



June 20, 2013

091878

Ashley Holt, P.G., Manager
State Remediation Program
Division of Solid Waste Management
Tennessee Department of Environment and Conservation
5th Floor, L&C Tower
401 Church Street
Nashville, Tennessee 37243-1535

**RE: Post-Biostimulation Activities
Egyptian Lacquer Manufacturing Company
Franklin, Tennessee**

Dear Ms. Holt,

AquAeTer, Inc. (AquAeTer) is submitting on behalf of Egyptian Lacquer Manufacturing Company (ELMCO) the analytical results from the post inoculation sampling for the Biostimulation Remediation Project at the ELMCO facilities in Franklin, Tennessee. Samples were collected by **AquAeTer** from the former injection wells, EV-8, EV-10, RW-1, and the Main Seep on Liberty Creek. This letter includes the analyses and a table summarizing the current and past analytical results.

The site location is shown in Figure 1. The area of the site including the seep locations is presented in Figure 2. A site map with the well locations prepared previously by TriAD is presented in Attachment 1. Also included in Attachment 1 are the cross-sections previously prepared by TriAD of the injection well area.

Samples were collected from EV-8, EV-10 and RW1 on-site and from the Main Seep on Liberty Creek on May 29, 2013 for the analysis of volatile organic compounds (VOCs) by Method SW846 8260B. The wells were sampled using low-flow purging techniques. All samples were shipped under chain of custody to Accutest Laboratories in Orlando, Florida. The current laboratory results are summarized in Table 1 along with the previous laboratory results. A copy of the complete report for the May samples is provided in Attachment 2.

REMEDICATION

AquAeTer initiated biostimulant injections in RW-1 on July 30, 2010 and in EV-8, EV-10 on August 13, 2010. EV-8 and EV-10 were originally used as vapor extraction wells and were installed near the original pump station location. RW-1 is a well that showed hydraulic connectivity to both the seep at the Harpeth River, HR-2, and the Main Seep on Liberty Creek. Biostimulant injections were stopped on August 3, 2011 following one year of treatment.

During the course of the year, an overall decrease in concentrations of acetone and toluene was achieved in the three injection wells. Results in EV-8 and RW-1 showed degradation in constituent concentrations. Based on the same amount of treatment in EV-10, it shows that this is the primary source area that continues to contribute constituents into EV-10. Subsequent build-up in EV-8 and RW-1 was not seen. These three wells have been shown to be connected hydraulically. This indicates that while constituents were migrating into EV-10 they were being treated. A summary of the concentrations of acetone and toluene during the course of the remediation is presented in Figures 1, 2, and 3. A summary table of results is presented in Table 1.

POST REMEDIATION MONITORING

The Tennessee water quality criterion for toluene of 1 mg/L is exceeded in EV-8, EV-10, RW-1 on-site and in the seep entering Liberty Creek.

The sample from EV-10 had a decrease in the amount of acetone and toluene detected in the sample over the concentrations observed during the February 2013 sample event. The sample from EV-8 continues to show an increasing trend in acetone. The toluene concentration in EV-8 also appears to be increasing.

The samples from RW-1 had detections for toluene. Acetone was not detected during this sampling event.

Detections of ethylbenzene, MEK, MIK, and xylenes were also detected in some of the well samples at low concentrations, relative to the acetone and toluene concentrations.

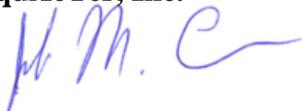
The results indicate a rebound in EV-8 since the time the treatment was discontinued. Since the biostimulant injections ceased in August 2011, the concentrations of the VOCs in the groundwater have increased to levels present before AquAeTane injections began. AquAeTer will monitor the site for one more quarter.

As part of the mediation agreement, the site will be monitored for eight quarters following treatment activities. This represents the seventh quarter.

If you should have any questions concerning this project, please contact us by telephone at (615) 373-8532, by FAX at (615) 373-8512, or by e-mail at jmcorn@aquater.com.

Sincerely,

AquAeTer, Inc.



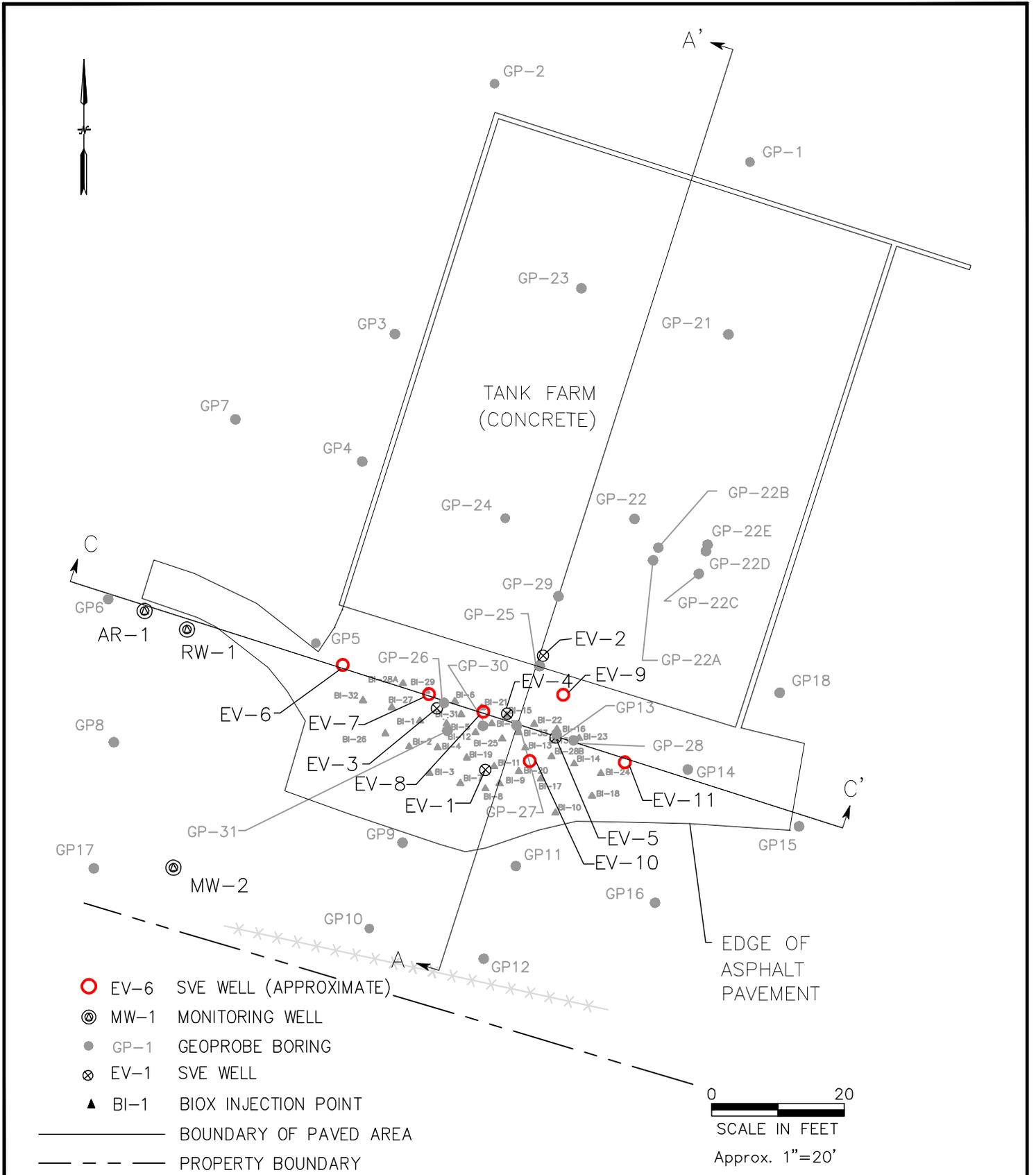
John Michael Corn, P.E. (TN)
Project Manager

