene	ND	20	ug	2.6
Hexachlorobenzene	ND	20	ug	2.6
Hexachlorobutadiene	ND	20	ug	2.0
Hexachlorocyclopentadiene	ND	100	ug	20
Hexachloroethane	ND	20	ug	1.9
Indeno(1,2,3-cd)pyrene	ND	20	ug	2.6
Isophorone	ND	20	ug	2.6
2-Methylnaphthalene	ND	20	ug	2.4
2-Methylphenol	ND	20	ug	2.2
3-Methylphenol & 4-Methylphenol	ND	20	ug	4.4
Naphthalene	ND	20	ug	2.0
2-Nitroaniline	ND	100	ug	2.2
3-Nitroaniline	ND	100	ug	10
4-Nitroaniline	ND	100	ug	2.6
Nitrobenzene	ND	20	ug	2.0
2-Nitrophenol	ND	20	ug	2.2
4-Nitrophenol	ND	100	ug	15
N-Nitrosodimethylamine	ND	20	ug	2.2
N-Nitrosodiphenylamine	ND	20	ug	3.0
N-Nitrosodi-n-propylamine	ND	20	ug	2.6
Pentachlorobenzene	ND	20	ug	1.5
Pentachloronitrobenzene	ND	40	ug	20
Pentachlorophenol	ND	100	ug	20
Phenanthrene	ND	20	ug	2.4
Phenol	ND	20	ug	2.4
2,2'-oxybis(1-Chloropropane)	ND	20	ug	2.6
Pyrene	ND	20	ug	2.4
Pyridine	ND	40	ug	5.4
1,2,4-Trichlorobenzene	ND	20	ug	2.4

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C.E.M. Solutions Incorporated

Client Sample ID: A-5098 MEDIA CHECK FILTER

GC/MS Semivolatiles

Lot-Sample #...: H3K260401-017 **Work Order #...:** M2KXL1AA **Matrix.....:** AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
2,4,5-Trichloro-phenol	ND	20	ug	2.6
2,4,6-Trichloro-phenol	ND	20	ug	2.4

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	62	(37 - 105)
Phenol-d5	65	(48 - 114)
Nitrobenzene-d5	67	(43 - 107)
2-Fluorobiphenyl	62	(48 - 110)
2,4,6-Tribromophenol	73	(34 - 121)
Terphenyl-d14	77	(67 - 112)

METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: H3K260401 **Work Order #...:** M2LN11AA **Matrix.....:** AIR
MB Lot-Sample #: H3L020000-011

Prep Date.....: 12/02/13
Analysis Date..: 12/05/13 **Prep Batch #...:** 3336011
Dilution Factor: 2

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Acenaphthene	ND	20	ug	SW846 8270C
Acenaphthylene	ND	20	ug	SW846 8270C
Acetophenone	ND	20	ug	SW846 8270C
Aniline	ND	40	ug	SW846 8270C
Anthracene	ND	20	ug	SW846 8270C
Benzidine	ND	200	ug	SW846 8270C
Benzo(a)anthracene	ND	20	ug	SW846 8270C
Benzo(b)fluoranthene	ND	20	ug	SW846 8270C
Benzo(k)fluoranthene	ND	20	ug	SW846 8270C
Benzoic acid	ND	200	ug	SW846 8270C
Benzo(ghi)perylene	ND	20	ug	SW846 8270C
Benzo(a)pyrene	ND	20	ug	SW846 8270C
Benzyl alcohol	ND	200	ug	SW846 8270C
bis(2-Chloroethoxy) methane	ND	20	ug	SW846 8270C
bis(2-Chloroethyl)-ether	ND	20	ug	SW846 8270C
bis(2-Ethylhexyl) phthalate	ND	20	ug	SW846 8270C
4-Bromophenyl phenyl ether	ND	20	ug	SW846 8270C
Butyl benzyl phthalate	ND	20	ug	SW846 8270C
Carbazole	ND	20	ug	SW846 8270C
4-Chloroaniline	ND	20	ug	SW846 8270C
4-Chloro-3-methylphenol	ND	20	ug	SW846 8270C
2-Chloronaphthalene	ND	20	ug	SW846 8270C
2-Chlorophenol	ND	20	ug	SW846 8270C
4-Chlorophenyl phenyl ether	ND	20	ug	SW846 8270C
Chrysene	ND	20	ug	SW846 8270C
Dibenz(a,h)anthracene	ND	20	ug	SW846 8270C
Dibenzofuran	ND	20	ug	SW846 8270C
Di-n-butyl phthalate	ND	20	ug	SW846 8270C
1,2-Dichlorobenzene	ND	20	ug	SW846 8270C
1,3-Dichlorobenzene	ND	20	ug	SW846 8270C
1,4-Dichlorobenzene	ND	20	ug	SW846 8270C
3,3'-Dichlorobenzidine	ND	100	ug	SW846 8270C
2,4-Dichlorophenol	ND	20	ug	SW846 8270C
Diethyl phthalate	ND	20	ug	SW846 8270C
2,4-Dimethylphenol	ND	40	ug	SW846 8270C
Dimethyl phthalate	ND	20	ug	SW846 8270C

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METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: H3K260401 **Work Order #...:** M2LN11AA **Matrix.....:** AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
4,6-Dinitro-2-methylphenol	ND	100	ug	SW846 8270C
2,4-Dinitrophenol	ND	100	ug	SW846 8270C
2,4-Dinitrotoluene	ND	20	ug	SW846 8270C
2,6-Dinitrotoluene	ND	20	ug	SW846 8270C
Di-n-octyl phthalate	ND	20	ug	SW846 8270C
1,2-Diphenylhydrazine	ND	20	ug	SW846 8270C
Fluoranthene	ND	20	ug	SW846 8270C
Fluorene	ND	20	ug	SW846 8270C
Hexachlorobenzene	ND	20	ug	SW846 8270C
Hexachlorobutadiene	ND	20	ug	SW846 8270C
Hexachlorocyclopenta-diene	ND	100	ug	SW846 8270C
Hexachloroethane	ND	20	ug	SW846 8270C
Indeno(1,2,3-cd)pyrene	ND	20	ug	SW846 8270C
Isophorone	ND	20	ug	SW846 8270C
2-Methylnaphthalene	ND	20	ug	SW846 8270C
2-Methylphenol	ND	20	ug	SW846 8270C
3-Methylphenol & 4-Methylphenol	ND	20	ug	SW846 8270C
Naphthalene	ND	20	ug	SW846 8270C
2-Nitroaniline	ND	100	ug	SW846 8270C
3-Nitroaniline	ND	100	ug	SW846 8270C
4-Nitroaniline	ND	100	ug	SW846 8270C
Nitrobenzene	ND	20	ug	SW846 8270C
2-Nitrophenol	ND	20	ug	SW846 8270C
4-Nitrophenol	ND	100	ug	SW846 8270C
N-Nitrosodimethylamine	ND	20	ug	SW846 8270C
N-Nitrosodiphenylamine	ND	20	ug	SW846 8270C
N-Nitrosodi-n-propyl-amine	ND	20	ug	SW846 8270C
Pentachlorobenzene	ND	20	ug	SW846 8270C
Pentachloronitrobenzene	ND	40	ug	SW846 8270C
Pentachlorophenol	ND	100	ug	SW846 8270C
Phenanthrene	ND	20	ug	SW846 8270C
Phenol	ND	20	ug	SW846 8270C
2,2'-oxybis(1-Chloro-propane)	ND	20	ug	SW846 8270C
Pyrene	ND	20	ug	SW846 8270C
Pyridine	ND	40	ug	SW846 8270C
1,2,4-Trichloro-benzene	ND	20	ug	SW846 8270C
2,4,5-Trichloro-phenol	ND	20	ug	SW846 8270C
2,4,6-Trichloro-phenol	ND	20	ug	SW846 8270C

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METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: H3K260401 **Work Order #...:** M2LN11AA **Matrix.....:** AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	58	(37 - 105)
Phenol-d5	63	(48 - 114)
Nitrobenzene-d5	68	(43 - 107)
2-Fluorobiphenyl	67	(48 - 110)
2,4,6-Tribromophenol	67	(34 - 121)
Terphenyl-d14	86	(67 - 112)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: H3K260401 **Work Order #...:** M2LN11AC-LCS **Matrix.....:** AIR
LCS Lot-Sample#: H3L020000-011 M2LN11AD-LCSD
Prep Date.....: 12/02/13 **Analysis Date..:** 12/05/13
Prep Batch #...: 3336011
Dilution Factor: 2

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Acenaphthene	**72**	**(63 - 107)**			**SW846 8270C**
	76	**(63 - 107)**	**6.1**	**(0-25)**	**SW846 8270C**
Acenaphthylene	**72**	**(64 - 112)**			**SW846 8270C**
	76	**(64 - 112)**	**5.4**	**(0-25)**	**SW846 8270C**
Aniline	**63**	**(48 - 109)**			**SW846 8270C**
	68	**(48 - 109)**	**8.4**	**(0-31)**	**SW846 8270C**
Anthracene	**75**	**(59 - 114)**			**SW846 8270C**
	79	**(59 - 114)**	**5.2**	**(0-25)**	**SW846 8270C**
Benzo(a)anthracene	**80**	**(74 - 117)**			**SW846 8270C**
	84	**(74 - 117)**	**5.5**	**(0-25)**	**SW846 8270C**
Benzo(b)fluoranthene	**80**	**(63 - 122)**			**SW846 8270C**
	83	**(63 - 122)**	**3.7**	**(0-42)**	**SW846 8270C**
Benzo(k)fluoranthene	**84**	**(69 - 118)**			**SW846 8270C**
	85	**(69 - 118)**	**1.2**	**(0-26)**	**SW846 8270C**
Benzoic acid	**6.2 a**	**(10 - 122)**			**SW846 8270C**
	3.9 a	**(10 - 122)**	**46**	**(0-50)**	**SW846 8270C**
Benzo(ghi)perylene	**82**	**(71 - 122)**			**SW846 8270C**
	88	**(71 - 122)**	**5.9**	**(0-28)**	**SW846 8270C**
Benzo(a)pyrene	**84**	**(67 - 122)**			**SW846 8270C**
	88	**(67 - 122)**	**4.6**	**(0-25)**	**SW846 8270C**
Benzyl alcohol	**68**	**(54 - 122)**			**SW846 8270C**
	76	**(54 - 122)**	**9.7**	**(0-28)**	**SW846 8270C**
bis(2-Chloroethoxy) methane	**68**	**(60 - 109)**			**SW846 8270C**
	72	**(60 - 109)**	**5.0**	**(0-26)**	**SW846 8270C**
bis(2-Chloroethyl)-ether	**65**	**(59 - 109)**			**SW846 8270C**
	72	**(59 - 109)**	**9.5**	**(0-26)**	**SW846 8270C**
bis(2-Ethylhexyl) phthalate	**83**	**(77 - 128)**			**SW846 8270C**
	90	**(77 - 128)**	**8.1**	**(0-25)**	**SW846 8270C**
4-Bromophenyl phenyl ether	**74**	**(67 - 125)**			**SW846 8270C**
	79	**(67 - 125)**	**5.9**	**(0-25)**	**SW846 8270C**
Butyl benzyl phthalate	**88**	**(76 - 127)**			**SW846 8270C**
	95	**(76 - 127)**	**7.6**	**(0-25)**	**SW846 8270C**

