ANALYTICAL REPORT

May 12, 2015

Excel Civil & Environmental Associates

Sample Delivery Group:	L762785
Samples Received:	05/02/2015
Project Number:	201008
Description:	American Truetzschler
Site:	CHARLOTTE, NC
Report To:	Mr. Mike Stanforth PO Box 6172 Gastonia, NC 28056-6000

Entire Report Reviewed By:

Jimmy Hunt
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

TABLE OF CONTENTS

[1]Cp: Cover Page 1

[2]Tc: Table of Contents 2

[3]Ss: Sample Summary 3

[4]Cn: Case Narrative 4

[5]Sr: Sample Results 5

WSW-33 L762785-01 5

[6]Qc: Quality Control Summary 6

Volatile Organic Compounds (GC/MS) by Method 8260B 6

[7]Gl: Glossary of Terms 9

[8]Al: Accreditations & Locations 10

[9]Sc: Chain of Custody 11

WSW-33 L762785-01 GW

Collected by	Collected date/time	Received date/time
C. DeVane	05/01/15 14:10	05/02/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analysis Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG786924	1	05/06/15 01:07	05/06/15 01:07	KLO
Volatile Organic Compounds (GC/MS) by Method 8260B	WG787946	1	05/12/15 05:01	05/12/15 05:01	MCB

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jimmy Hunt
Technical Service Representative

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		1.00	25.0	1	05/12/2015 05:01	WG787946
Benzene	U		0.0900	0.500	1	05/12/2015 05:01	WG787946
Carbon tetrachloride	U		0.160	0.500	1	05/12/2015 05:01	WG787946
Chlorobenzene	U		0.140	0.500	1	05/12/2015 05:01	WG787946
Chloroform	U		0.0860	0.500	1	05/12/2015 05:01	WG787946
Chloroethane	U		0.140	0.500	1	05/12/2015 05:01	WG787946
Chloromethane	U		0.150	0.500	1	05/12/2015 05:01	WG787946
1,1-Dichloroethane	U		0.110	0.500	1	05/12/2015 05:01	WG787946
1,2-Dichloroethane	U		0.110	0.500	1	05/12/2015 05:01	WG787946
1,1-Dichloroethene	U		0.190	0.500	1	05/12/2015 05:01	WG787946
cis-1,2-Dichloroethene	U		0.0930	0.500	1	05/12/2015 05:01	WG787946
trans-1,2-Dichloroethene	U		0.150	0.500	1	05/12/2015 05:01	WG787946
1,2-Dichloropropane	U		0.190	0.500	1	05/12/2015 05:01	WG787946
Ethylbenzene	U		0.160	0.500	1	05/12/2015 05:01	WG787946
1,2-Dibromoethane	U		0.190	0.500	1	05/12/2015 05:01	WG787946
Methylene Chloride	U		1.10	2.50	1	05/12/2015 05:01	WG787946
Tetrachloroethene	U		0.200	0.500	1	05/12/2015 05:01	WG787946
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/12/2015 05:01	WG787946
1,1,2-Trichloroethane	U		0.190	0.500	1	05/12/2015 05:01	WG787946
Trichloroethene	U		0.150	0.500	1	05/12/2015 05:01	WG787946
Trichlorofluoromethane	U		0.130	0.500	1	05/12/2015 05:01	WG787946
Toluene	U		0.100	0.500	1	05/12/2015 05:01	WG787946
Vinyl chloride	U		0.120	0.500	1	05/12/2015 05:01	WG787946
Xylenes, Total	U		0.320	1.50	1	05/12/2015 05:01	WG787946
1,4-Dioxane	U		0.600	3.00	1	05/06/2015 01:07	WG786924
(S) Toluene-d8	*101*			*88.5-111*		*05/12/2015 05:01*	WG787946
(S) Dibromofluoromethane	*93.1*			*78.3-121*		*05/12/2015 05:01*	WG787946
(S) 4-Bromofluorobenzene	*102*			*71.0-126*		*05/12/2015 05:01*	WG787946
(S) Toluene-d8	*105*			*70.0-130*		*05/06/2015 01:07*	WG786924

Method Blank (MB)

(MB) 05/05/15 22:22

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
1,4-Dioxane	U		0.000597	0.00300
(S) Toluene-d8	*104*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 05/05/15 21:43 • (LCSD) 05/06/15 09:51

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,4-Dioxane	0.0500	0.0554	0.0618	111	124	70.0-130			11.0	25
(S) Toluene-d8				*104*	*105*	*70.0-130*				

L762852-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 05/06/15 00:47 • (MS) 05/05/15 23:29 • (MSD) 05/05/15 23:48

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
1,4-Dioxane	0.0500	ND	0.0484	0.0675	96.8	135	1	0.000-200			33.0	42
(S) Toluene-d8					*104*	*104*		*70.0-130*				

Method Blank (MB)

(MB) 05/11/15 22:00

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.00105	0.0250
Benzene	U		0.0000896	0.000500
Carbon tetrachloride	U		0.000159	0.000500
Chlorobenzene	U		0.000140	0.000500
Chloroethane	U		0.000141	0.000500
Chloroform	U		0.0000860	0.000500
Chloromethane	U		0.000153	0.000500
1,2-Dibromoethane	U		0.000193	0.000500
1,1-Dichloroethane	U		0.000114	0.000500
1,2-Dichloroethane	U		0.000108	0.000500
1,1-Dichloroethene	U		0.000188	0.000500
cis-1,2-Dichloroethene	U		0.0000933	0.000500
trans-1,2-Dichloroethene	U		0.000152	0.000500
1,2-Dichloropropane	U		0.000190	0.000500
Ethylbenzene	U		0.000158	0.000500
Methylene Chloride	U		0.00107	0.00250
Tetrachloroethene	U		0.000199	0.000500
Toluene	U		0.000102	0.000500
1,1,1-Trichloroethane	U		0.0000940	0.000500
1,1,2-Trichloroethane	U		0.000186	0.000500
Trichloroethene	U		0.000153	0.000500
Trichlorofluoromethane	U		0.000130	0.000500
Vinyl chloride	U		0.000118	0.000500
Xylenes, Total	U		0.000316	0.00150
(S) Toluene-d8	*101*			*88.5-111*
(S) Dibromofluoromethane	*90.7*			*78.3-121*
(S) 4-Bromofluorobenzene	*104*			*71.0-126*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 05/11/15 21:19 • (LCSD) 05/11/15 22:54

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.125	0.113	0.118	90.5	94.4	35.6-163			4.24	23.9
Benzene	0.0250	0.0216	0.0225	86.4	89.8	74.8-121			3.92	20
Carbon tetrachloride	0.0250	0.0233	0.0249	93.4	99.6	70.2-123			6.46	20
Chlorobenzene	0.0250	0.0256	0.0272	103	109	78.1-119			5.71	20
Chloroethane	0.0250	0.0233	0.0226	93.2	90.3	61.7-135			3.07	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 05/11/15 21:19 • (LCSD) 05/11/15 22:54

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Chloroform	0.0250	0.0229	0.0241	91.7	96.4	76.0-121			5.00	20
Chloromethane	0.0250	0.0225	0.0230	89.8	92.0	61.5-129			2.40	20
1,2-Dibromoethane	0.0250	0.0258	0.0278	103	111	76.6-121			7.21	20
1,1-Dichloroethane	0.0250	0.0214	0.0228	85.7	91.4	70.7-126			6.41	20
1,2-Dichloroethane	0.0250	0.0225	0.0233	90.0	93.1	68.8-124			3.38	20
1,1-Dichloroethene	0.0250	0.0252	0.0260	101	104	67.8-129			2.94	20
cis-1,2-Dichloroethene	0.0250	0.0232	0.0240	92.7	95.9	76.0-119			3.47	20
trans-1,2-Dichloroethene	0.0250	0.0228	0.0238	91.4	95.1	72.6-121			4.04	20
1,2-Dichloropropane	0.0250	0.0232	0.0244	92.6	97.7	76.5-119			5.35	20
Ethylbenzene	0.0250	0.0253	0.0274	101	110	78.8-122			8.05	20
Methylene Chloride	0.0250	0.0220	0.0220	88.1	88.0	70.3-120			0.160	20
Tetrachloroethene	0.0250	0.0269	0.0291	108	116	72.6-126			7.78	20
Toluene	0.0250	0.0234	0.0251	93.5	100	79.7-116			7.16	20
1,1,1-Trichloroethane	0.0250	0.0232	0.0247	92.7	98.8	73.2-123			6.29	20
1,1,2-Trichloroethane	0.0250	0.0258	0.0270	103	108	77.7-118			4.84	20
Trichloroethene	0.0250	0.0252	0.0268	101	107	77.7-118			6.26	20
Trichlorofluoromethane	0.0250	0.0248	0.0263	99.2	105	63.5-135			5.79	20
Vinyl chloride	0.0250	0.0236	0.0245	94.3	98.2	65.9-128			4.07	20
Xylenes, Total	0.0750	0.0772	0.0819	103	109	78.7-121			5.82	20
(S) Toluene-d8				*99.7*	*101*	*88.5-111*				
(S) Dibromofluoromethane				*92.4*	*93.2*	*78.3-121*				
(S) 4-Bromofluorobenzene				*107*	*108*	*71.0-126*				

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND,U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.
SDL	Sample Detection Limit.
MQL	Method Quantitation Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.

Qualifier	Description
	The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**

State Accreditations

Alabama	40660
Alaska	UST-080
Arizona	AZ0612
Arkansas	88-0469
California	01157CA
Colorado	TN00003
Conneticut	PH-0197
Florida	E87487
Georgia	NELAP
Georgia [1]	923
Idaho	TN00003
Illinois	200008
Indiana	C-TN-01
Iowa	364
Kansas	E-10277
Kentucky [1]	90010
Kentucky [2]	16
Louisiana	AI30792
Maine	TN0002
Maryland	324
Massachusetts	M-TN003
Michigan	9958
Minnesota	047-999-395
Mississippi	TN00003
Missouri	340
Montana	CERT0086
Nebraska	NE-OS-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey–NELAP	TN002
New Mexico	TN00003
New York	11742
North Carolina	Env375
North Carolina [1]	DW21704
North Carolina [2]	41
North Dakota	R-140
Ohio–VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	221
South Carolina	84004
South Dakota	n/a
Tennessee [1 4]	2006
Texas	T 104704245-07-TX
Texas [5]	LAB0152
Utah	6157585858
Vermont	VT2006
Virginia	109
Washington	C1915
West Virginia	233
Wisconsin	9980939910
Wyoming	A2LA

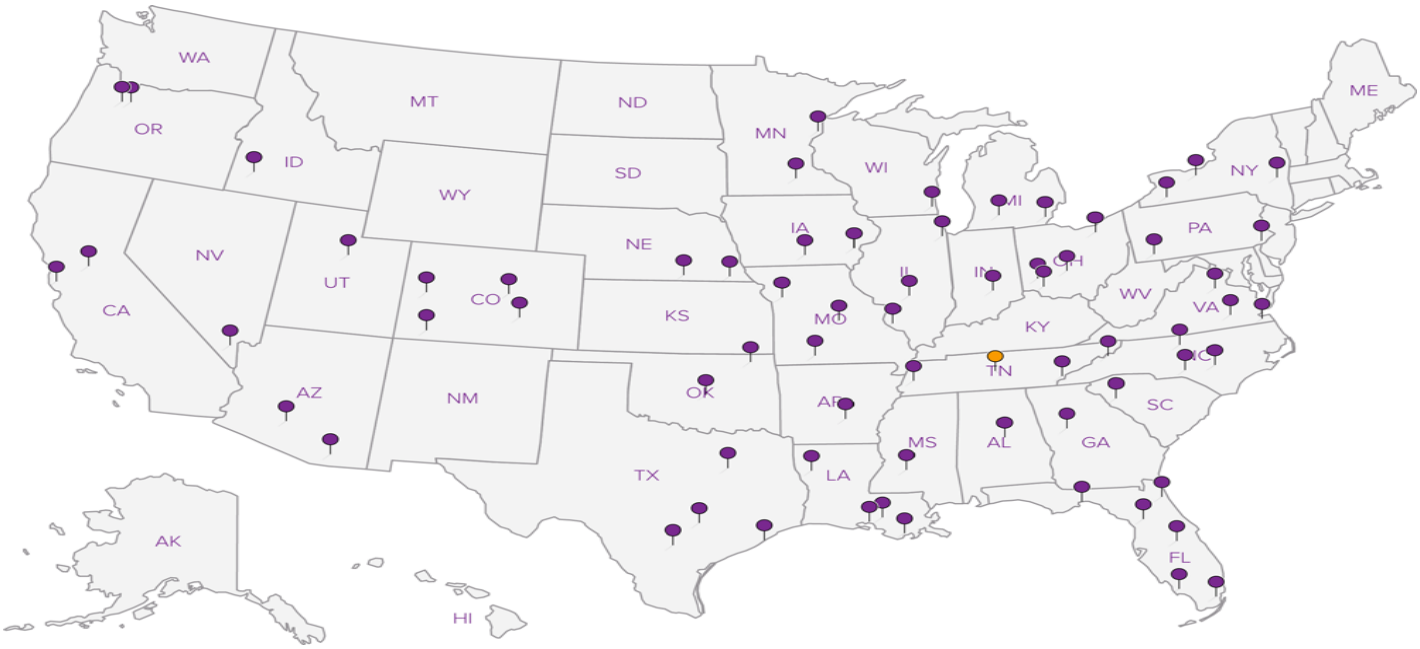
[1.] Drinking Water [2.] Underground Storage Tanks [3.] Aquatic Toxicity [4.] Chemical/Microbiological [5.] Mold [n/a] Accreditation not applicable

Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01
Canada	1461.01
EPA–Crypto	TN00003
AIHA	100789
DOD	1461.01
USDA	S-67674

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



Excel Civil & Environmental Associates

PO Box 6172
Gastonia. NC 28056-6000

Billing Information:
Accounts Payable
P.O. Box 6172
Gastonia, NC 28056-6000

Report to: Mr. Mike Stanforth

Email To: mstanforth@excelengr.com,dfarris@excelengr.com

Project Description: American Truetzschler

City/State Collected: Charlotte NC

Phone: 704-853-0800
Fax: 704-853-3949

Client Project # 201008

Lab Project # EXCELENV-201008

Collected by (print): CDeVane

Site/Facility ID # CHARLOTTE, NC

P.O. # 201008

Collected by (signature): CD

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day 100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed

Email? ___No X__Yes
FAX? ___No ___Yes

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	V8260LL 40mlAmb-HCl	V8260LL14D 40mlAmb-HCl	Rem./Contaminant	Sample # (lab only)
WSW-33	Grab	GW	-	5-1-15	1410	6	X	X		-01
		GW				6	X	X		
		GW				6	X	X		
		GW				6	X	X		

CDV

Chain of Custody Page ___ of ___

ESC LAB SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 762785
A196

Acctnum: EXCELENV
Template: T102212
Prelogin: P508052
TSR: 350 - Jimmy Hunt
PB: 4-28-15 MW
Shipped Via: FedEX Ground

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other ___

Remarks: V8260LL=acetone,benzene,CCl4,chlorobenzene,chloroform,chloroethane,chloromethane,1,1DCA;1,2-DCA;1,1-DCE,cis-1,2 DCEE,trans-1,2 DCEE,12DCPA,EB,EDB,Methylene Chloride,PCE,111TCA,112TCA,TCE,Trichlorofluoromethane,Tol,VC,Xylenes

pH ___ Temp ___
Flow ___ Other ___

6361019052 97

Hold #

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
	5-1-15	1630	
Relinquished by: (Signature)	Date: 5-1	Time:	Received by: (Signature)
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)

Samples returned via: ☐ UPS ☑ FedEx ☐ Courier ☐ ___

Temp: 3.1 °C Bottles Received: 6 vpt TTB

Date: 5-2-15 Time: 0900

Condition: OK (lab use only) m

COC Seal Intact: ✓ Y ___N ___NA

pH Checked: NCF:

ANALYTICAL REPORT

June 26, 2015

Excel Civil & Environmental Associates

Sample Delivery Group:	L771364
Samples Received:	06/16/2015
Project Number:	201008
Description:	American Truetzschler
Site:	CHARLOTTE, NC
Report To:	Mr. Mike Stanforth PO Box 6172 Gastonia, NC 28056-6000

Entire Report Reviewed By:

Jimmy Hunt
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

TABLE OF CONTENTS

[1]Cp: Cover Page	1
[2]Tc: Table of Contents	2
[3]Ss: Sample Summary	3
[4]Cn: Case Narrative	4
[5]Sr: Sample Results	5
37IN L771364-01	5
37EFF L771364-02	6
37IN L771364-03	7
37EFF L771364-04	8
[6]Qc: Quality Control Summary	9
Volatile Organic Compounds (GC/MS) by Method 8260B	9
[7]Gl: Glossary of Terms	16
[8]Al: Accreditations & Locations	17
[9]Sc: Chain of Custody	18

37IN L771364-01 GW

Collected by: Mike Stanforth
Collected date/time: 06/15/15 10:00
Received date/time: 06/16/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analysis Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG796203	1	06/24/15 08:43	06/24/15 08:43	MCB

37EFF L771364-02 GW

Collected by: Mike Stanforth
Collected date/time: 06/15/15 09:46
Received date/time: 06/16/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analysis Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG796217	1	06/21/15 17:04	06/21/15 17:04	MCB

37IN L771364-03 GW

Collected by: Mike Stanforth
Collected date/time: 06/15/15 10:00
Received date/time: 06/16/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analysis Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG797746	1	06/25/15 17:27	06/25/15 17:27	KLO

37EFF L771364-04 GW

Collected by: Mike Stanforth
Collected date/time: 06/15/15 09:46
Received date/time: 06/16/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analysis Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG797746	1	06/25/15 17:51	06/25/15 17:51	KLO

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jimmy Hunt

Jimmy Hunt
Technical Service Representative

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		1.00	25.0	1	06/24/2015 08:43	WG796203
Benzene	U		0.0900	0.500	1	06/24/2015 08:43	WG796203
Carbon tetrachloride	U		0.160	0.500	1	06/24/2015 08:43	WG796203
Chlorobenzene	U		0.140	0.500	1	06/24/2015 08:43	WG796203
Chloroform	U		0.0860	0.500	1	06/24/2015 08:43	WG796203
Chloroethane	U		0.140	0.500	1	06/24/2015 08:43	WG796203
Chloromethane	U		0.150	0.500	1	06/24/2015 08:43	WG796203
1,1-Dichloroethane	U		0.110	0.500	1	06/24/2015 08:43	WG796203
1,2-Dichloroethane	U		0.110	0.500	1	06/24/2015 08:43	WG796203
1,1-Dichloroethene	8.68		0.190	0.500	1	06/24/2015 08:43	WG796203
cis-1,2-Dichloroethene	U		0.0930	0.500	1	06/24/2015 08:43	WG796203
trans-1,2-Dichloroethene	U		0.150	0.500	1	06/24/2015 08:43	WG796203
1,2-Dichloropropane	U		0.190	0.500	1	06/24/2015 08:43	WG796203
Ethylbenzene	U		0.160	0.500	1	06/24/2015 08:43	WG796203
1,2-Dibromoethane	U		0.190	0.500	1	06/24/2015 08:43	WG796203
Methylene Chloride	U		1.10	2.50	1	06/24/2015 08:43	WG796203
Tetrachloroethene	0.405	J	0.200	0.500	1	06/24/2015 08:43	WG796203
1,1,1-Trichloroethane	U		0.0940	0.500	1	06/24/2015 08:43	WG796203
1,1,2-Trichloroethane	U		0.190	0.500	1	06/24/2015 08:43	WG796203
Trichloroethene	U		0.150	0.500	1	06/24/2015 08:43	WG796203
Trichlorofluoromethane	U		0.130	0.500	1	06/24/2015 08:43	WG796203
Toluene	U		0.100	0.500	1	06/24/2015 08:43	WG796203
Vinyl chloride	U		0.120	0.500	1	06/24/2015 08:43	WG796203
Xylenes, Total	U		0.320	1.50	1	06/24/2015 08:43	WG796203
(S) Toluene-d8	*97.6*			*88.5-111*		*06/24/2015 08:43*	WG796203
(S) Dibromofluoromethane	*83.9*			*78.3-121*		*06/24/2015 08:43*	WG796203
(S) 4-Bromofluorobenzene	*99.2*			*71.0-126*		*06/24/2015 08:43*	WG796203

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		1.00	25.0	1	06/21/2015 17:04	WG796217
Benzene	U		0.0900	0.500	1	06/21/2015 17:04	WG796217
Carbon tetrachloride	U		0.160	0.500	1	06/21/2015 17:04	WG796217
Chlorobenzene	U		0.140	0.500	1	06/21/2015 17:04	WG796217
Chloroform	U		0.0860	0.500	1	06/21/2015 17:04	WG796217
Chloroethane	U		0.140	0.500	1	06/21/2015 17:04	WG796217
Chloromethane	U		0.150	0.500	1	06/21/2015 17:04	WG796217
1,1-Dichloroethane	U		0.110	0.500	1	06/21/2015 17:04	WG796217
1,2-Dichloroethane	U		0.110	0.500	1	06/21/2015 17:04	WG796217
1,1-Dichloroethene	U		0.190	0.500	1	06/21/2015 17:04	WG796217
cis-1,2-Dichloroethene	U		0.0930	0.500	1	06/21/2015 17:04	WG796217
trans-1,2-Dichloroethene	U		0.150	0.500	1	06/21/2015 17:04	WG796217
1,2-Dichloropropane	U		0.190	0.500	1	06/21/2015 17:04	WG796217
Ethylbenzene	U		0.160	0.500	1	06/21/2015 17:04	WG796217
1,2-Dibromoethane	U		0.190	0.500	1	06/21/2015 17:04	WG796217
Methylene Chloride	U		1.10	2.50	1	06/21/2015 17:04	WG796217
Tetrachloroethene	U		0.200	0.500	1	06/21/2015 17:04	WG796217
1,1,1-Trichloroethane	U		0.0940	0.500	1	06/21/2015 17:04	WG796217
1,1,2-Trichloroethane	U		0.190	0.500	1	06/21/2015 17:04	WG796217
Trichloroethene	U		0.150	0.500	1	06/21/2015 17:04	WG796217
Trichlorofluoromethane	U		0.130	0.500	1	06/21/2015 17:04	WG796217
Toluene	U		0.100	0.500	1	06/21/2015 17:04	WG796217
Vinyl chloride	U		0.120	0.500	1	06/21/2015 17:04	WG796217
Xylenes, Total	U		0.320	1.50	1	06/21/2015 17:04	WG796217
(S) Toluene-d8	*98.6*			*88.5-111*		*06/21/2015 17:04*	WG796217
(S) Dibromofluoromethane	*86.9*			*78.3-121*		*06/21/2015 17:04*	WG796217
(S) 4-Bromofluorobenzene	*100*			*71.0-126*		*06/21/2015 17:04*	WG796217

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dioxane	1.02	J	0.600	3.00	1	06/25/2015 17:27	WG797746
(S) Toluene-d8	*101*			*70.0-130*		*06/25/2015 17:27*	WG797746

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dioxane	1.50	J	0.600	3.00	1	06/25/2015 17:51	WG797746
(S) Toluene-d8	*100*			*70.0-130*		*06/25/2015 17:51*	WG797746

Method Blank (MB)