Attachment 1 – Site Maps

Attachment 2 – Laboratory Report
Attachment 3 – Purge Log

cc: Kerry Mattox, Egyptian Lacquer Manufacturing Co.
Mike Corn, AquAeTer, Inc.
Chris Scott, TriAD Environmental Consultants, Inc.
Bill Penny, Stites & Harbison

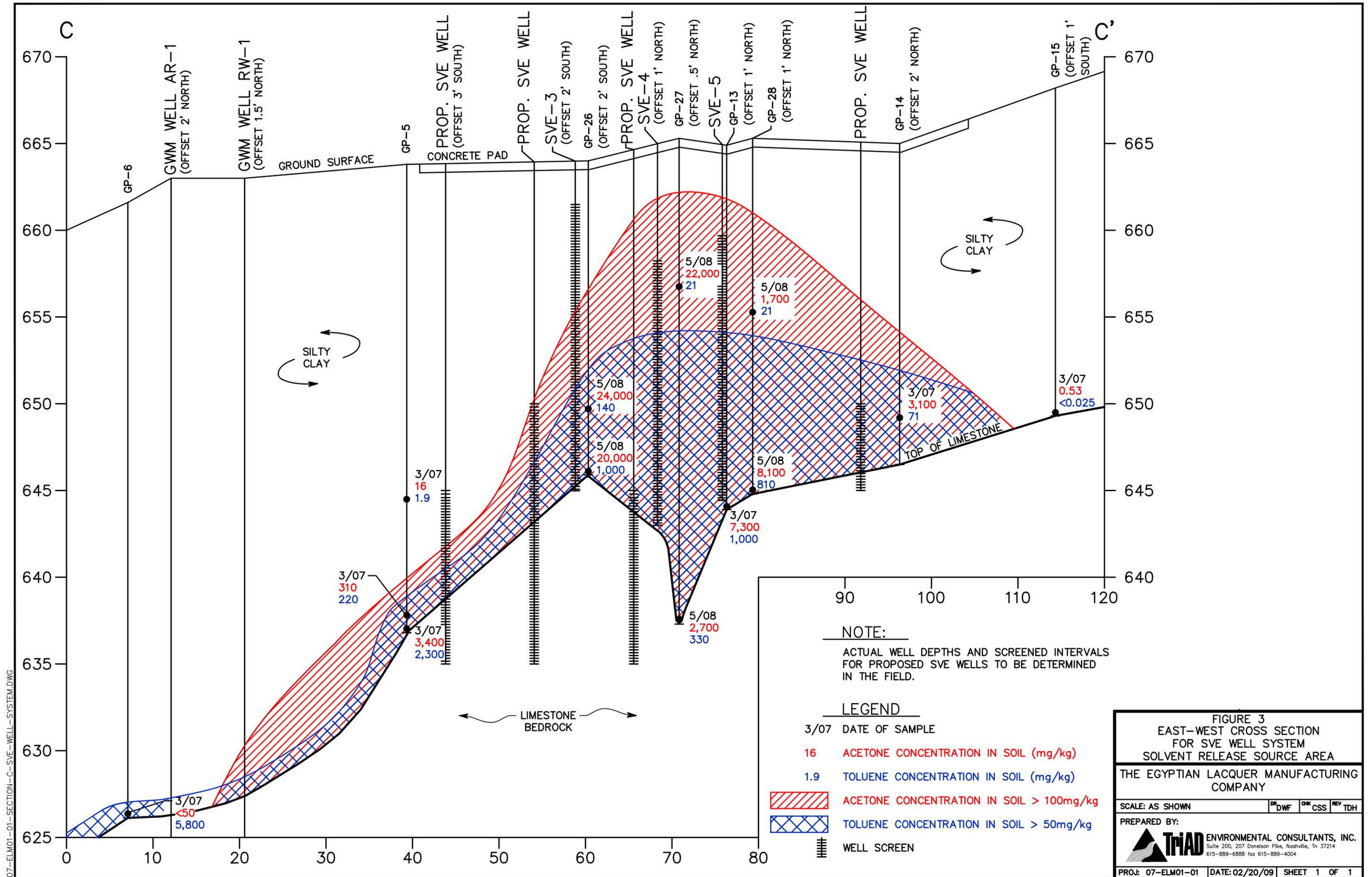
ATTACHMENT 1
SITE MAPS OF REMEDIATION AREA