(Continued on next page)

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: H3K260401 **Work Order #...:** M2LN11AC-LCS **Matrix.....:** AIR
LCS Lot-Sample#: H3L020000-011 M2LN11AD-LCSD

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Carbazole	76	(55 - 113)			SW846 8270C
	81	(55 - 113)	6.4	(0-25)	SW846 8270C
4-Chloroaniline	70	(58 - 110)			SW846 8270C
	74	(58 - 110)	5.6	(0-50)	SW846 8270C
4-Chloro-3-methylphenol	78	(63 - 123)			SW846 8270C
	82	(63 - 123)	5.6	(0-25)	SW846 8270C
2-Chloronaphthalene	67	(58 - 106)			SW846 8270C
	72	(58 - 106)	7.2	(0-25)	SW846 8270C
2-Chlorophenol	66	(51 - 108)			SW846 8270C
	72	(51 - 108)	8.8	(0-25)	SW846 8270C
4-Chlorophenyl phenyl ether	72	(64 - 111)			SW846 8270C
	78	(64 - 111)	7.4	(0-25)	SW846 8270C
Chrysene	77	(67 - 114)			SW846 8270C
	84	(67 - 114)	8.1	(0-25)	SW846 8270C
Dibenz(a,h)anthracene	84	(67 - 122)			SW846 8270C
	88	(67 - 122)	4.6	(0-27)	SW846 8270C
Dibenzofuran	71	(60 - 108)			SW846 8270C
	76	(60 - 108)	6.1	(0-25)	SW846 8270C
Di-n-butyl phthalate	81	(70 - 122)			SW846 8270C
	87	(70 - 122)	7.1	(0-25)	SW846 8270C
1,2-Dichlorobenzene	63	(50 - 105)			SW846 8270C
	68	(50 - 105)	6.9	(0-25)	SW846 8270C
1,3-Dichlorobenzene	62	(50 - 103)			SW846 8270C
	68	(50 - 103)	10	(0-25)	SW846 8270C
1,4-Dichlorobenzene	62	(50 - 104)			SW846 8270C
	68	(50 - 104)	9.2	(0-25)	SW846 8270C
3,3'-Dichlorobenzidine	85	(68 - 123)			SW846 8270C
	96	(68 - 123)	13	(0-34)	SW846 8270C
2,4-Dichlorophenol	69	(59 - 114)			SW846 8270C
	74	(59 - 114)	6.3	(0-25)	SW846 8270C
Diethyl phthalate	78	(69 - 116)			SW846 8270C
	82	(69 - 116)	5.6	(0-25)	SW846 8270C
2,4-Dimethylphenol	62	(10 - 125)			SW846 8270C
	61	(10 - 125)	1.6	(0-26)	SW846 8270C
Dimethyl phthalate	74	(72 - 112)			SW846 8270C
	80	(72 - 112)	7.7	(0-25)	SW846 8270C
4,6-Dinitro-2-methylphenol	55	(54 - 116)			SW846 8270C
	34 a,p	(54 - 116)	46	(0-34)	SW846 8270C

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LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: H3K260401 **Work Order #...:** M2LN11AC-LCS **Matrix.....:** AIR
LCS Lot-Sample#: H3L020000-011 M2LN11AD-LCSD

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
2,4-Dinitrophenol	19 a	(52 - 131)			SW846 8270C
	19 a	(52 - 131)	0.52	(0-50)	SW846 8270C
2,4-Dinitrotoluene	81	(62 - 118)			SW846 8270C
	90	(62 - 118)	10	(0-25)	SW846 8270C
2,6-Dinitrotoluene	79	(73 - 122)			SW846 8270C
	87	(73 - 122)	9.6	(0-25)	SW846 8270C
Di-n-octyl phthalate	88	(73 - 123)			SW846 8270C
	94	(73 - 123)	6.0	(0-25)	SW846 8270C
1,2-Diphenylhydrazine	77	(64 - 115)			SW846 8270C
	81	(64 - 115)	5.1	(0-25)	SW846 8270C
Fluoranthene	76	(55 - 120)			SW846 8270C
	82	(55 - 120)	7.6	(0-25)	SW846 8270C
Fluorene	74	(64 - 114)			SW846 8270C
	79	(64 - 114)	7.2	(0-25)	SW846 8270C
Hexachlorobenzene	74	(56 - 109)			SW846 8270C
	78	(56 - 109)	4.6	(0-25)	SW846 8270C
Hexachlorobutadiene	62	(48 - 105)			SW846 8270C
	66	(48 - 105)	6.2	(0-29)	SW846 8270C
Hexachlorocyclopenta-diene	53	(10 - 100)			SW846 8270C
	49	(10 - 100)	8.4	(0-33)	SW846 8270C
Hexachloroethane	64	(49 - 110)			SW846 8270C
	70	(49 - 110)	8.2	(0-29)	SW846 8270C
Indeno(1,2,3-cd)pyrene	84	(72 - 126)			SW846 8270C
	90	(72 - 126)	5.7	(0-28)	SW846 8270C
Isophorone	70	(56 - 111)			SW846 8270C
	73	(56 - 111)	4.2	(0-25)	SW846 8270C
2-Methylnaphthalene	68	(56 - 111)			SW846 8270C
	72	(56 - 111)	5.0	(0-25)	SW846 8270C
2-Methylphenol	67	(55 - 118)			SW846 8270C
	73	(55 - 118)	8.6	(0-25)	SW846 8270C
3-Methylphenol & 4-Methylphenol	70	(56 - 116)			SW846 8270C
	74	(56 - 116)	6.9	(0-25)	SW846 8270C
Naphthalene	68	(59 - 120)			SW846 8270C
	72	(59 - 120)	5.8	(0-25)	SW846 8270C
2-Nitroaniline	79	(67 - 126)			SW846 8270C
	88	(67 - 126)	10	(0-25)	SW846 8270C
3-Nitroaniline	85	(66 - 121)			SW846 8270C
	92	(66 - 121)	7.9	(0-25)	SW846 8270C

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LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: H3K260401 **Work Order #...:** M2LN11AC-LCS **Matrix.....:** AIR
LCS Lot-Sample#: H3L020000-011 M2LN11AD-LCSD

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
4-Nitroaniline	77	(62 - 122)			SW846 8270C
	84	(62 - 122)	9.3	(0-27)	SW846 8270C
Nitrobenzene	70	(58 - 109)			SW846 8270C
	75	(58 - 109)	7.6	(0-25)	SW846 8270C
2-Nitrophenol	70	(52 - 112)			SW846 8270C
	80	(52 - 112)	14	(0-26)	SW846 8270C
4-Nitrophenol	76	(60 - 119)			SW846 8270C
	82	(60 - 119)	8.9	(0-33)	SW846 8270C
N-Nitrosodimethylamine	64	(53 - 104)			SW846 8270C
	70	(53 - 104)	9.0	(0-25)	SW846 8270C
N-Nitrosodiphenylamine	82	(76 - 128)			SW846 8270C
	89	(76 - 128)	7.6	(0-25)	SW846 8270C
N-Nitrosodi-n-propyl-amine	69	(57 - 118)			SW846 8270C
	74	(57 - 118)	6.3	(0-25)	SW846 8270C
Pentachlorophenol	60	(19 - 139)			SW846 8270C
	64	(19 - 139)	6.4	(0-30)	SW846 8270C
Phenanthrene	74	(58 - 109)			SW846 8270C
	79	(58 - 109)	6.5	(0-25)	SW846 8270C
Phenol	67	(54 - 114)			SW846 8270C
	72	(54 - 114)	7.9	(0-25)	SW846 8270C
bis(2-Chloroisopropyl) ether	67	(50 - 128)			SW846 8270C
	72	(50 - 128)	7.2	(0-27)	SW846 8270C
Pyrene	78	(76 - 118)			SW846 8270C
	85	(76 - 118)	8.6	(0-25)	SW846 8270C
Pyridine	58	(31 - 106)			SW846 8270C
	64	(31 - 106)	9.0	(0-29)	SW846 8270C
1,2,4-Trichloro-benzene	63	(52 - 105)			SW846 8270C
	68	(52 - 105)	6.9	(0-26)	SW846 8270C
2,4,5-Trichloro-phenol	73	(60 - 118)			SW846 8270C
	80	(60 - 118)	9.2	(0-25)	SW846 8270C
2,4,6-Trichloro-phenol	76	(66 - 117)			SW846 8270C
	82	(66 - 117)	6.3	(0-25)	SW846 8270C

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LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: H3K260401 **Work Order #...:** M2LN11AC-LCS **Matrix.....:** AIR
LCS Lot-Sample#: H3L020000-011 M2LN11AD-LCSD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	60	(37 - 105)
	66	(37 - 105)
Phenol-d5	66	(48 - 114)
	73	(48 - 114)
Nitrobenzene-d5	71	(43 - 107)
	77	(43 - 107)
2-Fluorobiphenyl	67	(48 - 110)
	72	(48 - 110)
2,4,6-Tribromophenol	78	(34 - 121)
	87	(34 - 121)
Terphenyl-d14	77	(67 - 112)
	83	(67 - 112)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

p Relative percent difference (RPD) is outside stated control limits.