(MB) 06/24/15 00:34

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.00105	0.0250
Benzene	U		0.0000896	0.000500
Carbon tetrachloride	U		0.000159	0.000500
Chlorobenzene	U		0.000140	0.000500
Chloroethane	U		0.000141	0.000500
Chloroform	U		0.0000860	0.000500
Chloromethane	U		0.000153	0.000500
1,2-Dibromoethane	U		0.000193	0.000500
1,1-Dichloroethane	U		0.000114	0.000500
1,2-Dichloroethane	U		0.000108	0.000500
1,1-Dichloroethene	U		0.000188	0.000500
cis-1,2-Dichloroethene	U		0.0000933	0.000500
trans-1,2-Dichloroethene	U		0.000152	0.000500
1,2-Dichloropropane	U		0.000190	0.000500
Ethylbenzene	U		0.000158	0.000500
Methylene Chloride	U		0.00107	0.00250
Tetrachloroethene	U		0.000199	0.000500
Toluene	U		0.000102	0.000500
1,1,1-Trichloroethane	U		0.0000940	0.000500
1,1,2-Trichloroethane	U		0.000186	0.000500
Trichloroethene	U		0.000153	0.000500
Trichlorofluoromethane	U		0.000130	0.000500
Vinyl chloride	U		0.000118	0.000500
Xylenes, Total	U		0.000316	0.00150
(S) Toluene-d8	*99.0*		*88.5-111*	
(S) Dibromofluoromethane	*79.8*		*78.3-121*	
(S) 4-Bromofluorobenzene	*98.2*		*71.0-126*	

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 06/24/15 00:54 • (LCSD) 06/23/15 23:52

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.125	0.0741	0.0703	59.3	56.3	35.6-163			5.29	23.9
Benzene	0.0250	0.0227	0.0211	90.8	84.5	74.8-121			7.23	20
Carbon tetrachloride	0.0250	0.0207	0.0193	82.8	77.1	70.2-123			7.08	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 06/24/15 00:54 • (LCSD) 06/23/15 23:52

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Chlorobenzene	0.0250	0.0281	0.0260	113	104	78.1-119			7.91	20
Chloroethane	0.0250	0.0237	0.0233	94.8	93.2	61.7-135			1.71	20
Chloroform	0.0250	0.0202	0.0193	80.8	77.4	76.0-121			4.35	20
Chloromethane	0.0250	0.0182	0.0177	72.7	71.0	61.5-129			2.39	20
1,2-Dibromoethane	0.0250	0.0244	0.0230	97.5	91.9	76.6-121			5.87	20
1,1-Dichloroethane	0.0250	0.0207	0.0198	83.0	79.3	70.7-126			4.55	20
1,2-Dichloroethane	0.0250	0.0197	0.0188	78.8	75.1	68.8-124			4.83	20
1,1-Dichloroethene	0.0250	0.0219	0.0199	87.5	79.4	67.8-129			9.66	20
cis-1,2-Dichloroethene	0.0250	0.0222	0.0210	88.8	84.1	76.0-119			5.49	20
trans-1,2-Dichloroethene	0.0250	0.0220	0.0203	88.0	81.1	72.6-121			8.09	20
1,2-Dichloropropane	0.0250	0.0222	0.0212	88.7	84.8	76.5-119			4.50	20
Ethylbenzene	0.0250	0.0278	0.0258	111	103	78.8-122			7.30	20
Methylene Chloride	0.0250	0.0207	0.0201	82.8	80.2	70.3-120			3.11	20
Tetrachloroethene	0.0250	0.0278	0.0248	111	99.1	72.6-126			11.5	20
Toluene	0.0250	0.0240	0.0223	96.2	89.2	79.7-116			7.50	20
1,1,1-Trichloroethane	0.0250	0.0196	0.0188	78.6	75.2	73.2-123			4.48	20
1,1,2-Trichloroethane	0.0250	0.0249	0.0238	99.5	95.4	77.7-118			4.24	20
Trichloroethene	0.0250	0.0246	0.0231	98.2	92.6	77.7-118			5.92	20
Trichlorofluoromethane	0.0250	0.0226	0.0210	90.6	84.0	63.5-135			7.60	20
Vinyl chloride	0.0250	0.0207	0.0194	82.8	77.5	65.9-128			6.55	20
Xylenes, Total	0.0750	0.0838	0.0777	112	104	78.7-121			7.60	20
(S) Toluene-d8				*98.6*	*98.6*	*88.5-111*				
(S) Dibromofluoromethane				*80.9*	*81.4*	*78.3-121*				
(S) 4-Bromofluorobenzene				*98.9*	*98.6*	*71.0-126*				

L770850-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 06/24/15 02:57 • (MS) 06/24/15 01:15 • (MSD) 06/24/15 01:35

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	0.125	0.000398	0.0736	0.0689	58.5	54.8	1	10.0-130			6.50	27.9
Benzene	0.0250	ND	0.0213	0.0213	85.0	85.1	1	54.3-133			0.0800	20
Carbon tetrachloride	0.0250	ND	0.0195	0.0191	78.1	76.5	1	55.7-134			2.10	20.3
Chlorobenzene	0.0250	ND	0.0261	0.0258	104	103	1	67.0-125			1.08	20
Chloroethane	0.0250	ND	0.0229	0.0221	91.8	88.3	1	51.5-136			3.81	20.8
Chloroform	0.0250	ND	0.0196	0.0194	78.2	77.7	1	63.0-129			0.640	20

L770850-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 06/24/15 02:57 • (MS) 06/24/15 01:15 • (MSD) 06/24/15 01:35

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloromethane	0.0250	ND	0.0178	0.0172	71.2	69.0	1	42.4-135			3.26	20
1,2-Dibromoethane	0.0250	ND	0.0228	0.0230	91.4	92.0	1	67.1-125			0.640	20
1,1-Dichloroethane	0.0250	ND	0.0199	0.0196	79.6	78.5	1	58.5-132			1.37	20
1,2-Dichloroethane	0.0250	ND	0.0190	0.0190	75.9	75.9	1	60.0-126			0.0600	20
1,1-Dichloroethene	0.0250	ND	0.0206	0.0197	82.3	78.8	1	51.1-140			4.37	20.2
cis-1,2-Dichloroethene	0.0250	ND	0.0212	0.0210	84.7	84.0	1	59.2-129			0.780	20
trans-1,2-Dichloroethene	0.0250	ND	0.0205	0.0200	82.1	79.8	1	56.5-129			2.83	20
1,2-Dichloropropane	0.0250	ND	0.0208	0.0211	83.3	84.3	1	64.2-123			1.29	20
Ethylbenzene	0.0250	ND	0.0261	0.0256	105	102	1	61.4-133			2.18	20
Methylene Chloride	0.0250	0.000386	0.0203	0.0197	79.5	77.1	1	58.1-122			2.95	20
Tetrachloroethene	0.0250	ND	0.0256	0.0249	102	99.7	1	53.0-139			2.58	20
Toluene	0.0250	ND	0.0227	0.0225	90.7	89.8	1	61.4-130			0.990	20
1,1,1-Trichloroethane	0.0250	ND	0.0192	0.0184	76.8	73.7	1	58.7-134			4.13	20
1,1,2-Trichloroethane	0.0250	ND	0.0241	0.0240	96.3	96.1	1	66.3-125			0.160	20
Trichloroethene	0.0250	ND	0.0229	0.0225	91.6	90.2	1	44.1-149			1.58	20
Trichlorofluoromethane	0.0250	ND	0.0220	0.0211	88.1	84.4	1	49.6-145			4.28	21.2
Vinyl chloride	0.0250	ND	0.0204	0.0194	81.5	77.6	1	47.8-137			4.86	20
Xylenes, Total	0.0750	ND	0.0789	0.0771	105	103	1	63.3-131			2.26	20
(S) Toluene-d8					*98.5*	*98.3*		*88.5-111*				
(S) Dibromofluoromethane					*83.5*	*82.0*		*78.3-121*				
(S) 4-Bromofluorobenzene					*100*	*98.4*		*71.0-126*				

Method Blank (MB)

(MB) 06/21/15 11:14

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.00105	0.0250
Benzene	U		0.0000896	0.000500
Carbon tetrachloride	U		0.000159	0.000500
Chlorobenzene	U		0.000140	0.000500
Chloroethane	U		0.000141	0.000500
Chloroform	U		0.0000860	0.000500
Chloromethane	U		0.000153	0.000500
1,2-Dibromoethane	U		0.000193	0.000500
1,1-Dichloroethane	U		0.000114	0.000500
1,2-Dichloroethane	U		0.000108	0.000500
1,1-Dichloroethene	U		0.000188	0.000500
cis-1,2-Dichloroethene	U		0.0000933	0.000500
trans-1,2-Dichloroethene	U		0.000152	0.000500
1,2-Dichloropropane	U		0.000190	0.000500
Ethylbenzene	U		0.000158	0.000500
Methylene Chloride	U		0.00107	0.00250
Tetrachloroethene	U		0.000199	0.000500
Toluene	U		0.000102	0.000500
1,1,1-Trichloroethane	U		0.0000940	0.000500
1,1,2-Trichloroethane	U		0.000186	0.000500
Trichloroethene	U		0.000153	0.000500
Trichlorofluoromethane	U		0.000130	0.000500
Vinyl chloride	U		0.000118	0.000500
Xylenes, Total	U		0.000316	0.00150
(S) Toluene-d8	*98.2*		*88.5-111*	
(S) Dibromofluoromethane	*83.2*		*78.3-121*	
(S) 4-Bromofluorobenzene	*99.8*		*71.0-126*	

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 06/21/15 09:52 • (LCSD) 06/21/15 10:13

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.125	0.102	0.104	81.6	83.1	35.6-163			1.82	23.9
Benzene	0.0250	0.0252	0.0236	101	94.5	74.8-121			6.39	20
Carbon tetrachloride	0.0250	0.0234	0.0212	93.5	84.7	70.2-123			9.93	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 06/21/15 09:52 • (LCSD) 06/21/15 10:13

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Chlorobenzene	0.0250	0.0282	0.0264	113	106	78.1-119			6.66	20
Chloroethane	0.0250	0.0281	0.0248	112	99.2	61.7-135			12.6	20
Chloroform	0.0250	0.0225	0.0209	89.9	83.5	76.0-121			7.34	20
Chloromethane	0.0250	0.0215	0.0193	85.8	77.4	61.5-129			10.3	20
1,2-Dibromoethane	0.0250	0.0252	0.0237	101	94.7	76.6-121			6.11	20
1,1-Dichloroethane	0.0250	0.0234	0.0215	93.5	86.1	70.7-126			8.24	20
1,2-Dichloroethane	0.0250	0.0219	0.0204	87.6	81.5	68.8-124			7.25	20
1,1-Dichloroethene	0.0250	0.0254	0.0230	101	91.8	67.8-129			9.97	20
cis-1,2-Dichloroethene	0.0250	0.0252	0.0231	101	92.4	76.0-119			8.67	20
trans-1,2-Dichloroethene	0.0250	0.0248	0.0226	99.3	90.4	72.6-121			9.38	20
1,2-Dichloropropane	0.0250	0.0239	0.0232	95.7	92.9	76.5-119			2.88	20
Ethylbenzene	0.0250	0.0284	0.0266	114	107	78.8-122			6.50	20
Methylene Chloride	0.0250	0.0230	0.0214	92.2	85.5	70.3-120			7.52	20
Tetrachloroethene	0.0250	0.0286	0.0262	114	105	72.6-126			8.71	20
Toluene	0.0250	0.0258	0.0243	103	97.3	79.7-116			5.89	20
1,1,1-Trichloroethane	0.0250	0.0226	0.0205	90.4	82.0	73.2-123			9.69	20
1,1,2-Trichloroethane	0.0250	0.0252	0.0244	101	97.7	77.7-118			2.99	20
Trichloroethene	0.0250	0.0269	0.0246	108	98.4	77.7-118			8.88	20
Trichlorofluoromethane	0.0250	0.0255	0.0227	102	90.9	63.5-135			11.6	20
Vinyl chloride	0.0250	0.0243	0.0219	97.3	87.6	65.9-128			10.5	20
Xylenes, Total	0.0750	0.0853	0.0788	114	105	78.7-121			7.89	20
(S) Toluene-d8				*99.0*	*99.1*	*88.5-111*				
(S) Dibromofluoromethane				*85.8*	*83.8*	*78.3-121*				
(S) 4-Bromofluorobenzene				*99.5*	*97.8*	*71.0-126*				

L771178-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 06/21/15 14:20 • (MS) 06/21/15 12:37 • (MSD) 06/21/15 12:58

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	0.125	ND	0.0512	0.0512	40.9	41.0	1	10.0-130			0.180	27.9
Benzene	0.0250	ND	0.0243	0.0248	97.1	99.4	1	54.3-133			2.31	20
Carbon tetrachloride	0.0250	ND	0.0220	0.0227	88.1	90.7	1	55.7-134			2.95	20.3
Chlorobenzene	0.0250	ND	0.0267	0.0273	107	109	1	67.0-125			2.21	20
Chloroethane	0.0250	ND	0.0260	0.0266	104	107	1	51.5-136			2.51	20.8
Chloroform	0.0250	ND	0.0219	0.0222	87.7	88.8	1	63.0-129			1.23	20

L771178-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 06/21/15 14:20 • (MS) 06/21/15 12:37 • (MSD) 06/21/15 12:58

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloromethane	0.0250	ND	0.0202	0.0205	80.7	81.9	1	42.4-135			1.43	20
1,2-Dibromoethane	0.0250	ND	0.0237	0.0245	94.6	98.0	1	67.1-125			3.54	20
1,1-Dichloroethane	0.0250	ND	0.0223	0.0229	89.1	91.7	1	58.5-132			2.89	20
1,2-Dichloroethane	0.0250	ND	0.0214	0.0219	85.5	87.7	1	60.0-126			2.60	20
1,1-Dichloroethene	0.0250	ND	0.0238	0.0243	95.3	97.2	1	51.1-140			1.95	20.2
cis-1,2-Dichloroethene	0.0250	ND	0.0237	0.0245	94.7	97.9	1	59.2-129			3.33	20
trans-1,2-Dichloroethene	0.0250	ND	0.0231	0.0236	92.3	94.6	1	56.5-129			2.40	20
1,2-Dichloropropane	0.0250	ND	0.0233	0.0242	93.3	96.7	1	64.2-123			3.56	20
Ethylbenzene	0.0250	ND	0.0267	0.0275	107	110	1	61.4-133			2.76	20
Methylene Chloride	0.0250	ND	0.0223	0.0229	89.2	91.6	1	58.1-122			2.73	20
Tetrachloroethene	0.0250	ND	0.0265	0.0271	106	108	1	53.0-139			2.30	20
Toluene	0.0250	ND	0.0250	0.0255	99.9	102	1	61.4-130			2.25	20
1,1,1-Trichloroethane	0.0250	ND	0.0213	0.0220	85.0	87.9	1	58.7-134			3.35	20
1,1,2-Trichloroethane	0.0250	ND	0.0243	0.0254	97.1	102	1	66.3-125			4.52	20
Trichloroethene	0.0250	ND	0.0252	0.0259	101	103	1	44.1-149			2.45	20
Trichlorofluoromethane	0.0250	ND	0.0240	0.0244	95.8	97.5	1	49.6-145			1.80	21.2
Vinyl chloride	0.0250	ND	0.0227	0.0229	90.9	91.5	1	47.8-137			0.700	20
Xylenes, Total	0.0750	ND	0.0803	0.0819	107	109	1	63.3-131			2.02	20
(S) Toluene-d8					*99.0*	*99.3*		*88.5-111*				
(S) Dibromofluoromethane					*85.6*	*85.7*		*78.3-121*				
(S) 4-Bromofluorobenzene					*98.3*	*98.2*		*71.0-126*				

Method Blank (MB)

(MB) 06/25/15 16:39

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
1,4-Dioxane	U		0.000597	0.00300
(S) Toluene-d8	*101*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 06/25/15 15:26 • (LCSD) 06/25/15 15:50

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,4-Dioxane	0.0500	0.0479	0.0443	95.8	88.6	70.0-130			7.79	25
(S) Toluene-d8				*101*	*100*	*70.0-130*				

L772451-03 Original Sample (OS) • Matrix Spike (MS)

(OS) 06/25/15 18:16 • (MS) 06/25/15 18:40

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
1,4-Dioxane	0.0500	0.00560	0.0678	124	1	0.000-200	
(S) Toluene-d8				*100*		*70.0-130*	

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND,U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.
SDL	Sample Detection Limit.
MQL	Method Quantitation Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**

State Accreditations

Alabama	40660
Alaska	UST-080
Arizona	AZ0612
Arkansas	88-0469
California	01157CA
Colorado	TN00003
Conneticut	PH-0197
Florida	E87487
Georgia	NELAP
Georgia [1]	923
Idaho	TN00003
Illinois	200008
Indiana	C-TN-01
Iowa	364
Kansas	E-10277
Kentucky [1]	90010
Kentucky [2]	16
Louisiana	AI30792
Maine	TN0002
Maryland	324
Massachusetts	M-TN003
Michigan	9958
Minnesota	047-999-395
Mississippi	TN00003
Missouri	340
Montana	CERT0086
Nebraska	NE-OS-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey–NELAP	TN002
New Mexico	TN00003
New York	11742
North Carolina	Env375
North Carolina [1]	DW21704
North Carolina [2]	41
North Dakota	R-140
Ohio–VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	221
South Carolina	84004
South Dakota	n/a
Tennessee [1 4]	2006
Texas	T 104704245-07-TX
Texas [5]	LAB0152
Utah	6157585858
Vermont	VT2006
Virginia	109
Washington	C1915
West Virginia	233
Wisconsin	9980939910
Wyoming	A2LA

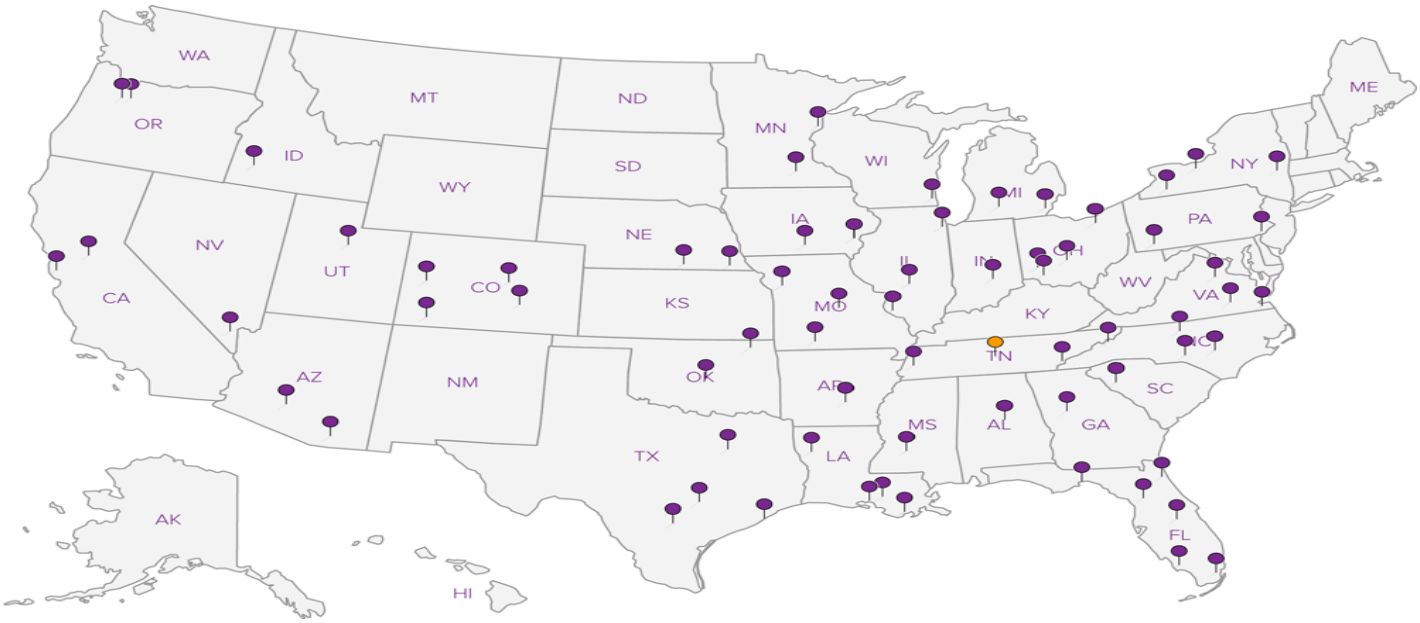
[1.] Drinking Water [2.] Underground Storage Tanks [3.] Aquatic Toxicity [4.] Chemical/Microbiological [5.] Mold [n/a] Accreditation not applicable

Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01
Canada	1461.01
EPA–Crypto	TN00003
AIHA	100789
DOD	1461.01
USDA	S-67674

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



Excel Civil & Environmental Associates

PO Box 6172
Gastonia, NC 28056-6000

Billing Information:
Accounts Payable
P.O. Box 6172
Gastonia, NC 28056-6000

Report to: Mr. Mike Stanforth

Email To: mstanforth@excelengr.com,dfarris@excelengr.com

Project Description: American Truetzschler

City/State Collected:

Phone: 704-853-0800
Fax: 704-853-3949

Client Project # 201008

Lab Project # EXCELENV-201008

Collected by (print): MIKE STANFORTH

Site/Facility ID # CHARLOTTE, NC

P.O. # 201008

Collected by (signature): [signature]

Immediately Packed on Ice N___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day 100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed: NORMAL

Email? ___No X__Yes
FAX? ___No ___Yes

Chain of Custody Page ___ of ___

ESC LAB SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L771364
A216

Acctnum: EXCELENV
Template: T102212
Prelogin: P511923
TSR: 350 - Jimmy Hunt
PB: MA 5-29-15
Shipped Via: FedEx Ground

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	V8260LL 40mlAmb-HCl	V8260LL14D 40mlAmb-HCl	Rem./Contaminant	Sample # (lab only)
37IN	G	GW		6/15	1000	6	X	X		-01/-03
37 EFF	G	GW		6/15	0946	6	X	X		-02/-04
		GW				~~6~~	X	X		
		GW				~~6~~	X	X		

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other_____

Remarks: V8260LL=acetone,benzene,CCl4,chlorobenzene,chloroform,chloroethane,chloromethane,1,1DCA;1,2-DCA;1,1-DCE,cis-1,2 DCEE,trans-1,2 DCEE,12DCPA,EB,EDB,Methylene Chloride,PCE,111TCA,112TCA,TCE,Trichlorofluoromethane,Tol,VC,Xylenes

pH _____ Temp _____
Flow _____ Other _____

636101974128

Hold #

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
[signature]	6/15	1120	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)
			[signature]

Samples returned via: ☐ UPS ☑ FedEx ☐ Courier ☐ _____

Temp: 3.6 °C Bottles Received: 12vp+1TB

Date: 6-16-15 Time: 0900

Condition: (lab use only) JWS

COC Seal Intact: 1 Y ___N ___NA

pH Checked: NCF:

ANALYTICAL REPORT

June 30, 2015

Excel Civil & Environmental Associates

Sample Delivery Group:	L773387
Samples Received:	06/25/2015
Project Number:	201008
Description:	AT Well Sampling
Site:	CHARLOTTE, NC
Report To:	Mr. Mike Stanforth PO Box 6172 Gastonia, NC 28056-6000

Entire Report Reviewed By:

Jason Romer
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

TABLE OF CONTENTS

[1]Cp: Cover Page 1

[2]Tc: Table of Contents 2

[3]Ss: Sample Summary 3

[4]Cn: Case Narrative 4

[5]Sr: Sample Results 5

36 L773387-01 5

36 L773387-02 6

35 L773387-03 7

35 L773387-04 8

[6]Qc: Quality Control Summary 9

Volatile Organic Compounds (GC/MS) by Method 8260B 9

[7]Gl: Glossary of Terms 13

[8]Al: Accreditations & Locations 14

[9]Sc: Chain of Custody 15

36 L773387-01 GW

Collected by: Mike Stanforth
Collected date/time: 06/24/15 12:36
Received date/time: 06/25/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analysis Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG798923	1	06/28/15 14:17	06/28/15 14:17	MCB