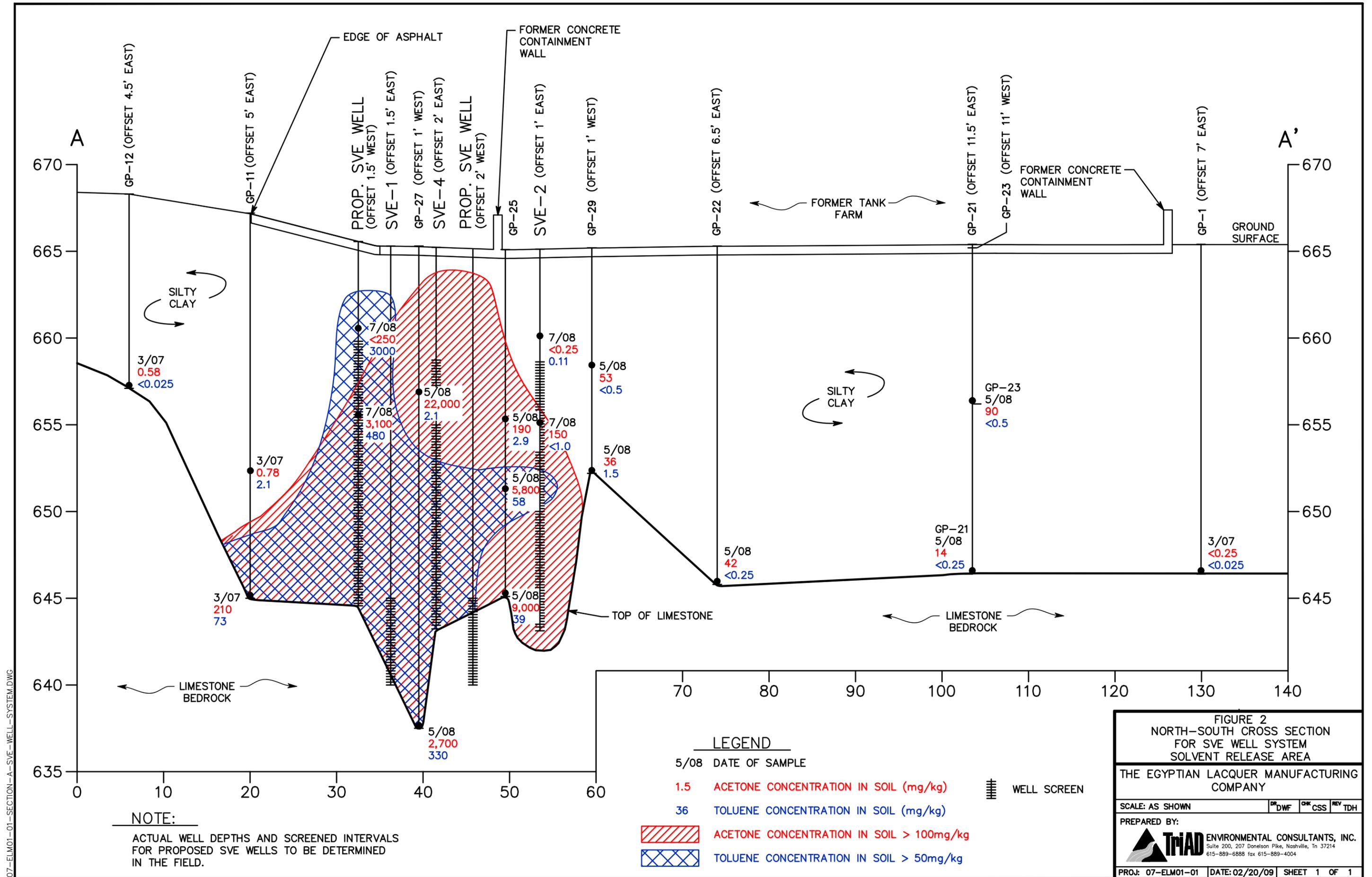
PREPARED BY:



TriAD ENVIRONMENTAL CONSULTANTS, INC.
Suite 200, 207 Donelson Pike, Nashville, Tn 37214
615-889-6888 fax 615-889-4004



07-ELM01-01-SECTION-C-SVE-WELL-SYSTEM.DWG



ATTACHMENT 2
LABORATORY REPORT

Technical Report for

Aquaeter, Inc

Elmco; Franklin, TN

091878

Accutest Job Number: FA5097

Sampling Dates: 05/29/13 - 05/30/13

Report to:

Aquaeter, Inc

JMcorn@aquaeter.com

ATTN: John Michael Corn

Total number of pages in report: 23



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.



Harry Behzadi, Ph.D.
Laboratory Director

Client Service contact: Heather Wandrey 407-425-6700

Certifications: FL (E83510), LA (03051), KS (E-10327), IA (366), IL (200063), NC (573), NJ (FL002), SC (96038001)
DoD ELAP (L-A-B L2229), CA (04226CA), TX (T104704404), AK, AR, GA, KY, MA, NV, OK, UT, VA, WA, WI

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.
Test results relate only to samples analyzed.

Table of Contents

-1-

Section 1: Sample Summary	3
Section 2: Summary of Hits	4
Section 3: Sample Results	5
3.1: FA5097-1: EV-8	6
3.2: FA5097-2: EV-10	9
3.3: FA5097-3: RW-1	12
3.4: FA5097-4: LIBERTY CREEK/MAIN SEEP	15
3.5: FA5097-5: DUP	18
Section 4: Misc. Forms	21
4.1: Chain of Custody	22



Sample Summary

Aquaeter, Inc

Job No: FA5097

Elmco; Franklin, TN
Project No: 091878

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
FA5097-1	05/29/13	14:07	RMRR 05/31/13	AQ	Ground Water	EV-8
FA5097-2	05/30/13	08:41	RMRR 05/31/13	AQ	Ground Water	EV-10
FA5097-3	05/30/13	10:02	RMRR 05/31/13	AQ	Ground Water	RW-1
FA5097-4	05/30/13	11:11	RMRR 05/31/13	AQ	Ground Water	LIBERTY CREEK/MAIN SEEP
FA5097-5	05/30/13	08:41	RMRR 05/31/13	AQ	Ground Water	DUP

Summary of Hits

Job Number: FA5097
Account: Aquaeter, Inc
Project: Elmco; Franklin, TN
Collected: 05/29/13 thru 05/30/13

Lab Sample ID	Client Sample ID	Result/ Analyte	RL	MDL	Units	Method
FA5097-1	EV-8					
		Acetone ^a	7110000	500000	200000	ug/l SW846 8260B
		4-Methyl-2-pentanone ^a	64300	50000	23000	ug/l SW846 8260B
		Methyl ethyl ketone ^a	255000	50000	31000	ug/l SW846 8260B
		Toluene ^a	236000	10000	2000	ug/l SW846 8260B
FA5097-2	EV-10					
		Acetone	704000	63000	25000	ug/l SW846 8260B
		Toluene	188000	2500	500	ug/l SW846 8260B
FA5097-3	RW-1					
		Benzene	21.0 J	50	11	ug/l SW846 8260B
		Ethylbenzene	273	50	15	ug/l SW846 8260B
		Isopropylbenzene	11.6 J	50	10	ug/l SW846 8260B
		1,2,4-Trimethylbenzene	11.6 J	100	10	ug/l SW846 8260B
		Toluene	6800	250	50	ug/l SW846 8260B
		m,p-Xylene	2260	100	15	ug/l SW846 8260B
		o-Xylene	689	50	10	ug/l SW846 8260B
FA5097-4	LIBERTY CREEK/MAIN SEEP					
		Toluene	56700	1000	200	ug/l SW846 8260B
FA5097-5	DUP					
		Acetone	620000	63000	25000	ug/l SW846 8260B
		4-Methyl-2-pentanone	1360 J	2500	1100	ug/l SW846 8260B
		Toluene	189000	2500	500	ug/l SW846 8260B

(a) Sample was not preserved to a pH < 2; reported results are considered minimum values.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: EV-8		Date Sampled: 05/29/13
Lab Sample ID: FA5097-1		Date Received: 05/31/13
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8260B		
Project: Elmco; Franklin, TN		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	B091000.D	10000	06/06/13	WV	n/a	n/a	VB3725
Run #2 ^a	I12141.D	200000	06/06/13	WV	n/a	n/a	VI81