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: H3K260401 **Work Order #...:** M2LN11AC-LCS **Matrix.....:** AIR
LCS Lot-Sample#: H3L020000-011 M2LN11AD-LCSD
Prep Date.....: 12/02/13 **Analysis Date..:** 12/05/13
Prep Batch #...: 3336011
Dilution Factor: 2

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Acenaphthene	200	143	ug	72		SW846 8270C
	200	152	ug	76	6.1	SW846 8270C
Acenaphthylene	200	144	ug	72		SW846 8270C
	200	152	ug	76	5.4	SW846 8270C
Aniline	200	126	ug	63		SW846 8270C
	200	137	ug	68	8.4	SW846 8270C
Anthracene	200	150	ug	75		SW846 8270C
	200	158	ug	79	5.2	SW846 8270C
Benzo(a)anthracene	200	159	ug	80		SW846 8270C
	200	168	ug	84	5.5	SW846 8270C
Benzo(b)fluoranthene	200	160	ug	80		SW846 8270C
	200	166	ug	83	3.7	SW846 8270C
Benzo(k)fluoranthene	200	168	ug	84		SW846 8270C
	200	170	ug	85	1.2	SW846 8270C
Benzoic acid	200	a	ug	6.2		SW846 8270C
	200	a	ug	3.9	46	SW846 8270C
Benzo(ghi)perylene	200	165	ug	82		SW846 8270C
	200	175	ug	88	5.9	SW846 8270C
Benzo(a)pyrene	200	168	ug	84		SW846 8270C
	200	176	ug	88	4.6	SW846 8270C
Benzyl alcohol	200	137	ug	68		SW846 8270C
	200	151	ug	76	9.7	SW846 8270C
bis(2-Chloroethoxy) methane	200	137	ug	68		SW846 8270C
	200	144	ug	72	5.0	SW846 8270C
bis(2-Chloroethyl)-ether	200	130	ug	65		SW846 8270C
	200	143	ug	72	9.5	SW846 8270C
bis(2-Ethylhexyl) phthalate	200	166	ug	83		SW846 8270C
	200	180	ug	90	8.1	SW846 8270C
4-Bromophenyl phenyl ether	200	149	ug	74		SW846 8270C
	200	158	ug	79	5.9	SW846 8270C
Butyl benzyl phthalate	200	176	ug	88		SW846 8270C
	200	190	ug	95	7.6	SW846 8270C

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LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: H3K260401 **Work Order #...:** M2LN11AC-LCS **Matrix.....:** AIR
LCS Lot-Sample#: H3L020000-011 M2LN11AD-LCSD

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Carbazole	200	152	ug	76		SW846 8270C
	200	162	ug	81	6.4	SW846 8270C
4-Chloroaniline	200	140	ug	70		SW846 8270C
	200	148	ug	74	5.6	SW846 8270C
4-Chloro-3-methylphenol	200	156	ug	78		SW846 8270C
	200	165	ug	82	5.6	SW846 8270C
2-Chloronaphthalene	200	134	ug	67		SW846 8270C
	200	144	ug	72	7.2	SW846 8270C
2-Chlorophenol	200	131	ug	66		SW846 8270C
	200	143	ug	72	8.8	SW846 8270C
4-Chlorophenyl phenyl ether	200	144	ug	72		SW846 8270C
	200	155	ug	78	7.4	SW846 8270C
Chrysene	200	154	ug	77		SW846 8270C
	200	167	ug	84	8.1	SW846 8270C
Dibenz(a,h)anthracene	200	169	ug	84		SW846 8270C
	200	177	ug	88	4.6	SW846 8270C
Dibenzofuran	200	142	ug	71		SW846 8270C
	200	151	ug	76	6.1	SW846 8270C
Di-n-butyl phthalate	200	162	ug	81		SW846 8270C
	200	174	ug	87	7.1	SW846 8270C
1,2-Dichlorobenzene	200	126	ug	63		SW846 8270C
	200	135	ug	68	6.9	SW846 8270C
1,3-Dichlorobenzene	200	124	ug	62		SW846 8270C
	200	137	ug	68	10	SW846 8270C
1,4-Dichlorobenzene	200	125	ug	62		SW846 8270C
	200	137	ug	68	9.2	SW846 8270C
3,3'-Dichlorobenzidine	200	170	ug	85		SW846 8270C
	200	193	ug	96	13	SW846 8270C
2,4-Dichlorophenol	200	138	ug	69		SW846 8270C
	200	147	ug	74	6.3	SW846 8270C
Diethyl phthalate	200	156	ug	78		SW846 8270C
	200	165	ug	82	5.6	SW846 8270C
2,4-Dimethylphenol	200	124	ug	62		SW846 8270C
	200	122	ug	61	1.6	SW846 8270C
Dimethyl phthalate	200	149	ug	74		SW846 8270C
	200	161	ug	80	7.7	SW846 8270C
4,6-Dinitro-2-methylphenol	400	220	ug	55		SW846 8270C
	400	138 a,p	ug	34	46	SW846 8270C

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LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: H3K260401 **Work Order #...:** M2LN11AC-LCS **Matrix.....:** AIR
LCS Lot-Sample#: H3L020000-011 M2LN11AD-LCSD

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
2,4-Dinitrophenol	400	76.0 a	ug	19		SW846 8270C
	400	76.4 a	ug	19	0.52	SW846 8270C
2,4-Dinitrotoluene	200	162	ug	81		SW846 8270C
	200	179	ug	90	10	SW846 8270C
2,6-Dinitrotoluene	200	158	ug	79		SW846 8270C
	200	174	ug	87	9.6	SW846 8270C
Di-n-octyl phthalate	200	177	ug	88		SW846 8270C
	200	188	ug	94	6.0	SW846 8270C
1,2-Diphenylhydrazine	200	154	ug	77		SW846 8270C
	200	162	ug	81	5.1	SW846 8270C
Fluoranthene	200	152	ug	76		SW846 8270C
	200	164	ug	82	7.6	SW846 8270C
Fluorene	200	147	ug	74		SW846 8270C
	200	158	ug	79	7.2	SW846 8270C
Hexachlorobenzene	200	149	ug	74		SW846 8270C
	200	156	ug	78	4.6	SW846 8270C
Hexachlorobutadiene	200	124	ug	62		SW846 8270C
	200	132	ug	66	6.2	SW846 8270C
Hexachlorocyclopenta-diene	200	106	ug	53		SW846 8270C
	200	97.5	ug	49	8.4	SW846 8270C
Hexachloroethane	200	128	ug	64		SW846 8270C
	200	139	ug	70	8.2	SW846 8270C
Indeno(1,2,3-cd)pyrene	200	169	ug	84		SW846 8270C
	200	179	ug	90	5.7	SW846 8270C
Isophorone	200	140	ug	70		SW846 8270C
	200	146	ug	73	4.2	SW846 8270C
2-Methylnaphthalene	200	136	ug	68		SW846 8270C
	200	143	ug	72	5.0	SW846 8270C
2-Methylphenol	200	134	ug	67		SW846 8270C
	200	146	ug	73	8.6	SW846 8270C
3-Methylphenol & 4-Methylphenol	200	139	ug	70		SW846 8270C
	200	149	ug	74	6.9	SW846 8270C
Naphthalene	200	135	ug	68		SW846 8270C
	200	143	ug	72	5.8	SW846 8270C
2-Nitroaniline	200	158	ug	79		SW846 8270C
	200	175	ug	88	10	SW846 8270C
3-Nitroaniline	200	170	ug	85		SW846 8270C
	200	184	ug	92	7.9	SW846 8270C

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LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: H3K260401 **Work Order #...:** M2LN11AC-LCS **Matrix.....:** AIR
LCS Lot-Sample#: H3L020000-011 M2LN11AD-LCSD

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
4-Nitroaniline	200	154	ug	77		SW846 8270C
	200	169	ug	84	9.3	SW846 8270C
Nitrobenzene	200	139	ug	70		SW846 8270C
	200	150	ug	75	7.6	SW846 8270C
2-Nitrophenol	200	139	ug	70		SW846 8270C
	200	160	ug	80	14	SW846 8270C
4-Nitrophenol	400	302	ug	76		SW846 8270C
	400	330	ug	82	8.9	SW846 8270C
N-Nitrosodimethylamine	200	128	ug	64		SW846 8270C
	200	140	ug	70	9.0	SW846 8270C
N-Nitrosodiphenylamine	200	165	ug	82		SW846 8270C
	200	178	ug	89	7.6	SW846 8270C
N-Nitrosodi-n-propyl-amine	200	138	ug	69		SW846 8270C
	200	147	ug	74	6.3	SW846 8270C
Pentachlorophenol	400	241	ug	60		SW846 8270C
	400	257	ug	64	6.4	SW846 8270C
Phenanthrene	200	148	ug	74		SW846 8270C
	200	158	ug	79	6.5	SW846 8270C
Phenol	200	134	ug	67		SW846 8270C
	200	145	ug	72	7.9	SW846 8270C
bis(2-Chloroisopropyl) ether	200	134	ug	67		SW846 8270C
	200	144	ug	72	7.2	SW846 8270C
Pyrene	200	156	ug	78		SW846 8270C
	200	170	ug	85	8.6	SW846 8270C
Pyridine	200	117	ug	58		SW846 8270C
	200	128	ug	64	9.0	SW846 8270C
1,2,4-Trichloro-benzene	200	126	ug	63		SW846 8270C
	200	135	ug	68	6.9	SW846 8270C
2,4,5-Trichloro-phenol	200	146	ug	73		SW846 8270C
	200	160	ug	80	9.2	SW846 8270C
2,4,6-Trichloro-phenol	200	153	ug	76		SW846 8270C
	200	163	ug	82	6.3	SW846 8270C

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LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: H3K260401 **Work Order #...:** M2LN11AC-LCS **Matrix.....:** AIR
LCS Lot-Sample#: H3L020000-011 M2LN11AD-LCSD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	60	(37 - 105)
	66	(37 - 105)
Phenol-d5	66	(48 - 114)
	73	(48 - 114)
Nitrobenzene-d5	71	(43 - 107)
	77	(43 - 107)
2-Fluorobiphenyl	67	(48 - 110)
	72	(48 - 110)
2,4,6-Tribromophenol	78	(34 - 121)
	87	(34 - 121)
Terphenyl-d14	77	(67 - 112)
	83	(67 - 112)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

p Relative percent difference (RPD) is outside stated control limits.

METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: H3K260401 **Work Order #...:** M2LN21AA **Matrix.....:** AIR
MB Lot-Sample #: H3L020000-012

Prep Date.....: 12/02/13
Analysis Date..: 12/05/13 **Prep Batch #...:** 3336012
Dilution Factor: 2

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Acenaphthene	ND	20	ug	SW846 8270C
Acenaphthylene	ND	20	ug	SW846 8270C
Acetophenone	ND	20	ug	SW846 8270C
Aniline	ND	40	ug	SW846 8270C
Anthracene	ND	20	ug	SW846 8270C
Benzidine	ND	200	ug	SW846 8270C
Benzo(a)anthracene	ND	20	ug	SW846 8270C
Benzo(b)fluoranthene	ND	20	ug	SW846 8270C
Benzo(k)fluoranthene	ND	20	ug	SW846 8270C
Benzoic acid	**190 J**	**200**	**ug**	**SW846 8270C**
Benzo(ghi)perylene	ND	20	ug	SW846 8270C
Benzo(a)pyrene	ND	20	ug	SW846 8270C
Benzyl alcohol	ND	200	ug	SW846 8270C
bis(2-Chloroethoxy) methane	ND	20	ug	SW846 8270C
bis(2-Chloroethyl)-ether	ND	20	ug	SW846 8270C
bis(2-Ethylhexyl) phthalate	ND	40	ug	SW846 8270C
4-Bromophenyl phenyl ether	ND	20	ug	SW846 8270C
Butyl benzyl phthalate	ND	20	ug	SW846 8270C
Carbazole	ND	20	ug	SW846 8270C
4-Chloroaniline	ND	40	ug	SW846 8270C
4-Chloro-3-methylphenol	ND	20	ug	SW846 8270C
2-Chloronaphthalene	ND	20	ug	SW846 8270C
2-Chlorophenol	ND	20	ug	SW846 8270C
4-Chlorophenyl phenyl ether	ND	20	ug	SW846 8270C
Chrysene	ND	20	ug	SW846 8270C
Dibenz(a,h)anthracene	ND	20	ug	SW846 8270C
Dibenzofuran	ND	20	ug	SW846 8270C
Di-n-butyl phthalate	ND	40	ug	SW846 8270C
1,2-Dichlorobenzene	ND	20	ug	SW846 8270C
1,3-Dichlorobenzene	ND	20	ug	SW846 8270C
1,4-Dichlorobenzene	ND	20	ug	SW846 8270C
3,3'-Dichlorobenzidine	ND	100	ug	SW846 8270C
2,4-Dichlorophenol	ND	20	ug	SW846 8270C
Diethyl phthalate	ND	20	ug	SW846 8270C
2,4-Dimethylphenol	ND	20	ug	SW846 8270C
Dimethyl phthalate	ND	20	ug	SW846 8270C