36 L773387-02 GW

Collected by: Mike Stanforth
Collected date/time: 06/24/15 12:36
Received date/time: 06/25/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analysis Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG799274	1	06/29/15 22:14	06/29/15 22:14	KLO

35 L773387-03 GW

Collected by: Mike Stanforth
Collected date/time: 06/24/15 12:24
Received date/time: 06/25/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analysis Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG798923	1	06/28/15 14:36	06/28/15 14:36	MCB

35 L773387-04 GW

Collected by: Mike Stanforth
Collected date/time: 06/24/15 12:24
Received date/time: 06/25/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analysis Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG799274	1	06/29/15 22:38	06/29/15 22:38	KLO

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jason Romer
Technical Service Representative

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		10.0	50.0	1	06/28/2015 14:17	WG798923
Benzene	U		0.330	1.00	1	06/28/2015 14:17	WG798923
Carbon tetrachloride	U		0.380	1.00	1	06/28/2015 14:17	WG798923
Chlorobenzene	U		0.350	1.00	1	06/28/2015 14:17	WG798923
Chloroethane	U		0.450	5.00	1	06/28/2015 14:17	WG798923
Chloroform	U		0.320	5.00	1	06/28/2015 14:17	WG798923
Chloromethane	U		0.280	2.50	1	06/28/2015 14:17	WG798923
1,2-Dibromoethane	U		0.380	1.00	1	06/28/2015 14:17	WG798923
1,1-Dichloroethane	U		0.260	1.00	1	06/28/2015 14:17	WG798923
1,2-Dichloroethane	U		0.360	1.00	1	06/28/2015 14:17	WG798923
1,1-Dichloroethene	5.82		0.400	1.00	1	06/28/2015 14:17	WG798923
cis-1,2-Dichloroethene	U		0.260	1.00	1	06/28/2015 14:17	WG798923
trans-1,2-Dichloroethene	U		0.400	1.00	1	06/28/2015 14:17	WG798923
1,2-Dichloropropane	U		0.310	1.00	1	06/28/2015 14:17	WG798923
Ethylbenzene	U		0.380	1.00	1	06/28/2015 14:17	WG798923
Methylene Chloride	U		1.00	5.00	1	06/28/2015 14:17	WG798923
Tetrachloroethene	U		0.370	1.00	1	06/28/2015 14:17	WG798923
Toluene	U		0.780	5.00	1	06/28/2015 14:17	WG798923
1,1,1-Trichloroethane	U		0.319	1.00	1	06/28/2015 14:17	WG798923
1,1,2-Trichloroethane	U		0.380	1.00	1	06/28/2015 14:17	WG798923
Trichloroethene	U		0.400	1.00	1	06/28/2015 14:17	WG798923
Trichlorofluoromethane	U		1.20	5.00	1	06/28/2015 14:17	WG798923
Vinyl chloride	U		0.260	1.00	1	06/28/2015 14:17	WG798923
Xylenes, Total	U		1.10	3.00	1	06/28/2015 14:17	WG798923
(S) Toluene-d8	*103*			*90.0-115*		*06/28/2015 14:17*	WG798923
(S) Dibromofluoromethane	*100*			*79.0-121*		*06/28/2015 14:17*	WG798923
(S) 4-Bromofluorobenzene	*108*			*80.1-120*		*06/28/2015 14:17*	WG798923

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dioxane	U		0.600	3.00	1	06/29/2015 22:14	WG799274
(S) Toluene-d8	*101*			*70.0-130*		*06/29/2015 22:14*	WG799274

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		10.0	50.0	1	06/28/2015 14:36	WG798923
Benzene	U		0.330	1.00	1	06/28/2015 14:36	WG798923
Carbon tetrachloride	U		0.380	1.00	1	06/28/2015 14:36	WG798923
Chlorobenzene	U		0.350	1.00	1	06/28/2015 14:36	WG798923
Chloroethane	U		0.450	5.00	1	06/28/2015 14:36	WG798923
Chloroform	U		0.320	5.00	1	06/28/2015 14:36	WG798923
Chloromethane	U		0.280	2.50	1	06/28/2015 14:36	WG798923
1,2-Dibromoethane	U		0.380	1.00	1	06/28/2015 14:36	WG798923
1,1-Dichloroethane	U		0.260	1.00	1	06/28/2015 14:36	WG798923
1,2-Dichloroethane	U		0.360	1.00	1	06/28/2015 14:36	WG798923
1,1-Dichloroethene	3.79		0.400	1.00	1	06/28/2015 14:36	WG798923
cis-1,2-Dichloroethene	U		0.260	1.00	1	06/28/2015 14:36	WG798923
trans-1,2-Dichloroethene	U		0.400	1.00	1	06/28/2015 14:36	WG798923
1,2-Dichloropropane	U		0.310	1.00	1	06/28/2015 14:36	WG798923
Ethylbenzene	U		0.380	1.00	1	06/28/2015 14:36	WG798923
Methylene Chloride	U		1.00	5.00	1	06/28/2015 14:36	WG798923
Tetrachloroethene	U		0.370	1.00	1	06/28/2015 14:36	WG798923
Toluene	U		0.780	5.00	1	06/28/2015 14:36	WG798923
1,1,1-Trichloroethane	U		0.319	1.00	1	06/28/2015 14:36	WG798923
1,1,2-Trichloroethane	U		0.380	1.00	1	06/28/2015 14:36	WG798923
Trichloroethene	U		0.400	1.00	1	06/28/2015 14:36	WG798923
Trichlorofluoromethane	U		1.20	5.00	1	06/28/2015 14:36	WG798923
Vinyl chloride	U		0.260	1.00	1	06/28/2015 14:36	WG798923
Xylenes, Total	U		1.10	3.00	1	06/28/2015 14:36	WG798923
(S) Toluene-d8	*104*			*90.0-115*		*06/28/2015 14:36*	WG798923
(S) Dibromofluoromethane	*101*			*79.0-121*		*06/28/2015 14:36*	WG798923
(S) 4-Bromofluorobenzene	*108*			*80.1-120*		*06/28/2015 14:36*	WG798923

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dioxane	U		0.600	3.00	1	06/29/2015 22:38	WG799274
(S) Toluene-d8	*101*			*70.0-130*		*06/29/2015 22:38*	WG799274

Method Blank (MB)

(MB) 06/28/15 10:34

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0100	0.0500
Benzene	U		0.000331	0.00100
Carbon tetrachloride	U		0.000379	0.00100
Chlorobenzene	U		0.000348	0.00100
Chloroethane	U		0.000453	0.00500
Chloroform	U		0.000324	0.00500
Chloromethane	U		0.000276	0.00250
1,2-Dibromoethane	U		0.000381	0.00100
1,1-Dichloroethane	U		0.000259	0.00100
1,2-Dichloroethane	U		0.000361	0.00100
1,1-Dichloroethene	U		0.000398	0.00100
cis-1,2-Dichloroethene	U		0.000260	0.00100
trans-1,2-Dichloroethene	U		0.000396	0.00100
1,2-Dichloropropane	U		0.000306	0.00100
Ethylbenzene	U		0.000384	0.00100
Methylene Chloride	U		0.00100	0.00500
Tetrachloroethene	U		0.000372	0.00100
Toluene	U		0.000780	0.00500
1,1,1-Trichloroethane	U		0.000319	0.00100
1,1,2-Trichloroethane	U		0.000383	0.00100
Trichloroethene	U		0.000398	0.00100
Trichlorofluoromethane	U		0.00120	0.00500
Vinyl chloride	U		0.000259	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*105*		*90.0-115*	
(S) Dibromofluoromethane	*102*		*79.0-121*	
(S) 4-Bromofluorobenzene	*104*		*80.1-120*	

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 06/28/15 09:21 • (LCSD) 06/28/15 09:40

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.125	0.103	0.0981	82.5	78.5	28.7-175			4.94	20.9
Benzene	0.0250	0.0256	0.0263	102	105	73.0-122			2.97	20
Carbon tetrachloride	0.0250	0.0249	0.0243	99.6	97.4	70.9-129			2.28	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 06/28/15 09:21 • (LCSD) 06/28/15 09:40

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Chlorobenzene	0.0250	0.0246	0.0261	98.4	104	79.7-122			5.89	20
Chloroethane	0.0250	0.0205	0.0208	81.9	83.1	41.2-153			1.48	20
Chloroform	0.0250	0.0252	0.0258	101	103	73.2-125			2.28	20
Chloromethane	0.0250	0.0237	0.0236	94.8	94.4	55.8-134			0.360	20
1,2-Dibromoethane	0.0250	0.0262	0.0263	105	105	79.8-122			0.570	20
1,1-Dichloroethane	0.0250	0.0256	0.0260	102	104	71.7-127			1.47	20
1,2-Dichloroethane	0.0250	0.0245	0.0253	98.0	101	65.3-126			2.97	20
1,1-Dichloroethene	0.0250	0.0212	0.0209	84.8	83.6	59.9-137			1.44	20
cis-1,2-Dichloroethene	0.0250	0.0275	0.0277	110	111	77.3-122			0.420	20
trans-1,2-Dichloroethene	0.0250	0.0267	0.0276	107	110	72.6-125			3.45	20
1,2-Dichloropropane	0.0250	0.0247	0.0263	98.9	105	77.4-125			6.19	20
Ethylbenzene	0.0250	0.0248	0.0263	99.0	105	80.9-121			6.13	20
Methylene Chloride	0.0250	0.0241	0.0245	96.3	98.0	69.5-120			1.66	20
Tetrachloroethene	0.0250	0.0229	0.0245	91.4	97.9	73.5-130			6.80	20
Toluene	0.0250	0.0249	0.0253	99.7	101	77.9-116			1.36	20
1,1,1-Trichloroethane	0.0250	0.0245	0.0237	98.0	95.0	71.1-129			3.09	20
1,1,2-Trichloroethane	0.0250	0.0265	0.0272	106	109	81.6-120			2.81	20
Trichloroethene	0.0250	0.0249	0.0258	99.5	103	79.5-121			3.80	20
Trichlorofluoromethane	0.0250	0.0228	0.0220	91.1	88.0	49.1-157			3.45	20
Vinyl chloride	0.0250	0.0219	0.0230	87.6	92.0	61.5-134			5.00	20
Xylenes, Total	0.0750	0.0744	0.0784	99.2	104	79.2-122			5.23	20
(S) Toluene-d8				*104*	*105*	*90.0-115*				
(S) Dibromofluoromethane				*106*	*103*	*79.0-121*				
(S) 4-Bromofluorobenzene				*106*	*108*	*80.1-120*				

L772517-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 06/28/15 13:23 • (MS) 06/28/15 11:21 • (MSD) 06/28/15 11:39

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	0.125	0.000815	0.0608	0.0619	48.0	48.9	1	25.0-156			1.75	21.5
Benzene	0.0250	ND	0.0287	0.0270	115	108	1	58.6-133			6.00	20
Carbon tetrachloride	0.0250	ND	0.0262	0.0256	105	103	1	60.6-139			2.09	20
Chlorobenzene	0.0250	ND	0.0283	0.0262	113	105	1	70.1-130			7.83	20
Chloroethane	0.0250	ND	0.0221	0.0201	88.4	80.6	1	33.3-155			9.29	20
Chloroform	0.0250	ND	0.0279	0.0264	111	105	1	66.1-133			5.49	20

L772517-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 06/28/15 13:23 • (MS) 06/28/15 11:21 • (MSD) 06/28/15 11:39

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloromethane	0.0250	ND	0.0244	0.0228	97.6	91.3	1	40.7-139			6.67	20
1,2-Dibromoethane	0.0250	ND	0.0302	0.0281	121	112	1	73.8-131			7.11	20
1,1-Dichloroethane	0.0250	ND	0.0279	0.0258	111	103	1	64.0-134			7.66	20
1,2-Dichloroethane	0.0250	ND	0.0281	0.0248	112	99.3	1	60.7-132			12.4	20
1,1-Dichloroethene	0.0250	ND	0.0224	0.0211	89.5	84.6	1	48.8-144			5.72	20
cis-1,2-Dichloroethene	0.0250	ND	0.0304	0.0266	122	106	1	60.6-136			13.6	20
trans-1,2-Dichloroethene	0.0250	ND	0.0289	0.0266	116	107	1	61.0-132			8.31	20
1,2-Dichloropropane	0.0250	ND	0.0280	0.0262	112	105	1	69.7-130			6.74	20
Ethylbenzene	0.0250	ND	0.0286	0.0262	115	105	1	62.7-136			8.75	20
Methylene Chloride	0.0250	ND	0.0271	0.0252	108	101	1	61.5-125			7.04	20
Tetrachloroethene	0.0250	ND	0.0267	0.0251	107	100	1	57.4-141			6.33	20
Toluene	0.0250	ND	0.0278	0.0270	111	108	1	67.8-124			2.64	20
1,1,1-Trichloroethane	0.0250	ND	0.0256	0.0248	102	99.4	1	58.7-134			2.87	20
1,1,2-Trichloroethane	0.0250	ND	0.0307	0.0278	123	111	1	74.1-130			10.1	20
Trichloroethene	0.0250	ND	0.0282	0.0264	113	106	1	48.9-148			6.68	20
Trichlorofluoromethane	0.0250	ND	0.0236	0.0223	94.3	89.1	1	39.9-165			5.70	20
Vinyl chloride	0.0250	ND	0.0241	0.0223	96.4	89.4	1	44.3-143			7.57	20
Xylenes, Total	0.0750	ND	0.0859	0.0813	114	108	1	65.6-133			5.47	20
(S) Toluene-d8					*105*	*104*		*90.0-115*				
(S) Dibromofluoromethane					*101*	*103*		*79.0-121*				
(S) 4-Bromofluorobenzene					*107*	*105*		*80.1-120*				

Method Blank (MB)

(MB) 06/29/15 19:49

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
1,4-Dioxane	U		0.000597	0.00300
(S) Toluene-d8	*101*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 06/29/15 19:01 • (LCSD) 06/29/15 20:13

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,4-Dioxane	0.0500	0.0521	0.0461	104	92.2	70.0-130			12.3	25
(S) Toluene-d8				*101*	*101*	*70.0-130*				

L772451-18 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 06/29/15 21:50 • (MS) 06/29/15 20:37 • (MSD) 06/29/15 21:01

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
1,4-Dioxane	0.0500	0.0258	0.0653	0.0588	79.0	66.0	1	0.000-200			10.5	42
(S) Toluene-d8					*69.1*	*69.5*		*70.0-130*	J2	J2		

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND,U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.
SDL	Sample Detection Limit.
MQL	Method Quantitation Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.

Qualifier	Description
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits.

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**

State Accreditations

Alabama	40660
Alaska	UST-080
Arizona	AZ0612
Arkansas	88-0469
California	01157CA
Colorado	TN00003
Conneticut	PH-0197
Florida	E87487
Georgia	NELAP
Georgia [1]	923
Idaho	TN00003
Illinois	200008
Indiana	C-TN-01
Iowa	364
Kansas	E-10277
Kentucky [1]	90010
Kentucky [2]	16
Louisiana	AI30792
Maine	TN0002
Maryland	324
Massachusetts	M-TN003
Michigan	9958
Minnesota	047-999-395
Mississippi	TN00003
Missouri	340
Montana	CERT0086
Nebraska	NE-OS-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey–NELAP	TN002
New Mexico	TN00003
New York	11742
North Carolina	Env375
North Carolina [1]	DW21704
North Carolina [2]	41
North Dakota	R-140
Ohio–VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	221
South Carolina	84004
South Dakota	n/a
Tennessee [1 4]	2006
Texas	T 104704245-07-TX
Texas [5]	LAB0152
Utah	6157585858
Vermont	VT2006
Virginia	109
Washington	C1915
West Virginia	233
Wisconsin	9980939910
Wyoming	A2LA

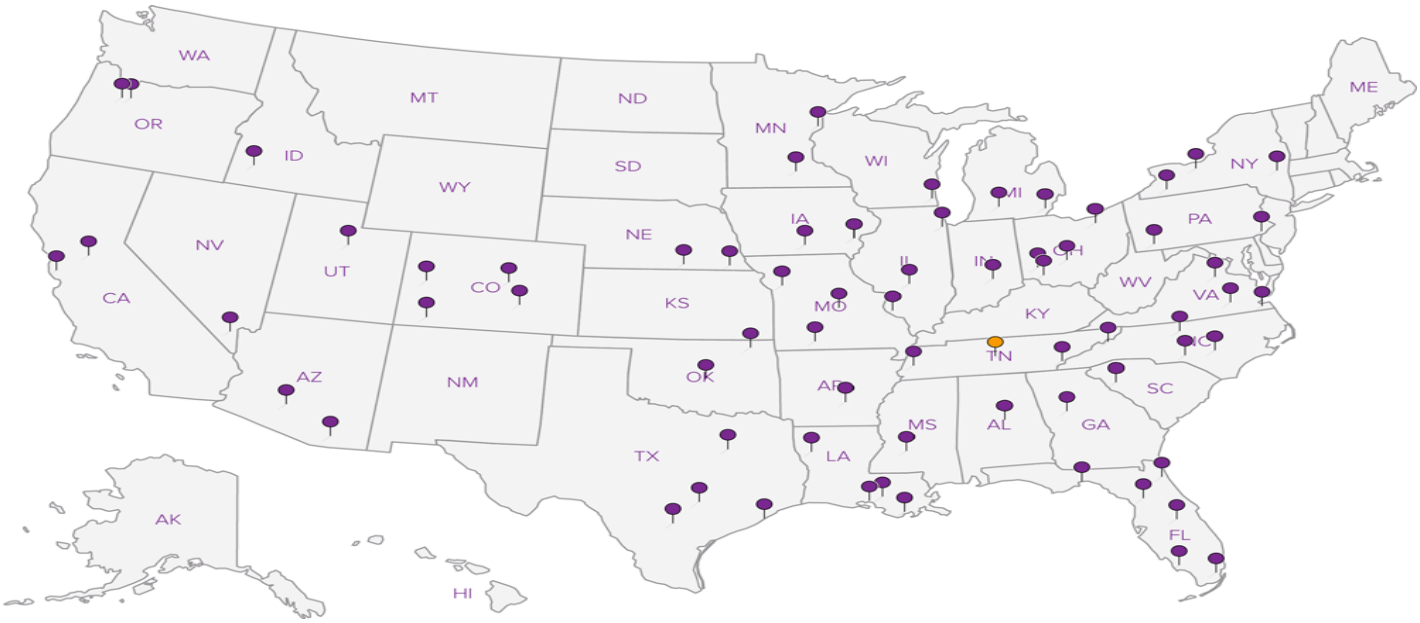
[1.] Drinking Water [2.] Underground Storage Tanks [3.] Aquatic Toxicity [4.] Chemical/Microbiological [5.] Mold [n/a] Accreditation not applicable

Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01
Canada	1461.01
EPA–Crypto	TN00003
AIHA	100789
DOD	1461.01
USDA	S-67674

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



Chain of Custody
Page 1 of 1

ESC LAB SCIENCES
12065 Lebanon Road
Mt. Juliet, TN 37122
Phone: (800) 767-5859
Phone: (615) 758-5858
Fax: (615) 758-5859

K164

CoCode (lab use only)
Template/Prelogin
Shipped Via:

ECEA
PO Box 6172
Gastonia, NC 28056

Billing Information:
Mike Stanforth
ECEA
POBox 6172
Gastonia, NC 28056

Report to: Mike Stanforth
Email to: mstanforth@excelengr.com

Project Description: AT Well Sampling
City/Sate Collected: Charlotte, NC
Phone: 704-853-0800
FAX: 704-853-3949
Client Project #: 201008
ESC Key: excelenv - 201008
Collected by: Mike Stanforth
Site/Facility ID#:
P.O.#: 201008
Collected by (signature):
Immediately Packed on Ice N Y

Rush? (Lab MUST Be Notified)
___ Same Day.....200%
___ Next Day.....100%
___ Two Day.....50%
___ Three Day.....25%

Date Results Needed:
Email? __No ✓Yes
FAX? ✓No __Yes

Analysis/Container/Preservative

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	V8260 RDL/MDL	V8260LL 1,4 D RDL/MDL	Remarks/Contaminant	Sample # (lab only)
36	Grab	DW		6/24/14	1236	6	x	x		L773387-61/62 03/04
35	Grab	DW		6/24/14	1224	6	x	x		

*Matrix: SS - Soil/Solid GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other_____

pH _____ Temp _____
Flow _____ Other _____

Remarks: 6209 8042 4806

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
	6/24/15	1402	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)

Samples returned via: ☐ UPS ☑ FedEx ☐ Courier ☐ _____
Temp: 3.1
Bottles Received: 12+TB
Date: 6/25/15
Time: 0900

Condition: (lab use only) NP (OK)
CoC Seals Intact: ___Y ___N ___NA
pH Checked:
NCF:

ANALYTICAL REPORT

November 04, 2015

Excel Civil & Environmental Associates

Sample Delivery Group:	L797444
Samples Received:	10/29/2015
Project Number:	201008
Description:	American Trutzchler
Site:	CHARLOTTE, NC
Report To:	Mr. Mike Stanforth PO Box 6172 Gastonia, NC 28056-6000

Entire Report Reviewed By:

Jimmy Hunt
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

TABLE OF CONTENTS

[1]Cp: Cover Page 1

[2]Tc: Table of Contents 2

[3]Ss: Sample Summary 3

[4]Cn: Case Narrative 4

[5]Sr: Sample Results 5

WSW-34 L797444-01 5

WSW-34 L797444-02 6

[6]Qc: Quality Control Summary 7

Volatile Organic Compounds (GC/MS) by Method 8260B 7

[7]Gl: Glossary of Terms 11

[8]Al: Accreditations & Locations 12

[9]Sc: Chain of Custody 13

WSW-34 L797444-01 GW

Collected by: Mike Stanforth
Collected date/time: 10/28/15 12:34
Received date/time: 10/29/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analysis Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG825592	1	10/30/15 03:23	10/30/15 03:23	ACG

WSW-34 L797444-02 GW

Collected by: Mike Stanforth
Collected date/time: 10/28/15 12:34
Received date/time: 10/29/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analysis Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG825690	1	10/30/15 15:15	10/30/15 15:15	BMB

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jimmy Hunt
Technical Service Representative

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		1.05	25.0	1	10/30/2015 03:23	WG825592
Benzene	U		0.0896	0.500	1	10/30/2015 03:23	WG825592
Carbon tetrachloride	U		0.159	0.500	1	10/30/2015 03:23	WG825592
Chlorobenzene	U		0.140	0.500	1	10/30/2015 03:23	WG825592
Chloroethane	U		0.141	0.500	1	10/30/2015 03:23	WG825592
Chloroform	U		0.0860	0.500	1	10/30/2015 03:23	WG825592
Chloromethane	U		0.153	0.500	1	10/30/2015 03:23	WG825592
1,1-Dichloroethane	U		0.114	0.500	1	10/30/2015 03:23	WG825592
1,2-Dichloroethane	U		0.108	0.500	1	10/30/2015 03:23	WG825592
1,1-Dichloroethene	U		0.188	0.500	1	10/30/2015 03:23	WG825592
cis-1,2-Dichloroethene	U		0.0933	0.500	1	10/30/2015 03:23	WG825592
trans-1,2-Dichloroethene	U		0.152	0.500	1	10/30/2015 03:23	WG825592
1,2-Dichloropropane	U		0.190	0.500	1	10/30/2015 03:23	WG825592
Ethylbenzene	U		0.158	0.500	1	10/30/2015 03:23	WG825592
1,2-Dibromoethane	U		0.193	0.500	1	10/30/2015 03:23	WG825592
Methylene Chloride	U		1.07	2.50	1	10/30/2015 03:23	WG825592
Tetrachloroethene	U		0.199	0.500	1	10/30/2015 03:23	WG825592
1,1,1-Trichloroethane	U		0.0940	0.500	1	10/30/2015 03:23	WG825592
1,1,2-Trichloroethane	U		0.186	0.500	1	10/30/2015 03:23	WG825592
Trichloroethene	U		0.153	0.500	1	10/30/2015 03:23	WG825592
Trichlorofluoromethane	U		0.130	0.500	1	10/30/2015 03:23	WG825592
Toluene	U		0.102	0.500	1	10/30/2015 03:23	WG825592
Vinyl chloride	U		0.118	0.500	1	10/30/2015 03:23	WG825592
Xylenes, Total	U		0.316	1.50	1	10/30/2015 03:23	WG825592
(S) Toluene-d8	*104*			*90.0-115*		*10/30/2015 03:23*	WG825592
(S) Dibromofluoromethane	*98.4*			*79.0-121*		*10/30/2015 03:23*	WG825592
(S) 4-Bromofluorobenzene	*104*			*80.1-120*		*10/30/2015 03:23*	WG825592