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	71100000 ^b	500000	200000	ug/l	
107-02-8	Acrolein	ND	20000	69000	ug/l	
107-13-1	Acrylonitrile	ND	10000	20000	ug/l	
71-43-2	Benzene	ND	10000	2100	ug/l	
108-86-1	Bromobenzene	ND	10000	2200	ug/l	
74-97-5	Bromochloromethane	ND	10000	2300	ug/l	
75-27-4	Bromodichloromethane	ND	10000	2000	ug/l	
75-25-2	Bromoform	ND	10000	3400	ug/l	
104-51-8	n-Butylbenzene	ND	10000	2000	ug/l	
135-98-8	sec-Butylbenzene	ND	10000	2100	ug/l	
98-06-6	tert-Butylbenzene	ND	10000	2900	ug/l	
108-90-7	Chlorobenzene	ND	10000	2000	ug/l	
75-00-3	Chloroethane	ND	20000	5000	ug/l	
67-66-3	Chloroform	ND	10000	2600	ug/l	
95-49-8	o-Chlorotoluene	ND	10000	2100	ug/l	
106-43-4	p-Chlorotoluene	ND	10000	2000	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	50000	13000	ug/l	
75-15-0	Carbon disulfide	ND	20000	4900	ug/l	
56-23-5	Carbon tetrachloride	ND	10000	3100	ug/l	
75-34-3	1,1-Dichloroethane	ND	10000	2100	ug/l	
75-35-4	1,1-Dichloroethylene	ND	10000	2000	ug/l	
563-58-6	1,1-Dichloropropene	ND	10000	2500	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	20000	7100	ug/l	
106-93-4	1,2-Dibromoethane	ND	10000	3000	ug/l	
107-06-2	1,2-Dichloroethane	ND	10000	2200	ug/l	
78-87-5	1,2-Dichloropropane	ND	10000	2600	ug/l	
142-28-9	1,3-Dichloropropane	ND	10000	2700	ug/l	
594-20-7	2,2-Dichloropropane	ND	10000	2500	ug/l	
124-48-1	Dibromochloromethane	ND	10000	2000	ug/l	
75-71-8	Dichlorodifluoromethane	ND	20000	5000	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	10000	2400	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	10000	2200	ug/l	

ND = Not detected

MDL - Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: EV-8		Date Sampled: 05/29/13
Lab Sample ID: FA5097-1		Date Received: 05/31/13
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8260B		
Project: Elmco; Franklin, TN		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	ND	10000	2500	ug/l	
95-50-1	o-Dichlorobenzene	ND	10000	2200	ug/l	
106-46-7	p-Dichlorobenzene	ND	10000	2000	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	10000	2300	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	10000	2100	ug/l	
100-41-4	Ethylbenzene	ND	10000	2900	ug/l	
591-78-6	2-Hexanone	ND	100000	20000	ug/l	
87-68-3	Hexachlorobutadiene	ND	20000	5000	ug/l	
98-82-8	Isopropylbenzene	ND	10000	2000	ug/l	
99-87-6	p-Isopropyltoluene	ND	10000	2000	ug/l	
108-10-1	4-Methyl-2-pentanone	64300	50000	23000	ug/l	
74-83-9	Methyl bromide	ND	20000	7900	ug/l	
74-87-3	Methyl chloride	ND	20000	5000	ug/l	
74-95-3	Methylene bromide	ND	20000	3400	ug/l	
75-09-2	Methylene chloride	ND	50000	20000	ug/l	
78-93-3	Methyl ethyl ketone	255000	50000	31000	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	10000	2100	ug/l	
91-20-3	Naphthalene	ND	50000	10000	ug/l	
103-65-1	n-Propylbenzene	ND	10000	2300	ug/l	
100-42-5	Styrene	ND	10000	2000	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	10000	2300	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	10000	2000	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	10000	2400	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	10000	2000	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	10000	5000	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	20000	5600	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	10000	5000	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	20000	2000	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	20000	2000	ug/l	
127-18-4	Tetrachloroethylene	ND	10000	3200	ug/l	
108-88-3	Toluene	236000	10000	2000	ug/l	
79-01-6	Trichloroethylene	ND	10000	3100	ug/l	
75-69-4	Trichlorofluoromethane	ND	20000	5000	ug/l	
75-01-4	Vinyl chloride	ND	10000	4400	ug/l	
108-05-4	Vinyl Acetate	ND	100000	31000	ug/l	
	m,p-Xylene	ND	20000	3000	ug/l	
95-47-6	o-Xylene	ND	10000	2000	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: EV-8	
Lab Sample ID: FA5097-1	Date Sampled: 05/29/13
Matrix: AQ - Ground Water	Date Received: 05/31/13
Method: SW846 8260B	Percent Solids: n/a
Project: Elmco; Franklin, TN	

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%	109%	83-118%
17060-07-0	1,2-Dichloroethane-D4	98%	113%	79-125%
2037-26-5	Toluene-D8	99%	104%	85-112%
460-00-4	4-Bromofluorobenzene	100%	104%	83-118%

(a) Sample was not preserved to a pH < 2; reported results are considered minimum values.

(b) Result is from Run# 2

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: EV-10		Date Sampled: 05/30/13
Lab Sample ID: FA5097-2		Date Received: 05/31/13
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8260B		
Project: Elmco; Franklin, TN		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B090993.D	2500	06/06/13	WV	n/a	n/a	VB3725
Run #2	I12239.D	2500	06/10/13	WV	n/a	n/a	VI85

Run #1	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	704000 ^a	63000	25000	ug/l	
107-02-8	Acrolein	ND	50000	17000	ug/l	
107-13-1	Acrylonitrile	ND	25000	5000	ug/l	
71-43-2	Benzene	ND	2500	530	ug/l	
108-86-1	Bromobenzene	ND	2500	550	ug/l	
74-97-5	Bromochloromethane	ND	2500	570	ug/l	
75-27-4	Bromodichloromethane	ND	2500	500	ug/l	
75-25-2	Bromoform	ND	2500	860	ug/l	
104-51-8	n-Butylbenzene	ND	2500	500	ug/l	
135-98-8	sec-Butylbenzene	ND	2500	530	ug/l	
98-06-6	tert-Butylbenzene	ND	2500	730	ug/l	
108-90-7	Chlorobenzene	ND	2500	500	ug/l	
75-00-3	Chloroethane	ND	5000	1300	ug/l	
67-66-3	Chloroform	ND	2500	660	ug/l	
95-49-8	o-Chlorotoluene	ND	2500	530	ug/l	
106-43-4	p-Chlorotoluene	ND	2500	500	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	13000	3200	ug/l	
75-15-0	Carbon disulfide	ND	5000	1200	ug/l	
56-23-5	Carbon tetrachloride	ND	2500	780	ug/l	
75-34-3	1,1-Dichloroethane	ND	2500	540	ug/l	
75-35-4	1,1-Dichloroethylene	ND	2500	500	ug/l	
563-58-6	1,1-Dichloropropene	ND	2500	620	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5000	1800	ug/l	
106-93-4	1,2-Dibromoethane	ND	2500	750	ug/l	
107-06-2	1,2-Dichloroethane	ND	2500	560	ug/l	
78-87-5	1,2-Dichloropropane	ND	2500	660	ug/l	
142-28-9	1,3-Dichloropropane	ND	2500	670	ug/l	
594-20-7	2,2-Dichloropropane	ND	2500	610	ug/l	
124-48-1	Dibromochloromethane	ND	2500	500	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5000	1300	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	2500	590	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	2500	550	ug/l	