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METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: H3K260401 **Work Order #...:** M2LN21AA **Matrix.....:** AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
4,6-Dinitro-2-methylphenol	ND	100	ug	SW846 8270C
2,4-Dinitrophenol	ND	100	ug	SW846 8270C
2,4-Dinitrotoluene	ND	20	ug	SW846 8270C
2,6-Dinitrotoluene	ND	20	ug	SW846 8270C
Di-n-octyl phthalate	ND	20	ug	SW846 8270C
1,2-Diphenylhydrazine	ND	20	ug	SW846 8270C
Fluoranthene	ND	20	ug	SW846 8270C
Fluorene	ND	20	ug	SW846 8270C
Hexachlorobenzene	ND	20	ug	SW846 8270C
Hexachlorobutadiene	ND	20	ug	SW846 8270C
Hexachlorocyclopenta-diene	ND	100	ug	SW846 8270C
Hexachloroethane	ND	20	ug	SW846 8270C
Indeno(1,2,3-cd)pyrene	ND	20	ug	SW846 8270C
Isophorone	ND	20	ug	SW846 8270C
2-Methylnaphthalene	ND	20	ug	SW846 8270C
2-Methylphenol	ND	20	ug	SW846 8270C
3-Methylphenol & 4-Methylphenol	ND	20	ug	SW846 8270C
Naphthalene	ND	20	ug	SW846 8270C
2-Nitroaniline	ND	100	ug	SW846 8270C
3-Nitroaniline	ND	100	ug	SW846 8270C
4-Nitroaniline	ND	100	ug	SW846 8270C
Nitrobenzene	ND	20	ug	SW846 8270C
2-Nitrophenol	ND	20	ug	SW846 8270C
4-Nitrophenol	ND	100	ug	SW846 8270C
N-Nitrosodimethylamine	ND	20	ug	SW846 8270C
N-Nitrosodiphenylamine	ND	20	ug	SW846 8270C
N-Nitrosodi-n-propyl-amine	ND	20	ug	SW846 8270C
Pentachlorobenzene	ND	20	ug	SW846 8270C
Pentachloronitrobenzene	ND	100	ug	SW846 8270C
Pentachlorophenol	ND	100	ug	SW846 8270C
Phenanthrene	ND	20	ug	SW846 8270C
Phenol	ND	20	ug	SW846 8270C
2,2'-oxybis(1-Chloro-propane)	ND	20	ug	SW846 8270C
Pyrene	ND	20	ug	SW846 8270C
Pyridine	ND	40	ug	SW846 8270C
1,2,4-Trichloro-benzene	ND	20	ug	SW846 8270C
2,4,5-Trichloro-phenol	ND	20	ug	SW846 8270C
2,4,6-Trichloro-phenol	ND	20	ug	SW846 8270C

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METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: H3K260401 **Work Order #...:** M2LN21AA **Matrix.....:** AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	69	(42 - 104)
Phenol-d5	75	(50 - 118)
Nitrobenzene-d5	80	(45 - 110)
2-Fluorobiphenyl	73	(48 - 111)
2,4,6-Tribromophenol	85	(51 - 125)
Terphenyl-d14	84	(73 - 108)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

J Estimated result. Result is less than RL.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: H3K260401 **Work Order #...:** M2LN21AC-LCS **Matrix.....:** AIR
LCS Lot-Sample#: H3L020000-012 M2LN21AD-LCSD
Prep Date.....: 12/02/13 **Analysis Date..:** 12/05/13
Prep Batch #...: 3336012
Dilution Factor: 2

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Acenaphthene	74	(67 - 107)			SW846 8270C
	79	(67 - 107)	6.5	(0-32)	SW846 8270C
Acenaphthylene	75	(69 - 109)			SW846 8270C
	80	(69 - 109)	5.8	(0-31)	SW846 8270C
Aniline	63	(50 - 102)			SW846 8270C
	67	(50 - 102)	6.2	(0-39)	SW846 8270C
Anthracene	77	(65 - 111)			SW846 8270C
	80	(65 - 111)	3.8	(0-38)	SW846 8270C
Benzo(a)anthracene	84	(77 - 117)			SW846 8270C
	86	(77 - 117)	2.9	(0-30)	SW846 8270C
Benzo(b)fluoranthene	82	(74 - 114)			SW846 8270C
	89	(74 - 114)	7.6	(0-49)	SW846 8270C
Benzo(k)fluoranthene	84	(75 - 115)			SW846 8270C
	84	(75 - 115)	1.2	(0-34)	SW846 8270C
Benzoic acid	152	(20 - 170)			SW846 8270C
	183 a	(20 - 170)	18	(0-50)	SW846 8270C
Benzo(ghi)perylene	86	(78 - 118)			SW846 8270C
	88	(78 - 118)	2.3	(0-37)	SW846 8270C
Benzo(a)pyrene	87	(76 - 116)			SW846 8270C
	92	(76 - 116)	5.6	(0-33)	SW846 8270C
Benzyl alcohol	75	(59 - 121)			SW846 8270C
	80	(59 - 121)	5.8	(0-42)	SW846 8270C
bis(2-Chloroethoxy) methane	74	(66 - 106)			SW846 8270C
	76	(66 - 106)	4.0	(0-40)	SW846 8270C
bis(2-Chloroethyl)-ether	73	(63 - 106)			SW846 8270C
	77	(63 - 106)	5.3	(0-41)	SW846 8270C
bis(2-Ethylhexyl) phthalate	88	(84 - 125)			SW846 8270C
	91	(84 - 125)	3.9	(0-34)	SW846 8270C
4-Bromophenyl phenyl ether	77	(74 - 122)			SW846 8270C
	80	(74 - 122)	3.8	(0-41)	SW846 8270C
Butyl benzyl phthalate	93	(85 - 125)			SW846 8270C
	98	(85 - 125)	5.2	(0-32)	SW846 8270C

(Continued on next page)

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: H3K260401 **Work Order #...:** M2LN21AC-LCS **Matrix.....:** AIR
LCS Lot-Sample#: H3L020000-012 M2LN21AD-LCSD

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Carbazole	74	(61 - 101)			SW846 8270C
	78	(61 - 101)	5.3	(0-35)	SW846 8270C
4-Chloroaniline	72	(62 - 102)			SW846 8270C
	76	(62 - 102)	4.7	(0-50)	SW846 8270C
4-Chloro-3-methylphenol	83	(75 - 119)			SW846 8270C
	86	(75 - 119)	4.1	(0-40)	SW846 8270C
2-Chloronaphthalene	72	(64 - 104)			SW846 8270C
	76	(64 - 104)	5.4	(0-30)	SW846 8270C
2-Chlorophenol	72	(60 - 101)			SW846 8270C
	76	(60 - 101)	5.4	(0-40)	SW846 8270C
4-Chlorophenyl phenyl ether	74	(68 - 108)			SW846 8270C
	79	(68 - 108)	6.5	(0-32)	SW846 8270C
Chrysene	81	(72 - 112)			SW846 8270C
	85	(72 - 112)	4.8	(0-31)	SW846 8270C
Dibenz(a,h)anthracene	87	(75 - 115)			SW846 8270C
	90	(75 - 115)	2.8	(0-34)	SW846 8270C
Dibenzofuran	73	(64 - 104)			SW846 8270C
	78	(64 - 104)	6.6	(0-31)	SW846 8270C
Di-n-butyl phthalate	86	(75 - 120)			SW846 8270C
	88	(75 - 120)	2.3	(0-32)	SW846 8270C
1,2-Dichlorobenzene	70	(58 - 100)			SW846 8270C
	74	(58 - 100)	5.6	(0-41)	SW846 8270C
1,3-Dichlorobenzene	70	(57 - 100)			SW846 8270C
	74	(57 - 100)	5.6	(0-41)	SW846 8270C
1,4-Dichlorobenzene	70	(58 - 100)			SW846 8270C
	74	(58 - 100)	5.6	(0-42)	SW846 8270C
3,3'-Dichlorobenzidine	44	(42 - 118)			SW846 8270C
	58	(42 - 118)	28	(0-35)	SW846 8270C
2,4-Dichlorophenol	77	(69 - 109)			SW846 8270C
	81	(69 - 109)	5.1	(0-38)	SW846 8270C
Diethyl phthalate	78	(74 - 114)			SW846 8270C
	84	(74 - 114)	8.0	(0-40)	SW846 8270C
2,4-Dimethylphenol	76	(34 - 116)			SW846 8270C
	78	(34 - 116)	3.9	(0-38)	SW846 8270C
Dimethyl phthalate	76	(73 - 113)			SW846 8270C
	82	(73 - 113)	6.9	(0-41)	SW846 8270C
4,6-Dinitro-2-methylphenol	94	(47 - 120)			SW846 8270C
	100	(47 - 120)	7.2	(0-40)	SW846 8270C

(Continued on next page)

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: H3K260401 **Work Order #...:** M2LN21AC-LCS **Matrix.....:** AIR
LCS Lot-Sample#: H3L020000-012 M2LN21AD-LCSD