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dioxane	U		0.597	3.00	1	10/30/2015 15:15	WG825690
(S) Toluene-d8	*93.3*			*70.0-130*		*10/30/2015 15:15*	WG825690

Method Blank (MB)

(MB) 10/29/15 22:36

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.00105	0.0250
Benzene	U		0.0000896	0.000500
Carbon tetrachloride	U		0.000159	0.000500
Chlorobenzene	U		0.000140	0.000500
Chloroethane	U		0.000141	0.000500
Chloroform	U		0.0000860	0.000500
Chloromethane	U		0.000153	0.000500
1,2-Dibromoethane	U		0.000193	0.000500
1,1-Dichloroethane	U		0.000114	0.000500
1,2-Dichloroethane	U		0.000108	0.000500
1,1-Dichloroethene	U		0.000188	0.000500
cis-1,2-Dichloroethene	U		0.0000933	0.000500
trans-1,2-Dichloroethene	U		0.000152	0.000500
1,2-Dichloropropane	U		0.000190	0.000500
Ethylbenzene	U		0.000158	0.000500
Methylene Chloride	U		0.00107	0.00250
Tetrachloroethene	U		0.000199	0.000500
1,1,1-Trichloroethane	U		0.0000940	0.000500
1,1,2-Trichloroethane	U		0.000186	0.000500
Trichloroethene	U		0.000153	0.000500
Trichlorofluoromethane	U		0.000130	0.000500
Toluene	U		0.000102	0.000500
Vinyl chloride	U		0.000118	0.000500
Xylenes, Total	U		0.000316	0.00150
(S) Toluene-d8	*102*		*90.0-115*	
(S) Dibromofluoromethane	*94.2*		*79.0-121*	
(S) 4-Bromofluorobenzene	*112*		*80.1-120*	

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 10/29/15 21:01 • (LCSD) 10/29/15 21:19

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.125	0.0960	0.0830	76.8	66.4	28.7-175			14.4	20.9
Carbon tetrachloride	0.0250	0.0250	0.0255	99.8	102	70.9-129			1.95	20
Chlorobenzene	0.0250	0.0247	0.0254	98.6	102	79.7-122			3.10	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 10/29/15 21:01 • (LCSD) 10/29/15 21:19

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Chloroethane	0.0250	0.0252	0.0263	101	105	41.2-153			4.06	20
Chloroform	0.0250	0.0252	0.0254	101	102	73.2-125			0.880	20
Chloromethane	0.0250	0.0211	0.0213	84.3	85.1	55.8-134			1.02	20
1,2-Dibromoethane	0.0250	0.0249	0.0254	99.8	101	79.8-122			1.65	20
1,1-Dichloroethane	0.0250	0.0243	0.0250	97.2	100	71.7-127			2.95	20
Benzene	0.0250	0.0229	0.0224	91.7	89.6	73.0-122			2.33	20
1,2-Dichloroethane	0.0250	0.0257	0.0262	103	105	65.3-126			1.97	20
1,1-Dichloroethene	0.0250	0.0271	0.0287	108	115	59.9-137			5.73	20
cis-1,2-Dichloroethene	0.0250	0.0240	0.0241	96.1	96.3	77.3-122			0.250	20
trans-1,2-Dichloroethene	0.0250	0.0237	0.0237	94.9	94.9	72.6-125			0.0300	20
1,2-Dichloropropane	0.0250	0.0248	0.0247	99.0	99.0	77.4-125			0.0600	20
Methylene Chloride	0.0250	0.0225	0.0236	90.1	94.3	69.5-120			4.56	20
Tetrachloroethene	0.0250	0.0246	0.0260	98.4	104	73.5-130			5.43	20
1,1,1-Trichloroethane	0.0250	0.0261	0.0267	104	107	71.1-129			2.55	20
1,1,2-Trichloroethane	0.0250	0.0253	0.0258	101	103	81.6-120			1.98	20
Trichloroethene	0.0250	0.0251	0.0258	101	103	79.5-121			2.44	20
Trichlorofluoromethane	0.0250	0.0256	0.0268	103	107	49.1-157			4.31	20
Ethylbenzene	0.0250	0.0250	0.0249	99.9	99.7	80.9-121			0.130	20
Vinyl chloride	0.0250	0.0251	0.0265	100	106	61.5-134			5.38	20
Toluene	0.0250	0.0239	0.0236	95.5	94.4	77.9-116			1.22	20
Xylenes, Total	0.0750	0.0724	0.0724	96.6	96.6	79.2-122			0.0100	20
(S) Toluene-d8				*108*	*103*	*90.0-115*				
(S) Dibromofluoromethane				*95.9*	*97.2*	*79.0-121*				
(S) 4-Bromofluorobenzene				*102*	*102*	*80.1-120*				

L797129-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 10/30/15 01:15 • (MS) 10/29/15 23:01 • (MSD) 10/29/15 23:20

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	0.125	0.00140	0.0633	0.0660	49.5	51.7	1	25.0-156			4.17	21.5
Carbon tetrachloride	0.0250	ND	0.0242	0.0252	97.0	101	1	60.6-139			3.94	20
Chlorobenzene	0.0250	ND	0.0234	0.0257	93.6	103	1	70.1-130			9.29	20
Chloroethane	0.0250	ND	0.0242	0.0249	96.7	99.7	1	33.3-155			3.03	20
Chloroform	0.0250	ND	0.0242	0.0246	96.7	98.3	1	66.1-133			1.65	20
Chloromethane	0.0250	ND	0.0200	0.0201	80.2	80.5	1	40.7-139			0.460	20

L797129-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 10/30/15 01:15 • (MS) 10/29/15 23:01 • (MSD) 10/29/15 23:20

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
1,2-Dibromoethane	0.0250	ND	0.0237	0.0251	94.9	100	1	73.8-131			5.47	20
1,1-Dichloroethane	0.0250	ND	0.0232	0.0225	92.9	90.2	1	64.0-134			3.01	20
1,2-Dichloroethane	0.0250	ND	0.0254	0.0258	102	103	1	60.7-132			1.43	20
1,1-Dichloroethene	0.0250	ND	0.0248	0.0260	99.1	104	1	48.8-144			4.91	20
cis-1,2-Dichloroethene	0.0250	ND	0.0231	0.0229	92.2	91.6	1	60.6-136			0.700	20
trans-1,2-Dichloroethene	0.0250	ND	0.0219	0.0219	87.7	87.4	1	61.0-132			0.330	20
1,2-Dichloropropane	0.0250	ND	0.0231	0.0238	92.3	95.2	1	69.7-130			3.08	20
Benzene	0.0250	ND	0.0206	0.0215	82.3	86.1	1	58.6-133			4.49	20
Methylene Chloride	0.0250	ND	0.0215	0.0213	85.8	85.3	1	61.5-125			0.660	20
Tetrachloroethene	0.0250	ND	0.0244	0.0257	97.6	103	1	57.4-141			5.20	20
1,1,1-Trichloroethane	0.0250	ND	0.0246	0.0257	98.3	103	1	58.7-134			4.49	20
1,1,2-Trichloroethane	0.0250	ND	0.0252	0.0253	101	101	1	74.1-130			0.250	20
Trichloroethene	0.0250	ND	0.0234	0.0242	93.5	96.7	1	48.9-148			3.40	20
Trichlorofluoromethane	0.0250	ND	0.0257	0.0262	103	105	1	39.9-165			2.09	20
Vinyl chloride	0.0250	ND	0.0244	0.0246	97.6	98.3	1	44.3-143			0.730	20
Ethylbenzene	0.0250	ND	0.0232	0.0259	92.8	104	1	62.7-136			11.0	20
Toluene	0.0250	ND	0.0225	0.0231	90.1	92.6	1	67.8-124			2.70	20
Xylenes, Total	0.0750	ND	0.0702	0.0726	93.6	96.7	1	65.6-133			3.27	20
(S) Toluene-d8					*104*	*103*		*90.0-115*				
(S) Dibromofluoromethane					*100*	*99.7*		*79.0-121*				
(S) 4-Bromofluorobenzene					*101*	*105*		*80.1-120*				

Method Blank (MB)

(MB) 10/30/15 11:35

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
1,4-Dioxane	U		0.000597	0.00300
(S) Toluene-d8	*94.2*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 10/30/15 10:23 • (LCSD) 10/30/15 11:59

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,4-Dioxane	0.0500	0.0495	0.0389	99.0	77.7	70.0-130			24.1	25
(S) Toluene-d8				*94.0*	*93.2*	*70.0-130*				

L797444-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 10/30/15 15:15 • (MS) 10/30/15 14:03 • (MSD) 10/30/15 14:27

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
1,4-Dioxane	0.0500	ND	0.0374	0.0430	74.8	85.9	1	0.000-200			13.9	42
(S) Toluene-d8					*93.9*	*93.3*		*70.0-130*				

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND,U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.
SDL	Sample Detection Limit.
MQL	Method Quantitation Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.

Qualifier	Description
	The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

ACCREDITATIONS & LOCATIONS

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**

State Accreditations

Alabama	40660
Alaska	UST-080
Arizona	AZ0612
Arkansas	88-0469
California	01157CA
Colorado	TN00003
Conneticut	PH-0197
Florida	E87487
Georgia	NELAP
Georgia [1]	923
Idaho	TN00003
Illinois	200008
Indiana	C-TN-01
Iowa	364
Kansas	E-10277
Kentucky [1]	90010
Kentucky [2]	16
Louisiana	AI30792
Maine	TN0002
Maryland	324
Massachusetts	M-TN003
Michigan	9958
Minnesota	047-999-395
Mississippi	TN00003
Missouri	340
Montana	CERT0086
Nebraska	NE-OS-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey–NELAP	TN002
New Mexico	TN00003
New York	11742
North Carolina	Env375
North Carolina [1]	DW21704
North Carolina [2]	41
North Dakota	R-140
Ohio–VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	221
South Carolina	84004
South Dakota	n/a
Tennessee [1 4]	2006
Texas	T 104704245-07-TX
Texas [5]	LAB0152
Utah	6157585858
Vermont	VT2006
Virginia	109
Washington	C1915
West Virginia	233
Wisconsin	9980939910
Wyoming	A2LA

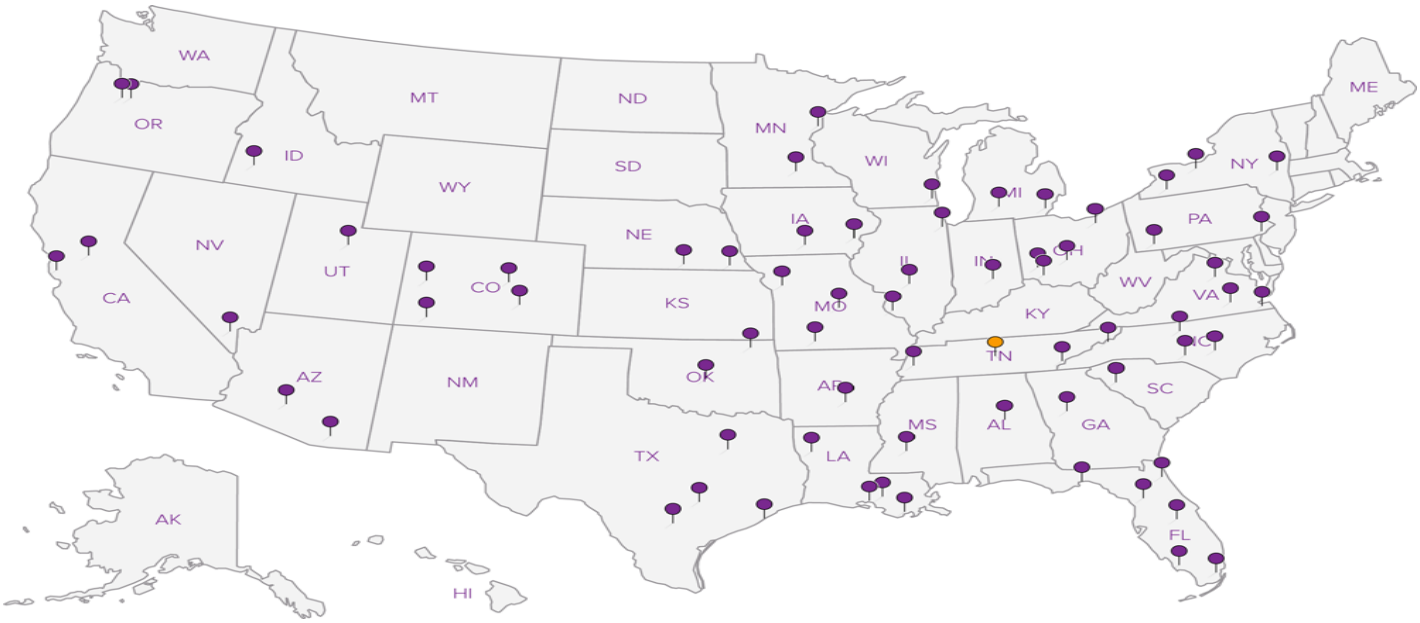
[1.] Drinking Water [2.] Underground Storage Tanks [3.] Aquatic Toxicity [4.] Chemical/Microbiological [5.] Mold [n/a] Accreditation not applicable

Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01
Canada	1461.01
EPA–Crypto	TN00003
AIHA	100789
DOD	1461.01
USDA	S-67674

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



Excel Civil & Environmental Associates

PO Box 6172
Gastonia, NC 28056-6000

Billing Information:
Accounts Payable
P.O. Box 6172
Gastonia, NC 28056-6000

Report to: Mr. Mike Stanforth

Email To: mstanforth@excelengr.com,dfarris@excelengr.com

Project Description: American Truetzschler

City/State Collected:

Phone: 704-853-0800
Fax: 704-853-3949

Client Project # 201008

Lab Project # EXCELENV-201008

Collected by (print): MIKE STANFORTH

Site/Facility ID # CHARLOTTE, NC

P.O. # 201008

Collected by (signature):

Immediately Packed on Ice N ___ Y ___

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day 100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed: Normal

Email? ___No X__Yes
FAX? ___No ___Yes

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

ESC LABS
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 797444
Table # D174
Acctnum: EXCELENV
Template: T81514
Prelogin: P518301
TSR: 350 - Jimmy Hunt
PB: 7.27 MS
Shipped Via: FedEX Ground

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Ctrs	V8260LL 40mlAmb-HCl	V8260LL14D 40mlAmb-HCl	Rem./Contaminant	Sample # (lab only)
~~RW-1~~ WSW-34	G	~~GW~~ DW		10/28	1234	~~4~~ 6	X	X		01/02
~~RW-1~~ MMB		~~GW~~				~~2~~		X		

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other_____

Remarks: V8260=Acetone,benz.,chlorobenzene,chloroform,chloroethane,11DCA,12DCA,11DCE,cis12DCE,trans12DCE,12DCPA,EDB,ethylbenzene,methylene chloride,PCE,111TCEA,112TCEA,TCE,VC,CCl4,chloromethane,xylenes,trichlorofluoromethane,toluene

pH _____ Temp _____
Flow _____ Other _____

650371549132

Hold #

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	10/28	1400	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Samples returned via: ☐ UPS ☐ FedEx ☐ Courier ☐ _____

Temp: 3.2 °C Bottles Received: 6 up

Date: 10/29/18 Time: 900

Condition: (lab use only) GOOD

COC Seal Intact: ✓ Y ___N ___NA

pH Checked: NCF:

ANALYTICAL REPORT

December 23, 2015

Excel Civil & Environmental Associates

Sample Delivery Group:	L806544
Samples Received:	12/12/2015
Project Number:	201008
Description:	AT Well Sampling
Site:	CHARLOTTE, NC
Report To:	Mr. Mike Stanforth PO Box 6172 Gastonia, NC 28056-6000

Entire Report Reviewed By:

Jimmy Hunt
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

TABLE OF CONTENTS

[1]Cp: Cover Page 1

[2]Tc: Table of Contents 2

[3]Ss: Sample Summary 3

[4]Cn: Case Narrative 4

[5]Sr: Sample Results 5

36 L806544-01 5

36 L806544-02 6

41 L806544-03 7

41 L806544-04 8

[6]Qc: Quality Control Summary 9

Volatile Organic Compounds (GC/MS) by Method 8260B 9

[7]Gl: Glossary of Terms 13

[8]Al: Accreditations & Locations 14

[9]Sc: Chain of Custody 15

36 L806544-01 GW

Collected by: Mike Stanforth
Collected date/time: 12/10/15 12:50
Received date/time: 12/12/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG836592	1	12/23/15 02:59	12/23/15 02:59	JBE

36 L806544-02 GW

Collected by: Mike Stanforth
Collected date/time: 12/10/15 12:50
Received date/time: 12/12/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG835614	1	12/15/15 17:12	12/15/15 17:12	CAH

41 L806544-03 GW

Collected by: Mike Stanforth
Collected date/time: 12/10/15 12:34
Received date/time: 12/12/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG836592	1	12/23/15 03:19	12/23/15 03:19	JBE

41 L806544-04 GW

Collected by: Mike Stanforth
Collected date/time: 12/10/15 12:34
Received date/time: 12/12/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG835614	1	12/15/15 17:31	12/15/15 17:31	CAH

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jimmy Hunt
Technical Service Representative

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		1.05	25.0	1	12/23/2015 02:59	WG836592
Benzene	U		0.0896	0.500	1	12/23/2015 02:59	WG836592
Carbon tetrachloride	U		0.159	0.500	1	12/23/2015 02:59	WG836592
Chlorobenzene	U		0.140	0.500	1	12/23/2015 02:59	WG836592
Chloroethane	U		0.141	0.500	1	12/23/2015 02:59	WG836592
Chloroform	U		0.0860	0.500	1	12/23/2015 02:59	WG836592
Chloromethane	U		0.153	0.500	1	12/23/2015 02:59	WG836592
1,1-Dichloroethane	U		0.114	0.500	1	12/23/2015 02:59	WG836592
1,2-Dichloroethane	U		0.108	0.500	1	12/23/2015 02:59	WG836592
1,1-Dichloroethene	5.70		0.188	0.500	1	12/23/2015 02:59	WG836592
cis-1,2-Dichloroethene	U		0.0933	0.500	1	12/23/2015 02:59	WG836592
trans-1,2-Dichloroethene	U		0.152	0.500	1	12/23/2015 02:59	WG836592
1,2-Dichloropropane	U		0.190	0.500	1	12/23/2015 02:59	WG836592
Ethylbenzene	U		0.158	0.500	1	12/23/2015 02:59	WG836592
1,2-Dibromoethane	U		0.193	0.500	1	12/23/2015 02:59	WG836592
Methylene Chloride	U		1.07	2.50	1	12/23/2015 02:59	WG836592
Tetrachloroethene	0.248	J	0.199	0.500	1	12/23/2015 02:59	WG836592
1,1,1-Trichloroethane	U		0.0940	0.500	1	12/23/2015 02:59	WG836592
1,1,2-Trichloroethane	U		0.186	0.500	1	12/23/2015 02:59	WG836592
Trichloroethene	U		0.153	0.500	1	12/23/2015 02:59	WG836592
Trichlorofluoromethane	U		0.130	0.500	1	12/23/2015 02:59	WG836592
Toluene	U		0.102	0.500	1	12/23/2015 02:59	WG836592
Vinyl chloride	U		0.118	0.500	1	12/23/2015 02:59	WG836592
Xylenes, Total	U		0.316	1.50	1	12/23/2015 02:59	WG836592
(S) Toluene-d8	*98.9*			*90.0-115*		*12/23/2015 02:59*	WG836592
(S) Dibromofluoromethane	*98.1*			*79.0-121*		*12/23/2015 02:59*	WG836592
(S) 4-Bromofluorobenzene	*102*			*80.1-120*		*12/23/2015 02:59*	WG836592

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dioxane	1.07	J	0.597	3.00	1	12/15/2015 17:12	WG835614
(S) Toluene-d8	*94.8*			*70.0-130*		*12/15/2015 17:12*	WG835614

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		1.05	25.0	1	12/23/2015 03:19	WG836592
Benzene	U		0.0896	0.500	1	12/23/2015 03:19	WG836592
Carbon tetrachloride	U		0.159	0.500	1	12/23/2015 03:19	WG836592
Chlorobenzene	U		0.140	0.500	1	12/23/2015 03:19	WG836592
Chloroethane	U		0.141	0.500	1	12/23/2015 03:19	WG836592
Chloroform	0.459	J	0.0860	0.500	1	12/23/2015 03:19	WG836592
Chloromethane	U		0.153	0.500	1	12/23/2015 03:19	WG836592
1,1-Dichloroethane	0.916		0.114	0.500	1	12/23/2015 03:19	WG836592
1,2-Dichloroethane	0.521		0.108	0.500	1	12/23/2015 03:19	WG836592
1,1-Dichloroethene	32.8		0.188	0.500	1	12/23/2015 03:19	WG836592
cis-1,2-Dichloroethene	U		0.0933	0.500	1	12/23/2015 03:19	WG836592
trans-1,2-Dichloroethene	U		0.152	0.500	1	12/23/2015 03:19	WG836592
1,2-Dichloropropane	U		0.190	0.500	1	12/23/2015 03:19	WG836592
Ethylbenzene	U		0.158	0.500	1	12/23/2015 03:19	WG836592
1,2-Dibromoethane	U		0.193	0.500	1	12/23/2015 03:19	WG836592
Methylene Chloride	U		1.07	2.50	1	12/23/2015 03:19	WG836592
Tetrachloroethene	1.71		0.199	0.500	1	12/23/2015 03:19	WG836592
1,1,1-Trichloroethane	0.544		0.0940	0.500	1	12/23/2015 03:19	WG836592
1,1,2-Trichloroethane	0.681		0.186	0.500	1	12/23/2015 03:19	WG836592
Trichloroethene	0.666		0.153	0.500	1	12/23/2015 03:19	WG836592
Trichlorofluoromethane	U		0.130	0.500	1	12/23/2015 03:19	WG836592
Toluene	U		0.102	0.500	1	12/23/2015 03:19	WG836592
Vinyl chloride	U		0.118	0.500	1	12/23/2015 03:19	WG836592
Xylenes, Total	U		0.316	1.50	1	12/23/2015 03:19	WG836592
(S) Toluene-d8	*99.7*			*90.0-115*		*12/23/2015 03:19*	WG836592
(S) Dibromofluoromethane	*101*			*79.0-121*		*12/23/2015 03:19*	WG836592
(S) 4-Bromofluorobenzene	*105*			*80.1-120*		*12/23/2015 03:19*	WG836592

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dioxane	22.8		0.597	3.00	1	12/15/2015 17:31	WG835614
(S) Toluene-d8	*94.7*			*70.0-130*		*12/15/2015 17:31*	WG835614