ND = Not detected

MDL - Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EV-10	Date Sampled:	05/30/13
Lab Sample ID:	FA5097-2	Date Received:	05/31/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Elmco; Franklin, TN		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	ND	2500	640	ug/l	
95-50-1	o-Dichlorobenzene	ND	2500	540	ug/l	
106-46-7	p-Dichlorobenzene	ND	2500	500	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	2500	570	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	2500	520	ug/l	
100-41-4	Ethylbenzene	ND	2500	730	ug/l	
591-78-6	2-Hexanone	ND	25000	5000	ug/l	
87-68-3	Hexachlorobutadiene	ND	5000	1300	ug/l	
98-82-8	Isopropylbenzene	ND	2500	500	ug/l	
99-87-6	p-Isopropyltoluene	ND	2500	500	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	13000	5600	ug/l	
74-83-9	Methyl bromide	ND	5000	2000	ug/l	
74-87-3	Methyl chloride	ND	5000	1300	ug/l	
74-95-3	Methylene bromide	ND	5000	860	ug/l	
75-09-2	Methylene chloride	ND	13000	5000	ug/l	
78-93-3	Methyl ethyl ketone	ND	13000	7800	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	2500	530	ug/l	
91-20-3	Naphthalene	ND	13000	2500	ug/l	
103-65-1	n-Propylbenzene	ND	2500	570	ug/l	
100-42-5	Styrene	ND	2500	500	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	2500	580	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	2500	500	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2500	600	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	2500	500	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2500	1300	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5000	1400	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2500	1300	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5000	500	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5000	500	ug/l	
127-18-4	Tetrachloroethylene	ND	2500	800	ug/l	
108-88-3	Toluene	188000	2500	500	ug/l	
79-01-6	Trichloroethylene	ND	2500	790	ug/l	
75-69-4	Trichlorofluoromethane	ND	5000	1300	ug/l	
75-01-4	Vinyl chloride	ND	2500	1100	ug/l	
108-05-4	Vinyl Acetate	ND	25000	7900	ug/l	
	m,p-Xylene	ND	5000	740	ug/l	
95-47-6	o-Xylene	ND	2500	500	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: EV-10 Lab Sample ID: FA5097-2 Matrix: AQ - Ground Water Method: SW846 8260B Project: Elmco; Franklin, TN	Date Sampled: 05/30/13 Date Received: 05/31/13 Percent Solids: n/a
---	---

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%	99%	83-118%
17060-07-0	1,2-Dichloroethane-D4	97%	99%	79-125%
2037-26-5	Toluene-D8	101%	102%	85-112%
460-00-4	4-Bromofluorobenzene	99%	98%	83-118%

(a) Result is from Run# 2

ND = Not detected MDL - Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: RW-1		Date Sampled: 05/30/13
Lab Sample ID: FA5097-3		Date Received: 05/31/13
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8260B		
Project: Elmco; Franklin, TN		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B091003.D	50	06/06/13	WV	n/a	n/a	VB3725
Run #2	I12194.D	50	06/07/13	WV	n/a	n/a	VI83
Run #3	B090994.D	250	06/06/13	WV	n/a	n/a	VB3725

Run #	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml
Run #3	5.0 ml

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone ^a	ND ^b	1300	500	ug/l	
107-02-8	Acrolein	ND	1000	350	ug/l	
107-13-1	Acrylonitrile	ND	500	100	ug/l	
71-43-2	Benzene	21.0	50	11	ug/l	J
108-86-1	Bromobenzene	ND	50	11	ug/l	
74-97-5	Bromochloromethane	ND	50	11	ug/l	
75-27-4	Bromodichloromethane	ND	50	10	ug/l	
75-25-2	Bromoform	ND	50	17	ug/l	
104-51-8	n-Butylbenzene	ND	50	10	ug/l	
135-98-8	sec-Butylbenzene	ND	50	11	ug/l	
98-06-6	tert-Butylbenzene	ND	50	15	ug/l	
108-90-7	Chlorobenzene	ND	50	10	ug/l	
75-00-3	Chloroethane	ND	100	25	ug/l	
67-66-3	Chloroform	ND	50	13	ug/l	
95-49-8	o-Chlorotoluene	ND	50	11	ug/l	
106-43-4	p-Chlorotoluene	ND	50	10	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	250	64	ug/l	
75-15-0	Carbon disulfide	ND	100	25	ug/l	
56-23-5	Carbon tetrachloride	ND	50	16	ug/l	
75-34-3	1,1-Dichloroethane	ND	50	11	ug/l	
75-35-4	1,1-Dichloroethylene	ND	50	10	ug/l	
563-58-6	1,1-Dichloropropene	ND	50	12	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	100	36	ug/l	
106-93-4	1,2-Dibromoethane	ND	50	15	ug/l	
107-06-2	1,2-Dichloroethane	ND	50	11	ug/l	
78-87-5	1,2-Dichloropropane	ND	50	13	ug/l	
142-28-9	1,3-Dichloropropane	ND	50	13	ug/l	
594-20-7	2,2-Dichloropropane	ND	50	12	ug/l	
124-48-1	Dibromochloromethane	ND	50	10	ug/l	
75-71-8	Dichlorodifluoromethane	ND	100	25	ug/l	

ND = Not detected

MDL - Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	RW-1	Date Sampled:	05/30/13
Lab Sample ID:	FA5097-3	Date Received:	05/31/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Elmco; Franklin, TN		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-59-2	cis-1,2-Dichloroethylene	ND	50	12	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	50	11	ug/l	
541-73-1	m-Dichlorobenzene	ND	50	13	ug/l	
95-50-1	o-Dichlorobenzene	ND	50	11	ug/l	
106-46-7	p-Dichlorobenzene	ND	50	10	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	50	11	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	50	10	ug/l	
100-41-4	Ethylbenzene	273	50	15	ug/l	
591-78-6	2-Hexanone	ND	500	100	ug/l	
87-68-3	Hexachlorobutadiene	ND	100	25	ug/l	
98-82-8	Isopropylbenzene	11.6	50	10	ug/l	J
99-87-6	p-Isopropyltoluene	ND	50	10	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	250	110	ug/l	
74-83-9	Methyl bromide	ND	100	39	ug/l	
74-87-3	Methyl chloride	ND	100	25	ug/l	
74-95-3	Methylene bromide	ND	100	17	ug/l	
75-09-2	Methylene chloride	ND	250	100	ug/l	
78-93-3	Methyl ethyl ketone	ND	250	160	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	50	11	ug/l	
91-20-3	Naphthalene	ND	250	50	ug/l	
103-65-1	n-Propylbenzene	ND	50	11	ug/l	
100-42-5	Styrene	ND	50	10	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	50	12	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	50	10	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	50	12	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	50	10	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND ^b	50	25	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	100	28	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	50	25	ug/l	
95-63-6	1,2,4-Trimethylbenzene	11.6	100	10	ug/l	J
108-67-8	1,3,5-Trimethylbenzene	ND	100	10	ug/l	
127-18-4	Tetrachloroethylene	ND	50	16	ug/l	
108-88-3	Toluene	6800 ^c	250	50	ug/l	
79-01-6	Trichloroethylene	ND	50	16	ug/l	
75-69-4	Trichlorofluoromethane	ND	100	25	ug/l	
75-01-4	Vinyl chloride	ND	50	22	ug/l	
108-05-4	Vinyl Acetate	ND	500	160	ug/l	
	m,p-Xylene	2260	100	15	ug/l	
95-47-6	o-Xylene	689	50	10	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: RW-1	
Lab Sample ID: FA5097-3	Date Sampled: 05/30/13
Matrix: AQ - Ground Water	Date Received: 05/31/13
Method: SW846 8260B	Percent Solids: n/a
Project: Elmco; Franklin, TN	

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Run# 3	Limits
1868-53-7	Dibromofluoromethane	104%	107%	99%	83-118%
17060-07-0	1,2-Dichloroethane-D4	100%	110%	96%	79-125%
2037-26-5	Toluene-D8	103%	103%	102%	85-112%
460-00-4	4-Bromofluorobenzene	101%	111%	102%	83-118%

(a) Associated BS recovery outside control limits.