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
2,4-Dinitrophenol	74	(27 - 139)			SW846 8270C
	75	(27 - 139)	1.7	(0-50)	SW846 8270C
2,4-Dinitrotoluene	86	(72 - 112)			SW846 8270C
	94	(72 - 112)	10	(0-41)	SW846 8270C
2,6-Dinitrotoluene	84	(79 - 119)			SW846 8270C
	92	(79 - 119)	10	(0-44)	SW846 8270C
Di-n-octyl phthalate	92	(78 - 122)			SW846 8270C
	96	(78 - 122)	4.8	(0-35)	SW846 8270C
1,2-Diphenylhydrazine	80	(70 - 111)			SW846 8270C
	82	(70 - 111)	3.7	(0-43)	SW846 8270C
Fluoranthene	80	(60 - 117)			SW846 8270C
	82	(60 - 117)	1.8	(0-34)	SW846 8270C
Fluorene	75	(70 - 110)			SW846 8270C
	80	(70 - 110)	7.1	(0-33)	SW846 8270C
Hexachlorobenzene	76	(59 - 108)			SW846 8270C
	78	(59 - 108)	3.9	(0-40)	SW846 8270C
Hexachlorobutadiene	69	(57 - 100)			SW846 8270C
	72	(57 - 100)	4.2	(0-40)	SW846 8270C
Hexachlorocyclopenta-diene	61	(28 - 100)			SW846 8270C
	65	(28 - 100)	6.3	(0-50)	SW846 8270C
Hexachloroethane	70	(61 - 102)			SW846 8270C
	76	(61 - 102)	8.2	(0-42)	SW846 8270C
Indeno(1,2,3-cd)pyrene	87	(81 - 121)			SW846 8270C
	92	(81 - 121)	5.0	(0-35)	SW846 8270C
Isophorone	73	(64 - 107)			SW846 8270C
	77	(64 - 107)	5.3	(0-39)	SW846 8270C
2-Methylnaphthalene	74	(65 - 105)			SW846 8270C
	76	(65 - 105)	4.0	(0-38)	SW846 8270C
2-Methylphenol	74	(65 - 113)			SW846 8270C
	77	(65 - 113)	4.0	(0-39)	SW846 8270C
3-Methylphenol & 4-Methylphenol	76	(63 - 114)			SW846 8270C
	80	(63 - 114)	5.8	(0-39)	SW846 8270C
Naphthalene	74	(61 - 120)			SW846 8270C
	78	(61 - 120)	4.6	(0-28)	SW846 8270C
2-Nitroaniline	86	(80 - 120)			SW846 8270C
	94	(80 - 120)	8.9	(0-46)	SW846 8270C
3-Nitroaniline	82	(72 - 112)			SW846 8270C
	90	(72 - 112)	8.1	(0-44)	SW846 8270C

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LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: H3K260401 **Work Order #...:** M2LN21AC-LCS **Matrix.....:** AIR
LCS Lot-Sample#: H3L020000-012 M2LN21AD-LCSD

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
4-Nitroaniline	77	(68 - 108)			SW846 8270C
	84	(68 - 108)	8.7	(0-39)	SW846 8270C
Nitrobenzene	78	(63 - 105)			SW846 8270C
	81	(63 - 105)	3.8	(0-40)	SW846 8270C
2-Nitrophenol	84	(63 - 104)			SW846 8270C
	91	(63 - 104)	8.0	(0-41)	SW846 8270C
4-Nitrophenol	81	(70 - 112)			SW846 8270C
	89	(70 - 112)	9.1	(0-38)	SW846 8270C
N-Nitrosodimethylamine	72	(59 - 100)			SW846 8270C
	75	(59 - 100)	4.8	(0-40)	SW846 8270C
N-Nitrosodiphenylamine	86	(82 - 124)			SW846 8270C
	89	(82 - 124)	4.0	(0-41)	SW846 8270C
N-Nitrosodi-n-propyl-amine	74	(61 - 115)			SW846 8270C
	76	(61 - 115)	4.0	(0-41)	SW846 8270C
Pentachlorophenol	80	(20 - 145)			SW846 8270C
	84	(20 - 145)	5.5	(0-43)	SW846 8270C
Phenanthrene	77	(62 - 107)			SW846 8270C
	79	(62 - 107)	2.6	(0-38)	SW846 8270C
Phenol	73	(61 - 111)			SW846 8270C
	78	(61 - 111)	6.6	(0-40)	SW846 8270C
bis(2-Chloroisopropyl) ether	72	(48 - 131)			SW846 8270C
	78	(48 - 131)	7.3	(0-42)	SW846 8270C
Pyrene	82	(78 - 118)			SW846 8270C
	85	(78 - 118)	4.2	(0-33)	SW846 8270C
Pyridine	67	(47 - 100)			SW846 8270C
	72	(47 - 100)	6.5	(0-44)	SW846 8270C
1,2,4-Trichloro-benzene	71	(59 - 100)			SW846 8270C
	74	(59 - 100)	4.1	(0-39)	SW846 8270C
2,4,5-Trichloro-phenol	83	(70 - 116)			SW846 8270C
	88	(70 - 116)	6.4	(0-35)	SW846 8270C
2,4,6-Trichloro-phenol	84	(73 - 113)			SW846 8270C
	88	(73 - 113)	5.8	(0-33)	SW846 8270C

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LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: H3K260401 **Work Order #...:** M2LN21AC-LCS **Matrix.....:** AIR
LCS Lot-Sample#: H3L020000-012 M2LN21AD-LCSD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	70	(42 - 104)
	73	(42 - 104)
Phenol-d5	73	(50 - 118)
	77	(50 - 118)
Nitrobenzene-d5	79	(45 - 110)
	83	(45 - 110)
2-Fluorobiphenyl	72	(48 - 111)
	75	(48 - 111)
2,4,6-Tribromophenol	85	(51 - 125)
	90	(51 - 125)
Terphenyl-d14	80	(73 - 108)
	83	(73 - 108)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: H3K260401 **Work Order #...:** M2LN21AC-LCS **Matrix.....:** AIR
LCS Lot-Sample#: H3L020000-012 M2LN21AD-LCSD
Prep Date.....: 12/02/13 **Analysis Date..:** 12/05/13
Prep Batch #...: 3336012
Dilution Factor: 2

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Acenaphthene	200	148	ug	74		SW846 8270C
	200	158	ug	79	6.5	SW846 8270C
Acenaphthylene	200	150	ug	75		SW846 8270C
	200	159	ug	80	5.8	SW846 8270C
Aniline	200	126	ug	63		SW846 8270C
	200	134	ug	67	6.2	SW846 8270C
Anthracene	200	154	ug	77		SW846 8270C
	200	160	ug	80	3.8	SW846 8270C
Benzo(a)anthracene	200	168	ug	84		SW846 8270C
	200	173	ug	86	2.9	SW846 8270C
Benzo(b)fluoranthene	200	165	ug	82		SW846 8270C
	200	178	ug	89	7.6	SW846 8270C
Benzo(k)fluoranthene	200	167	ug	84		SW846 8270C
	200	169	ug	84	1.2	SW846 8270C
Benzoic acid	200	304	ug	152		SW846 8270C
	200	366 a	ug	183	18	SW846 8270C
Benzo(ghi)perylene	200	173	ug	86		SW846 8270C
	200	177	ug	88	2.3	SW846 8270C
Benzo(a)pyrene	200	174	ug	87		SW846 8270C
	200	184	ug	92	5.6	SW846 8270C
Benzyl alcohol	200	150	ug	75		SW846 8270C
	200	159	ug	80	5.8	SW846 8270C
bis(2-Chloroethoxy) methane	200	147	ug	74		SW846 8270C
	200	153	ug	76	4.0	SW846 8270C
bis(2-Chloroethyl)-ether	200	146	ug	73		SW846 8270C
	200	154	ug	77	5.3	SW846 8270C
bis(2-Ethylhexyl) phthalate	200	175	ug	88		SW846 8270C
	200	182	ug	91	3.9	SW846 8270C
4-Bromophenyl phenyl ether	200	154	ug	77		SW846 8270C
	200	160	ug	80	3.8	SW846 8270C
Butyl benzyl phthalate	200	186	ug	93		SW846 8270C
	200	196	ug	98	5.2	SW846 8270C

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LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: H3K260401 **Work Order #...:** M2LN21AC-LCS **Matrix.....:** AIR
LCS Lot-Sample#: H3L020000-012 M2LN21AD-LCSD

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Carbazole	200	147	ug	74		SW846 8270C
	200	155	ug	78	5.3	SW846 8270C
4-Chloroaniline	200	145	ug	72		SW846 8270C
	200	152	ug	76	4.7	SW846 8270C
4-Chloro-3-methylphenol	200	166	ug	83		SW846 8270C
	200	173	ug	86	4.1	SW846 8270C
2-Chloronaphthalene	200	143	ug	72		SW846 8270C
	200	151	ug	76	5.4	SW846 8270C
2-Chlorophenol	200	145	ug	72		SW846 8270C
	200	153	ug	76	5.4	SW846 8270C
4-Chlorophenyl phenyl ether	200	148	ug	74		SW846 8270C
	200	158	ug	79	6.5	SW846 8270C
Chrysene	200	162	ug	81		SW846 8270C
	200	170	ug	85	4.8	SW846 8270C
Dibenz(a,h)anthracene	200	174	ug	87		SW846 8270C
	200	179	ug	90	2.8	SW846 8270C
Dibenzofuran	200	146	ug	73		SW846 8270C
	200	156	ug	78	6.6	SW846 8270C
Di-n-butyl phthalate	200	171	ug	86		SW846 8270C
	200	175	ug	88	2.3	SW846 8270C
1,2-Dichlorobenzene	200	139	ug	70		SW846 8270C
	200	147	ug	74	5.6	SW846 8270C
1,3-Dichlorobenzene	200	140	ug	70		SW846 8270C
	200	148	ug	74	5.6	SW846 8270C
1,4-Dichlorobenzene	200	140	ug	70		SW846 8270C
	200	148	ug	74	5.6	SW846 8270C
3,3'-Dichlorobenzidine	200	87.1	ug	44		SW846 8270C
	200	115	ug	58	28	SW846 8270C
2,4-Dichlorophenol	200	154	ug	77		SW846 8270C
	200	162	ug	81	5.1	SW846 8270C
Diethyl phthalate	200	156	ug	78		SW846 8270C
	200	169	ug	84	8.0	SW846 8270C
2,4-Dimethylphenol	200	151	ug	76		SW846 8270C
	200	157	ug	78	3.9	SW846 8270C
Dimethyl phthalate	200	153	ug	76		SW846 8270C
	200	164	ug	82	6.9	SW846 8270C
4,6-Dinitro-2-methylphenol	400	374	ug	94		SW846 8270C
	400	402	ug	100	7.2	SW846 8270C

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LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: H3K260401 **Work Order #...:** M2LN21AC-LCS **Matrix.....:** AIR
LCS Lot-Sample#: H3L020000-012 M2LN21AD-LCSD