Method Blank (MB)

(MB) 12/15/15 11:19

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
1,4-Dioxane	U		0.000597	0.00300
(S) Toluene-d8	*96.0*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 12/15/15 10:23 • (LCSD) 12/15/15 10:42

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,4-Dioxane	0.0500	0.0421	0.0501	84.3	100	70.0-130			17.3	25
(S) Toluene-d8				*96.7*	*95.8*	*70.0-130*				

L804826-20 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 12/15/15 13:39 • (MS) 12/15/15 12:21 • (MSD) 12/15/15 12:40

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
1,4-Dioxane	0.0500	0.00807	0.0568	0.0625	97.5	109	1	0.000-200			9.59	42
(S) Toluene-d8					*96.1*	*102*		*70.0-130*				

Method Blank (MB)

(MB) 12/23/15 00:17

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	0.00120		0.00105	0.0250
Benzene	U		0.0000896	0.000500
Carbon tetrachloride	U		0.000159	0.000500
Chlorobenzene	U		0.000140	0.000500
Chloroethane	U		0.000141	0.000500
Chloroform	U		0.0000860	0.000500
Chloromethane	U		0.000153	0.000500
1,2-Dibromoethane	U		0.000193	0.000500
1,1-Dichloroethane	U		0.000114	0.000500
1,2-Dichloroethane	U		0.000108	0.000500
1,1-Dichloroethene	U		0.000188	0.000500
cis-1,2-Dichloroethene	U		0.0000933	0.000500
trans-1,2-Dichloroethene	U		0.000152	0.000500
1,2-Dichloropropane	U		0.000190	0.000500
Ethylbenzene	U		0.000158	0.000500
Methylene Chloride	U		0.00107	0.00250
Tetrachloroethene	U		0.000199	0.000500
Toluene	U		0.000102	0.000500
1,1,1-Trichloroethane	U		0.0000940	0.000500
1,1,2-Trichloroethane	U		0.000186	0.000500
Trichloroethene	U		0.000153	0.000500
Trichlorofluoromethane	U		0.000130	0.000500
Vinyl chloride	U		0.000118	0.000500
Xylenes, Total	U		0.000316	0.00150
(S) Toluene-d8	*97.2*			*90.0-115*
(S) Dibromofluoromethane	*94.3*			*79.0-121*
(S) 4-Bromofluorobenzene	*104*			*80.1-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 12/22/15 22:56 • (LCSD) 12/22/15 23:17

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.125	0.130	0.119	104	95.3	28.7-175			8.69	20.9
Benzene	0.0250	0.0233	0.0230	93.2	91.8	73.0-122			1.50	20
Carbon tetrachloride	0.0250	0.0195	0.0178	78.1	71.1	70.9-129			9.46	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 12/22/15 22:56 • (LCSD) 12/22/15 23:17

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Chlorobenzene	0.0250	0.0250	0.0254	99.9	102	79.7-122			1.71	20
Chloroethane	0.0250	0.0216	0.0216	86.3	86.6	41.2-153			0.330	20
Chloroform	0.0250	0.0241	0.0235	96.3	94.2	73.2-125			2.23	20
Chloromethane	0.0250	0.0213	0.0205	85.0	81.9	55.8-134			3.76	20
1,2-Dibromoethane	0.0250	0.0244	0.0252	97.5	101	79.8-122			3.37	20
1,1-Dichloroethane	0.0250	0.0240	0.0238	96.2	95.1	71.7-127			1.13	20
1,2-Dichloroethane	0.0250	0.0224	0.0223	89.5	89.1	65.3-126			0.420	20
1,1-Dichloroethene	0.0250	0.0223	0.0220	89.2	88.1	59.9-137			1.18	20
cis-1,2-Dichloroethene	0.0250	0.0253	0.0249	101	99.6	77.3-122			1.72	20
trans-1,2-Dichloroethene	0.0250	0.0246	0.0235	98.2	94.1	72.6-125			4.32	20
1,2-Dichloropropane	0.0250	0.0244	0.0243	97.8	97.3	77.4-125			0.480	20
Ethylbenzene	0.0250	0.0256	0.0260	102	104	80.9-121			1.54	20
Methylene Chloride	0.0250	0.0224	0.0218	89.6	87.4	69.5-120			2.52	20
Tetrachloroethene	0.0250	0.0254	0.0262	102	105	73.5-130			3.03	20
Toluene	0.0250	0.0233	0.0234	93.1	93.7	77.9-116			0.670	20
1,1,1-Trichloroethane	0.0250	0.0236	0.0231	94.6	92.3	71.1-129			2.47	20
1,1,2-Trichloroethane	0.0250	0.0245	0.0249	97.8	99.6	81.6-120			1.77	20
Trichloroethene	0.0250	0.0259	0.0262	103	105	79.5-121			1.27	20
Trichlorofluoromethane	0.0250	0.0231	0.0227	92.6	90.7	49.1-157			2.04	20
Vinyl chloride	0.0250	0.0212	0.0207	84.9	82.9	61.5-134			2.42	20
Xylenes, Total	0.0750	0.0766	0.0771	102	103	79.2-122			0.640	20
(S) Toluene-d8				*100*	*98.6*	*90.0-115*				
(S) Dibromofluoromethane				*96.1*	*95.8*	*79.0-121*				
(S) 4-Bromofluorobenzene				*95.8*	*98.0*	*80.1-120*				

L806572-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 12/23/15 01:38 • (MS) 12/23/15 00:37 • (MSD) 12/23/15 00:58

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	0.125	0.00101	0.0434	0.0421	33.9	32.9	1	25.0-156			3.01	21.5
Benzene	0.0250	ND	0.0204	0.0198	81.5	79.1	1	58.6-133			3.00	20
Carbon tetrachloride	0.0250	ND	0.0154	0.0159	61.4	63.5	1	60.6-139			3.25	20
Chlorobenzene	0.0250	ND	0.0240	0.0236	96.0	94.5	1	70.1-130			1.55	20
Chloroethane	0.0250	ND	0.0165	0.0173	66.0	69.0	1	33.3-155			4.47	20
Chloroform	0.0250	0.000347	0.0231	0.0226	91.1	89.1	1	66.1-133			2.29	20

L806572-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 12/23/15 01:38 • (MS) 12/23/15 00:37 • (MSD) 12/23/15 00:58

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloromethane	0.0250	ND	0.0140	0.0139	56.0	55.4	1	40.7-139			1.12	20
1,2-Dibromoethane	0.0250	ND	0.0243	0.0234	97.3	93.7	1	73.8-131			3.81	20
1,1-Dichloroethane	0.0250	0.000761	0.0225	0.0226	87.0	87.4	1	64.0-134			0.450	20
1,2-Dichloroethane	0.0250	0.000464	0.0215	0.0211	84.0	82.6	1	60.7-132			1.72	20
1,1-Dichloroethene	0.0250	0.0238	0.0330	0.0369	36.6	52.3	1	48.8-144	J6		11.3	20
cis-1,2-Dichloroethene	0.0250	ND	0.0225	0.0224	89.9	89.7	1	60.6-136			0.230	20
trans-1,2-Dichloroethene	0.0250	ND	0.0188	0.0190	75.4	75.8	1	61.0-132			0.620	20
1,2-Dichloropropane	0.0250	ND	0.0232	0.0232	92.9	92.7	1	69.7-130			0.220	20
Ethylbenzene	0.0250	ND	0.0242	0.0238	96.9	95.3	1	62.7-136			1.67	20
Methylene Chloride	0.0250	ND	0.0194	0.0196	77.5	78.6	1	61.5-125			1.44	20
Tetrachloroethene	0.0250	0.00157	0.0238	0.0232	89.0	86.7	1	57.4-141			2.49	20
Toluene	0.0250	ND	0.0208	0.0210	83.0	84.1	1	67.8-124			1.34	20
1,1,1-Trichloroethane	0.0250	0.000449	0.0214	0.0217	83.6	85.1	1	58.7-134			1.74	20
1,1,2-Trichloroethane	0.0250	0.000652	0.0259	0.0255	101	99.6	1	74.1-130			1.52	20
Trichloroethene	0.0250	ND	0.0232	0.0230	92.8	92.2	1	48.9-148			0.660	20
Trichlorofluoromethane	0.0250	ND	0.0192	0.0193	76.8	77.2	1	39.9-165			0.560	20
Vinyl chloride	0.0250	ND	0.0150	0.0148	60.0	59.3	1	44.3-143			1.18	20
Xylenes, Total	0.0750	ND	0.0717	0.0709	95.6	94.5	1	65.6-133			1.20	20
(S) Toluene-d8					*99.5*	*99.9*		*90.0-115*				
(S) Dibromofluoromethane					*95.0*	*95.9*		*79.0-121*				
(S) 4-Bromofluorobenzene					*101*	*99.8*		*80.1-120*				

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND,U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.
SDL	Sample Detection Limit.
MQL	Method Quantitation Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**

***** Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660
Alaska	UST-080
Arizona	AZ0612
Arkansas	88-0469
California	01157CA
Colorado	TN00003
Conneticut	PH-0197
Florida	E87487
Georgia	NELAP
Georgia [1]	923
Idaho	TN00003
Illinois	200008
Indiana	C-TN-01
Iowa	364
Kansas	E-10277
Kentucky [1]	90010
Kentucky [2]	16
Louisiana	AI30792
Maine	TN0002
Maryland	324
Massachusetts	M-TN003
Michigan	9958
Minnesota	047-999-395
Mississippi	TN00003
Missouri	340
Montana	CERT0086
Nebraska	NE-OS-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey–NELAP	TN002
New Mexico	TN00003
New York	11742
North Carolina	Env375
North Carolina [1]	DW21704
North Carolina [2]	41
North Dakota	R-140
Ohio–VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	221
South Carolina	84004
South Dakota	n/a
Tennessee [1 4]	2006
Texas	T 104704245-07-TX
Texas [5]	LAB0152
Utah	6157585858
Vermont	VT2006
Virginia	109
Washington	C1915
West Virginia	233
Wisconsin	9980939910
Wyoming	A2LA

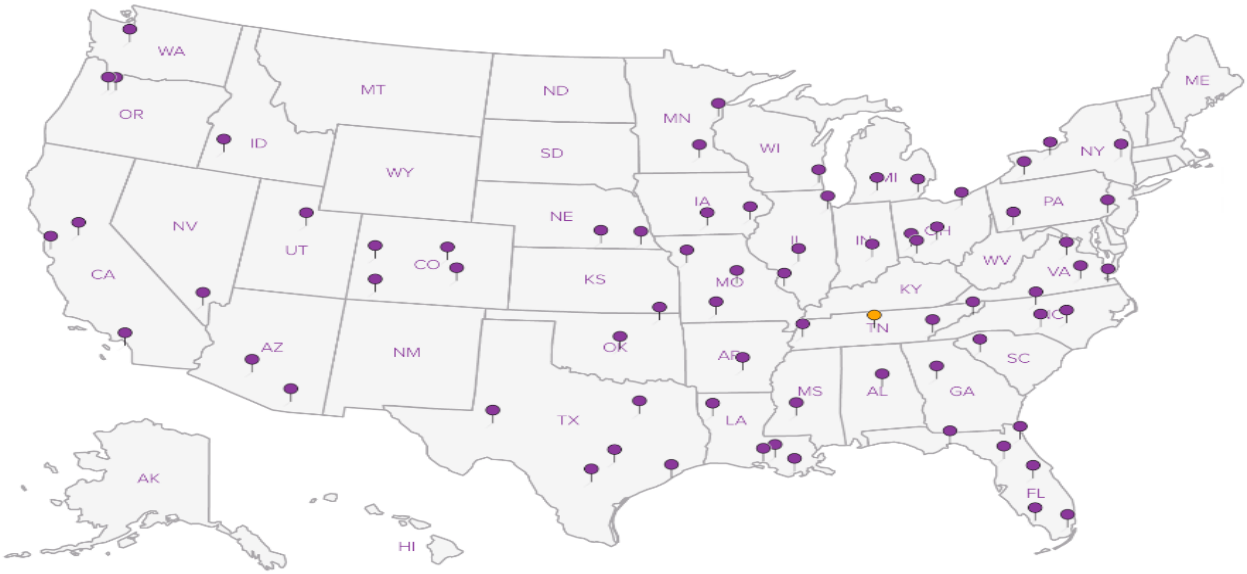
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01
A2LA – ISO 17025 [5]	1461.02
Canada	1461.01
EPA–Crypto	TN00003
AIHA	100789
DOD	1461.01
USDA	S-67674

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [n/a] Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



ECEA
PO Box 6172
Gastonia, NC 28056

Billing Information:
Mike Stanforth
ECEA
POBox 6172
Gastonia, NC 28056

Report to: Mike Stanforth
Email to: mstanforth@excelengr.com

Analysis/Container/Preservative

Chain of Custody
Page 1 of 1

ESC
L-A-B S-C-I-E-N-C-E-S
12065 Lebanon Road
Mt. Juliet, TN 37122
Phone: (800) 767-5859
Phone: (615) 758-5858
Fax: (615) 758-5859

Project Description: AT Well Sampling
City/Sate Collected: Charlotte, NC
Phone: 704-853-0800
FAX: 704-853-3949
Client Project #: 201008
ESC Key: excelenv - 201008
Collected by: Mike Stanforth
Site/Facility ID#:
P.O.#: 201008

Collected by (signature):
Immediately Packed on Ice N Y

Rush? (Lab MUST Be Notified)
____ Same Day.....200%
____ Next Day.....100%
____ Two Day.....50%
____ Three Day.....25%

Date Results Needed:
Email? __No ✓Yes
FAX? ✓No __Yes

CoCode (lab use only)
Template/Prelogin
E006
Shipped Via:

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	V8260LL RDL/MDL	V8260LL 1,4 D RDL/MDL							Remarks/Contaminant	Sample # (lab only)
36	Grab	DW		12/10/15	1250	6	x	x								806544-01/02
41	Grab	DW		12/10/15	1234	6	x	x								03/04

*Matrix: SS - Soil/Solid GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other_____

pH _____ Temp _____

Remarks: 6361 0689 5296

Flow _____ Other _____

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Samples returned via: ☐ UPS ☒ FedEx ☐ Courier ☐	Condition: (lab use only)
	12/11	0756			
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 3.1 / Bottles Received: 12+ TBC VP	CoC Seals Intact: ___Y ___N ___NA
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) Forest Guell	Date: 12/12/15 / Time: 0900	pH Checked: / NCF:

ANALYTICAL REPORT

January 04, 2016

Excel Civil & Environmental Associates

Sample Delivery Group:	L808831
Samples Received:	12/23/2015
Project Number:	201008
Description:	AT Well Sampling
Site:	CHARLOTTE, NC
Report To:	Mr. Mike Stanforth PO Box 6172 Gastonia, NC 28056-6000

Entire Report Reviewed By:

Jimmy Hunt
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

TABLE OF CONTENTS

[1]Cp: Cover Page 1

[2]Tc: Table of Contents 2

[3]Ss: Sample Summary 3

[4]Cn: Case Narrative 4

[5]Sr: Sample Results 5

35 L808831-01 5

35 L808831-02 6

37 INF L808831-03 7

37 INF L808831-04 8

37 EFF L808831-05 9

37 EFF L808831-06 10

[6]Qc: Quality Control Summary 11

Volatile Organic Compounds (GC/MS) by Method 8260B 11

[7]Gl: Glossary of Terms 15

[8]Al: Accreditations & Locations 16

[9]Sc: Chain of Custody 17

35 L808831-01 GW

Collected by: Mike Stanforth | Collected date/time: 12/22/15 12:15 | Received date/time: 12/23/15 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG839370	1	12/31/15 16:11	12/31/15 16:11	JAH

35 L808831-02 GW

Collected by: Mike Stanforth | Collected date/time: 12/22/15 12:15 | Received date/time: 12/23/15 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG838693	1	12/28/15 14:58	12/28/15 14:58	HJF

37 INF L808831-03 GW

Collected by: Mike Stanforth | Collected date/time: 12/22/15 12:45 | Received date/time: 12/23/15 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG839370	1	12/31/15 16:31	12/31/15 16:31	JAH

37 INF L808831-04 GW

Collected by: Mike Stanforth | Collected date/time: 12/22/15 12:45 | Received date/time: 12/23/15 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG838693	1	12/28/15 15:17	12/28/15 15:17	HJF

37 EFF L808831-05 GW

Collected by: Mike Stanforth | Collected date/time: 12/22/15 12:35 | Received date/time: 12/23/15 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG839370	1	12/31/15 16:51	12/31/15 16:51	JAH

37 EFF L808831-06 GW

Collected by: Mike Stanforth | Collected date/time: 12/22/15 12:35 | Received date/time: 12/23/15 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG838693	1	12/28/15 15:37	12/28/15 15:37	HJF

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jimmy Hunt
Technical Service Representative

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		1.05	25.0	1	12/31/2015 16:11	WG839370
Benzene	U		0.0896	0.500	1	12/31/2015 16:11	WG839370
Carbon tetrachloride	U		0.159	0.500	1	12/31/2015 16:11	WG839370
Chlorobenzene	U		0.140	0.500	1	12/31/2015 16:11	WG839370
Chloroethane	U		0.141	0.500	1	12/31/2015 16:11	WG839370
Chloroform	U		0.0860	0.500	1	12/31/2015 16:11	WG839370
Chloromethane	U		0.153	0.500	1	12/31/2015 16:11	WG839370
1,1-Dichloroethane	U		0.114	0.500	1	12/31/2015 16:11	WG839370
1,2-Dichloroethane	U		0.108	0.500	1	12/31/2015 16:11	WG839370
1,1-Dichloroethene	5.59		0.188	0.500	1	12/31/2015 16:11	WG839370
cis-1,2-Dichloroethene	U		0.0933	0.500	1	12/31/2015 16:11	WG839370
trans-1,2-Dichloroethene	U		0.152	0.500	1	12/31/2015 16:11	WG839370
1,2-Dichloropropane	U		0.190	0.500	1	12/31/2015 16:11	WG839370
Ethylbenzene	U		0.158	0.500	1	12/31/2015 16:11	WG839370
1,2-Dibromoethane	U		0.193	0.500	1	12/31/2015 16:11	WG839370
Methylene Chloride	U		1.07	2.50	1	12/31/2015 16:11	WG839370
Tetrachloroethene	0.233	J	0.199	0.500	1	12/31/2015 16:11	WG839370
1,1,1-Trichloroethane	U		0.0940	0.500	1	12/31/2015 16:11	WG839370
1,1,2-Trichloroethane	U		0.186	0.500	1	12/31/2015 16:11	WG839370
Trichloroethene	U		0.153	0.500	1	12/31/2015 16:11	WG839370
Trichlorofluoromethane	U		0.130	0.500	1	12/31/2015 16:11	WG839370
Toluene	U		0.102	0.500	1	12/31/2015 16:11	WG839370
Vinyl chloride	U		0.118	0.500	1	12/31/2015 16:11	WG839370
Xylenes, Total	U		0.316	1.50	1	12/31/2015 16:11	WG839370
(S) Toluene-d8	*99.6*			*90.0-115*		*12/31/2015 16:11*	WG839370
(S) Dibromofluoromethane	*96.0*			*79.0-121*		*12/31/2015 16:11*	WG839370
(S) 4-Bromofluorobenzene	*104*			*80.1-120*		*12/31/2015 16:11*	WG839370

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dioxane	1.83	J	0.597	3.00	1	12/28/2015 14:58	WG838693
(S) Toluene-d8	*91.1*			*70.0-130*		*12/28/2015 14:58*	WG838693

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		1.05	25.0	1	12/31/2015 16:31	WG839370
Benzene	U		0.0896	0.500	1	12/31/2015 16:31	WG839370
Carbon tetrachloride	U		0.159	0.500	1	12/31/2015 16:31	WG839370
Chlorobenzene	U		0.140	0.500	1	12/31/2015 16:31	WG839370
Chloroethane	U		0.141	0.500	1	12/31/2015 16:31	WG839370
Chloroform	U		0.0860	0.500	1	12/31/2015 16:31	WG839370
Chloromethane	U		0.153	0.500	1	12/31/2015 16:31	WG839370
1,1-Dichloroethane	0.237	J	0.114	0.500	1	12/31/2015 16:31	WG839370
1,2-Dichloroethane	U		0.108	0.500	1	12/31/2015 16:31	WG839370
1,1-Dichloroethene	16.0		0.188	0.500	1	12/31/2015 16:31	WG839370
cis-1,2-Dichloroethene	U		0.0933	0.500	1	12/31/2015 16:31	WG839370
trans-1,2-Dichloroethene	U		0.152	0.500	1	12/31/2015 16:31	WG839370
1,2-Dichloropropane	U		0.190	0.500	1	12/31/2015 16:31	WG839370
Ethylbenzene	U		0.158	0.500	1	12/31/2015 16:31	WG839370
1,2-Dibromoethane	U		0.193	0.500	1	12/31/2015 16:31	WG839370
Methylene Chloride	U		1.07	2.50	1	12/31/2015 16:31	WG839370
Tetrachloroethene	0.643		0.199	0.500	1	12/31/2015 16:31	WG839370
1,1,1-Trichloroethane	0.197	J	0.0940	0.500	1	12/31/2015 16:31	WG839370
1,1,2-Trichloroethane	U		0.186	0.500	1	12/31/2015 16:31	WG839370
Trichloroethene	U		0.153	0.500	1	12/31/2015 16:31	WG839370
Trichlorofluoromethane	U		0.130	0.500	1	12/31/2015 16:31	WG839370
Toluene	U		0.102	0.500	1	12/31/2015 16:31	WG839370
Vinyl chloride	U		0.118	0.500	1	12/31/2015 16:31	WG839370
Xylenes, Total	U		0.316	1.50	1	12/31/2015 16:31	WG839370
(S) Toluene-d8	*99.0*			*90.0-115*		*12/31/2015 16:31*	WG839370
(S) Dibromofluoromethane	*95.1*			*79.0-121*		*12/31/2015 16:31*	WG839370
(S) 4-Bromofluorobenzene	*105*			*80.1-120*		*12/31/2015 16:31*	WG839370

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dioxane	1.26	J	0.597	3.00	1	12/28/2015 15:17	WG838693
(S) Toluene-d8	*91.9*			*70.0-130*		*12/28/2015 15:17*	WG838693

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		1.05	25.0	1	12/31/2015 16:51	WG839370
Benzene	U		0.0896	0.500	1	12/31/2015 16:51	WG839370
Carbon tetrachloride	U		0.159	0.500	1	12/31/2015 16:51	WG839370
Chlorobenzene	U		0.140	0.500	1	12/31/2015 16:51	WG839370
Chloroethane	U		0.141	0.500	1	12/31/2015 16:51	WG839370
Chloroform	U		0.0860	0.500	1	12/31/2015 16:51	WG839370
Chloromethane	U		0.153	0.500	1	12/31/2015 16:51	WG839370
1,1-Dichloroethane	U		0.114	0.500	1	12/31/2015 16:51	WG839370
1,2-Dichloroethane	U		0.108	0.500	1	12/31/2015 16:51	WG839370
1,1-Dichloroethene	U		0.188	0.500	1	12/31/2015 16:51	WG839370
cis-1,2-Dichloroethene	U		0.0933	0.500	1	12/31/2015 16:51	WG839370
trans-1,2-Dichloroethene	U		0.152	0.500	1	12/31/2015 16:51	WG839370
1,2-Dichloropropane	U		0.190	0.500	1	12/31/2015 16:51	WG839370
Ethylbenzene	U		0.158	0.500	1	12/31/2015 16:51	WG839370
1,2-Dibromoethane	U		0.193	0.500	1	12/31/2015 16:51	WG839370
Methylene Chloride	U		1.07	2.50	1	12/31/2015 16:51	WG839370
Tetrachloroethene	U		0.199	0.500	1	12/31/2015 16:51	WG839370
1,1,1-Trichloroethane	U		0.0940	0.500	1	12/31/2015 16:51	WG839370
1,1,2-Trichloroethane	U		0.186	0.500	1	12/31/2015 16:51	WG839370
Trichloroethene	U		0.153	0.500	1	12/31/2015 16:51	WG839370
Trichlorofluoromethane	U		0.130	0.500	1	12/31/2015 16:51	WG839370
Toluene	U		0.102	0.500	1	12/31/2015 16:51	WG839370
Vinyl chloride	U		0.118	0.500	1	12/31/2015 16:51	WG839370
Xylenes, Total	U		0.316	1.50	1	12/31/2015 16:51	WG839370
(S) Toluene-d8	*101*			*90.0-115*		*12/31/2015 16:51*	WG839370
(S) Dibromofluoromethane	*93.0*			*79.0-121*		*12/31/2015 16:51*	WG839370
(S) 4-Bromofluorobenzene	*107*			*80.1-120*		*12/31/2015 16:51*	WG839370