(b) Result is from Run# 2

(c) Result is from Run# 3

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	LIBERTY CREEK/MAIN SEEP	Date Sampled:	05/30/13
Lab Sample ID:	FA5097-4	Date Received:	05/31/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Elmco; Franklin, TN		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B090986.D	1000	06/05/13	WV	n/a	n/a	VB3723
Run #2							

Run #1	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone ^a	ND	25000	10000	ug/l	
107-02-8	Acrolein	ND	20000	6900	ug/l	
107-13-1	Acrylonitrile	ND	10000	2000	ug/l	
71-43-2	Benzene	ND	1000	210	ug/l	
108-86-1	Bromobenzene	ND	1000	220	ug/l	
74-97-5	Bromochloromethane	ND	1000	230	ug/l	
75-27-4	Bromodichloromethane	ND	1000	200	ug/l	
75-25-2	Bromoform	ND	1000	340	ug/l	
104-51-8	n-Butylbenzene	ND	1000	200	ug/l	
135-98-8	sec-Butylbenzene	ND	1000	210	ug/l	
98-06-6	tert-Butylbenzene	ND	1000	290	ug/l	
108-90-7	Chlorobenzene	ND	1000	200	ug/l	
75-00-3	Chloroethane	ND	2000	500	ug/l	
67-66-3	Chloroform	ND	1000	260	ug/l	
95-49-8	o-Chlorotoluene	ND	1000	210	ug/l	
106-43-4	p-Chlorotoluene	ND	1000	200	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5000	1300	ug/l	
75-15-0	Carbon disulfide	ND	2000	490	ug/l	
56-23-5	Carbon tetrachloride	ND	1000	310	ug/l	
75-34-3	1,1-Dichloroethane	ND	1000	210	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1000	200	ug/l	
563-58-6	1,1-Dichloropropene	ND	1000	250	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2000	710	ug/l	
106-93-4	1,2-Dibromoethane	ND	1000	300	ug/l	
107-06-2	1,2-Dichloroethane	ND	1000	220	ug/l	
78-87-5	1,2-Dichloropropane	ND	1000	260	ug/l	
142-28-9	1,3-Dichloropropane	ND	1000	270	ug/l	
594-20-7	2,2-Dichloropropane	ND	1000	250	ug/l	
124-48-1	Dibromochloromethane	ND	1000	200	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2000	500	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1000	240	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1000	220	ug/l	

ND = Not detected

MDL - Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	LIBERTY CREEK/MAIN SEEP	Date Sampled:	05/30/13
Lab Sample ID:	FA5097-4	Date Received:	05/31/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Elmco; Franklin, TN		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	ND	1000	250	ug/l	
95-50-1	o-Dichlorobenzene	ND	1000	220	ug/l	
106-46-7	p-Dichlorobenzene	ND	1000	200	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1000	230	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1000	210	ug/l	
100-41-4	Ethylbenzene	ND	1000	290	ug/l	
591-78-6	2-Hexanone	ND	10000	2000	ug/l	
87-68-3	Hexachlorobutadiene	ND	2000	500	ug/l	
98-82-8	Isopropylbenzene	ND	1000	200	ug/l	
99-87-6	p-Isopropyltoluene	ND	1000	200	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5000	2300	ug/l	
74-83-9	Methyl bromide	ND	2000	790	ug/l	
74-87-3	Methyl chloride	ND	2000	500	ug/l	
74-95-3	Methylene bromide	ND	2000	340	ug/l	
75-09-2	Methylene chloride	ND	5000	2000	ug/l	
78-93-3	Methyl ethyl ketone	ND	5000	3100	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1000	210	ug/l	
91-20-3	Naphthalene	ND	5000	1000	ug/l	
103-65-1	n-Propylbenzene	ND	1000	230	ug/l	
100-42-5	Styrene	ND	1000	200	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1000	230	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1000	200	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1000	240	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1000	200	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1000	500	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2000	560	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1000	500	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2000	200	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2000	200	ug/l	
127-18-4	Tetrachloroethylene	ND	1000	320	ug/l	
108-88-3	Toluene	56700	1000	200	ug/l	
79-01-6	Trichloroethylene	ND	1000	310	ug/l	
75-69-4	Trichlorofluoromethane	ND	2000	500	ug/l	
75-01-4	Vinyl chloride	ND	1000	440	ug/l	
108-05-4	Vinyl Acetate	ND	10000	3100	ug/l	
	m,p-Xylene	ND	2000	300	ug/l	
95-47-6	o-Xylene	ND	1000	200	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: LIBERTY CREEK/MAIN SEEP Lab Sample ID: FA5097-4 Matrix: AQ - Ground Water Method: SW846 8260B Project: Elmco; Franklin, TN	Date Sampled: 05/30/13 Date Received: 05/31/13 Percent Solids: n/a
---	---

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		83-118%
17060-07-0	1,2-Dichloroethane-D4	100%		79-125%
2037-26-5	Toluene-D8	102%		85-112%
460-00-4	4-Bromofluorobenzene	105%		83-118%

(a) Associated BS recovery outside control limits.

ND = Not detected	MDL - Method Detection Limit	J = Indicates an estimated value
RL = Reporting Limit		B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range		N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: DUP		
Lab Sample ID: FA5097-5		Date Sampled: 05/30/13
Matrix: AQ - Ground Water		Date Received: 05/31/13
Method: SW846 8260B		Percent Solids: n/a
Project: Elmco; Franklin, TN		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B090995.D	500	06/06/13	WV	n/a	n/a	VB3725
Run #2	I12145.D	2500	06/06/13	WV	n/a	n/a	VI81

Run #1	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	620000 ^a	63000	25000	ug/l	
107-02-8	Acrolein	ND	10000	3500	ug/l	
107-13-1	Acrylonitrile	ND	5000	1000	ug/l	
71-43-2	Benzene	ND	500	110	ug/l	
108-86-1	Bromobenzene	ND	500	110	ug/l	
74-97-5	Bromochloromethane	ND	500	110	ug/l	
75-27-4	Bromodichloromethane	ND	500	100	ug/l	
75-25-2	Bromoform	ND	500	170	ug/l	
104-51-8	n-Butylbenzene	ND	500	100	ug/l	
135-98-8	sec-Butylbenzene	ND	500	110	ug/l	
98-06-6	tert-Butylbenzene	ND	500	150	ug/l	
108-90-7	Chlorobenzene	ND	500	100	ug/l	
75-00-3	Chloroethane	ND	1000	250	ug/l	
67-66-3	Chloroform	ND	500	130	ug/l	
95-49-8	o-Chlorotoluene	ND	500	110	ug/l	
106-43-4	p-Chlorotoluene	ND	500	100	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	2500	640	ug/l	
75-15-0	Carbon disulfide	ND	1000	250	ug/l	
56-23-5	Carbon tetrachloride	ND	500	160	ug/l	
75-34-3	1,1-Dichloroethane	ND	500	110	ug/l	
75-35-4	1,1-Dichloroethylene	ND	500	100	ug/l	
563-58-6	1,1-Dichloropropene	ND	500	120	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	1000	360	ug/l	
106-93-4	1,2-Dibromoethane	ND	500	150	ug/l	
107-06-2	1,2-Dichloroethane	ND	500	110	ug/l	
78-87-5	1,2-Dichloropropane	ND	500	130	ug/l	
142-28-9	1,3-Dichloropropane	ND	500	130	ug/l	
594-20-7	2,2-Dichloropropane	ND	500	120	ug/l	
124-48-1	Dibromochloromethane	ND	500	100	ug/l	
75-71-8	Dichlorodifluoromethane	ND	1000	250	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	500	120	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	500	110	ug/l	

ND = Not detected

MDL - Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DUP	Date Sampled:	05/30/13
Lab Sample ID:	FA5097-5	Date Received:	05/31/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Elmco; Franklin, TN		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	ND	500	130	ug/l	
95-50-1	o-Dichlorobenzene	ND	500	110	ug/l	
106-46-7	p-Dichlorobenzene	ND	500	100	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	500	110	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	500	100	ug/l	
100-41-4	Ethylbenzene	ND	500	150	ug/l	
591-78-6	2-Hexanone	ND	5000	1000	ug/l	
87-68-3	Hexachlorobutadiene	ND	1000	250	ug/l	
98-82-8	Isopropylbenzene	ND	500	100	ug/l	
99-87-6	p-Isopropyltoluene	ND	500	100	ug/l	
108-10-1	4-Methyl-2-pentanone	1360	2500	1100	ug/l	J
74-83-9	Methyl bromide	ND	1000	390	ug/l	
74-87-3	Methyl chloride	ND	1000	250	ug/l	
74-95-3	Methylene bromide	ND	1000	170	ug/l	
75-09-2	Methylene chloride	ND	2500	1000	ug/l	
78-93-3	Methyl ethyl ketone	ND	2500	1600	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	500	110	ug/l	
91-20-3	Naphthalene	ND	2500	500	ug/l	
103-65-1	n-Propylbenzene	ND	500	110	ug/l	
100-42-5	Styrene	ND	500	100	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	500	120	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	500	100	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	500	120	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	500	100	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	500	250	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1000	280	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	500	250	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1000	100	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1000	100	ug/l	
127-18-4	Tetrachloroethylene	ND	500	160	ug/l	
108-88-3	Toluene	189000 ^a	2500	500	ug/l	
79-01-6	Trichloroethylene	ND	500	160	ug/l	
75-69-4	Trichlorofluoromethane	ND	1000	250	ug/l	
75-01-4	Vinyl chloride	ND	500	220	ug/l	
108-05-4	Vinyl Acetate	ND	5000	1600	ug/l	
	m,p-Xylene	ND	1000	150	ug/l	
95-47-6	o-Xylene	ND	500	100	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: DUP Lab Sample ID: FA5097-5 Matrix: AQ - Ground Water Method: SW846 8260B Project: Elmco; Franklin, TN	Date Sampled: 05/30/13 Date Received: 05/31/13 Percent Solids: n/a
---	---

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%	110%	83-118%
17060-07-0	1,2-Dichloroethane-D4	96%	112%	79-125%
2037-26-5	Toluene-D8	100%	100%	85-112%
460-00-4	4-Bromofluorobenzene	104%	103%	83-118%

(a) Result is from Run# 2

ND = Not detected MDL - Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: FA5097 CLIENT: Aqua Tec PROJECT: Elmco
 DATE/TIME RECEIVED: 0531-13 700 (MM/DD/YY 24:00) NUMBER OF COOLERS RECEIVED: 1
 METHOD OF DELIVERY: FEDEX UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER
 AIRBILL NUMBERS: 8017 3247 1338

COOLER INFORMATION

- CUSTODY SEAL NOT PRESENT OR NOT INTACT
- CHAIN OF CUSTODY NOT RECEIVED (COC)
- ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- TEMPERATURE CRITERIA NOT MET
- WET ICE PRESENT

TRIP BLANK INFORMATION

- TRIP BLANK PROVIDED
- TRIP BLANK NOT PROVIDED
- TRIP BLANK NOT ON COC
- TRIP BLANK INTACT
- TRIP BLANK NOT INTACT
- RECEIVED WATER TRIP BLANK
- RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES? 25-GRAM 5-GRAM
 NUMBER OF 5035 FIELD KITS?
 NUMBER OF LAB FILTERED METALS?

TEMPERATURE INFORMATION

IR THERM ID 3 CORR. FACTOR +0.4
 OBSERVED TEMPS: 2.8
 CORRECTED TEMPS: 3.2

SAMPLE INFORMATION

- SAMPLE LABELS PRESENT ON ALL BOTTLES
- INCORRECT NUMBER OF CONTAINERS USED
- SAMPLE RECEIVED IMPROPERLY PRESERVED
- INSUFFICIENT VOLUME FOR ANALYSIS
- DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- ID'S ON COC DO NOT MATCH LABEL
- VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- SAMPLE CONTAINER(S) RECEIVED BROKEN
- % SOLIDS JAR NOT RECEIVED
- 5035 FIELD KIT FROZEN WITHIN 48 HOUR'S
- RESIDUAL CHLORINE PRESENT

(APPLICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS)

SUMMARY OF COMMENTS:

TECHNICIAN SIGNATURE/DATE

R. Welch 05/31/13

REVIEWER SIGNATURE/DATE

[Signature] 05/31/13

NF 12/10

receipt confirmation 122910.xls

FA5097: Chain of Custody

Page 2 of 2

ATTACHMENT 3

PURGE LOG

29.63

Groundwater Sampling Data Sheet

Site Name: ELMCO Project: 091878

Well No. EV-8 Date: 5/29/13

Field Personnel: RWR RGM

Weather Conditions: Sunny 90°F

Well Depth (h_{TD}) 216.9 ft (w.r.t. TOC) Well Diameter 2 in
 Static Water Level (h_s) 275.2 ft (w.r.t. TOC) @ 1231 am/pm Well Type Push-mount m.w.
 Length of Water Column 217 ft
 TOC Elevation _____ ft GW Elevation _____ ft
 (TOC Elevation - Static Water Level)