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
2,4-Dinitrophenol	400	294	ug	74		SW846 8270C
	400	299	ug	75	1.7	SW846 8270C
2,4-Dinitrotoluene	200	171	ug	86		SW846 8270C
	200	189	ug	94	10	SW846 8270C
2,6-Dinitrotoluene	200	167	ug	84		SW846 8270C
	200	185	ug	92	10	SW846 8270C
Di-n-octyl phthalate	200	184	ug	92		SW846 8270C
	200	193	ug	96	4.8	SW846 8270C
1,2-Diphenylhydrazine	200	159	ug	80		SW846 8270C
	200	165	ug	82	3.7	SW846 8270C
Fluoranthene	200	161	ug	80		SW846 8270C
	200	164	ug	82	1.8	SW846 8270C
Fluorene	200	150	ug	75		SW846 8270C
	200	161	ug	80	7.1	SW846 8270C
Hexachlorobenzene	200	151	ug	76		SW846 8270C
	200	157	ug	78	3.9	SW846 8270C
Hexachlorobutadiene	200	138	ug	69		SW846 8270C
	200	144	ug	72	4.2	SW846 8270C
Hexachlorocyclopenta-diene	200	122	ug	61		SW846 8270C
	200	130	ug	65	6.3	SW846 8270C
Hexachloroethane	200	141	ug	70		SW846 8270C
	200	153	ug	76	8.2	SW846 8270C
Indeno(1,2,3-cd)pyrene	200	174	ug	87		SW846 8270C
	200	183	ug	92	5.0	SW846 8270C
Isophorone	200	146	ug	73		SW846 8270C
	200	154	ug	77	5.3	SW846 8270C
2-Methylnaphthalene	200	147	ug	74		SW846 8270C
	200	153	ug	76	4.0	SW846 8270C
2-Methylphenol	200	148	ug	74		SW846 8270C
	200	154	ug	77	4.0	SW846 8270C
3-Methylphenol & 4-Methylphenol	200	151	ug	76		SW846 8270C
	200	160	ug	80	5.8	SW846 8270C
Naphthalene	200	148	ug	74		SW846 8270C
	200	155	ug	78	4.6	SW846 8270C
2-Nitroaniline	200	171	ug	86		SW846 8270C
	200	187	ug	94	8.9	SW846 8270C
3-Nitroaniline	200	165	ug	82		SW846 8270C
	200	179	ug	90	8.1	SW846 8270C

(Continued on next page)

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: H3K260401 **Work Order #...:** M2LN21AC-LCS **Matrix.....:** AIR
LCS Lot-Sample#: H3L020000-012 M2LN21AD-LCSD

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
4-Nitroaniline	200	154	ug	77		SW846 8270C
	200	168	ug	84	8.7	SW846 8270C
Nitrobenzene	200	156	ug	78		SW846 8270C
	200	162	ug	81	3.8	SW846 8270C
2-Nitrophenol	200	168	ug	84		SW846 8270C
	200	182	ug	91	8.0	SW846 8270C
4-Nitrophenol	400	324	ug	81		SW846 8270C
	400	355	ug	89	9.1	SW846 8270C
N-Nitrosodimethylamine	200	143	ug	72		SW846 8270C
	200	150	ug	75	4.8	SW846 8270C
N-Nitrosodiphenylamine	200	171	ug	86		SW846 8270C
	200	178	ug	89	4.0	SW846 8270C
N-Nitrosodi-n-propyl-amine	200	147	ug	74		SW846 8270C
	200	153	ug	76	4.0	SW846 8270C
Pentachlorophenol	400	320	ug	80		SW846 8270C
	400	338	ug	84	5.5	SW846 8270C
Phenanthrene	200	154	ug	77		SW846 8270C
	200	158	ug	79	2.6	SW846 8270C
Phenol	200	146	ug	73		SW846 8270C
	200	156	ug	78	6.6	SW846 8270C
bis(2-Chloroisopropyl) ether	200	145	ug	72		SW846 8270C
	200	156	ug	78	7.3	SW846 8270C
Pyrene	200	163	ug	82		SW846 8270C
	200	170	ug	85	4.2	SW846 8270C
Pyridine	200	134	ug	67		SW846 8270C
	200	143	ug	72	6.5	SW846 8270C
1,2,4-Trichloro-benzene	200	142	ug	71		SW846 8270C
	200	148	ug	74	4.1	SW846 8270C
2,4,5-Trichloro-phenol	200	166	ug	83		SW846 8270C
	200	177	ug	88	6.4	SW846 8270C
2,4,6-Trichloro-phenol	200	167	ug	84		SW846 8270C
	200	177	ug	88	5.8	SW846 8270C

(Continued on next page)

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: H3K260401 **Work Order #...:** M2LN21AC-LCS **Matrix.....:** AIR
LCS Lot-Sample#: H3L020000-012 M2LN21AD-LCSD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	70	(42 - 104)
	73	(42 - 104)
Phenol-d5	73	(50 - 118)
	77	(50 - 118)
Nitrobenzene-d5	79	(45 - 110)
	83	(45 - 110)
2-Fluorobiphenyl	72	(48 - 111)
	75	(48 - 111)
2,4,6-Tribromophenol	85	(51 - 125)
	90	(51 - 125)
Terphenyl-d14	80	(73 - 108)
	83	(73 - 108)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: H3K260401 **Work Order #...:** M2LN41AA **Matrix.....:** AIR
MB Lot-Sample #: H3L020000-014

Prep Date.....: 12/02/13
Analysis Date..: 12/05/13 **Prep Batch #...:** 3336014
Dilution Factor: 2

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Acenaphthene	ND	20	ug	SW846 8270C
Acenaphthylene	ND	20	ug	SW846 8270C
Acetophenone	ND	20	ug	SW846 8270C
Aniline	ND	40	ug	SW846 8270C
Anthracene	ND	20	ug	SW846 8270C
Benzidine	ND	200	ug	SW846 8270C
Benzo(a)anthracene	ND	20	ug	SW846 8270C
Benzo(b)fluoranthene	ND	20	ug	SW846 8270C
Benzo(k)fluoranthene	ND	20	ug	SW846 8270C
Benzoic acid	ND	100	ug	SW846 8270C
Benzo(ghi)perylene	ND	20	ug	SW846 8270C
Benzo(a)pyrene	ND	20	ug	SW846 8270C
Benzyl alcohol	ND	20	ug	SW846 8270C
bis(2-Chloroethoxy) methane	ND	20	ug	SW846 8270C
bis(2-Chloroethyl)-ether	ND	20	ug	SW846 8270C
bis(2-Ethylhexyl) phthalate	ND	20	ug	SW846 8270C
4-Bromophenyl phenyl ether	ND	20	ug	SW846 8270C
Butyl benzyl phthalate	ND	20	ug	SW846 8270C
Carbazole	ND	20	ug	SW846 8270C
4-Chloroaniline	ND	20	ug	SW846 8270C
4-Chloro-3-methylphenol	ND	20	ug	SW846 8270C
2-Chloronaphthalene	ND	20	ug	SW846 8270C
2-Chlorophenol	ND	20	ug	SW846 8270C
4-Chlorophenyl phenyl ether	ND	20	ug	SW846 8270C
Chrysene	ND	20	ug	SW846 8270C
Dibenz(a,h)anthracene	ND	20	ug	SW846 8270C
Dibenzofuran	ND	20	ug	SW846 8270C
Di-n-butyl phthalate	ND	20	ug	SW846 8270C
1,2-Dichlorobenzene	ND	20	ug	SW846 8270C
1,3-Dichlorobenzene	ND	20	ug	SW846 8270C
1,4-Dichlorobenzene	ND	20	ug	SW846 8270C
3,3'-Dichlorobenzidine	ND	100	ug	SW846 8270C
2,4-Dichlorophenol	ND	20	ug	SW846 8270C
Diethyl phthalate	ND	20	ug	SW846 8270C
2,4-Dimethylphenol	ND	20	ug	SW846 8270C
Dimethyl phthalate	ND	20	ug	SW846 8270C

(Continued on next page)

METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: H3K260401 **Work Order #...:** M2LN41AA **Matrix.....:** AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
4,6-Dinitro-2-methylphenol	ND	100	ug	SW846 8270C
2,4-Dinitrophenol	ND	100	ug	SW846 8270C
2,4-Dinitrotoluene	ND	20	ug	SW846 8270C
2,6-Dinitrotoluene	ND	20	ug	SW846 8270C
Di-n-octyl phthalate	ND	20	ug	SW846 8270C
1,2-Diphenylhydrazine	ND	20	ug	SW846 8270C
Fluoranthene	ND	20	ug	SW846 8270C
Fluorene	ND	20	ug	SW846 8270C
Hexachlorobenzene	ND	20	ug	SW846 8270C
Hexachlorobutadiene	ND	20	ug	SW846 8270C
Hexachlorocyclopenta-diene	ND	100	ug	SW846 8270C
Hexachloroethane	ND	20	ug	SW846 8270C
Indeno(1,2,3-cd)pyrene	ND	20	ug	SW846 8270C
Isophorone	ND	20	ug	SW846 8270C
2-Methylnaphthalene	ND	20	ug	SW846 8270C
2-Methylphenol	ND	20	ug	SW846 8270C
3-Methylphenol & 4-Methylphenol	ND	20	ug	SW846 8270C
Naphthalene	ND	20	ug	SW846 8270C
2-Nitroaniline	ND	100	ug	SW846 8270C
3-Nitroaniline	ND	100	ug	SW846 8270C
4-Nitroaniline	ND	100	ug	SW846 8270C
Nitrobenzene	ND	20	ug	SW846 8270C
2-Nitrophenol	ND	20	ug	SW846 8270C
4-Nitrophenol	ND	100	ug	SW846 8270C
N-Nitrosodimethylamine	ND	20	ug	SW846 8270C
N-Nitrosodiphenylamine	ND	20	ug	SW846 8270C
N-Nitrosodi-n-propyl-amine	ND	20	ug	SW846 8270C
Pentachlorobenzene	ND	20	ug	SW846 8270C
Pentachloronitrobenzene	ND	20	ug	SW846 8270C
Pentachlorophenol	ND	100	ug	SW846 8270C
Phenanthrene	ND	20	ug	SW846 8270C
Phenol	ND	20	ug	SW846 8270C
2,2'-oxybis(1-Chloro-propane)	ND	20	ug	SW846 8270C
Pyrene	ND	20	ug	SW846 8270C
Pyridine	ND	40	ug	SW846 8270C
1,2,4-Trichloro-benzene	ND	20	ug	SW846 8270C
2,4,5-Trichloro-phenol	ND	20	ug	SW846 8270C
2,4,6-Trichloro-phenol	ND	20	ug	SW846 8270C

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METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: H3K260401 **Work Order #...:** M2LN41AA **Matrix.....:** AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	59	(29 - 90)
Phenol-d5	76	(19 - 134)
Nitrobenzene-d5	89	(52 - 109)
2-Fluorobiphenyl	80	(56 - 109)
2,4,6-Tribromophenol	85	(40 - 127)
Terphenyl-d14	92	(55 - 115)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: H3K260401 **Work Order #...:** M2LN41AC-LCS **Matrix.....:** AIR
LCS Lot-Sample#: H3L020000-014 M2LN41AD-LCSD
Prep Date.....: 12/02/13 **Analysis Date..:** 12/05/13
Prep Batch #...: 3336014
Dilution Factor: 2