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dioxane	1.73	J	0.597	3.00	1	12/28/2015 15:37	WG838693
(S) Toluene-d8	*90.4*			*70.0-130*		*12/28/2015 15:37*	WG838693

QUALITY CONTROL SUMMARY

L808831-02,04,06

Method Blank (MB)

(MB) 12/28/15 11:07

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
1,4-Dioxane	U		0.000597	0.00300
(S) Toluene-d8	*89.1*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 12/28/15 10:08 • (LCSD) 12/28/15 10:28

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,4-Dioxane	0.0500	0.0367	0.0379	73.5	75.9	70.0-130			3.21	25
(S) Toluene-d8				*92.3*	*88.9*	*70.0-130*				

L808732-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 12/28/15 13:39 • (MS) 12/28/15 12:41 • (MSD) 12/28/15 13:00

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
1,4-Dioxane	0.0500	0.0787	0.116	0.148	74.3	139	1	0.000-200			24.6	42
(S) Toluene-d8					*93.1*	*97.3*		*70.0-130*				

Method Blank (MB)

(MB) 12/31/15 11:20

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.00105	0.0250
Benzene	U		0.0000896	0.000500
Carbon tetrachloride	U		0.000159	0.000500
Chlorobenzene	U		0.000140	0.000500
Chloroethane	U		0.000141	0.000500
Chloroform	U		0.0000860	0.000500
Chloromethane	U		0.000153	0.000500
1,2-Dibromoethane	U		0.000193	0.000500
1,1-Dichloroethane	U		0.000114	0.000500
1,2-Dichloroethane	U		0.000108	0.000500
1,1-Dichloroethene	U		0.000188	0.000500
cis-1,2-Dichloroethene	U		0.0000933	0.000500
trans-1,2-Dichloroethene	U		0.000152	0.000500
1,2-Dichloropropane	U		0.000190	0.000500
Ethylbenzene	U		0.000158	0.000500
Methylene Chloride	U		0.00107	0.00250
Tetrachloroethene	U		0.000199	0.000500
Toluene	U		0.000102	0.000500
1,1,1-Trichloroethane	U		0.0000940	0.000500
1,1,2-Trichloroethane	U		0.000186	0.000500
Trichloroethene	U		0.000153	0.000500
Trichlorofluoromethane	U		0.000130	0.000500
Vinyl chloride	U		0.000118	0.000500
Xylenes, Total	U		0.000316	0.00150
(S) Toluene-d8	*100*			*90.0-115*
(S) Dibromofluoromethane	*92.1*			*79.0-121*
(S) 4-Bromofluorobenzene	*104*			*80.1-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 12/31/15 09:17 • (LCSD) 12/31/15 09:57

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.125	0.105	0.112	84.2	89.3	28.7-175			5.87	20.9
Benzene	0.0250	0.0240	0.0243	96.1	97.2	73.0-122			1.14	20
Carbon tetrachloride	0.0250	0.0248	0.0248	99.3	99.3	70.9-129			0.0300	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 12/31/15 09:17 • (LCSD) 12/31/15 09:57

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Chlorobenzene	0.0250	0.0279	0.0285	111	114	79.7-122			2.26	20
Chloroethane	0.0250	0.0225	0.0228	90.1	91.4	41.2-153			1.37	20
Chloroform	0.0250	0.0228	0.0231	91.1	92.4	73.2-125			1.39	20
Chloromethane	0.0250	0.0208	0.0211	83.1	84.3	55.8-134			1.43	20
1,2-Dibromoethane	0.0250	0.0271	0.0285	108	114	79.8-122			5.05	20
1,1-Dichloroethane	0.0250	0.0231	0.0236	92.3	94.4	71.7-127			2.28	20
1,2-Dichloroethane	0.0250	0.0209	0.0216	83.6	86.6	65.3-126			3.53	20
1,1-Dichloroethene	0.0250	0.0230	0.0231	92.1	92.4	59.9-137			0.310	20
cis-1,2-Dichloroethene	0.0250	0.0254	0.0255	101	102	77.3-122			0.670	20
trans-1,2-Dichloroethene	0.0250	0.0254	0.0258	102	103	72.6-125			1.48	20
1,2-Dichloropropane	0.0250	0.0246	0.0249	98.3	99.5	77.4-125			1.20	20
Ethylbenzene	0.0250	0.0280	0.0286	112	114	80.9-121			2.30	20
Methylene Chloride	0.0250	0.0244	0.0244	97.8	97.5	69.5-120			0.320	20
Tetrachloroethene	0.0250	0.0308	0.0311	123	124	73.5-130			0.990	20
Toluene	0.0250	0.0252	0.0253	101	101	77.9-116			0.550	20
1,1,1-Trichloroethane	0.0250	0.0236	0.0238	94.3	95.0	71.1-129			0.710	20
1,1,2-Trichloroethane	0.0250	0.0276	0.0287	110	115	81.6-120			3.99	20
Trichloroethene	0.0250	0.0265	0.0275	106	110	79.5-121			3.38	20
Trichlorofluoromethane	0.0250	0.0231	0.0234	92.3	93.6	49.1-157			1.44	20
Vinyl chloride	0.0250	0.0214	0.0219	85.6	87.5	61.5-134			2.19	20
Xylenes, Total	0.0750	0.0853	0.0872	114	116	79.2-122			2.24	20
(S) Toluene-d8				*99.8*	*99.7*	*90.0-115*				
(S) Dibromofluoromethane				*94.0*	*93.8*	*79.0-121*				
(S) 4-Bromofluorobenzene				*102*	*103*	*80.1-120*				

L809490-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 12/31/15 15:09 • (MS) 12/31/15 12:16 • (MSD) 12/31/15 12:36

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	0.125	0.000760	0.0399	0.0377	31.3	29.6	1	25.0-156			5.51	21.5
Benzene	0.0250	ND	0.0176	0.0159	70.2	63.5	1	58.6-133			10.1	20
Carbon tetrachloride	0.0250	ND	0.0185	0.0171	74.1	68.3	1	60.6-139			8.13	20
Chlorobenzene	0.0250	ND	0.0221	0.0205	88.4	82.1	1	70.1-130			7.40	20
Chloroethane	0.0250	ND	0.0140	0.0133	56.2	53.1	1	33.3-155			5.65	20
Chloroform	0.0250	ND	0.0186	0.0170	74.4	68.1	1	66.1-133			8.82	20

L809490-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 12/31/15 15:09 • (MS) 12/31/15 12:16 • (MSD) 12/31/15 12:36

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloromethane	0.0250	ND	0.0110	0.0103	43.8	41.1	1	40.7-139			6.35	20
1,2-Dibromoethane	0.0250	ND	0.0222	0.0213	88.7	85.1	1	73.8-131			4.08	20
1,1-Dichloroethane	0.0250	ND	0.0179	0.0164	71.5	65.6	1	64.0-134			8.57	20
1,2-Dichloroethane	0.0250	ND	0.0168	0.0150	67.3	59.9	1	60.7-132		J6	11.7	20
1,1-Dichloroethene	0.0250	ND	0.0149	0.0140	59.7	56.1	1	48.8-144			6.29	20
cis-1,2-Dichloroethene	0.0250	ND	0.0191	0.0177	76.2	70.6	1	60.6-136			7.61	20
trans-1,2-Dichloroethene	0.0250	ND	0.0164	0.0150	65.4	59.9	1	61.0-132		J6	8.79	20
1,2-Dichloropropane	0.0250	ND	0.0206	0.0184	82.2	73.6	1	69.7-130			11.1	20
Ethylbenzene	0.0250	ND	0.0220	0.0204	88.0	81.5	1	62.7-136			7.61	20
Methylene Chloride	0.0250	ND	0.0173	0.0159	69.4	63.7	1	61.5-125			8.50	20
Tetrachloroethene	0.0250	ND	0.0221	0.0202	88.3	81.0	1	57.4-141			8.67	20
Toluene	0.0250	ND	0.0189	0.0178	75.8	71.1	1	67.8-124			6.41	20
1,1,1-Trichloroethane	0.0250	ND	0.0182	0.0169	72.8	67.6	1	58.7-134			7.39	20
1,1,2-Trichloroethane	0.0250	ND	0.0234	0.0230	93.7	91.9	1	74.1-130			1.97	20
Trichloroethene	0.0250	ND	0.0195	0.0181	77.9	72.6	1	48.9-148			7.03	20
Trichlorofluoromethane	0.0250	ND	0.0162	0.0149	64.7	59.7	1	39.9-165			7.96	20
Vinyl chloride	0.0250	ND	0.0120	0.0115	47.9	46.1	1	44.3-143			3.99	20
Xylenes, Total	0.0750	ND	0.0661	0.0621	88.1	82.8	1	65.6-133			6.28	20
(S) Toluene-d8					*101*	*101*		*90.0-115*				
(S) Dibromofluoromethane					*92.0*	*92.8*		*79.0-121*				
(S) 4-Bromofluorobenzene					*102*	*105*		*80.1-120*				

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND,U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.
SDL	Sample Detection Limit.
MQL	Method Quantitation Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.

ACCREDITATIONS & LOCATIONS

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**

***** Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660
Alaska	UST-080
Arizona	AZ0612
Arkansas	88-0469
California	01157CA
Colorado	TN00003
Conneticut	PH-0197
Florida	E87487
Georgia	NELAP
Georgia [1]	923
Idaho	TN00003
Illinois	200008
Indiana	C-TN-01
Iowa	364
Kansas	E-10277
Kentucky [1]	90010
Kentucky [2]	16
Louisiana	AI30792
Maine	TN0002
Maryland	324
Massachusetts	M-TN003
Michigan	9958
Minnesota	047-999-395
Mississippi	TN00003
Missouri	340
Montana	CERT0086
Nebraska	NE-OS-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey–NELAP	TN002
New Mexico	TN00003
New York	11742
North Carolina	Env375
North Carolina [1]	DW21704
North Carolina [2]	41
North Dakota	R-140
Ohio–VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	221
South Carolina	84004
South Dakota	n/a
Tennessee [1 4]	2006
Texas	T 104704245-07-TX
Texas [5]	LAB0152
Utah	6157585858
Vermont	VT2006
Virginia	109
Washington	C1915
West Virginia	233
Wisconsin	9980939910
Wyoming	A2LA

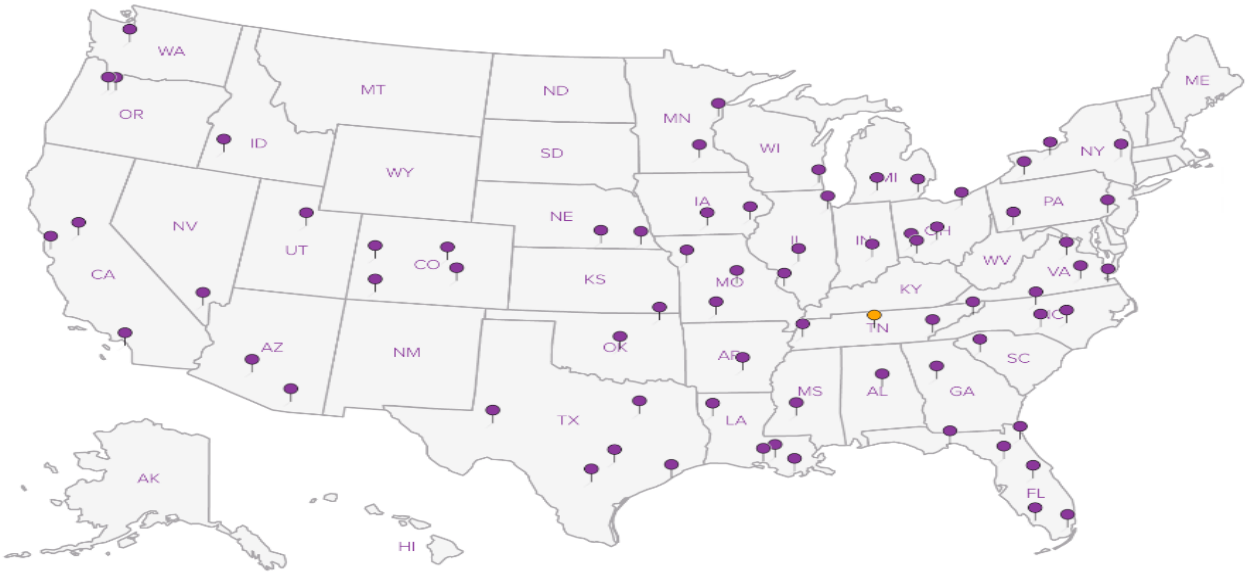
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01
A2LA – ISO 17025 [5]	1461.02
Canada	1461.01
EPA–Crypto	TN00003
AIHA	100789
DOD	1461.01
USDA	S-67674

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [n/a] Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



ECEA
PO Box 6172
Gastonia, NC 28056

Billing Information:
Mike Stanforth
ECEA
POBox 6172
Gastonia, NC 28056

Report to: Mike Stanforth

Email to: mstanforth@excelengr.com

Chain of Custody
Page 1 of 1

ESC
L·A·B S·C·I·E·N·C·E·S
12065 Lebanon Road
Mt. Juliet, TN 37122

Phone: (800) 767-5859
Phone: (615) 758-5858
Fax: (615) 758-5859

A249

Project Description: AT Well Sampling
City/State Collected: Charlotte, NC
Phone: 704-853-0800
FAX: 704-853-3949
Client Project #: 201008
ESC Key: excelenv - 201008
Collected by: Mike Stanforth
Site/Facility ID#:
P.O.#: 201008
Collected by (signature):
Immediately Packed on Ice N Y

Rush? (Lab MUST Be Notified)
____ Same Day.....200%
____ Next Day.....100%
____ Two Day.....50%
____ Three Day.....25%

Date Results Needed:
Email? __No ✓Yes
FAX? ✓No __Yes

CoCode (lab use only)
Template/Prelogin
Shipped Via:

Analysis/Container/Preservative

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	V8260LL RDL/MDL	V8260LL 1,4 D RDL/MDL							Remarks/Contaminant	Sample # (lab only)
35	Grab	DW		12/22/15	1215	6	x	x								L808881-01/-02
37 INF	Grab	DW		12/22/15	1245	6	x	x								~~-02~~ -03/-04
37 EFF	Grab	DW		12/22/15	1235	6	x	x								~~-03~~ -05/-06

*Matrix: SS - Soil/Solid GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other_____

pH _____ Temp _____

Remarks:

6527190844 77

Flow _____ Other _____

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Samples returned via: ☐ UPS ☐ FedEx ☐ Courier ☐ _____	Condition: ok (lab use only)
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 2.4 / Bottles Received: 18vp	CoC Seals Intact: ✓ Y ____ N ____ NA MCN
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 12/23/15 / Time: 1000	pH Checked: / NCF:

ANALYTICAL REPORT

February 12, 2016

Excel Civil & Environmental Associates

Sample Delivery Group:	L816179
Samples Received:	02/06/2016
Project Number:	201008
Description:	AT Well Sampling
Site:	CHARLOTTE, NC
Report To:	Mr. Mike Stanforth PO Box 6172 Gastonia, NC 28056-6000

Entire Report Reviewed By:

Jason Romer
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

TABLE OF CONTENTS

[1]Cp: Cover Page 1

[2]Tc: Table of Contents 2

[3]Ss: Sample Summary 3

[4]Cn: Case Narrative 4

[5]Sr: Sample Results 5

MW-24 L816179-01 5

MW-24 L816179-02 7

[6]Qc: Quality Control Summary 8

Volatile Organic Compounds (GC/MS) by Method 8260B 8

[7]Gl: Glossary of Terms 17

[8]Al: Accreditations & Locations 18

[9]Sc: Chain of Custody 19

MW-24 L816179-01 GW

Collected by	Collected date/time	Received date/time
Nathan Simmons	02/05/16 15:30	02/06/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG847566	1	02/09/16 23:05	02/09/16 23:05	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG848426	1	02/10/16 21:45	02/10/16 21:45	DWR

MW-24 L816179-02 GW

Collected by	Collected date/time	Received date/time
Nathan Simmons	02/05/16 15:30	02/06/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG847672	1	02/10/16 02:12	02/10/16 02:12	JBE

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jason Romer
Technical Service Representative

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		1.05	25.0	1	02/09/2016 23:05	WG847566
Acrylonitrile	U		0.873	2.50	1	02/09/2016 23:05	WG847566
Benzene	U		0.0896	0.500	1	02/09/2016 23:05	WG847566
Bromobenzene	U		0.133	0.500	1	02/09/2016 23:05	WG847566
Bromodichloromethane	U		0.0800	0.500	1	02/09/2016 23:05	WG847566
Bromochloromethane	U		0.145	0.500	1	02/09/2016 23:05	WG847566
Bromoform	U		0.186	0.500	1	02/09/2016 23:05	WG847566
Bromomethane	U		0.157	0.500	1	02/09/2016 23:05	WG847566
n-Butylbenzene	U		0.143	0.500	1	02/09/2016 23:05	WG847566
sec-Butylbenzene	U		0.134	0.500	1	02/09/2016 23:05	WG847566
tert-Butylbenzene	U		0.183	0.500	1	02/09/2016 23:05	WG847566
Carbon disulfide	U		0.101	0.500	1	02/09/2016 23:05	WG847566
Carbon tetrachloride	U		0.159	0.500	1	02/09/2016 23:05	WG847566
Chlorobenzene	U		0.140	0.500	1	02/09/2016 23:05	WG847566
Chlorodibromomethane	U		0.128	0.500	1	02/09/2016 23:05	WG847566
Chloroethane	U		0.141	0.500	1	02/09/2016 23:05	WG847566
2-Chloroethyl vinyl ether	U	J3 J4	0.877	25.0	1	02/09/2016 23:05	WG847566
Chloroform	U		0.0860	0.500	1	02/09/2016 23:05	WG847566
Chloromethane	U		0.153	0.500	1	02/09/2016 23:05	WG847566
2-Chlorotoluene	U		0.111	0.500	1	02/09/2016 23:05	WG847566
4-Chlorotoluene	U		0.0972	0.500	1	02/09/2016 23:05	WG847566
1,2-Dibromo-3-Chloropropane	U		0.325	1.00	1	02/09/2016 23:05	WG847566
1,2-Dibromoethane	U		0.193	0.500	1	02/09/2016 23:05	WG847566
Dibromomethane	U		0.117	0.500	1	02/09/2016 23:05	WG847566
1,2-Dichlorobenzene	U		0.101	0.500	1	02/09/2016 23:05	WG847566
1,3-Dichlorobenzene	U		0.130	0.500	1	02/09/2016 23:05	WG847566
1,4-Dichlorobenzene	U		0.121	0.500	1	02/09/2016 23:05	WG847566
Dichlorodifluoromethane	U		0.127	0.500	1	02/09/2016 23:05	WG847566
1,1-Dichloroethane	U		0.114	0.500	1	02/09/2016 23:05	WG847566
1,2-Dichloroethane	U		0.108	0.500	1	02/09/2016 23:05	WG847566
1,1-Dichloroethene	1.38		0.188	0.500	1	02/09/2016 23:05	WG847566
cis-1,2-Dichloroethene	U		0.0933	0.500	1	02/10/2016 21:45	WG848426
trans-1,2-Dichloroethene	0.303	J	0.152	0.500	1	02/09/2016 23:05	WG847566
1,2-Dichloropropane	U		0.190	0.500	1	02/09/2016 23:05	WG847566
1,1-Dichloropropene	U		0.128	0.500	1	02/09/2016 23:05	WG847566
1,3-Dichloropropane	U		0.147	0.500	1	02/09/2016 23:05	WG847566
cis-1,3-Dichloropropene	U		0.0976	0.500	1	02/09/2016 23:05	WG847566
trans-1,3-Dichloropropene	U		0.222	0.500	1	02/09/2016 23:05	WG847566
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	02/09/2016 23:05	WG847566
2,2-Dichloropropane	U		0.0929	0.500	1	02/09/2016 23:05	WG847566
Di-isopropyl ether	U		0.0924	0.500	1	02/09/2016 23:05	WG847566
Ethylbenzene	U		0.158	0.500	1	02/09/2016 23:05	WG847566
Hexachloro-1,3-butadiene	U		0.157	1.00	1	02/09/2016 23:05	WG847566
2-Hexanone	U		0.757	2.50	1	02/09/2016 23:05	WG847566
n-Hexane	U		0.305	1.00	1	02/09/2016 23:05	WG847566
Iodomethane	U		0.377	10.0	1	02/09/2016 23:05	WG847566
Isopropylbenzene	U		0.126	0.500	1	02/09/2016 23:05	WG847566
p-Isopropyltoluene	U		0.138	0.500	1	02/09/2016 23:05	WG847566
2-Butanone (MEK)	U		1.28	2.50	1	02/09/2016 23:05	WG847566
Methylene Chloride	U	J4	1.07	2.50	1	02/09/2016 23:05	WG847566
4-Methyl-2-pentanone (MIBK)	U		0.823	2.50	1	02/09/2016 23:05	WG847566
Methyl tert-butyl ether	U		0.102	0.500	1	02/09/2016 23:05	WG847566
Naphthalene	U		0.174	0.500	1	02/09/2016 23:05	WG847566
n-Propylbenzene	U		0.162	0.500	1	02/09/2016 23:05	WG847566
Styrene	U		0.117	0.500	1	02/09/2016 23:05	WG847566
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	02/09/2016 23:05	WG847566

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	02/09/2016 23:05	WG847566
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	02/09/2016 23:05	WG847566
Tetrachloroethene	U		0.199	0.500	1	02/09/2016 23:05	WG847566
Toluene	0.161	J	0.102	0.500	1	02/09/2016 23:05	WG847566
1,2,3-Trichlorobenzene	U		0.164	0.500	1	02/09/2016 23:05	WG847566
1,2,4-Trichlorobenzene	U		0.355	0.500	1	02/09/2016 23:05	WG847566
1,1,1-Trichloroethane	U		0.0940	0.500	1	02/10/2016 21:45	WG848426
1,1,2-Trichloroethane	U		0.186	0.500	1	02/09/2016 23:05	WG847566
Trichloroethene	U		0.153	0.500	1	02/10/2016 21:45	WG848426
Trichlorofluoromethane	U		0.130	0.500	1	02/09/2016 23:05	WG847566
1,2,3-Trichloropropane	U		0.247	2.50	1	02/09/2016 23:05	WG847566
1,2,4-Trimethylbenzene	U		0.123	0.500	1	02/09/2016 23:05	WG847566
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	02/09/2016 23:05	WG847566
1,3,5-Trimethylbenzene	U		0.124	0.500	1	02/09/2016 23:05	WG847566
Vinyl acetate	U		0.645	2.50	1	02/09/2016 23:05	WG847566
Vinyl chloride	U		0.118	0.500	1	02/09/2016 23:05	WG847566
Xylenes, Total	U		0.316	1.50	1	02/09/2016 23:05	WG847566
(S) Toluene-d8	*102*			*90.0-115*		*02/09/2016 23:05*	WG847566
(S) Dibromofluoromethane	*100*			*79.0-121*		*02/09/2016 23:05*	WG847566
(S) 4-Bromofluorobenzene	*101*			*80.1-120*		*02/09/2016 23:05*	WG847566