Standing Well Volume _____ gal

$V = 0.041 d^2(h_{TD} - h_s)$

(V = volume of water in gallons, h_{TD} = total depth measurement in feet,

h_s = depth to groundwater measurement in feet, d = diameter of well in inches)

Began Purging @ 1312 ~~1300~~ am/pm

Ended Purging @ _____ am/pm

Volume Purged _____ gal

Water Level After Purging 29.63 ft

Indicate if the well was purged dry: No / Yes

Calculated Yield _____ gal/min

Well Purging Method: Bailed (HDPE/Teflon) or Pumped (Submersible, Bladder, Peristaltic)

WELL PURGING

Date	Time	Turbidity (NTU)	Conductivity ($\mu S/cm$)	pH	Temp ($^{\circ}C$)	Total Gallons Removed	Cumulative Well Volumes Removed	Comments
5/29	1351	6.20	1.74 mS/cm	7.04	32.00			
	1355	5.31	1.71 mS/cm	6.65	29.34			
	1359	4.57	1.68 mS/cm	6.55	29.00			
	1402	4.10	1.67 mS/cm	6.51	28.67			
	1405	4.03	1.67	6.48	28.96			
✓	1408	3.49	1.70	6.47	28.17			

Groundwater Sampling Data Sheet (Cont'd)

Well No: EV-8

Date: 5/29/13

Instruments used in measuring groundwater quality parameters:

Calibration: _____

Checked: _____

Note any observations relevant to the site, monitoring well, or groundwater quality that may be useful in analyzing the groundwater sampling data: solvent odor in pump water + well

Began collecting groundwater samples @ 1351 am/pm

Completed collecting groundwater samples @ _____ am/pm

General Groundwater Sampling Information

Analytes	EPA Method	Number of Containers	Size of Containers	Preservatives
Total Acidity as CaCO ₃	305.1 (pH < 8.3)	1	500 mL	None
Total Alkalinity as CaCO ₃	2320B (pH > 4.5)	1	250 mL	None
Sulfate ion	375.4	1	125 mL	None
Iron and Aluminum	200.7 Rev 4.4	1	250 mL	Nitric Acid

Groundwater Sampling Log

Sample ID	Time	Sampler	Analysis Requested
<u>EV-8</u>	<u>1351</u>	<u>RWR, ROM</u>	<u>8260B</u>

Groundwater Sampling Data Sheet

Site Name: ELMCO Project: 091878

Well No. EV-10 Date: 5/30/13

Field Personnel: RDM + RWR

Weather Conditions: 80° Sunny

Well Depth (h_{TD}) 30.60 ft (w.r.t. TOC) Well Diameter 2 in
 Static Water Level (h_s) 26.84 ft (w.r.t. TOC) @ am/pm Well Type Push mount
 Length of Water Column 3.76 ft
 TOC Elevation _____ ft GW Elevation _____ ft
 (TOC Elevation - Static Water Level)

Standing Well Volume _____ gal

$V = 0.041 d^2 (h_{TD} - h_s)$

(V = volume of water in gallons, h_{TD} = total depth measurement in feet,

h_s = depth to groundwater measurement in feet, d = diameter of well in inches)

Began Purging @ 0810 am/pm

Ended Purging @ 052 am/pm

Volume Purged _____ gal

Water Level After Purging 27.13 ft

Indicate if the well was purged dry: No / Yes

Calculated Yield _____ gal/min

Well Purging Method: Bailed (HDPE/Teflon) or Pumped (Submersible, Bladder, Peristaltic)

		DO mg/L		WELL PURGING				
Date	Time	Turbidity (NTU)	Conductivity (µS/cm)	pH	Temp (°C)	Total Gallons Removed	Cumulative Well Volumes Removed	Comments
5/30	820	2.55	0.784 mS/cm	6.35	19.33			
	823	1.91	0.757 mS/cm	6.37	18.84			
	826	2.41	0.740 mS/cm	6.36	18.57			
	829	2.22	0.733 mS/cm	6.34	18.49			
	832	2.11	0.732 mS/cm	6.36	18.38			
	835	1.93	0.731 mS/cm	6.36	18.37			
	838	1.64	0.729 mS/cm	6.36	18.37			
	841	1.62	0.728 mS/cm	6.36	18.39			

Groundwater Sampling Data Sheet (Cont'd)

Well No: EV-10

Date: 5/30/13

Instruments used in measuring groundwater quality parameters:

Calibration: _____

Checked: _____

Note any observations relevant to the site, monitoring well, or groundwater quality that may be useful in analyzing the groundwater sampling data: solvent odor in purge water and well

Began collecting groundwater samples @ 841 am/pm

Completed collecting groundwater samples @ 452 am/pm

General Groundwater Sampling Information

Analytes	EPA Method	Number of Containers	Size of Containers	Preservatives
Total Acidity as CaCO ₃	305.1 (pH < 8.3)	1	500 mL	None
Total Alkalinity as CaCO ₃	2320B (pH > 4.5)	1	250 mL	None
Sulfate ion	375.4	1	125 mL	None
Iron and Aluminum	200.7 Rev 4.4	1	250 mL	Nitric Acid

Groundwater Sampling Log

Sample ID	Time	Sampler	Analysis Requested
EV-10		RWR, ROM	8260B
DUP		RWR, ROM	

Groundwater Sampling Data Sheet

Site Name: 4UMCO Project: 091878

Well No. RW-1 Date: 5/30/13

Field Personnel: RWD + ROM

Weather Conditions: 85° Sunny

Well Depth (h_{TD}) * outside sampler - did not go to well depth. already in well _____ ft (w.r.t. TOC) Well Diameter 3 in

Static Water Level (h_s) 38.52 ft (w.r.t. TOC) @ _____ am/pm Well Type stick up monitoring well

Length of Water Column _____ ft

TOC Elevation _____ ft GW Elevation _____ ft
(TOC Elevation - Static Water Level)

Standing Well Volume _____ gal

$V = 0.041 d^2(h_{TD} - h_s)$

(V = volume of water in gallons, h_{TD} = total depth measurement in feet,

h_s = depth to groundwater measurement in feet, d = diameter of well in inches)

Began Purging @ 0931 am/pm Ended Purging @ 1003 am/pm

Volume Purged _____ gal Water Level After Purging 38.85 ft

Indicate if the well was purged dry: No / Yes Calculated Yield _____ gal/min

Well Purging Method: Bailed (HDPE/Teflon) or Pumped (Submersible, Bladder, Peristaltic)

D.O. WELL PURGING

Date	Time	Dissolved Oxygen (DO) (ppm)	Conductivity ($\mu S/cm$)	pH	Temp ($^{\circ}C$)	Total Gallons Removed	Cumulative Well Volumes Removed	Comments
5/30	0945	1.97	0.506 mS/cm	6.75	25.92			
	0948	1.08	0.517	6.71	24.31			
	0951	0.48	0.533	6.68	22.80			
	0954	0.23	0.536	6.67	22.25			
	0957	0.15	0.539	6.65	21.63			
	1000	0.12	0.540	6.64	21.42			