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Acenaphthene	79	(67 - 109)			SW846 8270C
	83	(67 - 109)	4.9	(0-23)	SW846 8270C
Acenaphthylene	79	(70 - 110)			SW846 8270C
	83	(70 - 110)	4.9	(0-22)	SW846 8270C
Aniline	73	(62 - 105)			SW846 8270C
	72	(62 - 105)	2.1	(0-29)	SW846 8270C
Anthracene	80	(67 - 119)			SW846 8270C
	84	(67 - 119)	4.3	(0-20)	SW846 8270C
Benzo(a)anthracene	86	(76 - 118)			SW846 8270C
	90	(76 - 118)	5.1	(0-20)	SW846 8270C
Benzo(b)fluoranthene	85	(72 - 125)			SW846 8270C
	89	(72 - 125)	4.6	(0-26)	SW846 8270C
Benzo(k)fluoranthene	86	(70 - 120)			SW846 8270C
	92	(70 - 120)	6.2	(0-21)	SW846 8270C
Benzoic acid	64	(10 - 99)			SW846 8270C
	106 a	(10 - 99)	49	(0-50)	SW846 8270C
Benzo(ghi)perylene	88	(78 - 118)			SW846 8270C
	93	(78 - 118)	6.1	(0-21)	SW846 8270C
Benzo(a)pyrene	87	(69 - 124)			SW846 8270C
	93	(69 - 124)	6.7	(0-20)	SW846 8270C
Benzyl alcohol	80	(70 - 118)			SW846 8270C
	80	(70 - 118)	0.62	(0-28)	SW846 8270C
bis(2-Chloroethoxy) methane	78	(66 - 106)			SW846 8270C
	78	(66 - 106)	0.63	(0-25)	SW846 8270C
bis(2-Chloroethyl)-ether	76	(63 - 105)			SW846 8270C
	75	(63 - 105)	1.3	(0-29)	SW846 8270C
bis(2-Ethylhexyl) phthalate	90	(80 - 123)			SW846 8270C
	96	(80 - 123)	5.9	(0-20)	SW846 8270C
4-Bromophenyl phenyl ether	80	(76 - 122)			SW846 8270C
	84	(76 - 122)	4.2	(0-22)	SW846 8270C
Butyl benzyl phthalate	96	(80 - 122)			SW846 8270C
	102	(80 - 122)	5.0	(0-20)	SW846 8270C

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LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: H3K260401 **Work Order #...:** M2LN41AC-LCS **Matrix.....:** AIR
LCS Lot-Sample#: H3L020000-014 M2LN41AD-LCSD

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Carbazole	82	(60 - 125)			SW846 8270C
	86	(60 - 125)	4.8	(0-20)	SW846 8270C
4-Chloroaniline	79	(61 - 114)			SW846 8270C
	81	(61 - 114)	2.5	(0-24)	SW846 8270C
4-Chloro-3-methylphenol	88	(72 - 122)			SW846 8270C
	92	(72 - 122)	4.5	(0-26)	SW846 8270C
2-Chloronaphthalene	75	(64 - 110)			SW846 8270C
	78	(64 - 110)	3.3	(0-25)	SW846 8270C
2-Chlorophenol	71	(56 - 100)			SW846 8270C
	72	(56 - 100)	2.1	(0-35)	SW846 8270C
4-Chlorophenyl phenyl ether	78	(69 - 113)			SW846 8270C
	84	(69 - 113)	6.2	(0-20)	SW846 8270C
Chrysene	84	(71 - 116)			SW846 8270C
	88	(71 - 116)	4.7	(0-20)	SW846 8270C
Dibenz(a,h)anthracene	88	(72 - 119)			SW846 8270C
	94	(72 - 119)	5.5	(0-25)	SW846 8270C
Dibenzofuran	76	(62 - 115)			SW846 8270C
	81	(62 - 115)	5.7	(0-20)	SW846 8270C
Di-n-butyl phthalate	87	(74 - 128)			SW846 8270C
	92	(74 - 128)	5.0	(0-20)	SW846 8270C
1,2-Dichlorobenzene	73	(59 - 103)			SW846 8270C
	72	(59 - 103)	0.68	(0-27)	SW846 8270C
1,3-Dichlorobenzene	73	(58 - 100)			SW846 8270C
	72	(58 - 100)	1.4	(0-28)	SW846 8270C
1,4-Dichlorobenzene	74	(58 - 101)			SW846 8270C
	74	(58 - 101)	0.67	(0-28)	SW846 8270C
3,3'-Dichlorobenzidine	94	(60 - 133)			SW846 8270C
	100	(60 - 133)	6.7	(0-20)	SW846 8270C
2,4-Dichlorophenol	78	(67 - 110)			SW846 8270C
	82	(67 - 110)	4.4	(0-30)	SW846 8270C
Diethyl phthalate	84	(71 - 118)			SW846 8270C
	88	(71 - 118)	5.8	(0-20)	SW846 8270C
2,4-Dimethylphenol	75	(24 - 118)			SW846 8270C
	77	(24 - 118)	2.6	(0-50)	SW846 8270C
Dimethyl phthalate	80	(73 - 115)			SW846 8270C
	84	(73 - 115)	5.5	(0-20)	SW846 8270C
4,6-Dinitro-2-methylphenol	106	(66 - 120)			SW846 8270C
	118	(66 - 120)	10	(0-23)	SW846 8270C

(Continued on next page)

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: H3K260401 **Work Order #...:** M2LN41AC-LCS **Matrix.....:** AIR
LCS Lot-Sample#: H3L020000-014 M2LN41AD-LCSD

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
2,4-Dinitrophenol	105	(65 - 123)			SW846 8270C
	126 a	(65 - 123)	18	(0-31)	SW846 8270C
2,4-Dinitrotoluene	92	(72 - 117)			SW846 8270C
	99	(72 - 117)	7.9	(0-21)	SW846 8270C
2,6-Dinitrotoluene	90	(79 - 124)			SW846 8270C
	98	(79 - 124)	8.0	(0-20)	SW846 8270C
Di-n-octyl phthalate	94	(78 - 118)			SW846 8270C
	99	(78 - 118)	5.7	(0-22)	SW846 8270C
1,2-Diphenylhydrazine	84	(63 - 124)			SW846 8270C
	88	(63 - 124)	3.5	(0-22)	SW846 8270C
Fluoranthene	80	(64 - 128)			SW846 8270C
	84	(64 - 128)	4.8	(0-20)	SW846 8270C
Fluorene	80	(70 - 117)			SW846 8270C
	84	(70 - 117)	5.5	(0-20)	SW846 8270C
Hexachlorobenzene	79	(63 - 120)			SW846 8270C
	82	(63 - 120)	3.7	(0-20)	SW846 8270C
Hexachlorobutadiene	73	(58 - 105)			SW846 8270C
	73	(58 - 105)	0.0	(0-28)	SW846 8270C
Hexachlorocyclopenta-diene	50	(11 - 74)			SW846 8270C
	53	(11 - 74)	4.8	(0-50)	SW846 8270C
Hexachloroethane	76	(60 - 104)			SW846 8270C
	76	(60 - 104)	1.3	(0-28)	SW846 8270C
Indeno(1,2,3-cd)pyrene	88	(77 - 122)			SW846 8270C
	94	(77 - 122)	6.1	(0-22)	SW846 8270C
Isophorone	79	(61 - 114)			SW846 8270C
	80	(61 - 114)	1.9	(0-26)	SW846 8270C
2-Methylnaphthalene	77	(64 - 113)			SW846 8270C
	79	(64 - 113)	2.6	(0-26)	SW846 8270C
2-Methylphenol	76	(63 - 111)			SW846 8270C
	77	(63 - 111)	1.3	(0-29)	SW846 8270C
3-Methylphenol & 4-Methylphenol	78	(59 - 113)			SW846 8270C
	80	(59 - 113)	2.5	(0-29)	SW846 8270C
Naphthalene	78	(62 - 120)			SW846 8270C
	78	(62 - 120)	0.0	(0-28)	SW846 8270C
2-Nitroaniline	91	(72 - 120)			SW846 8270C
	97	(72 - 120)	6.4	(0-22)	SW846 8270C
3-Nitroaniline	94	(66 - 128)			SW846 8270C
	101	(66 - 128)	7.2	(0-20)	SW846 8270C

(Continued on next page)

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: H3K260401 **Work Order #...:** M2LN41AC-LCS **Matrix.....:** AIR
LCS Lot-Sample#: H3L020000-014 M2LN41AD-LCSD

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
4-Nitroaniline	86	(67 - 126)			SW846 8270C
	92	(67 - 126)	7.3	(0-21)	SW846 8270C
Nitrobenzene	81	(65 - 107)			SW846 8270C
	84	(65 - 107)	3.0	(0-29)	SW846 8270C
2-Nitrophenol	88	(61 - 111)			SW846 8270C
	93	(61 - 111)	6.1	(0-34)	SW846 8270C
4-Nitrophenol	86	(67 - 116)			SW846 8270C
	94	(67 - 116)	9.2	(0-22)	SW846 8270C
N-Nitrosodimethylamine	74	(60 - 102)			SW846 8270C
	74	(60 - 102)	0.67	(0-27)	SW846 8270C
N-Nitrosodiphenylamine	89	(78 - 122)			SW846 8270C
	93	(78 - 122)	4.4	(0-23)	SW846 8270C
N-Nitrosodi-n-propyl-amine	78	(61 - 116)			SW846 8270C
	78	(61 - 116)	0.63	(0-28)	SW846 8270C
Pentachlorophenol	86	(36 - 139)			SW846 8270C
	92	(36 - 139)	7.0	(0-50)	SW846 8270C
Phenanthrene	80	(65 - 116)			SW846 8270C
	83	(65 - 116)	4.3	(0-20)	SW846 8270C
Phenol	73	(58 - 105)			SW846 8270C
	74	(58 - 105)	2.0	(0-32)	SW846 8270C
bis(2-Chloroisopropyl) ether	78	(48 - 121)			SW846 8270C
	77	(48 - 121)	1.9	(0-33)	SW846 8270C
Pyrene	85	(76 - 118)			SW846 8270C
	90	(76 - 118)	5.2	(0-20)	SW846 8270C
Pyridine	69	(54 - 94)			SW846 8270C
	69	(54 - 94)	0.0	(0-25)	SW846 8270C
1,2,4-Trichloro-benzene	74	(59 - 105)			SW846 8270C
	74	(59 - 105)	0.67	(0-27)	SW846 8270C
2,4,5-Trichloro-phenol	86	(70 - 118)			SW846 8270C
	91	(70 - 118)	5.6	(0-27)	SW846 8270C
2,4,6-Trichloro-phenol	86	(69 - 116)			SW846 8270C
	91	(69 - 116)	5.1	(0-28)	SW846 8270C

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LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: H3K260401 **Work Order #...:** M2LN41AC-LCS **Matrix.....:** AIR
LCS Lot-Sample#: H3L020000-014 M2LN41AD-LCSD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	55	(29 - 90)
	60	(29 - 90)
Phenol-d5	73	(19 - 134)
	73	(19 - 134)
Nitrobenzene-d5	84	(52 - 109)
	85	(52 - 109)
2-Fluorobiphenyl	77	(56 - 109)
	77	(56 - 109)
2,4,6-Tribromophenol	87	(40 - 127)
	93	(40 - 127)
Terphenyl-d14	85	(55 - 115)
	88	(55 - 115)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: H3K260401 **Work Order #...:** M2LN41AC-LCS **Matrix.....:** AIR
LCS Lot-Sample#: H3L020000-014 M2LN41AD-LCSD
Prep Date.....: 12/02/13 **Analysis Date..:** 12/05/13
Prep Batch #...: 3336014
Dilution Factor: 2

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Acenaphthene	200	158	ug	79		SW846 8270C
	200	166	ug	83	4.9	SW846 8270C
Acenaphthylene	200	158	ug	79		SW846 8270C
	200	166	ug	83	4.9	SW846 8270C
Aniline	200	146	ug	73		SW846 8270C
	200	143	ug	72	2.1	SW846 8270C
Anthracene	200	160	ug	80		SW846 8270C
	200	167	ug	84	4.3	SW846 8270C
Benzo(a)anthracene	200	172	ug	86		SW846 8270C
	200	181	ug	90	5.1	SW846 8270C
Benzo(b)fluoranthene	200	170	ug	85		SW846 8270C
	200	178	ug	89	4.6	SW846 8270C
Benzo(k)fluoranthene	200	172	ug	86		SW846 8270C
	200	183	ug	92	6.2	SW846 8270C
Benzoic acid	200	129	ug	64		SW846 8270C
	200	212 a	ug	106	49	SW846 8270C
Benzo(ghi)perylene	200	175	ug	88		SW846 8270C
	200	186	ug	93	6.1	SW846 8270C
Benzo(a)pyrene	200	174	ug	87		SW846 8270C
	200	186	ug	93	6.7	SW846 8270C
Benzyl alcohol	200	159	ug	80		SW846 8270C
	200	160	ug	80	0.62	SW846 8270C
bis(2-Chloroethoxy) methane	200	156	ug	78		SW846 8270C
	200	157	ug	78	0.63	SW846 8270C
bis(2-Chloroethyl)-ether	200	152	ug	76		SW846 8270C
	200	150	ug	75	1.3	SW846 8270C
bis(2-Ethylhexyl) phthalate	200	180	ug	90		SW846 8270C
	200	191	ug	96	5.9	SW846 8270C
4-Bromophenyl phenyl ether	200	161	ug	80		SW846 8270C
	200	168	ug	84	4.2	SW846 8270C
Butyl benzyl phthalate	200	193	ug	96		SW846 8270C
	200	203	ug	102	5.0	SW846 8270C

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LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: H3K260401 **Work Order #...:** M2LN41AC-LCS **Matrix.....:** AIR
LCS Lot-Sample#: H3L020000-014 M2LN41AD-LCSD

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Carbazole	200	163	ug	82		SW846 8270C
	200	171	ug	86	4.8	SW846 8270C
4-Chloroaniline	200	158	ug	79		SW846 8270C
	200	162	ug	81	2.5	SW846 8270C
4-Chloro-3-methylphenol	200	175	ug	88		SW846 8270C
	200	183	ug	92	4.5	SW846 8270C
2-Chloronaphthalene	200	150	ug	75		SW846 8270C
	200	155	ug	78	3.3	SW846 8270C
2-Chlorophenol	200	142	ug	71		SW846 8270C
	200	145	ug	72	2.1	SW846 8270C
4-Chlorophenyl phenyl ether	200	157	ug	78		SW846 8270C
	200	167	ug	84	6.2	SW846 8270C
Chrysene	200	167	ug	84		SW846 8270C
	200	175	ug	88	4.7	SW846 8270C
Dibenz(a,h)anthracene	200	177	ug	88		SW846 8270C
	200	187	ug	94	5.5	SW846 8270C
Dibenzofuran	200	153	ug	76		SW846 8270C
	200	162	ug	81	5.7	SW846 8270C
Di-n-butyl phthalate	200	174	ug	87		SW846 8270C
	200	183	ug	92	5.0	SW846 8270C
1,2-Dichlorobenzene	200	146	ug	73		SW846 8270C
	200	145	ug	72	0.68	SW846 8270C
1,3-Dichlorobenzene	200	146	ug	73		SW846 8270C
	200	144	ug	72	1.4	SW846 8270C
1,4-Dichlorobenzene	200	148	ug	74		SW846 8270C
	200	147	ug	74	0.67	SW846 8270C
3,3'-Dichlorobenzidine	200	188	ug	94		SW846 8270C
	200	201	ug	100	6.7	SW846 8270C
2,4-Dichlorophenol	200	156	ug	78		SW846 8270C
	200	163	ug	82	4.4	SW846 8270C
Diethyl phthalate	200	167	ug	84		SW846 8270C
	200	177	ug	88	5.8	SW846 8270C
2,4-Dimethylphenol	200	150	ug	75		SW846 8270C
	200	154	ug	77	2.6	SW846 8270C
Dimethyl phthalate	200	160	ug	80		SW846 8270C
	200	169	ug	84	5.5	SW846 8270C
4,6-Dinitro-2-methylphenol	400	424	ug	106		SW846 8270C
	400	471	ug	118	10	SW846 8270C

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LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: H3K260401 **Work Order #...:** M2LN41AC-LCS **Matrix.....:** AIR
LCS Lot-Sample#: H3L020000-014 M2LN41AD-LCSD

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
2,4-Dinitrophenol	400	419	ug	105		SW846 8270C
	400	503 a	ug	126	18	SW846 8270C
2,4-Dinitrotoluene	200	183	ug	92		SW846 8270C
	200	198	ug	99	7.9	SW846 8270C
2,6-Dinitrotoluene	200	180	ug	90		SW846 8270C
	200	195	ug	98	8.0	SW846 8270C
Di-n-octyl phthalate	200	187	ug	94		SW846 8270C
	200	198	ug	99	5.7	SW846 8270C
1,2-Diphenylhydrazine	200	169	ug	84		SW846 8270C
	200	175	ug	88	3.5	SW846 8270C
Fluoranthene	200	161	ug	80		SW846 8270C
	200	169	ug	84	4.8	SW846 8270C
Fluorene	200	160	ug	80		SW846 8270C
	200	169	ug	84	5.5	SW846 8270C
Hexachlorobenzene	200	158	ug	79		SW846 8270C
	200	164	ug	82	3.7	SW846 8270C
Hexachlorobutadiene	200	146	ug	73		SW846 8270C
	200	146	ug	73	0.0	SW846 8270C
Hexachlorocyclopenta-diene	200	101	ug	50		SW846 8270C
	200	106	ug	53	4.8	SW846 8270C
Hexachloroethane	200	153	ug	76		SW846 8270C
	200	151	ug	76	1.3	SW846 8270C
Indeno(1,2,3-cd)pyrene	200	176	ug	88		SW846 8270C
	200	187	ug	94	6.1	SW846 8270C
Isophorone	200	158	ug	79		SW846 8270C
	200	161	ug	80	1.9	SW846 8270C
2-Methylnaphthalene	200	154	ug	77		SW846 8270C
	200	158	ug	79	2.6	SW846 8270C
2-Methylphenol	200	152	ug	76		SW846 8270C
	200	154	ug	77	1.3	SW846 8270C
3-Methylphenol & 4-Methylphenol	200	155	ug	78		SW846 8270C
	200	159	ug	80	2.5	SW846 8270C
Naphthalene	200	156	ug	78		SW846 8270C
	200	156	ug	78	0.0	SW846 8270C
2-Nitroaniline	200	182	ug	91		SW846 8270C
	200	194	ug	97	6.4	SW846 8270C
3-Nitroaniline	200	188	ug	94		SW846 8270C
	200	202	ug	101	7.2	SW846 8270C

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LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: H3K260401 **Work Order #...:** M2LN41AC-LCS **Matrix.....:** AIR
LCS Lot-Sample#: H3L020000-014 M2LN41AD-LCSD

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
4-Nitroaniline	200	172	ug	86		SW846 8270C
	200	185	ug	92	7.3	SW846 8270C
Nitrobenzene	200	162	ug	81		SW846 8270C
	200	167	ug	84	3.0	SW846 8270C
2-Nitrophenol	200	175	ug	88		SW846 8270C
	200	186	ug	93	6.1	SW846 8270C
4-Nitrophenol	400	344	ug	86		SW846 8270C
	400	377	ug	94	9.2	SW846 8270C
N-Nitrosodimethylamine	200	149	ug	74		SW846 8270C
	200	148	ug	74	0.67	SW846 8270C
N-Nitrosodiphenylamine	200	178	ug	89		SW846 8270C
	200	186	ug	93	4.4	SW846 8270C
N-Nitrosodi-n-propyl-amine	200	157	ug	78		SW846 8270C
	200	156	ug	78	0.63	SW846 8270C
Pentachlorophenol	400	344	ug	86		SW846 8270C
	400	369	ug	92	7.0	SW846 8270C
Phenanthrene	200	159	ug	80		SW846 8270C
	200	166	ug	83	4.3	SW846 8270C
Phenol	200	146	ug	73		SW846 8270C
	200	149	ug	74	2.0	SW846 8270C
bis(2-Chloroisopropyl) ether	200	157	ug	78		SW846 8270C
	200	154	ug	77	1.9	SW846 8270C
Pyrene	200	170	ug	85		SW846 8270C
	200	179	ug	90	5.2	SW846 8270C
Pyridine	200	138	ug	69		SW846 8270C
	200	138	ug	69	0.0	SW846 8270C
1,2,4-Trichloro-benzene	200	148	ug	74		SW846 8270C
	200	149	ug	74	0.67	SW846 8270C
2,4,5-Trichloro-phenol	200	172	ug	86		SW846 8270C
	200	182	ug	91	5.6	SW846 8270C
2,4,6-Trichloro-phenol	200	173	ug	86		SW846 8270C
	200	182	ug	91	5.1	SW846 8270C

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LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: H3K260401 **Work Order #...:** M2LN41AC-LCS **Matrix.....:** AIR
LCS Lot-Sample#: H3L020000-014 M2LN41AD-LCSD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	55	(29 - 90)
	60	(29 - 90)
Phenol-d5	73	(19 - 134)
	73	(19 - 134)
Nitrobenzene-d5	84	(52 - 109)
	85	(52 - 109)
2-Fluorobiphenyl	77	(56 - 109)
	77	(56 - 109)
2,4,6-Tribromophenol	87	(40 - 127)
	93	(40 - 127)
Terphenyl-d14	85	(55 - 115)
	88	(55 - 115)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.