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dioxane	U		0.597	3.00	1	02/10/2016 02:12	WG847672
(S) Toluene-d8	*98.3*			*70.0-130*		*02/10/2016 02:12*	WG847672

Method Blank (MB)

(MB) 02/09/16 15:02

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.00105	0.0250
Acrylonitrile	U		0.000873	0.00250
Benzene	U		0.0000896	0.000500
Bromobenzene	U		0.000133	0.000500
Bromodichloromethane	U		0.0000800	0.000500
Bromochloromethane	U		0.000145	0.000500
Bromoform	U		0.000186	0.000500
Bromomethane	U		0.000157	0.000500
n-Butylbenzene	U		0.000143	0.000500
Carbon disulfide	U		0.000101	0.000500
sec-Butylbenzene	U		0.000134	0.000500
tert-Butylbenzene	U		0.000183	0.000500
Carbon tetrachloride	U		0.000159	0.000500
Chlorobenzene	U		0.000140	0.000500
Chlorodibromomethane	U		0.000128	0.000500
Chloroethane	U		0.000141	0.000500
2-Chloroethyl vinyl ether	U		0.000877	0.0250
Chloroform	U		0.0000860	0.000500
Chloromethane	U		0.000153	0.000500
2-Chlorotoluene	U		0.000111	0.000500
4-Chlorotoluene	U		0.0000972	0.000500
1,2-Dibromo-3-Chloropropane	U		0.000325	0.00100
1,2-Dibromoethane	U		0.000193	0.000500
Dibromomethane	U		0.000117	0.000500
1,2-Dichlorobenzene	U		0.000101	0.000500
1,3-Dichlorobenzene	U		0.000130	0.000500
1,4-Dichlorobenzene	U		0.000121	0.000500
Dichlorodifluoromethane	U		0.000127	0.000500
1,1-Dichloroethane	U		0.000114	0.000500
1,2-Dichloroethane	U		0.000108	0.000500
1,1-Dichloroethene	U		0.000188	0.000500
trans-1,2-Dichloroethene	U		0.000152	0.000500
1,2-Dichloropropane	U		0.000190	0.000500
trans-1,4-Dichloro-2-butene	U		0.000257	0.00500
1,1-Dichloropropene	U		0.000128	0.000500
1,3-Dichloropropane	U		0.000147	0.000500

Method Blank (MB)

(MB) 02/09/16 15:02

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
cis-1,3-Dichloropropene	U		0.0000976	0.000500
trans-1,3-Dichloropropene	U		0.000222	0.000500
2,2-Dichloropropane	U		0.0000929	0.000500
2-Hexanone	U		0.000757	0.00250
Di-isopropyl ether	U		0.0000924	0.000500
Ethylbenzene	U		0.000158	0.000500
Iodomethane	U		0.000377	0.0100
Hexachloro-1,3-butadiene	U		0.000157	0.00100
n-Hexane	U		0.000305	0.00100
Isopropylbenzene	U		0.000126	0.000500
p-Isopropyltoluene	U		0.000138	0.000500
2-Butanone (MEK)	U		0.00128	0.00250
Methylene Chloride	U		0.00107	0.00250
4-Methyl-2-pentanone (MIBK)	U		0.000823	0.00250
Methyl tert-butyl ether	U		0.000102	0.000500
Naphthalene	0.000205		0.000174	0.000500
n-Propylbenzene	U		0.000162	0.000500
Styrene	U		0.000117	0.000500
1,1,1,2-Tetrachloroethane	U		0.000120	0.000500
1,1,2,2-Tetrachloroethane	U		0.000130	0.000500
Tetrachloroethene	U		0.000199	0.000500
Toluene	U		0.000102	0.000500
1,1,2-Trichlorotrifluoroethane	U		0.000164	0.000500
Vinyl acetate	U		0.000645	0.00250
1,2,3-Trichlorobenzene	0.000200		0.000164	0.000500
1,2,4-Trichlorobenzene	U		0.000355	0.000500
1,1,2-Trichloroethane	U		0.000186	0.000500
Trichlorofluoromethane	U		0.000130	0.000500
1,2,3-Trichloropropane	U		0.000247	0.00250
1,2,3-Trimethylbenzene	U		0.0000739	0.000500
1,2,4-Trimethylbenzene	U		0.000123	0.000500
1,3,5-Trimethylbenzene	U		0.000124	0.000500
Vinyl chloride	U		0.000118	0.000500
Xylenes, Total	U		0.000316	0.00150
(S) Toluene-d8	*103*			*90.0-115*
(S) Dibromofluoromethane	*96.1*			*79.0-121*

Method Blank (MB)

(MB) 02/09/16 15:02

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
(S) 4-Bromofluorobenzene	*104*			*80.1-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 02/09/16 13:38 • (LCSD) 02/09/16 14:20

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromochloromethane	0.0250	0.0289	0.0288	116	115	78.9-123			0.630	20
Carbon disulfide	0.0250	0.0239	0.0244	95.7	97.5	53.0-134			1.84	20
Acetone	0.125	0.112	0.116	89.7	92.4	28.7-175			2.98	20.9
Acrylonitrile	0.125	0.147	0.151	117	121	58.2-145			2.98	20
Benzene	0.0250	0.0276	0.0277	110	111	73.0-122			0.260	20
Bromobenzene	0.0250	0.0259	0.0263	104	105	81.5-115			1.31	20
Bromodichloromethane	0.0250	0.0241	0.0241	96.5	96.2	75.5-121			0.290	20
Bromoform	0.0250	0.0257	0.0264	103	106	71.5-131			2.80	20
Bromomethane	0.0250	0.0230	0.0244	92.0	97.5	22.4-187			5.81	20
n-Butylbenzene	0.0250	0.0259	0.0272	104	109	75.9-134			4.84	20
sec-Butylbenzene	0.0250	0.0274	0.0281	109	112	80.6-126			2.61	20
tert-Butylbenzene	0.0250	0.0275	0.0283	110	113	79.3-127			2.69	20
trans-1,4-Dichloro-2-butene	0.0250	0.0250	0.0263	99.9	105	58.3-129			5.24	20
Carbon tetrachloride	0.0250	0.0253	0.0255	101	102	70.9-129			0.840	20
Chlorobenzene	0.0250	0.0274	0.0280	110	112	79.7-122			2.20	20
Chlorodibromomethane	0.0250	0.0255	0.0257	102	103	78.2-124			0.690	20
2-Hexanone	0.125	0.141	0.146	113	117	59.4-151			3.48	20
Chloroethane	0.0250	0.0223	0.0227	89.1	91.0	41.2-153			2.10	20
2-Chloroethyl vinyl ether	0.125	0.0261	0.113	20.9	90.4	23.4-162	J4	J3	125	23.5
Chloroform	0.0250	0.0283	0.0286	113	115	73.2-125			1.23	20
Iodomethane	0.125	0.127	0.131	102	104	64.6-137			2.71	20
Chloromethane	0.0250	0.0288	0.0285	115	114	55.8-134			1.04	20
2-Chlorotoluene	0.0250	0.0275	0.0286	110	115	76.4-125			4.15	20
4-Chlorotoluene	0.0250	0.0279	0.0288	112	115	81.5-121			3.01	20
1,2-Dibromo-3-Chloropropane	0.0250	0.0235	0.0224	94.1	89.4	64.8-131			5.07	20
1,2-Dibromoethane	0.0250	0.0255	0.0261	102	104	79.8-122			2.16	20
Dibromomethane	0.0250	0.0257	0.0259	103	103	79.5-118			0.420	20
1,2-Dichlorobenzene	0.0250	0.0260	0.0265	104	106	84.7-118			2.07	20
1,3-Dichlorobenzene	0.0250	0.0284	0.0296	114	119	77.6-127			4.13	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 02/09/16 13:38 • (LCSD) 02/09/16 14:20

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,4-Dichlorobenzene	0.0250	0.0247	0.0254	99.0	102	82.2-114			2.58	20
Dichlorodifluoromethane	0.0250	0.0266	0.0273	106	109	56.0-134			2.54	20
1,1-Dichloroethane	0.0250	0.0277	0.0279	111	112	71.7-127			0.800	20
1,2-Dichloroethane	0.0250	0.0256	0.0255	103	102	65.3-126			0.430	20
1,1-Dichloroethene	0.0250	0.0232	0.0236	92.9	94.5	59.9-137			1.64	20
trans-1,2-Dichloroethene	0.0250	0.0271	0.0275	108	110	72.6-125			1.48	20
1,2-Dichloropropane	0.0250	0.0274	0.0276	110	110	77.4-125			0.590	20
1,1-Dichloropropene	0.0250	0.0304	0.0306	122	123	72.5-127			0.780	20
1,3-Dichloropropane	0.0250	0.0269	0.0271	108	109	80.6-115			0.700	20
cis-1,3-Dichloropropene	0.0250	0.0269	0.0273	107	109	77.7-124			1.55	20
trans-1,3-Dichloropropene	0.0250	0.0267	0.0273	107	109	73.5-127			2.27	20
2,2-Dichloropropane	0.0250	0.0225	0.0238	90.0	95.2	61.3-134			5.60	20
Vinyl acetate	0.125	0.150	0.168	120	134	41.7-159			11.3	20
Di-isopropyl ether	0.0250	0.0278	0.0276	111	111	65.1-135			0.470	20
Ethylbenzene	0.0250	0.0273	0.0278	109	111	80.9-121			1.65	20
Hexachloro-1,3-butadiene	0.0250	0.0298	0.0300	119	120	73.7-133			0.680	20
n-Hexane	0.0250	0.0310	0.0303	124	121	59.5-132			2.48	20
Isopropylbenzene	0.0250	0.0268	0.0275	107	110	81.6-124			2.68	20
p-Isopropyltoluene	0.0250	0.0281	0.0292	112	117	77.6-129			3.88	20
2-Butanone (MEK)	0.125	0.137	0.141	109	113	46.4-155			3.15	20
Methylene Chloride	0.0250	0.0305	0.0295	122	118	69.5-120	J4		3.51	20
4-Methyl-2-pentanone (MIBK)	0.125	0.129	0.131	103	105	63.3-138			1.60	20
Methyl tert-butyl ether	0.0250	0.0248	0.0249	99.4	99.5	70.1-125			0.0800	20
Naphthalene	0.0250	0.0241	0.0226	96.4	90.4	69.7-134			6.48	20
n-Propylbenzene	0.0250	0.0277	0.0285	111	114	81.9-122			2.98	20
Styrene	0.0250	0.0275	0.0281	110	113	79.9-124			2.16	20
1,1,1,2-Tetrachloroethane	0.0250	0.0270	0.0275	108	110	78.5-125			1.85	20
1,1,2,2-Tetrachloroethane	0.0250	0.0243	0.0245	97.3	98.0	79.3-123			0.740	20
Tetrachloroethene	0.0250	0.0286	0.0296	114	118	73.5-130			3.39	20
Toluene	0.0250	0.0269	0.0271	108	108	77.9-116			0.590	20
1,1,2-Trichlorotrifluoroethane	0.0250	0.0213	0.0240	85.3	96.0	62.0-141			11.8	20
1,2,3-Trichlorobenzene	0.0250	0.0293	0.0285	117	114	75.7-134			2.85	20
1,2,4-Trichlorobenzene	0.0250	0.0299	0.0310	120	124	76.1-136			3.47	20
1,1,2-Trichloroethane	0.0250	0.0245	0.0246	97.9	98.5	81.6-120			0.620	20
Trichlorofluoromethane	0.0250	0.0204	0.0213	81.6	85.4	49.1-157			4.52	20
1,2,3-Trichloropropane	0.0250	0.0263	0.0266	105	106	74.9-124			1.14	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 02/09/16 13:38 • (LCSD) 02/09/16 14:20

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,2,3-Trimethylbenzene	0.0250	0.0240	0.0240	95.9	96.2	79.9-118			0.260	20
1,2,4-Trimethylbenzene	0.0250	0.0276	0.0284	110	114	79.0-122			3.12	20
1,3,5-Trimethylbenzene	0.0250	0.0266	0.0272	106	109	81.0-123			2.21	20
Vinyl chloride	0.0250	0.0258	0.0261	103	105	61.5-134			1.34	20
Xylenes, Total	0.0750	0.0812	0.0826	108	110	79.2-122			1.71	20
(S) Toluene-d8				*101*	*101*	*90.0-115*				
(S) Dibromofluoromethane				*96.8*	*97.0*	*79.0-121*				
(S) 4-Bromofluorobenzene				*105*	*107*	*80.1-120*				

L816143-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 02/09/16 17:30 • (MS) 02/09/16 16:06 • (MSD) 02/09/16 16:28

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Bromochloromethane	0.0250	ND	0.0305	0.0294	122	118	1	74.4-128			3.60	20
Carbon disulfide	0.0250	ND	0.0250	0.0241	100	96.5	1	34.9-138			3.62	20
Acetone	0.125	0.000854	0.0562	0.0562	44.2	44.3	1	25.0-156			0.0900	21.5
trans-1,4-Dichloro-2-butene	0.0250	ND	0.0273	0.0251	109	100	1	57.6-136			8.43	20
Acrylonitrile	0.125	ND	0.163	0.159	130	127	1	55.9-161			2.18	20
Benzene	0.0250	ND	0.0287	0.0275	115	110	1	58.6-133			4.11	20
Bromobenzene	0.0250	ND	0.0265	0.0256	106	102	1	70.6-125			3.57	20
Bromodichloromethane	0.0250	ND	0.0253	0.0242	101	96.7	1	69.2-127			4.54	20
2-Hexanone	0.125	ND	0.118	0.116	94.4	92.7	1	59.4-154			1.72	20.1
Bromoform	0.0250	ND	0.0271	0.0267	108	107	1	66.3-140			1.65	20
Iodomethane	0.125	ND	0.133	0.130	106	104	1	55.2-140			2.40	20
Bromomethane	0.0250	ND	0.0245	0.0232	97.9	92.7	1	16.6-183			5.48	20.5
n-Butylbenzene	0.0250	ND	0.0271	0.0256	109	102	1	64.8-145			5.86	20
sec-Butylbenzene	0.0250	ND	0.0275	0.0268	110	107	1	66.8-139			2.53	20
tert-Butylbenzene	0.0250	ND	0.0276	0.0269	110	108	1	67.1-138			2.38	20
Carbon tetrachloride	0.0250	ND	0.0260	0.0251	104	100	1	60.6-139			3.32	20
Chlorobenzene	0.0250	ND	0.0280	0.0271	112	108	1	70.1-130			3.35	20
Chlorodibromomethane	0.0250	ND	0.0267	0.0255	107	102	1	71.6-132			4.40	20
Chloroethane	0.0250	ND	0.0234	0.0223	93.4	89.4	1	33.3-155			4.40	20
2-Chloroethyl vinyl ether	0.125	ND	0.00857	ND	6.86	1.70	1	5.00-149		J3 J6	121	40
Chloroform	0.0250	ND	0.0296	0.0286	118	114	1	66.1-133			3.45	20
Chloromethane	0.0250	ND	0.0297	0.0289	119	116	1	40.7-139			2.68	20

L816143-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 02/09/16 17:30 • (MS) 02/09/16 16:06 • (MSD) 02/09/16 16:28

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
2-Chlorotoluene	0.0250	ND	0.0281	0.0270	112	108	1	66.9-134			3.90	20
4-Chlorotoluene	0.0250	ND	0.0285	0.0274	114	110	1	66.8-134			3.78	20
1,2-Dibromo-3-Chloropropane	0.0250	ND	0.0246	0.0240	98.2	95.8	1	63.9-142			2.49	20.2
1,2-Dibromoethane	0.0250	ND	0.0269	0.0257	107	103	1	73.8-131			4.28	20
Dibromomethane	0.0250	ND	0.0274	0.0265	110	106	1	72.8-127			3.49	20
1,2-Dichlorobenzene	0.0250	ND	0.0272	0.0262	109	105	1	77.4-127			3.88	20
1,3-Dichlorobenzene	0.0250	ND	0.0294	0.0279	118	111	1	67.9-136			5.40	20
1,4-Dichlorobenzene	0.0250	ND	0.0257	0.0246	103	98.3	1	74.4-123			4.64	20
Dichlorodifluoromethane	0.0250	ND	0.0286	0.0276	114	110	1	42.2-146			3.49	20
1,1-Dichloroethane	0.0250	ND	0.0287	0.0280	115	112	1	64.0-134			2.41	20
Vinyl acetate	0.125	ND	0.182	0.169	146	135	1	42.8-181			7.62	20
1,2-Dichloroethane	0.0250	ND	0.0270	0.0258	108	103	1	60.7-132			4.29	20
1,1-Dichloroethene	0.0250	ND	0.0245	0.0236	98.0	94.6	1	48.8-144			3.56	20
trans-1,2-Dichloroethene	0.0250	ND	0.0282	0.0274	113	110	1	61.0-132			2.59	20
1,2-Dichloropropane	0.0250	ND	0.0285	0.0276	114	111	1	69.7-130			3.19	20
1,1-Dichloropropene	0.0250	ND	0.0313	0.0301	125	120	1	61.5-136			4.10	20
1,3-Dichloropropane	0.0250	ND	0.0281	0.0268	112	107	1	74.3-123			4.73	20
cis-1,3-Dichloropropene	0.0250	ND	0.0280	0.0264	112	106	1	71.1-129			5.88	20
trans-1,3-Dichloropropene	0.0250	ND	0.0285	0.0270	114	108	1	66.3-136			5.42	20
2,2-Dichloropropane	0.0250	ND	0.0233	0.0226	93.1	90.3	1	54.9-142			3.04	20
Di-isopropyl ether	0.0250	ND	0.0288	0.0280	115	112	1	59.9-140			2.80	20
Ethylbenzene	0.0250	ND	0.0278	0.0264	111	106	1	62.7-136			5.22	20
Hexachloro-1,3-butadiene	0.0250	ND	0.0295	0.0289	118	116	1	61.1-144			1.93	20.1
n-Hexane	0.0250	ND	0.0314	0.0300	125	120	1	38.7-146			4.60	20
Isopropylbenzene	0.0250	ND	0.0269	0.0263	108	105	1	67.4-136			2.58	20
p-Isopropyltoluene	0.0250	ND	0.0284	0.0276	114	110	1	62.8-143			2.85	20
2-Butanone (MEK)	0.125	ND	0.104	0.100	83.2	80.1	1	45.0-156			3.77	20.8
Methylene Chloride	0.0250	ND	0.0306	0.0293	122	117	1	61.5-125			4.24	20
4-Methyl-2-pentanone (MIBK)	0.125	ND	0.137	0.134	110	107	1	60.7-150			2.79	20
Methyl tert-butyl ether	0.0250	ND	0.0262	0.0254	105	101	1	61.4-136			3.36	20
Naphthalene	0.0250	ND	0.0241	0.0234	96.2	93.6	1	61.8-143			2.73	20
n-Propylbenzene	0.0250	ND	0.0281	0.0271	113	109	1	63.2-139			3.60	20
Styrene	0.0250	ND	0.0281	0.0273	112	109	1	68.2-133			2.84	20
1,1,1,2-Tetrachloroethane	0.0250	ND	0.0273	0.0265	109	106	1	70.5-132			2.88	20
1,1,2,2-Tetrachloroethane	0.0250	ND	0.0260	0.0250	104	100	1	64.9-145			3.84	20
Tetrachloroethene	0.0250	ND	0.0286	0.0277	114	111	1	57.4-141			3.23	20

L816143-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 02/09/16 17:30 • (MS) 02/09/16 16:06 • (MSD) 02/09/16 16:28

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Toluene	0.0250	ND	0.0280	0.0269	112	108	1	67.8-124			3.78	20
1,1,2-Trichlorotrifluoroethane	0.0250	ND	0.0235	0.0209	93.9	83.7	1	53.7-150			11.5	20
1,2,3-Trichlorobenzene	0.0250	ND	0.0293	0.0282	117	113	1	65.7-143			3.66	20
1,2,4-Trichlorobenzene	0.0250	ND	0.0309	0.0289	124	116	1	67.0-146			6.69	20
1,1,2-Trichloroethane	0.0250	ND	0.0256	0.0243	102	97.3	1	74.1-130			5.07	20
Trichlorofluoromethane	0.0250	ND	0.0217	0.0203	86.8	81.4	1	39.9-165			6.42	20
1,2,3-Trichloropropane	0.0250	ND	0.0281	0.0264	112	106	1	71.5-134			6.11	20
1,2,3-Trimethylbenzene	0.0250	ND	0.0247	0.0236	98.8	94.4	1	62.7-133			4.60	20
1,2,4-Trimethylbenzene	0.0250	ND	0.0279	0.0271	112	108	1	60.5-137			3.17	20
1,3,5-Trimethylbenzene	0.0250	ND	0.0267	0.0260	107	104	1	67.9-134			2.47	20
Vinyl chloride	0.0250	ND	0.0271	0.0261	109	105	1	44.3-143			3.75	20
Xylenes, Total	0.0750	ND	0.0821	0.0793	109	106	1	65.6-133			3.44	20
(S) Toluene-d8					*101*	*101*		*90.0-115*				
(S) Dibromofluoromethane					*97.6*	*100*		*79.0-121*				
(S) 4-Bromofluorobenzene					*103*	*104*		*80.1-120*				

Method Blank (MB)

(MB) 02/09/16 22:57

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
1,4-Dioxane	U		0.000597	0.00300
(S) Toluene-d8	*98.1*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 02/09/16 21:59 • (LCSD) 02/09/16 22:18

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,4-Dioxane	0.0500	0.0385	0.0456	77.1	91.1	70.0-130			16.7	25
(S) Toluene-d8				*98.3*	*97.9*	*70.0-130*				

L816077-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 02/10/16 00:15 • (MS) 02/09/16 23:16 • (MSD) 02/09/16 23:36

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
1,4-Dioxane	0.0500	ND	0.0468	0.0482	93.5	96.3	1	0.000-200			2.97	42
(S) Toluene-d8					*98.3*	*98.2*		*70.0-130*				

Method Blank (MB)

(MB) 02/10/16 16:52

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
cis-1,2-Dichloroethene	U		0.0000933	0.000500
1,1,1-Trichloroethane	U		0.0000940	0.000500
Trichloroethene	U		0.000153	0.000500

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 02/10/16 15:20 • (LCSD) 02/10/16 15:39

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
cis-1,2-Dichloroethene	0.0250	0.0199	0.0204	79.6	81.7	77.3-122			2.60	20
1,1,1-Trichloroethane	0.0250	0.0194	0.0197	77.7	78.6	71.1-129			1.19	20
Trichloroethene	0.0250	0.0210	0.0207	84.1	82.9	79.5-121			1.33	20

L816162-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 02/10/16 21:08 • (MS) 02/10/16 22:03 • (MSD) 02/10/16 22:21

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
cis-1,2-Dichloroethene	0.0250	0.000406	0.0198	0.0204	77.5	79.8	1	60.6-136			2.82	20
1,1,1-Trichloroethane	0.0250	ND	0.0197	0.0203	79.0	81.1	1	58.7-134			2.57	20
Trichloroethene	0.0250	0.000997	0.0199	0.0204	75.6	77.5	1	48.9-148			2.41	20

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND,U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.
SDL	Sample Detection Limit.
MQL	Method Quantitation Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**

***** Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660
Alaska	UST-080
Arizona	AZ0612
Arkansas	88-0469
California	01157CA
Colorado	TN00003
Conneticut	PH-0197
Florida	E87487
Georgia	NELAP
Georgia [1]	923
Idaho	TN00003
Illinois	200008
Indiana	C-TN-01
Iowa	364
Kansas	E-10277
Kentucky [1]	90010
Kentucky [2]	16
Louisiana	AI30792
Maine	TN0002
Maryland	324
Massachusetts	M-TN003
Michigan	9958
Minnesota	047-999-395
Mississippi	TN00003
Missouri	340
Montana	CERT0086
Nebraska	NE-OS-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey–NELAP	TN002
New Mexico	TN00003
New York	11742
North Carolina	Env375
North Carolina [1]	DW21704
North Carolina [2]	41
North Dakota	R-140
Ohio–VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	221
South Carolina	84004
South Dakota	n/a
Tennessee [1 4]	2006
Texas	T 104704245-07-TX
Texas [5]	LAB0152
Utah	6157585858
Vermont	VT2006
Virginia	109
Washington	C1915
West Virginia	233
Wisconsin	9980939910
Wyoming	A2LA

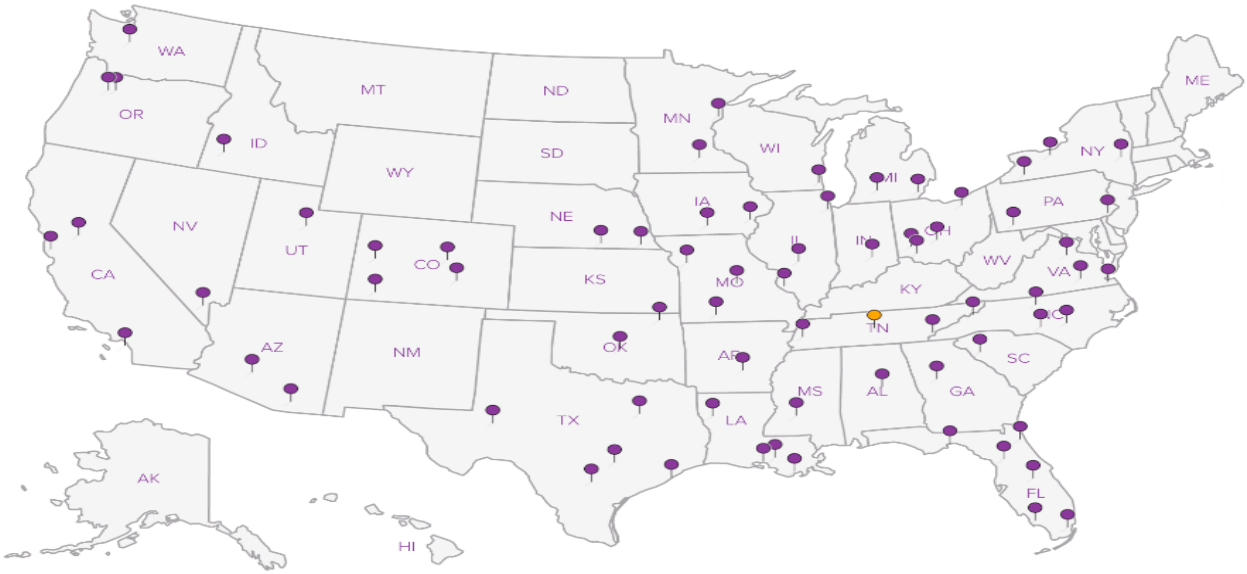
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01
A2LA – ISO 17025 [5]	1461.02
Canada	1461.01
EPA–Crypto	TN00003
AIHA	100789
DOD	1461.01
USDA	S-67674

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [n/a] Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



ECEA
PO Box 6172
Gastonia, NC 28056

Billing Information:
Mike Stanforth
ECEA
POBox 6172
Gastonia, NC 28056

Report to: Mike Stanforth
Email to: mstanforth@excelengr.com

Project Description: AT Well Sampling
City/Sate Collected: Charlotte, NC
Phone: 704-853-0800
FAX: 704-853-3949
Client Project #: 201008
ESC Key: excelenv - 201008
Collected by: ~~Mike Stanforth~~ Nathan Simmons
Site/Facility ID#:
P.O.#: 201008
Collected by (signature):
Immediately Packed on Ice N Y

Rush? (Lab MUST Be Notified)
____ Same Day.....200%
____ Next Day.....100%
____ Two Day.....50%

Date Results Needed:
Email? __No ✓Yes
FAX? ✓No __Yes

Analysis/Container/Preservative

Chain of Custody
Page 1 of 1

ESC
L-A-B S-C-I-E-N-C-E-S
12065 Lebanon Road
Mt. Juliet, TN 37122
Phone: (800) 767-5859
Phone: (615) 758-5858
Fax: (615) 758-5859
1078

CoCode (lab use only)
Template/Prelogin
Shipped Via:

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	V8260LL RDL/MDL	V8260LL 1,4 D RDL/MDL	Remarks/Contaminant	Sample # (lab only)
MW-24	Grab	GW	—	2/5/16	1530	6	x	x		L816179-01/02

*Matrix: SS - Soil/Solid GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other _____

pH _____ Temp _____
Flow _____ Other _____

Remarks:

Relinquished by: (Signature)	Date: 2/5	Time: 1730	Received by: (Signature)	Samples returned via: ☐ UPS ☑ FedEx ☐ Courier ☐	Condition: DB10 (lab use only) (OK)
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 2.4 / Bottles Received: Corp	CoC Seals Intact: ___Y ___N ___NA
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 2/6/16 / Time: 0900	pH Checked: / NCF:

ANALYTICAL REPORT

March 14, 2016

Excel Civil & Environmental Associates

Sample Delivery Group:	L822260
Samples Received:	03/09/2016
Project Number:	201008
Description:	American Truetzschler
Site:	CHARLOTTE, NC
Report To:	Mr. Mike Stanforth PO Box 6172 Gastonia, NC 28056-6000

Entire Report Reviewed By:

Jimmy Hunt
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

TABLE OF CONTENTS

[1]Cp: Cover Page 1

[2]Tc: Table of Contents 2

[3]Ss: Sample Summary 3

[4]Cn: Case Narrative 4

[5]Sr: Sample Results 5

41 L822260-01 5

41 L822260-02 6

[6]Qc: Quality Control Summary 7

Volatile Organic Compounds (GC/MS) by Method 8260B 7

[7]Gl: Glossary of Terms 11

[8]Al: Accreditations & Locations 12

[9]Sc: Chain of Custody 13

41 L822260-01 GW

Collected by	Collected date/time	Received date/time
Mike Stanforth	03/08/16 07:40	03/09/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG855746	1	03/12/16 13:25	03/12/16 13:25	DWR

41 L822260-02 GW

Collected by	Collected date/time	Received date/time
Mike Stanforth	03/08/16 07:40	03/09/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG855252	1	03/12/16 07:13	03/12/16 07:13	BMB

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jimmy Hunt
Technical Service Representative

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	5.67	J	1.05	25.0	1	03/12/2016 13:25	WG855746
Benzene	U		0.0896	0.500	1	03/12/2016 13:25	WG855746
Carbon tetrachloride	U		0.159	0.500	1	03/12/2016 13:25	WG855746
Chlorobenzene	U		0.140	0.500	1	03/12/2016 13:25	WG855746
Chloroethane	U		0.141	0.500	1	03/12/2016 13:25	WG855746
Chloroform	U		0.0860	0.500	1	03/12/2016 13:25	WG855746
Chloromethane	U		0.153	0.500	1	03/12/2016 13:25	WG855746
1,1-Dichloroethane	U		0.114	0.500	1	03/12/2016 13:25	WG855746
1,2-Dichloroethane	U		0.108	0.500	1	03/12/2016 13:25	WG855746
1,1-Dichloroethene	U		0.188	0.500	1	03/12/2016 13:25	WG855746
cis-1,2-Dichloroethene	U		0.0933	0.500	1	03/12/2016 13:25	WG855746
trans-1,2-Dichloroethene	U		0.152	0.500	1	03/12/2016 13:25	WG855746
1,2-Dichloropropane	U		0.190	0.500	1	03/12/2016 13:25	WG855746
Ethylbenzene	U		0.158	0.500	1	03/12/2016 13:25	WG855746
1,2-Dibromoethane	U		0.193	0.500	1	03/12/2016 13:25	WG855746
Methylene Chloride	U		1.07	2.50	1	03/12/2016 13:25	WG855746
Tetrachloroethene	0.206	J	0.199	0.500	1	03/12/2016 13:25	WG855746
1,1,1-Trichloroethane	U		0.0940	0.500	1	03/12/2016 13:25	WG855746
1,1,2-Trichloroethane	U		0.186	0.500	1	03/12/2016 13:25	WG855746
Trichloroethene	U		0.153	0.500	1	03/12/2016 13:25	WG855746
Trichlorofluoromethane	U		0.130	0.500	1	03/12/2016 13:25	WG855746
Toluene	0.150	J	0.102	0.500	1	03/12/2016 13:25	WG855746
Vinyl chloride	U		0.118	0.500	1	03/12/2016 13:25	WG855746
Xylenes, Total	U		0.316	1.50	1	03/12/2016 13:25	WG855746
(S) Toluene-d8	*97.6*			*90.0-115*		*03/12/2016 13:25*	WG855746
(S) Dibromofluoromethane	*100*			*79.0-121*		*03/12/2016 13:25*	WG855746
(S) 4-Bromofluorobenzene	*99.4*			*80.1-120*		*03/12/2016 13:25*	WG855746

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dioxane	2.66	J	0.597	3.00	1	03/12/2016 07:13	WG855252
(S) Toluene-d8	*105*			*70.0-130*		*03/12/2016 07:13*	WG855252

Method Blank (MB)

(MB) 03/12/16 03:32

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
1,4-Dioxane	U		0.000597	0.00300
(S) Toluene-d8	*98.7*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 03/12/16 02:34 • (LCSD) 03/12/16 02:53

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,4-Dioxane	0.0500	0.0572	0.0600	114	120	70.0-130			4.79	25
(S) Toluene-d8				*105*	*98.5*	*70.0-130*				

L822232-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 03/12/16 05:54 • (MS) 03/12/16 03:57 • (MSD) 03/12/16 04:17

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
1,4-Dioxane	0.0500	0.00176	0.0658	0.0689	128	134	1	0.000-200			4.56	42
(S) Toluene-d8					*98.8*	*106*		*70.0-130*				

Method Blank (MB)

(MB) 03/12/16 06:43

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	0.00476		0.00105	0.0250
Benzene	U		0.0000896	0.000500
Carbon tetrachloride	U		0.000159	0.000500
Chlorobenzene	U		0.000140	0.000500
Chloroethane	U		0.000141	0.000500
Chloroform	U		0.0000860	0.000500
Chloromethane	U		0.000153	0.000500
1,2-Dibromoethane	U		0.000193	0.000500
1,1-Dichloroethane	U		0.000114	0.000500
1,2-Dichloroethane	U		0.000108	0.000500
1,1-Dichloroethene	U		0.000188	0.000500
cis-1,2-Dichloroethene	U		0.0000933	0.000500
trans-1,2-Dichloroethene	U		0.000152	0.000500
1,2-Dichloropropane	U		0.000190	0.000500
Ethylbenzene	U		0.000158	0.000500
Methylene Chloride	U		0.00107	0.00250
Tetrachloroethene	U		0.000199	0.000500
Toluene	U		0.000102	0.000500
1,1,1-Trichloroethane	U		0.0000940	0.000500
1,1,2-Trichloroethane	U		0.000186	0.000500
Trichloroethene	U		0.000153	0.000500
Trichlorofluoromethane	U		0.000130	0.000500
Vinyl chloride	U		0.000118	0.000500
Xylenes, Total	U		0.000316	0.00150
(S) Toluene-d8	*98.2*			*90.0-115*
(S) Dibromofluoromethane	*99.3*			*79.0-121*
(S) 4-Bromofluorobenzene	*99.8*			*80.1-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 03/12/16 05:00 • (LCSD) 03/12/16 05:20

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.125	0.0718	0.0711	57.5	56.9	28.7-175			0.960	20.9
Benzene	0.0250	0.0240	0.0242	95.8	96.8	73.0-122			0.960	20
Carbon tetrachloride	0.0250	0.0214	0.0216	85.4	86.4	70.9-129			1.10	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 03/12/16 05:00 • (LCSD) 03/12/16 05:20

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Chlorobenzene	0.0250	0.0254	0.0259	102	104	79.7-122			1.70	20
Chloroethane	0.0250	0.0227	0.0224	90.8	89.8	41.2-153			1.15	20
Chloroform	0.0250	0.0235	0.0238	94.0	95.2	73.2-125			1.19	20
Chloromethane	0.0250	0.0183	0.0181	73.2	72.5	55.8-134			0.850	20
1,2-Dibromoethane	0.0250	0.0256	0.0264	103	105	79.8-122			2.83	20
1,1-Dichloroethane	0.0250	0.0239	0.0239	95.6	95.6	71.7-127			0.0400	20
1,2-Dichloroethane	0.0250	0.0223	0.0227	89.4	90.8	65.3-126			1.57	20
1,1-Dichloroethene	0.0250	0.0232	0.0227	93.0	90.8	59.9-137			2.36	20
cis-1,2-Dichloroethene	0.0250	0.0251	0.0253	101	101	77.3-122			0.510	20
trans-1,2-Dichloroethene	0.0250	0.0247	0.0250	98.8	99.9	72.6-125			1.08	20
1,2-Dichloropropane	0.0250	0.0247	0.0249	98.8	99.8	77.4-125			0.980	20
Ethylbenzene	0.0250	0.0255	0.0259	102	103	80.9-121			1.47	20
Methylene Chloride	0.0250	0.0239	0.0243	95.5	97.1	69.5-120			1.64	20
Tetrachloroethene	0.0250	0.0253	0.0256	101	102	73.5-130			1.25	20
Toluene	0.0250	0.0239	0.0242	95.8	96.9	77.9-116			1.14	20
1,1,1-Trichloroethane	0.0250	0.0232	0.0232	92.9	92.8	71.1-129			0.140	20
1,1,2-Trichloroethane	0.0250	0.0252	0.0257	101	103	81.6-120			1.92	20
Trichloroethene	0.0250	0.0242	0.0244	96.9	97.8	79.5-121			0.930	20
Trichlorofluoromethane	0.0250	0.0231	0.0229	92.3	91.7	49.1-157			0.640	20
Vinyl chloride	0.0250	0.0197	0.0193	78.9	77.0	61.5-134			2.36	20
Xylenes, Total	0.0750	0.0760	0.0772	101	103	79.2-122			1.57	20
(S) Toluene-d8				*98.4*	*99.0*	*90.0-115*				
(S) Dibromofluoromethane				*99.2*	*99.3*	*79.0-121*				
(S) 4-Bromofluorobenzene				*96.4*	*97.0*	*80.1-120*				

L822318-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 03/12/16 11:22 • (MS) 03/12/16 09:40 • (MSD) 03/12/16 10:01

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	0.125	0.00290	0.0506	0.0512	38.2	38.6	1	25.0-156			1.03	21.5
Benzene	0.0250	ND	0.0250	0.0245	100	97.9	1	58.6-133			2.05	20
Carbon tetrachloride	0.0250	ND	0.0220	0.0217	88.2	86.9	1	60.6-139			1.45	20
Chlorobenzene	0.0250	ND	0.0264	0.0259	105	104	1	70.1-130			1.62	20
Chloroethane	0.0250	ND	0.0256	0.0256	102	103	1	33.3-155			0.160	20
Chloroform	0.0250	ND	0.0243	0.0241	97.4	96.4	1	66.1-133			1.03	20

L822318-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 03/12/16 11:22 • (MS) 03/12/16 09:40 • (MSD) 03/12/16 10:01

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloromethane	0.0250	ND	0.0234	0.0230	93.7	92.1	1	40.7-139			1.76	20
1,2-Dibromoethane	0.0250	ND	0.0252	0.0261	101	104	1	73.8-131			3.38	20
1,1-Dichloroethane	0.0250	ND	0.0248	0.0244	99.1	97.6	1	64.0-134			1.48	20
1,2-Dichloroethane	0.0250	ND	0.0227	0.0227	90.8	90.7	1	60.7-132			0.110	20
1,1-Dichloroethene	0.0250	ND	0.0241	0.0237	96.4	95.0	1	48.8-144			1.51	20
cis-1,2-Dichloroethene	0.0250	ND	0.0262	0.0256	105	103	1	60.6-136			2.18	20
trans-1,2-Dichloroethene	0.0250	ND	0.0260	0.0256	104	103	1	61.0-132			1.59	20
1,2-Dichloropropane	0.0250	ND	0.0248	0.0246	99.3	98.4	1	69.7-130			0.910	20
Ethylbenzene	0.0250	ND	0.0265	0.0260	106	104	1	62.7-136			2.07	20
Methylene Chloride	0.0250	ND	0.0244	0.0247	97.8	98.8	1	61.5-125			1.06	20
Tetrachloroethene	0.0250	ND	0.0269	0.0261	108	105	1	57.4-141			2.97	20
Toluene	0.0250	ND	0.0246	0.0242	98.2	96.7	1	67.8-124			1.58	20
1,1,1-Trichloroethane	0.0250	ND	0.0243	0.0237	97.1	95.0	1	58.7-134			2.16	20
1,1,2-Trichloroethane	0.0250	ND	0.0251	0.0254	100	102	1	74.1-130			1.28	20
Trichloroethene	0.0250	ND	0.0247	0.0243	98.8	97.1	1	48.9-148			1.80	20
Trichlorofluoromethane	0.0250	ND	0.0254	0.0250	102	100	1	39.9-165			1.73	20
Vinyl chloride	0.0250	ND	0.0230	0.0232	91.9	92.7	1	44.3-143			0.920	20
Xylenes, Total	0.0750	ND	0.0803	0.0784	107	105	1	65.6-133			2.37	20
(S) Toluene-d8					*97.9*	*97.5*		*90.0-115*				
(S) Dibromofluoromethane					*98.7*	*101*		*79.0-121*				
(S) 4-Bromofluorobenzene					*96.4*	*96.1*		*80.1-120*				

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND,U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.
SDL	Sample Detection Limit.
MQL	Method Quantitation Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**

***** Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660
Alaska	UST-080
Arizona	AZ0612
Arkansas	88-0469
California	01157CA
Colorado	TN00003
Conneticut	PH-0197
Florida	E87487
Georgia	NELAP
Georgia [1]	923
Idaho	TN00003
Illinois	200008
Indiana	C-TN-01
Iowa	364
Kansas	E-10277
Kentucky [1]	90010
Kentucky [2]	16
Louisiana	AI30792
Maine	TN0002
Maryland	324
Massachusetts	M-TN003
Michigan	9958
Minnesota	047-999-395
Mississippi	TN00003
Missouri	340
Montana	CERT0086
Nebraska	NE-OS-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey–NELAP	TN002
New Mexico	TN00003
New York	11742
North Carolina	Env375
North Carolina [1]	DW21704
North Carolina [2]	41
North Dakota	R-140
Ohio–VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	221
South Carolina	84004
South Dakota	n/a
Tennessee [1 4]	2006
Texas	T 104704245-07-TX
Texas [5]	LAB0152
Utah	6157585858
Vermont	VT2006
Virginia	109
Washington	C1915
West Virginia	233
Wisconsin	9980939910
Wyoming	A2LA

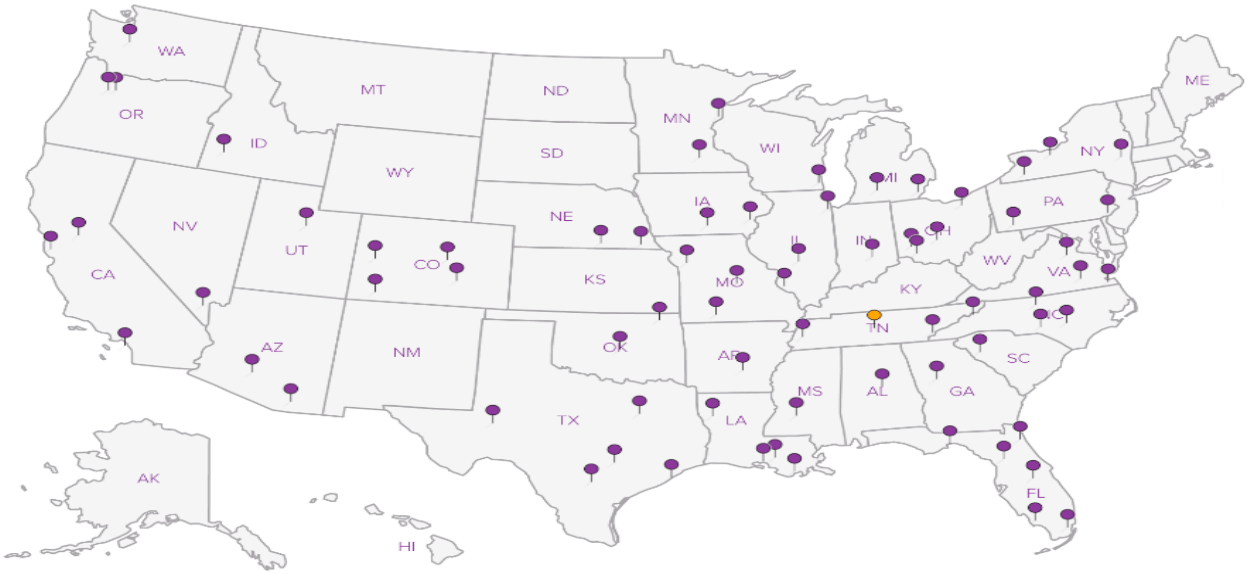
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01
A2LA – ISO 17025 [5]	1461.02
Canada	1461.01
EPA–Crypto	TN00003
AIHA	100789
DOD	1461.01
USDA	S-67674

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [n/a] Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



ECEA
PO Box 6172
Gastonia, NC 28056

Billing Information:
Mike Stanforth
ECEA
POBox 6172
Gastonia, NC 28056

Report to: Mike Stanforth
Email to: mstanforth@excelengr.com

Chain of Custody
Page 1 of 1

ESC LAB SCIENCES
12065 Lebanon Road
Mt. Juliet, TN 37122
Phone: (800) 767-5859
Phone: (615) 758-5858
Fax: (615) 758-5859
K193

Project Description: American Truetzschler
City/Sate Collected: Charlotte, NC
Phone: 704-853-0800
FAX: 704-853-3949
Client Project #: 201008
ESC Key: excelenv - 201008
Collected by: Mike Stanforth
Site/Facility ID#:
P.O.#: 201008

CoCode (lab use only)
Template/Prelogin
Shipped Via: L822260

Collected by (signature):
Immediately Packed on Ice N (Y)

Rush? (Lab MUST Be Notified)
____ Same Day.....200%
____ Next Day.....100%
____ Two Day.....50%
____ Three Day.....25%

Date Results Needed:
Email? __No ✓Yes
FAX? ✓No __Yes

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	V8260 RDL/MDL	V8260LL 1,4 D RDL/MDL							Remarks/Contaminant	Sample # (lab only)
41	Grab	GW		3/8/16	0740	6	x	x								-01/-02

*Matrix: SS - Soil/Solid GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other_____

pH _____ Temp _____
Flow _____ Other _____

Remarks: 6529 1908 4503

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Samples returned via: ☐ UPS ☐ FedEx ☐ Courier ☐	Condition: (lab use only) GOOD OK
	3/8	1301			
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 3.2 / Bottles Received: 6 up + 715	CoC Seals Intact: ✓Y ___N ___NA
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 3-9-16 / Time: 900	pH Checked: / NCF: